

JOINT PUB 3-02.1



JOINT DOCTRINE FOR LANDING FORCE OPERATIONS



1 NOVEMBER 1989



Reply Zip Code:
20318-7000

JCS TEST PUB 3-02.1
1 November 1989

MEMORANDUM FOR: Distribution List

Subject: JCS Test Pub 3-02.1, Joint Doctrine for Landing Force
Operations

1. This test publication contains proposed joint doctrine to guide the activities and employment of the Armed Forces of the United States when two or more Services, or Service elements, acting as part of or in support of a joint force, conduct landing force operations.

2. JCS test publications are developed and issued in accordance with JCS Pub 1-01. This test publication has been staffed with the Services and unified and specified commands. It is now ready to undergo evaluation in the field. After a thorough evaluation is accomplished, and feedback from the field and the evaluation process is considered, the publication will be implemented under the provisions of JCS MOP 197.

MALCOLM B. ARMSTRONG
Major General, USAF
Director for Operational
Plans and

Interoperability

Attachment

JCS TEST PUBLICATION 3-02.1

Distribution:

By Director, Operational Plans and Interoperability (J-7),
Joint Staff, Washington, D.C. 20318-7000

Joint Staff DIA US Coast Guard

Five Copies each to: Offices of CSA, CNO, CSAF, CMC

Four copies each to:

USCINCLANT	USCINCEUR	CINCSAC	CINCFOR
USCINCCENT	USCINCSOC	USCINCTRANS	
USCINCPAC	USCINCSO	USCINCSpace	

Additional copies may be obtained from the Joint Doctrine and Education Division (JDED), Operational Plans and Interoperability Directorate (J-7), Joint Staff, Washington, D.C. 20318-7000.

RECORD OF CHANGES FOR JCS TEST PUB 3-02.1
(JOINT DOCTRINE FOR LANDING FORCE OPERATIONS)

RECORD OF CHANGES

CHANGE NUMBER	COPY NUMBER	DATE OF CHANGE	DATE ENTERED	POST BY	REMARKS
------------------	----------------	-------------------	-----------------	------------	---------

While this publication is in the "test pub" stage, change recommendations should be submitted through the chain of command to the Joint Doctrine and Education Division, Operational Plans and Interoperability Directorate (J-7), Joint Staff, Washington, D.C. 20318-7000, in accordance with guidance provided in JCS Pub 1-01.

JOINT DOCTRINE FOR LANDING FORCE OPERATIONS

PREFACE

1. Purpose

a. This publication sets forth doctrine applicable to landing forces in amphibious operations. It is a companion to JCS Pub 3-02, "Joint Doctrine for Amphibious Operations" (formerly FMFM 31-11/NWP 22(B)/AFM 2-53/LFM 01), and provides information of primary interest to landing forces that complements and supplements the material therein.

b. In its entirety, this publication provides the fundamental doctrine, techniques, and procedures for any landing force, notwithstanding the organizational, tactical, and procedural differences that exist between those Services capable of providing landing forces.

2. Basis. The publication has been developed by the Marine Corps in coordination with the Army, Navy, and Air Force, in accordance with the statutory responsibilities for amphibious warfare assigned to those Services by the National Security Act of 1947 (amended), DOD Directive 5100.1, and JCS Pub 0-2, "Unified Action Armed Forces (UNAAF)." This publication, interpreted within the framework of the above act, provides amplification concerning the responsibilities of all Services for amphibious warfare.

3. Scope

a. This publication closely parallels the content and format of JCS Pub 3-02, "Joint Doctrine for Amphibious Operations." Efforts have been made to avoid redundancy with the information in that publication. Certain material is, however, repeated in order to facilitate reader understanding and provide greater clarity and continuity of discussion.

b. This publication provides an overview of the complexity of planning and executing landing force operations. It is written from the perspective of a senior staff officer or commander whose organization may take part in, or provide support to, landing force operations, yet who may have little experience in such operations. A considerable body of information on specific areas is omitted by design, both because it is not considered relevant to the intended readership and because it is not unique to landing force operations. The publication does, however, provide reference to where more detailed information may be found.

c. This publication emphasizes information unique to landing force operations and deemphasizes information common to land warfare. The discussion of embarkation planning, ship-to-shore movement, and supporting arms is extensive. Tactical operations ashore, after the initial stages of the assault, do not differ sufficiently from land operations in general to warrant extensive discussion.

d. This publication does not include doctrine for base development, base defense, or the initiation of subsequent operations, although these may require consideration during the planning process. Further, a number of areas that require emphasis and detail in planning are not treated in depth. These areas include air operations, electronic warfare, operational security, deception, mine and countermine warfare, and offensive and defensive operations ashore. The need for thorough planning and proper execution in these, and many other functional areas, is acknowledged. However, the complexity of these general and specific areas does not lend itself to detailed discussion in this publication. Further, differences that may exist in the specific environment of a particular operation will not materially alter the doctrine for this form of warfare.

4. Content

a. The organization of the separate chapters in this publication provides an introduction to the material, including necessary definitions. The purpose and scope provides an overview of the subject matter and its relationship to other areas. The responsibilities paragraph sets forth the responsibilities of the major commanders, emphasizing the functions and tasks of the commander landing force (CLF). Additional paragraphs provide information as required to fully clarify the subject matter of each chapter.

b. This publication provides discussion of each of the chapters in JCS Pub 3-02 from the landing force perspective. Detailed information on development of the landing plan is contained in the Appendix.

5. Terminology. Terms used throughout this publication are defined in JCS Pub 1-02, "Department of Defense Dictionary of Military and Associated Terms"; in JCS Pub 3-02; in the glossary; or when appropriate, within the text of this publication. For ease of reference, a glossary of acronyms and definitions of key terms is included. Whenever the terms commander, amphibious task force (CATF) or amphibious task force commander, and commander, landing force (CLF) or landing force commander are used, they apply equally to Navy or Marine Corps, joint, combined, or other amphibious operations.

TABLE OF CONTENTS

CHAPTER	PAGE
Preface.....	iv
Glossary	
Part I Abbreviations and Acronyms.....	xvii
Part II Definitions.....	xxii
I THE CONCEPT OF AMPHIBIOUS OPERATIONS	
Introduction.....	I-1
Purpose and Scope.....	I-1
General.....	I-1
Responsibilities of Key Individuals in Amphibious Warfare.....	I-5
Planning Considerations.....	I-5
Types of Amphibious Operations.....	I-6
Operations in Support of an Amphibious Operation.....	I-7
Sequence of Amphibious Operations.....	I-8
Planning.....	I-8
Embarkation.....	I-9
Rehearsal.....	I-9
Movement.....	I-9
Assault.....	I-9
Termination of an Amphibious Operation.....	I-9
II ORGANIZATION AND COMMAND	
Introduction.....	II-1
Purpose and Scope.....	II-1
General.....	II-1
Responsibilities.....	II-2
Planning Considerations.....	II-2
Organizational and Command Considerations.....	II-2
Basic Planning Considerations.....	II-4
Landing Force Organization.....	II-4
Command Relationships.....	II-5
The Initiating Directive.....	II-12
The Amphibious Objective Area.....	II-13
Airspace Control.....	II-14
Airspace Control Systems.....	II-15
Transfer of Control of Functions.....	II-15
Joint Force Air Component Commander.....	II-16

III THE APPROACH TO PLANNING

Introduction.....	III-1
Purpose and Scope.....	III-1
General.....	III-1
Responsibilities.....	III-2
Planning Considerations.....	III-3
Special Considerations.....	III-3
Basic Considerations.....	III-4
Planning Procedures.....	III-7
The Planning Process.....	III-10
The Initiating Directive.....	III-11
Early Designation of Commanders and Assembly of Staffs.....	III-12
Initial Planning Conference.....	III-12
Planning Aids.....	III-14
Planning Guidance.....	III-15
Outline Plan.....	III-17
Alternate Plans.....	III-17

IV BASIC DECISIONS

Introduction.....	IV-1
Purpose and Scope.....	IV-1
General.....	IV-2
Responsibilities.....	IV-4
Planning Considerations.....	IV-4
Special Considerations.....	IV-4
Basic Considerations.....	IV-4
Selection of Amphibious Task Force General Course of Action.....	IV-4
Selection of Amphibious Task Force Objectives.....	IV-5
Determination of Landing Force Mission.....	IV-5
Designation of Landing Sites.....	IV-5
Determination of Landing Force Objectives.....	IV-8
Selection of Beachhead (Force Beachhead).....	IV-10
Selection of Landing Area.....	IV-13
Formulation of Landing Force Concept of Operations Ashore.....	IV-15
Selection of Landing Beaches.....	IV-17
Selection of Helicopter Landing Zones.....	IV-18
Selection of Fixed-Wing Aircraft Landing Zones and Drop Zones.....	IV-20
Determination of Date and Hour of the Landing.....	IV-20
Commencement of Detailed Planning.....	IV-22

V LANDING FORCE TACTICAL OPERATIONS ASHORE

Introduction.....	V-1
Purpose and Scope.....	V-3
General.....	V-3
Responsibilities.....	V-4
Planning Considerations.....	V-4
Special Considerations.....	V-4
Basic Considerations.....	V-5
Organizational Forms of the Landing Force.....	V-7
Scheme of Maneuver.....	V-11
Reserves.....	V-13
Security.....	V-15
Defense of the Landing Force.....	V-15
Defense Against Enemy Action of a Specific Nature.....	V-17

VI SHIP-TO-SHORE MOVEMENT

Introduction.....	VI-1
Purpose and Scope.....	VI-1
General.....	VI-1
Responsibilities.....	VI-2
Planning Considerations.....	VI-3
Supply and Movement Categories.....	VI-5
Landing Serials.....	VI-6
Scheduled Waves.....	VI-8
On-Call Waves.....	VI-8
Nonscheduled Units.....	VI-9
Pre-positioned Emergency Supplies.....	VI-10
Remaining Landing Force Supplies.....	VI-12
Free Boats.....	VI-12
Command and Control Helicopters.....	VI-12
Organization for Landing.....	VI-12
Organization of Sea Areas.....	VI-15
Navy Control Group.....	VI-16
Tactical-Logistical Group (TACLOG).....	VI-24
Types of Movement and Control.....	VI-32
Ship-to-Shore Planning Sequence.....	VI-36
Ship-to-Shore Movement Plans.....	VI-37
The Landing Plan.....	VI-37
Mutual Responsibility for Debarkation and Enplaning Schedules.....	VI-39
Ground Combat Element Landing Plan.....	VI-40
Subordinate Ground Combat Element Landing Plan.....	VI-42
Aviation Combat Element Landing Plan.....	VI-43
Conduct of the Ship-to-Shore Movement.....	VI-46

VII INTELLIGENCE

Introduction.....	VII-1
Purpose and Scope.....	VII-1
General.....	VII-2
Responsibilities.....	VII-5
Preliminary Studies and Estimates.....	VII-7
Detailed Intelligence Estimates.....	VII-8
Intelligence Annex.....	VII-8
Collection of Information.....	VII-9
Amphibious Reconnaissance.....	VII-10
Planning Considerations.....	VII-10
Special Considerations.....	VII-11
Basic Considerations.....	VII-11
Collection Plan.....	VII-12
Intelligence Tasking and Control.....	VII-13
Dissemination.....	VII-13
Counterintelligence and Security.....	VII-14
Target Intelligence.....	VII-15

VIII SUPPORTING ARMS

Introduction.....	VIII-1
General.....	VIII-2
Responsibilities of Commanders.....	VIII-7
Target List Responsibilities and Target Information Center.....	VIII-10
Planning Considerations.....	VIII-11
Special Considerations.....	VIII-11
Basic Considerations.....	VIII-12
Unique Supporting Arms Organizations.....	VIII-13
Supporting Arms Planning.....	VIII-13
Fire Support Coordination Agencies.....	VIII-16
Fire Support Coordination Measures.....	VIII-18
Fire Support Coordination During the Assault.....	VIII-18
Air Support Planning.....	VIII-18
Air Control Responsibilities.....	VIII-20
US Marine Corps Air Control Agencies.Ashore....	VIII-22
US Air Force Air Control Agencies Ashore.....	VIII-24
Air Support Planning.....	VIII-26
Air Support Planning Sequence.....	VIII-27
Principal Air Support Planning Considerations.....	VIII-29
Detailed Air Support Planning Within the Landing Force.....	VIII-30
The Air Plan.....	VIII-31

Air Support During the Assault.....	VIII-33
Artillery Fire Support Planning.....	VIII-37
Artillery Fire Support Planning Responsibilities.....	VIII-38
Estimate of Artillery Fire Support Requirements.....	VIII-39
Artillery Fire Support Plan.....	VIII-41
Embarkation of Artillery.....	VIII-44
Ship-to-Shore Movement of Artillery.....	VIII-45
Air Defense Artillery.....	VIII-48
Naval Gunfire Planning.....	VIII-48
Control of Naval Gunfire.....	VIII-49
Naval Gunfire Support Organization.....	VIII-50
Naval Gunfire Basic Planning Requirements.....	VIII-53
Naval Gunfire Planning Sequence.....	VIII-54
Types of Naval Gunfire Plans.....	VIII-54
Types of Fire.....	VIII-56
Coordination of Naval Gunfire.....	VIII-58
Naval Gunfire Support During the Assault.....	VIII-58
Post D-Day Naval Gunfire Support.....	VIII-59
Nuclear and Chemical Weapons Support Planning.....	VIII-60
Nuclear Weapons Employment Planning.....	VIII-61
Chemical Weapons Employment Planning.....	VIII-61
Responsibilities for Planning Nuclear and Chemical Fire Support.....	VIII-62
Planning Considerations.....	VIII-63
Planning Sequence.....	VIII-63
Content of Nuclear and Chemical Fire Plans.....	VIII-64
Defense Against Nuclear, Biological, and Chemical Weapons.....	VIII-64

IX COMMUNICATIONS FOR COMMAND AND CONTROL

Introduction.....	IX-1
Purpose and Scope.....	IX-1
General.....	IX-1
Responsibilities.....	IX-2
Landing Force Shipboard Communications.....	IX-3
Communication Plan.....	IX-4
Communications Means.....	IX-5
Planning Considerations.....	IX-6
Special Considerations.....	IX-6
Basic Considerations.....	IX-8
Communication Requirements.....	IX-10
Control of Ship-to-Shore Movement.....	IX-13
Control of Supporting Arms.....	IX-13

Control of Air Operations.....	IX-14
Control of Combat Service Support.....	IX-15
Control of Signals Intelligence/ Electronic Warfare Operations.....	IX-17
Echelonment of Command Posts.....	IX-17
Communications Channels.....	IX-19

X LOGISTICS AND COMBAT SERVICE SUPPORT

Introduction.....	X-1
Purpose and Scope.....	X-1
General.....	X-2
Responsibilities.....	X-2
Planning Sequence.....	X-5
Planning Considerations.....	X-6
Landing Force Supply.....	X-11
Engineer.....	X-18
Maintenance.....	X-20
Transportation.....	X-23
Medical Support.....	X-26
Miscellaneous Services.....	X-32
Organization of Landing Force Support Party.....	X-39

XI EMBARKATION AND DEPLOYMENT PLANNING

Introduction.....	XI-1
Purpose and Scope.....	XI-1
General.....	XI-2
Sealift Planning Considerations.....	XI-9
Embarkation for Sealift.....	XI-18
Principles of Embarkation Planning.....	XI-18
Content of Embarkation Plans and Loading Plans..	XI-19
Embarkation Planning.....	XI-20
Execution of Embarkation.....	XI-27
Embarkation for Airlift.....	XI-32
Execution of Airlift Operations.....	XI-36

XII REHEARSAL

Introduction.....	XII-1
Purpose and Scope.....	XII-1
General.....	XII-2
Special Planning Considerations.....	XII-2
Basic Considerations.....	XII-4
Types of Rehearsals.....	XII-5

XIII MOVEMENT TO THE OBJECTIVE AREA

Introduction.....XIII-1
Purpose and Scope.....XIII-1
General.....XIII-1
Responsibilities.....XIII-2
En Route Considerations.....XIII-3

XIV SUPPORTING AND PREASSAULT OPERATIONS

Introduction.....XIV-1
Purpose and Scope.....XIV-1
General.....XIV-1
Responsibilities.....XIV-2
Planning Considerations.....XIV-3
Appropriate Preassault Missions and Tasks.....XIV-5
Reconnaissance.....XIV-5
Preparation of the Landing Area.....XIV-5
Landings.....XIV-6
Deception.....XIV-6
Supporting Arms.....XIV-9
Coordination with Other Forces.....XIV-10

XV SUBSIDIARY LANDINGS

Introduction.....XV-1
Purpose and Scope.....XV-1
General.....XV-1
Responsibilities.....XV-2
Planning Considerations.....XV-2

XVI ASSAULT

Introduction.....XVI-1
Purpose and Scope.....XVI-2
General.....XVI-2
Authority.....XVI-3
Organization for the Assault.....XVI-3
Control.....XVI-3
Prelanding Operations.....XVI-4
Final Preparation of the Landing Area.....XVI-5
Final Preparation for Ship-to-Shore Movement...XVI-5
Initiation of the Assault.....XVI-6
Capture of the Beachhead.....XVI-6
Combat Support Units.....XVI-6

Combat Service Support Units.....	XVI-7
Landing of the Reserves.....	XVI-7
Continuation of the Attack.....	XVI-8
Initiation of Other Tasks During the Assault Phase.....	XVI-8
Termination of the Assault Phase.....	XVI-8

XVII RAIDS, DEMONSTRATIONS, AND WITHDRAWALS

Introduction.....	XVII-1
Purpose and Scope.....	XVII-1
General.....	XVII-1
Responsibilities.....	XVII-1
Amphibious Raids.....	XVII-1
Characteristics and Purposes.....	XVII-2
Planning Considerations.....	XVII-2
Rehearsals.....	XVII-5
Execution of the Raid.....	XVII-6
Command and Control.....	XVII-6
Amphibious Demonstrations.....	XVII-6
Characteristics and Purposes.....	XVII-7
Planning Considerations.....	XVII-7
Amphibious Withdrawals.....	XVII-8
Characteristics.....	XVII-8
Command Relationships.....	XVII-10
Planning Considerations.....	XVII-11

XVIII LANDINGS IN LIMITED VISIBILITY

Introduction.....	XVIII-1
Purpose and Scope.....	XVIII-1
General.....	XVIII-1
Responsibilities.....	XVIII-2
Planning Considerations.....	XVIII-2
Supporting Arms Considerations.....	XVIII-4

XIX COLD WEATHER OPERATIONS

Introduction.....	XIX-1
Purpose and Scope.....	XIX-1
General.....	XIX-1
Responsibilities.....	XIX-2
Planning Considerations.....	XIX-2
Rehearsals for Amphibious Operations in Cold Weather.....	XIX-8

XX RELATED OPERATIONS

Introduction.....XX-1
Purpose and Scope.....XX-1
General.....XX-1
Responsibilities.....XX-2
Planning Considerations.....XX-3
Noncombatant Evacuation Operations.....XX-3
Operations to Protect Noncombatants and
Installations.....XX-5
Disaster Relief.....XX-5
Seabasing.....XX-7
Operations in Times of Tension.....XX-8
Maritime Pre-positioning Ships Program.....XX-9
Administrative Operations.....XX-10

APPENDIX

THE LANDING PLAN

Composition of the Plan for Landing.....A-1
References.....A-1
Responsibility and Application.....A-1

FIGURE

II-1 Command Relationships in an Amphibious
Task Force During the Planning Phase.....II-7
II-2 Command Relationships in an Amphibious
Task Force During Operations.....II-7
II-3 Command Relationships During Operations
When Command Authority Has Been
Delegated to Attack Group Commanders
to Conduct Simultaneous.....II-9
II-4 Command Relationships During Operations
When Command Authority Has Been
Delegated to a Subordinate Navy
Commander (Advance Force Commander)
to Conduct Separate Operations Over
Widely Separated Beaches.....II-10
II-5 Command Relationships During Operations
When Command Authority Has Not Been
Delegated to Attack Group Commanders.....II-11

IV-1	Basic Decision Responsibilities.....	IV-3
IV-2	Organization of the Landing Area.....	IV-7
IV-3	Examples of Various Types of Shoreline.....	IV-12
IV-4	Helicopter Lane Zones, Landing Sites, and Landing Points.....	IV-18
VI-1	Helicopter Control During the Ship-to-Shore Movement.....	VI-20
VI-2	TACLOG Structure and Relationship of Commanders.....	VI-27
VI-3	Concentrated Landings on Contiguous Beaches.....	VI-33
VI-4	Separated Landings Beyond Effective Central Control Distance.....	VI-34
VI-5	Separated Landings Within Effective Central Control Distance.....	VI-35
VI-6	Navy and Landing Force Responsibility for Preparation of Documents in Support of the Ship-to-Shore Movement.....	VI-38
VIII-1	Fire Support Control and Coordination Area.....	VIII-17
VIII-2	Control of Close Air Support on D-Day or Shortly Thereafter.....	VIII-34
VIII-3	Control of Close Air Support When TADC is Ashore and the TACC is Afloat Before Control is Passed Ashore.....	VIII-35
VIII-4	Control of Close Air Support When Landing Force Air Control Agencies are Ashore and the TADC is Afloat, After Control is Passed Ashore.....	VIII-36
VIII-5	Amphibious Task Force or Landing Force Naval Gunfire Organization.....	VIII-51
V-1	Organization of the Landing Force Support Party.....	X-40

X-2	Shore Party Team.....	X-42
X-3	Helicopter Support Team.....	X-44
XI-1	Organization of USTRANSCOM.....	XI-5
XI-2	Parallel Navy and Landing Force Organization for Embarkation.....	XI-14
XI-3	Schematic of the Mounting Area, Marshalling Area, Embarkation Area, and Embarkation Points.....	XI-28
XI-4	Departure Airfield Operations.....	XI-38
XI-5	Arrival Airfield Operations.....	XI-39

(See pages A-2 and A-3 for an index of the figures and tables associated with the Appendix, "The Landing Plan.")

GLOSSARY

PART II DEFINITIONS

adjust fire. In artillery and naval gunfire support:

1. An order or request to initiate an adjustment of fire.
2. A method of control transmitted in the call for fire by the observer or spotter to indicate that he will control the adjustment. (JCS Pub 1-02)

administrative control. Direction or exercise of authority over subordinate or other organizations in respect to administrative matters such as personnel management, supply, services, and other matters not included in the operational missions of the subordinate or other organizations. (JCS Pub 1-02)

administrative landing. An unopposed landing involving debarkation from vehicles which have been administratively loaded. (JCS Pub 1-02)

administrative loading. A loading system which gives primary consideration to achieving maximum utilization of troop and cargo space without regard to tactical considerations. Equipment and supplies must be unloaded and sorted before they can be used. (JCS Pub 1-02)

administrative shipping. Support shipping that is capable of transporting troops and cargo from origin to destination, but which cannot be loaded or unloaded without non-organic personnel and/or equipment; e.g., stevedores, piers, barges, boats. (JCS Pub 1-02)

advanced base. A base located in or near a theater of operations whose primary mission is to support military operations. (JCS Pub 1-02)

advanced echelon (ADVON). A team of MAC ALCE members deployed in advance of the main ALCE to coordinate MAC requirements at the arrival airfield. The ADVON may deploy equipment to establish communications with MAC command and control agencies and to establish the airlift operations center (AOC) prior to the main ALCE arrival. (TACMEMO PZ 0022-1-87/FMFM 1-5)

advanced fleet anchorage. A secure anchorage for a large number of naval ships, mobile support units and auxiliaries located in or near a theater of operations. (JCS Pub 1-02)

advanced landing field. An airfield, usually having minimum facilities, in or near an objective area. (JCS Pub 1-02)

advance force (amphibious). A temporary organization within the amphibious task force that precedes the main body to the objective area. Its function is to participate in preparing the objective for the main assault by conducting such operations as reconnaissance, seizure of supporting positions, minesweeping, preliminary bombardment, underwater demolitions, and air support. (JCS Pub 1-02)

advance party. A task organization formed by the MEB commander which consists of personnel designated to form the nucleus of the arrival and assembly organizations. The primary tasks of the advance party are to arrange for the reception of the main body and flight ferry. (TACMEMO PZ 0022-1-87/FMFM 1-5)

aerial port. An airfield that has been designated for the sustained air movement of personnel and materiel, and to serve as an authorized port for entrance into or departure from the country in which located. (JCS Pub 1-02)

aeromedical evacuation. The movement of patients under medical supervision to and between medical treatment facilities by air transportation. (JCS Pub 1-02)

afloat support. A form of logistic support outside the confines of a harbor in which fuel, ammunition and supplies are provided for operating forces either underway or at anchor. (JCS Pub 1-02)

air landed. Moved by air and disembarked, or unloaded, after the aircraft has landed or while a helicopter is hovering. (JCS Pub 1-02)

airlift control element (ALCE). A composite organization of the USAF Military Airlift Command (MAC) tailored to support airlift operations. The ALCE provides command and control for MAC resources, off-load and aircraft services, and serves as the focal point for all airlift activities at an operating location. (TACMEMO PZ 0022- 1-87/FMFM 1-5)

air movement table. A table prepared by a ground force commander in coordination with an air force commander. This form, issued as an annex to the operation order: a. Indicates the allocation of aircraft space to elements of the ground units to be airlifted; b. Designates the number and type of aircraft in each serial; c. Specifies the departure area, time of loading and take-off. (JCS Pub 1-02)

amphibious assault. The principle type of amphibious operation which involves establishing a force on a hostile shore. (JCS Pub 1-02)

amphibious assault ship (general purpose). A naval ship designed to embark, deploy, and land elements of a landing force in an assault by helicopters, landing craft, amphibious vehicles, and by combinations of these methods. Designated LHA. (JCS Pub 1-02)

amphibious command ship. A naval ship from which a commander exercises control in amphibious operations. DOD designated as LCC. (JCS Pub 1-02)

amphibious construction battalion (PHIBCB). A commissioned naval unit, subordinate to the commander, naval beach group, designed to provide an administrative unit from which personnel and equipment are formed in tactical elements and made available to appropriate commanders to operate pontoon causeways, transfer barges, and warping tugs; and to meet salvage requirements of the naval beach party. (JCS Pub 3-02)

amphibious control group. Personnel, ships, and craft designated to control the waterborne ship-to-shore movement in an amphibious operation. (JCS Pub 1-02)

amphibious demonstration. A type of amphibious operation conducted for the purpose of deceiving the enemy by a show of force with the expectation of deluding the enemy into a course of action unfavorable to him. (JCS Pub 1-02)

amphibious force

1. A naval force and landing force, together with supporting forces that are trained, organized and equipped for amphibious operations.

2. In naval usage, the administrative title of the amphibious type command of a fleet. (JCS Pub 1-02)

amphibious group. A command within the amphibious force, consisting of the commander and his staff, designed to exercise operational command of assigned units in executing all phases of a division- size amphibious operation. (JCS Pub 1-02)

amphibious lift. The total capacity of assault shipping utilized in an amphibious operation, expressed in terms of personnel, vehicles, and measurement or weight tons of supplies. (JCS Pub 1- 02)

amphibious logistics system (ALS). ALS assets are the U.S. Navy equipment installed and operated by amphibious construction battalions to offload the AFOE of a Navy/Marine Corps amphibious force. When directed, these assets may remain in place to offload strategic sealift ships that resupply the amphibious force and deliver reinforcing units. (NWP 80FMFM 1-16)

amphibious objective area. A geographical area, delineated in the initiating directive, for purposes of command and control within which is located the objective(s) to be secured by the amphibious task force. This area must be of sufficient size to ensure accomplishment of the amphibious task force's mission and must provide sufficient area for conducting necessary sea, air and land operations. (JCS Pub 1-02)

amphibious operation. An attack launched from the sea by naval and landing forces, embarked in ships or craft involving a landing on a hostile shore. As an entity, the amphibious operation includes the following phases:

a. planning. The period extending from issuance of the initiating directive to embarkation.

b. embarkation. The period during which the forces, with their equipment and supplies, are embarked in the assigned shipping.

c. rehearsal. The period during which the prospective operation is rehearsed for the purpose of:

(1) testing adequacy of plans, the timing of detailed operations, and the combat readiness of participating forces;

(2) insuring that all echelons are familiar with plans;
and

(3) testing communications.

d. movement. The period during which various components of the amphibious task force move from points of embarkation to the objective area.

e. assault. The period between the arrival of the major assault forces of the amphibious task force in the objective area and the accomplishment of the amphibious task force mission. (JCS Pub 1-02)

amphibious planning. The process of planning for an amphibious operation, distinguished by the necessity for concurrent, parallel and detailed planning by all participating forces; and wherein the planning pattern is cyclical in nature, comprising a series of analyses and judgments of operational situations, each stemming from those that have preceded. (JCS Pub 3-02)

amphibious raid. A type of amphibious operation involving swift incursion into or a temporary occupation of an objective followed by a planned withdrawal. (JCS Pub 1-02)

amphibious reconnaissance. An amphibious landing conducted by minor elements, normally involving stealth rather than force of arms, for the purpose of securing information, and usually followed by a planned withdrawal. (JCS Pub 1-02)

amphibious shipping. Organic Navy ships specifically designed to transport, land, and support landing forces in amphibious assault operations and capable of being loaded or unloaded by naval personnel without external assistance in the amphibious objective area. (JCS Pub 1-02)

amphibious squadron. A tactical and administrative organization composed of amphibious assault shipping to transport troops and their equipment for an amphibious assault operation. (JCS Pub 1- 02)

amphibious task force. The task organization formed for the purpose of conducting an amphibious operation. The amphibious task force always includes Navy forces and a landing force with their organic aviation and may include MSC-provided ships and Air Force forces when appropriate. (NWP 22-8/FMFM 1-15)

amphibious task force commander. The Navy officer designated in the initiating directive as commander of an amphibious task force. (JCS Pub 3-02)

amphibious transport group. A subdivision of an amphibious task force, composed primarily of transport ships. (JCS Pub 1-02)

amphibious vehicle. A wheeled or tracked vehicle capable of operating on both land and water. (JCS Pub 1-02)

amphibious withdrawal. A type of amphibious operation involving the extraction of forces by sea in naval ships of craft from a hostile or potentially hostile shore. (JCS Pub 1-02)

antiair warfare. A US Navy/US Marine Corps term used to indicate that action required to destroy or reduce to an acceptable level the enemy air and missile threat. It includes such measures as the use of interceptors, bombers, antiaircraft guns, surface-to-air and air-to-air missiles, electronic countermeasures, and destruction of the air or missile threat both before and after it is launched. Other measures which are taken to minimize the effects of hostile air action are cover, concealment, dispersion, deception (including electronic), and mobility. (JCS Pub 1-02)

apportionment. The determination and assignment of the total expected effort by percentage and/or by priority that should be devoted to the various air operations and/or geographic areas for a given period of time. (JCS Pub 1-02)

approach lane. An extension of a boat lane from the line of departure toward a transport area. It may be terminated by marker ships, boats or buoys. (JCS Pub 1-02)

approach schedule. The schedule which indicates, for each scheduled wave, the time of departure from the rendezvous area, from the line of departure, and from other control points and the time of arrival at the beach. (JCS Pub 1-02)

area command. A command which is composed of those organized elements of one or more of the armed services, designated to operate in a specific geographical area, which are placed under a single commander. (JCS Pub 1-02)

area of responsibility

1. A defined area of land in which responsibility is specifically assigned to the commander of the area for the development and maintenance of installations, control of movement and the conduct of tactical operations involving troops under his control along with parallel authority to exercise these functions.

2. In naval usage, a predefined area of enemy terrain for which supporting ships are responsible for covering by fire on known targets or targets of opportunity and by observation. (JCS Pub 1-02)

arrival and assembly area (AAA). An area designated by CMPF in coordination with the unified commander and host nation for arrival, off-load, and assembly of forces and MPE/S and preparations for subsequent operations. The AAA is administrative in nature and does not denote command of a geographic area. Such an area may be inside an AOA. Within the AAA, coordination authority for the following is implied for the CMPF:

(a) prioritization and use of airfield(s), port, beach facilities, and road networks.

(b) air traffic control.

(c) logistic support activities.

(TACMEMO PZ 0022-1-87/FMFM 1-5)

arrival and assembly operations element (AAOE). An agency in each MEB element which coordinates the logistic functions of the off-load of MPE/S and the arrival and assembly of forces. (TACMEMO PZ 0022-1-87/FMFM 1-5)

arrival and assembly operations group (AAOG). A staff agency of the MEB, composed of personnel from the MEB and NSE, to control the arrival and assembly operations. (TACMEMO PZ 0022-1-87/FMFM 1-5)

arrival and assembly support party (AASP). A task organization composed of MEB elements responsible to the AAOG for throughput of off-load MPE/S from the beach, port, and arrival airfield(s). (TACMEMO PZ 0022-1-87/FMFM 1-5)

assault area. That area which includes the beach area, the boat lanes, the lines of departure, the landing ship areas, the transport areas, and the fire support areas in the immediate vicinity of the boat lanes. (JCS Pub 3-02)

assault area diagram. A graphic means of showing, for amphibious operations, the beach designations, boat lanes, organization of the line of departure, scheduled waves, landing ship area, transport areas, and the fire support areas in the immediate vicinity of the boat lanes. (JCS Pub 1-02)

assault craft unit. A permanently commissioned naval organization, subordinate to the commander, naval beach group, which contains landing craft and crews necessary to provide additional lighterage required in an amphibious operation. (JCS Pub 3-02)

assault echelon. The element of a force that is scheduled for initial assault on the objective area. (JCS Pub 1-02)

assault follow-on echelon. In amphibious operations, that echelon of the assault troops, vehicles, aircraft equipment, and supplies which, though not needed to initiate the assault, is required to support and sustain the assault. In order to accomplish its purpose, it is normally required in the objective area no later than five days after commencement of the assault landing. (NWP 22-8/FMFM 1-15)

assault phase

1. In an amphibious operation, the period of time between the arrival of the major assault forces of the amphibious task force in the objective area and the accomplishment of their mission.

2. In an airborne operation, a phase beginning with delivery by air of the assault echelon of the force into the objective area and extending through attack of assault objectives and consolidation of the initial airhead. (JCS Pub 1-02)

assault shipping. Shipping assigned to the amphibious task force and utilized for transporting assault troops, vehicles, equipment, and supplies to the objective area. (JCS Pub 1-02)

attack group. A subordinate task organization of the navy forces of an amphibious task force. It is composed of assault shipping and supporting naval units designated to transport, protect, land and initially support a landing group. (JCS Pub 1-02)

attack position. The last position occupied by the assault echelon before crossing the line of departure. (JCS Pub 1-02)

augmentation forces. Forces to be transferred to the operational command of a supported commander during the execution of an operation. (JCS Pub 1-02)

bareboat charter. Under this type of contractual agreement, the ship owner relinquishes control and management of his ship to the charterer for a number of years - often for the ship's entire service life. The charterer crews and operates the ship, and is responsible for all costs of operation, including fuel, port charges, and canal tolls. The charterer agrees to return the ship to the owner in good condition (normal wear and tear expected) when the charterer pays "hire" which is usually expressed in terms of a certain amount of dollars per day, or a certain dollar amount per dead weight ton (DWT) per month. (NWP 22-8/FMFM 1-15)

basic allowance. A quantity of ammunition required to support a given number of weapons for a specified period of time. When used in relation to cargo offered for shipment (i.e., vehicles with basic allowance), it means that the vehicles are loaded with the ammunition necessary to support the unit involved. (NWP 22-8/FMFM 1-15)

basic intelligence. Fundamental intelligence concerning the general situation, resources, capabilities, and vulnerabilities of foreign countries or areas which may be used as reference material in the planning of operations at any level and in evaluating subsequent information relating to the same subject. (JCS Pub 1-02)

basic tactical organization. The conventional organization of landing force units for combat, involving combinations of infantry, supporting ground arms, and aviation for accomplishment of missions ashore. This organizational form is employed as soon as possible following the landing of the various assault components of the landing force. (JCS Pub 1-02)

battalion landing team. In an amphibious operation, an infantry battalion normally reinforced by necessary combat and service elements; the basic unit for planning an assault landing. Also known as BLT. (JCS Pub 1-02)

beach

1. The area extending from the shoreline inland to a marked change in physiographic form or material, or to the line of permanent vegetation (coastline).

2. In amphibious operations, that portion of the shoreline designated for landing of a tactical organization. (JCS Pub 1-02)

beach capacity. An estimate, expressed in terms of measurement tons, or weight tons, of cargo that may be unloaded over a designated strip of shore per day. (JCS Pub 1-02)

beachhead. A designated area on a hostile shore which, when seized and held, insures the continuous landing of troops and materiel, and provides maneuver space requisite for subsequent projected operations ashore. It is the physical objective of an amphibious operation. (JCS Pub 1-02)

beachmaster. The naval officer in command of the beachmaster unit of the naval beach group. (JCS Pub 1-02)

beachmaster unit. A commissioned naval unit of the naval beach group designed to provide to the shore party a naval component known as a beach party which is capable of supporting the amphibious landing of one division (reinforced). (JCS Pub 1-02)

beach organization. In an amphibious operation, the planned arrangement of personnel and facilities to effect movement, supply, and evacuation across beaches and in the beach area for support of a landing force. (JCS Pub 1-02)

beach party. The naval component of the shore party.
(JCS Pub 1- 02)

beach support area. In amphibious operations, the area to the rear of a landing force or elements thereof, established and operated by shore party units, which contains the facilities for the unloading of troops and materiel and the support of the forces ashore; it includes facilities for the evacuation of wounded, prisoners of war, and captured materiel. (JCS Pub 1-02)

beach survey. The collection of data describing the physical characteristics of a beach; that is, an area whose boundaries are a shoreline, a coastline, and two natural or arbitrary assigned flanks. (JCS Pub 1-02)

boat assembly areas. Areas designated for assembling empty landing craft prior to their being called alongside a ship for loading. (JCS Pub 3-02)

boat diagram. In the assault phase of an amphibious operation, a diagram showing the positions of individuals and equipment in each boat. (JCS Pub 1-02)

boat group. The basic organization of landing craft. One boat group is organized for each battalion landing team (or equivalent) to be landed in the first trip of landing craft or amphibious vehicles. (JCS Pub 1-02)

boat lane. A lane for amphibious assault landing craft, which extends seawards from the landing beaches to the line of departure. The width of a boat lane is determined by the length of the corresponding beach. (JCS Pub 1-02)

boat team. The troops assigned to one landing craft or amphibious vehicle for the ship-to-shore movement in an amphibious operation. (JCS Pub 3-02)

cargo classification (combat loading). The division of military cargo into categories for combat loading aboard ships. (JCS Pub 1-02)

cargo offload and delivery systems (COLDS). Active cargo offload and delivery assets include Navy ALS elements, Navy logistics over the shore (LOTS) assets, The Navy beach group (NBG), NAVCHAPGRU, and the U.S Army LOTS components. (NWP 80/FMFM 1-16)

casualty receiving and treatment ship (CRTS). In amphibious operations, a ship designated to receive, provide treatment and transfer casualties. (JCS Pub 3-02)

causeway launching area. Areas located near the line of departure but clear of the approach lanes, where ships can launch pontoon causeways. (JCS Pub 3-02)

C-day. The unnamed day on which a deployment operation commences or is to commence. The deployment may be movement of troops, cargo, weapon systems, or a combination of these elements utilizing any and all types of transport. The letter "C" will be the only one used to denote the above. The highest command or headquarters responsible for coordinating the planning will specify the exact meaning of C-day within the aforementioned definition. The command or headquarters directly responsible for the execution of the operation, if other than the one coordinating the planning, will do so in light of the meaning specified by the highest command or headquarters coordinating the planning. (JCS Pub 1-02)

central control officer. The officer designated by the amphibious task force commander for the over-all coordination of the waterborne ship-to-shore movement. He is embarked in the central control ship. (JCS Pub 3-02)

change of operational control--(DOD). The date and time (Greenwich Mean Time/Greenwich Civil Time) at which the responsibility for operational control of a force or unit passes from one operational control authority to another. (JCS Pub 1-02)

charter party. A contractual agreement between a ship owner and a ship charterer. (NWP 22-8/FMFM 1-15)

chop. See change of operational control. (JCS Pub 1-02)

civil reserve air fleet. A group of commercial aircraft with crews which is allocated in time of an emergency for exclusive military use in both international and domestic service. (JCS Pub 1-02)

close air support. Air action against hostile targets which are in close proximity to friendly forces and which require detailed integration of each air mission with the fire and movement of those forces. (JCS Pub 1-02)

close covering group. A task organization which provides protection against attack by aircraft and surface ships. It is ordinarily composed of battleships, cruisers, destroyers, and aircraft carriers, as needed. (JCS Pub 3-02)

close support areas. Those parts of the ocean operating areas nearest to, but not necessarily in, the objective area. They are assigned to naval support carrier groups, hunter-killer groups and certain logistic support components. (JCS Pub 3-02)

colored beach. That portion of usable coastline sufficient for the assault landing of a regimental landing team or similar sized unit. In the event that the landing force consists of a single battalion landing team, a colored beach will be utilized and no further subdivision of the beach is required. See numbered beach. (JCS Pub 3-02)

combatant command. One of the unified or specified commands established by the President. (JCS Pub 1-02)

Combatant Command (command authority). Non-transferable command authority established by title 10, United States Code, section 164, exercised only by commanders of unified or specified combatant commands. COCOM is the authority of a Combatant Commander to perform those functions of command over assigned forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction over all aspects of military operations, joint training, and logistics necessary to accomplish the missions assigned to the command. COCOM should be exercised through the commanders of subordinate organizations; normally this authority is exercised through the Service component commander. COCOM provides full authority to organize and employ commands and forces as the CINC considers necessary to accomplish assigned missions. Also called COCOM. (JCS Pub 1-02)

combat loading. The arrangement of personnel and the stowage of equipment and supplies in a manner designed to conform to the anticipated tactical operation of the organization embarked. Each individual item is stowed so that it can be unloaded at the required time. (JCS Pub 1-02)

combat organizational loading. A method of loading by which a unit with its equipment and initial supplies is loaded into a single ship, together with other units, in such a manner as to be available for unloading in a predetermined order. (JCS Pub 3-02)

combat search and rescue. A specific task performed by rescue forces to effect the recovery of distressed personnel during wartime or contingency operations. (JCS Pub 1-02)

combat service support. The essential logistic functions, activities, and tasks necessary to sustain all elements of an operating force in an area of operations. Combat service support includes but is not limited to administrative services, chaplain services, civil affairs, finance, legal service, health services, military police, supply, maintenance, transportation, construction, troop construction, acquisition and disposal of real property, geodetic engineering functions, food service, graves registration, laundry, dry cleaning, bath, property disposal, and other logistic services. (JCS Pub 1-02)

combat service support areas. Those areas ashore which are organized to contain the necessary supplies, equipment, installations, and elements to provide the landing force with combat service support throughout the operation. (JCS Pub 3-02)

combat service support troops. Landing force units which render support to combat units in supply, maintenance, transportation, evacuation, hospitalization, and related service matters. (JCS Pub 3-02)

combat spread loading. A method of combat loading by which some of the troops, equipment and initial supplies of a unit are loaded in one ship and the remainder are loaded in one or more others. This method is commonly used for troop units with heavy equipment. (JCS Pub 3-02)

combat unit loading. A method of loading by which all or a part of a combat unit, such as an assault battalion landing team, is completely loaded in a single ship, with essential combat equipment and supplies, in such a manner as to be immediately available to support the tactical plan upon debarkation, and to provide a maximum of flexibility to meet possible changes in the tactical plan. (JCS Pub 3-02)

Combatant Command (command authority). Non-transferable command authority established by title 10, United States Code, section 164, exercised only by commanders of unified and specified combatant commands. Combatant Command (command authority) is the authority of a combatant commander to perform those functions of command over assigned forces involving the organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction over all aspects of military operations, joint training and logistics necessary to accomplish the missions assigned to the command. Combatant Command (command authority) should be exercised through the commanders of subordinate organizations; normally this authority is exercised through the Service component commander. Combatant Command (command authority) provides full authority to organize and employ commands and forces as the CINC considers necessary to accomplish assigned missions. Also called COCOM. (JCS Pub 1-02)

command

1. The authority that the commander in the military Service lawfully exercises over subordinates by virtue of rank or assignment. Command includes the authority and responsibility for effectively using available resources and for planning the employment of, organizing, directing, coordinating, and controlling military forces for the accomplishment of assigned missions. It also includes responsibility for health, welfare, morale, and discipline of assigned personnel.

2. An order given by a commander; that is, the will of the commander expressed for the purpose of bringing about a particular action.

3. A unit or units, an organization, or an area under the command of one individual.

4. To dominate by a field weapon fire or by observation from a superior position. (JCS Pub 1-02)

command and control. The exercise of authority and direction by a properly designated commander over assigned forces in the accomplishment of the mission. Command and control functions are performed through an arrangement of personnel, equipment, communications, facilities, and procedures employed by a commander in planning, directing, coordinating, and controlling forces and operations in the accomplishment of the mission. (JCS Pub 1-02)

command and control system. The facilities, equipment, communications, procedures, and personnel essential to a commander for planning, directing, and controlling operations of assigned forces pursuant to the missions assigned.

commander, amphibious task force. The Navy officer designated in the initiating directive as commander of an amphibious task force. (JCS Pub 3-02)

commander, landing force. The officer designated in the initiating directive to command the landing force. (JCS Pub 3-02)

commander's estimate of the situation. A logical process of reasoning by which a commander considers all the circumstances affecting the military situation and arrives at a decision as to a course of action to be taken to accomplish the mission. A commander's estimate which considers a military situation so far in the future as to require major assumptions, is called a commander's long-range estimate of the situation. (JCS Pub 1-02)

common-user ocean terminals. A military installation, part of a military installation, or a commercial facility operated under contract or arrangement by the Military Traffic Management Command which regularly provides for two or more Services, terminal functions of receipt, transit storage or staging, processing, and loading and unloading of passengers or cargo aboard ships. (JCS Pub 1-02)

concept of operations. A verbal or graphic statement, in broad outline, of a commander's assumptions or intent in regard to an operation or series of operations. The concept of operations frequently is embodied in campaign plans and operation plans; in the latter case, particularly when the plans cover a series of connected operations to be carried out simultaneously or in succession. The concept is designed to give an overall picture of the operation. It is included primarily for additional clarity of purpose. Frequently, it is referred to as commander's concept. (JCS Pub 1-02)

consecutive voyage charter (CVC). A contract by which a commercial ship is chartered by MSC for a series of specified voyages. (NWP 22-8/FMFM 1-15)

control. Authority which may be less than full command exercised by a commander over part of the activities of subordinate or other organizations. (JCS Pub 1-02)

control group. Personnel, ships, and craft designated to control the ship-to-shore movement. (JCS Pub 3-02)

controlled shipping. Shipping that is controlled by MSC. Included in this category are MSC (USNS) ships, government-owned ships operated under a General Agency Agreement, and commercial ships under charter to MSC. (NWP 22-8/FMFM 1-15)

convoy

1. A number of merchant ships of naval auxiliaries, or both, usually escorted by warships and/or aircraft, or a single merchant ship or naval auxiliary under surface escort, assembled and organized for the purpose of passage together.

2. A group of vehicles organized for the purpose of control and orderly movement with or without escort protection.
(JCS Pub 1-02)

convoy loading. The loading of troop units with their equipment and supplies in vessels of the same movement group, but not necessarily in the same vessel. (JCS Pub 1-02)

coordinating authority. A commander or individual assigned responsibility for coordinating specific functions or activities involving forces of two or more Services or two or more forces of the same Service. The commander or individual has the authority to require consultation between the agencies involved, but does not have the authority to compel agreement. In the event that essential agreement cannot be obtained, the matter shall be referred to the appointing authority. (JCS Pub 1-02)

covering air operations. Air operations conducted outside the objective area but which directly affect the amphibious operation by providing protection for the amphibious task force en route to and in the objective area. (JCS Pub 3-02)

cross-loading (personnel). A system of loading troops so that they may be disembarked or dropped at two or more landing or drop zones, thereby achieving unit integrity upon delivery.
(JCS Pub 1-02)

current intelligence. Intelligence of all types and forms of immediate interest which is usually disseminated without the delays necessary to complete evaluation of interpretation.
(JCS Pub 1-02)

D-day

1. The unnamed day on which a particular operation commences or is to commence. An operation may be the commencement of hostilities.

a. The date of a major military effort.

b. The execution date of an operation (as distinguished from the date the order to execute is issued); the date the operations phase is implemented, by land assault, air strike, naval bombardment, parachute assault, or amphibious assault. The highest command or headquarters responsible for coordinating the planning will specify the exact meaning of D-day within the aforementioned definition. If more than one such event is mentioned in a single plan, the secondary events

will be keyed to the primary event by adding or subtracting days as necessary. The letter "D" will be the only one used to denote the above. The command or headquarters directly responsible for the execution of the operation, if other than the one coordinating the planning, will do so in light of the meanings specified by the highest planning headquarters.

2. Time in plans will be indicated by a letter that shows the unit of time employed and figures, with a minus or plus sign, to indicate the amount of time before or after the referenced event; e.g., "D" is for a particular day, "H" for an hour. Similarly, D + 7 means 7 days after D-day, H + 2 means 2 hours after H-hour. If the figure becomes unduly large, for example, D-day plus 90, the designation of D + 3 months may be employed; i.e., if the figure following a letter plus a time unit (D-day, H-hour, etc.) is intended to refer to units of time other than that which follows the letter, then the unit of time employed with the figure must be spelled out. (JCS Pub 1-02)

debarkation. The unloading of troops, equipment, or supplies from a ship or aircraft. (JCS Pub 1-02)

debarkation schedule. A schedule which provides for the timely and orderly debarkation of troops and equipment and emergency supplies for the waterborne ship-to-shore movement. (JCS Pub 1-02)

decision. In an estimate of the situation, a clear and concise statement of the line of action intended to be followed by the commander as the one most favorable to the successful accomplishment of his mission. (JCS Pub 1-02)

defensive sea area. A sea area, usually including the approaches to and the waters of important ports, harbors, bays, or sounds, for the control and protection of shipping; for the safeguarding of defense installations bordering on waters of the areas; and for provision of other security measures required within the specified areas. It does not extend seaward beyond the territorial waters. (JCS Pub 1-02)

demonstration. An attack or show of force on a front where a decision is not sought, made with the aim of deceiving the enemy. (JCS Pub 1-02)

departure airfield. An airfield on which troops and/or materiel are enplaned for flight. (JCS Pub 1-02)

departure point. A navigational check point used by aircraft as a marker for setting course. In amphibious operations, an air control point at the seaward end of the helicopter approach lane system from which helicopter waves are dispatched along the selected approach lane to the initial point. (JCS Pub 1-02)

deployment

1. Act of extending battalions and smaller units in width, in depth, or in both width and depth to increase readiness for contemplated action.
2. In naval usage, the change from a cruising approach or contact disposition to a disposition for battle.
3. In a strategic sense, the relocation of forces to desired areas of operation.
4. Designated location of troops and troop units as indicated in a troop schedule.
5. The series of functions that transpire from the time a packed parachute is placed in operation until it is fully opened and is supporting its load. (JCS Pub 1-02)

direct air support center. A subordinate operational component of a tactical air control system designed for control and direction of close air support and other tactical air support operations, and normally collocated with fire-support coordination elements. (JCS Pub 1-02)

directive

1. A military communication in which policy is established or a specific action is ordered.
2. A plan issued with a view to putting it into effect when so directed, or in the event that a stated contingency arises.
3. Broadly speaking, any communication which initiates or governs action, conduct, or procedure. (JCS Pub 1-02)

direct support. A mission requiring a force to support another specific force and authorizing it to answer directly the supported force's request for assistance. (JCS Pub 1-02)

diversionary landing. An operation in which troops are actually landed for the purpose of diverting enemy reaction away from the main landing. (JCS Pub 1-02)

dock landing ship. A naval ship designed to transport and launch loaded amphibious craft and vehicles with their crews and embarked personnel in amphibious assault, and to render limited docking and repair service to small ships and craft; and one that is capable of acting as a control ship in an amphibious assault. Designated LSD. (JCS Pub 1-02)

doctrine. Fundamental principles by which the military forces or elements thereof guide their actions in support of national objectives. It is authoritative but requires judgment in application. (JCS Pub 1-02)

embarkation. The loading of troops with their supplies and equipment into ships and/or aircraft. (JCS Pub 1-02)

embarkation area. An area ashore, including a group of embarkation points, in which final preparations for embarkation are completed and through which assigned personnel and loads for craft and ships are called forward to embark. (JCS Pub 1-02)

embarkation element (unit) (group). A temporary administrative formation of personnel with supplies and equipment embarking or to be embarked (combat loaded) aboard the ships of one transport element (unit) (group). It is dissolved upon completion of the embarkation. An embarkation element normally consists of two or more embarkation teams: a unit, of two or more elements; and a group, of two or more units. (JCS Pub 1-02)

embarkation order. An order specifying dates, times, routes, loading diagrams and methods of movement to shipside or aircraft for troops and their equipment. (JCS Pub 1-02)

embarkation organization. A temporary administrative formation of personnel with supplies and equipment embarking or to be embarked (combat loaded) aboard amphibious shipping. (JCS Pub 1-02)

embarkation phase. The period during which the forces, with their equipment and supplies, are embarked in the assigned shipping. (NWP 22-8/FMFM 1-15)

embarkation plans. The plans prepared by the landing force and appropriate subordinate commanders containing instructions and information concerning the organization for embarkation, assignment to shipping, supplies and equipment to be embarked, location and assignment of embarkation areas, control and communication arrangements, movement schedules and embarkation sequence, and additional pertinent instructions relating to the embarkation of the landing force. (JCS Pub 3-02)

embarkation team. A temporary administrative formation of all personnel with supplies and equipment embarking or to be embarked (combat load) aboard one ship. (JCS Pub 1-02)

establishment. An installation, together with its personnel and equipment, organized as an operating entity. (JCS Pub 1-02)

execution planning. The phase of the crisis action system planning in which an approved operation plan or other National Command Authority-designated course of action is adjusted, refined, and translated into an operation order. Execution planning can proceed on the basis of prior deliberate planning, or it can take place under a no plan situation. (JCS Pub 1-02)

fire support area. An appropriate maneuver area assigned to fire support ships from which to deliver gunfire support of an amphibious operation. (JCS Pub 1-02)

fire support coordination. The planning and executing of fire so that targets are adequately covered by a suitable weapon or group of weapons. (JCS Pub 1-02)

fire support coordination center. A single location in which are centralized communications facilities and personnel incident to the coordination of all forms of fire support. (JCS Pub 1-02)

fire support group. A temporary grouping of ships under a single commander charged with supporting troop operations ashore by naval gunfire. A fire support group may be further subdivided into fire support units and fire support elements. (JCS Pub 1-02)

fleet. An organization of ships, aircraft, marine forces, and shore-based fleet activities all under the command of a commander or commander in chief who may exercise operational as well as administrative control. (JCS Pub 1-02)

Fleet Marine Force. A balanced force of combined arms comprising land, air, and service elements of the US Marine Corps. A Fleet Marine Force is an integral part of a US Fleet and has the status of a type command. (JCS Pub 1-02)

floating dump. Emergency supplies pre-loaded in landing craft, amphibian vehicles, or in landing ships. Floating dumps are located in the vicinity of the appropriate control officer who directs their landing as requested by the troop commander concerned. (JCS Pub 3-02)

follow-up. In amphibious operations, the landing of reinforcements and stores after the assault and follow-on echelons have been landed. (JCS Pub 1-02)

follow-up shipping. Ships not originally a part of the amphibious task force but which deliver troops and supplies to the objective area after the assault phase has begun. (JCS Pub 3-02)

force beachhead. The geographic area which contains the amphibious task force and landing force objectives and which the securing of will enable the landing force to accomplish its basic mission. When seized and held, the continuous landing of personnel and equipment is ensured and provides a base for subsequent operations ashore. (FMFRP 0-14, Marine Corps dictionary)

force list. A total list of forces required by an operation plan, including assigned forces, augmentation forces, and other forces to be employed in support of the plan. (JCS Pub 1-02)

force movement control center (FMCC). An FMF agency normally established in the headquarters of the deploying MAGTF which monitors, coordinates, controls, and adjusts as required, strategic movement of Marine forces and associated Navy forces within the Joint Deployment System. (TACMEMO PZ 0022-1-87/FMFM 1-5)

General Agency Agreement (GAA). A contract between the Maritime Administration and a steamship company which, as general agent, exercises administrative control over a government-owned ship for employment by MSC. (NWP 22-8/FMFM 1-15)

general unloading period. In amphibious operations, that part of the ship-to-shore movement in which unloading is primarily logistic in character, and emphasizes speed and volume of unloading operations. It encompasses the unloading of units and cargo from the ships as rapidly as facilities on the beach permit. It proceeds without regard to class, type, or priority of cargo, as permitted by cargo handling facilities ashore. (JCS Pub 1-02)

government-owned, contract-operated ships. Those ships to which the U.S. Government holds title and which MSC operates under a contract (i.e., nongovernment manned). These ships are designated U.S. Navy ships and use the prefix "USNS" with the ship name and the letter "T" as a prefix to the ship classification (e.g., T-AKR). (NWP 22-8/FMFM 1-15)

government-owned, MSC-operated ships. Those ships to which the U.S. Government holds title and which MSC operates with U.S. Government (civil service) employees. These ships are designated U.S. Navy ships and use the prefix "USNS" with the ship name and the letter "T" as a prefix to the ship classification (e.g., T-AKR). (NWP 22- 8/FMFM 1-15)

hard beach. A portion of a beach especially prepared with a hard surface extending into the water, employed for the purpose of loading or unloading directly into or from landing ships or landing craft. (JCS Pub 1-02)

helicopter coordinator (airborne). An experienced naval aviator operating from an aircraft to direct airborne coordination and control of helicopterborne assaults. The helicopter coordinator (airborne) (HC[A]) is responsible for the airborne control of all helicopters in his assigned area and coordinates with the tactical air coordinators (airborne) for support of close air support aircraft dedicated to the helicopterborne assault. The HC(A) functions as an airborne extension of the helicopter direction center or direct air support center and as such is responsible for the execution of specific functions delegated to him by those agencies. The helicopter transport commander acts as HC(A) when an HC(A) has not been specifically designated. (FMFRP 0-14, Marine Corps Dictionary)

helicopter direction center

1. In amphibious operations, the primary direct control agency for the helicopter group/unit commander operating under the overall control of the tactical air control center. (JCS Pub 1-02).

2. The installation from which control and direction of helicopter operations are exercised. (JCS Pub 3- 02)

helicopter flight. An individual helicopter, or two or more helicopters grouped under a flight leader and launched from a single helicopter transport or base at approximately the same time. (JCS Pub 3-02)

helicopter landing site. A designated subdivision of a helicopter landing zone in which a single flight or wave of assault helicopters land to embark or disembark troops and/or cargo. (JCS Pub 1-02)

helicopter landing zone. A specified ground area for landing assault helicopters to embark or disembark troops and/or cargo. A landing zone may include one or more landing sites. (JCS Pub 1-02)

helicopter support team

1. A task organization formed and equipped for employment in a landing zone to facilitate the landing and movement of helicopterborne troops, equipment and supplies, and to evacuate selected casualties and prisoners of war (JCS Pub 1-02).

2. It may be built around a nucleus of shore party and helicopter landing zone control personnel. The Army counterpart is the airmobile support party. (JCS Pub 3-02)

helicopter transport area. Areas to the seaward and on the flanks of the outer transport and landing ship areas, but preferably inside the area screen, to which helicopter transports proceed for launching or recovering helicopters. (JCS Pub 1-02)

H-hour. The specific hour on D-day at which a particular operation commences. The operation may be the commencement of hostilities; the hour at which an operation plan is executed or to be executed (as distinguished from the hour the order to execute is issued); the hour that the operations phase is implemented, either by land assault, parachute assault, amphibious assault, air or naval bombardment. The highest command or headquarters coordinating the planning will specify the exact meaning of H-hour within the aforementioned definition. Normally, the letter "H" will be the only one used to denote the above. However, when several operations or phases of an operation are being conducted in the same area on D-day, and confusion may arise through the use of the same hour designation for two or more of them, any letter of the alphabet may be used except A, C, D, E, J, M, or others that may be reserved for exclusive use. (JCS Pub 1-02)

horizontal stowage. The lateral distribution of unit equipment or categories of supplies so that they can be unloaded simultaneously from two or more holds. (NWP 22-8/FMFM 1-15)

imagery. Collectively, the representations of objects reproduced electronically or by optical means on film, electronic display devices, or other media. (JCS Pub 1-02)

initial unloading period. In amphibious operations, that part of the ship-to-shore movement in which unloading is primarily tactical in character and must be instantly responsive to landing force requirements. All elements intended to land during this period are serialized. (JCS Pub 1-02)

initiating directive. The directive initiating an amphibious operation, issued by a commander of a command established by the Joint Chiefs of Staff or by other commanders so authorized by the Joint Chiefs of Staff or by other higher authority. (JCS Pub 3-02)

inner transport area. In amphibious operations, an area as close to the landing beach as depth of water, navigational hazards, boat traffic, and enemy action permit, to which transports may move to expedite unloading. (JCS Pub 1-02)

intelligence. The product resulting from the collection, processing, integration, analysis, evaluation, and interpretation of available information concerning foreign countries or areas. (JCS Pub 1-02)

intelligence annex. A supporting document of an operation plan or order that provides detailed information on the enemy situation, assignment of intelligence tasks, and intelligence administrative procedures. (JCS Pub 1-02)

joint. Connotes activities, operations, organizations, etc., in which elements of more than one service of the same nation participate. (When all services are not involved, the participating services shall be identified, e.g., Joint Army-Navy.) (JCS Pub 1- 02)

joint amphibious operation. An amphibious operation conducted by significant elements of two or more Services.

joint amphibious task force. A temporary grouping of units of two or more Services under a single commander, organized for the purpose of engaging in an amphibious landing for assault on hostile shores. (JCS Pub 1-02)

joint deployment community. Those headquarters, commands, and agencies involved in the training, preparation, movement, reception, employment, support, and sustainment of military forces assigned or committed to a theater of operations or objective area. The joint deployment community usually consists of the Joint Staff, Services, certain Service major commands, (including the Service wholesale logistic commands), unified and specified commands (and their Service component commands), transportation operating agencies, Joint Deployment Agency, joint task forces (as applicable), Defense Logistics Agency, and other Defense agencies (e.g., Defense Intelligence Agency) as may be appropriate to a given scenario. Also called JDC. (JCS Pub 1-02)

joint deployment system. A system that consists of personnel, procedures, directives, communications systems, and electronic data processing systems to directly support time-sensitive planning and execution, and to complement peacetime deliberate planning. Also called JDS. (JCS Pub 1-02)

joint doctrine. Fundamental principles that guide the employment of forces of two or more Services in coordinated action toward a common objective. It will be promulgated by the Joint Chiefs of Staff. (JCS Pub 1-02)

joint force. A general term applied to a force which is composed of significant elements of the Army, the Navy or the Marine Corps, and the Air Force, or two or more of these Services, operating under a single commander authorized to exercise unified command or operational control over joint forces. (JCS Pub 1-02)

joint force air component commander. The joint force air component commander derives his authority from the joint force commander who has the authority to exercise operational control, assign missions, direct coordination among his subordinate commanders, redirect and organize his forces to ensure unity of

effort in the accomplishment of his overall mission. The joint force commander will normally designate a joint force air component commander. The joint force air component commander's responsibilities will be assigned by the joint force commander (normally these will include, but are not limited to, planning, coordination, allocation and tasking based on the joint force commander's apportionment decision). Using the joint force commander's guidance and authority, and in coordination with other Service component commanders and other assigned or supporting commanders, the joint force air component commander will recommend to the joint force commander apportionment of air sorties to various missions or geographic areas. (JCS Pub 1-02)

joint operations area. That portion of an area of conflict in which a joint force commander conducts military operations pursuant to an assigned mission and the administration incident to such military operations. Also called JOA. (JCS Pub 1-02)

joint task force. A force composed of assigned or attached elements of the Army, the Navy or the Marine Corps, and the Air Force, or two or more of these Services, which is constituted and so designated by the Secretary of Defense or by the commander of a unified command, a specified command, or an existing joint task force. (JCS Pub 1-02)

land-based tactical air groups. Task organizations of tactical air units, assigned to the amphibious task force, which are to be shore-based within (or sufficiently close to) the objective area to provide tactical air support to the amphibious task force. (JCS Pub 3-02)

landing area

1. That part of the objective area within which are conducted the landing operations of an amphibious force. It includes the beach, the approaches to the beach, the transport areas, the fire support areas, the air occupied by close supporting aircraft, and the land included in the advance inland to the initial objective.

2. (Airborne) The general area used for landing troops and materiel either by airdrop or air landing. This area includes one or more drop zones or landing strips.

3. Any specially prepared or selected surface of land, water, or deck designated or used for take-off and landing of aircraft. (JCS Pub 1-02)

landing beach. That portion of a shoreline usually required for the landing of a battalion landing team. However, it may also be that portion of a shoreline constituting a tactical locality (such as the shore of a bay) over which a force larger or smaller than a battalion landing team may be landed. (JCS Pub 1-02)

landing craft. A craft employed in amphibious operations, specifically designed for carrying troops and equipment and for beaching, unloading, and retracting. Also used for logistic cargo resupply operations. (JCS Pub 1-02)

landing craft and amphibious vehicle assignment table. A table showing the assignment of personnel and materiel to each landing craft and amphibious vehicle and the assignment of the landing craft and amphibious vehicles to waves for the ship-to-shore movement. (JCS Pub 1-02)

landing craft availability table. A tabulation of the type and number of landing craft that will be available from each ship of the transport group. The table is the basis for the assignment of landing craft to the boat groups for the ship-to-shore movement. (JCS Pub 1-02)

landing diagram. A graphic means of illustrating the plan for the ship-to-shore movement. (JCS Pub 1-02)

landing force. A task organization of troop units, aviation and ground, assigned to an amphibious assault. It is the highest troop echelon in the amphibious operation. (JCS Pub 1-02) It includes units and supplies transported in either the assault echelon (AE) or the assault follow-on echelon (AFOE).

landing force commander. The officer designated in the initiating directive to command the landing force. (JCS Pub 3-02)

landing force supplies. Those supplies remaining in assault shipping after initial combat supplies and floating dumps have been unloaded. They are landed selectively in accordance with the requirements of the landing force until the situation ashore permits the inception of general unloading. (JCS Pub 3-02)

landing force support party (LFSP). The forward echelon of the combat service support element formed to facilitate the ship-to-shore movement. It may contain a surface assault support element (shore party) and a helicopter assault support element (helicopter support). The LFSP is brought into existence by a formal activation order issued by the MAGTF commander. (JCS Pub 3-02)

landing group. A subordinate task organization of the landing force. It is composed of especially organized, trained, and equipped troops, including aviation units when assigned, capable of conducting landing operations. (JCS Pub 3-02)

landing schedule. In an amphibious operation, a schedule which shows the beach, hour, and priorities of landing of assault units, and which coordinates the movements of landing craft from the transports to the beach in order to execute the scheme of maneuver ashore. (JCS Pub 1-02)

landing sequence table. A document which incorporates the detailed plans for ship-to-shore movement of nonscheduled units. (JCS Pub 3-02)

landing ship. An assault ship which is designed for long sea voyages and for rapid unloading over and on to a beach. (JCS Pub 1-02)

landing ship dock. A ship designed to transport and launch loaded amphibious craft and/or amphibian vehicles with their crews and embarked personnel and/or equipment and to render limited docking and repair services to small ships and craft. (JCS Pub 1-02)

landing site. In amphibious operations, a continuous segment of coastline over which troops, equipment and supplies can be landed by surface means. (JCS Pub 1-02)

landing zone control party. Personnel specially trained and equipped to establish and operate communications devices from the ground for traffic control of aircraft/helicopters for a specific landing zone. (JCS Pub 1-02)

L-hour. In amphibious operations, the time at which the first helicopter of the helicopterborne assault wave touches down in the landing zone. (FMFRP 0-14, Marine Corps Dictionary)

lighterage. Consists of causeway ferries and landing craft. Boat crews report to the off-load control officer for ship and beaching assignments. Once unloaded, until required to be placed back aboard ship, the lighterage becomes responsibility of the lighterage control officer who will keep the off-load control officer informed as to the location/status of the equipment. (TACMEMO PZ 0022-1- 87/FMFM 1-5)

lighterage control officer (LCO). The Navy officer or chief petty officer responsible to the debarkation officer for controlling the lighterage assigned to that ship for off-load. (TACMEMO PZ 0022- 1-87/FMFM 1-5)

line of departure. In amphibious warfare, a suitably marked offshore coordinating line to assist assault craft to land on designated beaches at scheduled times. (JCS Pub 1-02)

lines of communication. All the routes, land, water, and air, which connect an operating military force with a base of operations and along which supplies and military forces move. (JCS Pub 1-02)

loading plan. All of the individually prepared documents which, taken together, present in detail all instructions for the arrangement of personnel, and the loading of equipment for one or more units or other special grouping of personnel or material moving by highway, water, rail, or air transportation. (JCS Pub 1- 02)

logistic movement coordination center (LMCC). LMCCs are organized from service support elements (or the supporting establishment) in the geographic proximity of the marshalling units. They are tasked by the FMCC to provide organic/commercial transportation, transportation scheduling, material handling equipment and all other logistic support required by parent commands during marshalling and embarkation. (TACMEMO PZ 0022-1-87/FMFM 1-5)

logistics. The science of planning and carrying out the movement and maintenance of forces. In its most comprehensive sense, those aspects of military operations which deal with: a. design and development, acquisition, storage, movement, distribution, maintenance, evacuation, and disposition of materiel; b. movement, evacuation, and hospitalization of personnel; c. acquisition of construction, maintenance, operation, and disposition of facilities; and d. acquisition or furnishing of services. (JCS Pub 1-02)

logistics over the shore operations. The loading and unloading of ships without the benefit of fixed port facilities, in friendly or nondefended territory, and in time of war, during phases of theater development in which there is no opposition by the enemy. (JCS Pub 1-02)

major water terminal. A water terminal with facilities for berthing numerous ships simultaneously at wharves and/or working anchorages, located within sheltered coastal waters adjacent to rail, highway, air and/or inland water transportation nets. It covers a relatively large area, and its scope of operation is such that it is designated as a probable nuclear target. (JCS Pub 1-02)

Marine Air-Ground Task Force. A task organization of Marine forces (division, aircraft wing and service support groups) under a single command and structured to accomplish a specific mission. The Marine Air-Ground Task Force components will normally include command, aviation combat, ground combat, and combat service support elements (including Navy Support Elements). Three types of Marine Air-Ground Task Forces which can be task organized are the Marine Expeditionary Unit, Marine

Expeditionary Brigade, and Marine Expeditionary Force. The four elements of a Marine Air-Ground Task Force are:

a. command element. The MAGTF headquarters. The command element is a permanent organization composed of the commander, general or executive and special staff sections, headquarters section, and requisite communications and service support facilities. The command element provides command, control, and coordination essential for effective planning and execution of operations by the other three elements of the MAGTF. There is only one command element in a MAGTF.

b. aviation combat element (ACE). The MAGTF element that is task organized to provide all or a portion of the functions of Marine Corps aviation in varying degrees based on the tactical situation and the MAGTF mission and size. These functions are air reconnaissance, antiair warfare, assault support, offensive air support, electronic warfare, and control of aircraft and missiles. The ACE is organized around an aviation headquarters and varies in size from a reinforced helicopter squadron to one or more Marine aircraft wing(s). It includes those aviation command (including air control agencies), combat, combat support, and combat service support units required by the situation. Normally, there is only one aviation combat element in a MAGTF.

c. ground combat element (GCE). The MAGTF element that is task organized to conduct ground operations. The GCE is constructed around an infantry unit and varies in size from a reinforced infantry battalion to one or more reinforced Marine division(s). The ground combat element also includes appropriate combat support and combat service support units. Normally, there is only one ground combat element in a MAGTF.

d. combat service support element (CSSE). The MAGTF element that is task organized to provide the full range of combat service support necessary to accomplish the MAGTF mission. CSSE can provide supply, maintenance, transportation, deliberate engineer, health, postal, disbursing, prisoner of war, automated information systems, exchange, utilities, legal, and graves registration services. The CSSE varies in size from a Marine expeditionary unit (MEU) service support group (MSSG) to a force service support group (FSSG). Normally, there is only one combat service support element in a MAGTF. (JCS Pub 1-02)

Marine Expeditionary Brigade (MEB). A Marine Expeditionary Brigade is a task organization which is normally built around a regimental landing team, a provisional Marine aircraft group, and a logistical support group. It is capable of conducting amphibious assault operations in a limited scope. During potential crisis situations, a Marine Expeditionary Brigade may be forward deployed afloat for an extended period in order to provide an immediate combat response. Also called MEB.

(JCS Pub 1-02)

Marine Expeditionary Force (MEF). The Marine Expeditionary Force, the largest of the Marine air-ground task forces, is normally built around a division/wing team, but can include several divisions and aircraft wings, together with an appropriate combat service support organization. The Marine Expeditionary Force is capable of conducting a wide range of amphibious assault operations and sustained operations ashore. It can be tailored to a wide variety of combat missions in any geographic environment. Also called MEF. (JCS Pub 1-02)

Marine Expeditionary Unit (MEU). The Marine Expeditionary Unit is a task organization which is normally built around a battalion landing team, a reinforced helicopter squadron, and logistics support unit. It fulfills routine forward afloat deployment requirements, provides an immediate reaction capability for crisis situations, and is capable of relatively limited combat operations. Also called MEU. (JCS Pub 1-02)

maritime prepositioned equipment and supplies (MPE/S). Unit equipment and sustaining supplies associated with a MEB and an NSE, which are deployed on maritime prepositioning ships. (TACMEMO PZ 0022-1-87/FFMFM 1-5)

maritime prepositioning force (MPF). A task organization of units under one commander formed for the purpose of introducing a Marine Expeditionary Brigade and its associated equipment and supplies into a secure area. The MPF is composed of a command element, a MPS squadron, a Marine Expeditionary Brigade, and a Navy Support Element. (TACMEMO PZ 0022-1-87/FMFM 1-5)

maritime prepositioning force operation. A maritime prepositioning force operation is a rapid deployment and assembly of a Marine expeditionary brigade in a secure area using a combination of strategic airlift and forward-deployed maritime prepositioning ships. (TACMEMO PZ 0022-1-87/OH 7-6)

marshalling

1. The process by which units participating in an amphibious or airborne operation, group together or assemble when feasible or move to temporary camps in the vicinity of embarkation points, complete preparations for combat or prepare for loading.

2. The process of assembling, holding, and organizing supplies and/or equipment, especially vehicles of transportation, for onward movement. (JCS Pub 1-02)

master. The commanding officer of a United States Naval Ship (USNS), a commercial ship, or a government-owned General Agency Agreement (GAA) ship operated for MSC by a civilian company to transport DOD cargo. (JCS Pub 3-02)

M-day. The term used to designate the day on which mobilization is to begin. (JCS Pub 1-02)

medical regulating. A system to coordinate the orderly movement of a casualty from the site of wounding or injury or the onset of disease to and between medical treatment facilities. (FMFRP 0-14, Marine Corps Dictionary)

medical regulating officer. A medical administrative officer who controls and coordinates the evacuation of casualties from and within the amphibious objective area. He is normally embarked in the amphibious task force flag ship. (JCS Pub 3-02)

Military Sealift Command (MSC). The single manager operating agency for designated sealift service (JCS Pub 1-02). A worldwide sealift organization, the commander of which is directly responsible to the Chief of Naval Operations. MSC is one of the operating forces of the Navy. The first and foremost dictum of the MSC mission is to provide an immediate sealift capability in support of approved contingency, general war plans, or other emergencies. (JCS Pub 3-02)

mine warfare group. A task organization of mine warfare units for the conduct of minelaying and/or mine countermeasures in maritime operations (JCS Pub 1-02). These operations are conducted in support of the amphibious task force. (JCS Pub 3-02)

movement group. Those ships and embarked units which load out and proceed to rendezvous in the objective area.

movement phase. Definition is included under the term, amphibious operation. (JCS Pub 1-02)

movement plan. The naval plan providing for the movement of the amphibious task force to the objective area. It includes information and instructions concerning departure of ships from loading points, the passage at sea, and the approach to and arrival in assigned positions in the objective area. (JCS Pub 3-02)

movement report system. A system established to collect and make available to certain commands vital information on the status, location, and movement of flag commands, commissioned fleet units, and ships under operational control of the Navy. (JCS Pub 1-02)

MSC-provided ships. Those ships assigned by MSC for a specific operation. They may be MSC nucleus fleet ships (USNS), U.S. ships manned by active duty naval personnel (under certain circumstances) contract-operated MSC ships (USNS), MSC-controlled time or voyage chartered commercial ships, or MSC-controlled General Agency Agreement (GAA) ships allocated by the Maritime Administration to MSC to carry out DoD objectives. (JCS Pub 3-02)

National Command Authorities. The President and the Secretary of Defense or their duly deputized alternates or successors. Commonly referred to as NCA. (JCS Pub 1-02)

National Defense Reserve Fleet (NDRF) including Ready Reserve Force (RRF). The NDRF (including the RRF) is composed of ships acquired and maintained by the Maritime Administration for use in mobilization or emergency. (NWP 80/FMFM 1-16)

National Defense Reserve Fleet (NDRF) less Ready Reserve Force (RRF). The NDRF (less the RRF) is comprised of the older dry cargo ships, tankers, troop transports and other assets in the Maritime Administration's custody that are maintained at a relatively low level of readiness. They are acquired by MARAD from commercial ship operators under the provisions of the Merchant Marine Act of 1936; they are available only on mobilization or Congressional declaration of an emergency. Because these ships are maintained in a state of minimum preservation, activation requires 30 to 90 days and extensive shipyard work for many. (NWP 80/FMFM 1-16)

naval advanced logistics support base--(DOD). A naval overseas logistics base used as the primary transshipment point in the theater of operations for fleet support. ALSBs possess full capabilities for storage, consolidation and transfer of supplies, and support of forward-based personnel (including replacements) during major contingency and wartime periods. ALSBs are located within the theater of operations but not in close proximity to anticipated direct combat, and must possess the throughput capacity required to accommodate incoming inter-theater and outgoing intra-theater air and sealift. When fully activated the ALSB should consist of facilities and services provided by a host nation, augmentation of existing U.S. bases located in the theater of operations, or a combination thereof. Also called ALSB. (JCS Pub 1-02)

naval beach group. A permanently organized naval command, within an amphibious force, comprised of a commander, his staff, a beachmaster unit, an amphibious construction battalion, and an assault craft unit, designed to provide an administrative group from which required naval tactical components may be made available to the attack force commander and to the amphibious landing force commander to support the landing of one division (reinforced). (JCS Pub 1-02)

naval control of shipping organization (NCSORG). The organization within the Navy which carries out the specific responsibilities of the Chief of Naval Operations to provide for the control and protection of movements of merchant ships in time of war. (JCS Pub 1-02)

naval coordinating activity. The activity responsible for the overall coordination of amphibious lifts and for the loading of ships assigned amphibious lifts. (NWP 22-8/FMFM 1-15)

Naval Forward Logistics Site. An overseas port or airfield which provides logistics support to naval forces within the theater of operations during major contingency and wartime periods. FLSs may be located in close proximity to areas of direct combat to permit forward staging of services, throughput of high priority cargo, advanced maintenance and battle damage repair. FLSs are linked to in-theater Naval Advanced Logistics Support Bases (ALSBs) by intra-theater air and sealift, but may also serve as transshipment points for inter-theater lift of high priority cargo into areas of direct combat. In providing fleet logistics support, FLS capabilities may range from very austere to near that of an ALSB. (JCS Pub 1-02)

naval support area. A sea area assigned to naval ships detailed to support an amphibious operation. (JCS Pub 1-02)

Navy Cargo Handling Battalion. A mobile logistics support unit capable of worldwide deployment in its entirety or in specialized detachments. It is organized, trained and equipped to load and offload Navy and Marine Corps cargo carried in maritime prepositioning ships, merchant breakbulk and/or container ships in all environments; and to operate an associated temporary ocean cargo terminal; load and offload Navy and Marine Corps cargo carried in military-controlled aircraft; and to operate an associated expeditionary air cargo terminal. Three sources of Navy cargo handling battalions are:

- a. Navy cargo handling and port group (NAVCHAPGRU). The active duty, cargo handling battalion-sized unit composed solely of active duty personnel.
- b. Naval Reserve cargo handling training battalion (NRCHTB). The active duty, cargo handling training battalion composed of both active duty and reserve personnel.
- c. Naval Reserve cargo handling battalion (NRCHB). A reserve cargo handling battalion composed solely of selected reserve personnel. (JCS Pub 1-02)

Navy Cargo Handling Force. The combined cargo handling units of the Navy, including primarily the Navy cargo handling and port group, the Naval Reserve cargo handling training battalion and the Naval Reserve cargo handling battalions. These units are part of the operating forces and represent the Navy's capability for open ocean cargo handling. (JCS Pub 1-02)

Navy support element (NSE). The MPF element that is composed of Naval beach group (NBG) staff and subordinate unit personnel, a detachment of Navy cargo handling force personnel, and other Navy components, as required. It is tasked with conducting the off-load and ship-to-shore movement of MPE/S. (TACMEMO PZ 0022-1-87/FMFM 1-5)

non-unit-related personnel. All personnel requiring transportation to or from an area of operations, other than those assigned to a specific unit (e.g. filler personnel, replacements, temporary duty/temporary additional duty, (TDY/TAD) personnel, civilians, medical evacuees, and retrograde personnel). (JCS Pub 1-02)

numbered beach. A subdivision of a colored beach, designated for the assault landing of a battalion landing team or similar sized unit, when landed as part of a larger force. (JCS Pub 3-02)

objective area

1. A defined geographical area within which is located an objective to be captured or reached by the military forces. This area is defined by competent authority for purposes of command and control (JCS Pub 1-02).

2. In amphibious operations, the objective area is delineated in the initiating directive in terms of sea, land, and air space. (JCS Pub 3-02)

officer in tactical command (OTA). In maritime usage, the senior officer present eligible to assume command, or the officer to whom he has delegated tactical command. (JCS Pub 1-02)

off-load control officer (OCO). The Navy officer responsible to the NSE commander for the off-load of the MPS squadron, the ship-to-shore movement, and the reception and control of lighterage on the beach. (TACMEMO PZ 0022-1-87//FMFM 1-5)

off-load preparation party (OPP). A task organization of Navy and Marine maintenance, embarkation, and cargo handling personnel deployed to the MPS squadron before or during its transit to the objective area to prepare the ship's off-load systems and embarked equipment for off-load. (TACMEMO PZ 0022-1-87/FMFM 1-5)

offshore POL discharge system (OPDS). The OPDS provides a semi-permanent bulk transfer of POL directly from an offshore tanker to beach storage. Major components of the OPDS are: a single anchor leg mooring fuel buoy; a mooring anchor to accommodate tankers of 25,000 to 70,000 DWT; hoses; and four miles of positive buoyancy 6-inch flexible steel piping. When charged, the pipe lies on the bottom. The ACB installs and operates the OPDS. OPDSs are embarked on RRF tankers. (NWP 80/FMFM 1-16)

one day's supply (day of supply). A unit or quantity of supplies adopted as a standard of measurement, used in estimating the average daily expenditure under stated conditions. It may also be expressed in terms of a factor, e.g., rounds of ammunition per weapon per day. (JCS Pub 1-02)

operating forces. Those forces whose primary missions are to participate in combat and the integral supporting elements thereof. (JCS Pub 1-02)

operation. A military action or the carrying out of a strategic, tactical, service, training, or administrative military mission; the process of carrying on combat, including movement, supply, attack, defense and maneuvers needed to gain the objectives of any battle or campaign. (JCS Pub 1-02)

operational control--(DOD). Transferable command authority which may be exercised by commanders at any echelon at or below the level of combatant command. Operational control is inherent in Combatant Command (command authority) and is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. Operational control includes authoritative direction over all aspects of military operations and joint training necessary to accomplish missions assigned to the command. Operational control should be exercised through the commanders of subordinate organizations; normally this authority is exercised through the Service component commanders. Operational control normally provides full authority to organize commands and forces and to employ those forces as the commander in operational control considers necessary to accomplish assigned missions. Operational control does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training. Also called OPCON. See also combatant command; Combatant Command (command authority); and combatant commander. (JCS Pub 1-02)

operational control authority (OCA). The naval commander responsible within a specified geographical area for the operational control of all maritime forces assigned to him and for the control of movement and protection of all merchant shipping under allied naval control. (JCS Pub 1-02)

operation order. A directive issued by a commander to subordinate commanders for the purpose of effecting the coordinated execution of an operation. (JCS Pub 1-02)

operation plan. A plan for a single or series of connected operations to be carried out simultaneously or in succession. It is usually based upon stated assumptions and is the form of directive employed by higher authority to permit subordinate commanders to prepare supporting plans and orders. The designation "plan" is usually used instead of "order" in preparing for operations well in advance. An operation plan may be put into effect at a prescribed time, or on signal, and then becomes the operation order. (JCS Pub 1-02)

organization for embarkation. The administrative grouping of the landing force for the overseas movement. It includes, in any vessel or embarkation group, the task organization which is established for landing as well as additional forces embarked for purposes of transport, labor or for distribution to achieve a maximum of security. (JCS Pub 3-02)

outer landing ship areas. Areas to which landing ships proceed initially after their arrival in the objective area. They are usually located on the flanks of the outer transport areas. (JCS Pub 3-02)

parallel chains of command. A parallel system of command, responding to the interrelationship of naval and landing force tasks, wherein corresponding commanders are established at each subordinate level of both components to facilitate coordinated planning for, and execution of, the operation. (JCS Pub 3-02)

plan for landing. A collective term referring to all the individually prepared naval and landing force documents which, taken together, present in detail all instructions for execution of the ship-to-shore movement. (JCS Pub 1-02)

planning directive. The plan issued by the task force commander, following receipt of the initiating directive, to ensure that the planning process and interdependent plans developed by the task force headquarters and assigned major forces will be coordinated, the plan completed in the time allowed, and important aspects not overlooked. (JCS Pub 3-02)

port. A place at which ships may discharge or receive their cargoes. It includes any port accessible to ships on the seacoast, navigable rivers or inland waterways. The term "ports" should not be used in conjunction with air facilities which are designated as aerial ports, airports, etc. (JCS Pub 1-02)

port operations group. The unit responsible for preparation of the port prior to arrival of the Maritime Prepositioned Squadron and the throughput of supplies and equipment as they are off-loaded from the ship. The port operations group operates under the overall direction on the arrival/assembly support party and in coordination with the ship's debarkation officer. (OH 7-6)

preassault operation. An operation conducted in the objective area prior to the assault. It includes reconnaissance, minesweeping, bombardment, bombing, underwater demolition, and destruction of beach obstacles. (JCS Pub 1-02)

primary control officer. The officer embarked in a primary control ship assigned to control the movement of landing craft, amphibious vehicles, and landing ships to and from a colored beach. (JCS Pub 3-02)

primary control ship. A ship of the task force designated to provide support for the primary control officer and a CIC control team for a beach. PCS responsibilities include:

1. controlling all boats assigned
2. radar tracking and plotting to assist PCO in maintaining current location status of all boats assigned, including safety and salvage boats.
3. directing all scheduled waves over the beach assigned
4. maintaining an accurate plot of ships in the PCS area of responsibility and directing landing craft to the appropriate ship.

raid. An operation, usually small scale, involving a swift penetration of hostile territory to secure information, confuse the enemy, or to destroy his installations. It ends with a planned withdrawal upon completion of the assigned mission. (JCS Pub 1-02)

readiness and movement coordination center (RMCC). A coordination agency under technical control of the LMCC established by parent commands (major FMF or Navy organizations) of deploying forces at their home stations. This agency prepares units for embarkation, staging, marshalling, movement (within organic means), or coordinates with the LMCC movement to APOEs/SPOEs, and oversees embarkation of those forces. (TACMEMO PZ 0022-1-87/FMFM 1-5)

Ready Reserve Force (RRF). The RRF is composed of ships acquired by MARAD with Navy funding and newer ships acquired by MARAD for the NDRF. Although part of the NDRF, RRF ships are maintained in a higher state of readiness and can be made available without mobilization or Congressionally declared state of emergency. (NWP 80/FMFM 1-16)

reduced operational status (ROS). Applies to Military Sealift Command ships withdrawn from full operational status (FOS) because of decreased operational requirements. A ship in ROS is crewed in accordance with shipboard maintenance and possible future operational requirements with crew size predetermined contractually. The condition of readiness in terms of calendar days required to attain FOS is designated by the numeral following ROS (i.e., ROS-5). (TACMEMO PZ 0022-1-87/FMFM 1-5)

regimental landing team. A task organization for landing, comprised of an infantry regiment reinforced by those elements which are required for initiation of its combat function ashore. (JCS Pub 1- 02)

remain behind equipment (RBE). Unit equipment left by deploying forces at their bases when they deploy. (TACMEMO PZ 0022-1-87/FMFM 1-5)

screening group. A task organization of ships which furnishes protection to the task force en route to the objective area and during operations in the objective area. (JCS Pub 3-02)

sea control. The control of designated sea areas and the associated air space, and underwater volume. It is a selective function exercised only when and where needed. Sea control is performed in order that the U.S.Navy may have secure operating areas for the projection of power ashore and secure sealanes of communication that ensure buildup and resupply of U.S. and allied forces in the theater(s) of operations. It is a prerequisite to the conduct of sustained overseas operations by other U.S. general purpose forces. (NWP 80/FMFM 1-16)

sea echelon area. An area to seaward of a transport area from which assault shipping is phased into the transport area, and to which assault shipping withdraws from the transport area. (JCS Pub 3-02)

sea echelon plan. The plan for reduction of concentration of shipping in the transport area, to minimize losses due to enemy attack by mass destruction weapons and to reduce the area to be swept of mines. (JCS Pub 3-02)

Sealift Readiness Program (SRP). The SRP is a formal agreement between U.S. flag ocean carriers and the Military Sealift Command for the acquisition of ships and related equipment under conditions of less than full mobilization. (NWP 80/FMFM 1-16)

selective unloading. The controlled unloading from assault shipping, and movement ashore, of specific items of cargo at the request of the landing force commander. Normally, selective unloading parallels the landing of nonscheduled units during the initial unloading period of the ship-to-shore movement. (JCS Pub 1-02)

serial. An element or a group of elements within a series which is given a numerical or alphabetical designation for convenience in planning, scheduling, and control. (JCS Pub 1-02)

serial assignment table. A table that is used in amphibious operations and shows the serial number, the title of the unit, the approximate number of personnel; the material, vehicles, or equipment in the serial; the number and type of landing craft and/or amphibious vehicles required to boat the serial; and the ship on which the serial is embarked. (JCS Pub 1-02)

service component command. A command consisting of the Service component commander and all those individuals, units, detachments, organizations, and installations under the command that have been assigned to the unified command. (JCS Pub 1-02)

ship-to-shore movement. That portion of the assault phase of an amphibious operation which includes the deployment of the landing force from the assault shipping to designated landing areas. (JCS Pub 1-02)

shore party. A task organization of the landing force, formed for the purpose of facilitating the landing and movement off the beaches of troops, equipment, and supplies; for the evacuation from the beaches of casualties and prisoners of war; and for facilitating the beaching, retraction, and salvaging of landing ships and craft. It comprises elements of both the naval and landing forces. Also called beach group. (JCS Pub 1-02)

special unloading berth. Berths established in the vicinity of the approach lanes into which transports may move to for unloading, thus reducing the running time for landing craft and assisting in the dispersion of transports. (JCS Pub 3-02)

stage. To process, in a specified area, troops which are in transit from one locality to another. (part 2 of 3 JCS Pub 1-02 definition)

staging area

1. amphibious or airborne - A general locality between the mounting area and the objective of an amphibious or airborne expedition, through which the expedition or parts thereof pass after mounting, for refueling, regrouping of ships, and/or exercise, inspection, and redistribution of troops.

2. Other movements - A general locality established for the concentration of troop units and transient personnel between movements over the lines of communication (JCS Pub 1-02)

stowage. The method of placing cargo into a single hold or compartment of a ship to prevent damage, shifting, etc. (JCS Pub 3-02)

strategic air transport. The movement of personnel and materiel by air in accordance with a strategic plan. (JCS Pub 1-02)

strategic mobility. The capability to deploy and sustain military forces worldwide in support of national strategy. (JCS Pub 1-02)

strategic sealift. The prepositioning and ocean movement of cargo, POL, and personnel including ship-to-shore cargo handling systems and personnel. (NWP 80/FMFM 1-16)

strategic sealift C2. The exercise of authority and direction by a properly designated naval commander over assigned strategic sealift forces in the accomplishment of the strategic sealift mission. C2 functions are performed through an arrangement of personnel, equipment, communications, facilities, and procedures which are employed by the naval commander in planning, directing, coordinating, and controlling strategic sealift forces and operations. (NWP 80/FMFM 1-16)

subordinate command. Commands consisting of the commander and all those individuals, units, detachments, organizations, or installations that have been placed under the command by the authority establishing the subordinate command. (JCS Pub 1-02)

subsidiary landing. In an amphibious landing, a landing usually made outside the designated landing area, the purpose of which is to support the main landing. (JCS Pub 1-02)

supporting arms. Air, sea, and land weapons of all types employed to support ground units. (JCS Pub 1-02)

supporting arms coordination center. A single location on board an amphibious command ship in which all communications facilities incident to the coordination of fire support to artillery, air, and naval gunfire are centralized. This is the naval counterpart to the fire support coordination center utilized by the landing force. (JCS Pub 1-02)

supporting operations. In amphibious operations, those operations conducted by forces other than those assigned to the amphibious task force. They are ordered by higher authority at the request of the amphibious task force commander and normally are conducted outside the area for which the amphibious task force commander is responsible at the time of their execution. (JCS Pub 1-02)

survey, liaison, and reconnaissance party (SLRP). A task organization formed from the MEB and NSE, which is introduced into the objective area prior to the arrival of the main body of the FIE to conduct initial reconnaissance, establish liaison with in-theater authorities, and initiate preparations for the arrival of the main body of the FIE and the MPSRON. (TACMEMO PZ 0022-1-87/FMFM 1-5)

tac-log group. Representatives designated by troop commanders to assist Navy control officers aboard control ships in the ship-to-shore movement of troops, equipment, and supplies. (JCS Pub 1-02)

tactical air control system. The organization and equipment necessary to plan, direct, and control tactical air operations and to coordinate air operations with other Services. It is composed of control agencies and communications-electronics facilities which provide the means for centralized control and decentralized execution of missions. (JCS Pub 1-02)

tactical command ship. A warship converted from a light cruiser, and designed to serve as a command ship for a fleet/force commander. It is equipped with extensive communication equipment. Designated as CC. (JCS Pub 1-02)

tactical control. The detailed and usually local direction and control of movements or maneuvers necessary to accomplish missions or tasks assigned. (JCS Pub 1-02)

target

1. A geographical area, complex, or installation planned for capture or destruction by military forces.
2. In intelligence usage, a country, area, installation, agency, or person against which intelligence operations are directed.
3. An area designated and numbered for future firing,
4. In gunfire support usage, an impact burst which hits the target. (JCS Pub 1-02)

target intelligence. Intelligence which portrays and locates the components of a target or target complex and indicates its vulnerability and relative importance. (JCS Pub 1-02)

target list. The listing of targets maintained and promulgated by the senior echelon of command; it contains those targets which are to be engaged by supporting arms, as distinguished from a "list of targets" which may be maintained by any echelon as confirmed, suspect, or possible targets for informational and planning purposes. (JCS Pub 1-02)

task fleet. A mobile command consisting of ships and aircraft necessary for the accomplishment of a specific major task or tasks which may be of a continuing nature. (JCS Pub 1-02)

task force

1. A temporary grouping of units, under one commander, formed for the purpose of carrying out a specific operation or mission.

2. Semi-permanent organization of units, under one commander, formed for the purpose of carrying out a continuing specific task.

3. A component of a fleet organized by the commander of a task fleet or higher authority for the accomplishment of a specific task or tasks. (JCS Pub 1-02)

time-phased force and deployment data. The computer-supported data base portion of an operation plan; it contains time-phased force data, non-unit-related cargo and personnel data, and movement data for the operation plan, including:

- a. In-place units.

- b. Units to be deployed to support the operation plan with a priority indicating the desired sequence for their arrival at the port of debarkation.

- c. Routing of forces to be deployed.

- d. Movement data associated with deploying forces.

- e. Estimates of non-unit-related cargo and personnel movement to be conducted concurrently with the deployment of forces.

- f. Estimate of transportation requirements that must be fulfilled by common-user lift resources as well as those requirements that can be fulfilled by assigned or attached transportation resources. Also called TPFDD. (JCS Pub 1-02)

time-phased force and deployment list. Appendix 1 to Annex A of the operation plan. It identifies types and/or actual units required to support the operation plan and indicates origin and ports of debarkation or ocean area. It may also be generated as a computer listing from the time-phased force and deployment data. Also called TPFDL. (JCS Pub 1-02)

transport area. In amphibious operations, an area assigned to a transport organization for the purpose of debarking troops and equipment. (JCS Pub 1-02)

transportation operating agencies

1. military. These agencies are the Military Traffic Management Command, under the Department of the Army, the Military Sealift Command, under the Department of the Navy, and the Military Airlift Command, under the Department of the Air Force.

2. civil. Those Federal agencies having responsibilities under national emergency conditions for the operational direction of one or more forms of transportation; they are also referred to as Federal Modal Agencies or Federal Transport Agencies. (JCS Pub 1-02)

transport group (amphibious). A subdivision of an amphibious task force, composed primarily of transports. (JCS Pub 1-02)

type command. An administrative subdivision of a fleet or force into ships or units of the same type, as differentiated from a tactical subdivision. Any type command may have a flagship, tender, and aircraft assigned to it. (JCS Pub 1-02)

unified command. A command with a broad continuing mission under a single commander and composed of significant assigned components of two or more Services, and which is established and so designated by the President, through the Secretary of Defense with the advice and assistance of the Joint Chiefs of Staff, or, when so authorized by the Joint Chiefs of Staff, by a commander of an existing unified command established by the President. (JCS Pub 1-02)

unified operation. A broad generic term that describes the wide scope of actions taking place within unified commands under the overall direction of the commanders of those commands. (JCS Pub 1-02)

United States Naval Ship (USNS). A public vessel of the United States in the custody of the Navy and (1) operated by the MSC and manned by a civil service crew or (2) operated by a commercial company under contract to the MSC and manned by a merchant marine crew. (JCS Pub 3-02)

vertical loading. A type of loading whereby items of like character are vertically tiered throughout the holds of a ship, so that selected items are available at any stage of the unloading. (JCS Pub 1-02)

vertical stowage. A method of stowage in depth within a single compartment by which loaded items are continually accessible for unloading, and the unloading can be completed without corresponding changes or prior unloading of other cargo. (NWP 22-8/FMFM 1-15)

vital area. A designated area or installation to be defended by air defense units. (JCS Pub 1-02)

warning order. A preliminary notice of an order or action which is to follow. (JCS Pub 1-02)

war reserve materiel requirement. That portion of the war materiel requirement required to be on hand on D-day. This level consists of the war materiel requirement less the sum of the peacetime assets assumed to be available on D-day and the war materiel procurement capability. (JCS Pub 1-02)

Worldwide Military Command and Control System. The system that provides the means for operational direction and technical administrative support involved in the command and control function of the U. S. military forces. WWMCCS ensures effective connectivity among NCA, the Joint Chiefs of Staff, and other components of the National Military Command System down to the Service component commanders. (JCS Pub 0-2)

CHAPTER I
THE CONCEPT OF AMPHIBIOUS OPERATIONS

1. Introduction

a. Amphibious Operation. An amphibious operation is an attack launched from the sea by naval and landing forces, embarked in ships or craft involving a landing on a hostile shore (JCS Pub 1-02). It normally requires extensive air and naval gunfire support and is characterized by closely integrated efforts of forces trained, organized, and equipped for different combatant functions.

b. Waterborne Operations That Are Not Amphibious Operations. Combat operations that involve waterborne movement, such as inland-water, ferrying, and shore-to-shore operations in which the landing forces are not embarked in naval ships, waterborne administrative landings on friendly territory, and water terminal and logistics over-the-shore operations possess certain characteristics and employ some of the techniques of an amphibious operation. However, THESE ARE NOT AMPHIBIOUS OPERATIONS.

c. Landing Force. A landing force is a task organization of troop units, aviation and ground, assigned to an amphibious assault. It is the highest troop echelon in the amphibious operation (JCS Pub 1-02).

2. Purpose and Scope. This chapter provides definitions and basic information essential to an understanding of amphibious warfare. The information serves as a foundation for the remainder of the text, which focuses on landing force operations. This chapter parallels the information in JCS Pub 3-02, "Joint Doctrine for Amphibious Operations," with supplementary information of interest to the landing force. The material includes discussion of the nature, capabilities, limitations, characteristics, and types of amphibious operations; the phases within an operation; Service and command responsibilities; planning considerations; and termination of operations.

3. General

a. Naval Character. Amphibious warfare integrates virtually all types of ships, aircraft, weapons, and landing forces in a concerted military effort against a hostile shore. The inherent naval character of the amphibious operation is reflected in the principles that govern the organization of the forces involved and the conduct of the operation.

b. Marine Corps Responsibilities. The US Marine Corps is assigned the primary responsibility to develop, in coordination with other Services, the doctrine, tactics, and techniques for landing forces in amphibious warfare. This statutory requirement stems from the National Security Act of 1947, as amended, and is amplified in DOD Directive 5100.1 and JCS Pub 0-2, "Unified Action Armed Forces (UNAAF)."

c. Capabilities and Limitations

(1) Major Advantages. The essential usefulness of the amphibious operation stems from its ability and flexibility, that is, the ability to concentrate balanced forces and to strike with great strength at a selected point in the hostile defense system. The amphibious operation exploits the element of surprise and capitalizes on enemy weaknesses through application of the required type and degree of force at the most advantageous locations at the most opportune time. The mere threat imposed by the existence of powerful amphibious forces may induce the enemy to disperse his forces, and this in turn may result in his making expensive and wasteful efforts in attempting to defend his coastline.

(2) Dynamic and Evolutionary Form of Warfare. Doctrine, tactics, techniques, and procedures for conducting amphibious operations are not static principles--they are dynamic and evolutionary, adapting to new technology, the threat, and changing requirements. For example, in 1945 only 17 percent of the world's coastline was subject to the classic frontal amphibious assault. Innovations such as the helicopter and the landing craft air cushion (LCAC) have opened about 70 percent of the world's littorals to forcible entry by amphibious assault. These innovations, along with other advances in technology, provide for more flexibility in the selection of landing sites and compound the problems of the defender in protecting his coastline. Conversely, the landing force faces the threat from weapons with improved range, accuracy, and mobility; the potential for employment of nuclear or chemical weapons is always present. Advances in electronic warfare, real-time intelligence collection, analysis and targeting capability, and other advances have increased the lethality and tempo of warfare.

(3) Innovative Tactics Required. The amphibious task force retains the significant advantage of choosing the time and place for the assault, but firm establishment of the landing force ashore may demand innovative tactics. Although the landing force concept of operations ashore is situation dependent, it must be less predictable than in the past; focused more on the enemy than on physical terrain; and designed to destroy the enemy's cohesion and ability to disrupt the amphibious task force mission.

(4) Buildup of Combat Power From Zero. The salient requirement of the amphibious assault is the necessity of building up combat power ashore from an initial zero capability to full coordinated striking power as the attack drives toward the amphibious task force final objectives. The special measures introduced to meet this requirement form the basis of the organizational and technical differences existing between amphibious and land warfare.

(5) Difficulties in Conducting Amphibious Operations. The amphibious assault must be conducted in the face of certain additional and distinguishing difficulties. Natural forces--unfavorable weather; seas, surf, and features of hydrography--represent hazards not normally encountered in land warfare. Technical problems of logistics represented by loading thousands of troops and large quantities of materiel into ships at widely separated embarkation points, moving them to the objective, then landing them in exactly the proper sequence, usually on open beaches or landing zones and under fire initially, all require extraordinary attention in the form of detailed planning. During the movement from ship to shore, troops are especially vulnerable.

d. Purpose and Traditional Employment of Amphibious Forces.

History is replete with examples of amphibious operations. The most renowned is probably the Normandy invasion of World War II wherein the Allied Forces established a foothold on the continent of Europe for the purpose of opening a second front. A second well-known example is the seizure of the island (atoll) of Iwo Jima for the purposes of denying it and its airfields to the enemy, and providing advanced airbases and emergency airfields for aircraft on long-range bombing missions against Japan. These examples illustrate the basic reasons for an amphibious operation:

- (1) Prosecute further combat operations.
- (2) Obtain a site for an advanced naval or air base, and/or
- (3) Deny the use of an area or facilities to the enemy.

e. Non traditional Amphibious Operations. The traditional types of amphibious operations (assault, demonstration, raid, and withdrawal) will be discussed later in this chapter. However, other frequent examples of the non traditional employment of amphibious forces also illustrate the flexible and varied employment of these forces and are discussed in the following paragraphs.

- (1) Low-Intensity Conflicts. Various terms are applied where military force is used in conditions short of war; e.g., counterinsurgency, presence, deterrent operations, terrorism counteraction, and the like. Such operations are generally described as low-intensity conflicts. The continuing possibility of unstable conditions in many areas of the world requires highly responsive forces to meet the contingencies that may occur. The mobility to move freely at sea, the flexibility to apply military force when and where needed, and the quick responsiveness of such forces make them well suited for these operations.

- (2) Early Military Response. Because of the ambiguous and political nature of insurgent activity, numerous complications are involved in the direct commitment of military force; however, amphibious forces, either near the scene of potential trouble or strategically located in a state of readiness, are capable of deterring hostile activity without direct action, or of applying measured force at a precise time and place. When directed by higher authority, early military response while the government of the threatened country still is the dominant authority will increase the probability of early success. Delayed response may be more difficult and more likely to produce unfavorable international developments.

- (3) Use of Airborne or Air-Landed Forces. Airborne or air-landed forces may also be employed in combination with amphibious forces in low-intensity conflicts. By providing additional flexibility and mobility, these forces greatly enhance the overall US capability. In particular, air-landed forces provide a means of

increasing the buildup of forces and continuity of action, particularly in situations where the effort is initiated with limited forces rapidly committed from forward-deployed forces. Air-landed forces may be moved directly to the threatened area or to proximate airfields from which they can be committed to the threatened area.

(4) Related Operations. Many operations involve landing forces that are naval in character and may involve many of the characteristics of amphibious operations, but are not amphibious warfare per se. These related operations include disaster relief, noncombatant emergency evacuation, operations in times of tension, and administrative landings, which are discussed in Chapter 20.

4. Responsibilities of Key Individuals in Amphibious Warfare

a. Commander, Amphibious Task Force. The commander, amphibious task force (CATF), a Navy officer, is charged with overall responsibility for an amphibious operation.

b. Commander, Landing Force. The commander, landing force (CLF) is either an Army or Marine officer who is in overall charge of the landing forces (which may include aviation units) from the issuance of the initiating directive until the conditions established in that directive have been met and the amphibious operation is terminated. The CLF is a subordinate of the CATF within the amphibious task force (ATF). During the planning phase of the operation, however, the CLF and CATF enjoy coequal status for planning their respective portions of the operation. Planning matters on which the CATF and the CLF and commanders of other forces are unable to agree are referred to their common superior for decision.

c. Commander, Air Force Forces. Commander, Air Force forces, is an Air Force officer, who is in charge of the Air Force component of the amphibious task force.

d. Additional Information on Commanders. Chapter II contains more detailed information on the aforementioned commanders and their responsibilities.

5. Planning Considerations

a. Special Considerations. Special considerations are addressed throughout this publication. However, if a single factor is essential, it is the critical need for

cooperation and coordination. The closest cooperation and most detailed coordination among all participating forces in an amphibious operation are essential to success. There must be a clear understanding of mutual obligations and of the special capabilities and limitations of each component of the ATF.

b. Basic Considerations

(1) Relative Strength Requirements. In order to achieve success, an amphibious force should be assured of naval supremacy against enemy surface and submarine forces, air superiority, and a substantial superiority over enemy forces ashore in the objective area. In the face of compelling necessity, however, an amphibious operation may be undertaken on the basis of a reasonable total superiority of force. For example, surface and air superiority may justify a landing even though the ATF does not possess the desired numerical superiority in landing forces, provided US surface and air units can be used effectively against enemy land forces. In addition to a preponderance of force within the objective area, an amphibious task force should have reasonable assurance of:

(a) Freedom from effective interference by enemy surface, subsurface, and air or ground forces from outside the objective area;

(b) The ability to provide continuous logistical support for the forces ashore.

(2) Other Basic Considerations. Other basic considerations are contained throughout the publication.

6. Types of Amphibious Operations

a. Amphibious Assault. The principal type of amphibious operation which involves establishing a force on a hostile shore (JCS Pub 1-02).

b. Other Amphibious Operations. Other types of amphibious operations that are governed by the doctrine contained herein but do not involve establishing a force on a hostile shore are as follows:

(1) Amphibious Withdrawal. A type of amphibious operation involving the extraction of forces by sea in naval ships or craft from a hostile or potentially hostile shore (JCS Pub 1-02).

(2) Amphibious Demonstration. A type of amphibious operation conducted for the purpose of deceiving the enemy by a show of force with the expectation of deluding the enemy into a course of action unfavorable to him (JCS Pub 1-02).

(3) Amphibious Raid. A type amphibious operation involving swift incursion into or a temporary occupancy of an objective followed by a planned withdrawal (JCS Pub 1-02).

7. Operations in Support of an Amphibious Operation.

Operations conducted in conjunction with an amphibious operation are in two broad categories: supporting operations and preassault operations. The primary distinction between the two is whether the support is provided by CATF assets or not. In supporting operations, the support is provided by assets external to the ATF, whereas preassault operations are conducted by forces assigned to the amphibious task force. Subsidiary landings can be conducted by assets internal or external to the force and can be conducted before or during the assault. Detailed definitions of these terms and related terms follow.

a. Supporting Operations. In amphibious operations, operations conducted by forces other than those assigned to the ATF. Although they may be requested by the CATF, they are normally conducted outside the area for which the CATF is responsible at the time of their execution. Additionally, supporting operations conducted in the amphibious objective area before or during the amphibious operation will be at the request of, and/or coordinated with, the CATF. Specific examples are carrier-based air strikes, long-range strategic bombing, and aerial reconnaissance. (Command relations will be in accordance with Chapter II.) Examples of supporting operations in general are:

(1) Feints or demonstrations intended for purposes of deception.

(2) Isolation of the objective area by interdicting the movement thereto of enemy forces.

(3) Operations designed to assist in gaining or maintaining air, ground, or naval supremacy.

(4) Air, surface, submarine, or special operations designed to secure information.

(5) Psychological and unconventional warfare operations.

b. Preassault Operations. Preassault operations can be conducted by the advance force, which is an element of the amphibious task force. Preassault operations can also be conducted by amphibious task force assets not organized as an advance force. An example would be a reconnaissance team inserted into the objective area. In either event, preassault operations are conducted by forces assigned to the amphibious task force.

c. Advance Force (Amphibious). A temporary organization within the amphibious task force that precedes the main body to the objective area. Its function is to participate in preparing the objective for the main assault by conducting such operations as reconnaissance, seizure of supporting positions, mine sweeping, preliminary bombardment, underwater demolitions and air support (JCS Pub 1-02).

d. Subsidiary Landing. Subsidiary landings are conducted to capture specific positions to be used to support the main landing; to capture an area to deny its use to the enemy in opposing the main landing; and/or, through deception, to induce a hostile reaction that will favor the main landing.

8. Sequence of Amphibious Operations. The amphibious assault follows a well-defined pattern. It includes a sequence of events or activities that occur, although to a lesser degree, in other types of amphibious operations. The general sequence consists of planning, embarkation, rehearsal, movement to the objective, and, finally, assault and capture of the objective. Planning occurs throughout the entire operation but is normally dominant in the period before embarkation. Successive phases, therefore, bear the title of the dominant activity taking place within the period covered.

9. Planning. The planning period extends from the issuance of the initiating directive to embarkation. Although planning does not cease with the termination of the planning phase, it is useful to distinguish between the planning phase and subsequent phases. During the planning phase the CATF, CLF, and other commanders designated in the initiating directive are on equal levels of command. All basic decisions must be reached on a basis of common understanding of objectives and procedures and on free exchange of information. Any difference that commanders of the components of the amphibious task force cannot resolve is referred to the common superior. Once the

ATF and landing force missions have been analyzed and planning has progressed to the point where the basic decisions (see Chapter IV) have been made, and when the landing force is embarked on amphibious shipping, the commander of the ATF assumes full responsibility for the entire force and for the operation. If a change in amphibious task force mission occurs after commencement of operations, or if an amphibious operation is initiated from an afloat posture, planning by the commanders concerned will be conducted as previously described (coequal status) for the planning phase or as specified in the initiating directive.

10. Amphibious Operation--Embarkation. The period during which the forces, with their equipment and supplies, are embarked in the assigned shipping (JCS Pub 1-02, from the definition of amphibious operation).

11. Amphibious Operation--Rehearsal. The period during which the prospective operation is rehearsed for the purpose of: (1) testing adequacy of plans, the timing of detailed operations, and the combat readiness of participating forces; (2) insuring that all echelons are familiar with plans; and (3) testing communications (JCS Pub 1-02, from the definition of amphibious operation).

12. Amphibious Operation--Movement. The period during which various components of the amphibious task force move from the points of embarkation to the objective area (JCS Pub 1-02, from the definition of amphibious operation). This move may be initiated from a forward-deployed position and/or via rehearsal, staging, and/or rendezvous areas. The movement phase is completed when the components of the amphibious task force arrive in their assigned positions in the objective area.

13. Amphibious Operation--Assault. The period between the arrival of the major assault forces of the amphibious task force in the objective area and the accomplishment of the amphibious task force mission (JCS Pub 1-02, from the definition of amphibious operation).

14. Termination of an Amphibious Operation

a. Conditions for Termination of an Amphibious Operation. The termination of the amphibious operation is predicated on the accomplishment of the mission of the ATF in accordance with the specific conditions or instructions set forth in the initiating directive. The firm establishment of the landing force ashore is usually specified as one of these conditions.

b. Landing Force Established Ashore. The landing force is regarded as firmly established ashore when in the opinion of the landing force commander:

(1) The force beachhead has been secured (see Chapter IV, paragraph 13).

(2) Sufficient tactical and supporting forces have been established ashore to ensure the continuous landing of troops and materiel requisite for subsequent operations.

(3) Command, communications, and supporting arms coordination facilities have been established ashore.

(4) The CLF has stated that he is ready to assume full responsibility for subsequent operations.

c. Commander, Amphibious Task Force, and Commander, Landing Force, Jointly Decide. When the CATF and the CLF are satisfied that the aforementioned conditions have been met, the CATF will report these facts to higher authority designated in the initiating directive. This authority will then terminate the amphibious operation, dissolve the amphibious task force, and provide additional instructions as required, including command arrangements and disposition of forces.

CHAPTER II

ORGANIZATION AND COMMAND

1. Introduction. The task organization formed to conduct an amphibious operation is the amphibious task force (ATF). The ATF always includes Navy forces and a landing force, each of which may have organic aviation. USTRANSCOM forces (Military Airlift Command (MAC) and Military Sealift Command (MSC)) provide aircraft and ships that may be included when appropriate.

2. Purpose and Scope. This chapter describes organizational arrangements unique to landing forces in amphibious operations, and the nature of command relationships necessary to ensure unity of command. Organizational forms and command relationships change markedly during the five phases of the amphibious operation. Accordingly, the various organizations of the landing force and applicable relationships for each phase are described. The reader should refer to Chapter 2, JCS Pub 3-02, for information not included herein on the organization of Navy forces. Chapters VI through X of this publication provide information on command and control of the landing force in the major functional areas of intelligence, supporting arms, communications, and combat service support.

3. General

a. Basis of Organization. The considerations that govern organization of forces for any combat operation apply to amphibious operations. However, organization for the execution of the amphibious operation reflects the interrelationship at every level between the tasks of the landing force, the corresponding naval forces, and participating Air Force forces. The task organization of the ATF is based primarily on the requirement for establishing the landing force ashore.

b. Organizational Requirements. No standard organization is applicable to all situations that may be encountered in conducting an amphibious operation. The task organization of the ATF as a whole must meet the requirements of embarkation, movement to the objective area, protection, landing, and the support of the landing force. Flexibility of task grouping is essential.

c. Parallel Commands. The interrelationship of Navy and landing force tasks during the planning for and execution of the amphibious operation requires the establishment of parallel chains of command and corresponding commanders at all levels of the ATF organization.

4. Responsibilities

a. Commander, Amphibious Task Force. Regardless of the composition of the amphibious task force, the CATF is a Navy officer designated in the initiating directive.

b. Commander, Landing Force. The commander of all troop components within the landing force is the CLF, who is also designated in the initiating directive.

c. Subordinate Commanders. Commanders of subordinate task groups within the ATF, if not named in the initiating directive, are designated by the CATF or CLF as appropriate.

d. US Air Force Forces. If Air Force forces are assigned, their commander, an Air Force officer, will be designated in the initiating directive.

5. Planning Considerations. The initiating directive (discussed in paragraph 10 of this chapter) is the basis for an amphibious operation. Both the CATF and CLF may have been informed of the prospective operation in advance and may have assisted in drafting the directive. Preliminary planning, including initial staff estimates, may commence before the directive is officially received.

6. Organizational and Command Considerations. The interrelation of Navy and landing force tasks during the planning for and execution of the amphibious operation requires the establishment of parallel chains of command and corresponding commanders at all levels of the ATF organization. The following fundamental considerations govern the application of such a system of parallel command:

a. Commander, Amphibious Task Force. Except during the planning phase, the CATF, a Navy officer, is responsible for the operation and exercises that degree of authority over the entire force necessary to ensure success of the operation.

b. Component Commanders. The amphibious task force and landing force commanders are on a corresponding level of command with regard to their respective components.

c. Corresponding Commanders. Corresponding commanders are established at each subordinate level of both Navy and landing force task groups or elements.

d. Navy Forces Matters. Matters of command that affect only Navy forces are dealt with by the CATF through the Navy chain of command.

e. Landing Forces Matters. Matters of command that affect only the landing forces are dealt with by the CLF through the landing force chain of command. Administrative control of landing force units remains with the parent Service(s) providing the forces.

f. Matters of Mutual Concern. Matters of command that affect both the Navy force and the landing force are dealt with through the corresponding Navy and landing force chains of command. Commanders at all levels are required to maintain a close and continuous relationship to ensure that, except in emergencies, no commander makes decisions affecting corresponding commanders without consultation. In such cases, the commander making an emergency decision will notify corresponding commanders of his action at the earliest practicable time.

g. Air Force Forces. When Air Force forces are assigned to the ATF, they will be organized as a separate force or component under the command of an Air Force officer. The Air Force commander, with respect to his own forces, exercises command similar to that exercised by the CLF and the CATF, subject to the overall command authority of the CATF. When the criteria for establishment of a joint task force are met, a joint ATF will be formed, and the Air Force commander will provide appropriate Air Force representation to the joint ATF commander.

h. Organic Aviation. Organic Navy and landing force aviation will be organized as subordinate task groups or elements of the Navy and landing forces respectively.

i. Special Command Arrangements. Detailed provisions covering special command arrangements not otherwise provided for herein must be clearly specified for each operation. Such information is normally included in the initiating directive for the operation.

7. Basic Planning Considerations

a. Supportability. Because immediate responsibility for the conduct of landing force operations ashore is vested in the CLF, the planning and execution of the landing and assault are primarily his concern. Participation of other components in the assault consists generally of providing support for the landing force. This participation involves the analysis of landing force proposals to determine their supportability from the standpoint of the ATF as a whole. The capability of providing necessary support is a primary factor in evaluating and concurring in proposed landing force plans and concepts.

b. Organizational Forms. An essential understanding is that the basic tactical organization, or organization for combat of the landing force is a task organization predicated on the tactical plan. The organization for landing in turn is a temporary task organization employed during the ship-to-shore movement portion of the assault. The organization for embarkation is an administrative grouping of forces for movement, which must support the plan for landing and the plan for tactical operations ashore.

8. Landing Force Organization

a. Composition. The landing force comprises the troop units, aviation and ground, assigned to conduct the amphibious assault. When used in this publication, "landing force" designates the highest landing force echelon. The CLF is the senior landing force officer in the amphibious task force.

b. Joint or Combined Landing Forces. In some cases, the landing force may include forces from more than one Service and/or more than one nation. In such cases, the commander would be designated commander, joint landing force or commander, combined landing force, as applicable. Relationships between commanders of the Service or national components, if not specified in the initiating directive, are arranged during the planning phase.

c. Functions of Landing Force Organization. The landing force is specially organized for the following functions:

- (1) Embarkation of troops, equipment, and supplies.

- (2) Debarkation and landing of troops by air and/or surface units.
- (3) Conduct of assault operations.
- (4) Naval surface fire support.
- (5) Provision and control of air support.
- (6) Discharge of cargo from assault shipping, and landing and movement of materiel across the beaches or into helicopter landing zones.
- (7) Operation and tactical employment of organic amphibious vehicles and/or aircraft.

d. Organization for Amphibious Assault. The amphibious assault demands that the landing force, at various times during every operation, be organized in one of three functional forms, the latter two of which are peculiar to amphibious operations alone.

- (1) The Basic Tactical Organization (Organization for Combat). The conventional organization of the landing force units for combat, involving various combinations of ground and aviation combat, combat support, and combat service support units for accomplishment of missions ashore. This organizational form is employed as soon as possible during that battle for the beachhead following the landing of the various assault components of the landing force.

- (2) The Organization for Landing. The specific tactical grouping of forces for an assault, employed during the ship-to-shore movement.

- (3) The Organization for Embarkation. The administrative grouping of forces for embarkation and movement to the objective area. It includes, in any vessel or embarkation group, the task organization is established for landing as well as additional forces embarked for purposes of transportation, labor, or for distribution to achieve a maximum of security.

9. Command Relationships

- a. Planning Phase. As directed by higher authority, component commanders of the ATF, at the beginning of the planning phase, report for planning purposes to the CATF

who is responsible for the preparation of the overall plan for the amphibious operation. The CATF serves as the coordinating authority for the conduct of planning. During planning, matters on which the CATF and the CLF and commanders of other forces are unable to agree are referred to their common superior for decision. (See Figure II-1.)

b. Embarkation, Rehearsal, and Movement Phases

(1) Components Reporting to the CATF. At the time specified by the appropriate authority, the various component commanders of the ATF report to CATF for operations. In the case of the landing force, this reporting is usually at the time of embarkation unless otherwise stated in the initiating directive. Commanders of other forces may report at various times for operations; for example, upon their arrival in the amphibious objective area.

(2) Commander, Amphibious Task Force, Responsibility for Operations. The CATF, upon embarkation of the landing forces, assumes responsibility for the entire force and for the operation, and is vested with the commensurate command authority to ensure success of the operation. (See Figure II-2.)

(3) Exercise of Command Authority. The CATF exercises command authority through the commanders of the task organization. The latter, in turn, exercise their authority through their own chains of command.

(4) Subordinate Navy Commanders. No Navy commander other than the CATF exercises authority over, or assumes responsibility for, the operations of landing force units, except where a Navy commander below the ATF level has been designated as commander of a subordinate force composed of Navy and landing force units. (See subparagraph II-09d.)

(5) Forward-Deployed Landing Forces. An afloat forward-deployed landing force commander will normally retain an equal status with the commander of the amphibious task force in whose ships he is embarked with regard to planning for amphibious operations. Operational control of the landing force is vested in the CATF as specified by the initiating directive or by a common senior commander directing the conduct of a specific operation or exercise. Such transitions in command relationships should be stipulated in the

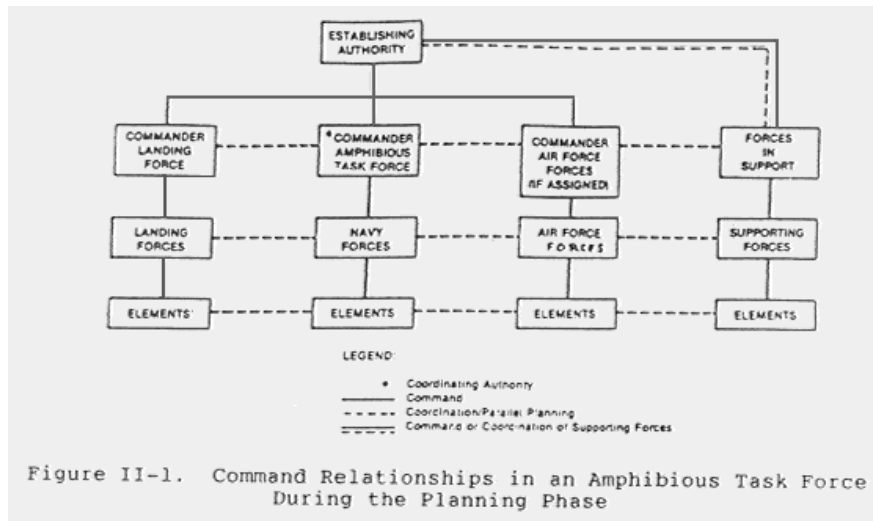


Figure II-1. Command Relationships in an Amphibious Task Force During the Planning Phase

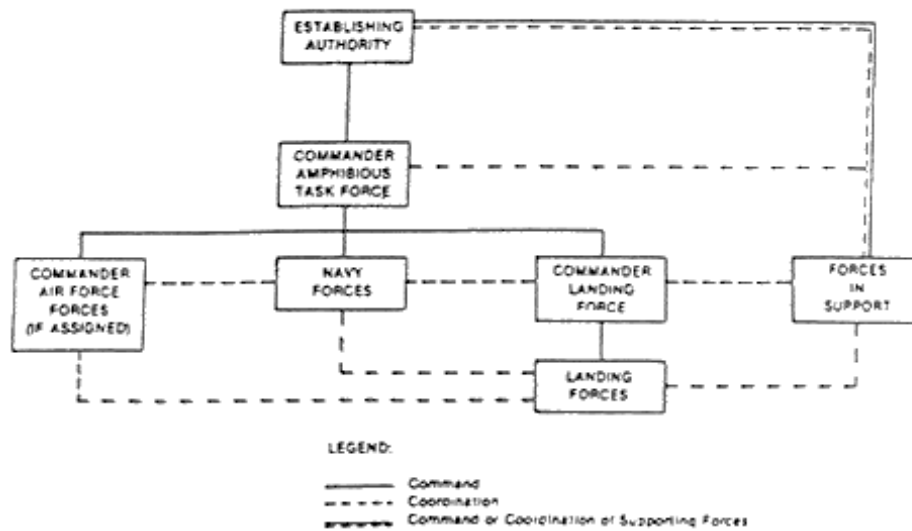


Figure II-2. Command Relationships in an Amphibious Task Force During Operations

original letter of instruction or activation order for the afloat forward-deployed landing force. (For additional information on forward-deployed landing forces, see Chapter XX.)

(6) Authority of a Ship's Commanding Officer. Nothing in the foregoing is to be construed as affecting the paramount authority of a commander of a naval ship or aircraft over persons embarked therein in matters affecting the safety and good order of the ship or aircraft, or the authority of a senior officer present to act in an emergency.

c. Assault Phase

(1) Commander, Amphibious Task Force, Authority in Amphibious Objective Area. Within the amphibious objective area, the CATF is given specific command authority, as prescribed by the joint force commander having overall authority for the operation. CATF will exercise control, as prescribed in the initiating directive, over forces not a part of the ATF when such forces are operating within the amphibious objective area after the arrival of the advance force or the ATF. When such forces are merely passing through the amphibious objective area, control will be exercised only to the extent of preventing or minimizing mutual interference.

(2) Commander Landing Force Authority Ashore. Subject to the overall authority of the CATF, responsibility for the conduct of operations ashore, and for the security of all personnel and installations located within the area of operations ashore, is vested in the CLF.

d. Alternative Relationships

(1) Organization of Subordinate Task Groups. When required, subordinate task groups are established as follows:

(a) Attack Group. An attack group is a subordinate task organization of the Navy forces of an amphibious task force. It is composed of assault shipping and supporting naval units designated to transport, protect, land, and initially support a landing group.

(b) Landing Group. A landing group is composed of especially organized, trained, and equipped troops, including aviation units when assigned, and is capable of conducting landing operations against a position or group of positions so located as to permit their capture by troops operating under a single tactical command.

(2) Delegation of Command Authority. While the CATF exercises command authority over the entire ATF, command authority may be delegated to a subordinate Navy attack group commander over a corresponding landing group commander. The conditions for such delegation of authority would exist when:

(a) Multiple Attack and Landing Groups. Simultaneous or nearly simultaneous assaults are conducted in areas so widely separated as to preclude effective control by a single tactical commander. This condition requires the formation of two or more attack groups and corresponding landing groups. (See Figure II-3.)

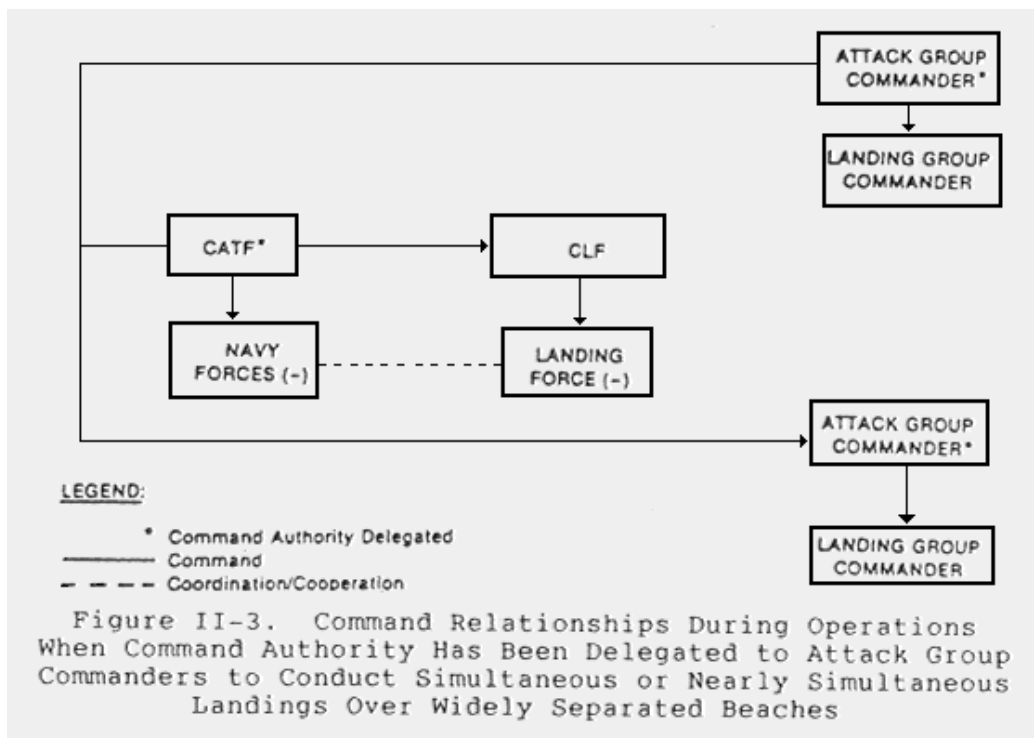


Figure II-3. Command Relationships During Operations When Command Authority Has Been Delegated to Attack Group Commanders to Conduct Simultaneous or Nearly Simultaneous Landings Over Widely Separated Beaches

(b) Advance Force. Separate operations are conducted by a detached portion of the ATF, such as the operations of an advance force with a corresponding landing force. (See Figure II-4.)

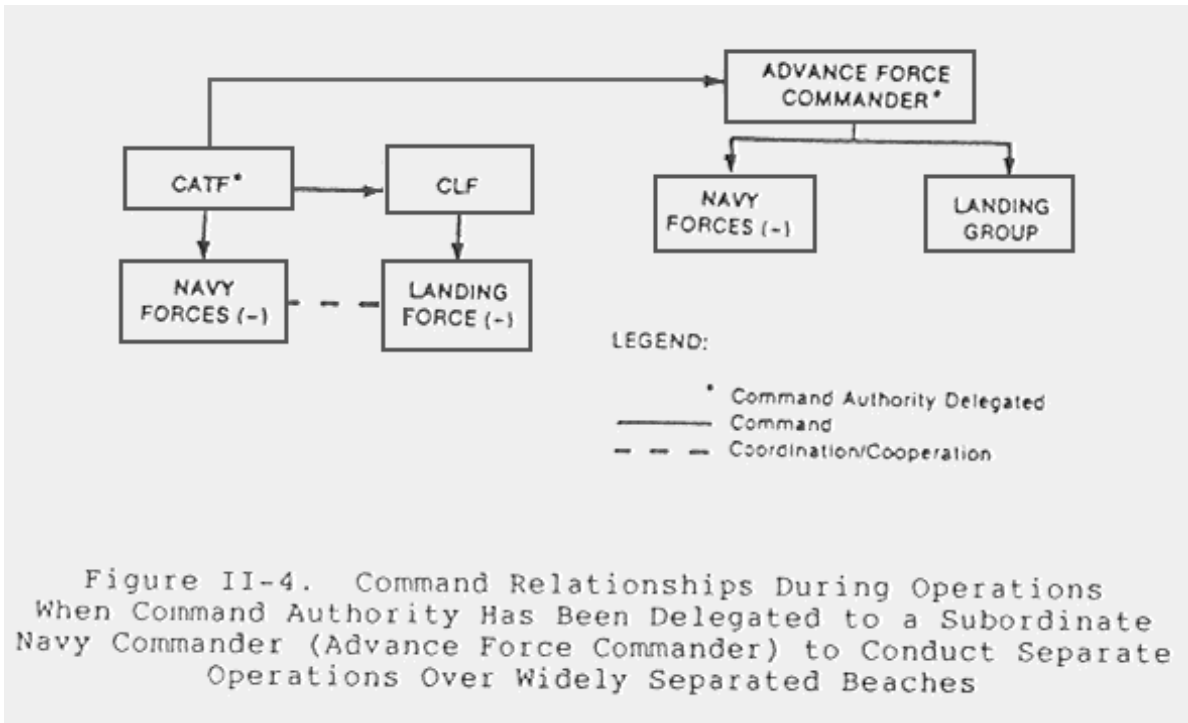


Figure II-4. Command Relationships During Operations When Command Authority Has Been Delegated to a Subordinate Navy Commander (Advance Force Commander) to Conduct Separate

Operations Over Widely Separated Beaches

(c) Single Tactical Commander. When attack groups and landing groups are formed to conduct an amphibious assault over separated beaches that are sufficiently close together to permit control by a single tactical commander, it will not be necessary to delegate command authority. (See Figure II-5.)

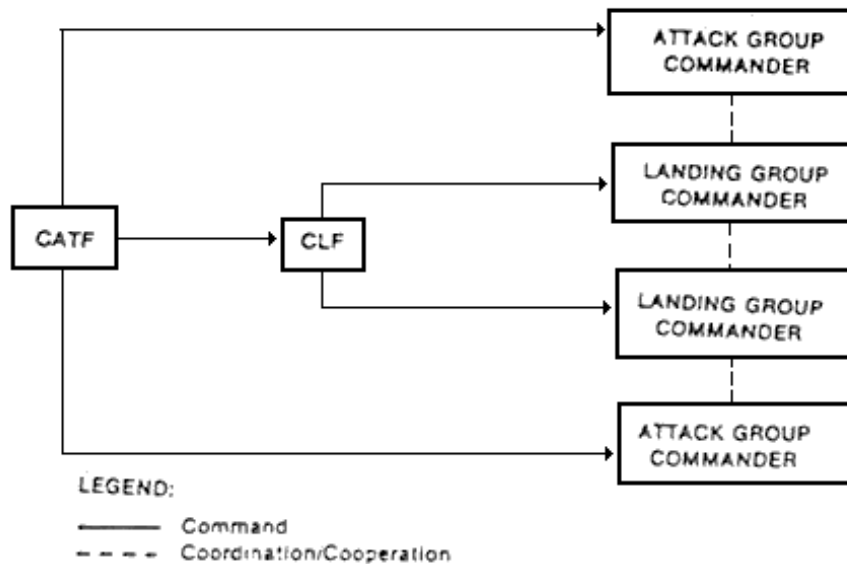


Figure II-5. Command Relationships During Operations When Command Authority Has Not Been Delegated to Attack Group Commanders

Figure II-5. Command Relationships During Operations When Command Authority Has Not Been Delegated to Attack Group Commanders

e. Supporting Operations. Operations conducted in conjunction with the amphibious assault by forces other than those assigned to the ATF are classified as supporting operations. A directive for one force to support another does not effect a transfer of command or of operational control with respect to the forces concerned but does automatically require that:

(1) Supported Force. The commander of the supported force indicate in detail to the supporting commander the support missions he wishes to have fulfilled and provide the information necessary for complete coordination of the supporting action with the action of his own force.

(2) Supporting Force. The commander of the supporting force ascertain the requirements of the supported force and take such action to fulfill them as is within his capabilities, consistent with the priorities and requirements of other assigned tasks.

(3) Coordination. Both commanders plan their operations in closest coordination to take maximum advantage of their respective capabilities and contemplated actions.

10. The Initiating Directive

a. Directive. The initiating directive is an order directed to the CATF to conduct an amphibious operation. It is issued by the commander delegated overall responsibility for the operation. Copies are furnished to all major subordinate commanders.

b. Form of Initiating Directive. The initiating directive may take the form of a campaign plan, an operation plan, or an order to execute an already existing plan or order. The initiating directive:

(1) Provides for the establishment of an ATF, the assignment of a mission, and the necessary forces to accomplish the mission.

(2) Designates the CATF, the CLF, and other commanders as appropriate.

(3) Provides special instructions on command relationships, if required.

(4) Positively defines the amphibious objective area within which is located the area or areas to be secured by the ATF. The amphibious objective area is delineated by the initiating directive in terms of sea, land, and air space. The size of the amphibious objective area, dictated by the requirements of a specific operation, must be sufficient to ensure accomplishment of the ATF mission, and provide sufficient area for the conduct of necessary air, land, and sea operations.

(5) Provides a code name and sets target dates for execution of the operation.

(6) Contains special instructions as required, pertaining to the employment, allocation, and control of nuclear and chemical weapons, and planning therefore.

(7) Includes:

(a) Positive instructions governing the termination of the amphibious operation and, if feasible, command arrangements and disposition of forces to be effective at that time.

(b) Information regarding operations to be conducted after termination of the amphibious operation.

(8) Provides information or assigns responsibility, as appropriate, for the conduct of combat, logistics, intelligence, or special operations related to or in support of the amphibious operation, and coordinating instructions pertaining thereto.

(9) Provides appropriate instruction in operational security and signal security with respect to release of classified information via non secure means. In this regard, such instruction will be provided before commencement of the initial planning phase.

11. The Amphibious Objective Area

a. Amphibious Objective Area (AOA). A geographical area, delineated in the initiating directive for purposes of command and control, within which is located the objective(s) to be secured by the amphibious task force. This area must be of sufficient size to ensure accomplishment of the amphibious task force's mission and must provide sufficient area for conducting necessary sea, air and land operations (JCS Pub 1-02).

b. Air Operations in AOA. The size and shape of the AOA is of prime importance to the aviation elements of the amphibious task force. Principal tasks of air operations will be to gain and maintain air superiority in the objective area and provide support to the ground forces. The CATF must be able to employ his air resources without the requirement to obtain permission from adjacent commands. He must also have the authority to coordinate the flights of other aircraft operating in or through the AOA.

c. Factors in Determining AOA. Factors that influence the size and shape of the AOA include:

- (1) Mission assigned the ATF.
- (2) Enemy threat from land, sea, and air.
- (3) Location of units constituting the enemy's reinforcing capability.
- (4) Proximity of friendly forces and intensity of military activity within the area.
- (5) Availability of assistance from other forces.
- (6) Capability to maintain surveillance and control.
- (7) Air support requirements and capabilities.
- (8) Antiair warfare space requirements and capabilities.
- (9) Location of convenient coordination boundaries.
- (10) Political boundaries.
- (11) Sea space for the dispersion and maneuver of amphibious task force shipping.

d. Additional Information. See STANAG 1231, "Guidance for Establishment of an Amphibious Objective Area (AOA)" (NATO Restricted) for additional information.

e. Changes to AOA. The size and shape of the AOA should be reviewed as changes to these influencing factors occur. Adjustments or modifications are requested through the CATF to the authority that issued the initiating directive.

12. Airspace Control. Airspace control, as set forth in this publication, consists of the coordination, integration, and regulation of the use of an airspace of defined proportions that will include the AOA. 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. Airspace control, therefore, denotes a service provided in order to permit flexibility of actions and does not include measures to approve, disapprove, deny, or delay air operations.

a. Assignment of Airspace. For the amphibious operation, the joint force commander who orders the operation will assign to the CATF an airspace control subarea of defined proportions that will coincide with the AOA.

b. Control of Air Operations in AOA. All air operations in the AOA will be under the control of the CATF until the amphibious operation is terminated. (See paragraph II-14 below.)

c. Coordination of Air Operations With Commanders External to AOA. To ensure unity of effort in overall air operations, the CATF will coordinate air operations within the defined airspace as necessary with the commander responsible for airspace control in the surrounding area. At the termination of the amphibious operation, the ATF will be dissolved, the assigned airspace will be disestablished, and the airspace control will normally be exercised in accordance with doctrine for control of airspace over the combat zone by the airspace control authority designated for that area.

13. Airspace Control Systems. When the preponderance of tactical aviation is provided by the Air Force for the amphibious operation, an Air Force officer will be designated by the Air Force commander of the participating Air Force forces to direct the total air effort in the AOA. He will exercise such direction under the joint ATF commander or, when control of air operations is passed ashore, under the CLF or an appropriate commander ashore who has the capability to control such operations. When the preponderance of tactical aviation comes from the Navy or Marine Corps, the overall air effort in the objective area will be directed by a naval aviator under the CATF until control is passed ashore. In either case, the officer so designated will use the control system, or combination of Air Force, Navy, or Marine Corps tactical air control system elements, best suited for the amphibious operation.

14. Transfer of Control of Functions. As conditions warrant and as coordination agencies are established ashore, the CATF passes control of supporting arms and air defense missile support to the CLF. At the discretion of the CATF, control of

air operations in the amphibious objective area is passed to the CLF or to an appropriate commander ashore who has the capability to control such operations. For additional information, see Chapter VIII, paragraph 15 of this manual and paragraphs 737 and 1651, JCS Pub 3-02 (formerly LFM 01), "Joint Doctrine for Amphibious Operations."

15. Joint Force Air Component Commander. For operations conducted outside the AOA and or subsequent to the disestablishment of the AOA, the joint force commander will normally designate a joint force air component commander (JFACC). The JFACC derives authority from the joint force commander who has the authority to exercise operational control, assign missions, direct coordination among his subordinate commanders, redirect and organize his forces to ensure unity of effort in the accomplishment of his overall mission. The joint force air component commander's responsibilities will be assigned by the joint force commander (normally these would include, but not be limited to, planning, coordination, allocation and tasking based on the joint force commander's apportionment decision). Using the joint force commander's guidance and authority, and in coordination with other service component commanders and other assigned or supporting commanders, the joint force air component commander will recommend to the joint force commander apportionment of air sorties to various missions or geographic areas. Based on the joint force commander's guidance, the JFACC will be assigned the responsibility to plan and conduct overall air operations. Further discussion of the JFACC is in JCS Pub 3-01.2, "Joint Doctrine for Theater Counterair Operations."

a. US Marine Corps forces participating in joint combat operations will provide forces and conduct joint operations, including supporting operations, as directed by the joint force commander.

b. The Marine Air-Ground Task Force (MAGTF) commander will retain operational control of his organic air assets (1986 Omnibus agreement). The primary mission of the MAGTF air combat element is the support of the MAGTF ground element. During joint operations, MAGTF air assets will normally be in support of the MAGTF mission. The MAGTF commander will make sorties available to the joint force commander, for tasking through his air component commander, for air defense, long-range interdiction, and long-range reconnaissance. Sorties in excess of MAGTF direct support requirements will be provided to the joint force commander for tasking through the air component commander for the

support of other components of the joint task force, or of the joint task force as a whole. Nothing herein will infringe on the authority of the theater or joint force commander, in the exercise of operational control, to assign missions, redirect efforts (e.g., the reapportionment and/or reallocation of any MAGTF TACAIR sorties when it has been determined by the joint force commander that they are required for higher priority missions), and direct coordination among his subordinate commanders to ensure unity of effort in accomplishment of his overall mission, or to maintain integrity of the force, as prescribed in JCS Pub 0-2, "Unified Action Armed Forces (UNAAF)."

CHAPTER III

THE APPROACH TO PLANNING

1. Introduction. The nature of amphibious warfare gives rise to planning procedures that are both intricate and unique. Planning intricacy stems from the complex detail needed to fully coordinate the assault landing of troops, equipment, and supplies with all available supporting arms, while ensuring that the plan remains flexible to respond to changing circumstances. The uniqueness of amphibious planning stems from the interrelationships of ground, sea, and air forces that support and sustain the assault. Concurrent, parallel, and detailed are not mere catchwords to describe amphibious planning--they are doctrinal principles that embody the entire process.

2. Purpose and Scope. This chapter provides information of a general nature designed to inform senior officers of the landing force about the nature of amphibious planning, with emphasis on the commencement of the planning process. This chapter complements information in Chapter 3, JCS Pub 3-02, "Joint Doctrine for Amphibious Operations." The emphasis of the discussion that follows is on the early stages of planning; however, information applicable to the entire process is included. The chapter discusses planning considerations of special interest to the commander, landing force (CLF) and describes concurrent, parallel, and detailed planning. The initial planning conference and the use of various planning aids are described.

a. Basic Decisions. The basic decisions of amphibious planning are discussed in Chapter IV.

b. Detailed Planning Requirements. Subsequent chapters cover detailed planning requirements for the major functional areas.

3. General

a. Amphibious Planning Characteristics. Amphibious planning is a continuous process, proceeding from receipt of the initiating directive to termination of the amphibious operation. Amphibious planning procedures are characterized by:

(1) The necessity for concurrent, parallel, and detailed planning by all participating forces. These terms are discussed in paragraphs 9, 10, and 11 below.

(2) The degree of flexibility that must be incorporated into plans to meet the exigencies of combat while ensuring the most effective and economical employment of forces. The fact that opposing forces are not initially in contact increases the possibility of unforeseen contingencies. No preconceived plan, however carefully prepared, can provide for every eventuality.

b. Internal Planning Procedures. Joint Doctrine for Amphibious Operations (JCS Pub 3-02) discusses the planning process, including the basic decisions and functional considerations for the amphibious task force (ATF) as a whole. Planning by the landing force is interwoven in the plans of all components of the ATF and other forces that provide support. The internal landing force planning process, however, will depend on the composition of the force. The landing force may be primarily uni-Service (Army or Marine), joint, or combined. Internal command and staff planning procedures, or steps in the planning process, are generally unique to each service. The CLF and his staff must therefore provide flexible procedures that consider the requirements of each major element of the landing force, while plans are developed within the overall framework prescribed by JCS Pub 3-02.

c. Landing Force Concept of Operations. The development of the CLF concept of operations ashore has singular importance in the planning process. The concept of operations must be such that it can be supported by surface, air, and combat service support elements, and is therefore examined by all commanders concerned for feasibility. The landing force concept of operations must be concurred in by the commander, amphibious task force (CATF) before the commencement of detailed planning. It is imperative, since other planning is based on it, that the landing force concept of operations ashore be formulated expeditiously. However, all commanders who provide support for the assault must be prepared to alter and accommodate their supporting plans to changing requirements of the landing force as induced by changes in the enemy situation and other potential factors, e.g., availability of ships and supporting forces.

4. Responsibilities

a. Commander, Amphibious Task Force, Coordinating Authority.

The CATF serves as the coordinating authority for the conduct of planning. During planning, matters on

which the CATF, CLF, and commanders of other forces assigned to the ATF are unable to agree are referred to their common superior for decision.

b. Specific Responsibilities. Specific planning responsibilities of the CATF and CLF are discussed in relation to functional areas in subsequent chapters.

(1) CATF is responsible for development of the overall ATF plan to achieve the mission set forth in the initiating directive. As the coordinating authority for planning, the CATF prescribes schedules and provides guidance as necessary to meet the deadlines of the operation.

(2) Because immediate responsibility for the conduct of operations ashore is vested in the CLF, he is responsible for development of the landing force plan.

5. Planning Considerations. Although every operation requires careful and detailed preparation, the amphibious operation is complicated by the need to coordinate in detail the actions of ground, air, and sea forces; the complexity of logistic support; the need for precise timing of supporting arms activities; and the nature of the command relationships that provide unity of command.

6. Special Considerations

a. Landing Force Concerns. Establishment of a lodgement by amphibious assault requires the projection of significant forces against a hostile or potentially hostile shore. Factors such as the need for a favorable ratio of combat power, gaining air superiority and naval supremacy, and attaining strategic or tactical surprise will be foremost concerns in developing the plan for tactical operations. Additionally, however, the CLF must also be concerned with the deployment of his entire force into the area of operations and its logistic support. The CLF, in addition to developing plans to employ forces tactically, has responsibility to consider such matters as the following:

(1) Availability of forces assigned: troop list, readiness conditions, equipment shortages, activation schedules of subordinate headquarters, and replacements.

(2) Plans for absorbing or being absorbed by other forces (compositing).

(3) Deployment: air, sealift, and other support required for movement of forces to and through ports of embarkation and debarkation; movement echelons required to phase forces into the AOA.

(4) Airfield support requirements external to the AOA: en route staging and support requirements for self-deploying aviation elements.

(5) Joint and combined operations: support requirements of other assigned or attached forces (logistics, intelligence, communications); command and control arrangements.

(6) Political considerations: host-nation support, rules of engagement, treaties, status of forces, operational restraints (overflight restrictions, etc.).

b. Other Planning Concerns. Subsequent chapters provide information on planning for major functional areas, focusing on the differences between amphibious operations and land combat. Other elements of planning that do not differ significantly from traditional land combat planning are not discussed in detail. However, the force multiplier effect, and the necessity to develop plans for all aspects of the operation, must not be neglected. These important areas, not discussed in detail, include:

(1) Psychological operations.

(2) Electronic warfare.

(3) Deception.

(4) Civil affairs.

(5) Operational security.

(6) Defensive operations, including rear area security, nuclear, chemical, and biological defense, and antimechanized and anti-air planning.

7. Basic Considerations

a. Complexity. Landing force planning is of a greater complexity than other operational planning where forces of comparable size are employed. Actions of each element of the landing force must be coordinated and actions of Navy

and other supporting forces must be fully integrated and coordinated to achieve the decisive result. Logistic support must initially sustain the operation from a seabase; facilities ashore may have to be developed or rehabilitated shortly after the initial assault. The ship-to-shore movement of troops, equipment, and supplies by helicopter, surface, and amphibious craft requires complex detail to ensure efficient use of assets, while rapidly developing combat power ashore. The coordinated employment of all available supporting arms must be carefully orchestrated to achieve maximum effect.

b. Relation to Other Operations. Planning for a specific operation is usually related to previous, current, and contemplated operations. For this reason, particular care must be taken to ensure that adequate instructions are issued to prevent mutual interference.

c. Continuous Nature. Planning does not end with the planning phase, but continues throughout the operation in response to changing conditions and circumstances.

d. Flexibility. The complexity and detail inherent to amphibious planning does not imply that the operation plan will be executed in an inflexible manner. Rather, the plan must be flexible, capable of being altered in response to the changing enemy situation or opportunities that arise in battle. The development of alternate plans, provisions to shift the weight of supporting fires, and ability to employ the reserve at the critical time and place promote flexibility.

e. Inverse Planning. Ideally, planning for the amphibious operation is "backwards" or "inverse" planning. That is, given the situation and mission, tactical operations ashore are planned first, then steps necessary to achieve the desired tactical posture are planned. For example, the task organization of forces for combat is developed to support the landing force commander's concept of operations ashore. Next, an organization for landing is developed that, employs the available assets (helicopters, amphibious vehicles, landing craft) to facilitate the formation of the desired organization for combat once ashore. Finally, the organization for embarkation is developed, which enhances dispersed security (spread loading) yet enables the formation of the organization for landing. Inverse planning results in the optimum force and economy of effort for a specific operation.

f. Forward-Deployed Forces. In some situations, a landing force is already afloat; i.e., forward deployed when the initiating directive is received. For example, relatively small-size landing forces are continuously forward-deployed. Larger size landing forces may be forward deployed during exercises or in times of crisis. In such cases, planners must consider and resolve any constraints that may be imposed by the afloat deployed posture. Examples include the need for additional assets not organic to the force, or the need to shift forces, equipment, or supplies within the assigned shipping.

(1) Small-size landing forces that are continuously deployed afloat are configured for a variety of operations within their capabilities. The embarked configuration of such forces will generally not be a limiting factor for small scale-operations.

(2) Small-size landing forces generally do not have the requisite combat power to execute an amphibious assault or, in the event of commitment, the ability to sustain combat operations ashore. These forces may have to merge with other forces before an assault landing, or absorb or be absorbed by other forces shortly after the initial assault. A compositing of forces before the assault may require transfer between ships of troops and equipment (cross-decking), or rearrangement of the embarked configuration in a friendly port.

(3) The embarked configuration of larger size forces, deployed for exercises or in times of crisis, may require adjustment or augmentation before an assault.

g. Time Factor. The time necessary for planning an amphibious operation depends on many variable factors, including the number, diversity, and physical separation of units involved, the magnitude and complexity of the operation, and the experience of the forces involved. The time required for amphibious planning can therefore in itself be regarded as a planning factor. The time lapse between initiation of amphibious planning and execution may preclude accurate assessment of logistic, operational, and intelligence situations on the day of assault. This problem, inherent in amphibious operations, can be minimized by the creation of standing operating procedures covering those aspects of the assault that can be standardized. Problems can be further diminished by continuous planning and by flexibility of the plans.

h. Security. Operational security (OPSEC) is the responsibility of all echelons of command. The assembly of staffs, embarkation, and rehearsals all tend to disclose the nature of projected operations. Commencing with initial planning, a vigorous OPSEC program must be initiated.

i. Estimating Requirements. Estimation of overall requirements is a process that begins during preliminary planning and is continually refined throughout the period of the operation. Estimates of requirements influence the basic decisions, the estimates of supportability of courses of action, and the concept of operations. Additionally, they provide focus and a basis for detailed planning. Estimates are prepared by the staff in such areas as:

(1) Amphibious lift capacity and landing force lift requirements. (See subparagraph 12c below.)

(2) Allocation of landing force elements to the assault echelon and assault follow-on echelon. (See Chapter V, subparagraph 7c, and Chapter XI, subparagraph 3b.)

(3) Naval gunfire and artillery support requirements.

(4) Aviation support requirements.

(5) Combat service support requirements.

j. Allocation of Resources. In the development of plans for an amphibious operation, the means initially available will seldom satisfy stated requirements. For this reason, the reconciliation of these real and potential shortfalls continues throughout the planning cycle. This reconciliation normally takes the form of procuring additional means or reducing requirements in excess of the means available, with consequent modification of the other decisions as necessary.

8. Planning Procedures. Amphibious planning procedures are distinguished by the necessity for concurrent, parallel, and detailed planning by all participating forces.

a. Concurrent Planning

(1) Concurrent Planning. Concurrent planning is that planning conducted simultaneously by two or more echelons of the same command, or by corresponding echelons of different commands. For example,

concurrent planning is that conducted simultaneously by a regiment and its battalions; and by the ground component and a supporting air and/or combat service support component. Concurrent planning is necessary to:

(a) Reduce the overall time required to prepare plans by all forces and echelons involved.

(b) Ensure coordination of plan development at all levels. Interdependent problems must be resolved in order for planning to proceed smoothly. For example, allocation of available amphibious shipping, landing means, fire support ships, and aircraft cannot be finally determined until the plans of subordinate elements of the landing force are sufficiently advanced to provide a basis for evaluating total requirements. Further, decisions reached by the CLF are often influenced by recommendations submitted by subordinate commanders throughout the planning phase.

(2) Commencement of Planning. Initially, planning may be originated by subordinate commanders on the basis of preliminary information announced at planning conferences and briefings before the issuance of written planning documents. Planning memorandums, warning orders, guidance, and outline plans provide additional means for disseminating fragmentary planning information and are encouraged. (See paragraphs 13-16 below.)

b. Parallel Planning

(1) Parallel Planning. Planning by parallel chains of command refers to the close and continuous coordination between corresponding Navy and landing force echelons. This coordination is essential because of the interrelationships of tasks assigned to the forces and the complexity of support requirements. Basic decisions are reached on the basis of a common understanding of objectives and procedures and are based on a free exchange of information. This close coordination in planning is essential at all command levels. Examples of parallel planning are the corresponding staffs in the Navy and landing force chains that must work in close harmony throughout the operation. At lower levels, parallel planning occurs between ships' officers and officers of the landing force responsible to embark a team or element aboard the ship.

(a) Parallel planning at higher command levels begins when the CLF reports for planning to the CATF at the inception of the planning phase.

(b) At subordinate levels, planning usually cannot begin until certain basic decisions have been announced by the CATF and CLF.

(2) Exchange of Information and Liaison Officers. Parallel and concurrent planning favors the assembly of commanders and staffs of corresponding echelons in the same locality. If such an arrangement is not practicable, the exchange of liaison officers qualified to perform essential planning is necessary.

c. Detailed Planning

(1) Detailed Planning. The term "detailed planning" relates to a phase of planning as well as to the complexity of the operation order. In developing the plan for an amphibious assault, detailed planning formally commences with the approval of the landing force commander's concept of operations; thus detailed planning is definitive in nature as opposed to conceptual planning.

(a) The complexity of the operation order is situation dependent. What is adequately detailed for one operation may not suffice in another.

(b) Care must be taken in the development of plans not to overly constrain or restrict the flexibility of subordinate commanders. The requirements of ship-to-shore movement planning to support the CLF concept of operations ashore will, however, constrain the latitude of subordinate commanders during the initial assault.

(2) Flexibility. Detailed planning should promote, rather than inhibit, flexibility. Planners should foresee the likely possibilities and develop plans that are responsive to changing conditions. Detailed planning should enable commanders at all levels to adjust rapidly to the situation and take advantage of opportunities on the battlefield. Detailed planning should enable planned fires to be shifted, forces en route to be landed on alternate beaches or landing zones, and on-call waves to be landed when and where needed.

(3) Worst-Case Planning. Amphibious planners cannot take the risk that a landing will be administrative, conducted in a permissive environment, or against lightly armed forces. The availability of sophisticated, lethal weaponry, and the ability of modern enemy forces to reinforce threatened areas with mechanized, airborne, amphibious forces, or airpower, can rapidly change the ratio of combat power. Thus, planners must consider and provide for these worst-case situations.

9. The Planning Process. This section provides information on the initial phases of the planning process and describes basic documents employed in amphibious planning.

a. Exchange of Information. In amphibious planning, decisions by a commander at one level may affect the plans of other commanders on the same or other levels. In order to keep all commanders and staffs fully 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. The early exchange of liaison officers is desirable.

b. Initial Studies and Estimates

(1) Commanders who will provide forces for the amphibious task force are often alerted to the impending operation before the issuance of the initiating directive. Valuable preliminary planning is accomplished at this time by an analysis of the area of operations and the possible effects of terrain, hydrography, weather, and cultural features on the proposed operation. The most favorable areas for executing the landing are tentatively determined and additional intelligence requirements identified. Studies of beaches, ports, communication networks, existing air facilities, and terrain provide an initial basis for determining the number and types of landing force elements that can be accommodated and supported within possible landing areas. On the basis of these same studies, engineer and service support requirements are estimated. The intelligence necessary to support preliminary planning is contained in intelligence publications and studies furnished by higher headquarters.

(2) The initial estimates prepared by the landing force staff or the major components of the landing force should consider the following:

(a) Broad enemy situation and enemy capabilities.

(b) General topographical, hydrographic, or climatic considerations.

(c) Location of key facilities in the objective area.

(d) Location of advanced air bases within range of the objective area.

(e) Significant capabilities and limitations of the landing forces, shipping, and relative combat power.

c. Format. The operation plan or operation order for an amphibious operation is prepared in the Joint Operation Planning System (JOPS) format. Specific instructions and a sample plan are in Naval Warfare Publication (NWP) 22-1/FMFM 1-14, The Amphibious Task Force Plan. Elements of the plan are customarily referred to by functional title; e.g., landing plan, embarkation plan, air plan. These elements are annexes and appendixes within the overall landing force or amphibious task force plan or operation order.

(1) To the extent possible, annexes and appendixes prepared by one component are incorporated without modification by other components of the landing force, and in the overall ATF and landing force plans as well. Incorporating these annexes and appendixes ensures commonality, saves time, and eases the administrative effort necessary to assemble the operation order.

(2) Initially, the plans and orders of subordinate elements of the landing force will be less complete than those prepared at the landing force level.

(3) The landing plan is normally contained in Annex R.

10. The Initiating Directive. As described in Chapter II, the initiating directive commences the planning process. The directive may take many forms, from a letter of instruction, to an order to execute an existing plan, to an operation plan or campaign plan.

11. Early Designation of Commanders and Assembly of Staffs. To expedite the preparation of plans within the amphibious task force, all major commanders, particularly the CATF, the CLF, and, when appropriate, the Air Force commander, should be designated as soon as the decision has been reached to conduct an amphibious operation. Commanders at the next echelon below the ATF or landing force level of command must receive at least fragmentary planning instructions as early as practicable. Planning can be facilitated by the assembly of these next lower echelon commanders, with their staffs, in the same locality for coordinated planning.

12. Initial Planning Conference. Whenever practicable, the CATF will convene an initial planning conference shortly after receipt of the initiating directive. The CLF reports for planning to the CATF (the coordinating authority) at this time. The conference provides the opportunity for key officers to establish liaison, discuss preliminary issues, and ensure common understanding of the situation and amphibious task force mission. Decisions made at the initial planning conference establish the basis for concurrent and parallel planning. The initial planning conference may consider the following agenda items:

a. Analysis of the Initiating Directive. The initiating directive is reviewed in such areas as the specified and implied tasks contained in the mission, the forces assigned, the size and shape of the AOA, target dates, etc.

b. Basic Decisions. The process of making basic decisions is discussed in detail in Chapter IV. The initial planning conference may consider each of the decisions. It may be possible to reach agreement on certain decisions at the initial planning conference, including:

(1) General course of action.

(2) ATF objectives.

(3) Landing force mission.

(4) Landing sites.

c. Amphibious Lift Capacity and Landing Force Lift Requirements

(1) Lift Requirements. The total lift capacity of assigned amphibious shipping must be compared at the outset of planning with the total lift requirements of

the landing force. If the capacity is inadequate, additional shipping may be requested. However, the availability of shipping is likely to be a major constraint in any amphibious operation. The CATF provides information on lift capacity to the CLF. This enables the CLF to develop a general structure for the assault echelon, identify probable shortfalls, and consider allocation of forces and materiel for transportation by the assault follow-on echelon or by strategic airlift. Computer-assisted models may be useful in making these comparisons.

(2) Structure of the Landing Force. The general structure of the landing force must be determined early in the planning process so that the CLF will know the broad composition of the combat power available for the assault. This early determination does not imply that the composition of the force will not change--its structure is dynamic and continually refined during planning. As planning proceeds, answers to more specific questions will be necessary in order for the CLF to develop courses of action and develop the concept of operations for the landing force. For example:

(a) Comparison of available helicopter deck spaces with helicopters in landing force aviation.

(b) Single lift capability of helicopters in the assault echelon.

(c) Single lift capability of amphibious assault vehicles.

(d) Capability to preboat tanks, artillery, and other critical combat equipment.

(e) Landing craft availability by type and number.

d. Supporting Operations. The initial planning conference may also involve a preliminary consideration of preassault operations, subsidiary landings, deception, and supporting operations. It is not possible to make firm decisions at this time but it is not too early to open discussions. The use of the sea echelon concept (see Appendix) for organizing the sea area and the extent of any rehearsals are also areas of mutual concern. However, these decisions may have to be deferred until later in the planning sequence.

e. Information Requirements. Solutions to problems encountered during the planning process will require answers to questions posed by planning staffs at all echelons. Many of these questions will be intelligence related, dependent on current information, and often expressed as essential elements of information or other intelligence requirements. The overall commander or the CATF will issue guidance that generally is concerned with intelligence in the objective area or the conduct of other current military operations. Upon receipt of planning guidance or on his own initiative, the CLF, through the CATF, informs higher headquarters and supporting intelligence agencies of the specific intelligence requirements that cannot be met by his organic intelligence means. As these requirements are fulfilled, the agency developing the intelligence passes it on to the commanders concerned. Development of new intelligence requirements and dissemination of new and supplementary intelligence in the objective area are continuous throughout the planning process.

f. Liaison Officers. The initial planning conference provides the opportunity for key officers to establish liaison. In addition, the exchange of liaison officers between and among the major components of the ATF is encouraged to facilitate mutual understanding and aid coordination efforts.

13. Planning Aids. Planning directives, schedules, and memorandums are prepared to focus planning, ensure common understanding, and meet time constraints.

a. Planning Directive. A planning directive is issued by the CATF to ensure that interdependent plans are coordinated and completed in the time allowed and that important aspects are not overlooked. The planning directive specifies the principal plans to be prepared and sets a deadline for the completion of each major step in the planning process. The planning directive is prepared by the staff of the CATF in coordination with the staff of the CLF and other force commanders, as appropriate, in order to realistically reflect the capabilities of all commanders to complete their planning tasks.

b. Planning Program. Using the ATF planning directive as a guide, the CLF prepares his planning program, which contains the schedule of planning events for his force. Similarly, major elements of the landing force may issue

their own planning programs, if warranted. The planning program may also be used to provide planning guidance for subordinate commanders.

c. Planning Schedule. A planning schedule may be included in the planning directive or issued alone to indicate the planning program. It graphically shows the specific period of time allowed for the completion of each planning task. Each section of the staff can, in turn, prepare its own planning schedule based on the deadlines prescribed. The time period set in planning schedules should be sufficient to permit timely completion of assigned tasks as well as coordination with other interested staff sections and headquarters.

d. Planning Memorandums. When information becomes available and as additional guidance and instructions are received, commanders issue planning memorandums in advance of the preparation of formal plans. These memorandums are designed to ensure that subordinate commanders possess all details that affect their own planning.

e. 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, in order to keep them abreast of current planning for the operation.

14. Planning Guidance

a. Commander, Landing Force, Initial Guidance. The CLF landing force will provide initial guidance to his staff as soon as possible, before or after receipt of the initiating directive, and preferably before the initial planning conference conducted by the CATF. This guidance will be incomplete, but is developed and expanded as more information is obtained. Initial guidance should precede the preparation of staff estimates and should be designed to minimize unnecessary staff effort, while emphasizing areas of concern.

b. Sources of Planning Guidance. Planning guidance is derived from a consideration of the information contained in the initiating directive and/or instructions that may have been received. This guidance is the commander's assistance to his staff in preparing or revising their estimates. In addition, concurrent planning at subordinate levels of command, and by corresponding echelons of

different commands, is based on this preliminary information. The CLF planning guidance for the amphibious operation may take a wide variety of forms, but should consider all aspects of the operation. Guidance may include:

- (1) Restatement of the ATF-LF mission, including the specified and implied tasks.
- (2) Assumptions.
- (3) Previous decisions and policies or restrictions.
- (4) Analysis of relative combat power (air and ground) with any identified enemy strengths and weaknesses.
- (5) Requirement to divide the operation into phases.
- (6) Nuclear and chemical fire support guidance.
- (7) Mine warfare guidance and policy.
- (8) Ground maneuver guidance.
 - (a) Broad courses of action that the commander desires to be considered.
 - (b) Key terrain.
 - (c) Tactical determinations (night landing, etc.).
- (9) Aviation guidance
 - (a) Use of advance bases.
 - (b) Participation of landing force aviation in pre-D-day operations.
 - (c) Deployment of aviation into the landing area.
 - (d) Air defense.
- (10) Combat service support guidance.
 - (a) Requirements, priorities, and allocation of resources.

(b) Facility construction or rehabilitation requirements.

(c) Levels of supplies ashore.

(11) Security considerations.

(a) Deception.

(b) Electronic warfare.

(c) Communications security (COMSEC).

(d) OPSEC.

(12) Essential elements of information.

15. Outline Plan. Following preparation of detailed staff estimates based on courses of action proposed, the CLF makes his estimate of the situation and decision. That decision provides the basis for development of the concept of operations and the operation plan or order. Once the landing force concept of operations ashore has been approved, detailed planning commences. An outline plan may be issued to provide additional planning factors needed by planners at all echelons, as well as to issue the concept of operations and provide any necessary amplification.

a. Contents. The outline plan should include the mission, concept of operations, phasing, general task organization, zones of action, fire support, basic undertakings, and scope of initial and subsequent operations.

b. Relation to Basic Decisions. The outline plan should also provide information to assist in the resolution of any basic decisions that have not been made; e.g., landing beaches, landing zones, drop zones, date, and hour of landing.

16. Alternate Plans

a. Plans. An operation plan is developed from a single course of action that is selected by the CLF in the estimate process. Should subsequent events invalidate an assumption on which a plan is based, the decision to execute the plan and, consequently, the plan itself must be modified. Alternate plans provide for this modification and give the commander the flexibility to shift rapidly and efficiently from one course of action to another. The two types of alternate plans are:

(1) Alternate Course of Action. An alternate plan may be developed based on a course of action considered but not selected in the commander's decision process. In other words, it will provide a different plan to conduct the assault in the same general area as the primary plan. However, the scheme, timing, etc., may vary from the primary plan.

(2) Alternate Area. An alternate plan may also be developed to accomplish the same ATF mission in an area other than that described in the primary operation plan. For example, it could be developed around the second choice of those options considered at the initial planning conference when developing the general course of action.

b. Contents of Alternate Plans. Alternate plans develop only those aspects of the primary plan that require change. If the changes are not extensive, alternate plans may be published as annexes to the primary plan.

c. Task Organization for Alternate Plans. To the extent possible, alternate plans should reflect the same general task organization for the landing force that was provided in the primary operation plan. This consideration facilitates simplicity and flexible response.

(1) The embarked configuration of the landing force is designed to support the organization for landing and in turn the organization for combat. Major changes to the organization for landing could, therefore, require extensive cross-decking of units before the assault. Unless absolutely necessary, this undesirable situation should be avoided.

(2) Documents that support the landing plan are interrelated and prepared in complex detail to optimize the use of surface and helicopter assets. Such plans can be adjusted for time sequence and location of landing, but generally cannot be adjusted rapidly to accommodate major changes in sequence of landing or organization. The movement ashore of a unit by helicopter rather than surface means, or the late addition of an artillery battery to a helicopterborne force, for example, may require time-consuming changes to the landing plan or delay the buildup of combat power ashore.

(3) Adjustment of the primary landing plan may also require adjusting the disposition and sequence of movement of amphibious shipping along approach and retirement lanes. These adjustments may cause critical time delays in the discharge and subsequent landing of troops and materiel ashore.

CHAPTER IV

BASIC DECISIONS

1. Introduction

a. Basic Decisions. As described in JCS Pub 3-02, basic decisions are those decisions that must be made at the highest level within the amphibious task force (ATF) before detailed planning for an amphibious operation can proceed.

b. Separate Basic Decisions. Joint Doctrine for Amphibious Operations groups several related decisions under headings such as "Determination of Objectives." From the perspective of the landing force (LF), however, it is useful to separate specific decisions in order to amplify discussion of the factors involved in the decision process.

c. Commander, Landing Force, Role in Basic Decisions. An understanding and appreciation of the CLF participation in the determination of basic decisions and of the interrelationship among the decisions is fundamental to an overall comprehension of LF planning.

2. Purpose and Scope. The purpose of this chapter is to provide an understanding of the considerations that influence the CLF in the basic decision process, and to illustrate the interrelationships of the basic decisions. This chapter complements Chapter 4 of JCS Pub 3-02, emphasizing the CLF's role in the decision process. Chapter III of this document provides a discussion of how the basic decisions relate to other steps in the planning sequence.

a. Preliminary Planning. Upon completion of the analysis of the initiating directive, the CATF and commanders of components of the ATF initiate preliminary planning to arrive at certain basic, interrelated decisions. Preliminary planning is characterized by the preparation of studies and estimates required for the preparation of detailed plans. At the LF level, preliminary planning is exemplified by concurrent and coordinated planning incident to reaching decisions, preparing and issuing outline plans, and providing subordinate commanders with planning guidance.

b. Areas of Principal Interest to One Service or Element. Certain factors of the amphibious operation have principle interest to one Service component or element of the ATF. These factors must be determined early in the planning process as they may affect other components or elements of the ATF. The part played by the CLF in the determination of each decision and the influence of these decisions on LF planning are emphasized herein.

c. Interrelated Decisions. Because the factors upon which these decisions must be based are interrelated, and because the decisions based thereon will have some effect on every element of the ATF, each factor must be considered from the viewpoint of all participants. This chapter deals with these basic decisions, delineates the participation of the CLF in the making of these decisions, and discusses considerations affecting them.

3. General

a. The basic decisions are:

- (1) Selection of ATF general course of action.
- (2) Selection of ATF objectives.
- (3) Determination of LF mission.
- (4) Designation of landing sites.
- (5) Determination of LF objectives.
- (6) Selection of beachheads.
- (7) Selection of landing areas.
- (8) Formulation of LF concept of operations ashore.
- (9) Selection of landing beaches.
- (10) Selection of helicopter landing zones.
- (11) Selection of fixed-wing aircraft landing zones and drop zones.
- (12) Selection of tentative D-day and H-hour.

b. Sequence of Basic Decisions. The basic decisions are not made necessarily in the sequence shown. While the following discussion implies a sequential relationship, certain decisions may be made concurrently or held in abeyance pending further information. Also, the initiating directive may preempt the CATF and CLF in some of the basic decisions; e.g., ATF objectives.

c. Commander, Amphibious Task Force, Review. Figure IV-1 lists the basic decisions and indicates who has primary responsibility for each decision. Since the decisions must be supportable by all forces involved, the CATF reviews decisions or selections made by each component commander.

Basic Decision	May be Contained In Initiating Directive	CATF	CLF*	JOINT
1. Select Amphibious Task Force General Course of Action	X			X
2. Select Amphibious Task Force Objectives	X			X
3. Determine Landing Force Mission				X
4. Designate Landing Sites		X		
5. Determine Landing Force Objectives			X	
6. Determine Beachheads			X	
7. Select Landing Areas				X
8. Formulate Landing Force Concept of Operations			X	
9. Select Landing Beaches			X	
10. Select Helicopter Landing Zones			X	
11. Select Fixed Wing Aircraft Landing Zones and Drop Zones			X	
12. Select D-day and H-hour		X		
*All Basic Decisions made by CLF are subject to review/concurrence by CATF from a supportability perspective.				

Figure IV-1. Basic Decision Responsibilities

4. Responsibilities. In the planning phase, the various commanders (CATF, CLF, etc.) are on equal levels of command. All basic decisions must be reached on a basis of common understanding of objectives and procedures and on a free exchange of information. Any differences the commanders are unable to resolve will be referred to their common superior.

5. Planning Considerations. As discussed in Chapter III, the initiating directive formally commences the planning process for an amphibious operation. The CLF and other commanders, however, may initiate preliminary studies and estimates whenever it is known that an operation is under consideration.

6. Special Considerations. The formulation of the LF concept of operations ashore has singular importance in the basic decision process. Since subsequent detailed planning is based on the CLF concept, it must be determined expeditiously. The concept must be supportable by all elements of the ATF.

7. Basic Considerations. At the inception of the planning process, there are likely to be many unknowns. Two principles, discussed in Chapter III, are reemphasized here. The first is the role of commander's guidance in focusing the efforts of his staff. The second is the importance of establishing a viable program for operational security throughout the command.

8. Selection of Amphibious Task Force General Course of Action

a. Commander, Amphibious Task Force, and Commander, Landing Force, Jointly Select. The CATF the CLF jointly select a general course of action for the force as a whole designed to accomplish the ATF mission.

b. Latitude in Selection. Some initiating directives will provide an option in areas to be seized--"Establish a lodgement on the coast...." In such cases, the CATF and CLF must first agree on the general area for the landing; i.e., a general course of action that will accomplish the amphibious task force mission. If the initiating directive is specific --"seize the port..."--the CATF and CLF may not have a choice in selecting the general area to be assaulted or the primary objectives.

c. Purpose. In some cases, it may be necessary to evaluate potential landing areas within an assigned AOA before a decision can be reached on the general course of action. A general course of action does not include a concept of operations, nor is it related to specific landing sites. Analysis of alternative general courses of

action is a comparison of the advantages and disadvantages of landing at various widely separated locations.

9. Selection of Amphibious Task Force Objectives. Once the general course of action for the force has been determined, the CATF and CLF together select those ATF objectives essential for the accomplishment of the mission. These objectives will often be key facilities that are directly related to the purpose of the operation; e.g., a port, airfield, or communications center. Only the minimum number of essential objectives are selected, to avoid constraining later planning.

10. Determination of Landing Force Mission. The LF mission is not stated in the initiating directive. The CLF proposes a mission statement for the LF and requests CATF's concurrence at the initial conference. The LF mission is derived from:

- a. The ATF mission.
- b. General course of action.
- c. ATF objectives.
- d. Specified and implied tasks, and priority of tasks as discerned from mission analysis.

11. Designation of Landing Sites

a. Relationship of Landing Beaches, Sites, and Areas. In order to fully understand the sequence in the selection of landing beaches, sites, and areas, the definition and interrelationship must be clear.

(1) Landing Site. A landing site can vary in width from that of a single landing beach to the entire length of usable coastline within the objective area. (See Figure IV-2.). Although the amphibious operating area is prescribed in the initiating directive, the landing sites are key to the accomplishment of the landing force mission. Landing sites may contain any number of beaches.

(2) Landing Area. The landing area comprises the sea, air, and land areas required for executing and supporting the landing and establishing the beachhead (paragraph IV-13) selected by the CLF. It includes the beach, the approaches to the beach, the transport areas, the fire support areas, and a land area including the beachhead as a minimum. In most cases,

it will be larger than the beachhead to provide necessary airspace for close air support aircraft. Indication of the landing area, like the force beachhead, serves as a planning aid and graphic representation. It is not intended as a control or coordination feature. A landing area may contain any number of landing sites or groups of landing sites.

(3) Landing Beach. Landing beaches are often referred to as colored or numbered beaches. The term "colored beach" (Beach Green, Beach Red, etc.) is used when one battalion landing team (BLT) or similar unit is used in the assault wave over a single beach. The term "numbered beach" (Red One, Red Two, etc.) is used when the two BLTs assault abreast into one landing site. The beach selected within the landing site is the one that will best support the landing force concept of operations ashore, both tactically and logistically. (See Figure IV-2.)

(4) Interrelationships. The normal planning and decision-making process, movement from largest to smallest, or vice versa, does not apply in the selection of sites, areas, and beaches as one would expect. The determination of where, within the AOA assigned, can the LF land determines the landing site(s) available for consideration. Next, after the LF objectives have been selected, the landing area is proposed. Only one landing area will exist in an amphibious operation. Finally, after the LF concept of operations ashore is formulated, the best beaches within the available landing sites in the selected landing area are chosen for the operation.

b. Selection of Landing Sites. As evident by the definition, the selection of landing sites will be critical in the rapid projection of combat power inland and development of sustainability for the LF ashore. The proper selection of landing sites, based on the LF mission, will enable the earliest possible seizure of the LF objectives. The advent of helicopters and LCAC has expanded the capability to surmount previously unassailable coastlines; however, the sustainability essential for LF operations ashore and subsequent operations requires landing sites suitable for conventional, displacement landing craft and causeway ferries.

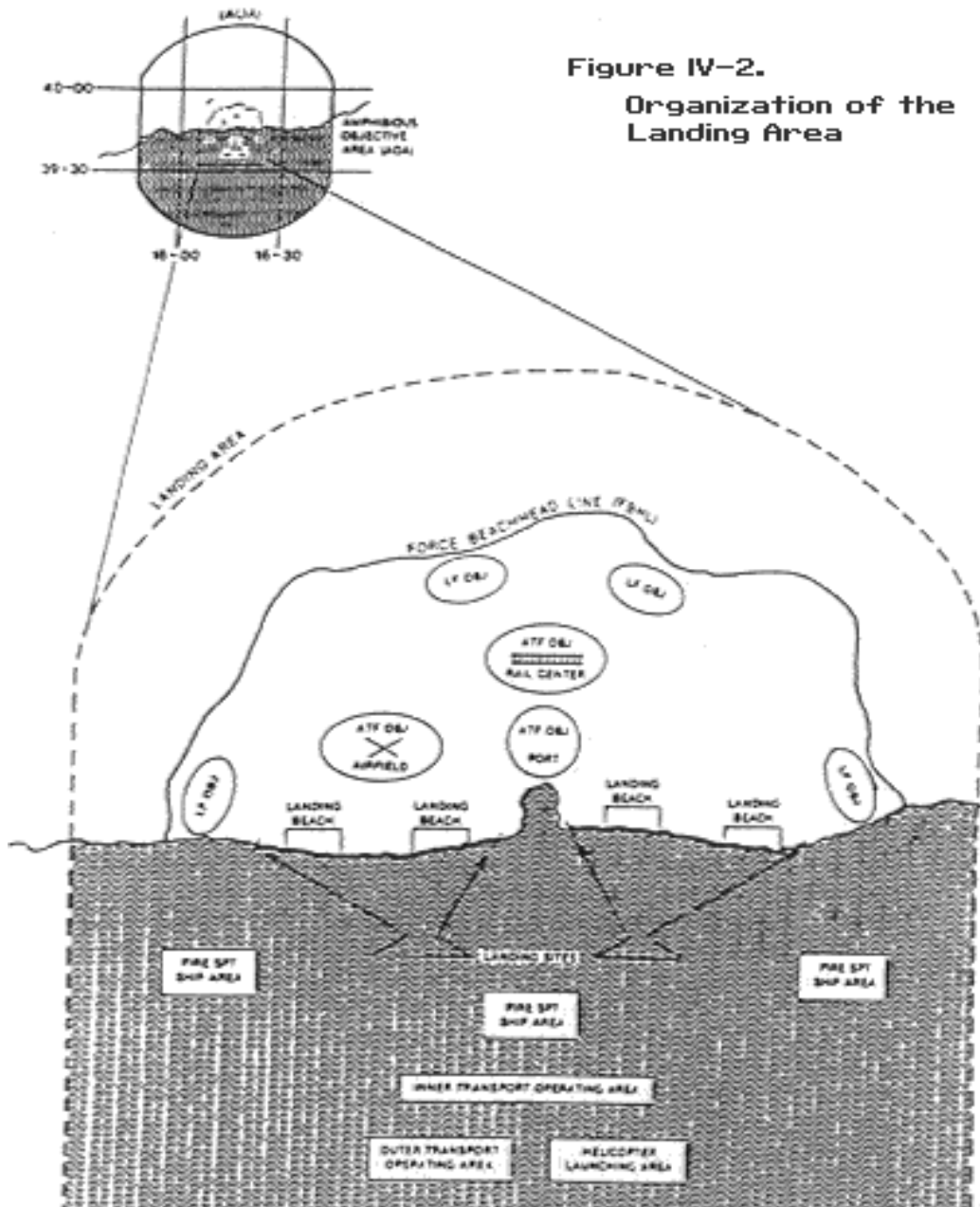


Figure IV-2.
Organization of the Landing Area

Figure IV-2. Organization of the Landing Area

c. Commander, Amphibious Task Force, Designates. The CATF designates potential landing sites and provides the CLF pertinent hydrographic data concerning all sites; e.g., tidal information, beach gradient, and each site's desirability from a naval viewpoint. In addition, information is made available concerning beach exits and the nature of terrain bordering the beach.

d. Intelligence Requirements. The determination or confirmation of the characteristics of landing sites are therefore an early intelligence requirement.

12. Determination of Landing Force Objectives

a. Commander, Landing Force, Selects. Landing force objectives are selected by the CLF and reviewed by the CATF. In selecting LF objectives, the CLF does not try to take into account the scheme of maneuver of the ground combat element. The minimum number of objectives are selected that, in conjunction with the ATF objectives, will ensure accomplishment of the ATF mission. Landing force objectives are usually key terrain that will provide sufficient depth to the force beachhead to ensure accomplishment of the ATF mission. In subsequent planning, the ground combat element commander may select additional objectives to aid him in the control and disposition of his forces.

b. Considerations in Selecting Landing Force Objectives.

(1) Amphibious Task Force Mission and Objectives. The ATF objectives are an expression of the mission and are major factors in developing LF objectives. This mission will dictate the selection of landing force objectives at such distances as would provide reasonable protection of the ATF objectives from enemy indirect fire weapons. The LF usually will not redesignate ATF objectives as LF objectives. If an ATF objective is large and the CLF wants to consider it as two or more separate entities, the CLF can subdivide the objective and designate the components as separate LF objectives.

(2) Landing Force Mission. A review of the specified and implied missions derived during the mission analysis will identify potential LF objectives.

(3) Terrain. Most amphibious assaults will require a defense of the force beachhead. Therefore, in addition to identification of key features such as bridges, high

ground, communication centers, and choke points, etc., terrain must be examined from a defensive perspective. The enemy avenues of approach must be identified because they will be important factors in selecting LF objectives. Incorporation of existing obstacles in the defense of the force beachhead will enhance the defensive scheme with minimum commitment of effort.

(4) Enemy Situation. Information regarding the enemy will vary. If firm enemy positions are known, the selection of objectives may be easier. However, the absence of information does not preclude planning. It merely increases the importance of flexibility and objectives must be selected to enhance the security of the force. In addition to the location of enemy units, the composition and capability of the enemy must also be considered. An infantry-heavy enemy will dictate different objectives than one that is armor-heavy.

(5) Resources. The resources available to the landing force must be considered, especially in relation to the enemy. Landing force objectives must provide sufficient depth to the force beachhead but yet not overextend the landing force. Considerable depth is desirable when defending against a mechanized or armor-heavy enemy. However, LF mobility must be adequate to shift forces rapidly and to prevent piecemeal defeat. Restrictive terrain or insufficient mobility assets will constrict the force beachhead. A minimum objective is to deny the enemy the ability to place indirect fire on critical areas within the beachhead.

c. Relationship of Amphibious Task Force to Landing Force Objectives. The following examples illustrate the relationship between ATF objectives and LF objectives:

(1) Amphibious Task Force Objectives. Usually facilities directly related to the ATF mission; e.g., ports, airfields.

(2) Landing Force Objectives

(a) Additional facilities or locations essential to the mission; e.g., major bridges and communications hubs.

(b) Key terrain necessary to protect the ATF objectives, block avenues of approach, or engage the enemy under favorable circumstances.

(3) Other Objectives. As planning proceeds, additional objectives may be chosen. These may relate to terrain necessary to maneuver against or destroy the enemy, to protect critical areas, or to control the maneuver of friendly forces.

13. Selection of Beachhead (Force Beachhead)

a. Beachhead. A beachhead is the physical objective of an amphibious operation. Figure IV-2 illustrates the force beachhead, which is the land area contained within the force beachhead line (FBHL) (discussed below).

b. Commander, Landing Force, Determines. The CLF determines possible beachheads for each designated landing site and notifies the CATF of the selections in order that they may be incorporated in the designation of tentative landing areas.

c. Beachhead Elements. A beachhead includes ATF and LF objectives, as well as one or more landing sites. In some cases, several potential beachheads, with associated landing sites and objectives, may be developed for evaluation.

d. Trace of the Force Beachhead Line. The force beachhead line is generally drawn along the outer edge of the most distant LF objectives. Figure IV-2 depicts the FBHL. The FBHL provides a graphic representation of the area that must be seized, occupied, or controlled by the LF to ensure the accomplishment of the ATF's mission. The FBHL is not a defensive line or a fire support coordination measure, and it does not restrict maneuver of air or ground forces to within its confines. It is a planning aid and in no way effects the employment of fire support coordination measures.

(1) As planning proceeds, designating objectives beyond the original FBHL may become necessary. In such cases, the FBHL should be adjusted accordingly.

(2) During the assault, designating objectives outside the FBHL may be necessary. In this case, boundaries and fire control measures would be adjusted as necessary, but the FBHL would not need to be changed.

(3) During the initial stage of an amphibious assault, the coordinated fire line and fire support coordination line will be inside the FBHL, permitting air strikes

and artillery or naval gunfire support to be conducted without clearance by the forward ground maneuver element. On the other hand, ground reconnaissance may be conducted beyond the FBHL throughout the operation. In addition, after the FBHL has been secured, forward units may establish outposts or covering forces beyond the FBHL.

e. Factors in Delineating the Force Beachhead. The beachhead is directly related to available landing sites, the ATF objectives, and associated LF objectives. In addition to those factors that influenced the selection of LF objectives, the CLF considers the following in delineating the force beachhead:

(1) Suitability of landing sites, including favorable configuration of the coastline from the LF perspective. Discussion on factors concerning the desirability of a particularly configured coastline is in the next paragraph.

(2) Terrain inland from the beaches and routes of egress.

(3) Suitability of potential landing zones for helicopters, fixed-wing aircraft, and air cushion vehicles; suitability of drop zones for airborne forces if planned or contemplated.

(4) Adequacy of maneuver space.

(5) Requirements for combat service support.

f. Configuration of Coastline. The configuration of the coastline is an important factor to be considered in the selection of a beachhead. Shorelines have three primary forms: convex, concave, and straight. Combinations of the three types are possible. (See Figure IV-3.) The significance of each of these in selection of the beachhead is as follows:

(1) The convex shoreline in the form of large promontories or deltas causes dispersion of hostile defensive forces and prevents effective enfilade fire on the landing beaches. Except for its generally inferior hydrographic characteristics, convex is the most favorable coastal formation from the attacker's point of view.

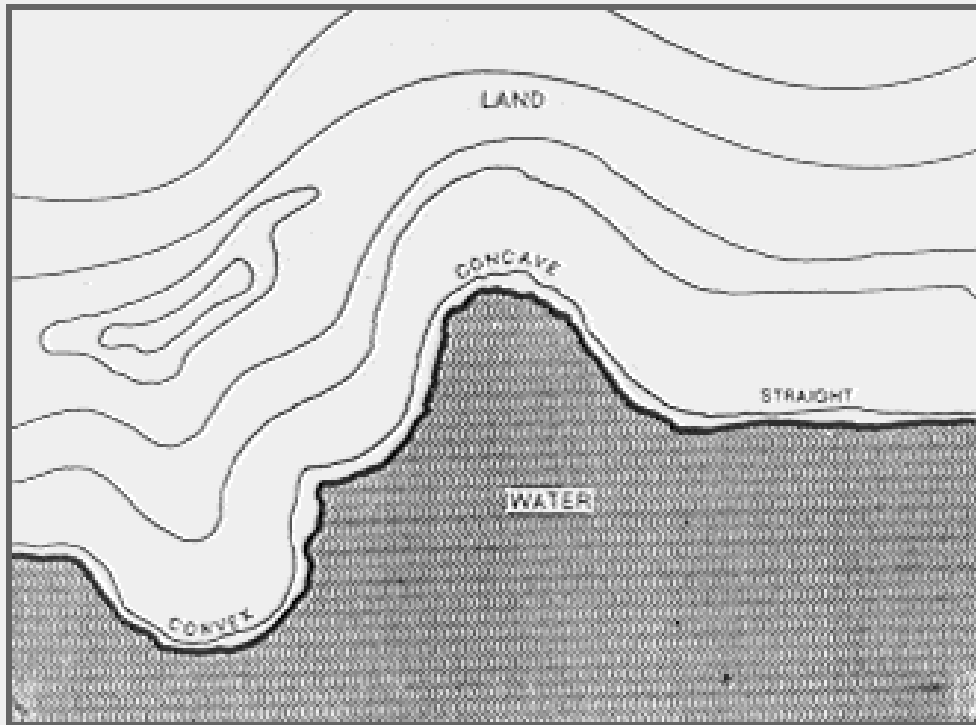


Figure IV-3. Examples of Various Types of Shorelines.

Figure IV-3. Examples of Various Types of Shorelines.

(2) The concave shoreline, particularly in the form of a bay or reentrant, is unfavorable because it provides opportunity for the convergent massing of enemy fires at any point in the area and permits establishment of an organized system of crossfires that are extremely disadvantageous to the attacker. Conditions such as the existence of sheltered water and favorable landing conditions may dictate the selection of a concave shoreline as a place of landing despite its unfavorable characteristics. In such cases, particular consideration is given to the promontories that form the shoulders on either flank of the landing beach and provide naturally advantageous positions for defensive weapons

(3) The straight shoreline has no prominent indentations or promontories and is relatively less favorable because it lends itself to enemy enfilade fire. Straight shoreline represents a compromise between the advantages of the convex shoreline and the disadvantages of the concave shoreline.

14. Selection of The Landing Area

a. Commander, Amphibious Task Force, Delineates. The CATF delineates the sea area and airspace required for the establishment of each beachhead tentatively selected by the CLF. This process results in tentative landing areas. The CATF then reviews each tentative landing area and, if required, the broad course of action for each to determine their supportability by the naval force.

b. Factors in Delineating the Landing Area. To arrive at this decision, the CATF weighs the capabilities of the naval force and the operational requirements for the air, land, and sea areas. The CATF forwards an evaluation of each landing area to the CLF along with his relative order of preference from the naval perspective. Principal considerations are shown in Figure 4-1, JCS Pub 3-02. An analysis of LF considerations includes:

(1) Suitability of the Landing Area for Attainment of the Final Ground Objective. Assault landings should be made near objectives to facilitate their early seizure and accomplishment of the landing force mission. The effectiveness of an amphibious assault is enhanced by taking maximum advantage of the shock effect of the initial landing and the advantages of surprise.

(2) Hostile Capabilities

(a) The advantages of landing near objectives may be offset by dispositions of enemy forces. Landings in undefended or lightly defended areas remote from objectives may thus be preferred.

(b) In evaluating the effects of enemy dispositions upon selection of the landing area, the following factors should be considered:

1. Adequate fire support is necessary in order to destroy or neutralize the defenses of a heavily defended area before landing.

2. Landing at a site remote from the objectives requires adequate logistics and fire support means and sufficient force to ensure sustained offensive action.

3. Landing in an area with unfavorable landing conditions requires additional training, provision of special equipment, and special measures for ensuring security and gaining tactical surprise.

4. The enemy capability to reinforce beach defenses or materially redeploy major combat forces must be considered.

(3) Configuration of the Coastline. (See subparagraph 13f above.)

(4) Terrain and Facilities Inland From the Beaches. Following an evaluation of the shoreline, consideration is given the terrain over which the operations ashore must be conducted. Ground rising gently from the beach to form a well-defined coastal ridge at such distance inland and of such relief as to mask the landing beach is desirable. Such a conformation increases the effectiveness of fire support and provides the terrain features suitable for objectives of assault elements. When captured, it provides cover, concealment, and protection for landing successive elements of the landing force. Objectives essential to securing the beachhead should be located on defensible ground.

(5) Requirements for Logistic Support. In addition to their suitability for assault operations, helicopter landing zones, landing beaches, and lines of communication within the beachhead should permit sustained logistic support of operations ashore. The logistic support of aviation elements ashore places increased importance on an adequate road net, port facilities, existing airfields, and beaches suitable for landing heavy aviation and engineer equipment.

(6) Relative Desirability of the Landing Areas. Relative desirability of the landing areas from the naval viewpoint.

(7) Possibility of Early Seizure and Rehabilitation of Air Facilities. The early seizure and rehabilitation of existing air facilities, airfields, and air defense radar and missile sites contributes materially to the orderly transfer of air operations ashore.

c. Commander, Landing Force, Selects. The CLF presents his selections of primary and alternate landing areas to the CATF for concurrence with respect to the Navy's ability to support operations in the selected area(s) with the forces assigned. The CLF maintains continuous liaison with interested commands to ensure that there is complete understanding concerning any restrictive considerations. The CLF selects those landing areas that, consistent with the ability of the surface and air elements to provide support, will best facilitate the accomplishment of the LF mission.

d. Commander, Landing Force, Develops Initial Concept of Operations. After concurrence by the CATF in the CLF's selection of primary and alternate landing areas, the CLF is ready to develop the initial concept of operations for the primary landing area and for the alternate landing area(s).

e. Multiple Landing Areas. When the ATF mission can best be accomplished by landing at more than one landing site, which are widely separated, normally a separate attack group, with related landing group, is formed to assault each landing site. (See Chapter II, subparagraph II-9d(2

15. Formulation of the Landing Force Concept of Operations Ashore

a. Concept of Operations Ashore. The concept of operations ashore is usually a written and graphic representation, in broad outline, of the CLF's assumptions or intent with respect to the operation. The concept gives an overall picture of the operation and is provided primarily for clarity and understanding of the operation being planned. Although general in nature at this stage, it is refined continually in detailed planning and eventually becomes a part of the operation plan. It is often referred to as the commander's concept.

b. Concept of Operations Ashore Pivotal to Planning. Amphibious planning at the CATF and CLF levels, as well as the planning requirements of supporting commanders, is heavily influenced by the landing force commander's concept of operations ashore. Therefore, this concept must be formulated as expeditiously as possible. The development of the landing force concept of operations is dependent on certain basic decisions, while other basic decisions flow from the CLF concept of operations.

c. Formulating the Landing Force Concept of Operations Ashore. Principal considerations in the formulation of the landing force concept of operations ashore are:

- (1) The mission of the landing force.
- (2) The nature and extent of the designated landing area, including the characteristics of the beaches and the terrain therein.
- (3) The enemy capabilities.
- (4) The forces available.
- (5) The nature, extent, and locations of airfields, airfield sites, and air control and warning sites.
- (6) The nature and extent of practicable helicopter landing zones.
- (7) The nature and extent of the practicable airborne drop and landing zones.

d. Must Be Supportable. The CLF concept of operations ashore must be supportable by naval and air elements. Accordingly, the CLF requests CATF concurrence in the concept. Naval and air considerations affecting the formulation of the concept of operations ashore are those pertaining to the capabilities for transporting, protecting, and landing the LF, and supporting and sustaining its operations during and after the landing.

e. Distribution of Concept of Operations. After the CATF has concurred in the concept, it may be distributed to the LF and other components as part of an outline plan. The initial concept of operations ashore provides the basis for planning by subordinate units.

f. Principal Medium for Coordination. The concept of operations ashore is the principal medium for coordination between subordinate landing force elements and with other component commanders to ensure that planned operations ashore can be supported.

g. Content. No prescribed format exists for the concept of operations. The concept includes overall formation for landing, scheme of maneuver for the LF, principal landing force objectives, general task organization, ship-to-shore movement means, fire support, and, when applicable, plans for deception operations and subsidiary landings.

h. Basis for Refining Studies. Based on the concept of operations ashore, the LF staff and subordinate element staffs prepare and refine studies and estimates.

i. Concept of Operations for Alternate Landing Areas. A separate concept of operations ashore is prepared for the alternate landing area(s).

16. Selection of Landing Beaches

a. Selection of Specific Landing Beaches. The CLF selects specific landing beaches within the selected landing sites based on the requirements of subordinate elements of the LF and in response to their detailed plans. The CATF reviews these selections in light of the naval considerations in paragraph 430, JCS Pub 3-02. When the ATF is composed of two or more attack groups with related landing groups, a landing site may be selected for each attack group. In this case, each landing group commander selects his respective landing beach from within the assigned area.

b. Planning Considerations. The principal factors in the final selection of landing beaches, in addition to those previously described for the selection of landing areas, are:

- (1) The LF concept of operations ashore.
- (2) Capacity for landing supplies and equipment (throughput).
- (3) Suitability of offshore approaches.
- (4) Beach trafficability.
- (5) Number, location, and suitability of beach support areas and beach exits.
- (6) Location, type, and density of beach obstacles, including underwater obstacles.
- (7) Nature of the terrain immediately inland from the beaches.
- (8) Suitability of communication facilities, including roads, railroads, waterways, and airfields or air facilities.
- (9) Suitability of the beach from the standpoint of expected prevailing weather, tidal, and surf conditions.

(10) Proximity of beaches to existing or planned airfields or planned helicopter operating bases. Use of beaches contiguous to air bases facilitates supply of the necessarily large quantities of aviation fuel and handling of heavy aviation and supporting engineer equipment.

(11) Enemy coastal defenses, including known hostile force dispositions, strengths, and capabilities.

(12) Suitability for beaching landing ships, landing craft, and amphibious vehicles.

17. Selection of Helicopter Landing Zones

a. Helicopter Landing Zone. A helicopter landing zone is a specified ground area for landing assault helicopters to embark or disembark troops and/or cargo. A landing zone may contain one or more landing sites (JCS Pub 1-02) (which may contain one or more landing points). (See Figure IV-4.)

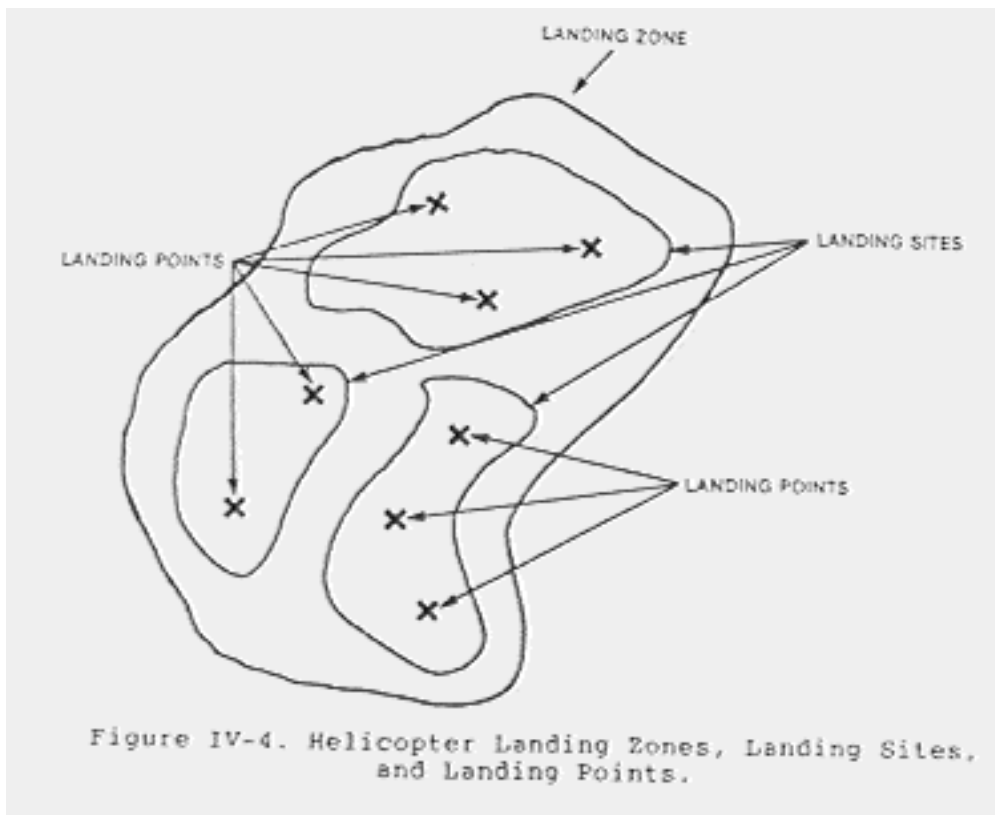


Figure IV-4. Helicopter Landing Zones, Landing Sites, and Landing Points.

b. Selection of Helicopter Landing Zones by the CLF. The CLF selects the helicopter landing zones and advises the CATF of his selections. In reviewing these selections, the CATF considers the ability of his other forces to support the proposed assault landings and required logistics buildup therein.

c. Concurrent Planning. Concurrent and parallel planning is needed at all command echelons involved in the helicopterborne ship-to-shore movement. Coordination is necessary between helicopterborne forces and helicopter units, with the helicopter transport group, and at all intervening echelons up to the ATF or landing force level. The selection of landing zones and possible approach and retirement lanes is of interest to all these echelons. Therefore, their recommendations and requirements are considered in making these selections.

d. Principal Considerations. The principal considerations in the selection of helicopter landing zones are:

- (1) The LF concept of operations ashore.
- (2) Enemy capabilities and dispositions, particularly location, type, and density of antiaircraft installations.
- (3) Location and nature of the terrain over which the helicopterborne forces contemplate operations after landing.
- (4) Requirements for logistic support.
- (5) Ease of identification from the air.
- (6) Suitability and capability for the landing and takeoff of helicopters.
- (7) Restrictive effect of the location of landing zones and available approach and retirement lanes on supporting fires for other forces.
- (8) Requirements for air, naval, and ground fire support.

e. Multiple Landing Groups. When the ATF is composed of two or more attack groups with related landing groups, the task of conducting the helicopterborne assault operations is usually assigned to the commander(s) of one or more of the attack groups.

18. Selection of Fixed-Wing Aircraft Landing Zones and Drop Zones. When airborne or air-transported forces are employed in amphibious operations, the CLF, together with the airborne commander and the air commanders involved, selects the drop zones and the landing zones. The CATF reviews them to determine his ability to support the operations in the selected zones with the forces at his disposal. Landing and drop zone criteria are described in FM 57-1/AFM 2-51, "U.S. Army/U.S. Air Force Doctrine for Airborne Operations."

19. Determination of the Date and Hour of the Landing

a. D-day. D-day is the unnamed day on which an operation commences or is due to commence. (See JCS Pub 1-02 for the complete definition of D-day). The approximate date for initiation of an amphibious operation is in the initiating directive through the establishment of limiting dates. The selection of a specific day (D-day) is made by the CATF after consultation with the CLF and other commanders as appropriate.

(1) Principal Factors. The principal factors in the selection of a tentative D-day include:

- (a) Availability of forces.
- (b) Readiness of forces.
- (c) Present and projected enemy situation.
- (d) Seasonal conditions in the area under consideration.
- (e) Local conditions of weather, tide, current, and phase of moon (duration of darkness and daylight).
- (f) Designation of limiting dates by higher authority.
- (g) Coordination with preliminary operations.

(2) Tentative D-day. A tentative D-day is usually established by the CATF early in the planning phase. This day is usually the earliest date within the time limits prescribed by the initiating directive when the preliminary operations can be completed and all elements of the ATF can be in position for the attack. The final confirmed date for D-day may vary from the tentative date.

(3) Delay of D-day. Unforeseen changes within the objective area, such as adverse weather, unexpected moves of major enemy forces, etc., may force the CATF to delay D-day. He has this authority unless otherwise directed by higher authority. Such postponements are usually for 24-hour periods. Longer periods or repeated postponements may result in a period where the selected conditions for H-hour can no longer be met. It may then become necessary to return the force to the staging areas or to a designated rendezvous. Preparation of alternate plans may reduce the possibility of having to delay D-day.

b. H-hour. In amphibious operations, the term H-hour is used for the time the first assault wave lands on the beach in the surface ship-to-shore movement. Helicopterborne assaults, subsidiary operations, etc., may be expressed as another letter designation such as L-hour for helicopters, or they may be expressed in terms of time differential from H-hour, such as H-12 hours, H+30 minutes, etc.

(1) Principal Factors. The principal factors in the selection of a tentative H-hour include:

- (a) Known enemy routine.
- (b) Duration of daylight.
- (c) Need for tactical surprise.
- (d) Concept of operations ashore of the landing force.
- (e) Favorable conditions of wind, tide, and phase of moon; requirements for conducting certain operations during hours of darkness.
- (f) Most effective employment of air and naval gunfire support.

(2) Selection of H-hour. The selection of a specific time to commence the amphibious assault (H-hour) is made by the CATF after consultation with the CLF and other commanders as appropriate, the same as in the case of selecting D-day.

(3) Change of H-hour. An important note during planning is that H-hour is the planned time of landing of the first assault wave, but during the execution phase, H-hour is the actual time of landing. For example, during planning, H-hour is scheduled for 0800; however, for various reasons on D-day or shortly before, H-hour is determined to be 0900. Accordingly, all events will now be based on H-hour at 0900. As in the case of D-day, complications may arise that make it impossible for the first assault wave to land at the planned time. Many events in the amphibious operation are based on the exact time of landing and are scheduled in relation to H-hour. These events include such items as final beach neutralization fires, lifting beach neutralization fires to the beach exits, and helicopterborne assaults. In the case where the assault landing will be delayed from the planned H-hour, some events scheduled in planning for the period just prior to H-hour may be repeated until the actual H-hour; others will be delayed and others will have to be cancelled. The CATF confirms H-hour as soon as practical.

20. Commencement of Detailed Planning

a. Need for Close Coordination and Reevaluation of Decisions. Although the basic decisions have been made, the balance of the planning process involves numerous detailed decisions, many of which must be coordinated with subordinate, adjacent, supporting, or higher headquarters, including joint and combined commands. The operation plan, including the embarkation plan, the landing plan, and combat service support plan, and various alternate plans must be developed. In addition, decisions on advance force, deception, subsidiary, and supporting operations must be continuously reevaluated and updated. Decisions on these operations may be made at any time during the planning process.

b. Adequacy of Forces to Meet Requirements. Plans for the naval forces and participating Air Force forces provide for transporting, protecting, landing, and supporting the LF. During detailed planning, the adequacy of the forces made available for the operation is constantly reexamined. If additional forces are required, they are requested of higher authority through appropriate channels.

CHAPTER V
LANDING FORCE TACTICAL OPERATIONS ASHORE

1. Introduction

a. Key Elements of the Landing Force Plan. This chapter outlines the considerations immediately related to the preparation of the operation plan. Essential to preparation of the operation plan is the concept of operations ashore, the plan of attack, and the plans for the employment of landing force (LF) aviation and the combat service support element (CSSE). The interrelationships of these terms are defined for clarity as follows:

(1) Concept of Operations Ashore

(a) The development of the concept of LF operations ashore is an evolutionary process. The concept developed during detailed planning is a refinement of the initial concept developed during preliminary planning (see Chapter IV, paragraph 15). Ultimately, the detailed concept is included in the operation plan. Such influences as the operational and logistical requirements of subordinate elements and changes in the enemy situation will usually necessitate modifications in the concept. Throughout its formulation, the concept provides the basis for detailed and concurrent planning. It is included in the operation plan in order to provide additional clarity as to the landing force commander's intent.

(b) The detailed concept of operations ashore amplifies the commander's decisions and indicates how he visualizes the operation will be executed. No established scope for the content of the concept exists; however, the final concept will usually be a broad outline of the plan of attack and, as a minimum, it should include the purpose and scope of the operation, major or essential tasks, and phasing or sequence of events.

(2) Plan of Attack. The plan of attack provides for the employment of various elements of the LF. It consists of the scheme of maneuver, the landing plan, and the plan of supporting fires.

(a) Scheme of Maneuver. The scheme of maneuver is a plan for the execution of a tactical course of action. It includes objectives, types of offensive maneuver to be employed, distribution of forces, and necessary control measures. In formulating the scheme of maneuver for an amphibious operation, the principles of ground combat are valid; however, variations of application may be necessitated by the amphibious character of the operation.

(b) Landing Plan. The landing plan is essentially the plan for the ship-to-shore movement of the LF. It is predicated on the scheme of maneuver ashore and the means available to move the LF ashore. For additional information on the landing plan, see Chapter VI, paragraph 22.

(c) Plan of Supporting Fires. Fire support has a major effect on the development of the plan of attack. Until artillery is landed, gunfire support ships and aircraft furnish both preparatory fires and fires in close support of the attack. For additional information on supporting arms, see Chapter VIII.

(3) Plan for the Employment of Landing Force Aviation. The plan for the employment of LF aviation to support the landing and operations ashore is integrated with and based on the overall air plan of the CATF. The air operations performed by Navy and LF aviation elements and other supporting air forces (i.e., operations from land bases outside the objective area, from aircraft carriers, and from bases within the landing area) complement one another and constitute a collective capability for support of the amphibious operation. For additional information on aviation support, see Chapter VIII.

(4) Plan for the Employment of the Landing Force Combat Service Support Element. The plan for the employment of the landing force CSSE is expressed in the concept of CSS. This document establishes the logistic support plan for the LF from the embarkation phase through the termination of LF operations ashore.

b. Tactical Operations Ashore Must Be Supportable. The tactical operation ashore must be supportable by all elements of the task force. Therefore, the need for coordination within the various elements of the task force cannot be over emphasized.

2. Purpose and Scope. This chapter discusses the various considerations related to the preparation of the operation plan and associated annexes. The discussion centers on the process of refining the initial concept of operations, which is developed during initial planning, and which is the basis for detailed planning.

3. General

a. Overview. Much of the information that must be included in the operation plan is so detailed, specialized, and technical that it does not lend itself to inclusion in the body of the document; therefore, the additional subject matter is included in annexes to the operation plan. The detailed tactical planning associated with the development of certain of these annexes is discussed in Chapters VI through X; however, the contents of this chapter must be regarded as relevant to all detailed planning because this chapter serves as a basis for all detailed planning.

b. Comparison with Normal Land Operations. Once ashore, tactical operations of the landing force do not vary significantly from normal land operations. The major difference is that the forces ashore are dependent on forces at sea for support (e.g., logistics, fire support, reinforcements). As the operation progresses and support is established ashore, the degree of dependence is reduced. Further, command remains at sea with the CATF until termination of the amphibious operation.

c. Defense of Vital Areas. The CLF has a major concern with protecting certain areas within the beachhead. These areas include CSS areas, command and control facilities, and beach and helicopter landing zones where supplies are being brought in to sustain the assault. The requirement for protection of these areas will influence tactical operations ashore. In past years, the FBHL was generally considered to be a line that would place these areas out of the range of indirect fire weapons. In this modern era of missiles and rapidly moving mechanized forces, the CLF may not be able to develop a FBHL that will preclude these areas from being within the range of missiles or striking distance of mechanized forces. The CLF may have to plan his tactical operations in such a manner as to be able to seek out and destroy the threats early or to be able to quickly respond to a threat as it develops. Additionally, as amphibious task force objectives are seized, such as airfields and/or ports, concern arises about protecting

these areas. Those areas that the CLF is most concerned about protecting may be classified as vital areas (vital to the accomplishment of the LF mission). If the CLF has sufficient air defense assets, he will in all probability assign air defense units to the defense of these areas.

d. Force Beachhead Line. The FBHL should not be considered a static line of defense, but rather a trace of the outer limits of LF objectives. (See Chapter IV, paragraph 13, and Figure IV-2.)

4. Responsibilities

a. Commander, Amphibious Task Force, and Commander, Landing Force. The CLF is responsible for development of the plans for tactical operations ashore. The CATF reviews these plans from a supportability viewpoint.

b. Plan Relationships. The interrelationship of planning among various echelons of the landing forces is explained in detail in Chapter 3, Section 3.5, page 3.5-18, FMFM 0-3, "Doctrinal Publication Guide."

5. Planning Considerations. During detailed tactical planning, the CLF considers the operational conditions, preliminary planning decisions, and the additional factors described in this chapter in the development of his plan.

6. Special Considerations

a. Support Capabilities of Other Elements of the Amphibious Task Force. In developing plans, the CLF must consider all elements of the LF, including the aviation and CSS elements as they relate to the needs of the ground combat element, as well as the ATF and other forces that support the tactical plan.

b. Other Plan Requirements. Neither this document nor JCS Pub 3-02 discuss in detail all functional planning responsibilities included in the operations plan. Those areas that do not significantly differ from land combat, including psychological operations, civil affairs, electronic warfare, operations security, base development, and offensive and defensive operations in general, are not discussed in detail.

7. Basic Considerations

a. Mission. The mission of the LF is developed during preliminary planning (see Chapter IV, paragraph 10). The mission may be general in nature and requires careful analysis during detailed planning to identify additional specified or implied tasks that must be accomplished. The mission is translated into specific landing force objectives ashore by the CLF. The objectives serve as the primary basis for determining the LF scheme of maneuver, fire support, organization for combat, formation for landing, and phasing of the attack. The mission developed by the commander, and as amplified by the concept of operations ashore, is the principal means by which the commander ensures that his intent is understood and accomplished in detailed planning and execution of the operation.

b. Development of Combat Power Ashore. In the amphibious attack, combat power is rapidly developed ashore progressively during the assault. The LF is able to exert only a small fraction of its total potential power in the initial assault. The attack is initiated by small units supported by naval gunfire and tactical aircraft. A gradual buildup occurs until the entire LF is ashore and functioning as a cohesive organization exerting its maximum combat power. The echelonment reflected in the organization for landing provides for the orderly progression and development of combat power.

c. Echelonment for Landing

(1) Critical Factors. The rate of landing and development of combat power ashore depends on many factors, the most important of which are:

- (a) The availability of amphibious assault shipping and landing craft, amphibious vehicles, and helicopters for the ship-to-shore movement.
- (b) Capacity of landing beaches and landing zones.
- (c) The degree of enemy interference with the landing.
- (d) The extent of fire support provided to the LF.
- (e) Terrain, weather, and sea conditions in the landing area.

(f) The necessity for balance among combat, combat support, and CSS units.

(g) The relationship between available land area and the requirements for maneuver and separation.

(2) Judicious Use of Assault Shipping. These factors influence the rate of landing and, thus, the composition of the echelons of the LF. In particular, the number and types of amphibious assault ships and ship-to-shore movement means available may limit the materiel that can be landed in the initial assault. Economy and effectiveness in the use of assault shipping in the assault dictate that only essential personnel, equipment, and supplies be included in the initial assault. On the other hand, organization of the force for landing involves a reinforcement of assault units to provide the required sustainability. These considerations, and others, may require that portions of units and their supplies and equipment not needed initially be phased for later arrival. (Also See Chapter XI, subparagraph 3b.)

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

(b) The LF assault follow-on echelon (AFOE) is normally required in the objective area no later than 5 days after commencement of the assault landing. Shipping assigned to the CATF is called assault shipping. When sufficient amphibious assault shipping is not available, a portion or all of the AFOE may be transported in MSC or commercial shipping designated as assault shipping of the ATF. AFOE shipping may arrive on a time schedule, with some elements required as early as D-day, or remain in a specified operating area until called forward by the CATF as requested by the CLF.

(c) After the assault and follow-on echelons have been landed, follow-up personnel, equipment, and supplies may be transported by sealift, airlift, or a combination thereof to provide the logistic pipeline to sustain the LF and provide forces for base development and tactical forces for subsequent operations ashore.

d. Phasing the Amphibious Assault

(1) Factors. In phasing the amphibious attack, consideration must be given to the rate of landing for combat, combat support, and CSS forces plus the factors considered in phasing a ground offensive.

(2) Basis of Phasing. Phasing is based on time (e.g., in relation to H-hour or D-day), on distance (e.g., intermediate objectives or phase lines), on terrain and hydrography (e.g., crossing of obstacles), or on the occurrence of a particular event (e.g., linkup with helicopterborne forces or seizure of an off shore fire support position).

(3) Intermediate Objectives. The LF will seldom be able to secure control of the entire beachhead in a single sustained attack. Therefore, the CLF may phase the operation in his concept of operation. Intermediate objectives and phase lines may be designated to implement the commander's concept.

(4) Reestablishment of Centralized Control. The initial stage of an amphibious assault is characterized by decentralized execution of the plan by subordinate elements of the LF. In phasing the attack on the hostile shore, the CLF should not slow these decentralized attacks by attempting to reestablish centralized control too early. On the other hand, he should not subject his forces to defeat in detail by delaying the reestablishment of centralized control. The reestablishment of centralized control progresses from lower to higher echelons successively.

8. Organizational Forms of the Landing Force. Landing force elements are initially formed in the embarkation organization and remain in this organization until the ship-to-shore movement commences. LF elements are then reformed into landing groups (i.e., organizations for landing). Once ashore, they are reformed a third time into their basic tactical

organizations for combat. The process for the forming of these organizations requires inverse planning. The first organization to be considered during the planning phase is the tactical organization to accomplish the LF mission. The second is the organization for landing wherein the tactical organization is restructured to fit aboard available landing craft, helicopters, etc., in accordance with the landing plan. And third, the LF is formed into the organization for embarkation, which is a temporary administrative organizational arrangement to fit the force aboard available amphibious shipping. These three organizations will be discussed briefly in the following paragraphs. Additional discussion is contained in Chapter II, paragraph 9; Chapter VI, paragraphs 8-12; Chapter VI, paragraph 19; and Chapter XI, subparagraph 7c.

a. Basic Tactical Organization

(1) Composition of Basic Tactical Organization. The basic tactical organization is the task organization of LF units for combat, involving combinations of infantry, mechanized units, supporting arms, aviation, and CSS units for accomplishment of missions ashore. These task groups normally consist of maneuver forces, combat support forces, and CSS forces. This organizational form must be considered during tactical planning because it is employed as soon as practicable following the landing of various assault elements of the LF.

(2) Infantry Elements and Units. The reinforced infantry regiment or brigade is the largest single tactical element of the LF normally landed over a single beach or landing zone. The reinforced infantry battalion is the basic tactical unit for landing. The organization of the infantry division lends itself to the formation of task groups of combined arms, referred to as battalion or regimental or brigade landing teams (BLT, RLT or BDELT), respectively.

(3) External Fire Support. External fire support means provided to the infantry division may be organized to support the specified task groups formed. Such forces normally include artillery units (not organic to the division), naval gunfire support, and supporting aircraft.

(4) Combat Service Support. CSS installations and units are organized and located to support the maneuver and combat support forces. Centralized control of CSS

is efficient, but it is often necessary to decentralize control to those elements that support BLTs, RLTs or BDELTs, which is particularly the case when these task organizations have been assigned independent missions.

(5) Additional References. For more detailed information see Chapter XI and appropriate Service doctrinal manuals.

b. Organization for Landing

(1) Composition of Organization for Landing. The organization for landing is the tactical grouping of the LF and its subordinate echelons for the amphibious assault. Basically, it groups the forces that are to execute the landing and to conduct initial operations ashore in accordance with the commander's concept of operations. The concept of operations, with related considerations of terrain and enemy, dictates the allocation of troops and fire support to initial assault elements, support elements, on-call forces, and the reserve. These components in turn dictate the sequence of landing.

(2) Self-Sufficiency. Initially in the assault, there is an absence of normal control and support from the next higher command echelon. Therefore, each command echelon is reinforced to make it relatively self-sufficient and capable of independent operations until the next higher command echelon is ashore and able to assume responsibility for control and support. Attachments to a unit should be limited to those needed and for the time required for independent operations.

(3) Characteristics of the Organization for Landing Provides. In order to support the concept of operations, the organization for landing should provide for the following:

(a) Maximum shock effect at the point of landing and a cumulative shock effect in the direction of the objectives.

(b) Depth to the assault to ensure flexibility and a sustained buildup of combat power as the attack develops.

(c) The required dispersion consistent with other requirements.

(d) Flexibility sufficient to exploit weaknesses found in the enemy defenses.

(e) The timely establishment and employment of both tactical and administrative support systems ashore.

(f) The tactical integrity of subordinate organizations commensurate with the preceding requirements.

(4) Attachments for Landing. Reinforcement of subordinate echelons follows the normal procedure of attaching units to subordinate organizations to achieve unity of command. Attachments are made for a specified or unspecified time or until a certain event has taken place, just as they are in land operations. Some units may be attached only for landing. A unit attached to an organization for landing is under control of that organization for the purpose of landing only. Subsequent to landing, the unit attached for landing reverts to control of its parent organization or other designated command. The headquarters making attachments for landing designates the approximate time or sequence that the attached unit is to be landed. The organization to which a unit is attached schedules the unit ashore as directed by the higher headquarters. Attachments for landing are made by the landing force commander and subordinate echelon commanders when it is necessary to land a unit early in order that preparations may be made for subsequent LF operations, but delegating greater command authority over such unit to a subordinate commander is undesirable.

(5) Additional Information. For additional information see Chapters II and VI.

c. Organization for Embarkation. This temporary administrative formation of personnel with supplies and equipment is logically the last of the three organizational forms developed once the basic tactical organization and the organization for landing have been developed. It provides the necessary organization for movement to the objective area. Chapters II and XI contain a discussion of the LF organization for embarkation.

9. Scheme of Maneuver

a. Formulation of Scheme of Maneuver. The formulation of the scheme of maneuver for an amphibious assault is based on the same fundamentals of combat that apply in ground combat although certain conditions and considerations require particular attention.

b. Goals of the Assault. The fundamental goal of the assault is to achieve a successful lodgement of the LF from which it subsequently can achieve the ATF mission. In the initial assault, the LF seeks the early seizure of key objectives and the destruction of opposing enemy forces so that its intended scheme of maneuver may be fully executed. Aggressive offensive action will disrupt enemy defenses, permit the rapid landing of supporting units, and contribute to the early development of full combat power ashore, thus reducing the vulnerability of the force to counterattack at a critical stage.

c. Frontal Assault and Vertical Envelopment. In the initial stages, the amphibious assault retains an overall frontal assault appearance with the rear oriented on the beach support areas where principal reinforcing units and combat and CSS are landed. Depth and flexibility in the attack may be achieved through the employment of helicopterborne forces in a vertical envelopment (including turning movement). The vertical envelopment avoids the enemy's main defensive strength by going around or over it to seize an objective in his rear. This subjects him to destruction in position or causes him to abandon his position. It also may cause him to divert major forces to meet the threat and thus fight on ground selected by the LF.

d. Width of Assault. The assault is made on the widest front with the greatest depth possible, consistent with the capability of the LF to accomplish its mission ashore. Tactical separation of units ashore may be required to meet active use, or the threat of use, of nuclear weapons. Separation of units is accomplished through the use of multiple, separated landing beaches and landing zones within the landing area. BLTs are the basic unit of separation.

e. Attainment of Mass. Separated landings in the amphibious assault create problems in achievement of mass with attendant difficulties in control, higher echelon support, and mutual support between tactical units. Mass

is best achieved by the combined capabilities of fire support means and rapid maneuver by highly mobile forces. A large proportion of the combat units of the force are landed in the initial assault. The cumulative shock effect resulting from dispersed, coordinated assault landings on beaches and movements of assault elements inland causes disruption of enemy resistance over an extended area in both width and depth. Thus, by the combined capabilities of firepower and the near simultaneous assault by maneuver units, mass is achieved early in the assault.

f. Absence of Threat of Nuclear and Chemical Weapons. In an operational environment devoid of active or threatened use of nuclear and chemical weapons, landings against a strong enemy may require greater physical massing of forces and conventional fires. When such weapons are not employed, there may be:

- (1) A decrease in the land area a given combat force can clear and control.
- (2) A reduction in the width and depth of the landing area and less dispersion between landing beaches.
- (3) A reduction in the acceptable distance between landing beaches and landing zones inland from beaches.
- (4) A significant reduction in the speed of the operation. However, the use of helicopters, amphibious vehicles, armor, and motor transport as a means of mobility ashore will provide increased speed.

g. Influences on Scheme of Maneuver. The types of combat units in the LF task organization and their strength influence the scheme of maneuver.

- (1) Assault divisions may be reinforced infantry divisions. The basic unit on which assault landing teams are formed is an infantry battalion.
- (2) Armored elements may be landed early in the assault, by LCAC or conventional landing craft, to facilitate rapid progress inland, early linkup with air-delivered forces, and expeditious clearance of the beachhead.
- (3) Artillery in the assault echelon may be either self-propelled or towed. Self-propelled artillery is well suited for certain conditions and is landed in the same manner as armor.

(4) Engineer units will normally be attached to infantry and mechanized units during the assault to provide immediately responsive decentralized support. Later, engineer forces may be reorganized to provide normal direct or general support.

(5) Antiair warfare units organic to the LF are established ashore early to provide for the landward extension of the ATF antiair warfare system.

h. Characteristics of Scheme of Maneuver. The LF scheme of maneuver should:

(1) As a primary purpose, provide for the seizure of objectives requisite to the buildup and establishment of the LF ashore.

(2) Utilize adequate avenues of approach proximate to the selected landing beaches and landing zones.

(3) Be supportable by naval gunfire, missiles, and tactical air, especially until the landing of artillery.

(4) Provide that each unit be capable of initial success without dependence on other assault units.

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

(6) Provide for early establishment of beach support areas required for establishment of administrative and CSS ashore.

(7) Provide for the required degree of coordination and control.

(8) Provide for a disposition of forces that facilitates the initiation of operations subsequent to the termination of the amphibious operation.

10. Reserves

a. Purpose of Landing Force Reserves. To provide security to the LF and flexibility to the amphibious assault, the CLF will usually plan to withhold a portion of the force during the initial assault. Such a force, capable of being landed when and where desired in order to best influence the tactical situation as it develops ashore, is the LF reserve.

b. Source for Landing Force Reserves. Within assault organizations of the LF, available assets for reserves may be limited during the initial assault when all landing groups are committed to achieve maximum shock effect. Assault elements to be landed on an on-call basis provide a means with which the ground commander can influence the action ashore. While afloat, certain units may be treated as a reserve for commitment as required by the situation.

c. Complexity of Committing Reserves. Commitment of the reserve in an amphibious assault is more complex than in normal land operations for the following reasons:

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

(2) Pre-employment joining of the reserve with landing craft, amphibious vehicles, or helicopters, while increasing reserve responsiveness, may delay the movement of other assault elements.

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

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

e. Maximum Flexibility Required. Because of the generally unpredictable nature of the initial operations ashore, commitment of the reserve to a specific area is unlikely to be decided on before initiation of the assault. Maximum flexibility of the reserve should be maintained until a specific opportunity for its commitment arises.

f. Plans for Landing the Reserve. The reserve should be capable of taking over the mission of forces in the initial assault. The reserve, therefore, should have plans for each contingency and be provided with adequate attachments. Such provision may include appropriate landing support units, which are discussed in Chapter X. Means for landing the reserve in an assault role should be provided in the plan.

g. Staging of Reserve External to the Amphibious Objective Area. A shortage of assault shipping or the need to reduce congestion in the objective area may favor retention of higher echelon reserves of the LF in a base area(s) for transport to the AOA in aircraft.

h. Combat Support in Reserve. Employment of fires and obstacles held in reserve (including minefields, and nuclear and non-nuclear fires) is planned for various contingencies, for use in support of forces ashore, and to facilitate exploitation.

11. Security

a. Purpose. Security in the amphibious assault is maintained to preserve secrecy, to prevent unexpected interference by the enemy, to protect tactical integrity, and to gain and maintain freedom of action. Shock action and speed of the attack offer the best security by keeping the enemy so heavily involved that he has neither the time nor means to endanger success of the attack. The retention of a reserve enhances the security of the command.

b. Bypassed Enemy and Rear Area Security Concerns. Widely dispersed landings tend to bypass enemy strong points and to expose friendly flanks. Bypassed enemy forces must be controlled or at least kept under surveillance until destroyed. Combat service support, aviation, and fire support units and the rear area may require protection from ground or air attack. These considerations must not slow or divert the momentum of the attack. The flanks of units and gaps between units are covered by patrols, flank guards, positioning of reserves, surveillance, and obstacles, including minefields.

c. Early Warning. Early warning of impending enemy countermeasures and the collection of timely, accurate information are essential to security. Aviation and highly mobile reconnaissance forces are employed extensively in this role. In addition, the reconnaissance and other intelligence capabilities of committed units are exploited for this purpose.

12. Defense of the Landing Force

a. Similarities with Defense of Any Ground Force. Defensive measures for the LF are not significantly different from those for any ground force. Service manuals prescribe the appropriate defensive measures and

procedures. The information presented in the following paragraphs is designed to provide an overview and special considerations in planning the defense of the LF.

b. Strong Offense, Best Defense. Defensive combat is, in itself, the antithesis of the amphibious attack. A virtually uninterrupted offensive, characterized by maneuver, firepower, and shock effect, is maintained by the LF throughout the amphibious attack. The principle of the offensive is the basic operational precept throughout the LF. An offensive state of mind and an aggressive spirit is maintained at all times and at all levels of the LF. Constant pressure is exerted on the enemy to deny him the initiative.

c. Reasons to Assume Defensive Posture. Although the amphibious assault is essentially offensive in character, during the course of operations ashore, occasions will arise when the entire LF, or certain of its subordinate elements, will be required to assume a defensive attitude or employ certain specific defensive measures. In general, defensive action by or within the LF will assume the following forms:

(1) Defense of a Temporary Nature. A defensive posture may be assumed by elements of the LF on a day-by-day basis following the seizure of certain objectives, the defense of which is incident to preparing for the early continuation of the attack. Other reasons for assuming this posture may be to develop more favorable conditions for offensive action, to economize forces in one area in order to apply decisive force elsewhere, or to deceive or trap a hostile force.

(2) Defense in Relation to the Termination of the Amphibious Operation. As the LF seizes those specific physical objectives incident to the conclusion of the LF mission, the LF or certain of its elements may assume a defensive posture. The defense in this connection is conducted to ensure the control of the captured area pending the prosecution of further combat operations ashore, to establish a base defense organization, and to deny the use of the area to the enemy. This type of defense is conducted in accordance with the established procedures of land warfare.

(3) Defense Against Enemy Action of a Specific Nature. Throughout the operation, the LF as a whole and each of its subordinate elements must be alert and prepared to defend against specific enemy reactions to the landing. Enemy countermeasures may include air attack; mechanized counterattack; airborne or helicopterborne attack; guerrilla or infiltration operations; and nuclear, biological, or chemical attack. See Chapter V, paragraph 13 for additional discussion. For general discussion of security as a tactical consideration, see Chapter V paragraph 11.

13. Defense Against Enemy Action of a Specific Nature

a. Be Prepared for Enemy Reaction to Amphibious Assault. Assumptions are that the enemy will attempt to employ all available means and methods to resist, repel, harass, or destroy the LF. Throughout all phases of the operation, the enemy's capabilities for counteraction are assessed as carefully as possible in order that the LF may be thoroughly alerted to these prospects and, if necessary, provided with the specific means to overcome any reaction that would impede the attack. During the execution of the operation, aggressive reconnaissance and surveillance are employed to provide early warning of indications of a probable enemy course of action.

b. Offense Must Be Maintained. In the amphibious assault, it is important that the offensive character of the operation be maintained throughout. Accordingly, whenever possible, the enemy reactions to the landing should be overcome without interruption to the momentum of the attack.

c. Antiair Warfare and Counterair Operations. The attainment of air superiority is a requirement for the successful conduct of amphibious operations. Air superiority is gained and maintained only through offensive and defensive operations that exploit the capabilities of all participating forces. Both types of operations are essential; neither alone can provide the degree of air superiority needed for the decisive joint application of military power. Although functionally distinct from those operations directly concerned with the primary offensive mission of an ATF, antiair warfare is vital to the successful accomplishment of that mission. Accordingly, antiair warfare is an integral part of the overall amphibious operation. Planning and execution of this effort must be closely coordinated with all other operations in the objective area to ensure freedom of action for friendly aircraft.

d. Defense Against Mechanized Counterattack. One of the most dangerous enemy reactions to an amphibious assault is a mechanized counterattack against the beachhead. Countermechanized planning is an integral part of operations planning and continues throughout the planning and execution phase. The enemy's mechanized capability is one of the major factors considered by the CLF in determining his scheme of maneuver, landing plan, concept of supporting fires, and other operational decisions. The enemy's mechanized capability must be appraised accurately so that the commander's decisions properly reflect appropriate countermechanized tactics and techniques in the tactical plan. Countermechanized planning by the LF must provide for allocation and coordinated employment of all countermechanized means available. Concurrent and parallel planning within the ATF ensures effective employment of these means.

e. Defense Against Airborne and Helicopterborne Attack

(1) Scope of Airborne and/or Helicopterborne Attack. Airborne and/or helicopterborne operations against the LF may range from a large-scale effort, usually launched in conjunction with other forces, to small-scale raids initiated for the purpose of destroying critical installations, disrupting communications, or gaining information. The scale of the attack will depend on the size of the forces available to the enemy, availability of delivery aircraft, purpose of the effort, and the degree of local air superiority the enemy is able to achieve before and during the attack.

(2) Air Superiority Deterrent to Airborne and/or Helicopterborne Attack. Major airborne or helicopterborne operations will seldom if ever be undertaken by the enemy unless he can achieve local air superiority or, as a minimum, air parity. Although friendly air superiority may serve as a deterrent to major attack, small-scale attacks or sneak raids may be attempted without air superiority and, consequently, may be a continuing threat to the LF.

(3) Quick Response to Airborne and/or Helicopterborne Attack. Defense against airborne or helicopterborne attack is directed toward destroying the enemy with minimum delay, thus preserving the offensive momentum of the LF.

f. Defense Against Guerrilla Action and Infiltration

(1) Early Analysis of Enemy Capability. Early in the planning for an amphibious operation, a thorough analysis must be made of the degree and nature of the guerrilla and infiltration operations the enemy is capable of initiating and supporting. Commanders of every echelon of the LF must develop plans to prevent, minimize, and combat such activities in their area of responsibility.

(2) Tradeoff Between Countering the Guerrilla Attack and Primary Mission. Operations are conducted to prevent the guerrilla attack from interfering with the operations of the LF. Many measures, passive and active, offensive and defensive, make up the whole effort. These measures require manpower, means, and valuable time that may have to be diverted from the accomplishment of the primary mission. The LF commander must weigh carefully the degree of interference he is willing to accept before deciding that reduction of the effectiveness of the guerrilla attack is necessary to the achievement of his primary mission. The uneconomical application of force to combat guerrillas will seriously lessen the combat effectiveness of the LF, often enabling the guerrilla attack to achieve its objective.

(3) Nonmilitary Measures. Nonmilitary measures, although often effective, are predominately political in nature and generally will not fall within the purview of the landing force commander. However, the landing force commander must be informed and knowledgeable of these measures and the conditions that require them.

(4) Infiltrators. The plans and measures for operations are equally applicable to defense against infiltrators. However, the major effect in defense against infiltration is directed toward preventing the entry of infiltrators into the protected area.

g. Defense Against Nuclear, Biological, and Chemical Attack

(1) Defense Requires Overall Effort. Defense against nuclear, biological, and chemical weapons involves a thorough intelligence effort, the timely destruction of the enemy means of delivery, and the adoption of measures that will limit or reduce the effectiveness of the enemy's weapons.

(2) Intelligence. Intelligence efforts are directed toward the determination of the capabilities and limitations of enemy nuclear, biological, and chemical weapons and his capability for defense against such weapons. Specific information is also sought on the enemy's detection, protection, and decontamination equipment. The presence of this material is an indication not only of his defensive capability but also of his offensive capability and possible employment of NBC weapons. An adequate biological and chemical defense is a prerequisite to the offensive use of these weapons.

(3) Commander, Landing Force, Responsibilities. The landing force commander determines and prescribes the active and passive NBC defense measures required for the LF. Requirements for active defense measures to be provided by other forces are presented to the CATF.

(4) Additional References. JCS Pub 3-02 provides instructions concerning planning responsibility and preparation of the NBC defense plan. See Service manuals for specific planning requirements, and Chapter VIII, paragraphs 41-47 of this manual for additional information.

CHAPTER VI

SHIP TO SHORE MOVEMENT

1. Introduction

a. Ship-to-Shore Movement. The ship-to-shore movement is that portion of the assault phase of an amphibious operation which includes the deployment of the landing force (LF) from the assault shipping to designated landing areas (JCS Pub 1-02). Ship-to-shore movement planning is a corporate effort produced by Navy and LF chains of command, epitomizing the concept of concurrent, parallel, detailed planning.

b. Most Critical Part of Assault Phase. Although the ship-to-shore movement is only a part of the assault phase, it is the most critical part for several reasons. During this period, the LF and assault shipping are most concentrated. Troops, whether transported by surface or air-cushion landing craft, amphibious vehicles, or helicopters, are particularly vulnerable to enemy fire of all types. Movement control requirements are complex and must be coordinated precisely with the fires of supporting arms. Finally, the natural hazards of weather, sea, and surf conditions must be overcome. For these reasons, the ship-to-shore movement deserves separate and detailed consideration.

2. Purpose and Scope. This chapter provides information on the organization, control, planning requirements, and execution of the ship-to-shore movement from the perspective of the LF. This chapter extends and complements information in Chapters 11 and 16 of JCS Pub 3-02. Additional detailed information may be found in NWP 22-3/FMFM 1-8, "Ship-to-Shore Movement," ATP-36, "Amphibious Operations, Ship-to-Shore Movement." The Appendix of this publication provides a discussion and examples of documentation required for the ship-to-shore movement. Over-the-horizon operations involving LCAC in the ship-to-shore movement are conducted using the same principles as those for traditional ship-to-shore operations and in accordance with NWP 22-3/FMFM 1-8. Definitions necessary to an understanding of ship-to-shore operations are in the Glossary.

3. General

a. Concept of Operations. The ship-to-shore movement is designed to ensure the landing of troops, equipment, and supplies at the prescribed times and places and in the formation required by the LF concept of operations ashore.

The movement may be executed by waterborne means (LCAC, displacement landing craft, amphibian vehicles, and landing ship tank (LST)) or helicopterborne movement, or a combination of both.

b. Commencement and Conclusion. Ship-to-shore movement commences on the order of the CATF to "land the landing force." Movement is concluded when all troops, equipment, and supplies loaded in assault shipping has landed. The ship-to-shore movement is divided into two periods:

(1) Initial Unloading Period. The initial unloading period is primarily tactical in character and must be instantly responsive (selective unloading) to LF requirements ashore.

(2) General Unloading Period. The general unloading period is primarily logistic in character and emphasizes speed and volume of unloading operations. The order to commence general unloading is given by the CATF once he and the CLF mutually agree that conditions ashore are favorable. The LFSP is disbanded and the Combat Service Support Element (CSSE) commander assumes the responsibility for CSS ashore. The PCS organization, except for regulation of traffic, ceases to operate but remains intact in a standby status, ready to resume selective unloading if required.

4. Responsibilities

a. Commander, Amphibious Task Force. The CATF has overall responsibility for preparation of plans for the ship-to-shore movement, including the allocation of ships and landing craft. Further, the CATF retains control of the execution of movement through the Navy control organization (paragraph 7 below) until offloading, including the AFOE, is completed.

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

c. Other Commanders. Commanders of other major forces assigned to the amphibious task force (ATF), including those assigned for movement to the objective area for the initiation of tasks not a part of the amphibious operation

(e.g., base development), are responsible for determining and presenting their requirements for the ship-to-shore movement to the CATF. Normally, these requirements will be included in the plans prepared by the ATF and the LF commanders.

5. Planning Considerations. Planning for the ship-to-shore movement follows a general sequence of development. Detailed planning for the ship-to-shore movement cannot begin until after the concept of operations ashore (including the scheme of maneuver) is formulated and approved. The landing plan must be substantially completed before embarkation planning can begin. The landing plan must be carefully integrated with the plan of supporting fires and must provide for the requisite combat service support of all forces ashore.

a. Basic Considerations

(1) Basic Requirements. The basic requirements for maximum support to initial tactical operations ashore are the maintenance of tactical integrity in the LF and achieving the required degree of concentration or dispersion of assault shipping.

(a) Tactical Integrity. The organization for landing must ensure adequate control upon landing with a rapid achievement of overall tactical control by commanders of each echelon. Maintenance of tactical integrity is accomplished by proper combat loading of assault shipping and by proper assignment of troops to landing ships, landing craft, amphibious vehicles, and helicopters in the landing plan. The tactical integrity of a given unit does not require an entire unit to embark in a single ship. A BLT, for example, may be embarked in several LSTs, with one reinforced rifle company assigned to each LST for landing by assault amphibious vehicles.

(b) Concentration or Dispersion of Assault Shipping. The required degree of concentration or dispersion of assault shipping is reflected in the organization of sea areas in the objective area, including preparation and implementation of the sea echelon plan.

(2) Availability of Amphibious Shipping and Ship-to-Shore Movement Assets. The type and quantity of available assault shipping and ship-to-shore movement assets will influence every aspect of the planning and execution of an amphibious operation.

(3) Defense of the Amphibious Task Force. The protection of the ATF is a matter of mutual concern to and cooperation between the CATF and the CLF. Two types of threats must be considered in planning and executing an amphibious operation: threats to the LF and threats to ATF shipping. LF planning must consider the use of LF assets (e.g., aircraft, REDEYE missiles) in the defense of the ATF. Protection comprising both active and passive measures must be provided during all phases of the amphibious operation. Of particular importance during the ship-to-shore movement is the protection acquired through speed of execution and aggressiveness in the conduct of the assault.

(a) Active Protection. Active protection includes offensive air operations, air defense, antisubmarine and anti-small-boat screens, covering forces, electronic countermeasures, smoke, and naval gunfire.

(b) Passive Protection. Passive protection places major emphasis on dispersion and mobility. Dispersion is achieved initially through unit separation afforded by the proper embarkation of units in assault shipping. Dispersion within and separation between assault waves must be a compromise between the degree of dispersion considered essential and the concentration of combat power requisite to success. Lateral separation of boat lanes and approach lanes is maximized to obtain the greatest spread consistent with the convergence required by location of landing beaches and landing zones and lanes for return of surface craft, amphibious vehicles, and helicopters to ships. Mobility permits speed in movement, which denies the enemy accurate target information.

(4) Flexibility. Planning must incorporate sufficient flexibility to respond to changing situations and to exploit weaknesses in enemy defenses when discovered. Alternate plans and plans for employment of reserves contribute to flexibility.

(5) Fire Support. Planning must include the use and coordination of all fire support means.

(6) Speed and Control. The requirement for speed and positive control in executing an amphibious operation must be emphasized in each phase of the operation.

b. Special Considerations

(1) Concept of Operations. The LF concept of operations ashore is the principal determinant in development of the landing plan. As the basis for the landing plan, the concept of operations ashore itself is influenced by many factors; e.g., intelligence on enemy dispositions, the combat power available, hydrographic conditions in the landing area, and the beaches and landing zones available. The concept of operations is the basis on which all subsequent, inverse planning for the amphibious operation as a whole is predicated.

(2) Combat Loading. The arrangement of personnel and the stowage of equipment and supplies in a manner designed to conform to the anticipated tactical operation of the organization embarked. Each individual item is stowed so that it can be unloaded at the required time (JCS Pub 1-02).

(3) Organization for Embarkation. The organization for embarkation must support both the plan for landing and the concept of operations ashore. It must also provide for maximum flexibility to support alternate plans that may be adopted. The landing plan is based on conditions and enemy capabilities known or believed to have existed in the AOA before embarkation of the assault troops. A change in conditions affecting either friendly or enemy forces during the transit to the objective area may necessitate modifications to the landing plan without the opportunity for reconfiguring the embarkation organization. The extent to which such changes to the landing plan can be accommodated depends on the flexibility within the organization for embarkation. (See Chapter V, paragraph 8.)

6. Supply and Movement Categories. Ship-to-shore movements of LF troops, equipment, and supplies are broadly classified by type as waterborne movement and helicopterborne movement. For convenient reference in planning the ship-to-shore movement and to promote flexibility during its execution, two categories of supplies and five categories of movement are employed:

a. Supply Categories. (See Chapter V, paragraph 10 for additional details.)

(1) Landing Force Supplies. LF supplies are all those supplies and equipment that accompany the LF in assault echelon (AE) and assault follow-on echelon (AFOE) shipping and comprise the projected initial supply support to sustain the LF until the ATF mission is accomplished. This supply category is further broken down into prescribed loads, pre-positioned emergency supplies, and remaining supplies.

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

b. Movement Categories

(1) Scheduled waves (see paragraph 8 below).

(2) On-call waves (see paragraph 9 below).

(3) Nonscheduled units (see paragraph 10 below).

(4) Pre-positioned emergency supplies (see paragraph 11 below).

(5) Remaining LF supplies (see paragraph 12 below).

7. Landing Serials. Discussion of the movement categories listed above requires an understanding of landing serials and serial numbers.

a. Serials. A serial is an element or group of elements within a series which is given a numerical or alphabetical designation for convenience in planning, scheduling, and control (JCS Pub 1-02). For embarkation purposes, a serial is a troop unit or grouping of supplies and equipment that are to be:

(1) Embarked entirely in one ship.

(2) Landed as a unit on one beach or helicopter landing zone.

(3) Landed at approximately the same time.

b. Serial Numbers. A serial number is an arbitrary number assigned to each serial to identify each element of the LF, in either the AE or the AFOE, to be landed before general unloading. Included those Navy elements landed with the LF

before general unloading. Serial numbers are a means of identification, not a statement of priority, and are published in the Serial Assignment Table, which is included in the landing plan. The planned order for landing serials is published in the Landing Sequence Table of the landing plan.

c. Purpose of Serial Numbers. Serial numbers are primarily reference numbers and in no way indicate, in themselves, a priority or sequence of landing. The purposes of serial numbers are to:

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

(2) Provide speed, brevity, and security in communication. (This does not preclude the use of code names, designations, or unit titles when appropriate. However, OPSEC requirements must be stressed in all phases of the operation.)

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

d. Allocation of Serial Numbers. Early in planning, the CLF allocates blocks of consecutive serial numbers to each LF element on the basis of the administrative organization. Further sub-allocations are made to all subordinate organizations until each unit has been given a block of serials. While the allocation of blocks of serial numbers to units is based on the administrative organization, the actual assignment of individual serial numbers is based on the organization for landing. That is, serial numbers are not finally assigned until the organization for landing is determined. For example, Co A, BLT 1/23 will be allocated serial numbers 1601-1625. After determining that Co A will land in the assault amphibious vehicles of the first wave, the entire wave would be designated serial 1601. Accordingly, serial numbers 1602-1625 would not be reflected in the Serial Assignment Table.

e. Serial Assignment Table. The serial assignment table is a table that is used in amphibious operations and shows the serial number, the title of the unit, the approximate number of personnel; the material, vehicles, or equipment in the serial; the number and type of landing craft and/or amphibious vehicles required to boat the serial; and the ship on which the serial is embarked (JCS Pub 1-02).

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

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

b. Priority. After waterborne waves have crossed the line of departure (LOD), or helicopterborne waves have left the departure point, the landing of scheduled waves proceeds without change except in extreme emergency in order to maintain the necessary momentum of the assault and to ensure the required rapid buildup of combat power ashore.

c. Composition. Scheduled waves are composed predominantly of elements of the initial assault BLTs and their prescribed loads. Designated elements of the LF support party necessary to establish initial control and coordination of unloading operations on the landing beaches will also be included in scheduled waves.

d. Serialized. Scheduled waves are serialized.

e. Listing of Scheduled Waves. Waterborne waves land in accordance with the Assault Schedule (Appendix). Helicopterborne landings proceed in accordance with the Helicopter Employment and Assault Landing Table (HEALT) (Appendix).

9. On-Call Waves. On-call waves consist of the elements of the LF with their initial combat supplies whose need ashore at an early hour is expected, but whose time and place of landing cannot be accurately predetermined. They are elements subject to immediate or emergency call and are positioned so as to be available for landing shortly after H-hour.

a. Commencement

(1) Waterborne. For waterborne movement, on-call waves are usually boated at the same time as, or shortly after, the scheduled waves and may be held in readiness at the line of departure. However, if

adequate numbers of landing craft are not available, some on-call elements may be required to wait for a second trip of landing craft.

(2) Helicopterborne. Helicopterborne on-call waves are retained in a standby status aboard ship until called ashore.

(3) Other Means of Landing On-Call Waves. When the tactical situation and oceanographic conditions permit, LSTs as well as landing craft, amphibious vehicles, and helicopters, may be employed to land on-call waves.

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

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

d. Serialized. On-call units are serialized.

e. Listing of On-Call Waves. Waterborne units are listed in the Assault Schedule, after the scheduled waves. Helicopterborne units are listed in the Helicopter Employment and Assault Landing Table.

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

a. Commencement. Nonscheduled units are not landed until requested and normally are not boated until requested. They are second in priority for use of landing craft or helicopters. The need for such elements ashore is usually not of an emergency nature. Therefore, they are landed when their employment ashore is appropriate.

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

c. Composition. This category includes the combat, combat support, and CSS elements of the LF not included in the scheduled or on-call waves. Examples are LF reserve, general support artillery, LF support party elements, antiaircraft units, aviation ground support units, and headquarters elements of LFs, division, aviation, and CSS elements.

d. Serialized. Nonscheduled units are serialized.

e. Listing of Nonscheduled Units. Insofar as practical, nonscheduled units are landed in accordance with the Landing Sequence Table (Appendix) prepared by the CLF. Nonscheduled units to be landed by helicopter will be listed in the Helicopter Employment and Assault Landing Table.

11. Pre-positioned Emergency Supplies. Pre-positioned emergency supplies are designated by the LF commander to meet expected critical needs for supply replenishment early in the ship-to-shore movement. These supplies are available for immediate delivery to units ashore. This category is further divided into floating dumps and prestaged helicopter-lifted supplies.

a. Floating Dumps. This category is a temporary groupment of selected supplies (normally Classes I, III, V, and VIII) that are prepackaged and placed in landing craft, ships, or amphibious vehicles for emergency delivery to units ashore. Floating dumps are employed primarily in support of surface assault elements.

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

(2) Dispatch. Floating dumps are dispatched to the beach when requested by the troop commander ashore. Their availability in dedicated landing craft avoids critical delays in the delivery of needed supplies to the beach.

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

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

(5) Serial Numbers. Floating dumps are not serialized. However, vehicles on which floating dumps may be mobile-loaded may be allocated serial numbers by their owning unit for identification purposes.

b. Prestaged Helicopter-Lifted Supplies. Similar to floating dumps, prestaged helicopter-lifted supplies are prepackaged units of selected supplies that are positioned aboard helicopter transports and other suitably configured ships for rapid air delivery to units ashore. Prestaged helicopter-lifted supplies may be employed in support of both helicopterborne and surface assault units.

(1) Dispatch. Supplies are dispatched to the beach or landing zones when requested by the troop commander ashore.

(2) Reconstituted. Once a unit of prestaged helicopter-lifted supplies has been committed, it should be immediately reconstituted unless supply levels ashore are sufficient to obviate the further requirement for such assets.

(3) Dissolved. Uncommitted prestaged helicopter-lifted supplies are landed as transportation (surface or air) becomes available and stored in designated combat service support areas ashore. Movement of these supplies ashore should be coordinated closely with the Landing Force Support Party to minimize handling and maximize aircraft and landing craft utilization.

(4) Serial Numbers. Prestaged helicopter-lifted supplies may be assigned serial numbers in order to facilitate the identification and delivery of specific supplies.

(5) Listing of Prestaged Helicopter-Lifted Supplies. These supply packages are included in the Helicopter Employment and Assault Landing Table.

12. Remaining Landing Force Supplies. Remaining LF supplies consist of replenishment supplies and equipment not included in the unit commander's prescribed loads, floating dumps, or prestaged helicopter-lifted supplies. These supplies constitute the major portion of supplies transported into the amphibious objective area in assault echelon and assault follow-on echelon shipping. Certain supplies in this category may be selectively unloaded to ensure prescribed dump levels are maintained ashore. However, the bulk of remaining supplies are landed during general unloading.

13. Free Boats. While not a landing category, free boats are used, as available, to transport unit commanders, command groups, or liaison elements to the beach. Free boats can be either amphibious vehicles, landing craft, or helicopters.

a. Requirements. Free boat requirements are established by the LF based on its requirements for command and control as expressed in the landing plan. Requirements are weighed against landing craft and amphibious vehicle availability because assets for this purpose are assigned a lower priority than either scheduled or nonscheduled waves.

b. Commitment. When available, free boats load and land at the request of the senior officer assigned to the free boat through the primary control officer or helicopter direction center.

c. Serialized. Free boats are serialized for administrative purposes.

14. Command and Control Helicopters. For a helicopterborne unit, a command and control helicopter may be assigned. In purpose and function, it is similar to the free boat.

a. Helicopter and Helicopterborne Unit Commanders in Same Helicopter. Depending on the tactical situation, the helicopter and helicopterborne unit commanders or their representatives should be carried in the same helicopter. This facilitates command and control and permits joint consultation if changes in the landing plan are required by the situation.

b. Serialized. Command and control helicopters are serialized.

15. Organization for Landing. Planning for the ship-to-shore movement involves the coordinated efforts of the LF and naval force, with particular consideration for the LF concept of operations ashore and the characteristics of assault shipping

assigned and ship-to-shore movement means available. As a distinct phase of the amphibious operation, the ship-to-shore movement has a unique organization for command, control, and coordination. This section discusses the separate LF and Navy organizations for landing.

a. Organization of the Landing Force

(1) Composition and Functions. Refer to Chapter II, paragraph 7.

(2) Divisions. Although smaller organizations may be employed in appropriate cases, the reinforced infantry division is the basic self-contained tactical organization for the conduct of amphibious assault operations. When the LF includes two or more divisions, it is organized for landing into two or more reinforced divisions and supporting units. Landing support and aviation units are included in the LF organization for landing. Those specifically designated combat service support and aviation units scheduled to land during the initial assault and over the same beaches as the assault divisions are included in the landing plans of the assault divisions.

(3) Regiments or Brigades. The regimental or brigade landing team (RLT or BDELT) is a task-organized assault element consisting of an infantry regiment or brigade reinforced by those support elements required. This reinforcement usually includes subordinate BLTs and elements of such units as the LF support party, tanks, and combat engineers.

(4) Battalions. The BLT is the basic organization of the LF for ship-to-shore movement planning. The BLT consists of an infantry battalion or similar unit reinforced by such supporting and service units as may be attached for the assault. It may include other units attached for landing (see Chapter V, subparagraph 10b(4)). Because the battalion landing team is a specific tactical organization for landing and assault, it should be differentiated from the infantry battalion or similar organization that forms its nucleus and the embarkation team, which is a temporary administrative organization of all troops, supplies, and equipment embarked in a single ship. For ship-to-shore movement, the BLT is further organized for waterborne or helicopterborne movement as follows:

(a) Waterborne. For movement by landing craft and amphibious vehicles, the BLTs are formed into boat flotillas, boat groups, boat waves, and boat teams. Insofar as practicable, the tactical integrity of troop units should be maintained within boat waves and boat teams.

(b) Helicopterborne. For movement by helicopter, the BLTs are formed into helicopter flights, waves, and teams. See the Glossary for further definition of these terms.

(5) Task Groupments. Task groupments of tanks, artillery, antitank, engineer, and other supporting arms or service units may be formed to support initial operations ashore. In those instances where these units are required to land early, they would become part of the organization for landing the BLT.

(6) Reserve Forces. Reserve RLTs or BDELTs and BLTs are organized in a manner similar to their assault counterparts. Although not tailored for assault of a specific beach or landing zone, the reserve is prepared to conduct an assault landing if directed. If plans call for the reserve to be landed by water, it is landed early in order to exploit situations developed by the assault units. Helicopterborne reserve units usually are not landed until the requirement arises for their employment.

(7) Special Organizations for Landing. The use of helicopters in amphibious operations normally does not necessitate the creation of a separate, subordinate LF organization for landing of the helicopterborne units. Only in exceptional circumstances would such a separate organization be required. The helicopterborne units and the surface units are component elements of the LF and the CLF is their common commander. When a special, subordinate organization is required to conduct a helicopterborne landing, it will consist of a command and control element and designated aviation, ground, and service support units required to accomplish the mission assigned. Its special status notwithstanding, such an organization would remain within the overall structure of the LF in the same manner as the surface-landed elements of the LF.

b. Organization of the Navy Task Force. The organization of the Navy forces afloat provides task groups to transport, protect, land, and initially support the landing group(s) and includes the necessary movement control and landing craft organizations. (See paragraph 224, JCS Pub 3-02.)

(1) Types of Amphibious Assault Ships. Amphibious assault ships (LHD, LHA, LPH) are the basic units of assault shipping. Normally, infantry elements, liaison teams, and reconnaissance parties of supporting elements of a BLT are embarked in this type ship. The remainder of the BLT (tanks, artillery, assault amphibious vehicles, and CSS elements) is normally embarked in landing ships (LSD, landing ship dock; LST, landing ship tank; and LPD, amphibious transport dock) and attack cargo ships (LKA).

(2) Amphibious Command Ships. The Navy currently has four dedicated amphibious command ships (LCCs). Two, LCCs of the BLUE RIDGE class, were originally designed as amphibious force command ships but were redesignated in 1969 as amphibious command ships. The other two command ships, converted LPDs, were designed as fleet flagships.

(3) Navy Command and Control Seaward. The amphibious assault ships, landing craft, and LF amphibious vehicles are organized to support the organization for landing. Navy organization within the objective area is designed to meet control and maneuverability requirements. Control of the ship-to-shore movement directly or indirectly involves the organization of the sea areas, the establishment of a number of control agencies, and the employment of various control techniques and devices. The number and arrangement of beaches and the corresponding types of movement also play a part in the control system to be established for a particular operation.

16. Organization of Sea Areas

a. Organization. For a discussion of the organization of sea areas in its entirety, see paragraph 1434 of JCS Pub 3-02. Sea areas in the vicinity of the objective area are selected and designated by the ATF commander or higher authority in order to minimize the possibility of interference between components of the ATF and other supporting forces.

b. Categories. These areas are generally categorized as either the ocean operating area surrounding the landing area or the sea areas in the landing area. In addition to the control devices listed below, those portions of the sea areas in the landing area in which the ship-to-shore movement is conducted are of particular concern to the LF. The ATF commander, in coordination with the LF commander, plans the necessary approach and retirement lanes, checkpoints, rendezvous areas, and aids to navigation in order to facilitate the control of helicopters employed in the ship-to-shore movement and for the control of aircraft transporting airborne elements in the landing area. The following terms reflect the coordination and control devices typically employed during the ship-to-shore movement. For further definition of these terms, see Glossary. For representative schematics showing the relationship of the following terms, see the Appendix.

- (1) Line of departure.
- (2) Boat lanes.
- (3) Approach lanes.
- (4) Floating dump area.
- (5) Special unloading berths.
- (6) Casualty receiving and treatment ship (CRTS) berth.
- (7) Transfer line.
- (8) Transfer berth.
- (9) Assault amphibious vehicle launching area.
- (10) Causeway launching area.

17. Navy Control Group. Control of the movement of landing ships, landing craft, amphibious vehicles, and helicopters from the transport and landing ship areas to landing beaches and helicopter landing zones is exercised through a Navy control group. The control group keeps the CATF, the CLF, and other designated commanders informed of the progress of the movement from ship to shore, the landing of various waves, and the visible progress of operations on shore. The organization of the Navy control group is based on the arrangement and number of landing beaches to be used. Control officers and control

ships are designated by the CATF and Navy transport group commanders for their respective levels of command. The control organization is designed and organized to support the LF organization for landing.

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

b. Control Organizations. The CATF exercises control of the ship-to-shore movement through the Navy control group. The CLF influences the execution of the ship-to-shore movement through the tactical-logistical group (TACLOG) afloat and the LF support party ashore. The system for the control of the ship-to-shore movement is governed by the LF plan for landing. The maximum area over which effective centralized control of the ship-to-shore movement may be exercised varies in each situation and is, in large part, governed by communications capabilities.

c. Waterborne Control Agencies. The primary agencies of the Navy control group concerned with the waterborne ship-to-shore movement are:

(1) Central (Force) Control Officer. This Navy officer is normally located aboard the CATF's flagship to coordinate the overall ship-to-shore movement of surface assault units, including LCAC operations. The LF TACLOG is located with the Central (Force) Control Officer (CCO).

(2) Primary Control Officer. A primary control ship and primary control officer (PCO) are designated for each transport organization landing an assault regimental or battalion landing team or equivalent formation. The PCO is usually the executive officer or operations officer (N-3) of the primary control ship and is embarked in the primary control ship to control the movement of the waterborne assault waves and other craft to and from his assigned beach. He and the regimental or battalion landing team TACLOG, collocated aboard the primary control ship, use the LF landing plan to maintain the status of all serials debarked from ships of their group.

(3) Combat Cargo Officer. This officer is the CATF's representative for all phases of embarkation. He is the LF TACLOG's link for planning and coordination with all ship combat cargo officers, operation officers, and first lieutenants. The TACLOG OIC must brief the CATF combat cargo officer, in detail, about the landing plan, alternative plans, the CSS concept as it affects ship-to-shore supply replenishment, and other expected logistical requirements during operations ashore. This information will allow the CATF combat cargo officer to coordinate directly with the appropriate CATF staff officers.

(4) For definitions and functions of additional control group agencies that may be included in the Navy control organization for waterborne operations, see Glossary.

d. Helicopterborne Control Agencies. Control of the helicopterborne ship-to-shore movement is exercised by the CATF. Helicopter units employed in the ship-to-shore movement are subordinate elements of the LF. These units execute the ship-to-shore movement in accordance with the CATF's plans for landing and control that, in turn, are established on the basis of LF requirements. Plans include provisions for reversion of control of helicopter operations to the CLF when the situation ashore permits. Agencies concerned with the helicopterborne movement and the procedure for control are as follows:

(1) Tactical Air Officer. Helicopter movements must be closely coordinated with the other users of airspace; e.g., fixed-wing aircraft and supporting fires. The tactical air officer (TAO), located in the tactical air control center (TACC), is responsible for this coordination. The LF TACLOG provides liaison to the TAO.

(2) The Helicopter Transport Group Commander. This individual is responsible for matters related to flight control of helicopters. This control is exercised through the helicopter direction center (HDC) and the helicopter logistics support center (HLSC). The helicopterborne assault force TACLOG, collocated with the HDC and HLSC, provides the necessary liaison.

(3) Tactical Air Control Center Afloat. The tactical air control center (TACC) afloat is organized and equipped to exercise control and/or coordination of all

aircraft, including helicopters, in the AOA. During the helicopter ship-to-shore movement, the TACC exercises control over all helicopters; coordinates helicopter movements with supporting arms and other air operations; and maintains the current status of helicopters and landing platforms and the progress of the helicopterborne assault(s).

(4) Helicopter Coordination Section. As an integral part of the TACC afloat, the helicopter coordination section (HCS) is the specific section that coordinates all helicopter operations decentralized under the control of subordinate helicopter control agencies. The HCS is organized in two units: A helicopter coordination unit, concerned with the actual employment and coordination of helicopters; and a helicopter advisory unit, concerned with maintaining current data on the status, availability, locations, and progress of the helicopterborne assault(s). Additionally, the HCS is normally augmented with personnel from the aviation element of the LF.

(5) Helicopter Direction Center. The actual control and direction of the helicopterborne ship-to-shore movement is decentralized to the helicopter direction center (HDC), which is subordinate to the TACC afloat. (See figure VI-1.) The HDC is embarked aboard the flagship of the helicopter transport group unit commander--normally the commanding officer of an LPH or LHA.

(a) Major functions of the HDC, under the overall supervision of the TACC afloat, are as follows:

1. Control the movement of all helicopters operating within its assigned control areas and in accordance with the concept of operations.
2. Control escort aircraft when directed by the TACC.
3. Maintain and report to the TACC the status and location of assigned helicopters.
4. Advise the TACC on all matters pertaining to the movement of the helicopters within its control area that may require coordination with supporting arms.

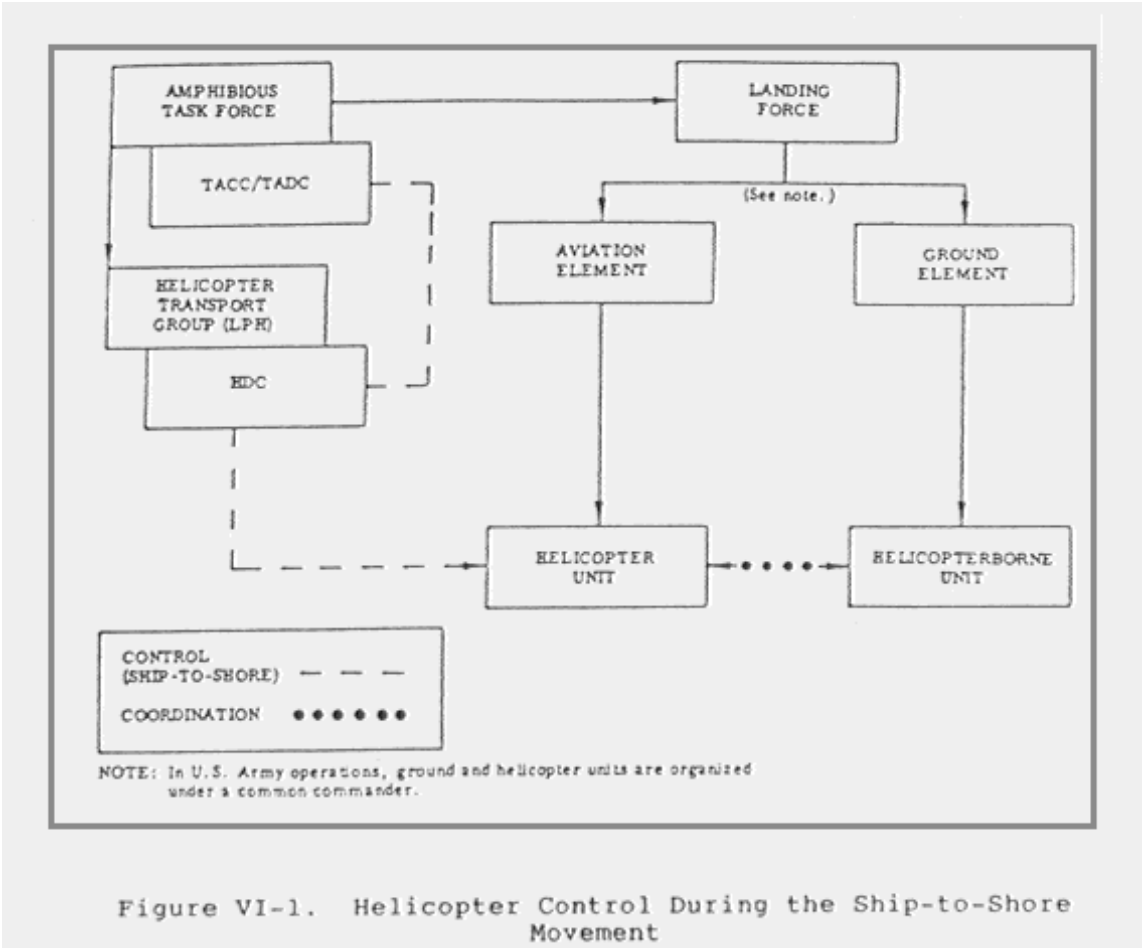


Figure VI-1. Helicopter Control During the Ship-to-Shore Movement

5. Coordinate all changes to the Helicopter Employment and Assault Landing Table with the helicopter logistic support center.
6. Control the movement of medical evacuation (MEDEVAC) helicopters based on the advice of the medical regulating section (MRS).

(b) The HDC is collocated or closely integrated with the TACLOG, HLSC, and MRS. During operations, the helicopter assault force TACLOG monitors requests from assault units or their CSS elements ashore. Requests for delivery by helicopter are forwarded through the HLSC, which coordinates the debarkation of serials in accordance with the landing plan. The requests are then forwarded to the HDC for execution. The MRS recommends to HDC the particular medical facility to which MEDEVAC helicopters should be directed.

(c) When the direct air support center (DASC) is established ashore, it assumes responsibility for HDC operations as directed by the TACC. Within the DASC is the helicopter director, who is responsible for the coordination and control of helicopters operating under control of the DASC. When and to the extent that air control ashore is exercised by US Air Force elements, agencies are established in accordance with US Army-US Air Force procedures for air-ground operations. During amphibious operations, however, air control agencies ashore must be compatible and capable of functioning with other air control agencies of the ATF.

(6) Helicopter Coordinator (Airborne) (HC(A)). The helicopter coordinator (airborne) (HC(A)) is an experienced naval aviator operating from an aircraft to direct airborne coordination and control of helicopterborne assaults. The HC(A) is responsible for the airborne control of all helicopters in his assigned area and coordinates with the TAC(A) or FAC(A), as appropriate, for support of close air support aircraft, as determined by the tactical air commander. When an HC(A) has not been designated, the helicopter transport flight leader may, within the limits of his authority, discharge the duties of the HC(A) requisite to mission accomplishment. If employed in conjunction with the TAC(A), the relationship between the two will be established by the tactical air commander or his designated representative. The HC(A) may function as an extension of the DASC or HDC in situations in which those agencies delegate specific authority to him for specific missions. The HC(A) and helicopterborne unit

commander should normally be assigned to a single aircraft where feasible in order to facilitate timely and coordinated decisions affecting the helicopterborne assault. They should determine during the planning phase who will decide on such matters as:

- (a) Final selection of LZs.
- (b) LZ selection for succeeding waves.
- (c) Mission abort criteria.

(7) Tactical Air Coordinator (Airborne). The TAC(A) is an officer who coordinates from an aircraft the action of combat aircraft engaged in close support of ground or sea forces. The TAC(A), as an on-site airborne extension of the DASC or TACC or TADC, is normally the senior air coordinating authority over all aircraft operating within his assigned area of responsibility. However, the specific authority exercised by a TAC(A) will be as specified or delegated by the DASC or TACC or TADC, as appropriate. During helicopterborne assault operations, and other operations where an HC(A) is employed, the relationship between the TAC(A) and the HC(A) will be established during the planning phase by the tactical air commander or his designated representative. The TAC(A)'s principal responsibilities are to deconflict aircraft and coordinate employment of supporting aircraft with other supporting arms. In fulfilling this responsibility, the TAC(A) coordinates as necessary with the HC(A), ground commanders' tactical air control parties, fire support coordination centers, subordinate forward air controllers (airborne) (FAC(A)), and the fire direction centers of artillery and naval gunfire. The TAC(A) may or may not be assigned depending on mission requirements and aircraft availability. When assigned, the TAC(A) is subordinate to the DASC or the TACC or TADC.

(8) Airborne early warning and observation aircraft may be used to assist in controlling assault helicopters as well as in defense of the ATF. Primarily, they provide information beyond the capabilities of shipboard electronic equipment, thus extending the effective range of HDC control.

(9) Flight leaders are in command of all helicopters in the flight or wave from the time they are formed until they are disestablished. Although the flight leaders command the flights or waves, they are controlled during the entire movement by the helicopter control agencies discussed above.

(10) Reconnaissance teams are delivered to the LZ in advance of the helicopter support teams to establish and operate signal devices for the purpose of guiding the initial helicopter wave from the initial point to the LZ. If the landing is of modest size and complexity, reconnaissance teams, augmented by additional communication means, may function as LZ control teams.

(11) The supporting arms coordination center (SACC), the Navy equivalent of the fire support coordination center (FSCC), coordinates all fire support while the control of supporting arms is afloat. The TACC keeps the SACC informed concerning the movements of helicopters and other aircraft.

(12) Individual ships control the launching of their embarked helicopters and direct them either to flight rendezvous points located in the immediate vicinity of the ship or to report to the HDC on a designated helicopter direction control net. The HDC then directs the flight to a rendezvous point or a wave rendezvous point where it may form, as required by plan, with flights from other ships into a helicopter wave.

(13) The HLSC coordinates the debarkation of air serials in accordance with the landing plan, under the control of the helicopter logistics coordinator (HLC). The HLC is a Navy officer, comparable to the PCO of a waterborne movement. The troop commander ashore or the LFSP (or HST) will request on-call, nonscheduled serials and emergency resupply based on priorities. The HLSC processes all air requests through the HDC and, once approval is given, notifies the debarkation control officer on the applicable ship to prepare for helicopter operations and the nature of the mission (e.g., follow-on serial, replenishment). The coordination that the HLSC performs is dependent on the communications nets available. The helicopter assault force TACLOG, located aboard the central control ship, monitors such requests and assists as required. TACLOG informs the requesting ground commander or the

supporting CSS element of mission approval, the type and number of aircraft, the expected time of arrival at his position, and the helicopter route (lane) if applicable. This information is required by the ground unit FSCC for fire support coordination. Once helicopter control is passed ashore, the DASC will provide this information.

18. Tactical-Logistical Group

a. Characteristics and Purpose. A Tactical-Logistical Group (TACLOG) is the LF commander's counterpart to the Navy control organization. TACLOG is a temporary task organization consisting of LF personnel that is established, as required, by the commanders of major assault echelons. It functions as the commander's staff liaison representatives for the principal purpose of advising corresponding Navy control groups of LF requirements for both the waterborne and helicopterborne ship-to-shore movements. The TACLOG is not part of, but is closely associated with, the Navy movement control organization.

(1) During the ship-to-shore movement, TACLOGs at the various echelons serve as the coordinating link between the Navy control organization and troop commanders ashore. The groups advise their Navy counterparts on the location of troop units, supplies, and equipment; boating requirements for serials; adjustments in the landing sequence; and special requirements of the commanders ashore. The group keeps the appropriate troop commanders informed on the progress of the ship-to-shore movement, including serials dispatched and landed and the status of unloading. In addition, TACLOG maintains detailed records of the times when serials are requested, dispatched, and landed.

(2) When helicopterborne forces are employed, a Helicopter Assault Force TACLOG is established and acts as the principal adviser to helicopter control agencies (HCS and HDC) and the debarkation control agency (HLSC) during the ship-to-shore movement. TACLOGs monitor requests from helicopterborne assault units. These requests normally are transmitted through helicopter support teams attached to the helicopterborne assault unit. (See paragraph 35 below.)

b. Organization. Officers detailed to the TACLOG must have intimate knowledge of the operation order, the embarkation order, the concept of CSS, and the individual ship's loading plans of their parent unit. TACLOG is normally composed of representatives from the operations (G/S-3) and logistics (G/S-4) sections, the CSS element, and the embarkation officer of the LF or troop headquarters embarked. Representatives from artillery, tank, air, and other units may be assigned, particularly during the period when the main elements of those units are being boated and landed.

(1) G/S-3 Representative. Because the initial waves of an amphibious assault are, in reality, a tactical maneuver to establish combat power ashore, consideration should be given to initially designating the G/S-3 representative as the officer-in-charge (OIC) of the TACLOG. As the operation progresses into the general unloading phase, the CSS or G/S-4 member may assume OIC responsibilities. As the initial OIC, however, the G/S-3 representative has the responsibility for organizing the TACLOG and planning its operation. He must possess a thorough knowledge of the capabilities and limitations of Navy ship-to-shore movement (air and surface) during the planning and execution phases. This knowledge, coupled with his grasp of the tactical plan, the landing plan, and the concept of CSS, will enable the TACLOG to respond to the needs of the units afloat or ashore. His operating requirements (personnel, communications, and ship spaces) should be identified to the appropriate Navy personnel (CATF, control officer, and combat cargo officer) early in the planning phase. Once embarked, the TACLOG OIC must conduct watch officer classes for selected personnel in his 24-hour support center.

(2) G/S-4 Representative. This officer must understand the CSS concept and assist in the proper employment of CSS resources. He continually informs the CSS element (CSSE) about its relationship with the TACLOG and advises the commanding officer of the CSSE on logistical planning and execution for all phases of ship-to-shore operations.

(3) Embarkation Officer. This officer, with a detailed knowledge of ship loading plans, is responsible for advising the TACLOG on the exact location of all classes of supply and equipment. He also advises the TACLOG OIC of the nature of stowage

and Navy requirements that may affect ship-to-shore movement. He will indoctrinate assigned embarkation representatives on each ship about TACLOG procedures and how the representatives will function as coordinators when their ship receives a TACLOG mission. The embarkation officer may coordinate the general unloading phase while the TACLOG OIC and other designated personnel move ashore. Upon completion of general unloading and subject to the tactical requirements, the TACLOG will cease functioning.

(4) Combat Service Support Element Representative. This officer is usually from the operations section of the CSSE. His in-depth knowledge of the capabilities, limitations, and employment of the LF support party and other CSS units greatly aids the TACLOG in evaluating and processing support requests submitted by the LF elements. Additionally, he advises the TACLOG of any specific requirements that apply to CSS vehicles and equipment during ship-to-shore movement or the withdrawal phase (if one is planned).

(5) Communication Personnel. The number of radio operators and supervisors required will depend on the number of communication nets allocated to TACLOG. Communication equipment and personnel to support TACLOG operations may be provided by the supported combat element, the CSS element, the control ship on which the TACLOG is located, or a combination thereof. However, responsibility for providing the TACLOG with communications means rests with the CLF and those subordinate commanders responsible for establishing a TACLOG.

(6) Representatives or Liaison Personnel from Other Units. Augmentation personnel may be required when specific expertise is needed to coordinate the movement of large amounts of equipment and/or supplies during joint and/or combined operations.

(7) Administrative or Messenger Personnel. The number of personnel needed to perform this task is determined by the TACLOG OIC.

c. Collocated with Navy Control. The TACLOG of each echelon of the LF is embarked in the same ship with the Navy control officer exercising control over the ship-to-shore movement of that echelon. Figure VI-2 shows the relationship of the Navy control organization, LF organization, and TACLOG organization.

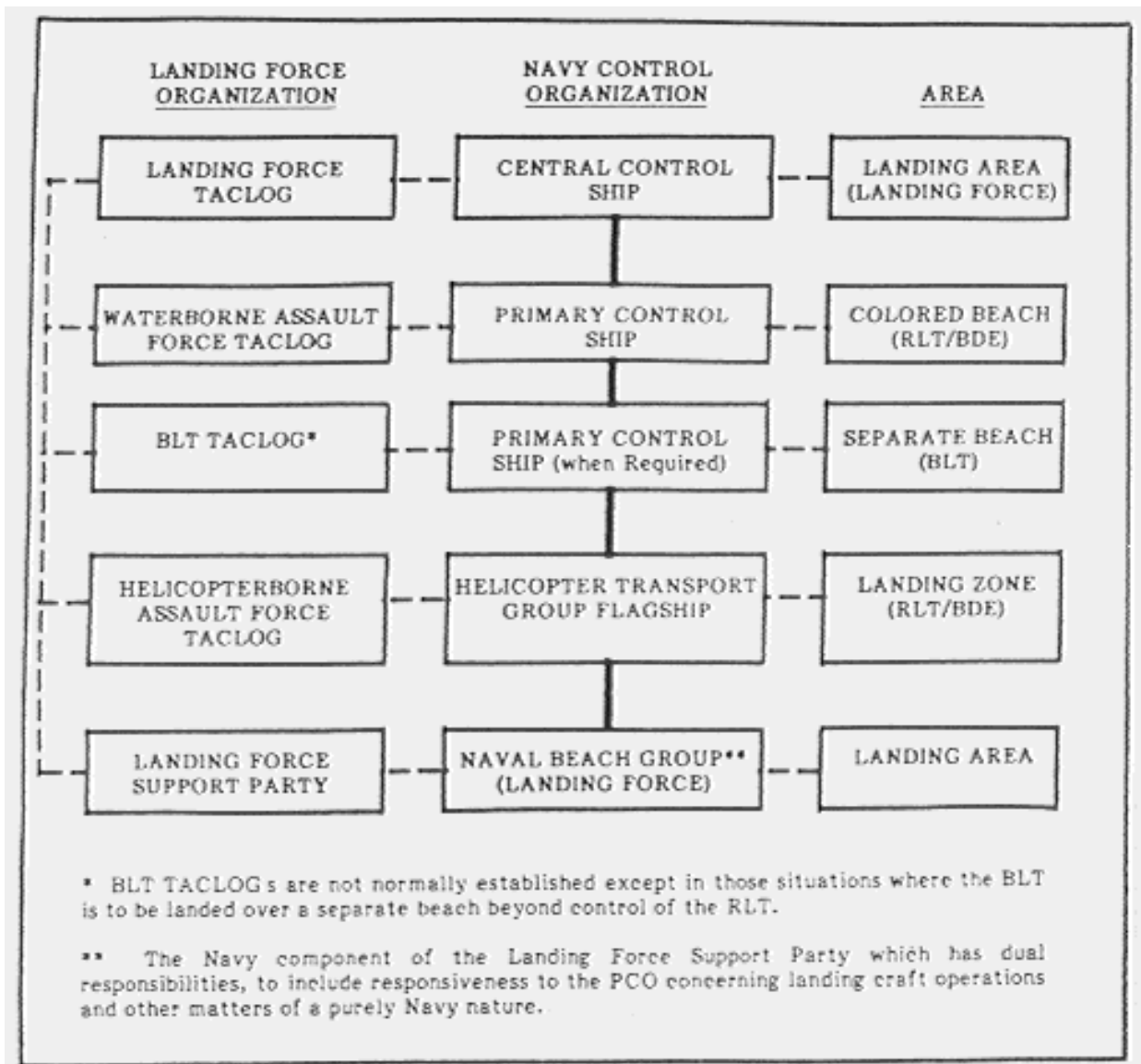


Figure VI-2. TACLOG Structure and Relationship of Commanders.

(1) Landing Force TACLOG. The LF TACLOG is normally established by the CLF and embarked aboard the central control ship where it is collocated with the central control officer. It monitors the operations of the LF support party and the TACLOGs of all subordinate LF elements, intervening only when coordination at the CLF level is necessary.

(2) Subordinate TACLOGs. Subordinate TACLOGs are normally established by each ground commander having responsibility for conducting a surface assault over a colored beach; e.g., regimental landing teams (RLTs) of the LF are embarked in the same ships as their corresponding Navy control elements. BLTs normally do not establish a formal TACLOG unless they are conducting independent operations or are landing over a separate beach beyond the control of the RLT.

(3) Separate TACLOGs. A separate TACLOG may be established by the ground commander involved when helicopterborne assault operations involve a battalion-size force or larger. This TACLOG is located aboard the flagship of the helicopter transport group commander and collocated with the HDC and the HLSC. If a helicopterborne assault operation involves more than one RLT, or is conducted from widely dispersed shipping, more than one special purpose TACLOG may be necessary.

d. Functions. Specific responsibilities of TACLOG's at each echelon are described below:

(1) Landing Force TACLOG

(a) Provide movement control liaison through the central control officer (CCO) with the TACC and SACC.

(b) Coordinate the activities of and assist subordinate unit TACLOG groups in resolving issues requiring CATF or CLF attention.

(c) Advise the CCO, the TACC, SACC, and CLF in matters pertaining to changes in the landing sequence or plan, emphasizing their effects on the tactical situation ashore.

(d) Receive periodic serial status reports from subordinate unit TACLOG groups and provide this information to the CLF.

(e) Coordinate and assist in control of withdrawal operations with the CCO, TACC, SACC, and CATF combat cargo officer. Priorities and desired mode of transportation should be established by CLF.

(2) Subordinate Unit TACLOG (Waterborne Assault)

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

(b) Monitor the landing of scheduled waves and provide information and recommendations to the PCO to facilitate the landing of on-call and nonscheduled serials and supplies.

(c) Process and coordinate requests for support received from the tactical commander. Requests from the tactical commander will normally be received from the CSS elements accompanying the assault force.

(d) Advise the PCO of the location of requested items and recommend the type of landing craft or helicopter(s) required to transport the items. The tactical situation ashore and the availability of transportation assets should be taken into consideration when making this recommendation.

(e) When necessary, during periods of congestion on the beach or when shortages of transportation assets affect the tactical or CSS situation ashore, advise the PCO of the priority for landing serials.

(f) Advise the PCO and the LF TACLOG in matters pertaining to changes in the landing sequence or landing plan, emphasizing their effects on the tactical situation ashore.

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

(h) Send a periodic serial status report to the CLF concerning the buildup ashore.

(i) Predetermine LF requirements and coordinate landing of nonscheduled and nonserialized elements.

(j) Represent the tactical commander in formulating decisions that may affect tactical operations ashore (within the limits of the authority delegated to the TACLOG OIC by the commander).

(k) Coordinate with LF support party and other CSS personnel on the buildup of supplies in the beach support area(s) and/or CSS area(s).

(l) Coordinate and assist in control of withdrawal operations with the PCO and ships' combat cargo officers. Priorities and desired modes of transportation should be established by the supported commander.

(3) Subordinate Unit TACLOG (Helicopterborne Assault)

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

(b) Monitor the landing of scheduled waves and provide information and recommendations to the helicopter logistics coordinator and the helicopter direction officer to facilitate the landing of on-call and nonscheduled serials and supplies.

(c) Process and coordinate requests for support received from the tactical commander. Requests from the tactical commander will normally be received from the helicopter support team (HST) accompanying the assault force.

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

(e) When necessary, during periods of congestion in the LZ or when a shortage of helicopter assets affects the tactical or CSS situation ashore, advise the helicopter logistics coordinator of the priority for landing serials.

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

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

(h) Send a periodic serial status report to CLF concerning the buildup ashore.

(i) Predetermine LF requirements and coordinate landing of nonscheduled and nonserialized elements.

(j) Represent the tactical commander in formulating decisions that may affect tactical operations ashore (within the limits of the authority delegated to the TACLOG OIC by the commander).

(k) Coordinate and assist the helicopter logistics coordinator and ships' combat cargo officers in the control of withdrawal operations. Priorities should be established by the supported commander.

e. Landing Force Support Party. The LFSP is a temporary, special category task organization of the ATF containing a shore party support element, a helicopter assault support element, and a Navy beach group element. The mission of the LFSP is to facilitate the landing and movement of troops, equipment, and supplies across beaches and into landing zones, ports, and airfields; to assist in evacuating casualties and prisoners of war from the beaches and landing zones; and to assist in the beaching, retraction, and salvaging of landing ships and craft. The LF support party is task organized from elements of both the Navy and the LF with command and control normally provided by the LF. See NWP 22-5 (The Naval Beach Group). Its buildup ashore parallels the tactical buildup, beginning with the landing of advance parties and reconnaissance teams.

(1) Shore Party Group or Team. The shore party group(s) or team(s) conducts shore party operations across a colored or numbered beach in support of the surface assault. The beach party group is the naval component of the shore party group.

(2) The HST is a task organization composed of personnel and equipment of the helicopterborne force and the supporting helicopter unit, with augmentation as required. An HST has no standard organization. It facilitates landing and movement of helicopterborne troops, equipment, and supplies and the evacuation of selected casualties and prisoners of war. If plans call for establishing a LZ support area, then the nucleus of the HST would be drawn from the landing support units of the combat service support element.

19. Types of Movement and Control

a. Control Factors. The type of control exercised in the ship-to-shore movement is based largely on the type of movement, which, in turn, is based on the concept of operations ashore. Ship-to-shore movements may range from those requiring several coordinated landings, conducted at different times and widely separated, to schemes of maneuver requiring the concentrated assault by a dense formation of troops. Within this range, the ship-to-shore movement may include one of the following types:

(1) The type of movement when the LF is to launch a concentrated assault on contiguous beaches.

(2) The type of movement required when the beaches of the LF are separated, and exceed the limits for effective ship-to-shore control.

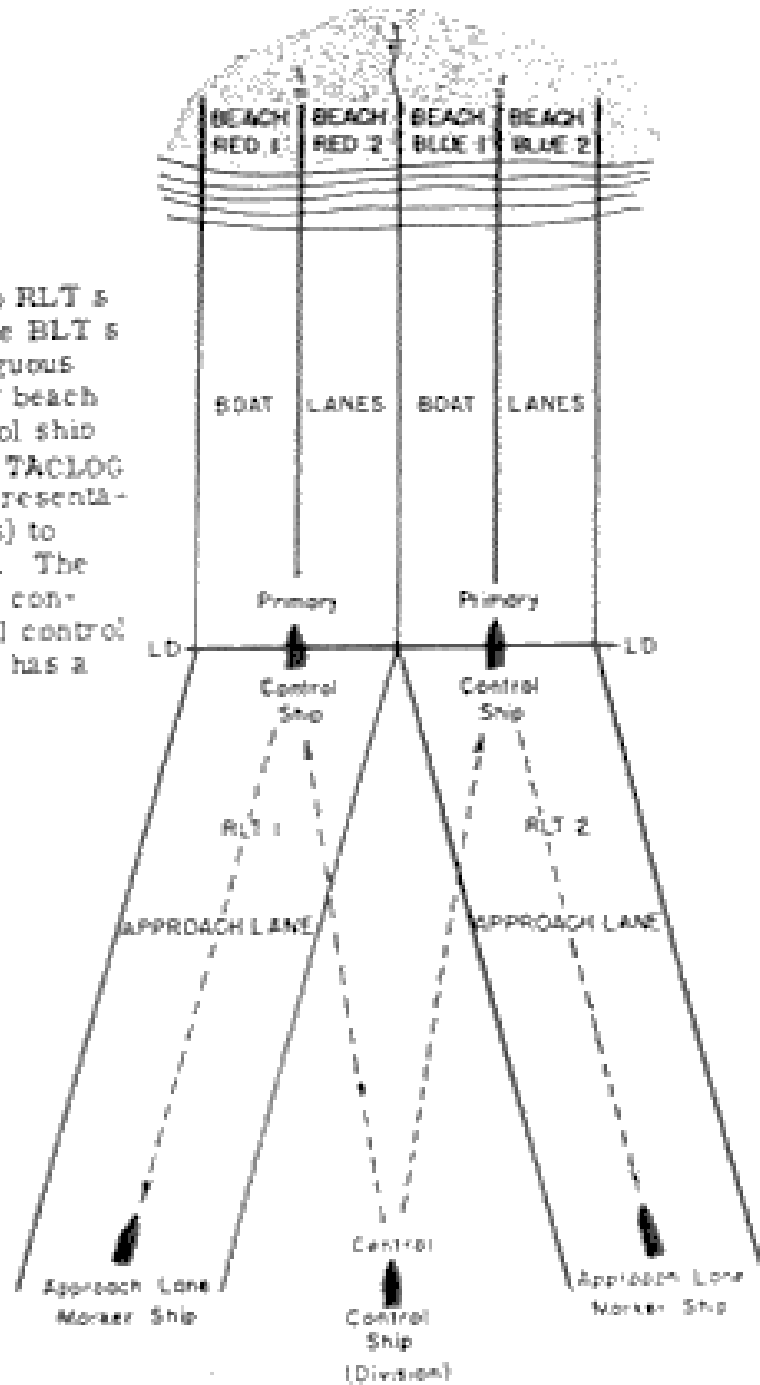
(3) The type of movement required when the beaches of the LF are separated, but effective ship-to-shore control distances are not exceeded at any level in the LF.

(4) Combinations of the foregoing types.

b. Flexible Control System Required. Figures VI-3, VI-4, and VI-5 are examples of the control systems that may be used in connection with the types of movement mentioned above. Regardless of the type of movement, the control system is not rigid. Variations may occur as a result of such things as control ship availability and the desires of the CATF or attack group commander.

NOTE:

In this example, two RLTs and their subordinate BLTs are landing on contiguous beaches. Each RLT beach has a primary control ship and each RLT has a TACLOG group (with representatives from its BLTs) to assist in the control. The division beaches are controlled by the central control ship and the division has a TACLOG.



LEGEND: Control - - - -

Figure VI-3. Concentrated Landings on Contiguous Beaches.

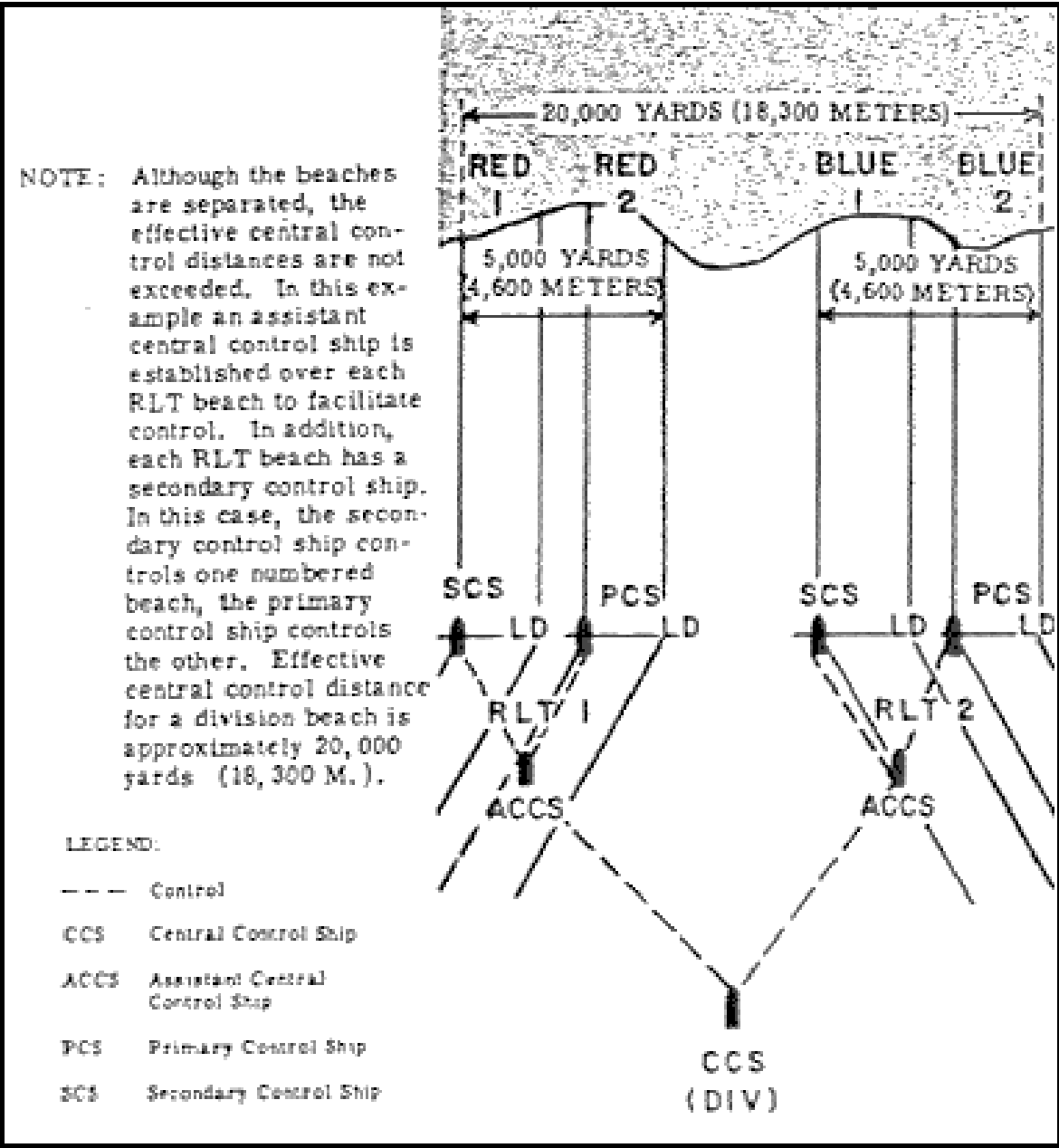


Figure VI-4. Separated Landings Beyond Effective Central Control Distance.

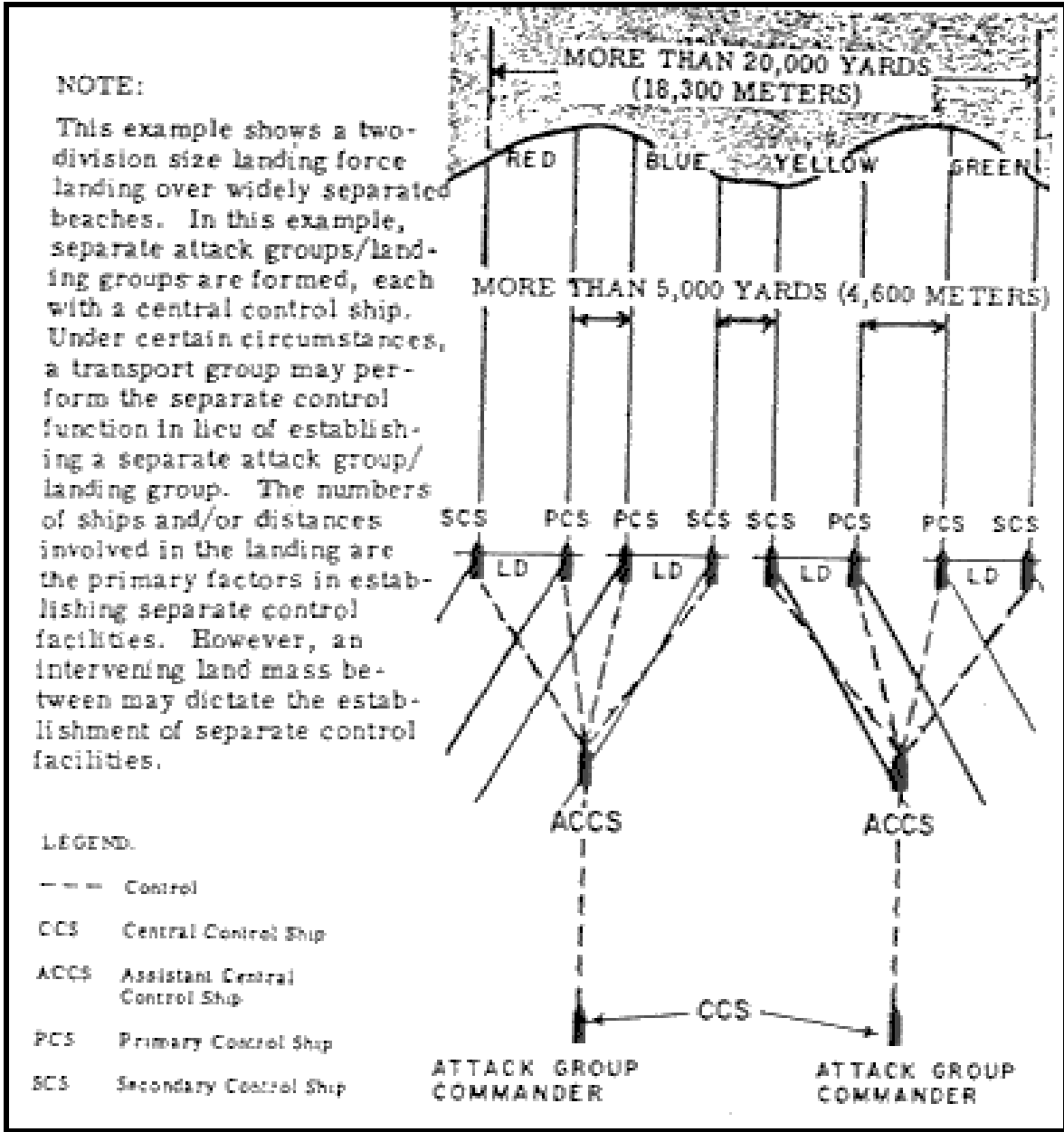


Figure VI-5. Separated Landings Within Effective Central Control Distances.

20. Ship-to-Shore Planning Sequence

a. Concurrent Planning. As is true for other plans in amphibious operations, ship-to-shore plans are prepared concurrently by the parallel chains of command and by the several echelons of command. Recognizing this necessary overlap, plans are usually developed in the following sequence:

(1) The CLF publishes his outline plan. Subordinate units issue outline plans using those of the next higher command as a guide.

(2) Troop requirements and recommendations are submitted by subordinate echelons to the next higher command.

(3) LF requirements as to means are submitted to the CATF, along with a statement of organic LF ship-to-shore means (helicopters and amphibious vehicles) that are available.

(4) Naval requirements are determined.

(5) LF and naval requirements are consolidated by the CATF.

(a) Based on consolidated requirements, the number of helicopters, landing ships, MSC ships, landing craft, and amphibious vehicles required to support the operation are determined by the CATF and CLF.

(b) Available means are then assigned and approved troop requirements are incorporated in the movement plans.

(6) Detailed LF and naval ship-to-shore plans are prepared to support the LF tactical plan.

b. Requests for Additional Assets. If the assets available to the ATF cannot satisfy the requirements for the ship-to-shore movement, the CLF and the CATF request additional resources be made available. If additional means cannot be made available by higher authority, the CATF and CLF must adjust their plans accordingly.

21. Ship-to-Shore Movement Plans. Detailed LF and Navy ship-to-shore movement plans are prepared after the final allocation of resources has been made. These consolidated plans, prepared at the ATF and LF levels, represent the sum of detailed plans for waterborne and helicopterborne movements prepared by parallel Navy and LF echelons at all levels.

a. Documentation. The documentation that supports the ship-to-shore movement provides detailed information on the organization for landing, control of both waterborne and helicopter movements, allocation of resources for landing, and sequencing of movement categories. Figure VI-6 summarizes the major documents in support of the ship-to-shore movement.

b. Annex R. Ship-to-shore movement plans are in Annex R, Amphibious Operations, in both the ATF and LF operations orders. Because these annexes are designed to serve the respective needs of the Navy and LF, the overall content of each will differ. Sample documentation is in the following publications: NWP 22-1/FMFM 1-4, "The Amphibious Task Force Plan"; NWP 22-3/FMFM 1-8, "Ship-to-Shore Movement"; FMFM 3-1, "Command and Staff Action"; and ATP 36, "Amphibious Operations, Ship-to-Shore Movement." (Also see Appendix.)

22. The Landing Plan. Ship-to-shore movement planning for the LF is given final form and expression in the landing plan (Appendix 3 to Annex R). The body of this appendix is usually short, with information of interest to all units. The bulk of the plan is a compilation of documents included as tabs and enclosures that contain the facts and figures essential for the orderly and timely execution of the assault.

a. Responsibilities. Landing plan documentation is a responsibility of both Navy and LF staffs. Figure VI-6 indicates the responsibility for preparation of the most commonly required forms.

b. Description and Samples. Description and samples of the forms commonly incorporated in, or related to the landing plan are in the Appendix to this publication.

c. Purpose and Scope. The landing plan is concerned primarily with establishing relative landing priorities among the various elements of the LF and with overall coordination of ship-to-shore movement planning. Specifically, it must provide:

PREPARED BY THE NAVY

- o Landing Craft Availability Table
- o Landing Craft Employment Plan
- o Debarkation Schedule (Jointly prepared by CO of ship and CO of embarked troops)
- o Approach Schedule
- o Assault Area Diagram
- o Sea Echelon Plan
- o Transport Area Diagram
- o Assault Wave Diagram
- o Beach Approach Diagram

PREPARED BY THE LANDING FORCE

- o Landing Force and subordinate Landing Plans
- o Allocation of Serial Numbers
- o Landing Sequence Table
- o Serial Assignment Table
- o Organization for Embarkation and Assignment to Shipping Tables
- o Surface Landing Documents
 - Amphibious Vehicle Availability Table
 - Landing Craft and Assault Amphibious Vehicle Assignment Tables
 - Landing Diagram (Surface)
 - Assault Schedule
 - Assault Amphibious Vehicle Employment Plan
 - Landing Sequence Tables
- o Helicopterborne Landing Documents
 - Helicopter Availability Table
 - Heliteam Wave and Serial Assignment Table
 - Helicopter Landing Diagram
 - Helicopter Employment and Assault Landing Table
 - Helicopter Enplaning Schedule

Figure VI-6.
Navy and Landing Force Responsibility for Preparation of Documents in Support of the Ship-to-Shore Movement.

- (1) Priority for landing of elements of the LF.
- (2) Allocation of resources.
- (3) Allocation of serial numbers.
- (4) Correlation of the sequence for landing of all units not being landed with assault elements, but landing before general unloading.
- (5) Coordination of the landing plans of separate landing groups, if required.

d. Sequence of Preparation. After the available means for ship-to-shore movement have been assigned (see paragraph 19 above), LF plans are prepared in the following sequence:

- (1) LF allocates or specifies landing assets to subordinate elements on the basis of availability and in accordance with the concept of operations and scheme of maneuver ashore.
- (2) LF allocates blocks of serial numbers to elements of the force.
- (3) LF determines the relative landing priorities for the various elements of the force.
- (4) Assault divisions, RLTs, BLTs, and comparable units prepare a plan for landing based on assigned tasks and priorities. Landing plans for other forces not landing with ground combat forces are submitted to the LF commander.
- (5) LF correlates these recommendations and publishes them in the LF landing plan.
- (6) Subordinate echelons make pertinent extracts from the LF landing plan, as necessary, for control and coordination.
- (7) Planning for the movement of supplies ashore, for the composition of floating dumps, and for the levels of supply ashore is conducted concurrently with other ship-to-shore movement planning.

23. Mutual Responsibility for Debarkation and Enplaning Schedules. The landing documents prepared jointly by the commanding officer of the ship and the corresponding commanding officer of troops include the Debarkation Schedule and the Helicopter Enplaning Schedule.

a. Debarkation Schedule. The Debarkation Schedule is a plan that provides for the orderly debarkation of troops and equipment, and emergency supplies for the waterborne ship-to-shore movement. It shows:

(1) The sequence in which landing craft, by type, come alongside the debarkation stations, or depart the well deck.

(2) The individual boats and boat teams or supply loads that load from each troop debarkation station and the boats into which they are loaded.

(3) Heavy equipment to be unloaded from each hatch, and the type of boat into which it is to be loaded.

(4) Free boats and their boat team numbers.

b. Helicopter Enplaning Schedule. The helicopter enplaning schedule plans for the orderly enplaning of troops, supplies, and equipment for the helicopterborne ship-to-shore movement. It shows:

(1) The enplaning stations on the flight deck of the ship.

(2) The sequence in which helicopters are spotted at the enplaning stations.

(3) The serialized heliteam with equipment and supplies assigned to each helicopter in each designated flight.

24. Ground Combat Element Landing Plan. The major portion of detailed planning and immediate supervision of the waterborne and helicopterborne ship-to-shore movements is conducted at the level of the senior ground combat element (division, regiment) and the related Navy organization(s). The CLF and CATF must furnish the following information to their subordinate units before this planning may begin:

a. Forces to be Landed. LF aviation, Navy, and combat or service support elements to be landed.

b. Landing Assets Available. Availability of helicopters, boats, and amphibious vehicles.

c. Contents. The ground combat element landing plan is published as Appendix 3 to Annex R (Amphibious Operations) to the LF's operation order. The body of the plan includes a general description, a statement of the ship-to-shore control procedures, the organization of TACLOGs, and information on the use of pontoon causeways.

d. Assault Units. All available information pertinent to the landing of subordinate units is furnished to subordinate units by higher headquarters. On the basis of this information, the units make their plan recommendations to their respective headquarters which, in turn, prepare and publish their landing plan appendixes. The final plan includes the following tabs and enclosures, when relevant:

- (1) Assault Schedule.
- (2) Organization for Embarkation and Assignment to Shipping Table.
- (3) Landing Sequence Table.
- (4) Serial Assignment Table.
- (5) Helicopter Wave and Serial Assignment Table.
- (6) Assault Amphibian Vehicle Employment Plan.
- (7) Landing Craft Availability Table (prepared by CATF).
- (8) Helicopter Availability Table.
- (9) Helicopter Employment and Assault Landing Table.
- (10) Helicopter Landing Diagram.
- (11) In some situations, additional enclosures and tabs may be required.

e. Reserve Units. A reserve unit prepares a landing plan annex in the same manner as an assault element. However, if the entire organization is placed in the nonscheduled unit category, its landing is prescribed in the Helicopter Employment and Assault Landing Table and/or the Landing Sequence Table. Serial Assignment Tables are prepared for all units landing before general unloading.

25. Subordinate Ground Combat Element Landing Plan

a. Regimental Landing Plan

(1) Assault RLTs. The RLT commander considers the recommendations of his BLT commanders and submits his consolidated recommendations to the division. After the division landing plan appendix is published, the RLT commander extracts pertinent information and instructions from the division appendix and publishes it in his landing plan appendix. The documents comprising the RLT landing plan appendix are the same, by title, as those of the division appendix.

(2) Other Regiments. Reserve RLTs and regiments other than infantry prepare plans according to the landing category to which they are assigned. All units to be landed before general unloading prepare serial assignments tables. Landing of nonscheduled units is prescribed in the HEALT and/or Landing Sequence Table. Elements of regiments and reserve RLTs to be landed in on-call waves appear in the Assault Schedule, Landing Diagram, or HEALT.

b. Battalion Landing Plan

(1) Battalion Landing Teams. BLT commanders prepare the following documents as appropriate:

(a) Helicopter Employment and Assault Landing Table.

(b) Helicopter Wave and Serial Assignment Table.

(c) Landing Craft and Assault Amphibious Vehicle Assignment Table.

(d) Landing Diagram.

(e) Consolidated Landing and Approach Plan (prepared jointly at the BLT and transport organization level, in lieu of using separate employment plans and approach schedules).

(f) Debarkation Schedule (prepared jointly by CO of ship and by CO of troops embarked).

(2) Battalions Other Than Infantry. Commanders of combat support units prepare those landing documents required to ensure orderly debarkation and movement ashore.

26. Aviation Combat Element Landing Plan

a. Purpose. The Aviation Landing Plan outlines the commander's plans for establishing aviation units ashore in the landing area by both air and surface means during the amphibious operation. It provides detailed plans for the landing of air elements that are embarked in assault shipping and landed with assault divisions or as nonscheduled units.

b. Contents. The aviation landing plan is published as Annex R, Appendix 3 (Amphibious Operations) to the LF aviation operation plan. It contains:

(1) Plans for the echelonment and landing sequence of all aviation units to be established ashore within the landing area.

(2) Detailed landing documents for air elements that move ashore before general unloading.

(3) Applicable ship-to-shore control provisions.

(4) Information on pontoon causeways, fuel handling systems, and the landing of engineering elements and equipment necessary for aviation support ashore.

c. Composition of Echelons. Elements of air control squadrons and helicopter groups comprising the first echelon are landed by helicopter to initiate operations ashore. The second echelon of these units is landed over the beaches with the heavy equipment and personnel required for sustained operations.

(1) Fixed-wing fighter and attack groups land in an initial echelon composed of personnel and heavy equipment for base operations and maintenance. This echelon is surface-lifted into the landing area and landed over the beaches. A second echelon composed of pilots, aircraft, and crew is flown into the area from land bases.

(2) The LF aviation organization for landing will differ greatly from the task organization because of the division of air groups and squadrons into elements for landing, and wide variation in the time and method of landing these elements. The landing plan must provide for a groupment of the air elements into a series of echelons based on time and method of landing. Several surface-lifted and flight echelons may be formed. These echelons, and the time and manner of their movement to the landing area, are shown in the general paragraph in the body of the Aviation Landing Plan. Detailed composition of echelons is in a separate appendix.

d. Scheduled, On-Call, and Nonscheduled Elements. Air control units, elements of the LF aviation headquarters squadrons, aviation groups, headquarters support squadrons, air base, and aviation logistics squadrons may be landed before commencement of general unloading to initiate establishment of air facilities ashore. These units are either embarked with and landed as part of the assault division(s) or are landed as nonscheduled units.

(1) Detachments of the aviation units and the CSS elements that form part of the helicopter support teams are often landed in scheduled waves. Air support radar teams usually will be landed in on-call waves. Such elements are shown in the Assault Schedules (or Helicopter Employment and Assault Landing Table, and Helicopter Wave and Serial Assignment Table) of the division(s). Other aviation elements that are landed early in the ship-to-shore movement are serialized and shown in the division or LF Landing Sequence Table.

(2) The LF Aviation Landing Plan lists separately those air elements that are landed in scheduled, on-call, or nonscheduled units. The landing plan also contains additional landing documents, as extracted from division and force landing plans, necessary to describe the method and sequence for landing these elements. This information is shown in the following enclosures:

(a) Extracts from appropriate Assault Schedules.

(b) Extracts from Helicopter Employment and Assault Landing Tables.

(c) Extracts from Helicopter Wave and Serial Assignment Tables.

(d) Serial Assignment Table.

(e) Landing Sequence Table.

(3) Serial numbers for nonscheduled aviation elements are allocated by the LF. The assigned serials and an itemized list of personnel and equipment of air elements that are to land in scheduled or on-call waves are submitted to the CLF for coordination and approval. The division is then furnished the necessary information to provide for landing air elements with the division. Nonscheduled aviation elements are incorporated into the force Landing Sequence Tables.

e. Ship-to-Shore Control. To monitor the landing of air elements early in the ship-to-shore movement, the LF aviation commander provides representatives to the senior TACLOG. As changes or delays in the landing of air elements occur, the commander may then be apprised of the situation. Schedules and tables required by aviation representatives in the HDC and the tactical air control center, in addition to those in the LF Aviation Landing Plan, may be in the air annex to the operation plan.

f. Airfields, Pontoon Causeways, Fuel Handling Systems, and Engineering Operations. The availability of operational facilities required to establish aviation ashore determines the time of landing aviation elements. Information on the projected dates when these facilities will be complete, or engineering work will begin, is provided in the landing plan when available. This information includes estimated dates for:

(1) Airfields achieving operational status.

(2) Installation of pontoon causeways for landing heavy aviation assets.

(3) Completion of fuel handling systems from the beach to the airfields or helicopter operating sites.

(4) Landing engineers and commencement of work on airfields.

27. Conduct of the Ship-to-Shore Movement

a. Based on H-Hour. As the ATF assault shipping starts the final approach to assigned positions for the assault, individual ships prepare for the debarkation or enplanement of the embarked troops, equipment, and supplies in accordance with previously prepared plans. The commencement of boating and enplaning and the timing of other ship-to-shore movement preparations are dependent on the designated H-hour. All elements must be prepared to modify plans on short notice to conform to changes in H-hour.

b. Movement of Personnel to Control Stations. In scheduled pre-H-hour cross-deck operations, surface movement control group personnel are transferred, as required, from transports to ships of the control group, which then take station as planned. Helicopter movement control groups take assigned stations and initiate actions as required to meet the time schedule for initial landings.

c. Importance of Timing. The debarkation of the initial assault elements of the LF involving loading of personnel, equipment, and supplies into landing craft, amphibious vehicles, and helicopters is accomplished on a strict time schedule. This schedule is based on the established time of landing in relation to H-hour and takes into account the time required for loading and the ship-to-shore transit. Preparations are made for debarkation of on-call and nonscheduled units and for dispatching these units when required.

d. Waterborne Movement

(1) Scheduled Waves. Scheduled waves are landed according to plan. When practicable, the first scheduled wave is dispatched by the CCO with other waves being regulated by the various PCOs.

(2) On-Call Waves and Pre-positioned Emergency Supplies.

The landing of on-call waves and pre-positioned emergency supplies is initiated as the situation requires and continues until these categories are ashore. On-call waves are usually located in the vicinity of primary, assistant central control, or approach lane control ships in order to be available for landing with as little delay as possible. Since their use in this manner may represent an uneconomical or even hazardous employment of landing craft, ships,

or amphibious vehicles, the number of units placed in an on-call category is kept to a minimum consistent with the requirements of the LF. Control of on-call waves is a function of the cognizant control officer. When the commander ashore desires the landing of an on-call unit, he notifies his TACLOG of the desired place and time (if appropriate) of landing. The Navy control officer then directs the landing of the unit. Pre-positioned emergency supplies are located in proximity to the appropriate control officer who directs their landing as requested by the troop commander concerned.

(3) Nonscheduled and Remaining Landing Force Supplies. As the assault progresses, nonscheduled units and remaining LF supplies are landed in accordance with the requirements of the LF. On occasion, these categories may be required before completion of the landing of on-call waves and pre-positioned emergency supplies. Nonscheduled units and previously designated supplies are normally requested by serial until the commencement of general unloading. The responsibility for their landing is assigned by the CATF to the commanders of the cognizant control organizations. In the landing of nonscheduled units, the maximum coordination between LF and Navy control organizations is essential to ensure responsiveness and efficient use of landing ships and craft. The control officers concerned regulate the landward movement of the ships and craft containing these units and supplies in accordance with instructions from appropriate transport organization commanders and requests from the TACLOG. The following basic procedures apply whether the landing of nonscheduled units is centralized at the ATF level or decentralized:

(a) Initiation of the Movement. As soon as the situation ashore permits, the CLF requests the CATF land the required nonscheduled units. In order to provide maximum support to the LF, reduce the communications load, and enhance the efficient use of landing craft, the request includes as many units as are expected to be required ashore during a specified period. Unless a need for change is indicated, the list of units requested follows the sequence shown in the Landing Sequence Table.

Requests for modification of the landing sequence of nonscheduled waves are made by the LF commander as soon as possible after the need for each such change arises.

(b) Continuation of the Movement. The CLF continually reviews the progress of the landing. Periodic and timely requests are submitted to the CATF for landing such units and items of supply as are desired.

(c) Changes to the Landing Plan. Because units and supplies must be placed on the beaches as required by the situation ashore, altering the planned sequence for landing may be necessary. However, this action may be done only with an attendant sacrifice of speed. The CLF may specify changes in the sequence or place of landing of any unit. A combat-loaded ship, however, is adaptable to only minor changes in the plan for unloading equipment and supplies. By request of the CLF, the landing of nonscheduled units may be suspended entirely for a temporary period if required by the situation ashore. Likewise, the LF support party commander may request the appropriate control officer to stop the landing of units on his beach when conditions justify such temporary suspension. Units whose landing has been deterred upon request of the LF are not landed until again specifically requested. In requesting such deferment, the LF takes note of the fact that such action may disrupt the planned use of lighterage. The size of a unit, or the stowage of supplies in a ship, may be such that if it is not unloaded, the deferment will interfere with subsequent unloading. In such cases, the CATF notifies the CLF.

e. Helicopterborne Movement

(1) Landing of Scheduled Waves. The helicopterborne ship-to-shore movement normally is completed during the initial unloading period when tactical considerations are the dominant factor. Helicopters must usually make several trips between ships and landing zones to land and supply the helicopterborne forces. The movement of scheduled waves is conducted on a prescribed time schedule and subsequent trips are made as rapidly as

possible in accordance with the requirements of the LF in order to ensure a rapid buildup ashore. After launching, helicopters proceed to the landing zone in accordance with the control procedure discussed in paragraph 16 above. The senior troop commander enplaned, in conjunction with the senior helicopter unit commander enplaned, may make minor modifications in the plan for landing to accommodate variations in the tactical situation. For this purpose, alternate landing zones and sites are selected during the planning phase. After discharging their loads, helicopters take off, rendezvous by flights, and proceed via a specified breakup point to the designated ship. Helicopters employed in the tactical troop lift will not normally be utilized for casualty evacuation until troop buildup in the landing zones reaches a point that permits such utilization. Exceptions to this would include casualties picked up at the landing zone and returned to the assault LPH, LHA, or LHD.

(2) Landing of On-Call Waves. Because of the urgency that may be attendant to landing on-call waves, elements or items in other landing categories may be preempted to permit their landing. The number of on-call units or items must be kept to a minimum if their high-priority status is to be preserved. On-call waves are listed in the Helicopter Employment and Assault Landing Table. They are landed at the request of the CLF.

(3) Landing of Nonscheduled Waves. The landing of nonscheduled waves commences upon completion of scheduled landings in accordance with LF requirements. Once started, it may be interrupted to permit the landing of on-call or other selected units or supplies, or to respond to unforeseen conditions, such as a requirement of the LF to employ LF helicopters for other tactical or logistical purposes. Modifications should be kept to a minimum because alterations will complicate the helicopter ship-to-shore movement.

(4) Subsequent Employment of Helicopters. Once the helicopterborne ship-to-shore movement is completed, transport helicopters are employed to meet tactical and logistical requirements of LF operations ashore as directed by the CLF. Helicopter movement in these operations will be controlled by appropriate tactical air control agencies ashore, afloat, or both.

CHAPTER VII
INTELLIGENCE

1. Introduction

a. Need for Accurate and Timely Intelligence. Accurate and timely intelligence is the keystone for planning and decision making. Because of the difficulty in altering plans significantly during the initial assault, the requirement for intelligence has special relevance in an amphibious operation. Many of the basic requirements can be answered through the use of existing data bases such as Naval Intelligence Processing System (NIPS), DIA compendiums, area studies, etc. If plans are based on what is later found to be an inaccurate intelligence estimate, the initial phase of the assault may have to be conducted as planned with higher than expected losses of personnel and equipment and with a possible early commitment of the reserves. Therefore, the commander, landing force (CLF) must be continuously and rapidly informed of any changes in the primary intelligence factors: enemy, weather, and terrain.

b. Objectives of Intelligence Process. The primary objective of the intelligence process for amphibious planning is to reduce, as much as possible, the uncertainties regarding the physical environment and the enemy situation. A second major objective is the formulation and supervision of OPSEC and counterintelligence measures designed to conceal landing force (LF) intentions and activities, and to destroy the effectiveness of the enemy intelligence effort.

2. Purpose and Scope. As in all aspects of the amphibious operation, the need for total coordination of efforts between the amphibious task force (ATF) and LF is of paramount importance. This chapter describes how the intelligence needs of the LF are met within the overall intelligence effort of the ATF. This chapter complements information in Chapter VI, JCS Pub 3-02, with emphasis on the requirements of the LF and the environmental factors that are unique to amphibious operations. The material includes information on the Joint Intelligence Center, the Naval Intelligence Processing System data base, and the nature of amphibious reconnaissance. Planning considerations, collection, dissemination, control, security, and target intelligence are discussed. For additional information, see the following publications:

a. FMFM 3-21, "Marine Air-Ground Task Force Intelligence Operations." Chapter 21 of this manual provides detailed information on topography, hydrography, climate, and weather in the amphibious environment. Appendix I provides a guide for determining intelligence requirements for amphibious operations.

b. FMFM 3-24, "Reconnaissance Operations." This manual describes the techniques of collecting intelligence information on beaches and coastal and inland areas by reconnaissance elements. Standard report formats are provided in Appendix D.

c. ATP-38, "Amphibious Reconnaissance." This document provides NATO-agreed doctrine, paralleling FMFM 3-24.

d. NWP 22-4, "Underwater Demolition Teams in Amphibious Operations." This classified manual provides information on organization, employment, and mission planning for UDT operations.

e. Joint Service Tactical Exploitation of National Systems (JTENS) Manual.

3. General

a. Functions of Intelligence Process. The functioning of the intelligence process differs markedly between amphibious operations and land combat, particularly in the direction and collection phases. This difference exists because the LF organic collection assets are not capable of collecting intelligence information before advance force operations, the LF is therefore totally dependent on national, theater, and ATF assets. The needs of the LF are all encompassing, ranging from the location of underwater obstacles, to trafficability of soil on the beach, to the capacity of bridges on egress routes, to the ground slope and conditions in potential helicopter landing zones. Enemy capabilities must be determined based on detailed study of all order of battle factors, in-depth terrain, hydrography, and weather analysis. From the assessment of enemy capabilities, the intelligence officer must develop and present his appraisal of the enemy's capabilities and the probable courses of action the enemy commander is capable of executing.

b. Basic Requirements. The CLF must have all pertinent intelligence on the weather, terrain, and hydrography within the objective area, and the enemy forces within or adjacent to it that may affect the amphibious operation.

Beaches and helicopter landing zones receive special emphasis. Also, he needs intelligence concerning the people who live in the area, and the extent to which they may hinder or assist the operation. Existing natural and manmade obstacles must be evaluated, and those areas that offer the best potential for emplacement of offensive minefields and barriers must be determined. The availability of maps and recent imagery must be determined immediately and requirements forwarded so that adequate quantities are available for planning and operations. See Appendix I of FMFM 3-21, "Marine Air-Ground Task Force Intelligence Operations," for a guide to intelligence requirements for amphibious operations.

c. Current Intelligence. Current intelligence on the enemy is highly desirable. However, the importance of the intelligence must be carefully weighed against the risk of compromise and loss of surprise if the collection effort is discovered.

(1) Accurate current intelligence on enemy dispositions may not be available before the assault, or may be received only shortly before the assault when timely dissemination is difficult.

(2) In some cases, to avoid compromise of the operation, the only current intelligence available before the assault will be in forms such as imagery, communications and electronics intelligence, or human intelligence reports. These sources of information, although valuable supplements, may be susceptible to deception or manipulation and may not be timely.

d. Close Association of Intelligence and Operations Staffs. The traditionally close association of intelligence and operations staffs is particularly important in the amphibious operations for several reasons:

(1) The development of possible courses of action, other staff estimates, the commander's estimate, and the concept of operations are heavily dependent on the preliminary studies and initial estimates prepared by the intelligence staff.

(2) The development of a deception plan, whether at the strategic or tactical level, should focus on the requirement for a specific collection plan to support the deception. This plan must at every phase consider the enemy's capabilities to interpret the indicators

associated with friendly collection efforts so that adjustments can be made, if necessary, to ensure the plan is believable. During the development of the plan, coordination between operations and intelligence staffs at all echelons is crucial. During the execution of the plan, intelligence collection and counterintelligence measures must be in harmony with the deception plan. The intelligence estimate must address the enemy's ability to collect and react to the friendly deception means.

(3) The development of data for the ATF requires close coordination between operations and intelligence personnel.

e. Naval Intelligence Processing System. The Naval Intelligence Processing System (NIPS) is a combination of digitized and nondigitized encyclopedic data representing a considerable volume of planning information on a worldwide scope. The digital data base is available when the LF is embarked on NIPS-configured vessels such as LCCs, LHDs, and LHAs. This data base is also available to holders of the NIPS augmentation package through computer microfiche.

f. Joint Intelligence Center. The commander, amphibious task force (CATF) and CLF have similar intelligence requirements. To eliminate duplicate procedures and streamline intelligence functioning, a single intelligence organization known as the Joint Intelligence Center (JIC) may be formed. The decision to establish the JIC is made jointly by the CATF and CLF.

(1) The ATF N-2 and the LF G-2 or S-2 have coequal status in the operation of the JIC.

(2) On naval vessels that possess the NIPS, the ship's N-2 maintains direction of the technical aspects of the JIC and assists in providing automated intelligence support to the embarked staff.

(3) The JIC prepares joint briefings; maintains a joint ground, air, and naval situation map; and participates in maintaining the currency of estimates, studies, and intelligence graphics of mutual interest to the CATF and the CLF.

4. Responsibilities

a. Commander, Amphibious Task Force. During planning, the CATF is responsible:

(1) Determination of intelligence requirements for planning by the naval forces, review of intelligence requirements of the LF and other forces, and consolidation of intelligence requirements for the ATF as a whole.

(2) Collection and processing of information and dissemination of intelligence to major elements of the amphibious task force in accordance with special requirements of each.

(3) Procurement of maps, charts, town plans, port and harbor studies, trig lists (lists of geodetic data), gazetteers, photographs, and other graphic aids for the LF.

(4) Preparation of intelligence estimates affecting the force as a whole.

(5) Preparation of intelligence studies that relate to the mission and area of operations.

(6) Establishment of liaison with operational intelligence agencies that are not part of the ATF, including area and departmental agencies as necessary.

(7) Initiation of requests and directives for the collection of information by reconnaissance, observation, friendly or indigenous forces, and other operating agencies.

(8) Determination of security and counterintelligence measures applicable to the ATF as a whole, in addition to those specified by higher authority.

(9) Preparation and distribution of an intelligence annex to the ATF operation plan.

(10) Establishment of a target information center.

(11) Establishment of a JIC at the outset of planning, in conjunction with the CLF, as required.

b. Commander, Landing Force. During planning, the CLF is responsible for:

(1) Determination of intelligence requirements for the LF as a whole; preparation of a collection plan to satisfy those requirements; and submission of requests for required information and intelligence to the CATF or through him to higher commands.

(2) Collection and processing of information and dissemination of information including target information and derived intelligence to the LF and the ATF.

(3) Establishing liaison with intelligence agencies of the ATF and with area intelligence agencies, in cooperation with the CATF, to assist in the collection of information of primary interest to the LF.

(4) Dissemination of map, chart, photograph, and other graphic aids requirements; submission of requirements for these to the CATF when beyond the capability of the LF to satisfy; and distribution of such material to the LF.

(5) Preparation of intelligence estimates, summaries, studies, and Annex B for the LF, and dissemination of information, including target information and intelligence, as developed, to the LF, ATF, and adjacent commands.

(6) Assisting in the determination of the requirement for a JIC and providing representatives as required.

(7) Assignment of reconnaissance and observation missions and other intelligence tasks to subordinate elements of the LF.

(8) Execution of reconnaissance and observation missions and other intelligence tasks assigned by the CATF or by higher authority.

(9) Preparation of intelligence estimates, summaries, and studies for the LF.

(10) Preparation of counterintelligence estimates and plans for the LF, including determination and execution of security measures required to protect information against espionage, material against sabotage, and personnel against subversion.

(11) Preparation for counterintelligence actions ashore, both offensive and defensive, to destroy the effectiveness of hostile intelligence activities.

c. Other Force Commanders. Other force commanders are responsible for determining and stating their intelligence requirements, and for preparing and executing an intelligence plan compatible with the specific needs of their respective forces. Requests for intelligence peculiar to the specialized operations of these forces must be submitted by the force commanders to the CATF.

5. Preliminary Studies and Estimates

a. Use of Preliminary Studies and Estimates. Preliminary intelligence studies and estimates will be developed for the CLF on receipt of the initiating directive or on being alerted for the potential operation. Preliminary planning may include an analysis of the area of operations and the possible effects of terrain, hydrography, weather, and cultural features on the proposed operation. The most favorable areas for executing the landing are determined and additional intelligence requirements defined. Studies of beaches, ports, communications networks, existing air facilities, and terrain provide an initial basis for determining the number and types of LF elements that can be accommodated and supported within possible landing areas. On the basis of these studies, initial engineer and other service support requirements may be estimated. The intelligence necessary to support preliminary planning is contained in intelligence publications and studies prepared by higher headquarters.

b. Initial Intelligence Estimate. The primary purpose of the initial estimate prepared for the CLF is to assist him in the process of making the basic decisions, formulating commander's guidance to the staff and subordinate commanders, and developing EEIs. As a minimum, the initial estimate should provide the commander with information on the general weather conditions expected in the objective area; key terrain features and avenues of approach; the location, nature, and extent of available beaches; and the general composition, strength, and disposition of enemy forces in the area, including all available information on the enemy's nuclear, biological, and chemical capabilities.

6. Detailed Intelligence Estimates

a. Must Be Kept Current. Subsequent to issuance of the commander's planning guidance, a detailed intelligence estimate is prepared. The detailed estimate must be continuously revised to reflect new information received.

b. Estimate for Specific Purpose. An intelligence estimate might be prepared to assist the commander in arriving at a decision relative to a particular aspect of the mission.

c. Studies and Reports. In order to expedite the flow of necessary intelligence to the command, certain portions of the continuing intelligence estimate are prepared and distributed as separate studies and reports. Examples are:

- (1) Weather studies.
- (2) Astronomical and tidal data.
- (3) Beach studies.
- (4) Helicopter landing zone (HLZ) and drop zone (DZ) studies.
- (5) Trafficability studies.
- (6) Airfield and potential airfield studies.
- (7) Special studies on enemy forces.
- (8) Survey of civilian populace.
- (9) Terrain masking of communications-electronics equipment studies.

7. Intelligence Annex

a. Purpose. The intelligence annex to the operation plan or order is the formal intelligence order for the conduct of intelligence operations and activities. It is a medium through which information and intelligence may be disseminated, reconnaissance and observation missions assigned, and other intelligence tasks and procedures stated. Drafts of the intelligence annex should normally be distributed to other commanders in advance of the operation plan for use as planning guides.

b. Appendixes. The volume and complexity of the material in the intelligence annex dictates the use of appendixes. In addition to those appendixes normally prepared for land operations, the following are representative of others that may be attached:

- (1) Hydrographic information.
- (2) Meteorological tables.
- (3) Tidal data.
- (4) Beach studies and sketches.

8. Collection of Information. The CATF directs and coordinates the collection and assembly of intelligence material for the ATF. All collection agencies and sources of information will be considered and exploited, consistent with other requirements and priorities.

a. Other Operations to Collect Information. In some cases, operations may be undertaken in conjunction with the amphibious operation for the purpose of collecting information; e.g., raids, supporting operations, preassault operations, and advance force operations.

b. Landing Force Tasked to Collect Information. The collection resources of the LF may be tasked within the ATF collection plan with missions before the assault, and all assets of the LF will contribute to the collection effort during the assault.

c. Commander, Amphibious Task Force, and Commander, Landing Force, Collection Responsibilities. The CLF forwards his requests for collection to the CATF, who in turn forwards requests beyond the organic capabilities of the ATF to higher headquarters if a JIC has not been established. An ATF-LF JIC is normally established during the embarkation phase of an amphibious operation. Once the JIC has been established, joint collection, processing, and dissemination is accomplished by the ATF and LF personnel in the JIC. Before the establishment of, or after the disestablishment of the JIC, the LF intelligence collection requests to external commands and agencies are forwarded up the operational chain of command.

9. Amphibious Reconnaissance

a. Amphibious Reconnaissance. Amphibious reconnaissance is an amphibious landing conducted by minor elements, normally involving stealth rather than force of arms, for the purpose of securing information, and usually followed by a planned withdrawal (JCS Pub 1-02).

b. Characteristics and Functions. The need for physical reconnaissance of the objective area may require the employment of amphibious reconnaissance units. An amphibious reconnaissance may be conducted before or during the assault phase of an operation. Amphibious reconnaissance before D-day should be conducted when the information to be collected justifies the risk of discovery and loss of strategic or tactical surprise. Reconnaissance units are employed to obtain information on hydrographic and beach conditions, terrain features, routes of communication, and enemy installations, forces, and defenses. They may also be used to capture selected personnel and to contact, evacuate, or land agents and informants in the objective area. They may be landed prior to the assault to reconnoiter helicopter landing zones and establish homing beacons and/or other navigational equipment. Amphibious reconnaissance missions are characterized by strict security; adequate time and space factors between planning, execution, and reporting; and detailed coordination with all forces that may operate concurrently in the area concerned.

10. Planning Considerations. Intelligence planning to support the amphibious operation must satisfy the CLF's requirement for intelligence to arrive at the basic decisions, to conduct subsequent operations, and to execute the operation.

a. Initial Intelligence Resources. Intelligence to support the CLF during preliminary planning results from initial studies and estimates prepared by the ATF and LF staffs or the JIC. The preponderance of this information will be derived from encyclopedic intelligence data or current assessments prepared by higher headquarters and external agencies.

b. Subsequent Intelligence Resources. Intelligence to support detailed planning normally relies on information collected by sources external to the ATF, acting in response to the requests to satisfy essential elements of information and other intelligence requirements.

c. Organic Intelligence Resources. The intelligence resources organic to the LF may be involved in collection missions during preassault operations; conversely, they may not be employed until commencement of the amphibious assault. In either event, LF collection resources are employed within the overall ATF collection plan.

11. Special Considerations. The major factors that influence the collection, production, and dissemination of intelligence in support of LF requirements are as follows:

a. Dependent Upon Higher Echelons. Assault landing teams are committed to action with no opportunity for ground reconnaissance and must depend on orientation conducted before arrival in the objective area. Before landing, lower echelons of the LF are entirely dependent on higher echelons for information and intelligence.

b. Limiting Factors During Planning. LF planning is based primarily on information provided by higher commands. The ability of these agencies to provide accurate and current intelligence may be inhibited by time, the remoteness of the objective area, enemy capabilities, and the need for OPSEC.

(1) The elapsed time between the initiation of planning, or the initiation of a request for collection, and receipt of intelligence may be of such duration that major changes could occur during the period.

(2) The achievement of strategic or tactical surprise may be of far greater tactical value to the LF than specific items of intelligence.

c. Limiting Factors During Movement. During the movement to the landing area, the problem of dissemination is complicated by the physical separation of LF elements and by restrictions, imposed for security reasons, on the use of electronic communications means.

12. Basic Considerations

a. Requirements. The intelligence requirements of the LF are extensive, and at any given time the desired knowledge of the objective area and the enemy force may be unavailable. In these circumstances, the commander must provide definitive guidance to separate the "nice to know"

from the critically important information. Thus, the commander seeks to verify the assumptions on which the plan is based; e.g., "That the enemy will not reinforce the beachhead before D-day."

b. Essential Elements of Information. The commander's guidance is expressed in the form of essential elements of information (EEI). These are the prioritized and critical items of information concerning the enemy, weather, terrain, and hydrography that he needs in order to make a sound decision and formulate details of a plan of operations. Essential elements of information are developed throughout all phases of the operation and constitute the commander's priority intelligence requirements. Intelligence planning must be continually redirected to satisfy these requirements as they develop.

c. Other Intelligence Requirements. The great variety of questions posed by planners may not be critical enough to be considered EEIs, but must be answered. Close liaison is required between the intelligence officer, other staff officers, and subordinate echelons to ensure timely receipt of the other intelligence requirements (OIRs) and their incorporation into the overall collection effort.

13. Collection Plan

a. Requirements. A collection plan must be prepared and implemented early in the planning phase of an amphibious operation. Collection planning must provide for the continuous collection of information throughout all phases of the operation. The commander provides guidance to the collection effort by determining and announcing his essential elements of information. The collection plan must be integrated with the overall scheme of maneuver and plan for fire support. This close integration of intelligence collection, scheme of maneuver, and fire support ensure no wasted resources in the targeting effort by the ATF. This result is achieved by close and continuous coordination with other staff officers. Additional guidance will be by OIRs submitted by other staff officers and subordinate commanders.

b. Format. During the planning phase, the collection plan is consolidated and published as paragraph 3 to the intelligence annex. Subsequent to the publication of the collection plan, additional EEIs or OIRs appear as directives or requests for information.

14. Intelligence Tasking and Control. Requests for collection and orders to subordinate elements of the LF are in the intelligence annex.

a. Intelligence Personnel Attached to Subordinate Echelons. An amphibious operation may require the attachment of intelligence specialists at subordinate echelons, including interpreters, interrogator-translators, and counterintelligence personnel. Additionally, the potential early requirement for intelligence specialists to assist at prisoner collection points, in population control measures, and with document translation and captured materiel exploitation must be considered.

b. Overcoming Problems in the Initial Assault. The full potential of the LF's intelligence resources will not be realized until after the initial assault. During the initial assault, the tempo of battle may inhibit information exchange from the best available source--the LF units in contact with the enemy. This problem, inherent in all operations, is minimized through training, adherence to standardized procedures, intelligence staff involvement and supervision, and adequate provision for intelligence communication channels.

c. Control. During the assault, intelligence information flows through the command and control agencies of the ATF and LF from all available sources--tactical radio nets, deployed reconnaissance teams, sensors, aerial observers, etc.

(1) During the initial phase of the assault, the primary agency to collect, process, and disseminate the information is the JIC. Other agencies (supporting arms coordination center, tactical air control center, etc.) must be attuned to passing intelligence information to the JIC.

(2) During the later stages of the assault, as members of the LF intelligence staff depart the JIC and are phased ashore, control of the intelligence flow is managed in accordance with normal Service procedures. Information exchange between LF and ATF agencies is continuous throughout the operation.

15. Dissemination

a. Distribution Plan. Dissemination is accomplished at each command level of the ATF, in accordance with requirements determined during the planning phase. A distribution plan is prepared, listing the intelligence

aids to be promulgated, the commanders who are to receive them, methods of delivery, number of copies, and delivery dates.

b. Intelligence Reports. The scope, contents, time of submission, method of transmission, and responsibility for preparation of intelligence reports and summaries are determined by the CATF as early as possible during the planning phase. After the planning phase has ended, additional intelligence reports and summaries are prepared and distributed by the CATF and subordinate commanders as required.

c. External Dissemination. Intelligence information gathered by the ATF will be disseminated outside the ATF by the CATF in accordance with theater, national, Defense Intelligence Agency (DIA), and Service-coordinated reporting requirements and formats.

d. Dissemination Before the Assault and During the Initial Stages of the Assault. Dissemination of information to the LF is most difficult immediately before and during the initial stages of the assault. Critical intelligence may be received as the force is moving into the area of operations. Normally, radio silence will have been imposed by the CATF. During the early phases of the assault, the physical separation of units and the operational tempo may inhibit dissemination of intelligence. These limitations can be overcome in part by a variety of methods, including fleet broadcasts, couriers, visual signals, and the like during the movement into the objective area. During the initial phases of the assault, secure voice and redundant communications channels may be employed. However, the extent of the radio electronic combat threat against the force must be considered because it may also inhibit dissemination.

16. Counterintelligence and Security

a. Command Responsibilities. The CATF force prescribes the special security and counterintelligence measures to be taken during planning and preparation for the operation. Counterintelligence operations are defined as military security. Other commanders issue necessary directives to, and supervise the activities of, their forces. Special measures may include:

- (1) Establishment of secure planning areas, including operations security, civil security, embarkation security, wartime information security program, and special operations, including counterespionage, countersubversion, countersabotage, and counterterrorism.
- (2) Use of code names and symbols.
- (3) Classification of material used in planning.
- (4) Restrictions on dissemination of information and completed plans.
- (5) Restrictions on employment of communications.
- (6) Cover and deception plans.
- (7) Measures for handling civilians.
- (8) Armed Forces censorship.
- (9) Control of accredited correspondents, including field press censorship.
- (10) Measures to counter subversion within and espionage, sabotage, and terrorism directed against the amphibious task force.
- (11) Security of classified documents and material.

b. Staff Responsibilities. The intelligence staff contributes to the development of the OPSEC plan developed at the outset of planning. Counterintelligence personnel support the commander's OPSEC program by providing assessments of friendly vulnerabilities; briefings on enemy threats of espionage, sabotage, subversion, and terrorism; and assistance in establishing safeguards against those security threats.

c. Additional Information. See Section 3, FMFM 3-25, "Counterintelligence," for specific information pertaining to counterintelligence combat operations.

17. Target Intelligence

a. Definitions

(1) Target Intelligence. Target intelligence is intelligence which portrays and locates the components of a target or target complex and indicates its

vulnerability and relative importance (JCS Pub 1-02). The term "target intelligence" implies that available information has been processed and evaluated to produce intelligence.

(2) Target Information. Target information is unevaluated data of every description concerning targets that, when processed, may produce target intelligence. Target information may be accurate enough for supporting arms use in raw form. The call for fire on a target of opportunity is a common example.

(3) Target Data. Target data is a collective term for target information and target intelligence.

(4) Target List. The listing of targets maintained and promulgated by the senior echelon of command; it contains those targets which are to be engaged by supporting arms, as distinguished from a "list of targets" which may be maintained by any echelon as confirmed, suspect, or possible targets for informational and planning purposes (JCS Pub 1-02).

b. Development of Target Data

(1) Close Coordination Required. The efforts of the intelligence staffs and supporting arms representatives in the operations staffs must be closely integrated in the development of target data. In some cases, raw, unevaluated information may be adequate for supporting arms purposes. In other cases, information must be analyzed to determine relative importance or vulnerability of a target. For example, a hardened site that must be destroyed will require precise location data.

(2) Before the Assault. The majority of targets are usually developed from various sources, including aerial multisensor imagery and electronic reconnaissance. Target data on fixed installations such as bridges and airfields, and choke points along routes of communication, are derived from basic terrain studies, basic encyclopedias, target materials, and imagery. The intelligence effort must be responsive to the requirements of nuclear and chemical operations. For example, when a potential target exists, detailed information for a nuclear target analysis must be developed.

c. Additional Information. See Chapter VIII, paragraphs 2 and 4 of this manual and NWP 22-2/FMFM 1-7, "Supporting Arms in Amphibious Operations," for additional information.

CHAPTER VIII
SUPPORTING ARMS

1. Introduction

a. General

(1) This chapter provides general guidance on the role of the landing force (LF) in planning and providing fire support for an amphibious operation. Chapters 7, 8, and 16 of JCS Pub 3-02 provide the basic guidance on fire support in amphibious operations. This chapter repeats little of the material from JCS Pub 3-02. Rather, this publication provides additional guidance.

(2) The following publications should be consulted for more specific information on fire support than is provided in this chapter.

(a) ATP 37, "Supporting Arms in Amphibious Operations."

(b) NWP 22-2/FMFM 1-7, "Supporting Arms in Amphibious Operations."

(c) FM 6-20, "Fire Support in Combined Arms Operations."

(d) FMFM 6-8, "Fire Support Planning and Coordination."

b. Supporting Arms Coordination and Fire Support Coordination. In amphibious operations, the term "supporting arms coordination" refers to the activity of the supporting arms coordination center (SACC). The term is synonymous with fire support coordination.

c. Principal Supporting Arms. The principal supporting arms in amphibious operations are aviation, naval gunfire, and artillery. The discussion in this publication on supporting arms is also applicable to missile and rocket delivery systems, and to chemical and nuclear as well as conventional munitions delivered by the supporting arms.

d. Importance of Supporting Arms and Coordination. Properly planned and executed supporting arms fires are usually critical to the success of an amphibious assault operation. At the beginning of the assault, the LFs have no organic supporting arms other than infantry weapons,

such as mortars and shoulder-fired weapons, to support their advance. Once sufficient area is seized ashore, artillery can be landed to provide additional support. But initially the infantryman relies upon his organic weapons and air and naval gunfire for fire support. Planning for and coordinating the use of supporting arms is complex and requires that all the organizations involved work closely together.

2. General

a. Requirements. Both the amphibious task force (ATF) and the LF will require fire support during the amphibious assault.

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

(2) Landing forces normally require fire support on shore targets before, during, and after the initial assault landings. Until ground fire support means (e.g., mortars, tanks, and field artillery) of the LF are landed and ready to provide fire support, the support that would otherwise be rendered by these weapons must be provided by naval gunfire and aircraft.

(3) Since the availability and contemplated employment of one supporting weapon system influences the requirements for the others, the fire support requirements of all components of the ATF must be considered together in planning the employment of fire support means. Air, naval gunfire, and artillery to some extent have overlapping capabilities. However, all are required in an amphibious operation because each has unique characteristics not duplicated by the others.

b. Command and Control

(1) Command of the ATF is vested in the commander, amphibious task force (CATF), making him responsible for the accomplishment of the assigned mission and giving him authority over the activities of all

elements of the ATF. This authority is exercised through the chain of command and through various staff agencies; e.g., the SACC and the TACC.

(2) As stated in the definition of control above, control is the authority a commander exercises over part of the activities of subordinate or other organizations. Authority, or control, unlike responsibility, can be delegated. Before an amphibious assault begins, the CATF usually delegates appropriate control to the staff officers who are supervising ATF staff agencies such as the SACC and TACC. In an amphibious assault, combat power is built up ashore as rapidly as possible. As the various units (e.g., infantry battalions and artillery battalions) land and establish the facilities and communications needed for their commanders to exercise control over the elements of their units, the commanders assume control (authority) over their units. This control was vested in these commanders by their appointment as commanders, the assignment (in the case of combat units) of zones of action, and the assignment of missions. The placement of these commanders in the chain of command of a command under the CATF does not lessen the authority (control) of these commanders.

(3) The rapid buildup of combat power ashore causes some of the landing force staff agencies to be ready to function before others. The senior fire support coordination center is often one of the first. When these agencies are established ashore, the CATF may pass control (i.e., delegate authority) over certain functions to the commander, landing force (CLF) so that he may exercise authority through his own staff agencies rather than having to request the CATF to direct the actions that are part of these functions. For example, control of naval gunfire (the authority to assign missions to NGF support ships) is vested in the CATF. If the CATF passes control of naval gunfire to the CLF, the CATF delegates the authority to the CLF to designate directly to the commander of the gunfire support ships what landing force units will be provided with direct and general support ships. Before the control of naval gunfire is passed to the CLF, the CLF must request the changes of direct and general support missions from the CATF.

(4) The definition of control is very general. For an expression using the term to be useful in military operations, the meaning of control in that particular circumstance must be stated. Specifically, the authority must be defined and the activities over which this authority can be exercised must be stated. Without such clarification, a statement using the word control is useless because of its vagueness. The most common forms of control connected with supporting arms are:

(a) Control of Supporting Arms by Supported Commanders. When a commander is assigned a zone of action or sector, he is given the authority over all activities, including the use of supporting arms, within his zone of action or sector. He exercises this authority through his fire support coordination center, forward air controller, naval gunfire spotter, artillery forward observer, or mortar forward observer as appropriate. Members of fire support coordination centers and supporting arms controllers, spotters, and observers do not have any inherent authority over supporting armsfires. They are all staff officers of the supported commander.

(b) Control of Aircraft by Pilot

1. OPNAVINST 3710.7J states: "Pilot in Command. Pilot in command is a term referring to the pilot of an individual aircraft. The pilot in command is responsible for the safe and orderly flight of his aircraft and the well-being of his crew. The pilot in command may also be the mission commander or formation leader when so designated. In the absence of direct orders from higher authority cognizance of the mission, responsibility for starting or continuing a mission with respect to weather or any other condition affecting the safety of the aircraft rests with the pilot in command. The authority and responsibility of the pilot in command is independent of rank or seniority in relation to other persons participating in the mission or flight except that, (1) a wing, group, or squadron commander if embarked on a mission involving

aircraft of his command, retains full authority and responsibility regarding his command, including the mission in which he is participating, and (2) the pilot in command of an aircraft, with a flag or general officer may, under certain circumstances, be subject to the instructions of the flag or general officer." (See OPNAVINST 3710.7J for detailed information on this last point.)

2. The provisions of OPNAVINST 3710.7J cited above require pilots to consider the safety of their aircraft, passengers, and crew as strongly as they consider mission accomplishment. Given the cost of modern aircraft and the time required to train flight personnel, it may be in the best interest of the force that aircraft not be risked on a particular mission. If an aircraft and its crew are to be risked, the commander responsible for determining which missions will be flown should make the decision. (The ACE, MAGTF, or CATF is responsible for determining which missions will be flown.) However, for this to happen, the request must note the extent of the risk to the aircraft.

(c) Control of Firing Batteries by Artillery Battalion Commanders. Commanders of artillery battalions control all aspects of their batteries' operations except that:

1. The fires of the batteries must be cleared by the commander whose zone of action or sectors through which the rounds will pass through or into which they will impact.

2. Battery positions must be approved by the commander who controls the zone of action or sector in which the battery position is located. Battalion commanders control, among other things, selection of battery positions, assignment of fire missions to individual batteries, resupply of ammunition to firing batteries, personnel replacement priorities and maintenance priorities within the

battalion.

(d) Control of Artillery by Landing Force Commander. The CLF has authority to assign tactical missions (e.g., direct support, general support, reinforcing, and general support-reinforcing) to artillery battalions.

(e) Control of Naval Gunfire Support Ships by Naval Commanders. Naval commanders are always responsible for the following:

1. Allocation of available ships for fire support duties.
2. Ammunition resupply and logistic support of fire support ships.
3. Operational control of fire support ships.

(f) Control of Naval Gunfire Support Ships by the Supported Commander. When ships are placed in direct or general support of specific landing force units, the selection of targets, the timing of fires on the targets, specifications of line of fire (when not inconsistent with safe navigation), and the adjustment of fires are functions of the supported troop unit. (JCS Pub 3-02)

(g) Control of Naval Gunfire (the Control that is Passed from CATF to CLF). The authority to assign direct or general support missions to naval surface fire ships.

(h) Control of Offensive Air Support by the ACE Commander. Authority over the following is vested in the ACE commander:

1. Selection of aircraft to conduct mission.
2. Selection of ordnance for mission.
3. Specifying if aircraft is to be risked in conduct of mission (see subparagraph 1b(5)(b) above).
4. Diverting of aircraft from assigned mission.

(i) Control of Direct Air Support. The authority to direct an aircraft to support a specific unit.

3. Responsibilities of Commanders

a. Tasks. This paragraph discusses the tasks involved in planning fire support and associated responsibilities of the commanders concerned and amplifies the guidance provided in article 710 of JCS Pub 3-02.

(1) Target Selection. Target selection is the prerogative of the supported commander.

(2) Target Analysis. After the targets are selected, they are analyzed and the following is determined for each target:

(a) Classification.

(b) Priority.

(c) Method of attack. Often this is only the determination of the degree of damage to be achieved and the assignment of the target to a particular supporting arm (e.g., artillery, naval gunfire, or air) although it may also include the decision to use two or three of the supporting arms simultaneously.

(3) Selection of Means. This selection encompasses the assignment of targets to particular firing units or aircraft units and the allocation of fire support means to elements of the landing force. The assignment of tactical missions to artillery battalions and naval gunfire ships are two forms of allocating fire support means. The following factors are important to note:

(a) The selection and allocation of ships and air elements to deliver fire support is a function of the CATF or designated commander.

(b) The selection and allocation of artillery units is a function of the CLF.

(c) The selections and allocations of fire support assets by both commanders are interdependent, and continuous liaison and exchange of information on the subject are essential.

(4) Timing of Missions. The timing of fire support missions is the prerogative of the supported commander; however, factors such as aircraft availability may make it necessary to adjust these times. Close coordination between the supported and supporting units is essential on this matter.

(5) Adjustment of Fire. When the supported commander possesses adequate facilities, the conduct and adjustment of naval gunfire are troop functions of the supported commander. When he lacks adequate facilities for the conduct and adjustment of naval gunfire, the supported troop commander designates targets and timing of fires and recommends the type and amount of ammunition to be used. Adjustment is accomplished by the supporting units.

(6) Nuclear and Chemical Weapons. Command guidance for the employment of nuclear and chemical weapons is provided in the initiating directive and is amplified by the CATF and CLF. Command guidance should include types or targets to be attacked, allocation of weapons to subordinate units, desired weapons reserve, and any modifications to policies contained in the nuclear and chemical SOP.

(7) Mines. The CATF will establish policy and promulgate guidance relative to the employment of mines, including scatterable mines, delivered by any means within the AOA. He may do this by specifying authority to approve mine employment or control measures (e.g., restricted fire area where no mines may be employed).

b. Consolidation of Requirements. The sequence of events discussed above and in article 710 of JCS Pub 3-02 starts with the CLF's selection of targets. Before targets can be selected at the CLF level, certain tasks must be performed at lower echelons within the landing force. These tasks are:

(1) Plan fires to support the development of the commanders' concepts of operations.

(2) Determine the overall fire support requirements (see subparagraph 8a(2)(b) below) and the detailed fire support requirements (see subparagraph 8a(2)(c) below). Usually, a battalion is the lowest level at which requirements are determined. These requirements

are forwarded through successive levels of command to the CLF. At each headquarters (e.g., regiment), the requirements from the subordinate headquarters are consolidated. These consolidated requirements are reviewed to eliminate duplications, etc., and forwarded to higher headquarters.

c. Commander, Amphibious Task Force, Responsibilities. Fire support planning responsibilities of the CATF are:

- (1) Coordinating the planning for employment of all aircraft, naval gunfire, and artillery.
- (2) Preparing coordinated naval gunfire and air plans for all phases of the operation.
- (3) Establishing a supporting arms coordination agency at the ATF level during planning and execution of the operation.
- (4) Planning for the establishment of a supporting arms coordination agency at the subordinate naval echelons when appropriate.

d. Commander, Landing Force, Responsibilities. Fire support planning responsibilities of the CLF are:

- (1) Establishing a fire support coordination agency at each appropriate level of the LF for accomplishment of landing force fire support coordination responsibilities during planning and execution of the operation.
- (2) Determining LF requirements for air, naval gunfire, and artillery fire support and ensuring that the fire support requirements, if filled, will provide the support needed, and that the fire support plan and the scheme of maneuver are integrated.
- (3) Coordinating requests of the LF for fire support.
- (4) Presenting the coordinated requests for naval gunfire and air support to the CATF.
- (5) Preparing the field artillery fire support plan.

e. Air Force Participation. When Air Force forces participate in an ATF, planning responsibilities of the Air Force commander are:

(1) Providing staff representation.

(2) Establishing a tactical air control system or elements thereof.

f. Attack and Landing Groups. When subordinate amphibious attack groups and landing groups are formed and where separate landing areas are designated, each subordinate attack group commander is normally assigned responsibility for the overall coordination of supporting fires in his landing area.

4. Target List Responsibilities and Target Information Center

a. Target List Responsibilities. The CATF is responsible for the preparation and promulgation of the target list. All available target data are collected in the JIC. The JIC provides target data to the supporting arms coordinator (SAC), who prepares the target list. The landing force commander and tactical air officer provide lists of targets desired to be destroyed or neutralized (see subparagraph 2a(2) below) and assist the SAC in preparation of the target list. The SAC assigns classification and priorities. The target list is approved by the CATF and is disseminated in the Operations Annex to the Amphibious Task Force Operation Order. When advance force operations are conducted, the target list will be controlled initially by the advance force commander. Control of the target list may be passed to the CLF as the operation progresses.

b. Target Information Center. During planning, a target information center is formed. It consists of ATF and LF representatives, if the geographical location of the command permits. If geographical separation prevents this during the planning phase, the LF representatives will join the center immediately after embarkation. This center is composed of the ATF target intelligence officer and appropriate assistants and the LF target information officer and other appropriate personnel of the target information section of the landing force FSCC. These personnel work in the SACC and maintain close coordination with the air support section intelligence officer and the LF target intelligence officer (who is in the JIC). Although the target information center is dissolved when the LF headquarters is displaced ashore, the target intelligence center must be prepared to resume normal operations if required.

5. Planning Considerations. Fire support planning in preparation for an amphibious operation is more centralized than that for subsequent operations ashore. For example, in preparation for an amphibious operation, fire support requirements are integrated and coordinated at each echelon and then forwarded to the next echelon for approval and further integration and coordination. In subsequent operations ashore, landing force elements may develop and execute fire support plans in their areas of responsibility that are neither integrated nor coordinated at the higher levels.

6. Special Considerations

a. Supervision by SACC and Senior FSCC. The CATF is responsible for the overall coordination of supporting fires. Overall coordination of supporting fires, whether by the SACC or later by the senior FSCC, is overall supervision rather than the detailed coordination accomplished at lower echelons. The SACC and senior FSCCs become directly involved only when lower level fire support coordination agencies are unable to perform the necessary coordination. This procedure is consistent with the following principles:

(1) Coordinate each fire at the lowest possible echelon.

(2) A commander has the authority to approve the use of supporting arms within his zone of action. He and he alone has the authority to authorize fires into his zone of action.

b. Commander, Landing Force, Coordinates all Landing Force Requests. The CLF is responsible for coordination of LF requests for fire support during all phases of an amphibious operation.

c. Coordination and Control Under One Commander. To obtain the most effective fire support coordination, a highly desirable situation is that the commander responsible for the overall coordination of supporting fires also has control over all supporting fires in the sense control of supporting arms is defined in subparagraphs 1b(5)(d), (g), and (i) above. When control of direct air support is passed from the CATF to the CLF, the situation normally permits a concurrent shift in responsibility for control of naval gunfire and for the overall coordination of supporting fires. If, after such a

shift of responsibility, returning control of one function or another to afloat facilities becomes necessary, the difficulties in the separation of responsibility for supporting arms may be accepted on a temporary basis. The principle of concurrent shift of responsibility for control and coordination of supporting fires is similarly applicable to attack groups and landing groups.

d. Command and Control. Command of all supporting arms rests with the CATF. Control initially rests with the CATF for:

(1) Air.

(2) Naval gunfire.

(3) Artillery used to support the initial landing, as opposed to artillery landed with the LF. Control of artillery landed with the LF is provided by the CLF. The CATF can pass control of air, naval gunfire, and artillery used to support the initial landing to the CLF after the required control agencies are established ashore. Command remains with the CATF until the termination of the amphibious operation.

e. Vital Role of Aviation. Aviation plays a major role throughout the operation. Pre-D-day air support provides for aerial reconnaissance, attack of enemy positions and fortifications, air defense for preassault operations, and minelaying and clearing operations. On D-day and subsequently, air support is expanded to include delivery of personnel and cargo into the objective area, electronic warfare, and offensive air support of ground forces. In the early stages of the assault, air-delivered munitions play a vital role, complementing and supplementing naval gunfire, filling the void for landing force artillery not yet ashore, and attacking targets tasked to other supporting arms or beyond their range.

7. Basic Considerations. The fires of aircraft, naval gunfire, and artillery must be coordinated to ensure that those arms are economically employed with maximum effectiveness and the requisite degree of safety. Accordingly, coordination is achieved through the application of the sets of principles in article 720, JCS Pub 3-02 and in FM 6-20, "Fire Support in Combined Arms Operations."

8. Unique Supporting Arms Organizations. Special supporting arms organizations have been formed by the Marine Corps and Air Force, which will play an important role in amphibious operations involving US Army and/or allied forces. A brief discussion on these organizations follows. (See subparagraphs 14 and 15 below.)

a. US Air Force Tactical Air Support Control Elements. The US Air Force tactical air support system elements that accompany Army or other land force combat elements are the direct air support center (DASC) and the tactical air control parties (TACPs). (See paragraph 15 below for additional information.)

b. Air and Naval Gunfire Liaison Company. The Air and Naval Gunfire Liaison Company (ANGLICO) is a Marine Corps unit whose mission is to provide liaison and control teams for a US Army or allied divisions, including airborne units, for the control of fires from naval close support aviation and from naval surface fire ships. These teams are provided at every level from the division headquarters down to the forward line companies, with the requisite personnel and equipment. The ANGLICO provides US Navy and Marine Corps personnel to advise on the capabilities, limitations, and employment of naval gunfire and air support and the organization and communications needed to request, direct, and control this support.

9. Supporting Arms Planning

a. General. Fire support planning for an amphibious operation has two distinct but related aspects. One involves the preparation of the objective area and includes supporting, preassault, and prelanding operations. The other involves the provision of fire support means to the LF and its combat elements subsequent to landing. Early in the planning phase, the CLF determines and submits to the CATF his overall requirements for air and naval gunfire support. These requirements result in a tentative allocation of aircraft and ships as a basis for planning.

(1) Preparation of the Objective Area. Preparation of the objective area involves the determination of targets to be attacked, the general timing of attack, the selection of fire support means, the effect desired, and a statement of the probability, or assurance, that the effect will be attained.

(a) A statement of the desired probability, or assurance, that the desired effect will be attained on a target results in a determinable commitment to that target, and in a broader sense, the extent to which the objective area will be prepared before the landing of assault troops.

(b) The fire support means available, the time available, and the number of targets to be attacked are interrelated. An increase in means or time obviously increases the number of targets that can be attacked. The time required to prepare the objective area with the means available is a significant factor in determining the extent of supporting and/or preassault operations.

(c) Prelanding operations consist primarily of neutralization and suppressive fires in the vicinity of the landing areas. Fires are not limited to confirmed targets but may include fires on suspected targets or areas that, if occupied, will present a threat to the ship-to-shore movement and initial operations ashore. Destruction of targets may be an additional requirement during prelanding operations.

(2) Support of the Landing Force Subsequent to Landing.

Support of the LF and its combat elements subsequent to landing involves the assignment of adequate fire support means to committed maneuver elements, and to other elements or echelons requiring fire support. Such assignment of fire support increases the combat power of supported units on an as-required basis.

b. Overall Fire Support Requirements. Overall fire support requirements consist of the number and type of aircraft, fire support ships, artillery units, and the respective munitions needed to support each operational phase of the operation-- pre-D-day, D-day, and post-D-day operations ashore. The CLF submits his air and naval gunfire requirements for each operational phase as the basis for a tentative allocation of fire support means for planning. These requirements are reviewed and revised as detailed planning progresses. Artillery requirements are submitted to the CLF by commanders of subordinate echelons. In estimating the number and type of aircraft,

naval gunfire ships, and artillery units for any operational phase, due consideration is given to the mission, the scheme of maneuver, and the requirement for coordination among the three arms.

c. Detailed Fire Support Requirements. Detailed fire support requirements are the CLF's specific recommendations to the CATF concerning the use of available fire support means to accomplish preparation of the objective area or to provide fire support to the LF subsequent to landing. As such, these recommendations are the basis for detailed fire support plans of the landing force. These requirements include, as appropriate, specific targets to be attacked and the delivery means recommended, amounts of ammunition to be expended and schedules for delivery, and specific LF elements to be supported and the types of support required. Detailed requirements should be submitted in sufficient detail as to require only approval and implementation by the CATF.

d. Fire Support Plan. The fire support plan consists of the detailed requirements for air, naval gunfire, and artillery for the various operational phases of the amphibious operation. It is prepared jointly by the air, naval gunfire, and artillery representatives under the supervision of the fire support coordinator. The plan accommodates the fire support requests of subordinate units. Close and continuous coordination is required among supporting arms representatives and with corresponding staff representatives of the ATF and other components to ensure that LF requirements are compatible with and coordinated with overall ATF requirements. Following submission of the LF fire support requirements to the CATF, the ATF's naval gunfire and air requirements are incorporated in the ATF naval gunfire and air plans respectively. Nuclear requirements are incorporated in the ATF nuclear support plan, and the chemical requirements are incorporated in the ATF chemical fire support plan. These plans are distributed in the form of annexes or appendixes to the operation plan of the ATF and become the basis for similar annexes or appendixes to the LF and lower echelon operations plans. These annexes together with the artillery annex or appendixes and the fire support coordination annex (if applicable) form the fire support plan of the LF.

10. Fire Support Coordination Agencies

a. Supporting Arms Coordination Center. The SACC is the agency through which the CATF (and advance force commander or attack group commander when appropriate) exercises overall coordination of the supporting fires. The SACC is located in the CATF's flagship. The supporting arms coordinator is in charge of the SACC and is the CATF's representative. The supporting arms coordinator, with the advice of the corresponding landing force fire support coordinator, integrates the fire plans of the supporting arms to ensure their most effective use in furthering the CLF's concept of operations ashore. When responsibility for the coordination of supporting fires is passed to the CLF, the appropriate supporting arms circuits continue to be monitored in the SACC.

b. Fire Support Coordination Center. For all Marine Corps organizations and for US Army units of brigade or smaller size, the agencies where fire support coordination is done are called FSCCs. At Army division and higher echelons, these agencies are called fire support elements (FSEs). The fire support coordinator (FSC) at each level is responsible for the functioning of the respective FSCC or FSE and normally is under the staff supervision of the G/S-3.

(1) Operation While Afloat. While afloat, the landing force fire support coordinator is the representative of the CLF in matters involving fire support coordination. LF fire support coordination personnel work closely with members of the CATF's staff in the SACC. Figure VIII-1 shows control and coordination relationship afloat. Personnel of the two centers who have similar duties are stationed in the same or contiguous spaces. The fire support coordinator screens the requests for fire support from subordinate LF echelons and advises and assists the supporting arms coordinator in order that the most effective support can be delivered. He also keeps the supporting arms coordinator advised of activities of artillery ashore.

(2) Advance Force Representative. Some LF fire support coordination personnel normally accompany the advance force to advise its commander on the attack of targets that present a potential threat to the LF. These personnel normally rejoin their parent unit upon dissolution of the advance force.

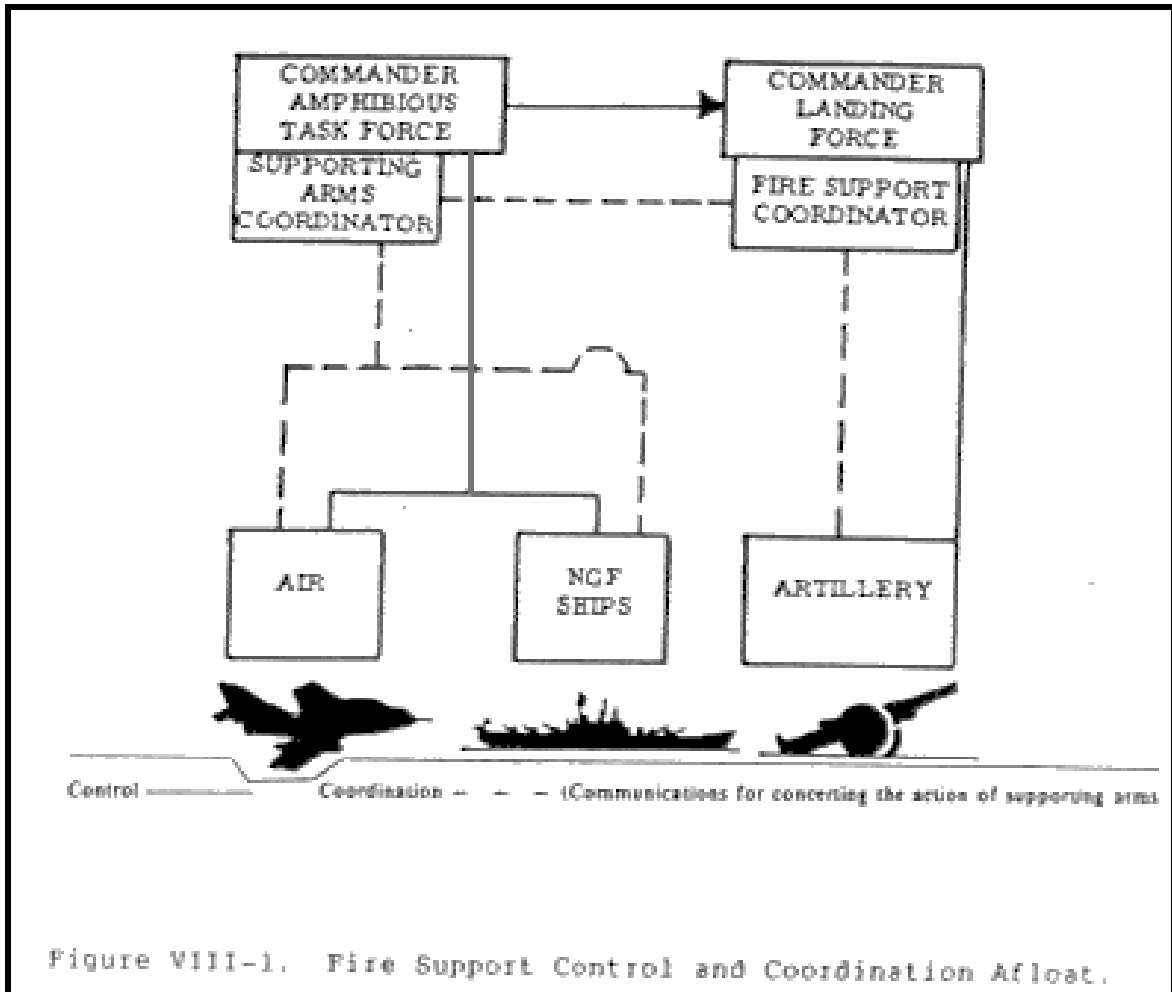


Figure VIII-1. Fire Support Control and Coordination Afloat.

(3) Displacement Ashore. On order of the CLF (or appropriate subordinate commander), the FSCC or FSE displaces ashore, leaving in the SACC sufficient personnel to provide continuity of coordination until the LF fire support agency is established and functioning ashore.

c. Agencies of Attack and Landing Groups. When subordinate amphibious attack groups and corresponding landing groups are formed, these groups form fire support coordination agencies in a manner similar to that used by the ATF and LF.

11. Fire Support Coordination Measures. Various fire support coordination measures and techniques may be employed to facilitate the control and coordination of fire support. Definitions and techniques of application are covered in FM 6-20, "Fire Support in Combined Arms Operations"; NWP 22-2/FMFM 1-7, "Supporting Arms in Amphibious Operations"; and FMFM 6-2, "Fire Support Coordination."

12. Fire Support Coordination During The Assault. From the beginning of the assault until a short time after the first waves land, fire support is coordinated mainly by the execution of the prearranged fires scheduled during the planning phase. As the control agencies (e.g., forward observers and naval gunfire spotters) of the LF become operational ashore, all practicable close support fires from all supporting arms are provided as requested by troop units. Coordination is accomplished at the lowest echelon possessing necessary facilities. This same principle applies in the planning of subsequent prearranged fires. Planning is accomplished as required at each level of the LF before daily fire support plans are transmitted to the next higher level for similar action.

13. Air Support Planning

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

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

c. Allocation of Aviation Resources. The amount and type of aviation support provided to the assault elements of the LF is influenced by many factors. In some situations, primary support for tactical air operations will be provided from aircraft carriers. In other situations, LF aviation or Air Force forces may be capable of providing support from air bases in or near the objective area. The type of enemy air defenses that can interfere with the operation are a principal factor in air support planning. For example, if there is a substantial threat of air attacks against the task force, considerable aviation assets must be dedicated to combat air patrol, thereby decreasing the aviation assets' availability for other missions. When a substantial threat is present from enemy land-based air defense systems (artillery and missiles), significant resources (EW, naval gunfire, artillery, and aviation) must be dedicated to suppressing the defenses in order to conduct other missions such as helicopter assaults.

(1) Movement of Landing Force Aviation into the Objective Area. To smoothly move LF aviation into the objective area, extensive planning is required. Such aspects as staging and en route support bases, aerial refueling, and bases in the AOA must be considered.

(2) Fire Support by Aviation. Fire support that can be provided by attack helicopters and vertical/short takeoff and landing (V/STOL) aircraft in the early stages of the assault is also considered. The spaces available on amphibious ships for helicopters and the V/STOL type aircraft, which are more capable of providing close air support, are limited. Thus, a tradeoff generally must be made between the number of helicopters and the number of V/STOL aircraft.

d. Control and Integration of Air Assets. To ensure speed of reaction and positive coordination, control of all friendly aircraft in the AOA at any given time is exercised by a single authority responsive to the needs of the CLF, subject to the overall authority of the CATF. Accordingly, all air operations must be integrated into the ATF plan, whether the support is provided by air elements organic to components of the ATF or assigned to, attached to, or in support of the ATF. Furthermore, the agency responsible for airspace control within the objective area controls all friendly aircraft passing through the objective area regardless of mission or origin. A tactical air control system capable of providing the requisite centralized control must be organized. (See Chapter II, paragraphs 12 and 13.)

e. Air Superiority. Although the complete destruction of enemy capabilities for air attack is rarely attainable, success in an amphibious operation requires a distinct margin of air superiority in the objective area. Defense against attack from the air is discussed in Chapter V of this manual.

14. Air Control Responsibilities

a. Centralized Air Control System. In an amphibious operation, a centralized integrated air control system is developed through which all air operations within an assigned area of responsibility can be controlled and coordinated. Control of air operations is exercised by various commanders as the operation progresses. Plans must be made to provide each such commander with the proper facilities for control of air operations.

b. Control of Pre-D-Day Air Operations. When an advance force is employed, the advance force commander is responsible for pre-D-day air operations in the assigned area. Control is exercised through the tactical air direction center (TADC) established in the flagship of the advance force commander.

c. Shift of Control Upon Arrival of the Amphibious Task Force. The CATF assumes responsibility for control of all air operations upon arrival in the objective area. Control is exercised through the tactical air control center (TACC), which is established in his flagship. Subordinate TADCs, as designated in advance, monitor air control circuits in readiness to assume all or part of the duties of the TACC if required.

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

e. Shift of Control. As soon as conditions permit, air control agencies are established ashore that parallel the Navy control agencies afloat.

(1) Ashore agencies are provided by the US Marine Corps or US Air Force, depending on the composition of participating forces. The control agencies ashore are initially in a standby status, monitoring all air control circuits. Upon recommendation of the CLF (or the appropriate agencies ashore), the CATF may pass control of air operations to the CLF or the joint task force commander concerned. The passage of control may be incremental; e.g., control of direct air support may be passed ashore before control of other aspects of air operations. After passage of any or all control to the CLF, the Navy control centers afloat continue to monitor appropriate circuits, ready to resume control if necessary.

(2) When the CATF passes control of air operations to the CLF, the latter exercises control of air operations through his TACC. (USMC--Tactical Air Command Center: USAF--Tactical Air Control Center). (See paragraph 15 below). If the Air Force provides the preponderance of tactical aviation and a commander other than the commander landing force assumes control of air operations for the CLF, the designated commander will establish and operate a comprehensive airspace control system responsive to the authority of the CLF, subject to the overall authority of the CATF. The integration of LF tactical control elements will be effected through the assignment, insofar as practicable, of block airspace and/or sectors of responsibility within which authority for control of aerial vehicles organic to each Service and/or belonging to other Services can be delegated. The commander ashore to whom this authority is passed assumes the related responsibilities for the daily planning and execution of those air operations. See Chapter II of this manual and paragraph 737 of JCS Pub 3-02 for additional discussion on control of air support.

f. Period of Control. Emphasis should be placed on the fact that air control responsibilities discussed herein are applicable only for the period of the amphibious operation as delineated in the initiating directive.

g. Shift of Air Space Control on Termination of the Amphibious Operation. Air support planning must provide for an orderly transition of airspace control from the ATF on termination of the amphibious operation. At the termination of the amphibious assault, the ATF will be

dissolved, the assigned airspace will be disestablished, and the responsibility for airspace control, defined as coordination, integration, and regulation of airspace, normally will be exercised by the Air Force component commander through a joint air operations arrangement for the joint force commander. The initiating directive will indicate whether airspace control is to be reassumed by the unified commander, assigned to a joint force commander exercising airspace control in an adjacent area, or established by a joint force commander engaged in subsequent operations. In any event, planning must include consideration of those steps required to provide for assumption of airspace control in accordance with JCS Pub 3-52, "Joint Doctrine for Airspace Control in the Combat Zone."

15. US Marine Corps Air Control Agencies Ashore. The US Marine Corps has a command and control system (the Marine Air Command and Control System (MACCS)) through which Marine Corps commanders can control air operations. The following elements of the MACCS are established ashore when all aspects of air operations are controlled by US Marine Corps elements:

a. Tactical Air Command Center (TACC). The TACC (ashore) is the principal air control agency of the LF. Through it, all air operations and surface-to-air missile operations in the objective area can be directed and controlled. Until authority for control of air operations is passed to the CLF ashore, the TACC operates as a tactical air direction center (TADC) under overall supervision of the TACC afloat and accomplishes such air control functions as may be assigned. To accomplish its tasks, the primary LF air control agency, whether operating as a TACC or a TADC, requires current intelligence on the ground and air situation, a means to display intelligence data that will permit rapid evaluation, and communications equipment to provide the means to shift air power rapidly to meet changing requirements.

b. Tactical Air Direction Center. If tactical air operations are of such magnitude or cover areas of such size that it is impractical to direct all air operations from a single TACC or TADC, additional TADCs may be established.

c. Direct Air Support Center. The DASC controls direct air support. It is subordinate to the TACC (afloat), the TACC (ashore), or a TADC and is normally located near the senior fire support coordination center (FSCC) in the LF.

d. Tactical Air Operations Center. The primary purpose of the tactical air operations center (TOAC) is to provide a means for controlling and directing antiair warfare. Through the TAOC, interceptor aircraft and air defense missiles are controlled. It may be used to provide navigational assistance to attack aircraft and to provide en route air traffic control of all aircraft within its assigned sector.

e. Tactical Air Control Party. US Marine Corps divisions have 14 tactical air control parties (TACPs). A TACP is organic to each infantry battalion, each infantry regiment, the tank battalion, and the division communications company. The composition of TACPs varies with the tasks to be performed. At the battalion-level, a TACP is composed of an air officer (AO), two forward air controllers (FACs), and the necessary communications personnel and equipment. At the regimental and division levels, TACPs do not have FACs.

(1) ANGLICO. (See subparagraph 8b above.)

(2) Purpose of TACPs. TACPs are agencies through which ground commanders can control aircraft. To provide this means, TACPs establish and maintain the necessary communications with other elements of the MACCS, advise ground unit commanders on the employment of aircraft, transmit requests for direct air support, and transmit directions to aircraft providing CAS and other air support.

f. Forward Air Controller. The forward air controller is an officer (aviator/pilot) member of the tactical air control party who, from a forward ground or airborne position, controls aircraft in close air support of ground troops (JCS Pub 1-02). This control may be exercised by aviation personnel such as:

(1) Airborne forward air controller (FAC(A)) (Navy).

(2) Forward air controller (airborne) (FAC(A)) (Marine Corps).

(3) Naval aviation observer (NAO).

g. Tactical Air Coordinator (Airborne). The tactical air coordinator (airborne) (TAC(A)) is closely allied with the TACP. He is an experienced aviator, airborne in the battle area for the purpose of coordinating and/or controlling the actions of aircraft engaged in tactical air operations.

h. Air Support Radar Team (ASRT). The air support radar teams (ASRTs) are elements of MACCS equipped with a radar course-directing central for control of all-weather air support operations.

i. Helicopter Controller (Airborne). During the ship-to-shore movement, the helicopter controller (airborne) (HC(A)) operates under the control of the helicopter direction center (HDC). When the control of helicopters is passed ashore, the DASC takes over the control of helicopter operations. When control is assumed by the DASC, the HC(A) may continue to control the movement of helicopters under the overall control of the DASC.

j. Marine Air Traffic Control Squadron. The Marine air traffic control squadron (MATCS) provides control of aircraft in the vicinity of an airfield. It operates the control tower, ground controlled approach (GCA), and other navigational aids.

16. US Air Force Tactical Air Control System

a. Tactical Air Control System. When air control ashore is provided by elements of the US Air Force tactical air control system (TACS), it is established in accordance with the US Army/US Air Force Concept for Improved Joint Air-Ground Coordination. When these elements perform air control functions before termination of the amphibious operation, they will be compatible and capable of functioning with the Navy control agencies afloat.

b. ASOC and TACPs. The US Air Force TACS elements that accompany Army or other land force combat elements are the ASOC and the TACP.

(1) The Air Support Operations Center (ASOC) is designed for control and direction of tactical air support (close air support, tactical air reconnaissance, and tactical airlift) and is collocated with the tactical air support squadron (TASS) of the appropriate Army tactical operations center (TOC). The principal function of the ASOC is to provide fast reaction capability to requests from Army forces for tactical air support. The TACC allocates sorties, along with the necessary scramble and control authority, to the ASOC to satisfy requests for immediate tactical air support. The TACC may also allocate sorties to the ASOC to commit and/or control

preplanned missions as the situation requires. The ASOC is the primary TACS element for exchange of information, coordination, and detailed execution of required tactical air support operations with the Army component. Provision is made for Army G-2/G-3 air representatives in the ASOC. When appropriate, other Service components and Army staff agencies will be represented. ASOC functions may be accomplished by facilities airborne or afloat when required.

(2) The TACP, consisting of highly experienced tactical aircrew members and Enlisted Terminal Attack Controllers (ETAC) with the communications equipment required to obtain, coordinate, and control tactical air support to ground operations, is directly subordinate to the ASOC. TACPs are collocated at corps, division, brigade, and battalion levels of ground force organization. They advise and assist the commander, request and coordinate tactical air support, and meet other requirements of the individual ground force echelons. The air liaison officer (ALO) is the designated Air Force officer located at each ground force echelon to perform air liaison duties. The ALOs maintain close coordination with ground forces' staffs to make sure that tactical air support is coordinated and integrated into planning and the scheme of maneuver of the land battle. At the battalion level, the ALO's mission is to advise the ground commander and request, monitor, coordinate, integrate, direct, and control tactical air support with the fire and maneuver of the supported ground force.

c. Operation of the TACS. The operation of the TACS and detailed descriptions of the following elements of the TACS are in AFM 2-7, "Tactical Air Force Operations--Tactical Air Control System (TACS)":

(1) Tactical Air Control Center (TACC).

(a) Air Support Operations Center (ASOC).

1. Tactical Air Control Party (TACP).
2. Forward Air Controller (FAC).

(b) Control and Reporting Center (CRC).

1. Control and Reporting Post (CRP).
2. Forward Air Control Post (FACP).

(c) Wing Operations Center (WOC).

(2) Airlift Control Center (ALCC).

(a) Airlift Control Element (ALCE)

(b) Combat Control Team (CCT)

17. Air Support Planning

a. Dual Responsibility of the CATF and CLF. The planning of air support for amphibious operations is the responsibility of both the CATF and the CLF.

b. CATF. The CATF has the following responsibilities:

(1) Determination of Overall Requirements of the Amphibious Task Force. Naval requirements remain generally constant throughout the operation. Air superiority must be attained and maintained in the objective area, and the movement of enemy forces into and within the objective area must be curtailed or halted. A continuing requirement is for defense against enemy air, surface, and subsurface attack.

(2) Determination of Air Support Capabilities. The CATF determines the air support capabilities of the entire task force in terms of sorties, endurance on station, ordnance loads, and payloads.

(3) Coordination of All Air Support Requests. The CATF coordinates all requests for air support originating within the task force and allocates aircraft in accordance with capabilities. He makes requests for additional support to higher authority.

(4) Preparation of an Air Plan. The CATF prepares an air plan to govern the conduct of air operations throughout the operation. The air plans of subordinate commanders of the ATF must be in conformity with the ATF plan.

c. CLF. The CLF has the following responsibilities:

(1) Determination of Landing Force Air Support Requirements. The CLF coordinates all requests for air support originating within the LF, and submits the consolidated requirements to the CATF.

(2) Determination of Landing Force Air Support Capabilities. The CLF determines the air support capabilities of LF aviation units and submits this information to the CATF.

(3) Submission of Plans for Deployment of Aviation Elements Ashore. The CLF submits recommendations to the CATF for the deployment ashore of LF and other aviation units.

(4) Preparation of an Air Plan. The CLF prepares an air plan in conformance with the ATF air plan.

d. The Air Force Commander. The planning of air support for an amphibious operation in which air support is provided by the US Air Force is the joint responsibility of the CATF, the CLF, and the appropriate Air Force commander. The Air Force commander's air support planning responsibilities are:

(1) Providing for Air Force Representation. The Air Force commander provides staff representation and liaison to the CATF. When the preponderance of air support is being furnished by the Air Force, he provides an officer as the ATF tactical air officer. See subparagraph 13e(2) above for additional information.

(2) Determining Air Force Support Capabilities. The Air Force commander determines the air support capabilities of assigned units in terms of sorties, on-station endurance, ordnance load, and payloads; and submits them to the CATF and the CLF.

(3) Submission of Deployment Plans. The Air Force commander submits his recommendations to the CATF for the deployment of assigned Air Force units.

(4) Preparation of Supporting Air Plans. The Air Force commander prepares plans to implement and support the operation of the ATF.

18. Air Support Planning Sequence. The sequence of planning air support, as it affects the landing force, is as follows:

a. Preparation of Initial Estimates of Landing Force Air Support Requirements. Aviation planning commences with the preparation of initial estimates of landing force air support requirements, including offensive air operations,

antiair warfare (AAW) operations, assault support operations, aerial reconnaissance operations, airlift operations, electronic warfare, and aircraft and missile control operations. These estimates are prepared as soon as initial information of an operation is received by the CLF. At this time, only the broadest estimates can be made. These initial estimates are usually limited to those required to determine the number and types of units to participate, the control agencies necessary, and the logistic support required. Certain air support requirements are deduced based on knowledge of the aviation capabilities of the force involved, enemy air capabilities, and general mission of the LF. Based on these and other initial estimates, the CLF issues his planning guidance.

b. Preparation of an Aviation Estimate of Supportability. The aviation estimate is a special staff estimate prepared by or under the cognizance of the LF tactical air commander. No set format is prescribed for this estimate, and it may be presented verbally or in writing. Its purpose is to summarize significant aviation aspects of the situation as they might influence any course of action proposed, and to evaluate and determine how aviation units can best be employed to support the contemplated LF courses of action.

c. Determination of Detailed Air Support Requirements of the Landing Force. Detailed planning of LF air support requirements commences after the CLF issues his concept of operations. These air support requirements are concerned with the use of nuclear weapons, enemy targets in the beachhead area, enemy targets remote from the beachhead that may affect the force, aerial reconnaissance necessary to support the operation, assault support operations in and about the landing area, and control facilities necessary to adequately support the commander's concept of the operation. Attention is given to the time required to locate and prepare existing facilities and/or sites that will assist in the early establishment of aviation units ashore. This permits better support for the ground forces in executing their course of action. In addition, special consideration is given to the aviation requirement to conduct antiair warfare operations, both active and passive.

d. Determination of Overall Amphibious Task Force Air Support Requirements. The CATF may require that the LF aviation participate in some or all of the amphibious task force support requirements. At this point in the planning sequence, the adequacy of air support means is measured to determine if sufficient aviation has been assigned to support all requirements.

e. Submission of Requests for Additional Air Support Means. When the CLF's decisions and course of action result in a requirement for additional aviation means, appropriate requests are submitted to the CATF.

f. Adjustment of Plans. When additional air support means are not available, adjustment of plans are made by the CATF in consultation with CLF, and the Air Force commander when appropriate.

g. Allocation of Means and Formulation of Air Plans. The final step in the planning sequence is the allocation of aviation sorties available for the operation and the preparation of air operations plans and orders.

19. Principal Air Support Planning Considerations

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

(1) CATF Designates System. The CATF will designate the tactical air control system through which control and coordination of air operations within the amphibious objective area are exercised. He will use the control system, or combination of Air Force, Navy, or Marine Corps tactical air control system elements, best suited for the amphibious operation.

(2) Access to System. Plans must ensure that all LF command levels are provided access to the agency exercising control of aircraft allocated to their air support.

b. Air Support Basing. Initially, air support is provided by aircraft operating from carriers or from land bases within effective range of the objective area. As facilities for operating land-based aircraft are established within the objective area, aircraft operating from such facilities are employed through the tactical air control system on missions in support of task force operations.

c. Early Seizure of Airfields. Plans will usually provide for rapid seizure of existing airfields or airfield sites and sites for early warning and air control facilities to:

(1) Provide for the early deployment ashore of air elements, either from carrier bases or from distant bases by employing aerial refueling techniques. These elements then furnish continuing air support to the LF.

(2) Extend the radius of warning and control to improve the task force air support and anti-air warfare capabilities.

20. Detailed Air Support Planning Within The Landing Force

a. General. The LF plans for the employment of LF aviation to support the ship-to-shore movement and scheme of maneuver ashore. Basic planning also establishes requirements for air support by the other elements of the ATF. Any enemy facilities to be captured intact must be specified and exempted from destruction.

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

(1) Pre-D-Day. LF requests for pre-D-day air operations concern primary intelligence needs and offensive air operations to reduce enemy forces and defensive installations in the landing area. The scope of pre-D-day operations may be limited by the need for surprise. The request for air operations is in the form of a detailed statement of the mission to be accomplished and a general recommendation for the ordnance and numbers of aircraft to be employed. The requests will usually cover:

(a) Destruction of located enemy installations, particularly those that cannot be attacked effectively by naval gunfire.

(b) Imagery, radar, and visual coverage of landing areas, important terrain localities, and critical points in the routes of communication.

(c) Interdiction missions, designating types of targets and effects desired.

(d) Psychological warfare missions.

- (e) Deception missions.
- (f) Electronic warfare missions.
- (g) Missions in support of guerrilla and clandestine operations.
- (h) Airborne raids.
- (i) Tactical air transport.

(2) D-Day. The LF request for air support of operations ashore commencing D-day includes the tasks to be accomplished, number and type of aircraft desired, ordnance to be employed, times at which required, and coordination provisions. The request may be in the form of an air schedule with amplifying instructions appended.

(3) D-Day, H-Hour. During the ship-to-shore movement, preplanned air strikes assist in achieving a maximum shock effect. During the critical period when landing craft, amphibious vehicles, and helicopters are making the final run to the beach or landing zone, aircraft assist in neutralizing the beaches, landing zones, approach routes, and adjacent key terrain features until the assault troops are so close to the shoreline or landing zone as to be endangered.

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

21. The Air Plan

a. CLF Submits Air Support Requests to CATF. The CLF submits his air support requirements to the CATF. Other elements of the ATF also make their requirements known. The ATF air plan is then developed by the staff of the CATF and published as an air annex to the task force operation plan. The officer responsible to the CATF for the preparation of the air plan and the subsequent direction of the air effort is known as the ATF tactical air officer. This officer is normally the commanding officer of the naval tactical air control unit attached to the ATF. When the preponderance of tactical air support is provided by

the Air Force for the assault phase of the amphibious operation, the Air Force commander will designate an Air Force officer to report to the CATF as the tactical air officer.

b. Additional Provisions. Plans for air support in addition to pre-D-day, D-day, and post-D-day include provisions for:

(1) Air Control and Warning. Comprehensive plans for aircraft control and air warning for the ATF are prepared, including provisions to echelon landing force air control organizations ashore.

(2) Air Delivery of Supplies. The basic requirements for air delivery of supplies are established by the CLF. Air support plans contain provisions for their delivery.

(3) Tactical Airlift Operations. If the tactical plan involves the movement of troops into the combat area by air transport, the CLF provides a general statement of aircraft requirements by type for inclusion in his comprehensive request for air support.

(4) Liaison and Observation Aircraft. Plans make provision for the early arrival of liaison and observation aircraft in the objective area. They may be flown to the area or transported in ships.

(5) Airfields Ashore. Air support plans include provisions for rehabilitation or construction of airfields and V/STOL-capable locations in the objective area to permit the earliest possible deployment ashore of land-based tactical aircraft organic to the ATF or provided from other sources.

(6) Antiair Warfare, Counterair, and Air Defense. Plans must provide for protection of naval and landing force units from enemy air attack. The coordinated employment of air defense artillery and missiles and defending aircraft is a continuing requirement.

(a) Aircraft are shifted to meet changing requirements, and, except under conditions of heavy and prolonged enemy air attack, antiair warfare and counterair do not exclude the assignment of fighter aircraft to other missions.

(b) As soon as conditions permit, the LF air warning organization is established ashore in order to extend the air warning system of the ATF.

(c) LF air defense units are landed and integrated into the anti-air warfare or counter-air control system. Air control agencies of the LF are integrated into the overall anti-air warfare or counter-air control system and initially are directed operationally by the tactical air control center afloat.

22. Air Support During The Assault

a. Close Air Support. Close air support will be controlled as shown in Figures VIII-2, VIII-3 and VIII-4, and will normally be carried out as follows:

(1) Before Air Support Control Agencies are Established Ashore. Until the TACPs landed with assault units are established ashore, close air support missions are executed under the direction of the TAC(A)s or FAC(A)s. When the TACPs are established ashore, they request close air support from the TACC/Abn DASC or the TADCs afloat. The TACC/Abn DASC, or TADCs, assigns aircraft to missions as requests are received. As the landing progresses, air control elements to be established ashore land and prepare to operate shore-based facilities for control of air operations.

(2) Air Support Control Agencies Established Ashore. As air support control agencies are established ashore, they function initially under the TACC afloat. These agencies subsequently operate under the designated authority when control of close air support has been passed ashore by the CATF. In any case, requests are sent by the TACP directly to the air control agency, which assigns aircraft to close air support missions. TACP requests are monitored by the SACC, FSCC, or FSE. (See subparagraph 13e above and paragraph 1651a, JCS Pub 3-02, for additional information on shift of control).

(3) Terminal Phase. The terminal phase of close air support strikes is executed under the control of a FAC (ground and/or airborne), a TAC(A), or an ASRT. Close air support missions are executed only on the approval of the commander of the supported landing force unit and commanders of units close enough to the target area to be affected.

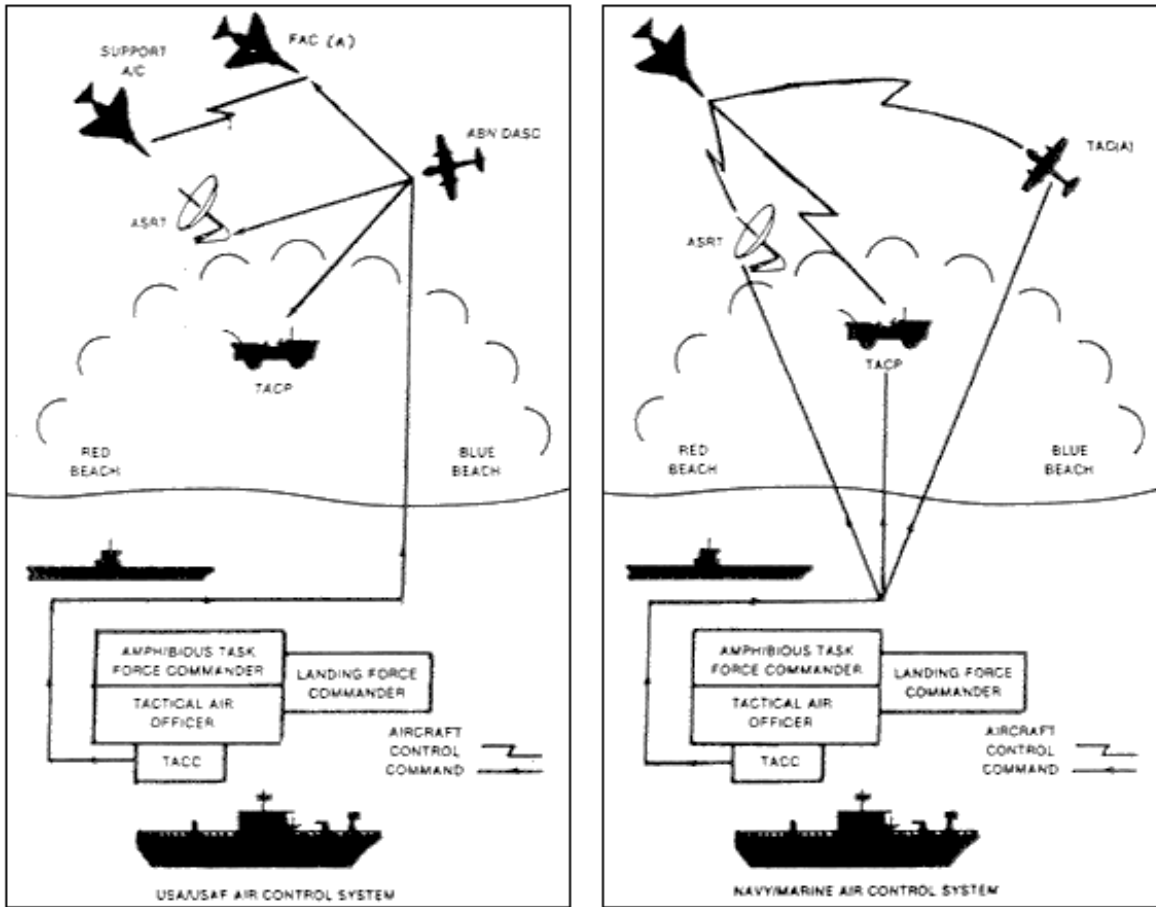


Figure III-2. Control of Close Air Support on D-Day or Shortly Thereafter.

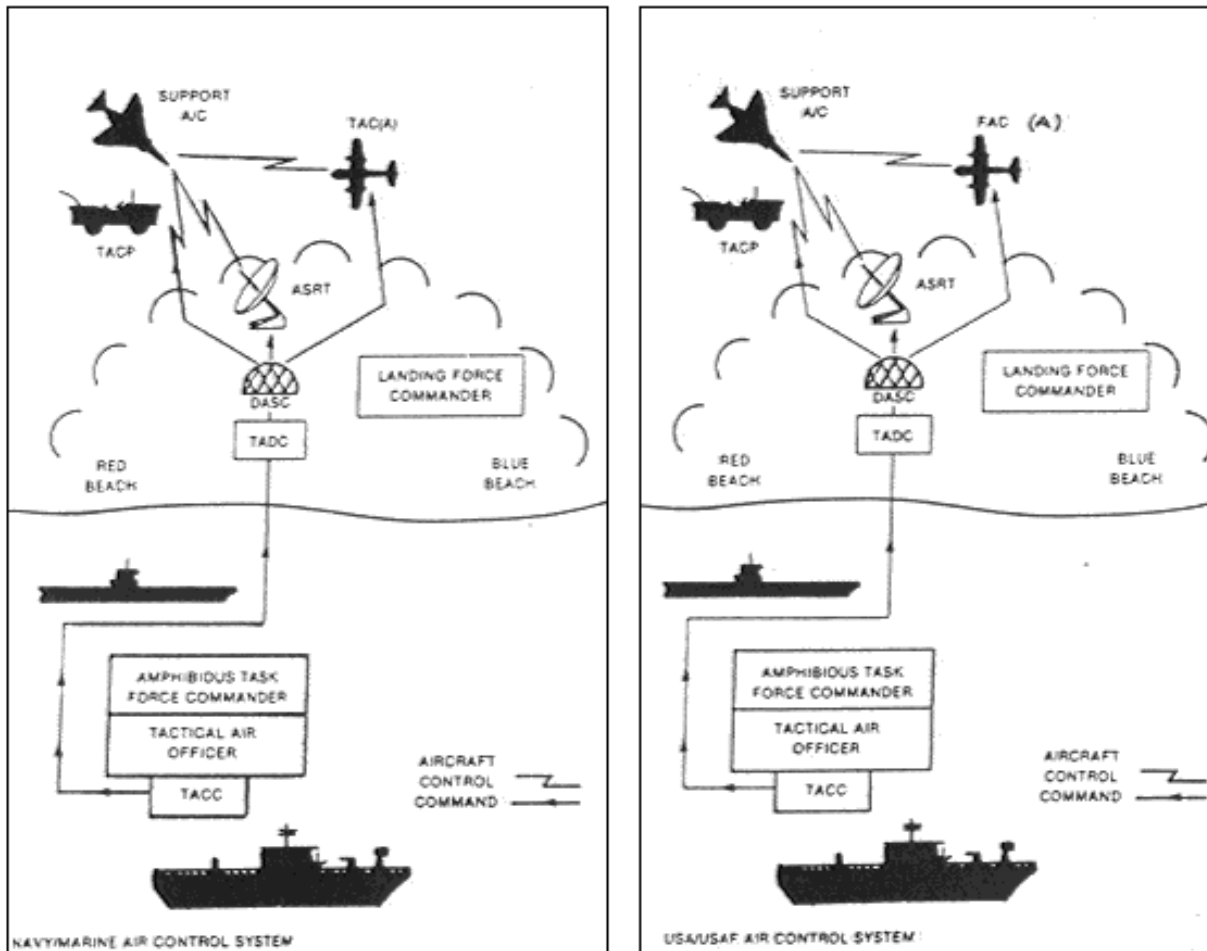


Figure VIII-3. Control of Close Air Support When TADC is Ashore and the TACC is Afloat Before Control is Passed Ashore.

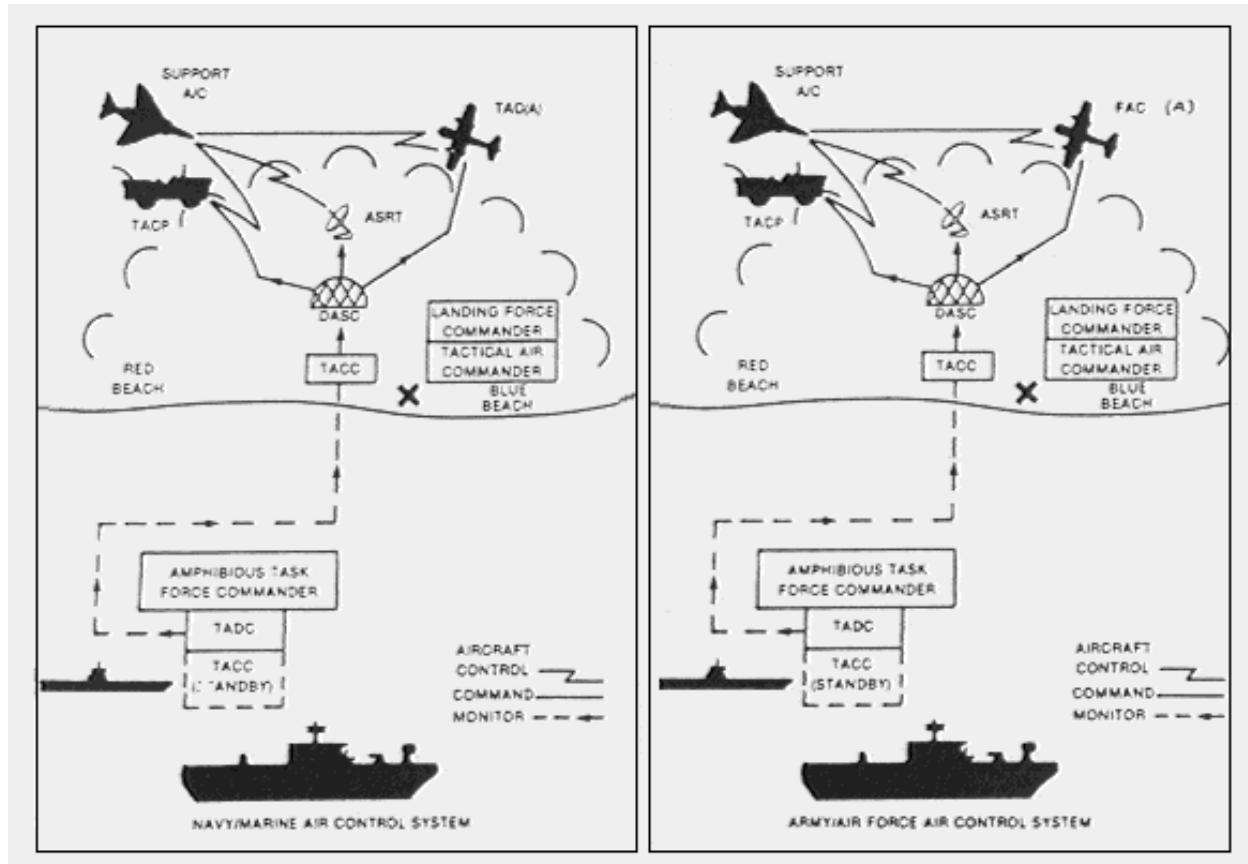


Figure VIII-4. Control of Close Air Support When Landing Force Air Control Agencies are Ashore and the TADC is Afloat, After Control is Passed Ashore.

b. Miscellaneous Air Support Operations

(1) As soon as the minimum required facilities can be provided, observation, liaison, and V/STOL attack-type aircraft are deployed ashore to support the assault units. Before their deployment ashore, observation missions may be performed by high-performance aircraft from carriers or supporting bases.

(2) Smoke, reconnaissance, and other tactical air missions are continued in support of the assault.

(3) Air transport support of the assault may be provided by land- or sea-based transport aircraft.

c. CATF Allocates and Tasks. When air operations are controlled by the CATF, LF air requirements for each day subsequent to D-day are consolidated by the CLF and presented to the CATF. He, in turn, promulgates directives that serve not only to inform the CLF of the satisfaction of his requirements, but also to inform the air units furnishing air support of the demands being placed on them. The CATF determines the degree of emphasis to be placed on additional supporting operations on the basis of the air operations order and changes in the situation. He makes a continuing evaluation of targets reported and damage assessments to determine specific assignments.

23. Artillery Fire Support Planning

a. Initial Phase. During the initial phases of an amphibious operation, fire support is normally provided by naval gunfire and aircraft. Subsequent to landing, artillery assumes a major role in providing fire support. Aircraft and naval gunfire can then perform those fire support tasks better suited to their unique operational capabilities.

b. Artillery Fundamentals. During an amphibious operation, artillery employment is based on the application of artillery fundamentals. These fundamentals are listed and discussed in FMFM 6-9, "Marine Artillery Support" and FM 6-20, "Fire Support in Combined Arms Operations."

c. Planning Considerations. The nature of the amphibious operation creates peculiar artillery support problems that must be considered during planning. These are:

(1) Artillery Does Not Normally Participate in Early Action. Except in those rare cases when artillery can be positioned on off shore islands or promontories, it does not participate in early action ashore. Although the early landing of artillery is desirable, other equally important requirements may be competing for available landing means. In such cases, other supporting arms must be relied on.

(2) Positions Free of Small Arms Fire. Artillery should not be landed until position areas to be occupied are free of small arms fire.

(3) Restricted Mobility Initially. Initial mobility ashore may be restricted by terrain and lack of transportation means.

(4) Other Factors on Landing Artillery. The number and type of ships and landing craft available as well as the hydrography and terrain ashore may dictate the manner and, frequently, the time of initial commitment of artillery to action.

24. Artillery Fire Support Planning Responsibilities

Early in the planning phase, an artillery estimate of supportability is prepared to determine which of the commander's proposed courses of action can be best supported by artillery. The estimate is considered by the CLF in arriving at his decision. After the CLF has issued his decision and concept of operations, an estimate of artillery requirements is prepared. The primary purpose of this estimate is to determine the amount and type of artillery fire support required to support the operation. Finally, the plan for the employment of artillery is prepared and becomes the artillery annex to the landing force operation plan, or the artillery support appendix to the fire support annex as appropriate.

a. Commander Landing Force. The CLF is responsible for preparing the artillery estimates and plans required to support the operation.

b. Subordinate Commanders of the Landing Force. Commanders of subordinate echelons of the LF must plan for employment of artillery included in their task organization.

c. Integrated Fire Support Plans. Because artillery fires must be carefully integrated into the over all fire support plan, as well as coordinated with the maneuver of the supported troop units, the LF artillery support plan must

be formulated concurrently, and in conjunction, with those for naval gunfire and air support. Interested naval echelons are kept informed of the contents of the plans.

25. Estimate of Artillery Fire Support Requirements

a. Initial Estimate. The estimate of the artillery requirements is made initially to determine amount and type of:

- (1) Artillery by caliber.
- (2) Ammunition and fuzes.
- (3) Special equipment.
- (4) Ships, landing craft, amphibious vehicles, and helicopters required for transporting artillery units.

b. Factors to be Analyzed. In arriving at the estimate, each of the following factors must be analyzed in terms of the above requirements:

- (1) Mission of the Landing Force. The mission assigned has a direct bearing on all requirements. If deep operations beyond the range of naval gunfire are contemplated, consideration must be given to increased allocations of artillery and of artillery ammunition.
- (2) Scheme of Maneuver. The scheme of maneuver of each supported unit must be studied to determine the artillery needed for adequate support. If landings are to be made over widely separated beaches or in separated landing zones, artillery requirements may increase. If the landings are to be over contiguous beaches or in relatively close landing zones so as to permit common support from central positions, a lesser amount of artillery may be required.
- (3) Enemy Situation. Such factors as numbers, types, and strength of enemy units other than artillery; their dispositions, armament, mobility, number, and types of weapons; and combat efficiency must be analyzed. The amount, type, caliber, and range of enemy artillery will influence the requirements for artillery weapons, ammunition, and special equipment.

(4) Characteristics of the Area of Operations. Hydrographic conditions affect the types of ships, landing craft, amphibious vehicles, and special equipment required for the landing of artillery. The trafficability of the beaches and terrain conditions inland affect the type of artillery, vehicles, and special equipment needed. Weather conditions may indicate special requirements for types of weapons, vehicles, and equipment.

(5) Estimated Duration of the Operation. The estimated duration of the operation affects the amount of supplies required, particularly ammunition resupply.

(6) Integrating Other Fire Support Means

(a) Naval Gunfire. Naval gunfire is capable of long-range general support missions and may reduce the requirement for some of the heavy artillery in the early stages of the amphibious assault. The amount, type, and duration of naval gunfire support available will influence the estimate of the amount of artillery required, particularly in the heavy calibers.

(b) Close Air Support. Close air support provides an important means of fire support for assault units, particularly in the early stages of an operation. While close air support is not a replacement for artillery fire, the amount and type available must be considered in determining overall artillery requirements.

(c) Helicopter Gunships. Helicopter gunships can provide additional fire support to the CLF during the assault phase.

(d) US Army Aerial Fire Support Units. US Army aerial fire support units may be used to supplement the firepower available to the CLF. They are not a substitute for other fire support means but rather complement and enhance overall fire support capabilities.

(7) Employment of Nuclear Weapons. The availability of nuclear weapons and their potential employment will influence all requirements to varying degrees depending on the commander's concept of operations.

26. Artillery Fire Support Plan

a. Basic Considerations. Based on the CLF's decision and concept of operations, an artillery fire support plan is formulated to provide maximum support to the scheme of maneuver.

b. Factors to be Considered. In developing the plan for artillery fire support, all of the factors discussed in paragraph 24 above are reevaluated in light of the artillery assigned, in addition to the factors in this paragraph.

(1) Support of Initial Landings. Whenever offshore islands, peninsulas, or promontories exist within artillery range of the landing area and the tactical considerations permit, emplacement of artillery thereon should be considered. Preliminary operations for the seizure of such geographic features must be conducted sufficiently in advance of the main landings to permit occupation and fortification of positions, registration of fires, and participation in the pre-H-hour bombardment.

(2) Available Ships, Landing Craft or Vehicles, and Helicopters. The plan for landing and entry into action of artillery units is largely governed by the type ships assigned and the number and type of boats, landing vehicles, or helicopters available for the ship-to-shore movement.

(3) Organization for Combat. The organization for combat places the commanders of artillery units in the chain of command. In an amphibious operation, the task organization has two parts: (1) the developing of a task organization for embarkation and landing and (2) the development of the basic tactical organization. Artillery units assigned to the LF may be attached to the major subordinate ground component(s), or they may be retained under command of the CLF and assigned tactical missions. For a LF comprising only one principal ground element; e.g., one division, all artillery units would likely be attached to the division. However, the CLF may desire to retain a nuclear ground-delivery capability under his direct command. In the case of a larger LF, some artillery units may be attached to the principal ground elements, while others may be assigned appropriate general

support and reinforcing or general support reinforcing tactical missions. In general, the organization for combat should permit the maximum practicable degree of centralized control. However, commanders must not hesitate to include artillery units in regimental and battalion landing teams when to do so will accelerate entry of artillery into action and delivery of the most effective support of the scheme of maneuver. (Such artillery is detached from the task organization of regimental and battalion landing teams when the basic tactical artillery organization is formed.)

(4) Zones of Fire

(a) Careful planning of fire for all artillery units is required to ensure maximum coverage and to permit massing of fires in critical areas when practicable.

(b) Artillery zones of fire and naval gunfire sectors of responsibility will be integrated during planning to permit maximum massing, flexibility of fires, and to avoid unnecessary duplication of effort.

(5) Position Areas. The CLF coordinates the assignment of position areas for each artillery unit of the LF, with priority usually given to direct support units. Tentative position areas are selected from a study of maps and photos, and are verified by early aerial and ground reconnaissance.

(6) Reconnaissance. In the normal sequence of a landing, artillery reconnaissance parties are landed in company with or soon after assault battalions. Following reconnaissance, the artillery commander recommends to appropriate authority the time his unit should be landed. The composition of reconnaissance parties is usually prescribed in artillery commanders. The size of the party must often be adjusted to conform to the landing plan, number of boat or helicopter spaces available, or security requirements.

(7) Time of Landing. Artillery should be employed boldly, landing as early as conditions ashore permit, usually as soon as preselected position areas have been uncovered and are free of small arms fire. To ensure flexibility in the time of landing, artillery units

supporting the waterborne assault are usually landed on call. However, in the case of a helicopterborne assault, selected direct support artillery elements may be included in scheduled waves in order to occupy initial positions near landing zones for support of the attack on the initial objective. In scheduling these elements, sufficient time should be provided between the landing of artillery advance parties and firing units to permit reconnaissance and completion of the minimum preparation necessary to emplace the weapons as soon as landed. Artillery not in scheduled or on-call waves is landed on order of the CLF, or a subordinate to whom this authority has been delegated, based on the recommendation of the appropriate artillery commander. See Chapter VI and paragraph 27 below on ship-to-shore movement.

(8) Observation. Coordination of artillery observation means is accomplished by the appropriate artillery commander. Air observers are employed to complement the capabilities of ground observers. During the initial stages of the ship-to-shore movement, air observers in ship-based aircraft may provide the only observation capability. The adjustment of naval gunfire, reconnoitering of position areas, search for targets, and the reporting of the tactical situation ashore are among the tasks performed.

(9) Countermortar and Counterbattery Fires. The commanders of direct support artillery units will usually be assigned responsibility for countermortar fires within the zones of action of their respective supported units. Responsibility for executing counterbattery fires is usually assigned to the artillery commander of the principal ground element(s), except when a force artillery headquarters is employed, in which case this responsibility normally rests with the landing force artillery officer. Even in the latter instance, plans usually provide that the subordinate artillery commanders are responsible for planning and executing counterbattery fires in their zones of action until the force artillery headquarters is established and prepared to assume control. The CLF's counterbattery policy is stated in the artillery annex or appendix. All units of the LF have responsibility for collecting and forwarding shell reports (SHELREPs) and mortar reports (MORTREPs) to the responsible artillery counterfire agency. Field

artillery and infantry elements must adhere to the requirement to gather and forward counterbattery and countermortar information to the agency responsible for processing data, locating targets, and recommending the method of attack of hostile artillery and mortars. Field artillery units supporting infantry elements of the LF must be utilized as focal points for transmission of information and for providing technical supervision to infantry shell report teams.

(10) Logistics. Although supply details are included in the operation order, the commander of each artillery echelon must make an ammunition plan to ensure that artillery ammunition is unloaded and delivered to the firing units without confusion as to caliber, type, or lot numbers. Consideration must be given to palletizing all or a portion of the ammunition to expedite unloading and handling. Special consideration must be given the supply, handling, storage, and security of nuclear artillery munitions.

(11) Communications. The artillery communication plan must provide sufficient channels of communication to ensure effective liaison, command, coordination, and fire direction. Units assigned a mission of supplementing the fires of field artillery must be provided the necessary equipment and instructions and included in the artillery communications plan. The LF artillery annex and the communications annex contain instructions concerning artillery communications.

(12) Gunnery Instructions. Detailed information concerning gunnery is required in the artillery plan in order to ensure delivery of fires of the greatest possible accuracy and to facilitate massing of fires. Gunnery instructions include information concerning firing charts, meteorological survey, common registration points, and target numbers.

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

a. Organization. The organization for embarkation should preserve the tactical integrity of task organized units as established in the organization for combat and should facilitate early entry into action. Artillery units attached to RLTs, BDELTs, BLTs, or comparable size units

are embarked with those units, while units retained in their parent artillery organization or in a force artillery groupment are usually organized as separate embarkation units to facilitate control. Dispersion of artillery in assault shipping should be such that it provides a measure of security against crippling artillery losses at sea, but should not be carried out to the extent that control of units is unduly hampered.

b. Artillery Elements Embarked With Other Landing Force Units. Regardless of the organization for embarkation, the following elements are usually embarked with other elements of the landing force:

(1) Forward Observer Teams. Forward observer teams are embarked with the infantry or maneuver companies.

(2) Direct Support Battery and Battalion Liaison Parties. Direct support battery and battalion liaison parties are embarked with the headquarters of the units they are to support.

(3) Senior Artillery Headquarters. Senior artillery headquarters personnel necessary to establish the landing force FSCC and assist the SACC should be located with the CLF on the command ship.

(4) Artillery Aerial Observers. Artillery aerial observers are embarked in the ships that transport the light observation aircraft or in aircraft carriers designated to furnish aircraft for initial artillery observation.

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

c. Embarkation of Firing Units. To facilitate early landing, embarking light artillery firing units is preferable in LHAs, LHAs, LHDs, LPHs, or LPDs for movement ashore by helicopter, or in preloaded landing vehicles or craft aboard LSDs or LPDs. Medium and heavy units are embarked in LSTs and landed directly on the beach.

28. Ship-to-Shore Movement of Artillery

a. Waterborne Movement

(1) Artillery Units Normally Land On Call. During the planning phase, the exact time and place of landing the artillery units can seldom be determined. The time of

landing will depend on such variables as the availability of position areas, need for artillery ashore, and the ability to beach the larger landing craft and landing ships. The exact place of landing is contingent on beach conditions, beach exits, and roads to the position areas. Therefore, artillery in a waterborne assault will usually land on call. The beaches over which direct support and reinforcing artillery are to land are usually specified in the landing plan. General support artillery will normally be ordered to land over beaches as determined by reconnaissance and the tactical situation ashore.

(2) Recommendations for Time and Place of Landing of Reconnaissance Parties. Forward observers land with the infantry or maneuver companies, and the artillery liaison parties land with the BLT and RLT or BDE command groups. These personnel make recommendations to the appropriate commanders concerning the landing of reconnaissance parties of direct support units if those parties are not included in scheduled waves. Direct support unit commanders may also recommend to higher headquarters the time and place of landing reconnaissance parties of general support units.

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

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

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

(6) Phasing Ashore of Remaining Artillery Elements. After firing units are ashore, remaining elements, including vehicles, ammunition, supplies, and personnel, are phased into the position areas as soon as practicable.

b. Helicopterborne Movement

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

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

(3) Forward Observers and Liaison Parties. The artillery forward observers and liaison parties land in the same manner as for a waterborne movement.

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

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

(6) Guides Assist In Landing Units to Desired Positions. If conditions permit, the helicopters will land the weapons, ammunition, and personnel directly in the preselected position areas. Each helicopter carrying a weapon will be guided to its exact position by a member of the gun section who was landed with the

reconnaissance party. The guide will utilize either a number board, a signal flag, or a colored smoke grenade for this purpose. In a night landing, colored light batons and other devices may be used by the guides.

(7) Ammunition High Priority. A high priority must be given to the movement of an adequate initial supply of ammunition. Resupply should be brought in by follow-up helicopter flights. Additional quantities may be palletized and air dropped on an on-call basis.

29. Air Defense Artillery. Planning for the coordination of air defense fires is initially the responsibility of the CATF. Air defense artillery units, which include troop air defense missile units, are employed as determined by the CLF, who is responsible for controlling the fires of these units in accordance with the air defense plans. Only those aspects of LF air defense artillery that are of mutual interest are mentioned here.

a. Types and Numbers. The types and numbers of air defense artillery units required for an amphibious operation are determined by the CLF.

b. Naval Operations. Air defense artillery may be used to assist in providing protection to forces afloat within range. This procedure may free ships and support aircraft for other tasks. The extent of the enemy air threat influences the requirements for air defense artillery.

c. Target Acquisition Radars and Target Information. Long-range target acquisition radars of air defense artillery units should be phased ashore as soon as the tactical situation permits. Once ashore, these radars should be coordinated within the air defense system and the acquisition means of other forces, afloat and ashore.

d. Integrated Control of Fire. A plan for the employment of air defense artillery will be prepared. This plan will include, in light of operational factors pertaining to the particular operation, a policy with respect to the control of fires.

30. Naval Gunfire Planning. Naval gunfire plays a vital role in reducing the enemy defensive capabilities by destroying enemy personnel and installations before D-day, in protecting and covering the assault on D-day, and in supporting the landing force operations ashore after D-day.

a. Commander, Amphibious Task, Force Responsibilities. The CATF is responsible for preparation of the overall naval gunfire support plan, based on the requirements submitted by the CLF and on the Navy requirements. The planning includes allocation of gunfire support ships and facilities. He also is responsible for the general policy as to priority of types of targets to be taken under fire.

b. Commander, Landing Force, Responsibilities. The CLF is responsible for determination of LF requirements for naval gunfire support, including selection of targets to be destroyed in preassault preparation operations, those to be fired on in support of the landing force assault, and the timing of these latter fires in relation to LF operations. After determining his requirements for naval gunfire support, fire support means, and priority of targets, the CLF presents them to the CATF.

c. Subordinate Amphibious Task Groups. When subordinate amphibious task groups are formed and separate landing areas are prescribed, each attack group commander, guided by the requirements of the corresponding landing group commander and by naval requirements, plans the naval gunfire for his landing area, under the policy direction and overall guidance of the CATF.

31. Control of Naval Gunfire. Control of naval gunfire is exercised by, and passes to, different commands and agencies as the operation progresses. Arrangements must be made to provide appropriate commanders the proper facilities for control of naval gunfire. (See Figure VIII-5.)

a. Advance Force Commander. The advance force commander has control of naval gunfire during pre-D-day bombardment. Control is normally exercised through the advance force SACC.

b. Commander, Amphibious Task Force. The CATF assumes control of naval gunfire upon arrival in the objective area. Control is exercised through his SACC.

c. Subordinate Amphibious Task Groups. When subordinate amphibious task groups are formed and separate landing areas are designated, the CATF may delegate to each attack group commander control of naval gunfire in his landing area, retaining only overall control as it applies to the operation as a whole.

d. Commander Landing Force. When the CLF establishes the necessary control facilities ashore, control of naval gunfire may be passed to him. He then has the authority to assign naval gunfire support missions directly to the fire support ships. The CATF, or his designated subordinate, retains responsibility for:

- (1) Allocation of available fire support ships.
- (2) Logistic support of fire support ships.
- (3) Functions of operational control of fire support ships other than fire control.

32. Naval Gunfire Support Organization

a. Naval Organization. The naval organization (see Figure VIII-5) that provides gunfire support for landing force units is operational in character. Briefly, the naval echelons involved in gunfire support are as follows:

(1) Amphibious Task Force. The ATF is the highest echelon directly concerned with the naval gunfire support of the amphibious operation. The ATF includes a fire support group that normally contains all the various types of fire support ships assigned to provide naval gunfire, rocket fire, and missile support for the landing and landing force operations ashore. When an attack group is formed by the CATF, it will have the fire support necessary to provide gunfire support for the corresponding landing group. If the attack group is organized as an advance force it may contain a fire support group for pre-D-day operations. Representatives of the CLF will accompany the advance force in a liaison and advisory capacity.

(2) Fire Support Group. The fire support group is usually subdivided into fire support units and/or elements for efficient and effective delivery of gunfire support. The number and type of fire support ships in any particular unit will vary and depend largely on tasks to be accomplished. Where the number of ships permits, each assault battalion or comparable size unit will be assigned a direct support ship. In addition, ships will be assigned in general support of regiment or brigade and higher landing force echelons. Unless specifically directed by the CATF, the fire support group commander does not deal directly with landing force agencies.

NOTES:

- (1) The fire support group may be subdivided into fire support units and fire support elements if a large number of fire support ships are available for gunfire support.
- (2) Depending on the scope and duration of the operation, the ground combat element of the landing force will normally consist of one BLT, an RLT, or one or more reinforced divisions.
- (3) FSCC's are under the staff cognizance of the appropriate G-3/S-3. A fire support coordinator is in charge of each center.
- (4) The NGF spot team under the supervision of the NGF officer requests fire direct from the individual ship.

LEGEND:

- Command
- Liaison
- > Control of fires

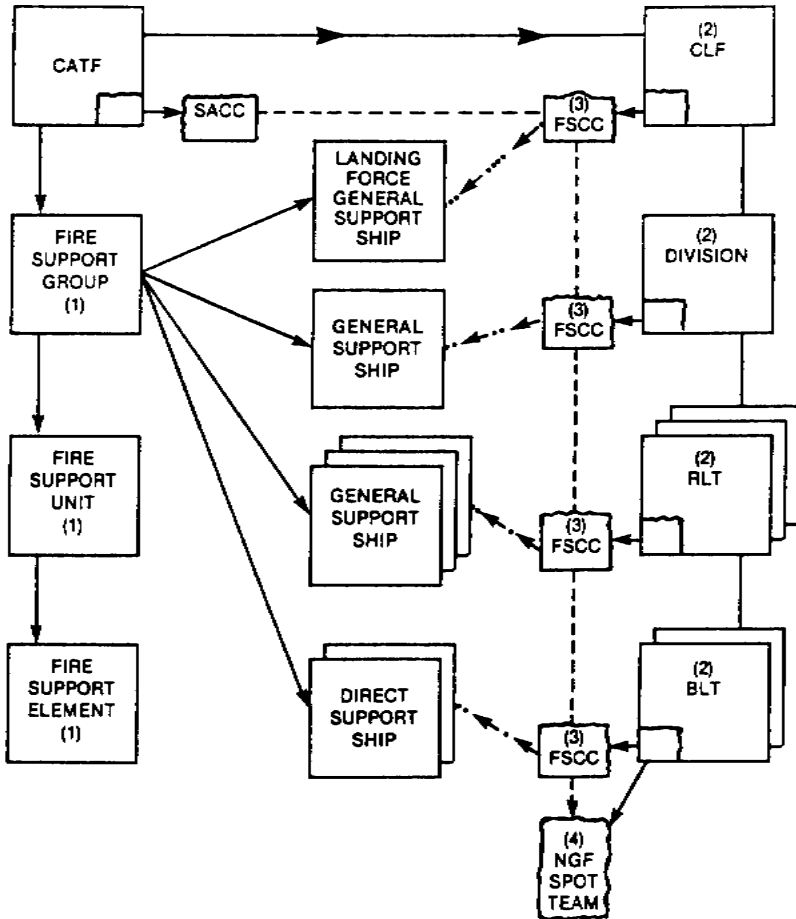


Figure VIII-5. Amphibious Task Force or Landing Force Naval Gunfire Organization.

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

(4) Fire Support Element. Each fire support group (unit) is divided into smaller task elements of fire support ships, regardless of type operating in the same general locality. Functions of fire support elements are comparable, on a smaller scale, to those of the fire support group. Fire support element commanders normally do not deal directly with the landing force agencies.

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

b. Landing Force Organization. The LF organization (see Figure VIII-5) for control and employment of gunfire support provides special staff or liaison representation at every level from and including the infantry battalion or comparable troop unit to the highest troop echelon present. In the case of Army or allied divisions, liaison teams and firepower control teams (FCTs) organic to the air and naval gunfire liaison company (ANGLICO) are attached to provide the specialists and communications needed for the conduct of gunfire support at every level from division down to the forward line companies. Briefly, the LF force naval gunfire agencies are as described below:

(1) Landing Force Naval Gunfire Section. If established, the LF naval gunfire section provides naval gunfire communications and facilities for landing force headquarters, performs naval gunfire special staff functions, and directs fires of assigned general support ships.

(2) Division Naval Gunfire Section or Team. The division naval gunfire section or team provides naval gunfire communications and facilities for division headquarters, performs naval gunfire special staff functions, and directs employment of assigned support ships.

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

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

c. Ships Under Command of CATF. Ships delivering gunfire support are at all times under the command of the CATF, even while firing missions controlled by troop agencies. Naval gunfire control, liaison, and spotting personnel are under command of the CLF. Figure VIII-5 shows the organizational structure of naval and landing force echelons involved in naval gunfire support.

33. Naval Gunfire Basic Planning Requirements. Planning for effective employment of naval gunfire requires recognition of the following basic requirements:

a. Ships and Spotting Aircraft. Sufficient ships and spotting aircraft to accomplish the mission are required.

b. Munitions. Sufficient quantities and types of munitions to maintain the required volume of fire are necessary.

c. Sea Room and Hydrographic Conditions. Adequate sea room and suitable hydrographic conditions in the fire support area for ship maneuver is required.

d. Air and Naval Superiority. Local air and naval superiority are required.

e. Observation. Positive observation of the naval gunfire target area by one or more agencies is necessary.

f. Communications. Separate communication circuits between ships, landing force organizations ashore, and ground and air observers is required.

g. Time. Sufficient time to effect essential destructive fires is necessary.

h. Integrated Effort. Integration of the naval gunfire support with the landing force scheme of maneuver and organic fires, air operations, and associated naval operations is critical to the success of the operation.

34. Naval Gunfire Planning Sequence. Naval gunfire support plans are usually developed in the following sequence:

- a. Estimate of the situation.
- b. Overall requirements.
- c. Detailed requirements.
- d. Preparation of the naval gunfire annex.

35. Types of Naval Gunfire Plans

a. Pre-D-Day Naval Gunfire Plans. The primary objective of pre-D-day naval gunfire is preparation of the landing area for the assault. The plan usually includes the following elements:

- (1) Assignment of ships to fire support areas and zones of fire.
- (2) Announcement of ammunition allowances and plans for replenishment.
- (3) Naval gunfire communications instructions.
- (4) Designation of targets, provision for damage assessments, and acquisition of target intelligence.
- (5) Provision for availability of spotting aircraft and reference to appropriate air support plans.
- (6) Provision for coordination with minesweeping, underwater demolition, and air operations.
- (7) Provision for recording target information and reporting latest intelligence data to the CATF.

b. D-Day Naval Gunfire Plans

(1) Essential elements of the plan for naval gunfire operations on D-day include:

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

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

(c) Location, when required, of helicopter approach and retirement lanes, and necessary coordinating instructions. These same instructions will be found in the appropriate portions of the related air support plan.

(d) Naval gunfire communication instructions.

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

(f) Provisions for spotting aircraft.

(g) Instructions for massing fires of several ships.

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

(2) Plans for naval gunfire operations on D-day provide for:

(a) Maximum destruction consistent with time available.

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

(c) Prompt and effective delivery of call fires in direct support of troop units.

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

(e) Isolation of the landing area and defense against enemy counteroffensive action by massed fires on probable routes of approach with particular provisions for countermechanized naval gunfire.

c. Post D-Day. Post D-day naval gunfire plans provide for:

- (1) Call fires in direct support of units ashore.
- (2) Close and deep fires in general support.
- (3) Fires on the flanks of the landing area and fires against targets of opportunity.
- (4) Defensive targets, night fires, illumination, countermechanized fires, and any special fires utilizing the inherent capability of gunfire ships and available munitions as required.

36. Types of Fire

a. Prearranged Fires. Prearranged fires are fires delivered on known or suspected targets in accordance with a planned schedule, either on a time or an on-call basis. Prearranged fire may be for destruction or neutralization.

(1) Pre-D-Day Fires. Prearranged pre-D-day fires are primarily for the purpose of destruction of defensive installations and/or weapons that could otherwise interfere with the ship-to-shore movement and initial operations ashore. Targets selected for destruction are those of interest to the LF as a whole. Naval requirements incidental to naval operations are also included in pre-D-day fires. A detailed target analysis is necessary in planning pre-D-day fires to determine the ammunition required for the desired probability (assurance) of destruction.

(2) D-Day and Post-D-Day Fires. Prearranged D-day fires are primarily for the purpose of neutralization of defensive installations and/or areas that could otherwise interfere with the ship-to-shore movement and initial operations ashore. Targets or areas selected for neutralization are those of interest to the assault elements of the LF. Destruction fires may be continued as necessary. For continuity in supporting either initial landings or ground operations to follow,

prearranged D-day fires must be scheduled to continue until it is determined that naval gunfire spotters will be able to conduct call fires. When assault units have landed, prearranged fires are supplanted by call fires on targets of opportunity. Subsequent to landing, call fires constitute the bulk of the D-day and post-D-day fires. Major considerations in planning prearranged D-day and post-D-day fires are:

(a) Terrain. To determine areas that may contain weapons capable of delivering direct or indirect fires on assault units as they land and advance inland, and to the tasks that might interfere with shipboard observation and delivery of fire into defoliated areas.

(b) Troop Safety. To provide for lifting of fires ahead of and to the flanks of advancing troops at a prescribed distance based on the estimated rate of advance.

(c) Observation of Troop Advance. To provide a basis for modification of schedules of prearranged fires when the rate of advance is other than as planned.

(d) Size of Target Areas. To determine the amount of ammunition required to obtain and maintain neutralization.

b. Deep Fires. To provide for destruction or neutralization of deep targets subject to the availability of suitable fire support ships and spotting aircraft.

c. Call Fire. Call fires are fires delivered on a specific target in response to a request from the supported unit. Plans for providing call fires require that SFCPs be operating with the LF units that will request the fires and that provision be made for air spotters where and when required. Naval gunfire liaison personnel are required in the fire support coordination element at each command echelon of the LF. Direct support ships are designated to provide call fires for specific units, normally no larger than a battalion, through their respective SFCPs, while ships in general support of a unit (regiment, brigade, combat command, division, or higher level) are provided to answer calls for fire from the supported unit and its subordinate elements as directed.

37. Coordination of Naval Gunfire. Each fire support coordination agency in the landing force coordinates naval gunfire with the fires of the other supporting arms, with the activities of aircraft, and with the activities of ground units. Most of these fire support coordination agencies have naval gunfire personnel who can advise supported commanders on the employment of naval gunfire. When ships are placed in direct or general support of specific LF units, the selection of targets, the timing of fires on targets, specifications of line of fire (when not inconsistent with safe navigation), and the adjustment of fires are functions of the supported LF unit.

a. Direct Support. In naval gunfire, a mission of direct support specifies that a naval surface fire ship will support a particular combat battalion. A ship assigned a mission of direct support fires at whatever targets are passed to it by the SFCP of the supported unit. Ships given a direct support mission are usually assigned a zone of fire. This zone of fire normally coincides with the zone of action of the supported unit. Direct support ships do not fire into their zones of fire without authority of the supported unit commander.

b. General Support. In naval gunfire, a mission of general support specifies that a naval surface fire ship will support a particular headquarters above the battalion level. A ship assigned a general support mission answers calls for fire from the supported headquarters. General support ships may be directed by the supported units to reinforce or augment the fires of direct support ships.

38. Naval Gunfire Support During the Assault

a. Final Preparation of the Landing Area. This fire is designed to destroy or neutralize enemy defense installations that might interfere with the approach and final deployment of the ATF, and to assist in isolation of the landing area. Naval gunfire is used to support underwater demolition and minesweeping operations. Immediately before H-hour, major emphasis is placed on the destruction and neutralization of enemy defenses most dangerous to the successful landing of assault landing teams.

b. Fires in Close Support of the Initial Assault. Gunfire is continued on those enemy installations that could prevent the landing until the safety of the leading waves requires these fires to be lifted. The final approach of

the leading waves of assault craft, amphibious vehicles, or helicopters necessitates a shift of the scheduled fires inland from the landing beaches or outward from the landing zones. The major portion of the fires delivered in close support of the landings consists of large- and medium-caliber prearranged fire delivered on a closely fixed schedule in the zones of action of assault landing teams. Because the actual rate of advance and the estimated rate of advance may not coincide, the CATF, through the SACC, retards or accelerates the movement of scheduled fires as requested by the CLF. Prearranged close support fires continue until the SFCP with the assault landing teams are in a position to conduct the fires of the assigned direct support ships. At this time, the SFCPs start adjusting fires.

c. Deep Support Fires. Deep support fires usually are delivered by ships assigned in general support. Each such ship is assigned a zone of responsibility that it covers by fire and observation. Within assigned zones of responsibility and on a prearranged schedule, ships neutralize known enemy targets, interdict enemy routes of communication, attack targets of opportunity, execute counterbattery fire, reinforce fires of direct support ships as directed, and conduct missions assigned by the supported unit.

39. Post D-Day Naval Gunfire Support. Subsequent to D-day, naval gunfire, in coordination with artillery and air, continues to support the attack until the completion of the operation. Beginning on D-day, commanders concerned must start planning the naval gunfire required to continue support of the attack. Routine daily planning must continue throughout the remainder of the operation. The major aspects of these plans are discussed below:

a. Prearranged Fires. In planning prearranged fires subsequent to D-day, the LF coordinates the plan of fires by selection and designation of targets, by timing as required, by recommending type and amount of ammunition to be used, and by designating LF agencies to conduct the firing. Preparation, defensive (including counter-mechanized fires), interdiction, harassing, and illumination fires may be prearranged.

b. Replenishment of Fire Support Ships and Spotting Aircraft

(1) Fire Support Ships. Fire support ships must be relieved at timely intervals to replenish ammunition and fuel. Destroyers may require relief daily, whereas

larger ships remain on station for longer periods of time. Direct support ships should, whenever possible, relieve on station after a communications check and briefing by the supported unit and the ship being relieved.

(2) Spotting Aircraft. Relief of spotting aircraft is effected through the tactical air control or direction centers and after the necessary coordination between the parent carrier or shore base, the ATF, and the LF has been accomplished.

c. Consolidated Daily Naval Gunfire Request. LF requests for fire support ships, shore fire control frequencies, spotting aircraft, and special missions are originated at all LF echelons beginning with the battalion or equivalent unit. These requests are screened, reconciled, and consolidated at each echelon through which the requests pass. At the LF level, after final screening and coordination, the requests are collated and constitute the consolidated daily naval gunfire request. This consolidated request is submitted, at a prescribed time, to the CATF. On the basis of this consolidated request and the availability of fire support means, daily assignments best suited to meet the LF requirements are made by the CATF.

40. Nuclear and Chemical Weapons Support Planning

a. Parallels Other Supporting Arms. Although the employment of nuclear and chemical weapons will introduce additional areas of concern and additional problems, the planning and employment closely parallels that of other supporting fires.

b. Integrated Into Overall Planning Process. Nuclear and chemical employment planning is a part of and integrated into the overall fire support planning process. The essential character of fire support coordination is not changed by the introduction of these weapons; however, the magnitude and range of their effects place added importance on coordination.

c. Communications. Normally, standard communications doctrine, means, and procedures will be used in amphibious operations for employment of nuclear and chemical weapons.

d. Initiating Directive Provides Instructions. The initiating directive for the amphibious operation will inform the CATF of the number and type of weapons available (or direct that requirements be determined), the authority for using them, and restrictions placed on their employment. The CATF may be given tactical and administrative control of the weapons allocated to him for the operation, or some of the weapons may be delivered by other forces. In the latter case, authoritative direction over the delivery will be exercised by the CATF. Tactical control of weapons may be delegated to the CLF.

41. Nuclear Weapons Employment Planning. All aspects of LF nuclear weapons employment are ultimately expressed in the nuclear weapons employment annex or appendix. This document brings together all of the planned nuclear fires listed in the air operations annex or appendix, the artillery annex or appendix, and the naval gunfire annex or appendix. The items considered in preparing the nuclear weapons employment annex or appendix include instructions and restrictions from higher authority, weapons available, enemy situation, mission, troop safety, request and warning procedures, and the organic and supporting delivery means available.

42. Chemical Weapons Employment Planning. Planning responsibilities and planning sequence for the use of chemical weapons are the same as for other fires employing several delivery systems. Chemical fire plans are included in appropriate elements of the overall fire plan; i.e., naval gunfire, air support, and artillery plans. These fires are consolidated in a chemical employment annex or appendix. The area covered and effects produced from the employment of chemical fires vary significantly. The factors that influence the coverage and effect are the agent physiological actions, persistency and viability, delivery means, time of delivery, troop safety, and individual agent's sensitivity to weather conditions. Planning must consider all variables for each available agent and delivery means. Plans must allow the commander selectivity of scaled employment from one nonlethal agent on a continuum through all lethal agents. If applicable variables preclude execution of portions or all of planned chemical fires, alternate means of attacking these targets must be provided in the overall fire plan. General considerations for employment of chemical agents are contained in FM 3-10/NWP 36-2/AFM 355-4/FMFM 11-3, "Employment of Chemical Agents"; FM 3-10B/NWP 36-4/AFM 355-9/FMFM 11-3B, "Chemical Target Analysis"; and FM 101-40/NWP 36 (D)/AFM 355-2/FMFM 11-6, "Armed Forces Doctrine for Chemical and Biological Defense."

43. Responsibilities for Planning Nuclear and Chemical Fire Support. Command responsibility for planning nuclear and chemical fires during amphibious operations rests with the CATF and the CLF.

- a. Amphibious Task Force Commander's Planning Responsibilities. The CATF is responsible for the following:
 - (1) Preparation of the Nuclear and Chemical Fire Plans. He prepares the nuclear and chemical fire plans, allocates the available nuclear and chemical weapons to meet the needs of all forces assigned to the ATF, and establishes the level of reserve weapons.
 - (2) Assignment of Weapons. He's plans the assignment of nuclear and chemical weapons, including their component parts, to the various ships of the task force. In conjunction with the CLF, he makes plans to move nuclear weapons ashore when the tactical situation requires.
 - (3) Communication Instructions. He prepares and disseminates of signal instructions related to nuclear and chemical weapons employment, including communications codes to be used in the amphibious operation.
- b. Landing Force Commander's Planning Responsibilities. The CLF is responsible for planning for the nuclear and chemical weapons support of troop operations ashore, including the selection of targets to be fired on and the timing of these fires in relation to troop operations. He is likewise responsible for planning for the security, maintenance, and movement of nuclear and chemical weapons that are displaced ashore. After determining his requirements, the CLF presents them to the CATF. They include:
 - (1) Target priority list.
 - (2) A detailed plan for each target, including type, number, timing, and method of delivery if prearranged nuclear and chemical weapons are desired, with yields, ground zeros, and burst heights for nuclear weapons, and concentrations and agents for chemical weapons.
 - (3) Type and number of on-call and reserve weapons desired.

44. Planning Considerations

a. Conditions for Employment. The conditions under which nuclear and chemical weapons may be employed are indicated in the initiating directive for the amphibious operation and in other guidance provided by higher authority. When appropriate and when not prohibited by higher authority, the authority to employ nuclear and chemical weapons may be delegated by the CATF. The specific conditions of this delegation must be defined.

b. Major Considerations. Major considerations in planning for nuclear and chemical weapons employment are weapon supply measures, selection of targets, selection of weapons, delivery means, coordination measures required for timely delivery and safety of friendly troops, and the effect of residual contamination on the present and future operations.

45. Planning Sequence

a. Commences with Initiating Directive. The initiating directive to the CATF formally initiates planning for the employment of nuclear and chemical weapons.

b. Sequence. Based on the guidance provided in the initiating directive, nuclear and chemical weapons support is planned as follows:

(1) LF requirements are determined.

(2) Naval requirements are determined.

(3) The CATF consolidates the LF and naval requirements. On the basis of the consolidated requirements, the number of nuclear and chemical weapons required to support the operation is determined. Approved troop requirements are incorporated in the ATF nuclear and chemical fire plans. The CATF may request additional nuclear and chemical weapons if those provided do not satisfy the support requirements. If additional nuclear and chemical weapons cannot be made available by higher authority, the CATF, in consultation with the CLF, adjusts plans accordingly.

(4) After the final allocation of nuclear and chemical weapons, the CATF designates the method of delivery to be used for each prearranged weapon and specifies the authority for using weapons on targets of opportunity.

(5) When nuclear and chemical weapons are to be delivered by a commander external to the ATF, the CATF provides him with the essential information involved in the specific delivery. Detailed plans are then prepared by both commanders.

46. Content of Nuclear and Chemical Fire Plans. The nuclear fire plan usually is a separate document with appropriate portions included in other plans such as naval gunfire, artillery, air, and fire support coordination plans. The chemical fire plan also is a separate document similar in scope to the nuclear fire plan.

a. Nuclear Fire Support. The nuclear fire plan contains instructions concerning the nuclear support of the ATF. The basic plan indicates nuclear fire support provided by elements outside the ATF, delineates the concept of nuclear support, and assigns nuclear delivery tasks to elements of the ATF. This plan may include procedures for attacking targets of opportunity.

b. Chemical Fire Support. The chemical fire plan is similar to the nuclear fire plan. It contains information concerning the chemical fire support for the ATF. The basic plan indicates the chemical fire support provided by elements outside the ATF, delineates the concept of chemical fire support, and assigns fire support tasks to elements of the ATF.

c. Poststrike Analysis. Plans may include poststrike analysis requirements, alternate targets, and alternate weapons.

d. Targets of Opportunity. Plans for fires on targets of opportunity include:

- (1) Allocation and location of weapons.
- (2) Procedures for obtaining their delivery.
- (3) Alert status of weapons and delivery means.
- (4) Responsibilities of all affected commanders.

47. Defense Against Nuclear, Biological, and Chemical Weapons. Defense against nuclear, biological, and chemical weapons includes a combination of intelligence concerning the capabilities and limitations of the enemy, detection and destruction of his delivery systems, and defense measures that will reduce the effect of enemy nuclear, biological, and chemical weapons.

a. Commander, Amphibious Task Force. The CATF is responsible for planning overall nuclear, biological, and chemical defense measures for the ATF.

b. Commander, Landing Force. The CLF is responsible for determining and prescribing the active and passive nuclear, biological, and chemical defense measures required for the LF. He then presents to the CATF those requirements for active defense measures that should be provided by other forces.

c. Factors to be Considered in Planning Defense. Provisions for active and passive defense against nuclear, biological, and chemical weapons are included in operation plans. The particular factors that must be considered in planning for defense against nuclear, biological, and chemical weapons include the following:

(1) Emphasis must be placed on unit separation, dispersion, mobility, warning systems, detection systems, and decontamination systems. Increased mobility during the ship-to-shore movement will allow for greater unit separation and will provide for greater passive defense against nuclear, biological, chemical weapons.

(2) Plans are prepared to provide for the possibility of attack by nuclear, biological, and chemical weapons during the ship-to-shore movement that would result in:

(a) Contamination of the beach or landing zone.

(b) Loss of part of the force and corresponding requirements for alteration of the tactical plans or for unit replacement.

(c) Mass casualties requiring immediate attention.

CHAPTER IX

COMMUNICATIONS FOR COMMAND AND CONTROL

1. Introduction. Communications to support the amphibious operation differ in several respects from the requirements for land combat operations. The primary distinction occurs during the assault phase. Initially, communications that support the command and control (C2) system are sea based. The landing force (LF) communications plan must provide the capability to support the initial stages of the assault, to support the transition of command posts and control agencies ashore, and ultimately to provide the commander, landing force (CLF) with the ability to control all aspects of the operation.

2 Purpose and Scope. The purpose of this section is to provide basic communication planning information of interest to the LF. Emphasis is placed on the requirements for C2 communications during the assault phase of the amphibious operation. This section complements Chapter 9, JCS Pub 3-02, focusing on LF requirements. The organization, equipment, procedures, and C2 requirements of the LF will generally be Service-unique. This section therefore does not provide detailed information on communications; appropriate joint, Service, and allied communications publications should be consulted. The following references contain information on communications specifically applicable to amphibious operations:

- a. NWP 4, "Fleet Communications," Chapter 20 (classified).
- b. FMFM 3-30, "Communications."
- c. ACP 176, "Allied Naval and Maritime Air Communication Instructions" (classified).

3. General

a. Communications Planning. Communications planning begins simultaneously with the initiation of general planning. General operational requirements imposed on the communications system are translated into specific technical requirements to support tactical and logistic plans. Communications planning representatives of each echelon must be fully informed of operational planning details.

b. Initial Requirements. In planning his communications system, the landing force commander establishes communications liaison with the amphibious task force (ATF) to determine the requirements to be made on the LF communications. He effects close liaison with his subordinate commanders to ensure that he provides them with the necessary planning guidance and communications means to accomplish the assigned mission. In the event requests of subordinates cannot be met, and where additional communications support is required, the CLF takes appropriate action to ensure that these requirements are met.

4. Responsibilities

a. Commander, Amphibious Task Force. The commander, amphibious task force (CATF) is responsible for:

(1) Determination of communications requirements of Navy forces, including requirements of ships provided to the ATF by the Military Sealift Command (MSC) (see NWP 22-8/FMFM 1-15, "Military Sealift Command in Support of Amphibious Operations"), review and approval of communications requirements of the LF and other forces, and for consolidation of communications requirements for the ATF as a whole.

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

(3) Determination of priorities and allocation of shipboard communications facilities to each participating force. Certain radio equipment is installed aboard amphibious ships for use by the LF as well as operating spaces.

(4) Determination, consolidation, and coordination of the electronic warfare (EW) requirements of all participating forces.

(5) Establishment of provisions to ensure adequate communications for the Navy elements of the ATF during the planning phase.

(6) Preparation of instructions in support of cover and deception plans prescribed for the operation.

(7) Announcement of requirements for establishing liaison between all commands of the participating forces for communications planning.

(8) Preparation and promulgation of a complete and coordinated plan for the employment of communications during the operation.

b. Commander, Landing Force. The CLF is responsible for:

(1) Establishing provisions for adequate LF communications during the planning phase.

(2) Determining requirements for communications facilities controlled by higher headquarters and submitting these requirements to the CATF; e.g., joint communications support element (JCSE), airborne command posts, Airborne Warning and Control System (AWACS), etc.

(3) Preparing requests for the allocation of shipboard communications services or facilities for use of landing force units while embarked.

(4) Developing a landing force EW plan and stating the requirements for EW support to the CATF.

(5) Maintaining liaison with the CATF and subordinate LF units in all communications planning matters.

(6) Developing and promulgating a complete and coordinated communications plan for the landing force and submitting this plan to the CATF for review, coordination, approval, and inclusion in the ATF communications plan as appropriate.

c. Commanders of Other Major Forces. Commanders of other major forces of the ATF are responsible for the determination of their communications requirements and the submission to the CATF of those requirements that must be met by other elements of the ATF.

5. Landing Force Shipboard Communications

a. Ships Provide Communication Facilities for Landing Force Headquarters. During the initial stages of the assault, when the LF headquarters and the headquarters of the major subordinate elements of the LF are afloat, LF circuits are provided by facilities specifically installed in amphibious ships for use by LF personnel. The use of these facilities allows LF elements to have their complete allowance of tactical communications equipment for the movement ashore.

b. Communications Personnel and Equipment Aboard Amphibious Command Ship. Additionally, if the LF headquarters afloat is located in an amphibious command ship (LCC), the Marine communications detachment permanently assigned to the LCC provides personnel to augment the operation of LF circuits supported by the afloat facilities. This detachment is under the operational control of the CLF.

6. Communications Plan

a. Administrative Requirements. The LF communications plan is normally issued as an annex to the operation plan. It must be compatible with the overall ATF communications plan and is prepared in minute detail to facilitate its use by all elements of the LF. As with other plans, sufficient copies of documents, which can be incorporated intact into the plans of senior and subordinate echelons, should be provided to those headquarters. This procedure minimizes the possibility of error and saves administrative effort.

b. Contents of Plan. The communications plan fulfills the communications requirements of the CLF in terms of circuits, channels, and facilities required, and policies and procedures governing the operation and coordination of the communications system. The plan includes:

- (1) General coverage of communications situation, including assumptions, guiding principles, and the concept of operational employment.
- (2) Announcement of the communications mission.
- (3) Assignment of communications tasks and responsibilities to major elements of the LF.
- (4) Detailed instructions relative to the organization, installation, operation, coordination, and maintenance of the communications system.
- (5) Assignment and employment of call signs, frequencies, cryptographic systems, and authentication systems.
- (6) Instructions concerning electronic countermeasures, electronic counter-countermeasures, cover and deception, security, recognition and identification, navigation aids, and other communications-electronics functions.

(7) Communications-electronics supply and maintenance.

7. Communications Means

a. Dependence on Radio Early in the Assault. The physical environment of the amphibious operation requires an almost complete dependence upon radio during the initial portion of the assault phase. Radio, either single or multichannel, employing telephone, telegraph, teletypewriter, or data equipment is especially adapted to amphibious operations since it requires no physical links and has sufficient range and mobility to satisfy the communications requirements of rapidly moving units. However, the employment of radio is complicated by its relative fragility, vulnerability to damage by salt water, traffic handling limitations, multiple frequency requirements, vulnerability to enemy interference, and of necessity, by imposition of rigid security measures.

b. Wire Multichannel Radio System. A wire-multichannel radio system, consisting of multichannel radio equipment and terminal facilities installed in amphibious ships for troop use, is employed under certain conditions of emission control during the movement phase and, after radio silence is lifted, during the assault phase to provide communications between the LF headquarters afloat and major subordinate elements. This system is reoriented and expanded as subordinate elements displace ashore to provide the primary communications means between the LF headquarters and LF elements ashore. When the LF headquarters is established ashore, the system is further expanded to provide the primary communications means between the LF headquarters, the CATF, and all major subordinate elements of the LF.

c. Messengers. Messengers, including helicopterborne messengers, are employed extensively during an amphibious operation. Under certain conditions, they are the most secure and, in some cases, may be the only means for transmitting bulky matter, overlays, administrative traffic, and long, low-precedence messages. Messengers may be either scheduled or unscheduled. Scheduled messengers are those dispatched on regular routes, adhering to a time schedule. Unscheduled messengers are those dispatched as the need arises.

d. Visual. Visual means are employed by all echelons of the force conducting an amphibious operation. Visual signaling is accomplished by the use of panels, pyrotechnics, flashing lights, signal flags, and arm-and-hand signals.

e. Sound. Sound is a means of communications available to all units conducting an amphibious operation. Sound signals are transmitted by whistles, bugles, horns, gongs, klaxons, weapons, and other noisemaking devices. Their chief value is to attract attention, transmit prearranged messages, and spread alarms. Sound is satisfactory for only short distances, and its effectiveness is greatly reduced by battle noises. Public address systems are employed extensively for beach and boat control, for propaganda broadcasts, and for disseminating alerts and warnings.

8. Planning Considerations

a. Must Provide Necessary Support. Planning the communications requirements for an amphibious operation has the added dimensions of ensuring that communications can support each phase of the operation. Although communications during the movement phase are provided by the Navy system, LF communications plans must support the planning, embarkation, rehearsal, and assault phases of the operation.

b. Criteria. Changes in command relationships, task organization, and disposition of forces require maximum flexibility in communications plans. These plans must not create a requirement for a large number of non-essential functional circuits. Multiple purpose circuits must be used to the maximum by all forces. Common agencies must be used where practicable in order to assist in the reduction of mutual interference by decreasing the frequency requirements. Use of alternate means other than electrical, such as visual, helicopter, or surface messenger, must be exploited to ensure the most rapid and secure delivery of information between widely dispersed forces within the ATF.

9. Special Considerations

a. The Environment. The characteristics of the modern battlefield will heavily tax the communications system. The necessity for dispersion of forces, mobility, and rapid movement may overextend what are considered "normal" communications ranges and lead to circuit failures. Requirements for communications security and the probability of radio electronic combat methods being employed against the ATF dictate that the LF not be overly dependent on radio communications. Plans must fully consider the electromagnetic propagation characteristics of the area and the resultant effect on communications.

(1) Thorough training of personnel, including realistic rehearsals, is essential to the success of the communications effort. Training should include emphasis on communications security, antijamming procedures, and the proper use of authentication systems.

(2) The shipboard environment and the ship-to-shore movement pose special problems for maintenance and preservation of communications equipment. Training emphasis should also be placed on corrosion control measures and waterproofing.

(3) The extended ranges required and/or the characteristics of the area may require use of airborne or ground-based relay or retransmission systems.

b. Quiet Landings. A quiet landing is defined as the conduct of the initial assault portion of an amphibious operation without using voice radio communications. Quiet landing procedures may be ordered by the CATF as a means of countering enemy efforts to disrupt the ship-to-shore movement through use of jamming and/or intrusion on ATF control circuits. The use of quiet landing procedures does not imply the imposition of total electronic silence. Although it is desirable to restrict electronic emissions to the maximum extent possible, the use of radars, ship-to-shore termination, and other radio circuits necessary to the amphibious operation may be utilized. For additional information see NWP 22-3/FMFM 1-8, "Ship-to-Shore Movement, Chapter 3."

c. Attached Communication Units. Navy communications units or appropriate Army communications units may be attached to the LF whenever it is planned to establish an advance base within the objective area. These units initiate base communications development at the earliest practicable time. The facilities established by these units may be used to provide the LF with communications external to the AOA.

d. Military Sealift Command. The CLF is responsible for determining and identifying to the CATF any requirements for communications facilities on MSC ships to support LF needs.

10. Basic Considerations

a. Commander, Landing Force, Responsibility and Staff Coordination. The CLF has the overall responsibility for providing an adequate LF communications system for all phases of the amphibious operation. The actual drafting of the communications plan is the staff responsibility of the communications-electronics officer. Throughout this preparation, he must coordinate with each staff section of the senior command as well as with the communications-electronics officers at parallel and lower commands to ensure that all requirements are satisfied. Examples of specific matters applicable to the amphibious operation that require coordination with staff functional areas are as follows:

(1) Personnel and Administration. The internal space organization, arrangement, and operation of headquarters or command posts, as well as their displacement and relocation.

(2) Intelligence. Employment of combat surveillance devices with respect to their effect on and relationship with the communications system.

(3) Operations. Task organization, tactics, expected rate of advance, and location of units; selection and location of command posts; plans for physical security of communication installations; preparation of communications data for inclusion in communications guard shift messages; special requirements such as communications for tactical-logistical groups (TACLOGs); employment of EW devices with respect to their effect on and relationship with the communications system.

(4) Logistics/Combat Service Support. Location of combat service support installations; priorities for communications-electronics equipment and supplies in a critical status; priorities for maintenance or evacuation of equipment.

(5) Civil Affairs. Acquisition and utilization of indigenous communications facilities and resources; procurement and employment of indigenous labor for communications; indigenous civilian communications problems; aspects of international communication treaties and agreements.

(6) Air and Naval Gunfire Officers. Coordination required for frequencies, call signs, special equipment requirements, special codes, and technical communications data concerning air and naval gunfire employment.

(7) Embarkation Officer. Communications requirements for the embarkation area and for control of the movement to the embarkation area; priority of loading and landing communications-electronics equipment and personnel; stowage of communications-electronics equipment while en route to the objective, where it can be serviced and is available for use, if needed.

b. Communications-Electronics Officer Tasks. The LF communications-electronics officer and the ATF communications officer conduct concurrent and parallel planning. Items specifically treated in this planning are:

(1) Evaluation of assigned radio frequencies to prevent mutual interference and to ensure adequacy of support for the operation plan. Consideration must be given to radio nets and frequencies, which will provide communications between the parallel ATF and LF commands.

(2) Allocation of shipboard radio equipment for troop use.

(3) Assignment of call signs. Tactical call signs are assigned by the CATF to major commands of the LF. This procedure is followed to facilitate the handling of troop traffic over naval circuits during the movement to the objective.

(4) Cryptographic and authentication systems that must be used jointly by landing force and ATF units.

(5) Arrangements for naval communications guard for embarked LF units during the movement to the objective.

(6) Communications required during loading. Communications established in an embarkation area are the responsibility of the CLF; however, coordination is required with Navy units embarking troops and supplies from that area.

(7) Development of communications security and electronic counter-countermeasures procedures to protect communications from enemy detection, interception, deception, and jamming.

(8) Use of LF communications personnel to aid the ship's communications personnel during the movement to the objective. This serves the twofold purpose of maintaining a high state of training for landing force communications personnel and assisting Navy communications personnel in handling an increased volume of traffic.

11. Communications Requirements. The communications requirements to support all phases of the amphibious operation must be considered in detail. A discussion of requirements that pertain to each phase follows:

a. Planning Phase. At the inception of planning, communications are established between all major participating commands and organizations. The preservation of maximum communications security is essential and must be maintained even though the various planning headquarters are separated by great distances. The worldwide Defense Communication System, supplemented by personal liaison, mail, and courier service, provides the major communications means during this phase.

b. Embarkation Phase. The CLF is normally responsible for planning, providing, or obtaining the communications for control and coordination of embarkation at the piers or beaches within the embarkation areas. This may include the use of permanent military or civilian facilities in addition to means organic to landing force elements. Therefore, early liaison must be established between corresponding naval and LF elements to properly determine and coordinate the communications required for the overall control of embarkation. To preclude significant commitment of organic communications equipment of the LF that must be embarked, additional equipment should be provided for use in the embarkation area. If possible, arrangements should be made with the commander of the area in which the embarkation is to take place to provide the required communications. Specific considerations include:

(1) Establishment of ship-to-shore radio circuits for the control of loading. (This responsibility remains with the CATF.)

(2) Establishment of radio communications for the control of convoys moving to the embarkation area.

(3) Establishment of voice radio or radio teletype communications between the embarkation area and the parent base or station.

(4) Establishment of voice radio or wire communications between control points within the embarkation area.

(5) Establishment of limited communications center and/or switching center operations within the embarkation area.

c. Rehearsal Phase. One of the primary purposes of the rehearsal is to test communications. Under ideal conditions, the rehearsal will involve all elements of the ATF and provide the opportunity to test the employment of communications techniques, equipment, and systems prescribed in the plans for the operation. Specific considerations include:

(1) Using minimum power for establishment of radio communications for the purpose of maintaining communications security.

(2) Changing radio frequencies and call signs subsequent to the rehearsal for use in the actual operation.

(3) Repairing or replacing communications equipment damaged during the rehearsal.

(4) Providing expendable items such as wire and batteries for use during the rehearsal.

(5) Conducting an objective critique of the performance of communications during the rehearsal.

(6) Modifying appropriate portions of plans as a result of conclusions reached in the critique, and providing timely coordination concerning these modifications.

d. Movement Phase. During this period, the CATF is responsible for providing all external communications, including entry into the Defense Communication System, if appropriate, and communications between ships of the task force. However, the use of communications means, particularly radio, is severely restricted to prevent disclosure to the enemy of the locations, movements, and intentions of the task force. Accordingly, the CATF prescribes the conditions of radio silence in effect during the movement. Communications within and between various

movement groups of the task force are provided by helicopter messenger, visual means, or line-of-sight radio in consonance with the degree of radio silence in effect. Messages from external sources, which may be addressed to the ATF or elements thereof, are normally received by scheduled radio broadcasts. Specific LF considerations during this phase include:

(1) Ensuring that embarkation information, submitted through the ATF prior to the movement, has been properly interpreted by external activities to reflect the communications guard situation for all elements of the LF.

(2) Ensuring that ship communications officers have been provided with a list of appropriate LF organizations and units (i.e., next senior and immediate subordinate) and their assigned locations in task force shipping.

(3) Ensuring that all ship communications officers have been provided with a list of LF message releasing authorities embarked in their respective ships.

(4) Ensuring that all ship communications officers have been provided with a list of LF communications personnel embarked in their respective ships. The list should contain information relative to security clearances and authorized access.

(5) Establishing limited LF communications centers, or equivalents, in all ships where major LF organizations and units are embarked.

(6) Employing landing force communications personnel, and equipment when appropriate, to augment Navy communications facilities.

e. Assault Phase. During the assault, both Navy and LF elements of the ATF rely primarily on radio communications as the means for exercising command and control over the assigned forces. Accordingly, radio silence is usually lifted by the CATF prior to H-hour in order to test all circuits before the ship-to-shore movement begins. During the initial portion of the assault, when the LF headquarters and the headquarters of the major subordinate elements of the LF are afloat, LF circuits are provided by facilities specifically installed in amphibious shipping for use by LF personnel. (See paragraph 5 above.)

12. Control of Ship-to-Shore Movement. The CATF is responsible for the control of the ship-to-shore movement of both waterborne and helicopterborne assault forces. Continual coordination is required between the CATF and the CLF to ensure that all the requirements of the LF are being met throughout the ship-to-shore movement. Navy elements of the ATF rely primarily on radio communications to exercise the required control. However, visual, sound, and messenger communications may also be employed extensively during this period. Landing force communications are complementary and generally parallel to the communications established by the Navy elements of the ATF. These parallel systems terminate at each significant control activity (e.g., supporting arms coordination center (SACC), tactical air control center (TACC)) and, therefore, provide alternate communications means for ATF and LF elements.

a. Waterborne Movement. Communications for control and coordination of landing ships, landing craft, and other waterborne vehicles moving from the transport area to beaches are provided primarily by a Navy control group. However, LF communication assets must be incorporated for control and coordination over the movement of personnel, equipment, and supplies during this period. This is demonstrated by the formation of the TACLOG and attendant landing support operations, which are controlled and coordinated through appropriate LF radio nets.

b. Helicopterborne Ship-to-Shore Movement. Communications for the control and coordination of the helicopterborne ship-to-shore movement are established and maintained by the CATF through the TACC (afloat), helicopter direction center (HDC), and other appropriate afloat agencies concerned with the helicopterborne movement ashore of personnel, equipment, and supplies. Additional LF requirements are generated by the necessity for communications between HSTs ashore and TACLOGs afloat.

13. Control of Supporting Arms. The CATF is responsible, initially, for exercising overall control and coordination of fires delivered by naval gunfire ships and supporting aircraft and LF artillery units. This responsibility is exercised through the SACC which relies primarily on radio communications for this purpose. The LF fire support coordinator (FSC) assists in the decisionmaking process required of SACC representatives by monitoring all activities within the SACC and assists these activities by providing advice and information concerning LF fire support requirements. When the LF establishes adequate control and communications facilities

ashore, the responsibility for the overall control and coordination of supporting arms is transferred from the CATF to the CLF. This responsibility is normally passed ashore incrementally to permit a smooth transfer of those control functions for which facilities have been established. Specific LF considerations involving control and coordination of artillery, naval gunfire, and close air support are as follows:

a. Employment of Wire and Radio. Control and coordination of artillery, naval gunfire, and close air support is maintained primarily by radio communications during the initial portion of the assault. Distance or terrain features may necessitate employment of manual radio relay and automatic radio retransmission. Wire may be employed on an austere basis by appropriate units ashore, consistent with time and the tactical situation. Additionally, visual communications may be employed to satisfy basic control requirements to include marking of targets, friendly frontline positions, etc.

b. Reliance on Shipboard Communications Facilities. During the afloat period of the assault, the LF fire support coordinator relies on communications facilities provided in the SACC to monitor fire support requests from LF units ashore.

c. Transfer of Overall Control and Coordination Ashore. Prior to transfer of overall control and coordination of supporting arms ashore, communications must be established between the DASC, the TACC afloat, the FSCC ashore, and the SACC.

d. Alternate Means of Communications. Supporting arms radio nets that are normally dedicated to a specific function may, in certain instances during the assault, be required to operate on a temporary share basis to support parallel control functions. This requirement is exemplified when loss of communications occurs on a particular supporting arms circuit maintained between LF control agencies and Navy control agencies.

14. Control of Air Operations. During the initial portion of the assault, the CATF exercises control of all air operations in the objective area. This control is primarily exercised through the TACC (afloat) and in coordination with the SACC. Subsequently, the control responsibility may be passed to the CLF ashore. It may be passed incrementally, similar to the method for transferring the responsibility for the control and coordination of supporting arms. Specific LF considerations include:

a. Instructions. Detailed instructions pertaining to air control communications are provided by the CATF during the planning phase of the operation. The LF plan for communications in support of air operations should be aligned in detail with these instructions to prevent conflict or confusion relative to radio frequencies, nets, call signs, etc.

b. CLF Relies Upon CATF Facilities Initially. During the time the LF headquarters is afloat and control of air is being exercised at the CATF level, the CLF is kept abreast of the air situation through the Navy air control and supporting arms coordination communications facilities.

c. Criteria for Transfer of Control of Air Operations. Prior to the complete transfer of control of air operations to the CLF, it is essential that the landing force TACC, DASC, and tactical air operations center(s) (TAOC) ashore and the tactical air direction center (TADC), sector antiair warfare center (SAAWC), and HDC afloat have established common radio communications. Additionally, the major control agencies of the LF air C2 system ashore should have established communications to appropriate carrier and/or land-based aircraft and to their respective subordinate air support and antiair warfare agencies and elements within the LF.

d. Minimum Requirements. The initial installation and employment of the wire multichannel radio network supporting the LF air C2 system must be capable of providing the minimum C2 requirements when the responsibility for control of air operations in the objective area is passed to the CLF.

15. Control of Combat Service Support. The CATF has the overall responsibility for the control and coordination of logistic support for the LF during the assault. This responsibility is attendant to his responsibility for the control of the ship-to-shore movement. However, selected units and agencies of the LF are required to assist the Navy control organization in the area of logistic sustainability by performing coordinating and advisory functions that are additional to the handling of equipment and supplies by CSS units ashore. Landing force communications must provide a means for the control of medical evacuation, prisoner-of-war collection, foot and vehicular traffic movement ashore, and similar activities in addition to providing a means for the control of the movement and handling of equipment and supplies. Specific considerations are governed by the type of ship-to-shore movement involved.

a. Waterborne Movement. Specific considerations for the employment of communications for control of logistic support in the waterborne movement include:

(1) Landing force TACLOGs rely on shipboard communication facilities to exercise their coordinating functions. However, the use of tactical radio equipment and operating personnel should be planned to provide for any additional support required for TACLOG communications.

(2) TACLOGs, landing support and Navy beach units ashore, HSTs (when a helicopterborne movement is conducted concurrently with the waterborne movement), and the supported combat units of the LF are required to establish common radio communications during the assault.

(3) Landing support units ashore are required to establish communications within the CSS areas, including wire communications with Navy beach parties.

(4) Navy beach parties maintain radio communications on appropriate nets within the framework of the Navy control organization. Under ideal conditions, they may employ submarine cable or wire for communications to the control ships.

(5) Wire communications are normally established ashore between supported combat organizations and their supporting landing support units. The initial wire installations are laid from the beach inland by landing support communications liaison personnel assigned to appropriate combat organizations.

(6) The overall landing support communication effort during the waterborne assault represents a gradual buildup of the means provided by individual landing support teams that are assigned to the LF support party.

b. Helicopterborne Movement. Specific considerations for the employment of communications for control of CSS in the helicopterborne movement include:

(1) Control of CSS support during the helicopterborne movement is exercised through the operations of HSTs, TACLOGs, HDC, and the helicopter logistic support center (HLSC). It depends primarily on the use of radio communications.

(2) An HST requires direct radio communications with the TACLOG of the helicopterborne (afloat) force and the helicopters transporting the force, and wire or radio communications with subordinate activities operating within the landing zone.

16. Control of Signals Intelligence/Electronic Warfare Operations. Control and coordination of LF SIGINT/EW operations is effected through the LF SIGINT/EW coordination center (afloat).

a. Initial Stages of Assault. Control and coordination of SIGINT/EW operations is maintained primarily by secure radio communications during the initial stages of the assault.

b. Afloat Facilities. The landing force signals intelligence/electronic warfare coordination center (S/EWCC) while afloat relies on special security communications facilities provided in the ship's signal exploitation spaces (SSES) for special communications support.

c. Ashore Facilities. The S/EWCC will phase ashore by echelon to commence installation and operation of the S/EWCC ashore. Special security communications links will normally be established from the amphibious command ship(s) to the LF headquarters ashore. These lines may be terminated when a SIGINT communications center link is established ashore from the LF headquarters to a specified Defense Communication Center entry point.

17. Echelonment of Command Posts. The echelonment of command posts (CPs) from ship to shore by the various elements and organizations of the LF is interrelated to the control aspects described in the preceding paragraphs, particularly control over supporting arms and air operations. For example, the full responsibility for control over supporting arms would not be passed to the CLF until he had established appropriate control agencies ashore to perform the requisite functions. The landing force FSCC would necessarily be one of the first control agencies established ashore for this purpose. However, the time of its establishment ashore would be governed essentially by the ground combat element headquarters plan for command post echelonment, including composition of echelons, time phasing, employment of communications, and so forth. The following information outlines general considerations for the employment of communications during this period:

a. Orderly Transition. The echelonment of CPs from ship to shore must be accomplished in a manner that provides for communications continuity during the entire assault phase. Throughout this phase, LF communications undergo a continuous transition. Initially, all LF elements and organizations are dependent almost entirely on netted radio communications operated from stations afloat; and progressively, as the assault forces land, these stations are phased from an afloat to an ashore status. Then, as the CPs of successively higher organizations and elements are established ashore, the dependence on netted radio communications is gradually reduced and more emphasis is placed on the employment of wire, wire-multichannel radio, messenger communications, etc. The conduct of this transition governs the orderly development of the LF communications system ashore and provides for more effective C2 as the assault progresses.

b. Two or More Echelons. A CP movement from ship to shore is normally made in two or more echelons, depending on the type and size of the headquarters. Each echelon requires a near equal communications capability, although tactical resources are usually allocated more heavily in the commander's echelon.

c. Headquarters Embarked on Two Ships. The commander, staff, and supporting personnel that make up a particular headquarters may be embarked in one ship or may be divided into two groups embarked in separate ships. In the latter case, radio communications must be established between these two groups as soon as radio silence is lifted prior to the ship-to-shore movement.

d. Communication Requirements for Advance Party or Reconnaissance Party. When an advance party (or reconnaissance party) is sent ashore before the major echelons of a CP, direct radio communications are required between the advance party and the major echelons afloat. Additionally, the type and quantity of communications personnel and equipment assigned to an advance party must be carefully selected as their initial efforts ashore will provide the basic installation from which the organic communications system will expand.

e. Communications for the Commander in Transit. When a commander, with appropriate members of his staff, is in transit from ship to shore in either the waterborne or helicopterborne movement, he requires radio communications

with his units ashore, including the CP advance party if employed, and any of his units remaining afloat. However, the communications facilities available to a commander in either a command type amphibious tractor, C2 helicopter or transport helicopter will not normally satisfy his total communications requirements. Therefore, the use of these facilities should be carefully considered and the attendant radio means allocated only to the most essential circuits.

f. Criteria for Activating Headquarters Ashore and Terminating Headquarters Afloat. Communications facilities must be maintained by the final echelon of the CP afloat until the facilities in the CP ashore are sufficiently developed to support C2 functions. Although the facilities ashore may be initially austere (e.g., lacking a completely installed switching center, limited communications center operations, control agencies relying primarily on push-to-talk radio communications, etc.), C2 functions may be assumed from the CP ashore, providing that essential communications requirements have been satisfied. When this is accomplished, the final echelon afloat is notified, closes down its operation and prepares to move ashore to join the new CP.

g. Priority for the Installation of Electrical Communications. The establishment of predetermined priorities for the initial installation of electrical communications is essential for the responsive and orderly development of the communication system supporting the new CP ashore. Generally, the priorities may be divided into two main categories: installations required for communications to senior, subordinate, and adjacent CPs (which are normally assigned first priority) and installations required for communications within the CP itself (which are normally assigned second priority). Within each of these main categories, further subdivision of priority assignment will be necessary to support the immediate and critical requirements of specific staff sections and agencies. Based on the number of communications personnel available, major emphasis will be placed on concurrent installation by priority, rather than consecutive installation.

18. Communications Channels

a. Development of Landing Force Communications Capabilities. During the assault phase, primary reliance must be placed on radio and multichannel radio communications. This requirement is considered in planning

the numbers and types of circuits required and the assignment of available frequencies. Communications plans of both naval and LF provide for sufficient channels of communications during the ship-to-shore movement to permit the exercise of those measures of control and coordination that are required at all echelons. Communications plans of the LF provide for the rapid development of LF communications systems ashore in order to ensure facilities responsive to the needs of the tactical situation as the assault progresses. These plans must also provide entry into a worldwide communications system for the CLF ashore. Such external communications initially are provided through the CATF and subsequently established ashore by units of the LF. This beach facility will become the basis for an advanced base entry into the worldwide communications system, if required.

b. Total Requirements. The total requirements for communications channels will vary with the size of the force, the complexity of the operation, available resources, and many other factors. Accordingly this publication does not provide typical or illustrative representation of overall requirements. For discussion of type nets and nomenclature, see appropriate Service publications. Appendix B to FMFM 3-30 lists typical landing force nets.

CHAPTER X
LOGISTICS AND COMBAT SERVICE SUPPORT

1. Introduction

a. Requirements. An amphibious operation is characterized by the rapid buildup of combat power ashore. Associated with this projection of combat power is the attendant requirement to transfer the logistics support system ashore to sustain the landing force (LF). The logistics system and combat service support (CSS) for amphibious operations must be designed to transition from sea-based to shore-based support. Plans must be flexible in order to respond to the changing tactical situation ashore. Perhaps the most significant difference between CSS for land operations and for amphibious operations is the increased requirement for self-sufficiency of the assault echelon during early stages of the landing.

b. Objectives. Logistics/CSS planning for the amphibious operation must provide for accomplishment of the following objectives:

(1) The orderly assembly and embarkation of personnel, supplies, and equipment of the LF.

(2) The establishment and maintenance of a responsive and adequate CSS system in the amphibious objective area (AOA) to sustain the LF.

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

2. Purpose and Scope. This chapter provides an overview of logistics matters in the amphibious operation. The primary emphasis is on operational logistics and planning for CSS of the LF. This chapter complements Chapter 10 of JCS Pub 3-02. It includes planning considerations and specific information on the six functional areas of CSS: supply, engineer, maintenance, transportation, health services, and services support. Deployment and embarkation planning (subfunctions of the functional area of transportation) are discussed in Chapter XI. Tactical-logistical Groups (TACLOGs) are discussed in Chapter VI. Additional references are cited in appropriate chapters of the text.

3. General

a. Logistics. Logistics encompasses the total scope of activity required to support the formation, movement, engagement, disengagement, and disestablishment of military forces in the very broad functional areas of materiel, transportation, health services, and related services. Logistics support is concerned with maintenance and movement of forces on a sustained, continuous basis in war and peace, in garrison, and in the field.

b. Combat Service Support. CSS is a special form of military operational logistics. It is those essential logistics functions, activities, and tasks which support the LF and enhance combat effectiveness in the area of operations. CSS organizations do not provide those services to supported commands, which are more appropriately categorized as "command support" (i.e., personnel administration, chaplain services, financial management, communications, intelligence, billeting, messing, band and morale, welfare and recreation services). Thus, CSS is that service support to the LF which directly affects combat mission accomplishment under tactical combat conditions.

c. Logistics and CSS Planning. Logistics planning for amphibious operations is accomplished in the broad areas of materiel, services, health services, and transportation in order to move and maintain forces for accomplishment of the mission. This planning occurs at the LF and higher levels. However, the LF and its subordinate elements place primary emphasis on CSS planning in the six functional areas noted in paragraph 2 above to support combat and combat support elements in amphibious operations.

4. Responsibilities

a. Commander, Amphibious Task Force. The CATF is responsible for:

(1) Determination of the logistics requirements of the Navy forces, including special equipment and shipping requirements.

(2) Consolidation of those logistics requirements of all elements of the ATF that must be provided by the Navy forces and determination as to whether or not those requirements can be met with the available means.

(3) Allocation of means of the Navy forces to meet these consolidated logistics requirements.

(4) Notification to responsible agencies of any unusual requirements for routine naval items and of requirements for special items of naval equipment. These requirements should be submitted early in the planning phase to ensure timely arrival at designated embarkation points.

(5) Preparation of the overall embarkation schedule, including plans for the assembly of shipping at points of embarkation.

(6) Review and approval of embarkation and loading plans.

(7) Organization of assigned shipping into echelons as necessary to ensure continuing support of the LF tactical plan.

(8) Provision of the means required for the establishment and maintenance of an adequate logistics support system in the objective area.

(9) Development of plans for handling prisoners of war and civilian evacuees or internees as well as establishing policy for the administration of civilian affairs, if not prescribed by higher authority.

(10) Development of overall plans for evacuation and hospitalization.

b. Commander, Landing Force. The CLF is responsible for:

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

(2) Allocation of available means to meet logistics requirements of the LF.

(3) Determination of the LF logistics requirements to be provided by the air and naval forces, and submission of these requirements to the CATF.

(4) Development of plans for the assembly of supplies and equipment to be embarked, including the supplies and equipment of assigned forces that the LF is responsible for embarking.

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

(6) Development of plans for the deployment of LF aviation and other units into the AOA by air.

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

(8) Preparation of the landing force CSS annex and concept of CSS.

c. Commanders of Other Forces. Commanders of other major forces of the ATF are responsible for the determination of their logistics requirements and the submission to the CATF of the requirements that must be met by other elements of the ATF or external sources.

d. Mutual Responsibilities. The interrelationship of logistics and CSS responsibilities of the CATF and CLF are summarized as follows:

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

(2) The CLF is responsible for the preparation of the embarkation and ship loading plans. Ship loading plans must be approved by each ship's commanding officer. CATF provides information for the ship berthing and loading schedule, which is included in the embarkation plan. CATF resolves any unresolved differences between individual ships and troop embarkation teams regarding ship loading plans.

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

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

(5) Logistic plans that concern more than one element of the ATF because of their content and scope include:

- (a) Assignment to shipping, embarkation, and loading plans.
- (b) Plans for supply and resupply, including provisions for debarkation and unloading (the ship-to-shore movement). (See Chapter VI.)
- (c) Medical planning.
- (d) LF support party (LFSP) plans.
- (e) Engineer planning to support base development and garrison forces, if required.

5. Planning Sequence

a. Sequence of Planning. Following receipt of the initiating directive, logistics/CSS planning proceeds concurrently at all echelons throughout the ATF. The CATF is responsible for consolidating the total requirements of the force and allocating the available means for support. The LF concept of operations ashore is the basis for detailed CSS planning, which generally proceeds in the following sequence:

- (1) Determination of overall requirements.
- (2) Statement of requirements to higher authority.
- (3) Allocation of resources and assignment of priorities.
- (4) Preparation of detailed plans and orders.

b. Determination of Overall Requirements. Based on the CLF's concept of operations, detailed CSS requirements are computed for each successive stage of the operation. Quantities and types of required equipment and supplies and other CSS needs are determined at the unit level and forwarded via the chain of command to the higher headquarters for consolidation.

c. Statement of Requirements to Higher Headquarters. The CLF compares the needs of the force with CSS assets available internally. Unfilled requirements are then identified to higher headquarters, the CATF, or agencies of the supporting establishment. Examples of these requirements include:

- (1) Air movement.
- (2) Naval construction forces.
- (3) Water and fuel supply and resupply.
- (4) Fleet medical services.
- (5) Navy cargo handling and port units.
- (6) Aviation ammunition supply and resupply.
- (7) Staging, holding, and embarkation areas.
- (8) Host-nation and inter-Service support.

d. Allocation of Resources and Assignment of Priorities. The CLF allocates to subordinate echelons of the LF those logistics support resources available and assigned to him and assigns specific priorities, as necessary, for their employment based on his concept of operations.

e. Preparation of Plans and Orders. When all logistics requirements and means are determined, the appropriate logistics, personnel, CSS, and embarkation plans are prepared. These plans may be in the form of annexes or appendixes to the operation plan, or (if unrelated to the tactical operation) may be issued separately. At the LF level, normally Annexes D (Logistics/Combat Service Support), and E (Personnel) are prepared. These annexes are interdependent and to some extent duplicative. Annexes D and E provide information useful to higher headquarters. Annex D directs the CSS efforts of the LF. At lower echelons, normally, only Annex D is necessary.

6. Planning Considerations

a. General. Logistic and CSS planning for an amphibious operation is a continuous, detailed process. It proceeds from the preparation of the logistics and CSS estimates and the initial statement of overall logistics requirements for supplies and CSS, to the establishment and operation of a logistics support system in the objective area.

b. Coordination of Logistic and Tactical Plans. Coordination between tactical and logistics plans must reflect a full recognition of the capabilities of the LF's logistics support system and naval logistics support

capabilities. The requirements of LF units for cargo and troop space in assault shipping must be adjusted precisely to support the landing plan and operations ashore.

c. Resupply. The requirements for scheduled resupplies and for on-call resupply from outside the landing area, especially by aerial delivery, must be integrated into a plan that provides for quick, flexible responses to the combat environment.

d. Logistic Planning Factors. The nature and extent of logistics and CSS planning is primarily shaped by the considerations and objectives for which the operation is undertaken--the mission of the LF and the expected duration of operations. Many other factors must be considered, including:

(1) Characteristics of the area: climate, weather, terrain; indigenous resources and available host-nation support; local transportation system; enemy capabilities and expected interference with logistics functions; and requirements to support the civilian population.

(2) Strength and composition of the LF, characteristics of operations to be supported, and tasks requiring special supplies and equipment.

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

(4) Employment of nuclear and chemical weapons and nuclear, biological, and chemical defensive measures.

(5) Additional logistics responsibilities on termination of the amphibious operation.

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

e. Special Planning Considerations

(1) Critical Early Requirements. CSS in the initial stages of the amphibious operation is principally concerned with the provision of combat essential supplies and rations, water, ammunition, and fuel. These initial requirements are provided from LF supplies transported to the AOA in assault and assault follow-on shipping. Other essential services, including medical

support, are provided within capabilities; however, other CSS functions are of secondary importance during the early stages of the ship-to-shore movement. Accordingly, the combat units must be provided with the capability to be self-sustaining during the early stages of the assault.

(2) Tactical-Logistical Groups and Landing Support. The role and importance of special task organizations that control and provide CSS during the ship-to-shore movement and in the early phases of the assault require special emphasis. These include the organization of the landing force support party and its subordinate shore party and helicopter support units. TACLOGs are discussed in Chapter VI.

(3) Seabasing and the Sea Echelon.

(a) Seabasing. In some cases, it may be undesirable or unnecessary to transfer substantial LF supplies and CSS organizations ashore. Seabasing provides for limited CSS elements to become temporarily established ashore and allows for the majority of CSS assets to remain at sea and be sent ashore only when needed. In such cases, additional consideration must be devoted during the planning phase to ensure that CSS capabilities are balanced aboard those amphibious ships best suited to provide support. For example, when seabasing is employed, a CSS detachment aboard a ship may be organized to provide some or all types of support: medical, supply or maintenance; additional work spaces for the CSS detachments may be needed. Additionally, seabasing increases helicopter support requirements since it involves an increased reliance on maintenance contact teams and replenishment by helicopter.

(b) Sea Echelon. The sea echelon plan provides for a reduction of the concentration of amphibious ships in areas near the beach. The majority of shipping will remain in distant sea operating areas until called forward in accordance with established priorities. In such cases, the out-of-sequence landing of supplies and equipment will cause delays in the established schedule and be less responsive than for ships in close proximity to the beach. Specific provisions may be required to ensure rapid

evacuation of casualties to more distant primary casualty receiving and treatment ships. CSS planners consider such additional factors in developing their plans.

(4) Embarkation, Movement, and Rehearsal Support. Although the primary emphasis of CSS planning is to develop a CSS system to support the LF in the amphibious objective area, the force must also be supported while en route. Support required in the embarkation areas may include the operation of camps and mess facilities in temporary staging areas; road maintenance may be necessary; equipment must be operated and maintained. CSS requirements while the force is en route will be primarily provided by the Navy, but administrative and maintenance requirements of embarked forces must be considered. CSS requirements during rehearsals may be extensive if a full rehearsal is conducted, and planners must adjust overall requirements accordingly.

(5) Landing Force Aviation. During amphibious operations, it is not uncommon for fixed-wing aviation elements to be located initially at airfields outside the landing area or later to be located at remote distance from the remainder of the LF. A CSS detachment designed to support the remote airfield operation may be necessary. Additionally, when LF aviation is to be phased ashore in the AOA, CSS requirements for engineering support and transportation will be extensive.

f. Basic Planning Considerations

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

(a) Selective Unloading. The selective unloading period is primarily tactical in character and must be instantly responsive to the requirements of LF units. During the early part of the ship-to-shore movement, CSS is provided on a selective basis from sources afloat. Movement of CSS elements to the landing beaches or landing zones closely follows the combat elements. As the attack progresses, CSS units are established ashore, and support is provided both from within the beach support area and from sources afloat. The shore party group or team is responsible for the initial support of combat units landing across the beaches.

Helicopter support teams perform a similar function for helicopterborne units. As the operation proceeds, the development of CSS areas inland commences. Balanced stocks of supplies and austere maintenance facilities are established in these areas as early as possible.

(b) General Unloading. Normally, general unloading is undertaken when sufficient troops and supplies have been landed to sustain the momentum of the attack and when areas are adequate to handle the incoming volume of supplies. When adequate assault supplies are ashore, and the beach support area is organized and operating satisfactorily, the CLF recommends to the CATF that general unloading begin. When the order to commence general unloading is issued, the control organization for the initial unloading period of the ship-to-shore movement ceases to operate but remains substantially intact, ready to resume selective discharge if required. TACLOG activity is reduced to that related to general unloading procedures. Transports are unloaded as rapidly as CSS facilities and landing craft availability permit without regard to type of cargo.

(2) Beach Support Area and Combat Service Support Area. As the operation progresses and CSS units are phased ashore, the initial landing support organization is disestablished and its functions are assumed by the LF support party. Beach support areas (BSAs), initially developed by the landing support elements may be consolidated or expanded into combat service support areas (CSSAs) to provide continued support to the LF. The need for CSSAs and their number, size, and capabilities are situation dependent, but they are primarily influenced by the scope and duration of the operation.

(a) CSS detachments (CSSDs) established in CSSAs provide support to LF organizations as prescribed by the logistics/CSS annex to the operation order.

(b) CSS areas will be primary, lucrative targets for the enemy. The possibility of nuclear, chemical, or biological attack against these installations must be considered. The extended range of indirect fire weapons will place CSS areas

at risk in many situations; further, the likelihood of small-scale attacks against CSS installations is a distinct possibility in the amphibious environment. For these reasons, specific provision must be made by the CLF during the planning stage to protect CSS areas.

(3) Beach/CSS Area Defense

(a) Responsibility. The CLF normally assigns the mission of defending the BSA or CSSA, as a clearly defined portion of the beachhead area, to the senior tactical element commander ashore. To clarify responsibility, the LF operation order will specify the rear area security commander and the task organization designated to perform this mission.

(b) Defensive Plan. The plan for defense of the BSA or CSSA is organized as an area defense. Within the assigned area, the rear area security force commander has complete responsibility for coordinating all ground defense, including airfield ground defense of forces located therein. Details of the defensive plan will provide for artillery and naval gunfire support, air and counter-mechanized defense, offshore defense, NBC defense, and defense against guerrillas and sabotage. A mobile reserve should be considered and formed from available assets.

7. Landing Force Supply

a. General. The guiding principle in CSS planning for the LF is responsiveness. The limited shipping available for amphibious operations also dictates the requirement for economy in planning. The ability to discriminate between "must have" and "nice to have" plays a singularly important role in the success or failure of the LF. The types and quantities of supplies which are taken into the AOA directly affect the requirement for air and surface transportation. For ease of control and planning for an amphibious operation, requirements for supply support are stated under two major categories--LF supplies and resupply. See Chapter VI for a detailed discussion of LF supply categories.

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

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

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

(a) Operating Level of Supply. The quantities of materiel required to sustain operations until arrival of resupply shipments; e.g., 15 DOS.

(b) Safety Level of Supply. The quantity of materiel required to be on hand to permit continuous operations in the event of minor interruption of normal resupply or unpredictable fluctuations in demand; e.g., 15 DOS.

(3) Factors Influencing Stockage Objective. The amounts and types of supplies carried in the assault shipping must be compatible with the shipping space available and must meet the minimum requirements for support of the LF until termination of the amphibious operation. Lower stockage levels increase the likelihood of the requirement for emergency resupply. Relying too heavily on emergency resupply instead of on adequate levels of landing force supplies increases the risk of not achieving the ATF objectives. Before the stockage objective can be finally determined, the following factors must be carefully considered:

(a) Enemy Capabilities. The enemy's capability to destroy supply installations ashore or to disrupt resupply shipments at sea must be carefully evaluated in determining the stockage objective to be maintained in the objective area.

(b) Availability of Fixed-Wing Cargo Aircraft. The lower the stockage objective maintained in the AOA, the greater the need for a means of providing rapid emergency resupply from outside the objective area.

(c) Availability of Shipping and Distances Involved.

distance This requirement is a function of distance between the emergency resupply loading point and the AOA. The greater the distance between the emergency resupply source and the objective area, the greater the time emergency resupply will take. To be effective, the emergency resupply loading point is relatively close to the landing area, and shipping is readily available.

(4) Landing Force Operational Reserve Material/Mission Load Allowance (LFORM/MLA). Landing force operational reserve material/mission load allowance (LFORM/MLA) is a package of contingency supplies that is pre-positioned in amphibious warfare ships to reduce loading time in contingencies and is computed as a part of USMC pre-positioned war reserve materiel stocks (PWRMS). The LFORM package comprises Classes I (packaged operational rations), III(A) and III(W) (petroleum, oils, and lubricants), IV (field fortification material), and V(A) and V(W) (ammunition). However, other selected items can be included to support specific deployments and/or contingency operations at the discretion of the force commander.

(5) Automated Planning Systems. Automated planning systems, such as the Marine air-ground task force (MAGTF) lift model, may be used to calculate and refine estimates of supply requirements.

c. Supply Planning Responsibilities

(1) Based on the tactical plan for operations ashore, the CLF develops a plan of supply support. Supply support planning includes the levels of supply to be maintained in the objective area for each period of the

operation, including priorities of issue. It also contains the type and location of supply installations to be established ashore and the policies and procedures for their operation. Together, the CLF and CATF develop plans for supply support of the landing force in the objective area. These plans include the schedule for supply buildup ashore, requirements for on-call aerial resupply, the ships and aircraft to be employed in the supply buildup, and the types and amounts of supplies that are to be furnished by the Navy.

(2) The CATF and CLF responsibilities for supply support in subsequent phases of the operation are interrelated as described below:

(a) Planning. The CLF determines his requirements for supplies to be lifted into the objective area by all means of transportation. The CLF also determines the types and quantities of supplies to be carried ashore by LF units as prescribed loads, as well as the types and quantities to be available for establishing pre-positioned emergency supplies (floating dumps and prestaged helicopter-lifted supplies) and for selective unloading. The CLF states his requirements for supplies through routine supply request channels. Agencies of the supporting establishment plan for the delivery of supplies directly to LF units, to embarkation points, or for preloading such supplies into assault ships of the ATF, as requested by the CLF.

(b) Embarkation. Supplies are embarked in conformity with LF embarkation plans, which are developed in coordination with corresponding echelons of the ATF. The CLF plans the assembly of supplies and equipment to be embarked, including the supplies and equipment of other forces for which the LF has embarkation responsibility. The CATF is responsible for the determination of ship's loading and berthing schedules, including plans for the assembly of shipping at ports of embarkation (POE). Based on types and quantities of supplies, the requirements for resupply may then be determined together with their scheduled arrival time in the objective area.

(c) Rehearsal. Both CATF and CLF must plan for adequate stocks of consumable supplies and replenishment of spares for equipment items damaged during the rehearsal.

(d) Movement to the Objective Area. The CLF, in coordination with the CATF, plans the routine supply support of units embarked aboard ATF ships for movement to the objective area. This normally includes repair parts for the support of embarked helicopters.

(e) Assault

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

- a. Types and amounts of supplies to be carried ashore by LF units as prescribed loads. For helicopterborne units, the prescribed load normally does not exceed a one-day level of supply. The prescribed load of surface-landed units may exceed that of the helicopterborne elements, since the former normally are equipped with more and larger vehicles and hence possess a greater cargo-carrying capability.
- b. Types and amounts of supplies to be established in floating dumps and prestaged, helicopter-lifted supplies. As the availability of cargo-carrying helicopters increases, more reliance is placed on the use of prestaged, helicopter-lifted supplies established aboard ships equipped with landing platforms, thereby permitting rapid replenishment of units by helicopter.
- c. Levels of supply to be established ashore.

d. Techniques that ensure the orderly, rapid buildup of supply levels ashore, such as:

(1) Use of landing craft and vehicles carrying assault troops to ferry designated types and amounts of supply ashore on each trip.

(2) Provision for the mobile loading of each vehicle of the LF not involved in the lift of the assault elements ashore.

(3) Means for facilitating the transfer of supplies from ship-to-shore, including the most efficient use of such items as pallets, containers, cargo nets, and slings.

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

(3) Supply Control and Distribution. Supply control and distribution are accomplished at both the LF level and at the lowest levels that have an organic supply capability; e.g., battalion. These levels are most

important within the overall function of supply, especially during the critical transition from sea-based to shore-based supply support during an amphibious operation. Adherence to the following principles during the transitional and ashore stages of the operation will result in a control and distribution system that is reliable, flexible, and responsive.

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

1. The control and distribution system provides the supplies required to meet specific needs, but the mobility of combat and combat support units must not be impeded by an overburden of supplies.

2. Supply points should be dispersed throughout the landing area to provide a responsive and flexible system as well as to provide passive security against enemy attack.

3. Control procedures to correlate supply and demand should be as simple as possible. Record keeping should be uniform and simple.

4. Supplies should be safeguarded from enemy action, weather, and waste by friendly forces.

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

(4) Salvage. Salvage is the term applied to materiel that has become unserviceable, lost, abandoned, or discarded, but which is recoverable. It includes captured enemy equipment (see STANAG 2084). Unit commanders at all levels are responsible for salvage collection and evacuation within their respective unit areas. Designated salvage organizations receive and process salvage received from combat units. The flow of salvage to the rear follows two general channels:

(a) Salvage Channel. The salvage channel, or supply channel in reverse, is used for all salvage that can be carried or loaded into available transportation. Such items include small arms, rations, clothing, ammunition, and individual equipment. The flow usually follows the normal supply channels rearward from small forward dumps to the beach dumps.

(b) Maintenance Channel. The maintenance channel is used for heavy salvage items such as disabled tanks, artillery pieces, and trucks.

8. Engineer. The nature of engineer support for the LF in amphibious operations ranges from combat engineer support of a pioneer nature for the assault units to general engineer and CSS functions for the LF. The normal engineer tasks (mobility, counter mobility, survivability, and general engineering) are applicable.

a. Combat Engineers. Combat engineer elements will normally be attached to the assault infantry units to perform a variety of tasks such as engineer reconnaissance, obstacle breaching and installation, development of beach support areas, helicopter landing and V/STOL site preparation, construction of beach exits, combat trails and pioneer roads, tactical bridging, and water and bath services.

b. General Support Engineers. General support engineer elements will normally perform specific tasks, to include: deliberate clearing of obstacles that interfere with LF operations, vertical and horizontal construction, provision of utilities (including potable water and mobile electric power), installation and operation of bulk fuel systems ashore, maintenance and repair of routes of communication, topographic support, advanced airfield preparation, and bridge construction/maintenance. It is desirable for

general support engineer elements to relieve combat engineer elements of responsibilities in rear areas as early as possible.

c. Other Tasks. All engineers may be required to provide technical assistance in the areas of demolitions, fortifications, and camouflage. When requirements for these tasks exceed the supported unit's capabilities, engineers are tasked to provide technical expertise and specialized equipment; the supported unit provides manpower support.

d. Engineer Groups. In special cases, it may be appropriate to form a separate engineer group within the landing force. This may be necessary when the scope of the tasks and comparatively limited assets can best be managed by centralized effort. Regardless of whether an engineer group is formed, engineer units establish liaison and coordinate efforts with supported units.

e. Naval Construction Forces. The Naval construction forces (NCF) are the combined construction units of the Navy, including primarily the mobile construction battalions and the amphibious construction battalions. These units are part of the operating forces and represent the Navy's capability for advanced base construction. (JCS Pub 1-02)

(1) Naval Mobile Construction Battalion. The Naval mobile construction battalion (NMCB) provides construction support to Navy, Marine Corps, and other forces in military operations; constructs base facilities; and conducts defensive operations as required by the circumstances of the deployment situation. The NMCB provides a major deliberate construction capability and is employed to provide facilities that require extensive technical control and construction capability. The NMCB can be employed in expanding or constructing airfield complexes, repairing or developing ports, constructing major temporary or semipermanent camps, extensively repairing or rebuilding principal bridges, and installing large-scale utilities systems. When naval construction forces are assigned to the landing force, these units will normally be attached to the CSS element. If an engineer group is formed, the naval construction force will normally become part of the engineer group. The high priority of some NMCB tasks may require early introduction into the AOA.

(2) Amphibious Construction Battalion (PHIBCB). The amphibious construction battalion provides designated elements to CATF; supports the naval beach group during the initial assault and early phases of an amphibious operation; and assists the landing support element in operations that do not interfere with the primary mission. Organizationally, the PHIBCB or elements thereof will be operationally controlled by the naval beach party under the LF support party. This unit is not intended for prolonged field employment. Tasks are normally of a temporary nature. (See subparagraph 12d(5)(a)2 below.)

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

- (a) Capabilities of assigned engineer units.
- (b) Requirement for new construction.
- (c) Requirement for repair, maintenance, and improvement of facilities such as ports, railroads, roads, and airfields.
- (d) Requirement for the repair, rehabilitation, and operation of existing utilities systems.
- (e) Announced priorities for semipermanent construction.
- (f) Requirements for base development as established by higher authority.

9. Maintenance. Maintenance operations of the LF are planned and organized to provide for the administrative and tactical support of all types of LF equipment at the organizational and intermediate levels. Responsibilities for maintenance planning within the LF are shared by the major element commanders, the CSS organization, and the LF logistics (G/S-4) staff.

a. General. An effective maintenance plan is based on the establishment of an austere maintenance capability within the AOA consistent with expected support requirements. Plans should be developed that provide for:

(1) Clearly defined maintenance capabilities, missions, and responsibilities during each phase of the amphibious operation, both afloat and ashore.

(2) Early landing of the maintenance elements of equipment-intensive units and provision of pre-expended critical repair parts as mobile loaded unit supplies.

(3) Simplified maintenance request procedures and, insofar as practicable, direct delivery of support to the requesting unit.

(4) Centralized control of maintenance support; decentralized execution of maintenance action through maintenance contact teams and mobile repair facilities.

(5) Equipment repairs as rapidly and as far forward as the tactical situation and available resources allow.

(6) Coordinated employment of maintenance support with other CSS functions.

(7) Provisions for alternate channels of support.

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

b. Resources. Each unit of the LF accomplishes maintenance within the limits authorized and resources available. In addition, the CSS element provides maintenance contact teams and may establish mobile or semimobile repair facilities ashore to provide higher levels of maintenance support. Maintenance contact teams provide direct support to forward units and may assist in the performance or organizational maintenance. They focus on the rapid repair and return to service of equipment as far forward as possible through component replacement. Major repairs, calibration, and the repair of subassemblies and assemblies are accomplished at semimobile repair facilities or outside the AOA.

c. Maintenance Planning Considerations

(1) Requirements and Capabilities. Units at all levels within the LF determine maintenance requirements and their organic capabilities to meet them. Shortfalls in

required capabilities are identified during the planning process, and higher and/or supporting unit headquarters are so advised. Action to correct unsatisfactory conditions through the assignment of additional resources or the realignment of responsibility may be necessary.

(2) Estimate of Requirements. An estimate of maintenance requirements includes an in-depth examination of each of the following:

(a) Personnel, by quantity and skill level.

(b) Repair parts, both consumable and secondary repairable items required for operating stocks and safety stocks.

(c) Tools and equipment, by type, quantity, and location.

(d) Facilities support requirements during embarkation, movement, and rehearsal within the AOA. Includes requirements within beach support areas and CSS areas.

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

(f) Transportation, including lines of communication, equipment recovery and salvage, maintenance contact teams, semimobile facilities and equipment, and distribution of repair parts and materiel.

(g) External maintenance support units or agencies available for support and their capabilities.

(3) Maintenance Facility Construction. Construction of maintenance facilities, their service roads, or helicopter landing sites and the availability of routes of communication are coordinated with transportation and engineer planners.

(4) Transportation for Maintenance Requirements. Plans for moving semimobile facilities, recovery operations, movement of maintenance contact teams, and the distribution of repair parts are coordinated with motor transport, aviation (helicopter), and supply planners, as appropriate.

d. Control. During the initial phases of the assault, maintenance requests are submitted via the TACLOG or landing support elements, as appropriate. Once the CSS organization is established ashore, maintenance requests and control are provided through normal CSS channels.

10. Transportation

a. General. Transportation consists of movement of personnel, supplies, and equipment by water, air, or surface means. Requirements for transportation support are based on two main factors--the character of the operation to be supported and the types and quantities of supplies required in the objective area. Transportation tasks may include unloading and transfer operations at beaches, ports, airfields, and CSS installations, forwarding of supplies and materiel required by landing forces, and the scheduling and operating of transportation means to move personnel and cargo from place to place.

b. Transportation Requirements

(1) Source of Tactical Requirements. Tactical requirements for transportation are derived from the CLF concept of operations and amplified in the concept of CSS.

(2) Requirements. Requirements for transportation support are normally stated in tons of supplies and equipment, gallons of fuel, or number of personnel to be moved during a particular period and the distance to be moved. Requirements for bulk fuel facilities, vehicles, ships, and aircraft are derived from an analysis of the personnel and materiel to be carried, the distances involved, the terrain to be traversed in the case of land transportation, and the means available.

(3) Overall and Detailed Requirements. Requirements for transportation support are classified as overall or detailed, according to the stated purpose.

(a) During the initial planning for an operation, overall requirements for transportation support are stated to provide planning guidance with respect to:

1. The allocation of assault shipping (assault echelon and assault follow-on echelon) required to bring personnel, equipment, and supplies to the AOA and to maintain the levels prescribed for the LF.

2. The allocation of transportation means for engineer and service support necessary to maintain the transportation system ashore, as well as the requirements for combat service units to operate it.

(b) Detailed requirements for transportation support are determined concurrently as tactical and logistic plans evolve. These detailed requirements state the specific numbers, types, and capacities of vehicles, bulk fuel facilities, and aircraft required at specific times and places. They also state the schedules of operation and routes to be traversed. Based on these requirements, plans for the employment of engineer, maintenance, service, and control personnel can be developed. Particular consideration must be given to the supply of aviation fuel. Although initiating air operations ashore through the use of packaged fuel is possible, continuing supply of aviation fuel requires the installation of bulk fuel systems and a high-capacity mobile liquid fuel transport capability ashore as soon as possible. Delivering fuel ashore is a naval responsibility; however, delivering and transporting the fuel to internal fuel storage distribution areas at the air facilities is a LF responsibility. The demarkation line between Navy and LF responsibilities for bulk POL supply is the high water mark at the shore.

c. Transportation Planning Responsibilities

(1) Predeployment. The CLF is responsible for transportation planning pertaining to movement of landing forces and assault supplies to embarkation areas. The CATF schedules shipping into the embarkation areas in accordance with loading schedules developed in coordination with CLF. Embarkation plans are developed that ensure efficient use for all available space consistent with the prerequisite that ships must be able to off load in consonance with the landing plan.

(2) Movement to the Objective Area. The CATF plans for the movement of assault shipping to the AOA. Because of different speeds of ships and the requirement for defense against air and surface or subsurface attack, ships carrying the LF may be divided into several movement groups.

(3) Commander, Amphibious Task Force, Transportation Requirements. The CATF coordinates requirements for transportation support from outside the objective area.

(4) Transportation in the Objective Area

(a) The CLF, in coordination with the CATF, plans for the employment of helicopters, landing craft and ships, and assault amphibians in the ship-to-shore movement.

(b) The CATF provides the Navy means for the ship-to-shore movement and schedules the movement of ships to support the landing plan and the plan for landing supplies and ensures that sufficient lighterage to unload it is available.

(c) Ashore, the CLF plans the balanced employment of all means of transportation, including trucks, helicopters, assault amphibians, and the bulk fuel system. The CLF establishes priorities for movement and ensures adequate movement and traffic control within the LF area of responsibility. This ensures optimum utilization of transportation means and facilities.

(d) The CSS plan makes provision for:

1. Transportation means to be landed with assault units.
2. Loads to be carried in each vehicle upon landing.
3. The assignment of transportation units to combat, combat support, or CSS elements of the LF.
4. Traffic control measures for transportation means ashore

d. Planning Considerations. In addition to other logistic factors discussed in paragraph 6 above, transportation planning is influenced by:

(1) Adequacy of LOCs. The adequacy of the lines of communication (LOC) in the AOA (roads, rail, and waterway).

(2) Degradation of LOCs. The extent to which the available LOC will be degraded by weather, enemy action, and use.

(3) Bulk Fuel and Water. The extent of requirements for handling bulk fuel and water.

(4) Organic Assets of the Landing Force. To conserve helicopters, ground transportation is used whenever possible. However, the frequent shifting of combat elements and the distances to be traveled to provide their support, coupled with an undeveloped or extensively damaged road net, may require the extensive use of helicopters for logistic support.

11. Medical Support. Medical service in support of the LF has as its principal goal the maintenance of the strength of that force through the prevention and control of disease and the restoration to duty of as many sick and injured as possible. Casualties whose medical needs exceed the treatment capabilities available or whose periods of recovery exceed the established evacuation policy are stabilized and prepared for movement to other medical treatment facilities.

a. General

(1) Commander, Landing Force. The CLF identifies and consolidates LF medical support requirements as early as practicable in the planning phase and transmits those requirements to the CATF.

(2) Landing Force Capabilities. Medical service elements of the LF will generally include the means to establish medical treatment facilities ashore to provide:

(a) Casualty collection, triage, and evacuation.

(b) Emergency treatment.

(c) Emergency surgery and stabilization.

(d) Temporary hospitalization.

(e) Preventive medicine.

(f) Emergency dental care.

(3) Amphibious Task Force Capabilities. Medical service capabilities of the ATF may vary with the composition of the force but will generally include, as a minimum, medical treatment facilities afloat to provide emergency treatment, resuscitative surgery and stabilization, temporary hospitalization, and dental care.

(4) Primary Emphasis. Landing force medical elements place primary emphasis on the performance of lifesaving measures, resuscitation, stabilization, and prompt evacuation of casualties.

(5) Hospitalization. ATF ships that have been supplementally manned and augmented provide hospitalization support during amphibious operations.

(a) The CATF designates specific ships, usually LHAs and LPHs, to serve as Casualty Receiving and Treatment Ships (CRTS).

(b) Other ships of the ATF may be designated to provide medical support to the LF.

b. Medical Planning Responsibilities. The medical support responsibilities and medical planning responsibilities of the CATF and the CLF are listed in paragraph 1062 of JCS Pub 3-02. The extent to which the LF must rely on medical support from the ATF after embarkation, during movement, and in the assault prior to the establishment of medical treatment facilities ashore requires a high degree of coordination and cooperation between medical staff officers. Medical planning considerations are listed in paragraph 1061 of JCS Pub 3-02. Medical service planning is as specific and detailed as possible to ensure a responsive and coordinated medical support system. Although a wide variety of factors must be considered by the medical planner, the principal determinants of medical support requirements are the casualty estimate and the evacuation policy.

(1) Casualty Estimate. The casualty estimate is prepared in accordance with standard planning factors prescribed in FM 101-10-1, "Staff Officer's Field Manual," or in accordance with current operation plans. The estimate is normally a coordinated effort of the personnel and operations staffs. The LF medical officer may contribute to the estimate in such matters as the health of the command, diseases and disease vectors in the AOA, and physical and psychological aspects of the planned operation.

(2) Evacuation Policy. Command decision, indicating the length in days of the maximum period of noneffectiveness that patients may be held within the command for treatment. Patients who, in the opinion of responsible medical officers, cannot be returned to duty status within the period prescribed are evacuated by the first available means, provided the travel involved will not aggravate their disabilities (JCS Pub 1-02).

(a) The evacuation policy for the theater of operations is prescribed at higher levels. The evacuation policy for the AOA is established by the CATF in conjunction with the CLF. The evacuation policy provides a guide in determining whether patients should continue to be temporarily hospitalized or evacuated from the AOA.

(b) The use of any specific evacuation policy for the AOA serves only as a guide for medical planning. The evacuation policy must remain flexible to meet the changes in demand placed on the limited medical treatment capability initially available in the AOA.

(c) The length of the evacuation policy has little effect on medical personnel requirements. The most demanding medical support is needed during the casualty's admission, initial workup, resuscitative surgery and stabilization. This manpower-intensive effort is the same whether the evacuation policy is 5 or 15 days.

(d) It is advantageous for the commander to be able to apply the longest practicable evacuation policy. This reduces demands on transportation resources for casualties and their replacements and retains as many trained and experienced personnel as possible.

(3) Support of Other Forces. In addition to the medical support requirements identified in the casualty estimate, the medical planner must consider potential workload generated by attached units of other Services and allied forces, where appropriate; prisoners of war; and noncombatant personnel when applicable.

c. Medical Service Plan. The medical plan is published as Appendix 3 (Medical) to Annex D (Logistics/Combat Service Support) to the LF plan. The appendixes provide detailed information on all aspects of medical support. For example plans, see FMFM 4, Combat Service Support, and FMFM 4-50, "Health Service Support."

d. Casualty Evacuation

(1) Responsibilities. Casualty evacuation responsibilities during LF operations are shared by the CATF and CLF.

(a) The CATF is responsible for seaward evacuation from the beach and coordination of evacuation from the AOA by ship or air.

(b) The CLF is responsible for evacuation of casualties from the front lines to LF medical units and to beach evacuation areas.

(2) Contents of Evacuation Plan. Plans for casualty evacuation must be well defined and widely disseminated. These plans must include as a minimum:

(a) Identification of casualty receiving and treatment ships (CRTS).

(b) Locations of medical treatment facilities ashore.

(c) Communications procedures for casualty evacuation coordination.

(d) Provisions for mass casualty evacuation.

(3) Aircraft Evacuation Preferred. As a matter of policy, the preferred mode of casualty evacuation is the aircraft. The speed, range, and flexibility of aircraft serve to enhance the medical support capability of the landing force. However, casualty evacuation plans must not be aircraft-dependent and must include provisions for maximum use of ground and surface means.

(a) CATF plans include provisions for medical boats in support of each colored beach. If the sea echelon plan stations afloat medical treatment facilities in distant sea operating areas, allocation of appropriate resources for casualty movement must be considered.

(b) LF plans include provisions for the earliest possible landing of evacuation personnel and ambulances in support of surface-landed forces and for the pickup of casualties in helicopter-landed forces by returning aircraft.

(4) Chain of Evacuation. Casualty evacuation experience during LF operations has demonstrated that there is no normal or typical chain of evacuation through which a casualty is moved from the place where wounded or injured to the medical treatment facility best suited to meet specific treatment needs. Past experience in no way eliminates the need for a functioning and coordinated chain of evacuation to enhance the casualty's chances for survival and to effectively employ available transportation means. In planning casualty evacuation, the guiding principles include:

(a) Each successive echelon of care in the medical support system has greater treatment capability than the preceding echelon.

(b) Each casualty should move through the medical support system only as far as needed to meet his specific treatment needs.

(c) Medical vehicles should be substituted for nonmedical vehicles at the earliest opportunity.

(d) Patient movement between medical treatment facilities is usually administrative in nature and can be preplanned.

e. Medical Regulating

(1) Medical Regulating. Medical regulating is the administrative control and coordination of patients evacuated to treatment facilities capable of providing appropriate medical care. Medical regulating is a management system that ensures the best match of medical needs with available medical capabilities.

(2) Medical Regulating Agency

(a) The CATF, in conjunction with the CLF, is responsible for the establishment of procedures for the medical regulating of casualties in the AOA. The control mechanism established by the CATF is known as the Medical Regulating Agency (MRA). The MRA is responsible for coordinating casualty evacuation between the medical treatment facilities of the LF ashore, and to and between CRTS.

(b) The MRA includes the ATF medical regulating control officer, a medical administrative officer who controls and coordinates seaward evacuation. He is normally located on the primary control ship as a member of the Navy control organization.

(c) The primary LF representative to the MRA is the LF medical regulating control officer, located ashore in the CSS operations center.

(d) Functions of the MRA include:

1. Maintaining inventory of locations and availability of operating rooms, beds, and medical/surgical specialty teams on various treatment ships.
2. Maintaining inventory of locations and capabilities of treatment facilities established ashore.
3. Directing or recommending casualty destinations to medical evacuation vehicles.
4. Monitoring medical materiel, blood and blood products, and medical personnel replacement requirements.
5. Consolidating patient movement requests for casualties requiring onward evacuation.

f. Hospitalization

(1) Initial Hospital Support. Hospitalization support of LF operations is provided initially in ships of the ATF and by medical elements of the landing force when they are established ashore. In either instance, the

staff and equipment of these medical treatment facilities limit the hospitalization mission to the temporary holding of LF casualties. Overloading is avoided to ensure that the capability to support current and future operations is not degraded.

(2) Follow-on Hospital Support. Follow-on hospitalization and treatment support of the landing force is provided by Navy support elements such as fleet hospital system components or hospital ships.

12. Miscellaneous Services. The requirement for other services associated with CSS vary widely with the nature of the operations. Generally, planning for these services does not differ significantly in the amphibious operation. Considerations that apply to several of the areas are discussed in the following paragraphs.

a. Automated Data Processing Support. The usefulness of automated information systems and the reliance on automated data processing (ADP) support are such that in many cases there is no practical manual alternative to assist the commander in his responsibilities. ADP support for the landing forces is categorized as tactical or administrative.

(1) Tactical ADP Support. Tactical ADP support consists of that automated or computerized support provided as an integral part of a C2 system, a weapons system, or such other application directly related to support of tactical operations.

(2) Administrative ADP Support. Administrative ADP support consists of that automated or computerized support related to the general management, maintenance, and welfare of the personnel and materiel of the LF, and any other automated or computerized support not directly related to support of tactical operations.

(3) Planning for ADP Support. ADP support, both tactical and administrative, is a tool available to assist the commander in the accomplishment of his mission and should be considered and planned for by the commander and his staff in all phases of an amphibious operation.

(4) Resources

(a) Deployable automated services centers (ASCs) provide a deployable ADP support capability for the landing force. Deployable ASCs are normally van-mounted suites of computer equipment capable of transport by air, ship, rail, or motor tractor trailer. A deployable ASC may be operated from remote sites outside the landing area, from aboard ship, or from positions ashore in the landing area.

(b) Table of equipment mini computer resources provide an organic ADP support capability to the battalion/squadron/separate company level. This equipment may be operated aboard ship or ashore.

(c) Navy shipboard computer equipment may be available on a limited basis to provide additional ADP support capability.

(5) Planning Considerations

(a) The requirement for data communications must be incorporated into the overall communications support plan. Data communications will be subject to the same restrictions as other forms of communications, such as electronic emissions control measures.

(b) The physical separation of elements of the LF, or the demands of the tactical situation, may limit, interrupt, or preclude interconnection of ADP support resources. This is particularly evident when elements of the LF, dependent on the same ADP support resource, are embarked on separate shipping, and during the assault phase.

(c) The ability of the various fixed and mobile automated service centers to interconnect with one another for necessary support must be determined early.

(6) Priorities

(a) During the planning and embarkation phases, administrative ADP support will be given precedence over tactical ADP support. During these phases, the thrust of administrative ADP support should be toward preparation of the force for tactical operations.

(b) During the movement phase, relative precedence of ADP support should be assigned on the basis of overall value of such support to the LF without regard necessarily to general category.

(c) During the rehearsal and assault phases, tactical ADP support will be given precedence over administrative ADP support. During these phases, only minimum essential, high priority, administrative ADP support functions should be planned.

b. Prisoners of War and Refugees

(1) General. The nature of the amphibious operation may result in the capture of prisoners and detainment of refugees trapped or isolated by the maneuvering LF elements, particularly during the early stages of the assault. At this initial stage, the capability of the LF to identify, segregate, and safeguard prisoners and refugees is minimal. Further, it is not desirable to overburden the combat forces with these responsibilities. Accordingly, adequate instructions must be provided and training conducted in advance in order to minimize the problem.

(2) Planning Considerations

(a) Battalions in the initial landings will designate prisoner of war (POW) collecting points. As soon as a landing support organization is ashore, it is the responsibility of that organization to establish POW collecting points and to collect and evacuate prisoners of war. Military police attached to the LFSP (shore party or helicopter support team/group) carry out this function.

(b) As the landing progresses, regimental and higher POW collecting points will be established. The chain of evacuation of POW is normally from the battalion collecting point to the division collecting point to the landing force POW stockade. Intermediate collecting points are established only to serve as temporary detention points for prisoners selected at the battalion collecting points for further interrogation at the regimental level. They may also serve as the collecting point for any prisoners captured by attached or supporting units operating near the regimental headquarters.

c. Base Development. Based on requirements of the initiating authority or higher level, the CATF may assign specific responsibilities for initiating base development or construction to the CLF. Such base development construction responsibilities as may be assigned to CLF must be coordinated with construction required to support the tactical plan. Naval or Army construction units will normally be required for base construction purposes. Implementing instructions for these responsibilities are contained in LF engineer plans. (See paragraph 1090 of JCS Pub 3-02.)

d. Landing Support

(1) CSS Sustains the Assault. One of the prerequisites for success of an amphibious operation is the rapid buildup of combat power ashore. The development of combat power ashore must be complemented by the buildup of CSS necessary to sustain the assault.

(2) Landing Support. Landing support is an overall term to describe the support functions performed during the initial stages of the amphibious assault prior to the arrival ashore of the normal CSS organizations. The CLF will normally task organize an LFSP to provide critical support.

(3) Categories. Landing support is categorized by the type of movement supported during the ship-to-shore movement:

(a) Waterborne. The task organization to support surface movement is called the shore party team. It includes both landing force and Navy elements. Navy elements are called the beach party.

(b) Helicopterborne. The task organization to support helicopterborne movement is called the helicopter support team. Helicopter support teams/groups are provided by the LF.

(4) LFSP Functions. The LFSP supports the LF during the ship-to-shore movement by assisting in the execution of the landing plan, providing a uniform flow of materiel as required by units ashore, and preventing excessive concentrations of equipment and supplies. LFSP functions include the following:

(a) Facilitate the landing and movement of troops, equipment, and supplies across beaches and into landing zones, ports, and airfields.

(b) Assist in the evacuation of casualties and prisoners of war during the early stages of the assault.

(c) Assist in the beaching, retraction, and salvage of landing ships, craft, and amphibious vehicles.

(5) Sources of Landing Support. Both the Navy and Marine Corps maintain forces specifically organized, trained, and equipped to provide the nucleus for landing support. These organizations are the Naval Beach Group and the Marine Corps landing support battalion, described below:

(a) Naval Beach Group and Landing Force Support Party. A naval beach group is a permanent Navy organization consisting of a commander, his staff, and three units, a beachmaster unit, an amphibious construction battalion, and an assault craft unit. The group provides the beach party, pontoon causeway teams, self-propelled pontoon barge, elements for lighterage or transfer line operations, warping tug teams for causeway tending and salvage, ship-to-shore bulk fuel elements, and an underwater wire communications system from primary control ship to the beach. The group is also capable of limited beach improvements required to facilitate the landing and evacuation of casualties and prisoners of war. The naval beach group is an administrative organization and never functions as an operational unit. For operational employment, it is task organized to accomplish specific tasks for the landing support element. This task organization is called a shore party team. The shore party element is an integral part of the LF shore party and is under operational control of the landing force support party commander. The commander, naval beach group, retains administrative control. For additional information on the naval beach group, see NWP 22-5/FMFM 4-2, "The Naval Beach Group."

1. Beachmaster Unit. This unit is the nucleus around which the naval beach unit is organized. The unit is organized administratively and tactically into a headquarters and two beach parties. Each group consists of a headquarters and two beach party teams. The LF beach party headquarters provides the control and supervision for beach party operations. It is necessary that the beachmaster unit be augmented with naval specialist units before it can function as a LF beach party. The commanding officer of the beachmaster unit is the LF beach party commander and is under the operational control of the LF support party commander.

2. Amphibious Construction Battalion. The Amphibious Construction Battalion (PHIBCB) is organized administratively into a headquarters company, equipment company, construction company, and three pontoon companies. For operational employment, the companies are task organized based on assigned missions. The mission of the battalion is to support the beach party during the initial assault and early phases of the amphibious operation. The battalion is organized and trained to provide and operate causeways, self-propelled pontoon barges, warping tugs, and ship-to-shore bulk fuel systems. In addition, it provides beach salvage teams, transfer barges, and assistance in eliminating shoreline obstacles. It also provides assistance in the construction of unloading points and ramps, limited construction on the beach, and general beach improvements.

3. Assault Craft Unit (Squadron). Assault craft units or squadrons provide landing craft to assist in the ship-to-shore movement and can be organized as an assault craft squadron, which is organized administratively into three assault craft divisions, or as an assault craft unit, which is organized into a headquarters and task organization tailored for specific operations. The squadron or unit has organic facilities for administration, operations, maintenance, boat repair, and

bivouac. Landing craft are used primarily to augment the lighters carried in assault shipping. In addition, specialized craft are provided for purely naval tasks such as causeway tenders, ship-to-shore bulk fuel transfer boats, and salvage boats.

(b) Navy Cargo Handling and Port Group. Employment of MSC or MSC-chartered shipping in support of amphibious operations presents unique discharge and control problems. The Navy cargo handling and port group (NAVCHAPGRU) provides advisers and supervisors for planning and execution of cargo handling from MSC or MSC-chartered shipping. Additional information is provided in JCS Pub 3- 02.2, "Amphibious Embarkation," and NWP 22-3/FMFM 1-8, "Ship-to-Shore Movement."

(c) Sea, Air, and Land Team. The hydrographic section of the beach party is provided by the Sea, Air, Land (SEAL) team. SEAL teams may have assignments early in the operation with the advance force. They generally do not report to the beach party until shortly after H-hour on D-day. After completing their pre-H-hour assignments, SEAL team personnel continue to clear obstacles from the beach under the direction of the beach party commander.

(d) Landing Support Battalion. The Marine Corps landing support battalion, organic to the force service support group (FSSG), has the capability to provide the nucleus of landing support for large-scale operations.

1. Organization. The battalion includes three landing support companies, each capable of operating a colored beach or helicopter landing zone during the amphibious assault. In addition, a beach and terminal operations company is capable of managing cargo throughput operations. The beach and terminal operations company includes three longshoreman platoons and an aerial delivery platoon. The battalion also contains a landing support equipment company.

2. Concept of Employment. Elements of the landing support companies of the battalion are augmented with other elements through task organizations to provide the initial CSS for amphibious or helicopterborne operations requiring substantial CSS in excess of the supported unit's organic capability. The beach and terminal operations company is augmented to provide for management and operation of ports, railheads, airheads, and other cargo terminal operations, as required.

3. For additional information, see FMFM 4-3, "Landing Support Operations."

13. Organization of Landing Force Support Party

a. Organizational Factors. The LFSP is a temporary task organization composed of LF and Navy units. It may include units or detachments from the CSS, aviation, or ground combat elements of the LF. The composition of the LFSP is determined by the organization and mission of the LF and the plan for landing. It is also dependent on the number of beaches and/or helicopter landing zones and the size of the forces that pass through the beaches and landing zones. The LFSP is relieved by the appropriate CSS organization when that organization is phased ashore.

b. Structure. The LFSP organization will normally include both shore party and helicopter support teams in order to support landings by waterborne and helicopterborne units. The general organization, principles of planning, and techniques of controlling the operation are the same for both elements. Although the organization and structure of an LFSP vary widely, a basic structure is depicted in Figure X-1.

c. Composition

(1) Landing Force Support Party Headquarters. The LFSP headquarters will normally be formed when a requirement exists for more than one task-organized support element; e.g., one shore party group, and one helicopter support group. The headquarters provides necessary command and control capability to coordinate the separate elements. The LFSP headquarters may include a command and administrative section, medical section, military police section, communications section, motor transport section, and liaison section.

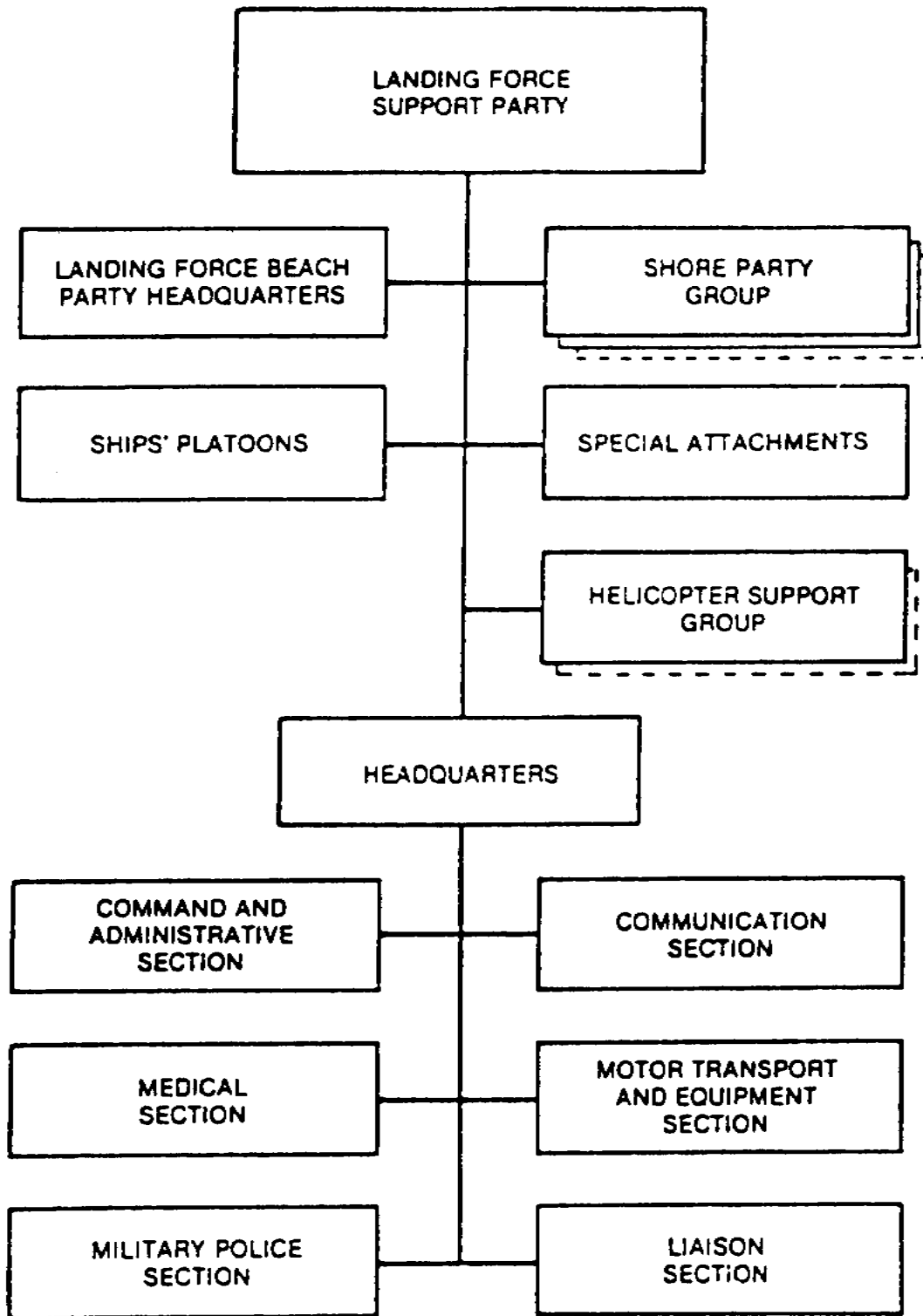


Figure X-1. Organization of the Landing Force Support Party.

(2) Shore Party. The shore party is a task organization formed and equipped to facilitate landing and movement of waterborne troops, equipment, and supplies and evacuation of selected casualties and prisoners of war.

(a) The shore party group provides CSS to an RLT landing over a colored beach. It is subordinate to the LF support party when that organization is established ashore.

(b) The shore party team provides CSS to a BLT landing over a numbered beach. It is subordinate to a shore party group. Teams are consolidated under the group when its headquarters is established ashore. See Figure X-2 for typical organization.

(3) Beach Party. The beach party is the Navy component of the shore party. It is made up of Navy elements predominantly from the naval beach group.

(a) In determining the composition of the beach party in an operation, the CLF, prior to activation of the shore party, estimates in detail the naval assistance required. He makes these requirements known to the CATF, who, in turn, estimates his own requirements for the naval component of the shore party. The CATF then task organizes the beach party to satisfy both requirements.

(b) See Figure X-2 for typical composition of a beach party team within the shore party team organization.

(c) Landing Force Beach Party Headquarters. The LF beach party headquarters includes a command and administrative section and a communications section. Upon arrival ashore, this headquarters assumes control of all beach party group operations then in effect. In addition, it maintains contact with forces afloat and maintains liaison with the transport group commander and other appropriate Navy task component commanders. It maintains a record of the positions of various ships and the times at which they are to depart and arrive from the sea echelon. The LF beach party commander normally is the senior Navy line officer on the

beach. Other Navy units operating on the beach report to him for coordination and control. The LF beach party commander must perform certain duties ashore for the transport group commander without referring to the landing support commander except on an informational basis. The initially decentralized beach party operations are consolidated simultaneously with consolidation of the various shore party echelons.

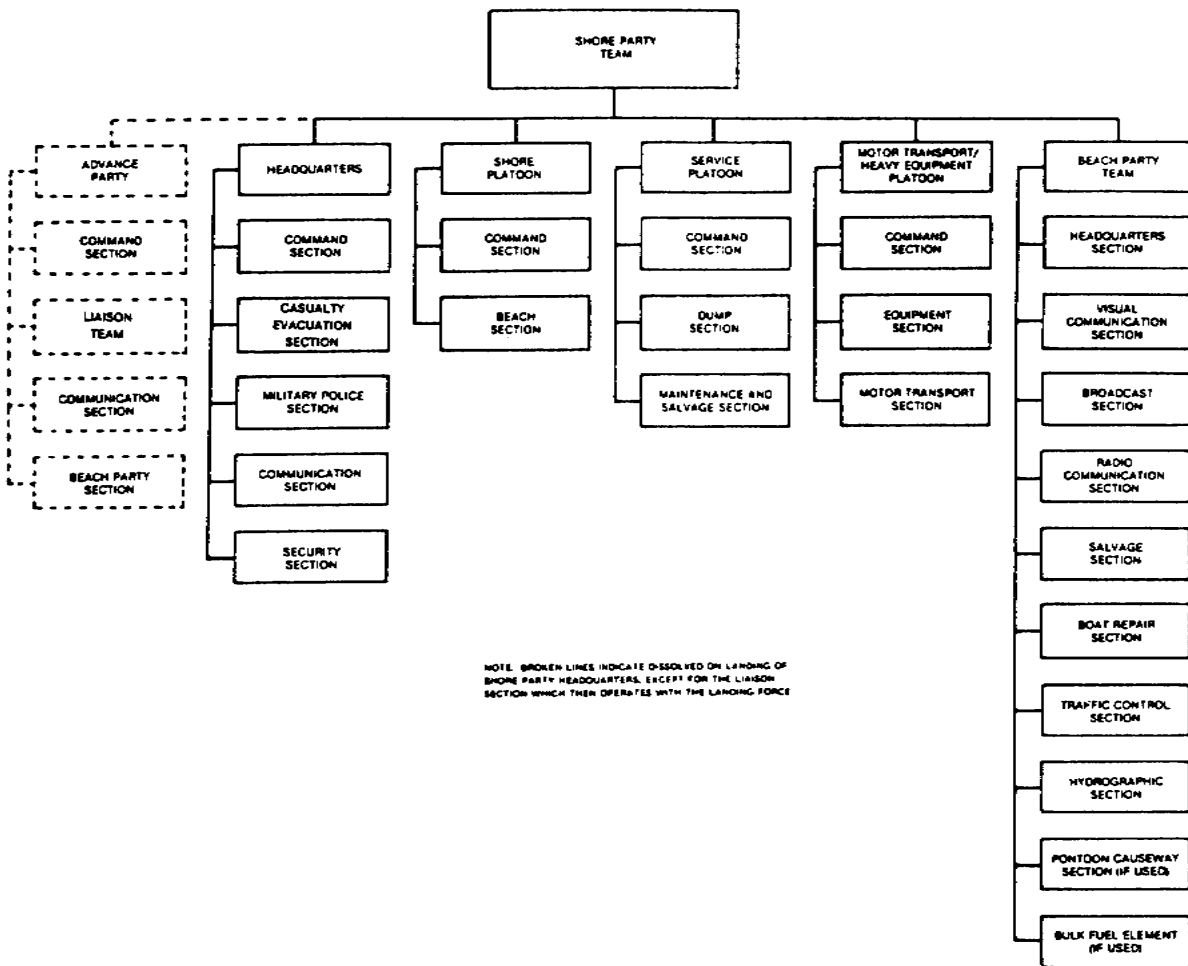


Figure X-2. Shore Party Team.

Figure X-2. Shore Party Team.

(4) Helicopter Support Team. The helicopter support team is a task organization formed and equipped for employment in a LZ to facilitate landing and movement of helicopterborne troops, equipment, and supplies and evacuation of selected casualties and prisoners of war. The helicopter support team is initially a part of the helicopterborne troop unit which it is designed to support. It performs functions within a LZ that are similar to, and parallel to those accomplished by the shore party in the beach support area.

(a) A helicopter support team (HST) supports a BLT, and a helicopter support group supports an RLT or similar size organization. There is no standard organization for the team. The nucleus for the team may come from the tactical ground unit or a landing support company. Normally, when a CSS buildup is planned in the vicinity of the LZ, the nucleus of the HST is drawn from the landing support company. With no buildup planned, the nucleus comes from the service elements of the helicopterborne unit. The initial helicopter terminal guidance for the early assault waves may be provided by reconnaissance units, if required. The HST normally consists of an advance party, headquarters, helicopter control element, and LZ platoon as shown in Figure X-3.

(b) For additional information on helicopter support operations, see FMFM 6-21, "Tactical Fundamentals for Helicopterborne Operations."

(5) Ships' Platoons. When replacement draft personnel are available, they are assigned to ships' platoons for those amphibious ships carrying supplies and equipment not organic to organized units. When replacement draft personnel are not available or the ships contain only supplies and equipment organic to the embarked unit or units, the ships' platoons are formed from available assets and trained to load and unload shipping assigned to the LF. When they have completed unloading their ships at the objective area, they are available for reassignment. Replacement draft personnel may be assigned to unload assault follow-on shipping, utilized to assist in beach support areas, or released as

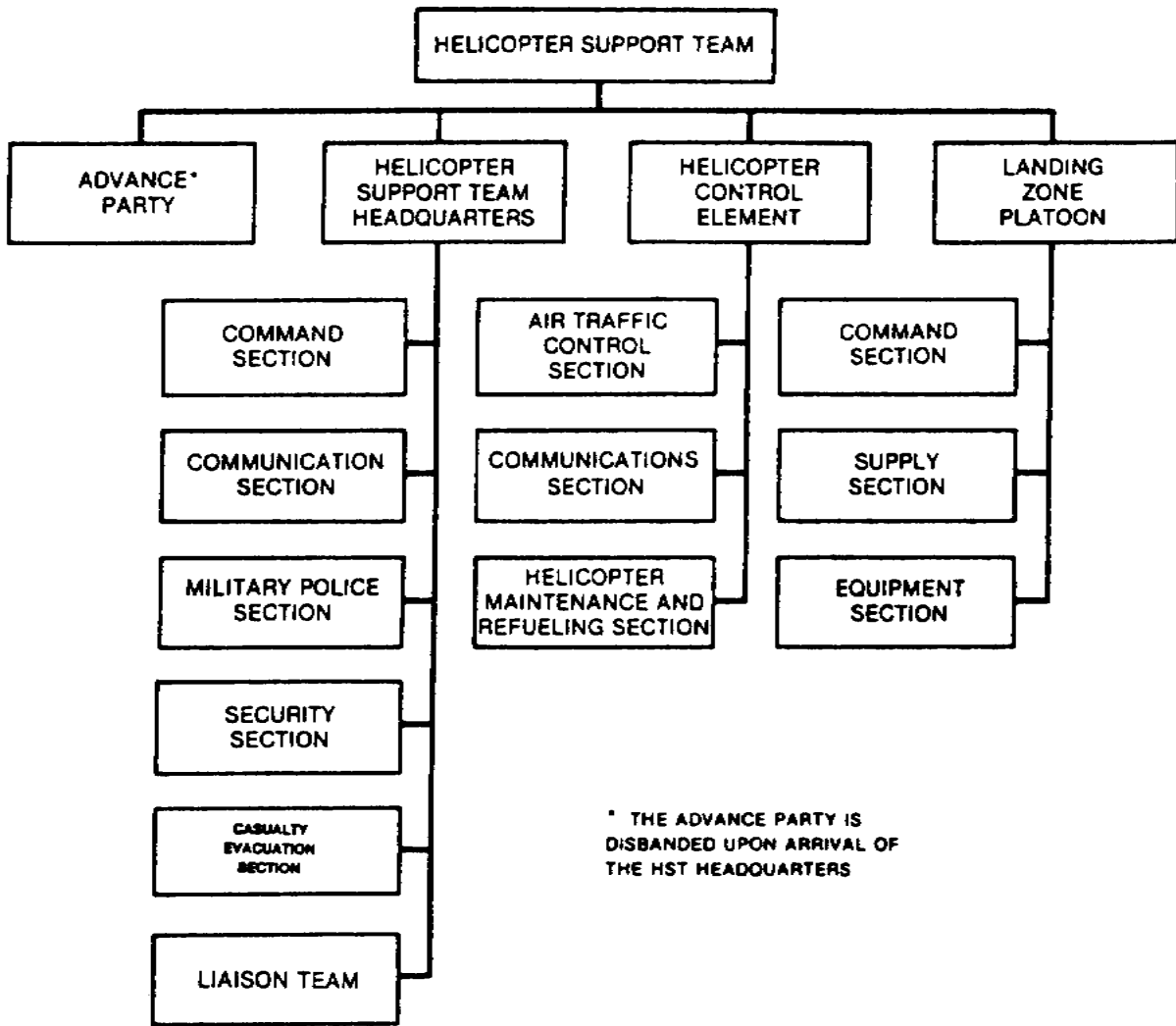


Figure X-3. Helicopter Support Team.

replacements for tactical units. Personnel from embarkation teams revert to their parent unit. In operations of short duration involving back loading, the same ships' platoons will be utilized for back loading when possible.

d. Planning Considerations

(1) Considerations. Many considerations affect accomplishment of the landing support mission. These factors are carefully considered in landing support planning. The principal considerations include:

- (a) Early detailed analysis of the landing area.
- (b) Detailed planning for organization of beach support areas and LZ support areas.
- (c) Combat loading of each assault ship.
- (d) Employment of the sea echelon.
- (e) Adequate communications between tactical units, control elements, and landing support elements.
- (f) Defense requirements of BSAs and landing areas.
- (g) Composition of the assault echelon (AE) and assault follow-on echelon (AFOE).
- (h) Enemy activity and installations in the objective area.
- (i) Scheme of maneuver and landing plan of the LF.
- (j) Hydrographic conditions off the beaches and terrain inland from the beaches to include LZs.
- (k) Plans after seizure of the force beachhead line.
- (l) Quantity and types of supplies to be landed from assault shipping.
- (m) Availability of personnel, supplies, and equipment for shore party operations.
- (n) Plans required for handling prisoners of war.

(o) Casualty evacuation and disaster recovery plans.

(p) Concept of CSS.

(2) Landing Force Support Party Plan. The LFSP plan is the formal statement of the CLF that provides information and instructions required by the shore party or helicopter support team commanders to implement the commander's decision and concept of operations for a specific mission. It is normally published as an appendix to the logistics/CSS annex.

(3) Command Relationships. Command of the LFSP is a function of the CLF. When directed by the CATF, those elements of the naval beach groups designated to form the beach party report to the CLF for planning of the operation. The CLF will direct the LFSP commander (or other subordinate commanders when appropriate) to conduct the planning. Operational control of the beach party elements may be passed to the CLF at this time, or later, as the CATF may direct. Naval beach party commanders, as subordinates of the appropriate LFSP commanders, retain command of the Navy elements ashore at all times.

(4) Employment. The responsibility for embarking and landing the landing support units rests with the tactical unit supported; for this reason, the landing support units are attached to the tactical unit supported for embarkation and landing purposes only. The buildup of the LF support party ashore parallels the tactical buildup ashore. Landing support operations begin with the landing of the advance parties and continue until the operation is completed or until the parties are relieved. Throughout the operation, the landing support task organization changes as required to meet the situation until the operation is terminated or the LF support party is relieved of its responsibilities by the CSS element commander. The operation of shore party and helicopter support is described below in general terms:

(a) Shore Party Team Operations. The pattern of shore party team operations varies with each operation according to the plan for landing and the scheme of maneuver ashore. The shore party team advance party, including the shore party and beach

party team commanders, is the first service support element ashore. It reconnoiters the beach and road net and verifies tentatively selected sites for various beach installations. A communications section establishes contact with the appropriate TACLOG and with the shore party liaison personnel at BLT headquarters. The command section marks the beach center and flanks and begins development of the BSA. During this initial stage, the shore party team organizes the BSA, establishes communications, and locates dump sites inland from the beaches. It is important that congestion be avoided at this time when only troops and equipment are moving across the beach. Unloading operations are selective and limited to high priority materiel. Support operations are decentralized. The primary source of CSS for tactical elements is aboard ship. Only those service and support units that operate in direct support of combat units are landed before suitable CSS operations areas are uncovered and secured. At this time, the primary operation on the beach is the preparation and maintenance of beaching points and access roads. Operations of CSS elements in the BSA are directed by the shore party team commander. He allocates areas to all units in the BSA and coordinates local defense and security. Shore party team personnel unload, segregate, store, safeguard, and issue supplies as they are brought ashore. Facilities for limited repairs to equipment are established. Evacuation stations are set up on the beach and in the BSA. As the tactical situation develops and additional shore party equipment, personnel, and supplies are landed, minimum preplanned levels of supply are established ashore. Shore party team operations are then centralized under a shore party group. Consolidation of control usually does not involve physical consolidation of CSS installations.

(b) Helicopter Support Team Operations. HST operations ashore parallel those of the shore party team. The advance party lands early, makes its reconnaissance for the CSS installations, establishes the HST advance command post, and places unloading point markers identifying the appropriate landing sites. These markers are the same as those used by the shore party task organizations. They indicate where the various

categories of supplies are landed and from where casualties are evacuated. Communications are established as soon as possible between the HST in the LZ, the TACLOG aboard the helicopter transport ship, the tactical unit being supported, the helicopter units subsequently arriving in the LZ and in adjacent LZs, and the LF support party commander. Emergency supplies and troop serials required out of sequence are requested by the tactical unit through the HST commander. However, the overall complexity of helicopterborne movement requires that changes to the assault schedule be kept to an absolute minimum.

CHAPTER XI

EMBARKATION AND DEPLOYMENT PLANNING

1. Introduction

a. General. In amphibious operations, the embarkation phase is the period during which the forces, with their equipment and supplies, are embarked in the assigned shipping. The modern large-scale amphibious operation will involve deployment of the landing force (LF) from various separate locations and will require both airlift and sealift support. Thus, the commander, landing force (CLF) is concerned with the broader aspects of planning the deployment of his entire force into the theater of operations. This section discusses principles applicable to both sealift and airlift.

b. Embarkation Phase. The embarkation phase encompasses the orderly assembly of personnel and materiel and their subsequent loading aboard ships and/or aircraft in a sequence designed to meet the requirements of the LF concept of operations ashore. (See Chapter VI, subparagraph 5b(2).)

c. Developments Affecting Embarkation Planning. Ongoing developments and improved techniques for projection of combat power ashore and the subsequent support of the LF through enhanced mobility and sustainability systems require continued emphasis on flexible and responsive embarkation planning. Examples of such developments are: sea echelon concept, amphibious assault ship modernization, LCAC, maritime pre-positioning, and logistics over the shore techniques.

2. Purpose and Scope. This section provides general guidance on embarkation and deployment planning for movement by sea and by air from the perspective of the CLF. The majority of the section is devoted to embarkation planning for sealift. This material parallels and complements Chapter 12 of JCS Pub 3-02. For additional information, consult the following references:

- a. JCS Pub 3-02.2, "Joint Amphibious Embarkation."
- b. ATP 39, "Amphibious Embarkation."
- c. FMFM 4-6/AFR 76-6/FM 55-12/OPNAVINST 4630.27, "Movement of Units in Air Force Aircraft."

3. General

a. Deployment Planning. General plans for deployment may be contained in various operation plans or contingency plans prepared in accordance with the Joint Operations Planning System (JOPS). These theater-level plans are validated and refined during the planning stage of the operation in accordance with JOPS procedures. From the LF perspective, deployment planning includes the following actions:

(1) Determination of total lift requirements for troops, equipment, and supplies.

(2) Determination of lift availability by type (airlift, amphibious shipping, and MSC shipping).

(3) Determination of staging bases, airfields, roads, railroads, and other facilities available for the deployment.

(4) Organization of LF troops, equipment, and supplies into temporary organizations for embarkation, movement, and unloading/landing.

b. Echelonment of Forces

(1) Under ideal conditions, the CLF would reach the amphibious operations area (AOA) with the preponderance of his force embarked aboard amphibious assault shipping. LF fixed-wing tactical aviation would deploy into air bases within striking distance of the objective area. This ideal situation; however, is unlikely to exist except for relatively small-scale operations. Therefore, in the majority of amphibious assaults, the forces that must be projected onto a hostile shore and sustained in battle for an extended duration will require significant strategic and tactical airlift and sealift. Further, the amphibious task force (ATF), in many cases, will be in competition for limited transportation resources with other forces during the deployment.

(2) During deployment planning, decisions are reached to provide for a time-phased echelonment of troops, equipment, and supplies into the objective area. Echelonment is required not only because of the limited availability of airlift and sealift but also for control purposes to ensure both the orderly buildup of forces

ashore and their sustainment. Normally, four separate transportation echelons are required for the amphibious assault: assault echelon (AE), assault follow-on echelon (AFOE), and follow-up.

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

(b) The assault follow-on echelon (AFOE) is required to support and sustain the assault. In order to accomplish its purpose, the AFOE is normally required in the objective area no later than 5 days after commencement of the assault landing. Shipping assigned to the commander, amphibious task force (CATF) is called assault shipping. When sufficient amphibious assault shipping is not available, a portion or all of the AFOE may be transported in MSC or commercial shipping. AFOE shipping may arrive on a time schedule, with some elements required as early as D-day, or remain in a specified operating area until called forward by the CATF as requested by the CLF.

(c) Follow-up personnel, equipment, and supplies may be transported by sealift or airlift. This echelon provides the logistics pipeline to sustain the LF. In addition, the follow-up echelon may provide forces for base development and tactical forces for subsequent operations ashore. Follow-up forces and the ships carrying these forces are not a part of the ATF.

c. Deployment Decisionmaking Process

(1) The initiating directive will normally contain a listing of forces assigned, including transportation assets for sealifted forces. The initial task of the CLF is to compare, in gross terms, what must be lifted with the lift capacity of the transportation assets

allocated. The initial, notional lift requirements are continuously refined to develop the detailed actual lift requirements of the forces involved. This process is conducted in coordination with other staff agencies until the detail required to complete deployment planning has been developed.

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

(3) No formally established procedures serve to assist the CLF in determining which units, supplies, and equipment are to be moved in a specific echelon. The decisions are normally dictated by operational considerations or orders. For example, the enemy situation may demand the early landing of mechanized combined arms task forces in strength or early establishment ashore of the LF aviation element.

(4) CLF's primary concern in most cases will be to place maximum combat power in the amphibious shipping of the assault echelon, together with adequate CSS and supplies to sustain the LF during the initial stages of the assault pending the arrival of the AFOE. When shipping is limited, commanders at all levels must make difficult choices of what to take, what to leave behind, and what to assign to each echelon. There are no absolute truths in the selection process since each situation differs. The following examples illustrate the types of decisions that may be required:

(a) Units embarked in the assault echelon need not embark with their full complement of equipment. For example, BLTs may not require all their galley equipment for the assault. The same may be said of other organizations, including higher headquarters.

(b) The LFSP may be the only portion of the CSS element embarked in the assault echelon and available for support until arrival and unloading of the assault follow-on echelon. Its task organization must be carefully received to ensure that the required capabilities are present.

(c) In terms of supply, priority is normally given aboard AE shipping to petroleum, ammunition, and medical items (Classes III(W) and III(A), V(W) and V(A), and VIII).

d. DOD Transportation Agencies. Several DOD transportation agencies may influence the movement of amphibious assault forces from their CONUS bases to the amphibious objective area.

(1) Joint Transportation Board. The Joint Transportation Board (JTB) exercises cognizance over all DOD transportation assets and is made up of flag officers from the Joint Staff and each military Service. The Deputy Director for Logistics (Strategic Mobility), Joint Staff, is the chairman. The JTB maintains cognizance over the existing and forecasted requirements and capabilities of all movement modes. Problems and conflicts that cannot be resolved by USCINTRANS are brought to the JTB for resolution.

(2) US Transportation Command. USTRANSCOM is the agency responsible for the management and coordination of the strategic transportation assets. Figure XI-1 reflects the organization of USTRANSCOM.

(a) USCINTRANS. The commander of the unified command who support CINCs with strategic transportation. USCINTRANS:

1. Provides common user military and civilian airlift, sealift, terminal services and in-land transportation through his components for deployment, employment, and sustainment of US forces on a global basis.

U. S. TRANSPORTATION COMMAND		
MILITARY SEALIFT COMMAND	MILITARY TRANSPORTATION MANAGEMENT COMMAND	MILITARY AIRLIFT COMMAND

Figure XI-1, Organization of USTRANSCOM.

2. Is responsible for the transportation aspects of worldwide mobility planning, including refinement, administration, and operation of the joint deployment system (JDS).

3. Is responsible for the development and refinement of joint transportation procedures and directives, and participates in the refinement of time-phased force and deployment data (TPFDD).

4. Provides deployment data to the NCA, Joint Chiefs of Staff, and supported and supporting commands and agencies.

5. Participates in transportation allocation decisions.

(b) Military Sealift Command. MSC, a transportation component command of USTRANSCOM, is the Executive Director for Ocean Transportation (Sealift). The MSC force consists of three subsets: common ocean transportation, Naval Fleet Auxiliary Force (NFAF), and mobility support force. The NFAF and mobility support force ships are manned, in large part, by US Government civil service mariners. The detailed support relationship between amphibious forces and the MSC is outlined in Chapter 12 of NWP 22-8/FMFM 1-15, "MSC Support of Amphibious Operations"; NWP 80, "Strategic Sealift Planning and Operations Doctrine of the U. S. Navy"; and Chapter 13 of JCS Pub 3-02.2, "Joint Amphibious Embarkation." MSC's functions and responsibilities include:

1. Monitoring the readiness of sealift ships of the Ready Reserve Force (RRF) that are under the care and custody of the Maritime Administration (MARAD).

2. Planning for sealift for the Joint Chiefs of Staff, the CINCs, and other members of the JDC.

3. Ensuring that prescribed emergency readiness standards are maintained throughout the sealift forces by providing oversight of operational material and command and control (C2) functions.

4. Providing program and budget requirements for strategic sealift and associated enhancement programs.

(c) Military Transportation Management Command. The Military Transportation Management Command (MTMC), a transportation component command of USTRANSCOM, is the single manager operating agency for military traffic, land transportation, and common-user ocean terminals. MTMC provides traffic management services and internodal container management. MTMC also operates in CONUS and operates overseas ocean terminals under agreements with appropriate overseas commanders. MTMC functions and responsibilities include:

1. Planning for Joint Chiefs of Staff, CINCs and other members of the JDC for strategic mobility, contingency and deployment plans, and other military operations, as required, including sustainment of theater logistics.

2. Managing traffic of DOD passengers and freight in CONUS; of the CONUS portion of DOD international passenger, air cargo, and freight movements; of sealift passenger booking and port calls for DOD components.

3. Being the sole negotiator with for-hire transportation carriers or their associations on rates and other matters incidental to DOD freight traffic in CONUS.

4. Single point of contact for the contracting of commercial stevedore, related terminal services and union labor matters.

5. Planning for efficient use and control of military-owned and commercial surface transportation resources that have been made available to DOD under mobilization or other emergency conditions.

6. As directed by the Secretary of Defense, controlling the use of military-owned CONUS land transportation resources required to supplement the capability of commercial transportation carriers.

7. Controlling and directing the operations of military-owned railway rolling stock registered for interchange service other than that permanently assigned to intra-base or intra-plant operations, including supply accountability and maintenance of the Defense Freight Railway Interchange Fleet.

8. Planning, programming, scheduling, and managing the flow of CONUS-originated passenger movements to and through air or ocean terminals between inland CONUS points.

9. Developing, administering, and maintaining transportation security procedures for the commercial movement of classified material and sensitive conventional arms, ammunition, and explosives.

(d) Military Airlift Command. Military Airlift Command (MAC), a transportation component command of USTRANSCOM, is the single manager operating agency for Airlift Service. MAC's functions and responsibilities include:

1. Organizing, training, equipping, providing, and sustaining operationally ready forces for the unified and specified commands.

2. Providing common-user, strategic airlift capability to deploy, employ, and sustain US forces on a worldwide basis during wartime, JCS exercises, and unit moves, including MAC aerial port terminal services.

3. Maintaining a worldwide C2 system to direct, coordinate, and monitor airlift deployment.

4. Providing airlift planning support to the CATF and CLF.

5. Supporting unit airlift moves.

(3) Transportation Operating Agencies. MSC, MTMC, and MAC are known collectively as the transportation operating agencies (TOAs).

4. Sealift Planning Considerations. The guiding principle of embarkation planning is to embark the LF in such a way as to accommodate the concept of operations ashore. Each operation presents a unique set of embarkation requirements. The embarkation plan for each operation will provide for loading arrangements and an organizational structure that are specifically tailored to support the operation.

a. Basic Considerations

(1) Types of Loading. The manner in which a ship is loaded determines the availability of troops for landing and the order in which equipment and supplies will be unloaded. Task forces are seldom alike; equipment and supplies differ, and the priority in which materiel is required ashore varies with the assigned mission. These factors require detailed study to determine the best manner of loading to support the operation. There are two general methods of loading amphibious ships: administrative loading and combat loading.

(a) Administrative Loading. Administrative loading is a loading system that gives primary consideration to achieving maximal utilization of troop and cargo space without regard to tactical considerations. Equipment and supplies must be unloaded and sorted before they can be used (JCS Pub 1-02). Administrative loading is generally limited to nontactical movements. In administrative loading, commodity or selective loading may be employed.

1. Commodity Loading. Commodity loading is a method of loading in which various types of cargo are loaded together, such as ammunition, rations, or boxed vehicles, in order that each commodity can be discharged without disturbing the others (JCS Pub 1-02).

2 Selective Loading. Selective loading is the arrangement and stowage of equipment and supplies aboard ship in a manner designed to facilitate issues to units (JCS Pub 1-02).

(b) Combat Loading. Combat loading gives primary consideration to the facility with which troops, equipment, and supplies can be unloaded, ready for combat on landing, rather than to the economical

use of ships' space. Insofar as possible, each ship is loaded to enhance flexibility, to support tactical plans in the most effective manner, and to facilitate discharge of cargo to meet emergency calls for equipment or supplies. Three types of combat loading may be employed, depending on the mission, organization, types of equipment assigned to the force (including ships), and the planned tactical employment of the force:

1. Combat unit loading is the method by which all or part of a combat unit, such as an assault battalion landing team, is completely loaded in a single ship, with essential combat equipment and supplies, in such a manner as to be immediately available to support the tactical plan upon debarkation. Combat unit loading provides maximum flexibility to meet possible changes in the tactical plan and is the most common type of combat loading in embarkation load planning.

2. Organizational combat loading is the method by which a unit with its equipment and initial supplies is loaded into a single ship together with other units in order to be available for unloading in a predetermined order. Combat organizational loading differs from combat unit loading in that it provides more economical use of this ship's space. It permits debarkation of complete units in accordance with the assigned priority, but is less responsive to tactical requirements.

3. Combat spread loading is one method by which desired dispersion of troops, equipment, and supplies among various ships is achieved. A troop organization is loaded on two or more ships. This method is commonly used to load organizations equipped with numerous vehicles and/or large amounts of heavy equipment. By loading critical combat support units such as artillery and armor in this fashion, the landing force's tactical capability is less vulnerable in the event of the loss or diversion of a single ship. Combat spread loading also contributes to achieving a more rapid buildup ashore.

(2) Methods of Stowage. Stowage is the method of placing cargo into a single hold or compartment of a ship to prevent damage or shifting. There are several methods by which equipment, supplies, and materials required in an amphibious operation are stowed. These methods are designed to afford rapid and selective access to cargo in support of landing force requirements. Normally, a combination of stowage methods could be used in combat loading a single ship.

(a) Horizontal Stowage

1. When used in relation to a single ship, the term horizontal stowage means the fore and aft distribution of equipment and supplies so that similar items can be simultaneously unloaded from two or more holds.

2. When the term is applied to a single hold, it means the distribution of like items in horizontal layers throughout the hold. Horizontal stowage within a single hold permits the best discharge rate of like items and normally results in better use of space. However, it limits selectivity of discharge.

(b) Vertical Stowage. Vertical stowage of unit equipment or a given class of supplies is a method of stowage within a single compartment by which the items are continually accessible for unloading, and the unloading can be completed without prior unloading of other cargo. Like items are available at any stage of the unloading. Vertical stowage is emphasized in combat loading because it provides maximum selectivity of supplies and materiel.

(c) Block Stowage. Block stowage is a method whereby an assortment of equipment or supplies is made up and loaded together. In this manner, a balanced proportion of the entire cargo may be discharged without disturbing the remainder of the cargo. Equipment, materiel, and supplies to be offloaded as pre-positioned emergency supplies are normally loaded aboard ship as blocks.

(3) Organization for Embarkation. The organization for embarkation consists of a temporary task organization established by the CLF and a parallel temporary organization of Navy forces established by the CATF.

These task groupings are formed to simplify planning and to facilitate planning and execution of embarkation at all levels of command. No standard troop or Navy organization is applicable to all embarkation situations. For this reason, the organization for embarkation conforms to the circumstances of the deployment and to the requirements of the expected tactical situation. Upon completion of the embarkation phase, these task organizations dissolve.

(a) Amphibious Task Force Organization for Embarkation. Assault shipping assigned to transport the LF to the AOA is formed into tactical groupings by the CATF. The number and types of ships assigned to each of these groupings is determined by the size and composition of the corresponding echelon of the LF organization for embarkation.

(b) Landing Force Organization for Embarkation. The LF organization for embarkation is composed of embarkation groups, units, elements, and teams. Formation of the various embarkation echelons depends on the degree of decentralization necessary to coordinate and control the embarkation phase. The embarkation group and embarkation teams are always formed, since these organizations represent the essential ingredients for embarkation. That is, the group is the major troop organization and the team is the smallest subordinate echelon capable of planning and executing embarkation. The embarkation unit is usually formed to bridge the gap between the group and team echelons. The embarkation element is organized when a complex situation requires additional echelons for control in planning and execution of embarkation, time differences in the embarkation of units, or a geographic difference in location of embarkation areas for units of the LF.

(c) Parallel Organizations. Corresponding embarkation echelons are formed within the landing force and Navy organizations. (See Figure XI-2.)

1. The embarkation group is the highest echelon in the organization for embarkation. The embarkation group is normally formed around a major subdivision of the LF

(division, wing, Marine expeditionary brigade (MEB) as the forward element of a Marine expeditionary force (MEF)). It consists of two or more embarkation units, elements, or teams as appropriate. The parallel Navy echelon is called the transport group.

2. The embarkation unit is the next subordinate embarkation echelon below the embarkation group level. It consists of two or more embarkation elements when formed or two or more embarkation teams when elements are not formed. The number of embarkation units formed will vary, depending primarily on the LF organization for landing and geographic locations of the embarkation areas and of the troop units. When a division makes up the embarkation group, an embarkation unit will usually be built around each major ground combat organization (regiment or comparable organization), one for ground combat support organizations such as artillery, and one for CSS organizations. The parallel Navy echelon is called the transport unit.

3. The embarkation element, when formed, is the next subordinate echelon below the embarkation unit. Its characteristics parallel those of the embarkation unit except that its nucleus is normally the next lower echelon in the operational chain of command. The embarkation element consists of two or more embarkation teams grouped to conform to the organization for landing. The parallel Navy echelon is called the transport element. The transport element is formed when the number of ships in a transport unit is greater than can be properly controlled by a single commander.

4. The embarkation team is a temporary administrative formation of all personnel with supplies and equipment embarking or to be embarked (combat loaded) aboard one ship. (JCS Pub 1-02). The parallel Navy organization is the ship.

Landing Forces Organization for Embarkation	Navy Organization for Embarkation
Embarkation Team	Ship
Embarkation Element (two or more teams)	Transportation Ship Element
Embarkation Unit (two or more elements)	Transportation Ship Unit
Embarkation Group (two or more units)	Transportation Ship Group

Figure XI-2. Parallel Navy and Landing Force Organization for Embarkation

(4) Embarkation Training and Readiness. For a detailed discussion of related information, see JCS Pub 3-02.2, "Joint Amphibious Embarkation."

b. Special Considerations

(1) Sea Echelon. A decision to employ the sea echelon concept will introduce additional considerations in the embarkation planning process. When the sea echelon is employed, ships will be phased into unloading areas in

proper sequence to support the landing plan. If the troops, equipment, and supplies are not correctly embarked to correspond with the phased entry of ships during the ship-to-shore movement, the results may include inadequate logistics support, disruption of the planned sequence, or unacceptable concentration of shipping.

(2) Seabasing. In amphibious operations of limited scope, logistics support for the LF may be provided from amphibious task force shipping, with minimal buildup of CSS ashore. Seabasing will influence embarkation planning in such areas as the need for adequate permanent work spaces for LF staffs and maintenance operations, and the need for accessibility to certain classes of supply (II, VII, VIII, and IX).

(a) The transition from a seabase supporting mode to a conventional mode may be made at any time after completion of the initial assault. From an embarkation point of view, seabasing of supply, medical, and maintenance functions requires that the embarked configuration be structured to perform these functions for the duration of operations, if required.

(b) Balanced capability to perform CSS functions such as supply, maintenance, medical, and other services may be needed on more ships of the task force than would otherwise be necessary.

(3) Ships' Loading Characteristics Pamphlet. Ships' Loading Characteristics Pamphlets (SLCPs) are prepared by the Navy for each amphibious ship and by MSC for MSC-provided ships. The format and contents of the SLCP are illustrated in Appendix B of JCS Pub 3-02.2. The pamphlet contains all ship's data required by the LF for embarkation planning. The diagrams and capacity totals in the pamphlet show the accommodations and cargo space for each ship. Each SLCP includes:

(a) A listing of the general transport characteristics of the ship, including principal characteristics, troop accommodations, landing craft, and such other information as may be appropriate under this listing. Pamphlets for large ships such as LHA, LKA, LPH, LPD, and LSD also include an inboard profile of the ship, to

approximate scale, showing the relative location of compartments and cargo holds, and a plan view showing debarkation stations and location of landing craft.

(b) Troop berthing diagrams, in approximate scale, showing troop officer and enlisted berthing spaces with the number of bunks in each berthing space.

(c) Troop cargo space diagrams, drawn to scale, showing information on square footage of deck space, hatches, locations of stanchions and other obstructions or irregularities, overall dimensions, and indicating the bale cubic capacity and clearance under frames and hatch coamings. If the compartment is fitted for the stowage of special cargo such as gasoline, ammunition, pyrotechnics, or vehicles, such information is included.

(4) Military Sealift Command. MSC ships are used in both peacetime and wartime for large scale troop and cargo movements.

(a) MSC ships are US naval vessels and are included in the official "List of Naval Vessels." There are two types: "in commission" (black stack) and "in service" (blue and gold stripes on stack) ships. In commission ships are manned by Navy personnel. In service ships are manned by either civil service personnel or by commercial shipping companies. In commission ships carry the prefix United States Ship (USS); in service ships carry the prefix United States Naval Ship (USNS). In addition and when necessary, MSC can charter commercial ships for particular missions or periods of time. (For additional information on the Military Sealift Command, refer to NWP 22-8/FMFM 1-15, "MSC Support of Amphibious Operations.")

(b) MSC ships differ from the Navy's amphibious ships primarily in that they are intended for the administrative rather than tactical movement of men and materiel. Because of this fundamental difference, MSC ships must undergo certain modifications to outfit them for amphibious operations. Also, MSC ships' organizations and operations differ from those of amphibious ships. Loading procedures, tables, and reports vary. (For additional information, refer to JCS Pub 3-02.2.)

(5) Command Relationships

(a) Commanding Officer of a Ship. The highest authority aboard ship is the commanding officer of the vessel. All personnel aboard ship, including embarked troops, are subject to his orders. All orders from the commanding officer of the ship to embarked troops, so far as practicable, will be transmitted through the commanding officer of troops. Regulations governing troop life aboard ship, as promulgated by the commanding officer of the ship, usually are contained in ship's regulations for embarked units. These regulations normally contain information on command relationships, discipline of embarked troops, security, embarkation, debarkation, messing, berthing, uniform requirements, emergency drills, ship's platoon and other work details, ammunition and hazardous material handling, and general troop administration.

(b) Commanding Officer of Troops. The senior troop commander of each organization embarked on a transport is usually designated by higher authority as the commanding officer of troops (CO of troops) and is responsible for the discipline and efficiency of his command. The CO of troops will make necessary arrangements with the commanding officer of the ship relative to embarkation, including assignment of embarked troop spaces, berthing spaces, messing, and other administrative matters.

(6) Embarkation Officers. Officers specially trained in the techniques of planning and supervising ship loading for an amphibious operation are assigned to LF organizations, to major amphibious ships, and to naval staffs involved in embarkation. In the troop organization, such officers are entitled embarkation officers and serve as special staff officers in the headquarters in which they are assigned. In the naval organization, Marines assigned to a ship for this purpose are entitled combat cargo officers (CCOs). The Navy officer aboard ships without a Marine CCO assigned with whom the troop embarkation officer works is the ship's first lieutenant. The troop embarkation officers and ship's combat cargo officers or first lieutenants advise and assist their respective commanders in

planning the embarkation and supervising its execution. The embarkation officers and combat cargo officers or ship's first lieutenants of corresponding troop and naval organizations maintain liaison during the embarkation.

5. Embarkation for Sealift. Amphibious operations are dependent on the rapid, orderly projection of combat power ashore. Amphibious shipping is specifically designed to provide this capability; however, the key to effective employment of amphibious shipping is proper embarkation of the LF. The embarkation plan is designed to ensure optimum use of amphibious shipping to support the commander's concept of operations ashore, to provide flexibility to execute alternate plans if necessary, and to facilitate responsiveness to opportunities that arise during the assault. The development of the sealift embarkation plan epitomizes the detailed, parallel, and concurrent nature of amphibious planning.

6. Principles of Embarkation Planning. The following four principles must be observed in planning embarkation of the LF for an amphibious assault:

a. Support Concept of Operations. Embarkation plans must support the plan for landing, scheme of maneuver ashore, and the plan for landing supplies. Personnel, equipment, and supplies must be loaded in such a manner that they can be unloaded at the time and in the sequence required to support operations ashore.

b. Unit Self-Sufficiency. Embarkation plans must provide for the highest possible degree of unit self-sufficiency. Troops should not be separated from their combat equipment and supplies. Thus, weapon crews should be embarked in the same ship with their weapons, radio operators with their radios, drivers with their vehicles, and commanders and staffs with their units. In addition, each unit should be embarked with sufficient combat supplies such as ammunition, gasoline, and radio batteries to sustain its combat operations during the initial period ashore.

c. Speed of Unloading. Plans must provide for rapid unloading in the objective area. At higher echelons, this can be achieved by a suitable distribution of units among subordinate embarkation organizations. At the individual ship level, this can be achieved by a balanced distribution of equipment and supplies throughout the ship to ensure simultaneous unloading of all holds in approximately the same period of time.

d. Dispersion. Plans must provide for dispersion of critical units and supplies among several ships. If critical units and supplies are not dispersed, loss of one ship, or a relatively few ships, could result in a loss of combat capability that might seriously jeopardize accomplishment of the mission.

7. Content of Embarkation Plans and Loading Plans

a. The CATF and subordinate Navy commanders prepare loading plans that are issued as a part of the operation plan. These loading plans prescribe:

- (1) The organization of the Navy forces for loading.
- (2) Availability of shipping for the embarkation of the LF, including schedule of arrival and departure from embarkation points.
- (3) Availability of special handling equipment.

b. The CLF and appropriate subordinate commanders prepare embarkation plans. They are issued to accompany the operation plan. These embarkation plans prescribe:

- (1) The organization for embarkation and assignment to shipping.
- (2) Supplies and equipment to be embarked.
- (3) Location and assignment of embarkation areas.
- (4) Control and communication arrangements that will prevail during embarkation.
- (5) Schedules, movement details, and embarkation sequence of personnel and materiel in conformity with embarkation schedules announced by the CATF.
- (6) Instructions covering the operation of materiel handling equipment (MHE).
- (7) Additional instructions covering the loading and handling of special weapons.

c. Each embarkation team commander prepares a detailed ship loading plan.

(1) Ship loading plans are normally prepared by the team embarkation officer, in coordination with the ship's combat cargo officer. The loading plan consolidates information provided by the embarking units or detachments. All weights, cubic footage, and square footage to be entered on the loading forms are actual weight, volume, and area of the items of cargo as they are to go aboard ship. Inaccurate figures can result in inefficient utilization not only of amphibious shipping, but also of the landing craft, amphibious vehicles, or helicopters with which the ship-to-shore movement is to be executed.

(2) The plan is reviewed and approved on the loading plan cover page by the CO of the ship from the viewpoint of his ability to carry it out and in terms of the safety of his ship. At the present time, there are two systems of embarkation documentation - a manual system (used primarily by US Army forces) and an automated embarkation management system (used by US Marine and Navy forces).

(a) The manual documentation system for embarkation is described in Chapter 7, JCS Pub 3-02.2.

(b) The present automated documentation system for embarkation, known as the Standard Embarkation Management System (SEMS), is described in Marine Corps Order 3120.6.

d. Sample Documentation. A sample LF embarkation plan is contained in Appendix D of JCS Pub 3-02.2, which shows sample organization for embarkation and assignment to shipping tables, which are part of the embarkation plan.

8. Embarkation Planning. Embarkation planning involves all the measures necessary to ensure timely and effective outloading of the amphibious task force. These measures range from a determination of overall shipping requirements and embarkation schedules at high levels to detailed loading plans for individual ships at the embarkation team level. Embarkation planning must begin early and proceed concurrently with all other planning. It requires constant coordination between all troop and naval command level, and a mutual understanding of the problems of each. It requires detailed knowledge of the characteristics, capabilities, and limitations of ships, and their relationship to the troops, supplies, and equipment to be embarked.

a. Embarkation planning includes:

(1) Determination of shipping requirements. Annex B of JCS Pub 3-02.2 contains a procedure to determine ship requirements.

(2) Development of detailed troop and naval organizations for embarkation.

(3) Determination of desired assignment of troops, equipment, and supplies to each ship.

(4) Preparation of detailed loading plans and loading schedules.

b. Responsibilities

(1) The CATF is responsible for:

(a) Allocating shipping space to the LF.

(b) Organizing naval forces for embarkation.

(c) Preparing the over-all embarkation schedule, to include movement of assault shipping to embarkation points in accordance with the embarkation plans and loading plans.

(d) Reviewing and approving the over-all landing force embarkation plans and loading plans.

(e) Providing Ships' Loading Characteristics Pamphlets to the CLF.

(f) Developing plans for the procurement and coordination of assets required from external agencies to support the embarkation.

(g) Advising the CLF as to personnel and materiel of the Navy and other forces that are to be embarked.

(2) The CLF is responsible for:

(a) Determining assault (assault and AFOE) shipping requirements of the LF and advising the CATF.

(b) Developing the organization of the LF for embarkation. The CLF recommends if necessary, adjustments in transport organization so that the

shipping assigned by type for troop use by the major units of the LF will conform to the organization for embarkation which, in turn, will conform to the organization for landing.

(c) Determining the support required from ATF assets and external agencies at the embarkation points during loading and advising the CATF thereof.

(d) Designating shipping in which troop units will be embarked, preparing the detailed embarkation and loading plans, and submitting them to the CATF for review and approval.

(3) Commanding officers of individual ships are responsible for the detailed planning required to embark the troops and equipment of the embarkation team assigned to their ships in accordance with the embarkation plan prepared by the embarkation team commander. The commanding officer reviews and approves the detailed loading plans of the embarkation team commander from the viewpoint of the safety and performance of his ship.

(4) The embarkation team commander, a LF officer, is responsible for the preparation of detailed loading plans for that ship embarking the troops, equipment, and supplies of the embarkation team. He submits these plans to the individual ship commander for review and approval. Unresolved differences would be forwarded via Navy and LF channels for decision by the CATF.

c. Assembly and Movement Plans. Plans for the assembly of assault shipping and for movement of troops to embarkation points are prepared by the CATF and CLF, respectively. These plans must be coordinated and are distributed as soon as possible to commands having operational control of the assault shipping and troop units scheduled to join the ATF. The plans are also distributed to area and base commanders concerned. This permits the initiation of preliminary movements and preparations to ensure that embarkation is begun without unnecessary delays. The assembly and movement plans are usually issued by the CATF and CLF, respectively, as separate documents in the form of embarkation schedules and movement orders.

d. Sequence of Planning. Following receipt of the initiating directive for an amphibious operation, embarkation planning begins at all echelons and proceeds concurrently. Major steps will overlap but are usually accomplished in the following general sequence:

- (1) Establishment of liaison between corresponding naval and troop levels of command.
- (2) Provision of planning data by the CATF concerning personnel and materiel of naval and other forces to be embarked with the LF.
- (3) Determination by the CLF of his assault shipping requirements and the submission of these requirements to the CATF.
- (4) Allocation of shipping by the CATF. If sufficient shipping to meet stated LF requirements is not available, consultation is required between commanders in order to adjust plans or to justify a request to higher echelon for additional shipping.
- (5) Distribution of SLCPs to the CLF by the CATF.
- (6) Establishment of the LF organization for embarkation by the CLF.
- (7) Establishment of the Navy organization for embarkation by the CATF.
- (8) Assignment to shipping for subordinate echelons of the LF by the CLF and issuance of the SLCPs.
- (9) Selection and preparation of embarkation areas.
- (10) Selection and preparation of LF marshalling areas when required.
- (11) Determination of control, security, communication facilities, and MHE required during embarkation.
- (12) Development of berthing and loading schedules and schedules for movement of personnel and materiel to embarkation areas.
- (13) Preparation, review, approval, and promulgation of detailed embarkation plans and loading plans.

e. Detailed Embarkation Planning Considerations. Detailed planning for both embarkation and the assault phases cannot be intelligently initiated by subordinate echelons until such time as the organization for embarkation, together with shipping assigned, has been promulgated. In planning for embarkation, consideration must be given to the following, all of which will affect the embarkation plan:

- (1) Mission of the force.
- (2) Limiting dates of the embarkation, rehearsal, movement, and assault phases. The time frames for these phases establish dates against which embarkation planning and execution must proceed.
- (3) The organization for embarkation of the LF must be compatible with the plan for the ship-to-shore movement which, in turn, must support the scheme of maneuver. This organization, that is, the composition of the respective embarkation echelons together with their assigned shipping, is completely dependent on the earliest promulgation of the following:
 - (a) Task organization for landing.
 - (b) Basic concepts of the landing plan such as which elements are to be landed by helicopter, landing craft, assault amphibious vehicle, or any other means.
 - (c) Quantity and types of LF supplies to be loaded and the basic plan for landing supplies.
- (4) Size and characteristics of the troop and naval forces involved, both troop and naval, including availability and characteristics of shipping, and quantity and types of materiel to be embarked. Use of the minimum number of ships necessary to meet the requirements is an objective in embarkation planning. Units of the LF not required initially in the assault phases, or whose employment is deferred, should be loaded and dispatched so that arrival in the landing area is scheduled to coincide with their contemplated employment.
- (5) Troop commanders and their staffs should be embarked in the same ships as corresponding naval commanders.
- (6) Embarkation areas and points must be selected. Selection is influenced by:
 - (a) Available space on docks, piers, and beach loading areas.
 - (b) Time available for loading.
 - (c) Availability of suitable storage facilities.

(d) Adequacy of road nets and space available for processing supplies and equipment brought into the embarkation areas.

(e) Availability of harbor services and other usable facilities.

(f) Availability of a suitably protected anchorage or roadstead.

(g) Suitability of beaches for the beaching of landing craft and ships and for the operation of amphibious vehicles.

(h) Availability of adequate airfield facilities adjacent to, or within a reasonable distance of, the embarkation site.

(i) Availability of landing craft to support embarkation aboard ships at anchor or not otherwise accessible to pierside loading facilities.

(j) Availability and suitability of embarkation points to support staging, movement, and loading of ammunition; petroleum, oils, and lubricants (POL) products; and/or other dangerous material.

(7) Marshalling areas may be required when bivouac or camp areas are so located that movement to embarkation areas cannot be accomplished without interruption. To facilitate final movement to embarkation areas, the CLF selects sites for troops close to the embarkation areas. A marshalling area must provide adequate space and facilities to accommodate designated units. Consideration must be given to the dispersion of marshalling areas to avoid vulnerable concentrations. To preserve troop combat readiness when marshalling areas are used, movements are scheduled to keep them in these areas for a minimum length of time consistent with transportation, security, and maintenance requirements. This may require the maintenance of a marshalling area organization after the principal elements of the force sail. A marshalling area organization will also facilitate the accommodation of the troop echelons that may proceed to the AOA in later increments. Embarkation task organization should be used during marshalling so that a final check of troops and equipment may be made and deficiencies corrected.

(8) Use of Helicopters. If it is feasible and desirable to use helicopters to embark personnel and equipment, the following factors are considered:

(a) Suitable area ashore, either in base camps, marshalling areas, or embarkation areas, to satisfy requirements for flight operations (takeoff, landing, fueling, maintenance), cargo operations (assembly in accordance with loading plans, movement to helicopter loading points, cargo hookup to helicopter), and personnel operations (assembly, forming heliteams, movement to helicopter loading points).

(b) Logistics requirements, such as fuel and maintenance facilities necessary to support helicopter operations during loading.

(c) Time available for loading. This is influenced by the number and types of helicopters available for loading, their lift capability, the distance to be traversed, speed, and number of personnel and amount of cargo to be loaded. Further, the variables introduced by weather, or other factors that affect optimum flight operations, may require more time than if embarkation is accomplished at dockside.

f. Personnel Embarkation Planning. The personnel embarkation plan must give consideration to priority for debarkation and the tactical grouping of personnel as dictated by the plan for landing. Further, it must provide for the control of personnel and permit the accomplishment of required administrative and training functions during the voyage. A good personnel embarkation plan contributes to the comfort of personnel and prevents unnecessary administrative burdens. More importantly, it specifically provides for rapid and orderly debarkation of troops for landing and entry into combat.

(1) Personnel Planning Considerations. Planning the embarkation of personnel must take into account the following:

(a) Liaison and coordination with the ship in which troops are embarking.

(b) Organization of troop units for embarkation.

(c) Provision and arrangement for administrative requirements.

(d) Provisions for personnel accounting and reporting in accordance with established procedures for troop movements.

(e) Provisions for ensuring the health and comfort of embarked troops.

(f) Preparation of training and physical fitness programs for embarked troops.

(2) Responsibilities

(a) Commanding Officer of a Ship. The CO of a ship is charged by Navy regulations with the operating and fighting efficiency of his ship as well as the safety of all personnel aboard. He is responsible for making troop spaces designated in the ship's plans (and reflected in the SLCP) available in acceptable condition for use of the troops. He promulgates instructions in the form of ship's regulations for the conduct of embarked troops and outlines the assistance necessary from embarked troops to ensure their health and comfort.

(b) Commanding Officer of Troops. Since troops of several different organizations may be embarked in the same ship, designating an officer as commander of all embarked troops is necessary for administrative purposes. Accordingly, a commanding officer of troops for each ship is designated during the planning phase by the next senior troop echelon. Usually, the senior troop commander of the organizations embarked is designated. Thus, in many instances, he is the same officer who is the embarkation team commander. While embarked, he is responsible for the administration, discipline, and training of all embarked troops.

(c) Embarkation Team Commander. The embarkation team commander is responsible for the preparation and organization of the team for embarkation. He must plan for and provide personnel to accomplish certain tasks while embarked.

9. Execution of Embarkation

a. General. Embarkation is executed in accordance with approved embarkation plans and is a mutual responsibility of the Navy forces, LF, and external supporting agencies. (See figure XI-3.)

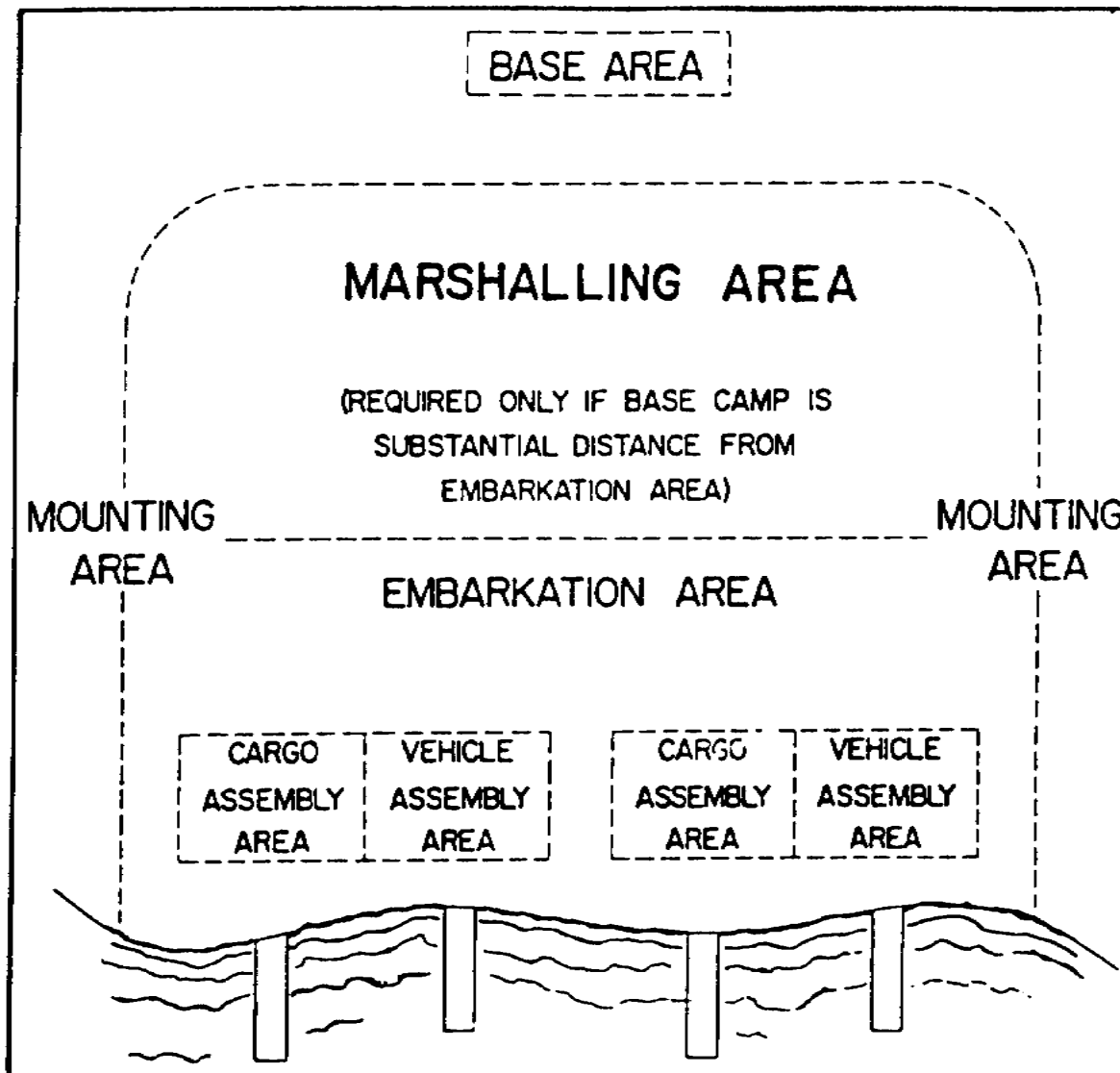


Figure XI-3. Schematic of the Mounting Area, Marshalling Area, Embarkation Area, and Embarkation Points.

(1) Mounting is all preparations made, in areas designated for the purpose, in anticipation of an operation. It includes the assembly in the mounting area, preparation and maintenance within the mounting area, movement to loading points, and subsequent embarkation into ships, craft, or aircraft if applicable (JCS Pub 1-02).

(2) Marshalling is the process by which units participating in an amphibious or airborne operation, group together or assemble when feasible or move to temporary camps in the vicinity of embarkation points, complete preparations for combat or prepare for loading (JCS Pub 1-02).

(3) Embarkation is the loading of troops with their supplies and equipment into assigned ships and/or aircraft (JCS Pub 1-02).

(4) The mounting area is a general locality where assigned forces of an amphibious or airborne operation, with their equipment, are assembled, prepared, and loaded in shipping and/or aircraft preparatory to an assault (JCS Pub 1-02).

(5) The embarkation area is an area ashore, including a group of embarkation points, in which final preparations for embarkation are completed and through which assigned personnel and loads for craft and ships are called forward to embark (JCS Pub 1-02).

b. Specific Responsibilities. Specific responsibilities for the execution of embarkation are as follows:

(1) Commander Amphibious Task Force

(a) Exercises overall control and general supervision of the execution of embarkation in accordance with the embarkation schedule and loading plans.

(b) Moves assault shipping to embarkation points in accordance with the embarkation schedule.

(c) In coordination with CLF, controls embarkation and movement to embarkation points.

(d) Provides communication facilities required afloat, including adequate security measures.

(e) Coordinates for provision of lighterage and/or landing craft from agencies external to the ATF and LF.

(2) Commander Landing Force

(a) Prepares the landing force for embarkation.

(b) Requests any loading assistance required from CATF.

(c) Moves embarkation components to and within embarkation areas and assembles cargo and personnel on shore in accordance with the embarkation schedule and loading plans.

(d) Provides for security of embarkation areas or coordinates security measures with external agencies as prescribed by higher authority.

(e) Provides an embarkation control officer ashore for coordination and control of embarkation evolutions with CATF, ship representatives, and/or outside agencies.

(f) Provides for communications ashore in the embarkation area, including adequate communications security measures. To conserve organic LF communications equipment to be embarked, additional equipment should be available for use in the embarkation area. Where possible, arrangements should be made with the commander of the area in which embarkation is to take place to provide for shore communications requirements.

(3) External Agencies. Agencies external to the ATF and LF may be given responsibilities by higher authority. Such responsibilities may include:

(a) Specifying and making available required marshalling areas, embarkation areas, and embarkation points and developing and operating facilities therein.

(b) Providing authorized supplies and services to the ATF, including supplies to be loaded and communications facilities for use during embarkation.

(c) Coordinating and controlling administrative movements within the embarkation areas.

(d) Ensuring security of embarkation areas.

(e) Providing at each embarkation point the loading equipment required on docks, dunnage, technical assistance, stevedores, and other loading aids.

(4) Commanding Officers of Individual Ships

(a) Ensure that all troop spaces are ready for troop use and are configured in accordance with ship's general plans, ship's characteristics card, authorized ship's alterations, and the SLCP.

(b) Handle, secure, and stow cargo in their ships in accordance with approved loading plans. A CO's responsibility for cargo commences with the actual lifting or transportation of each piece of cargo by personnel under his control. When transported, lifted, or loaded by personnel not under his control, his responsibility begins when the cargo is safely stowed on board and accepted by him.

(c) Make provisions for winchmen, hatch tenders, hatch officers, and other personnel for handling cargo, except for the ship's platoon, which is provided by the landing force.

(d) Coordinate with CATF for provision for lighterage or landing craft requirements beyond the ship's organic or embarked craft.

(e) Provide cargo handling and lashing gear, including slings, lowering lines, and guide lines as prescribed by ship's allowances.

(f) Billet and feed personnel of the advance party.

(5) Embarkation Team Commander

(a) Ensures that personnel, equipment, and supplies are ready for embarkation in accordance with the loading plan for his embarkation team. This includes preparation of equipment and supplies, such as filling fuel tanks, loading prescribed loads in trucks and tanks, water proofing vehicles, marking supplies and equipment, crating, and packaging.

(b) Provides an advance party for his assigned ship to arrive at the embarkation port prior to the commencement of loading.

(c) Organizes and operates an embarkation team control office at the embarkation port.

(d) Provides shoring and dunnage material.

(e) Provides slings and lashing gear required in excess of that furnished by the ship.

(f) Ensures that work details required ashore for pier or beach working parties and for helicopter loading are provided.

10. Embarkation for Airlift

a. General. Airlift will be necessary to support most amphibious operations. Requirements will be generated by the need for early arrival of forces and equipment in the theater of operations, which cannot be transported in assault shipping.

(1) Support for Landing Force Aviation. Airlift support for LF aviation is significant and includes personnel, equipment, and supplies necessary to sustain self-deploying fixed-wing aircraft at advanced bases.

(2) Support for Airborne Assault. If an airborne assault is to be conducted in conjunction with the amphibious operation, significant lift assets will be required to airdrop and sustain the force.

(3) Support of Maritime Pre-positioned Forces. If an MPF is included in the ATF, airlift will be required to transport MPF brigade size forces into the AOA for marriage with maritime pre-positioned supplies.

(4) Strategic and Tactical Airlift. Both strategic airlift into the theater of operations and tactical airlift to forward locations may be required.

b. Airlift Planning Considerations

(1) Air Movement. Air movement of a LF or elements thereof will normally be by MAC organic or contract aircraft. Air movement requires special consideration in:

(a) Planning of loads.

(b) Staging of transported units at the aerial ports of embarkation (APOE).

(c) Selecting and inspecting equipment.

(d) Processing personnel.

(e) Outloading procedures.

(f) Receiving and providing for disposition of forces at the aerial ports of debarkation (APOD).

(g) In-theater transportation, if required.

(2) Mutual Responsibilities. These tasks are the mutual responsibility of the transported unit, its parent organization, and MAC control and liaison elements as discussed below.

(a) Departure Airfield Control Groups. Departure airfield control groups (DACGs) are normally provided by parent headquarters from the base or camp resources that support the LF. The mission of the DACG is to coordinate and control the outloading of units for deployment or redeployment. The DACG personnel and equipment resources should be provided by units that will not accompany the deploying force. If required, the DACG must be capable of continuous 24-hour operations.

(b) Arrival Airfield Control Groups. The mission of the arrival airfield control group (AACG) is essentially the same as for the DACG, except that the AACG is primarily concerned with the offloading

operations. If practicable, the AACG will be pre-positioned at the arrival airfield; otherwise, it will move to the arrival airfield in the lead elements of the transported force.

(c) Airlift Control Element. The airlift control element (ALCE) is an element of the Air Force command and control system. An ALCE is employed when required at departure, en route, and at arrival airfields used by the airlifted units. The mission of the ALCE is to plan airlift control operations for a given base, to survey the facilities of the base, and to control, coordinate, and report airlift operations at that base.

1. The ALCE maintains control over Air Force airlift units and all airlift aircraft participating in an operation at the ALCE site. The ALCE coordinates all Air Force operational aspects of the airlift mission. It is responsible for aircraft movement control, communications, technical supervision of loading and offloading operations, aeromedical evacuation, and marshalling of aircraft. It provides continuous liaison with all interested agencies to ensure that the operation is proceeding according to plan.

2. In smaller operations, a mission support team (MST) may be assigned to perform ALCE functions.

(d) Airlift Operations Center. The Air Force will establish an airlift operations center (AOC) at both the departure and arrival airfield. The AOC is jointly manned by Air Force and deploying force representatives and provides for the exchange of information on progress of the operation.

c. Airlift Planning and Preparation

- (1) Deploying Unit. The deploying unit plans and coordinates assistance in the areas of administrative support, unit movement training, air movement planning, logistics, and maintenance support. Training of the deploying unit should include indoctrination in the standard safety practices of operation in and around aircraft. In addition, the deploying units will:

(a) Identify the number of personnel and types and quantity of cargo and equipment to be moved.

(b) Establish priorities for arrival.

(c) Establish liaison with the supporting ALCE, DACG, AACG, and others.

(d) Identify cargo or equipment in its proposed shipping configuration that, because of its size, weight, or fragile and hazardous characteristics, cannot be loaded aboard Air Force aircraft or will require special equipment or handling.

(e) Identify cargo or equipment that is hazardous and/or sensitive and that requires special preparation (AFR 71-5/TM 38-250/NAVSUP PUB 505 (Rev)/MCO P4030.19 applies).

(2) DACG and AACG. The DACG and AACG must be structured to provide essential support for the transported force. As a minimum, each group consists of a command and an operations element and other administrative and support personnel as determined by the size and scope of the operation. The DACG or AACG is the transported unit's point of contact with the Air Force ALCE at the departure or arrival airfield. Where practical, a survey of the marshalling and outload area should be accomplished in advance by DACG and AACG. The survey will provide current and accurate information on facilities available and support considerations required.

(a) All personnel responsible for supervision of the outloading must be thoroughly familiar with the loading procedures applicable to the types of aircraft to be loaded. It is also desirable that they be formally trained in air movement operations.

(b) Designated DACG-AACG personnel must undergo appropriate training in preparation for carrying out their functional responsibilities in support of an air movement operation. Periodic rehearsals and joint airborne/air transportability training (JA/ATT) are particularly helpful where personnel turnover is a significant factor.

(3) Conferences. At a minimum, two planning conferences should be held, one upon receipt of air movement orders and one prior to the initiation of the

move. However, formal conferences do not rule out the need for continuous coordination throughout the planning cycle. Security and counterintelligence planning must be integrated in all aspects and phases of the overall deployment plan.

(a) Preparation for movement by all units requires the use of normal embarkation procedures with regard to all aspects of load planning and passenger/cargo documentation. MAC representatives must be involved from initial conception of the air movement plan through the actual deployment.

(b) Specific guidance in DACG, AACG, and ALCE responsibilities in this area is to be found in FM 55-12/FMFM 4-6/AFR 76-6/OPNAVINST 4630.27, "Movement of Units in Air Force Aircraft."

11. Execution of Airlift Operations

a. Departure airfield operations are described below in terms of areas of responsibility as shown in Figure XI-4.

(1) Unit Area/Marshalling Area. Unit or marshalling area activities take place at the airfield or in the deploying unit's permanent area when this will facilitate movement control. These activities are the responsibility of the deploying unit commander. Marshalling area activity should not cause unnecessary congestion or create undue hardship on the deploying unit.

(2) Alert Holding Area Activities. The alert holding area is a vehicle and passenger traffic control area in the vicinity of the departure airfield used to assemble, hold, and service aircraft loads (chalks). Control of the load is transferred to the DACG at this point.

(3) Call Forward Area Activities. The call forward area is that portion of the airfield where the joint inspection is conducted, a final briefing is provided to the deploying troops, and manifests are reviewed for accuracy.

(4) Loading Ramp Area Activities. The loading ramp area is controlled by the aerial port unit. Aircraft loads are guided to an established ready line. At the ready line, the aircraft load is placed under the control of the aircraft primary loadmaster/aerial port load team for aircraft loading.

b. Arrival airfield operations are outlined in three separate areas of activity as shown in Figure XI-5 and described below. These operations ensure that aircraft are offloaded in a timely manner and that the equipment, supplies and personnel of each plane load are expeditiously processed to the holding area.

(1) Offloading Ramp Area Activities. The offloading ramp area activities are controlled by the ALCE. Aircraft loads are offloaded from the aircraft and released to the AACG for return to unit control.

(2) Holding Area Activities. These activities are controlled by the AACG and consist of the receipt and processing of plane loads for release to the deployed unit.

(3) Unit Area Activities. The deployed unit receives plane loads from the AACG, terminating the air movement.

PAGES 38 AND 39 BLANK

XI-38

XI-38

CHAPTER XII

REHEARSAL

1. Introduction

a. General. The rehearsal is that phase of an amphibious operation during which the prospective operation is rehearsed for the purpose of:

(1) Testing adequacy of plans, the timing of detailed operations, and the combat readiness of participating forces.

(2) Ensuring that the rehearsal is executed under conditions approximating those of the contemplated amphibious operation, in accordance with a plan that approximates the plan for the specific operation, and should include all units that are to take part in the operation. It is expected that, prior to undertaking rehearsals for a specific amphibious operation, the elements of the amphibious task force (ATF) would have achieved a satisfactory state of training for amphibious operations in general.

b. Operations Security. The conditions that give rise to the need for an amphibious operation, in times of war or international tension, will generate great interest in the movements of amphibious forces. The use of all resources of the enemy intelligence capability can be expected to track the movement of the amphibious task force; heightened interest of the news media must be expected. Accordingly, the requirement to heed and enforce OPSEC measures cannot be over stated. The need for rehearsal remains, but the size, scope, number, and types of rehearsals must be balanced with OPSEC and the necessity to achieve strategic or tactical surprise in the amphibious objective area. This does not preclude rehearsals, but it does demand greater awareness and discretion in planning and conducting rehearsals than in the past. Therefore, the question should not be whether or not a rehearsal will be conducted, but how it will be conducted.

2. Purpose and Scope. This chapter explains the purposes of rehearsals and discusses the considerations that determine the size, scope, and number of rehearsals conducted prior to an amphibious operation. This chapter complements Chapter 13, JCS Pub 3-02, and provides additional information on preparation and participation of the landing force (LF) in the rehearsal for amphibious operations.

3. General

a. Purpose. As an exercise planned and conducted in a manner to simulate the conditions that will exist in the specific amphibious operation, the prospective operation is rehearsed in order to test the adequacy of plans and communications and gauge force readiness before the ATF arrives in the AOA.

b. Rehearsal plans are prepared during the planning phase once the determination of the feasibility of conducting rehearsals (including at least one full-scale rehearsal) is made. Responsibilities for the preparation of these plans are the same as for the preparation of the actual operation plan. Rehearsal plans should be prepared in the same detail as those for the actual operation and issued separately. In keeping with the concept of simulating the actual operation as closely as practicable, the rehearsal plans should be as similar to the operation plan as possible.

c. Preoperational Briefings. Prior to rehearsal, and again prior to the assault, preoperational briefings should be held, involving and providing coordination between or among all levels of command. The movement to the objective, especially where a long transit is involved, provides an excellent opportunity for final briefings.

d. Critiques. In addition to commanders making on-the-spot corrections during the conduct of the rehearsal, critiques must be conducted to analyze the weaknesses revealed during the rehearsal and to implement remedial actions before the actual operation.

4. Special Planning Considerations. In planning for rehearsals, consideration must be given to the number, nature, and scope of rehearsals, the date and time for each, and the area in which they will be conducted.

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

- (1) The complexity of the tasks assigned the ATF.
- (2) The time available for rehearsals.
- (3) The state of training of the forces.
- (4) Suitability of available rehearsal areas.

(5) Special or unusual problems to be faced in the actual operation, the solution to which must be accorded special attention in rehearsal.

(6) Intelligence and counterintelligence considerations.

(7) Adequacy of the communications plan.

(8) Adequacy of combat service support (CSS) resources to support the rehearsals without degrading capabilities and assets required in the amphibious operation.

b. The dates on which rehearsals are conducted and the time allocated for them must provide for:

(1) Complete and careful execution of the entire rehearsal.

(2) Reembarkation of all troops, equipment, and supplies in a manner that conforms to the embarkation assault plan.

(3) Rehabilitation or replacement of equipment and supplies and repair or replacement of any damaged or lost landing craft, ships, or aircraft.

(4) Critiques at all levels of command in order to evaluate the rehearsals and to emphasize and correct mistakes.

(5) Revision of operation plans in those areas the rehearsals disclosed to be inadequate.

c. Selection of the rehearsal area is influenced by the following:

(1) Suitability.

(2) Similarity to the actual landing area.

(3) Feasibility of employing live ammunition.

(4) Security.

(5) Susceptibility to enemy interference.

(6) Location in relation to the objective and to ports of embarkation.

(7) Health conditions at the rehearsal area.

(8) Activity of civilians, vehicles, shipping, and small craft that may interfere with the rehearsal.

d. Testing the adequacy of the communications plan will be influenced by the following:

(1) The state of training of assigned communications personnel.

(2) The ability to maintain COMSEC during rehearsals.

(3) The time available for communications warmup.

(4) The material status of communications equipment.

(5) Advanced training time available prior to the rehearsal phase.

5. Basic Considerations

a. **Enemy Threat.** In the case of a general war, the most significant factor to be considered is the threat of an enemy nuclear attack on the ATF. This threat may be such as to preclude all but staff or command post exercises (CPXs), or separately conducted integrated rehearsals for parallel elements of the naval and landing forces.

b. **Time Available.** In an emergency situation, the requirement for timeliness in executing the amphibious operation may preclude the conduct of a full-scale rehearsal. In such cases, the feasibility of conducting a limited rehearsal should be considered.

c. Security

(1) Because of similarity between the rehearsal and the actual operation, strict security measures must be enforced during rehearsals. The reconnaissance for, selection of, and arrangements for the use of the areas in which rehearsals are to be held must be accomplished carefully. Deception measures may be necessary to ensure the security of the rehearsal.

(2) Unauthorized observation by personnel not part of the ATF, or unauthorized communications by personnel of the ATF with external agencies, must be prevented. Restricting the movements of personnel and ships, and

establishing security perimeter patrols around the rehearsal area, both at sea and ashore, are primary means of achieving security. Special precautions must be taken to achieve communications security. (See Chapter IX.)

d. Essential equipment that cannot be immediately replaced, from a readiness viewpoint, should be excluded from the rehearsal. An important factor to be considered is the rehabilitation and/or replacement of equipment and supplies following the rehearsal.

6. Types of Rehearsals. Several types of rehearsals can be conducted, ranging from staff exercises or CPXs, to fully integrated live-fire rehearsals wherein the forces are landed and the entire LF, including the CSS element, is exercised.

a. Separate Rehearsals. Separate rehearsals are those conducted by elements of an ATF whose tasks are not intimately associated with those of the main body of the ATF. The advance and demonstration forces are examples of forces that usually conduct separate rehearsals, rather than rehearsals integrated with the main body of the ATF. Supporting forces, not a part of the ATF and that do not participate directly in the actual initial assault phase of an amphibious operation, may not be required to participate in integrated rehearsals of the ATF. Such forces hold separate rehearsals or may be rehearsed with other participants of an amphibious operation with whom coordination of mutual support is required. Naval striking and covering forces and submarine forces are some of the forces for which separate rehearsals for amphibious operations may suffice. Separate forces whose operations demand close integration with the assault may be required to participate with integrated rehearsals.

b. Staff exercises or CPXs are those conducted by all staffs scheduled to participate in the amphibious operation. They are conducted prior to integrated rehearsals. Whenever possible, such rehearsals should include the exercising of communications personnel, facilities, and circuits that will be used during the actual amphibious operation.

c. Limited Landing Exercises. Prior to the main landing rehearsals, it will frequently be possible for embarked landing teams to engage in limited landing exercises over simulated beaches. Such exercises are desirable because they enable troops to perfect their debarkation procedures and provide opportunity for boat groups to rehearse the formations and control of landing craft.

d. Simulated Landing Exercises. Another type of limited rehearsal involves elements of the LF only and may be conducted ashore prior to embarkation. This type of rehearsal involves a number of artificialities, including a simulated ship-to-shore movement; nevertheless, many aspects of the operation, including the landing plan, can be rehearsed. Troops are formed into boat teams, scheduled waves, etc., identical to the actual landing plan. A line of departure representing the line of departure of scheduled waves is established. Boat teams, by scheduled waves and in proper formations, move to the simulated beach line, deploy, and continue the attack against objectives. Vehicles and equipment are phased into the situation as appropriate. Higher headquarters and such agencies as TACLOG, naval gunfire support ships, etc., may be represented by individuals with appropriate communications equipment and operators.

e. Integrated Rehearsal (Preliminary). It is desirable that at least two integrated rehearsals be conducted. The preliminary rehearsal omits actual bombardment and unloading of supplies while stressing communications and control of the ship-to-shore movement. Only token numbers of landing craft, helicopters, and landing ships may be employed.

f. Integrated Rehearsal (Final). The final rehearsal is conducted as nearly as possible in accordance with the plans for the actual operation in order to test the tactical and supporting plans. If practicable, it includes the following:

- (1) The use of all special equipment that will be used in the operation.
- (2) Naval gunfire and air support with live ammunition.
- (3) Extensive troop participation, including landing, engaging simulated targets, and moving in and to designated objectives.
- (4) Combat support and CSS unit, including participation of naval components, such as the Naval Beach Group, to the degree necessary to test the adequacy of plans involving such units and their communications.

CHAPTER XIII

MOVEMENT TO THE OBJECTIVE AREA

1. Introduction

a. General. Movement to the objective area may include passage through rehearsal, staging, and/or rendezvous areas.

b. Elements of the Movement Phase. Movement of the amphibious task force (ATF) to the amphibious objective area (AOA) includes: departure of ships from loading ports in an embarkation area; the passage at sea; and the approach to, and arrival in, assigned positions in the landing objective area.

c. Movement of Shore-Based Air Units. Shore-based air units of the ATF deploy to assigned bases as directed. Control of air units passes to the commander, amphibious task force (CATF) upon his arrival in the AOA or as prescribed by higher authority.

2. Purpose and Scope. The purpose of this chapter is to discuss this essentially Navy phase of the amphibious operation and to provide information on how this phase of the amphibious operation can be put to best use by the landing force (LF). This chapter complements Chapter 14 of JCS Pub 3-02. The information is primarily applicable to movement of LF units aboard assault shipping; however, portions of the discussion may be applicable to movement by other modes of transportation.

3. General

a. Movement Groups. The ATF organization for movement to the AOA must closely parallel, or facilitate rapid formation into, the organization for landing and support of LF operations ashore. Accordingly, the ATF is subdivided into various movement groups based on various criteria; e.g., speed and characteristics of the ships, and the time the ships are needed in the landing area. Some ships will arrive before D-day, some on D-day, and the remainder after D-day. The commander, landing force (CLF) ensures that the phasing of these ships into the landing area is consistent with his plans.

b. Landing Force Activities During Movement. The CLF ensures that adequate plans are made to provide for needed training, briefings, administration, and maintenance of equipment during the movement phase.

4. Responsibilities

a. The CATF is responsible for preparing a movement plan during the planning phase. In operations involving several task groups, he usually prepares a general movement plan in which coordinating measures are included as necessary. Subordinate force or group commanders prepare their own detailed movement plans. Since the details of the movement depend on the overall requirements of the operation, the movement plans are generally among the last plans to be completed during the planning phase. Each movement is usually included as an annex to the appropriate operations plan or order.

(1) Alternate Plans. The CATF is also responsible for drafting alternate plans. The alternate plan for an amphibious operation may so differ from the preferred plan that separate movement or approach plans are necessary. It will seldom be possible to determine far in advance the time at which an alternate plan will be placed in effect. Therefore, movement plans must be flexible enough for execution of alternate plans at any point between the final staging area and a point as close as practicable to the landing area.

(2) Routes. The CATF selects the routes to the landing area if they are not prescribed by higher authority. Other responsibilities of the CATF are set forth in Chapter 14 of JCS Pub 3-02.

b. The CLF ensures that the various movement plans support his plans for landing and LF operations ashore. The CLF participates in the selection of the following areas (See also Chapter VI, paragraph 15, of this publication).

(1) Helicopter Transport Areas. The helicopter transport area is used when wind and other conditions are such that operations cannot be conducted from regularly assigned stations in the transport area.

(2) Fire Support Areas. The fire support areas selected should provide optimum fields of fire, be as close to the shore as depths of water and hazards to navigation permit, and be so located that the operations of fire support ships will not cause hazards or interfere with landing operations.

(3) Amphibious Launching Areas. Amphibious launching areas located in the near vicinity and to seaward of the line of departure to which landing ships proceed and launch amphibious vehicles.

c. En Route Support. The LF may be requested by the CATF to provide certain operational support to the ATF while en route; e.g., helicopters for messenger service or assistance in air defense. The CLF should provide the requested support if it will not interfere with the landing force's ability to perform its assigned mission.

5. En Route Considerations

a. Command/Discipline

(1) Commanding Officer of a Ship. The CO of a ship is charged by Navy regulations with the operating and fighting efficiency of his ship as well as the safety of all personnel aboard. He is responsible for making troop spaces designated in the Ship's Berthing Plan and reflected in the Ship's Loading and Characteristics Pamphlet (SLCP) available in acceptable condition for use of the troops. In the form of ship's regulations, he promulgates instructions for the conduct of troops and outlines the assistance necessary from embarked troops to ensure their health and comfort while embarked.

(2) Embarkation Team Commander. The embarkation team commander is responsible for the preparation and organization of the team for embarkation. He must plan for and provide personnel to accomplish certain troop support tasks while embarked.

(3) Commanding Officer of Troops. Since troops of several different organizations may be embarked in the same ship, it is necessary, for administrative purposes, to designate an officer as commander of all embarked troops. Accordingly, the organizations responsible for providing a commanding officer of troops (CO of troops) for each ship are designated during the planning phase by the next senior troop echelon. Usually, the senior troop commander of the organizations embarked is designated CO of troops. Thus, in many instances, he will be the same officer designated as the embarkation team commander. While embarked, he is responsible for the administration, discipline, and training of all embarked troops.

(4) See Chapter II for a more detailed discussion of command relations and Chapter XI for embarkation matters.

b. Logistics

(1) Minimum Requirement. Normally, the movement phase presents the least difficulties in terms of logistics support. Troops receive subsistence and medical support from the ship in which they are embarked. CSS activity is limited in large measure to servicing and maintenance of equipment and to modification of support plans as made necessary by direction of higher authority or changes in the tactical plan. Naval commanders should afford every assistance practicable to embarked troop commanders in the servicing and maintenance of LF equipment during movement to the objective.

(2) Support of Embarked Aircraft. Ships that transport tactical aircraft, including helicopters, usually provide repair parts (except the amphibious transport dock (LPD)), maintenance facilities, and fuel for the en route support of embarked aircraft.

(3) Fresh Water. Instructing all personnel in the economical use of fresh water while embarked must be emphasized.

c. Training. An ATF proceeding toward an AOA conducts such training exercises as are practicable during the transit. Training conducted while a ship is underway is limited necessarily to activities that do not interfere with the ship's operating procedures. Congested conditions aboard ship require that shipboard routine be highly organized. Consequently, troop training on board ship must be thoroughly planned, organized, and cleared with the ship's commanding officer in order to avoid conflict with other shipboard activities.

(1) Shipboard Training. While the ships are under way, embarked troops participate in ship's emergency drills; conduct debarkation drills; conduct LF training as appropriate with particular emphasis on combat orientation, indoctrination, and briefings on the operation; and hold physical training drills. Ships provide facilities insofar as they are able to assist in troop training.

(2) Landing Force Training. In many operations, in order to maintain operations security, LF personnel at lower echelons will not be informed of the prospective operation until they are aboard ship. Thus, during the movement phase, troops are informed on appropriate aspects of the operation, including the mission and tasks of their unit. Within the confines of the ship, imaginative training can be conducted to better prepare small units--information on the nature of the AOA, sanitation and hygiene, code of conduct, arm and hand signals, NBC, marksmanship techniques, weapons cleaning procedures--the possibilities for small unit training are numerous. The guidance of CLF and other commanders is necessary to give focus to the desired types of training and how the available time can be best used. Test firing of weapons may be possible during the period. Ships of the LHA class have the ability to control temperature in certain spaces to provide a degree of acclimatization experience. Embarked staffs can conduct command post exercises using maps of the landing area and simulating radio traffic over the ship's phone system.

d. Emission Control

(1) Responsibility. The CATF establishes emission controls (EMCON) and also controls the employment of electronic warfare assets within the ATF during movement to the landing area.

(2) Emission Controls. Radio transmitters, radar, and other electronic emitters must not be operated for drill, test, or other purposes until security restrictions are removed or without specific permission of the movement group commander. An emergency situation involving the immediate safety or security of one or more units of a group may necessitate the breaking of EMCON. This is normally the only permissible exception to an established EMCON condition, unless otherwise provided for by the CATF, and is usually of a temporary nature. The test and repair of equipment may be permitted by ship commanders, provided that positive measures are taken to prevent radiation beyond the ship's hull. Provisions are made, whenever practicable, for helicopter or fast-ship guard mail and messenger service within movement groups and for air delivery to flagships of other movement groups by carrier aircraft.

e. Intelligence

(1) En Route. An ATF, or elements thereof, may receive significant intelligence information while en route to the landing area. This is particularly true in situations wherein forces exterior to the ATF, such as theater air, carrier strike forces, or unconventional warfare forces conduct pre-D-day operations in the AOA. Another valuable source of information is remote sensor data obtained from sensors tactically emplaced by air or reconnaissance units. Such information may generate modifications to existing operation plans.

(2) Dissemination. The CATF and subordinate commanders are responsible for timely dissemination of pertinent intelligence information received en route to their counterpart commanders in the LF. Commanders of individual ships receiving such information are responsible for passing information pertinent to the LF to the senior troop commander embarked as appropriate. Likewise, the CLF is responsible for disseminating to the CATF information that the LF receives through its sources that may be of interest to the Navy.

CHAPTER XIV

SUPPORTING AND PREASSAULT OPERATIONS

1. Introduction. Supporting operations and preassault operations are conducted by task organized forces in order to enhance the chances for the successful execution of the amphibious task force (ATF) mission.

2. Purpose and Scope. The purpose of this chapter is to provide information on supporting and preassault operations relevant to landing force (LF) operations and to provide guidance on the planning and execution of preassault operations involving LF elements. This chapter complements Chapter 15 of JCS Pub 3-02, and provides details concerning aspects of supporting and preassault operations of particular interest to the LF. In a broad sense, these include reconnaissance, preparation of the landing area, landings, and deception. LF interest in such activities ranges from receiving and processing information derived from preassault operations to preparing troop requirements relating to such operations or to actively participating in their conduct.

3. General

a. Purposes. Supporting and preassault operations are conducted by forces assigned to the ATF to:

- (1) Isolate the landing area.
- (2) Gain information on the enemy.
- (3) Prepare the landing area.

b. Supporting Operations. Other operations may be conducted prior to the arrival of the advance force by forces other than those assigned to the ATF. These supporting operations are undertaken by direction of higher authority at the request of the commander, amphibious task force (CATF). The CATF is responsible for consolidating requirements from all elements of the ATF and forwarding those that cannot be accomplished by his own forces to higher authority for decision. (Those that he can accomplish with his own force would normally be assigned to the advance force.) Any or all of the following tasks may be accomplished prior to the arrival of the advance force:

- (1) Isolation and attainment of superiority.

- (2) Destruction of specific targets.
- (3) Harassment.
- (4) Psychological warfare.
- (5) Collection of information on the enemy.
- (6) Destruction or neutralization of distant forces.

c. Clandestine and Overt Preassault Operations. Preassault operations range from clandestine reconnaissance to bombardment of the landing area by air, naval gunfire, and artillery (if firing positions are available). The overt actions can be for the purpose of preparing the area for invasion or deceiving the enemy as to the area that will be assaulted.

d. Tradeoffs. Key decisions are made by the CATF and the commander, landing force (CLF) regarding the desirability and feasibility of conducting preassault operations. These decisions involve certain tradeoffs:

- (1) Refraining from or limiting preassault operations in order to maintain the element of surprise versus gathering maximum intelligence or conducting extensive bombardment to reduce the enemy's defenses.
- (2) Drawing down on LF assets to conduct a subsidiary landing to deceive the enemy as to the location of the main landing versus applying all LF assets to the main landing.
- (3) The advantages versus the disadvantages of limiting the availability of naval gunfire and mine clearing ships.

4. Responsibilities. After the decision has been made to employ an advance force, specific responsibilities are:

a. The CATF is responsible for consolidating the requirements of the landing force with those of the other elements of the ATF and for issuing directives to the advance force commander to prepare the detailed plans for operations of the advance force. The CATF reviews the detailed plans of the advance force to ensure that they meet the stated requirements.

b. The CLF is responsible for the preparation of troop requirements for naval gunfire, air strikes, pre-D-day seizure of supporting positions, demonstrations, and reconnaissance and for the identification of these requirements to the CATF. The CLF is also responsible for indicating the LF representation he desires to accompany the advance force commander. If pre-D-day landings or demonstrations are to be conducted, the CLF will form a landing group or a subordinate task organization and direct the landing group commander to report to the advance force commander for planning.

c. The advance force commander is responsible for the detailed planning for operations of his force. He ensures that his plans will fulfill the overall requirements of the ATF. He prepares naval gunfire, air operations, minesweeping, landing site reconnaissance, underwater demolition, mine and net laying (if required), and pre-D-day landing plans. Any landings or demonstrations to be conducted are planned in consultation with the landing group commander of the advance force. In this planning, the advance force commander follows the same procedures the CATF observes when planning the main landing.

d. When the advance force includes a landing group, the landing group commander plans his operations in conjunction with the advance force commander, following the same procedures the CLF observes when planning the main landing.

5. Planning Considerations. If not directed by higher authority, the decision to employ an advance force is made early in the planning phase by the CATF, after consultation with the CLF. The decision is made after weighing the relative advantages and disadvantages of strategic and/or tactical surprise and requirements for preparation of the landing area. In preparing his plans, the landing group commander considers the same factors that the CLF considers in the preparation of his plans. The factors are discussed throughout this publication; e.g., sufficiency of means, enemy capabilities, and targets to be attacked, etc.

a. Surprise

(1) Complete strategic surprise is difficult to attain against an alert enemy because hostile air and submarine reconnaissance, and US preliminary reconnaissance and bombardment all militate against it. The prospects of achieving strategic surprise will decrease with efforts to isolate the AOA.

(2) Tactical surprise also may be difficult to attain when the objective is a small geographic locality. Against large land masses, however, tactical surprise may be achieved, regardless of the intent shown by the preassault preparation of the objective area. These preassault operations should cover areas in addition to those selected for the landing. ATF movements and their timing should not indicate the areas toward which the attack is directed until the ship-to-shore movement actually commences. Tactical surprise, while desirable, may not always be necessary if the effectiveness of the preparation is sufficient to offset the disadvantages incurred by the loss of surprise.

(3) When surprise is a principal consideration for success, but is not attained, severe losses and possible failure may result. Consequently, the commander must, in all cases, weigh carefully this possibility against the known advantages of a thorough preparation of the landing area by a properly constituted advance force.

b. Preparation of the Landing Area. The extent of enemy fixed defenses, including air defenses, mines, beach and helicopter landing zone obstacles, and shore defenses must be taken into account.

(1) The need for advance force operations is indicated when the landing area selected is extensively organized for defense, the offshore areas are heavily mined, and the main defending forces are occupying fixed defenses with corresponding light reserves.

(2) The need for advance force operations is not indicated when the landing area selected is lightly defended and the main defending force is held in reserve. The advantage of conducting advance force operations for the purpose of destruction is weighed against the disadvantage of disclosing the selected landing area. Unless the objective area can be isolated and reinforcements excluded, the enemy ground forces may build up their local strength rapidly during advance force operations, regardless of the destructive and disruptive effects of the attacks. Under these conditions, pre-D-day operations are directed toward attacking the enemy troops, destroying enemy reserves, and creating bottlenecks in the enemy communications nets.

6. Appropriate Preassault Missions and Tasks. The following missions and tasks are appropriate to an advance force properly task organized to conduct specified operations:

- a. Destruction of defenses ashore.
- b. Preparation of sea areas, including mine and underwater obstacle clearance.
- c. Preparation of beaches and beach approaches.
- d. Beach reconnaissance.
- e. Isolation of the landing area and attainment and maintenance of local air superiority.
- f. Pre-D-day landings.
- g. Demonstrations.
- h. Electronic warfare.
- i. Meteorological data.

7. Reconnaissance. Reconnaissance is a mission undertaken to obtain, by visual observation or other detection methods, information about the activities and resources of an enemy or potential enemy or to secure data concerning the meteorological, hydrographic, or geographic characteristics of a particular area. The basic principles of reconnaissance applicable to any type of operation are valid for reconnaissance conducted during an amphibious operation. (For additional information on reconnaissance see Chapter VII.)

8. Preparation of the Landing Area

- a. Preparation of the landing area is of particular interest to the LF. Preparation of the landing area may be accomplished by forces not a part of the ATF and/or by the advance force. Upon arrival in the landing area, the main body either initiates or augments preparation of the landing area. These operations are intensified as H-hour approaches.
- b. Means. The following means may be employed to prepare the landing area: naval gunfire, offensive air, artillery, SEAL teams, amphibious raids, and friendly guerrilla operations.

c. Tasks. Tasks appropriate to these means may include the destruction of specific targets, such as beach and landing zone defenses, gun emplacements, command and observation posts, and any other similar enemy installations; destruction and/or marking of all natural or manmade obstacles, including mines that make passage to the beach and landing hazardous; isolation of the area; and attainment and maintenance of local air superiority.

9. Landings. Landings that may be conducted in the AOA in support of the main landing include:

a. Subsidiary landings conducted by either the advance force or main body of the ATF (see Chapter XVI).

b. Amphibious raids conducted by either the advance force or by forces not a part of the ATF. (See Chapter XVII)

10. Deception

a. Purpose. Deception to conceal or support the landing is normally achieved prior to, or during the early stages of, the assault. Such operations are designed to disguise ATF capabilities and intentions and to mislead the enemy so that he will react in a manner that is advantageous to the ATF.

b. Forces. Deception operations are conducted as follows:

(1) Strategic deception is conducted by forces not a part of the ATF.

(2) Tactical deception is conducted by the advance force or the main body of the ATF.

c. Strategic Deception

(1) The decision to conduct strategic deception operations may be made independently by higher authority or in direct response to requirements stated by the CATF who, in turn, may derive his requirements from or in consultation with the CLF.

(2) Strategic deception may include such techniques as the intentional disclosure of information of operations not intended for execution, and may include embarkation, rehearsal, and departure thereto. Amphibious raids may be conducted to achieve strategic

deception. In addition, bombing and bombardment operations may be conducted over a wide area with similar intensity at several points.

d. Tactical Deception

(1) The decision to conduct tactical deception operations is of such consequence that it is made during preliminary planning by the CATF in consultation with the CLF.

(2) The equipment and other means necessary to conduct an amphibious assault are the very means required to organize and implement an effective tactical deception operation. Tactical deception operations vary in magnitude and may include the following:

(a) Amphibious Demonstration. An amphibious demonstration is a landing deception operation that is largely naval in character; therefore, it is discussed separately in Chapter XVII.

(b) Helicopter Landings. Helicopters can be used in tactical deception operations to conduct landings in the deception target area, with or without embarked troops. The speed with which they can approach and withdraw from potential landing zones presents a problem to the defender who must decide whether such movements are feints at landing or actual assault operations and react accordingly. The use of helicopters may be restricted because of conflicting requirements for their use in actual operations.

(c) Subsidiary Landings. Subsidiary landings may be conducted to induce an enemy reaction that will favor the main landing. (See Chapter XV.)

(d) Amphibious Raids. Amphibious raids may be conducted to create a diversion. (See Chapter XVII.)

(e) Bombings and Bombardments. Although more appropriately used in strategic deception, bombing and bombardment other than in support of the landing may be used as a tactical deception measure.

(f) Smoke. Smoke may be used to draw enemy attention to areas where nothing of importance is occurring or, conversely, to conceal actual operations.

(g) Electronic Deception. Actions may be undertaken to manipulate friendly unit electromagnetic energy radiation in order to eliminate revealing, or convey misleading telltale, indicators that may be used by enemy forces. Also, through simulation, actions may be undertaken to represent friendly unit notional capabilities in order to mislead enemy forces.

(3) In general, tactical deception is used to:

(a) Preserve friendly forces.

(b) Cause the enemy to reveal his strength, disposition, and intentions.

(c) Cause the enemy to redispense his forces in a manner to favor friendly operations.

(d) Induce the enemy to execute actions favorable to friendly operations.

(e) Achieve maximum surprise.

(f) Offset an enemy advantage in men, equipment, and tactical disposition.

(4) Successful tactical deception operations require that the following factors be considered:

(a) A careful examination of the advantages, disadvantages, and risks involved when an opportunity for tactical deception arises. If successful, the deception should further actual operations, but more importantly, if the deception is unsuccessful, it must not cause the operation to fail.

(b) The tactical deception plan must be closely integrated with other operational planning and must be prepared with the same degree of thoroughness as the operation plan.

(c) A thorough understanding is required of the enemy's command organization, intelligence system, ethnic characteristics and habits, and, when possible, the personal characteristics of the enemy commander. Success at deception is predicated on the ability of the deceiver to predict the enemy's probable reaction.

(d) Adequate time must be allowed for creating the deception plan and for the enemy to react to deception operations. Further, deception is effective only for a limited period of time.

(e) Active deception measures must have continuity with past and future operations.

(f) The deception operation must be sufficiently flexible to counter unexpected enemy reactions.

(g) The deception operation must be realistic and plausible.

(h) Tactical deception calls for strict secrecy. Information concerning the deception plan is disseminated strictly on a need-to-know basis. The deception plan should not be an annex to the operation plan unless the distribution of the annex is rigidly limited.

11. Supporting Arms

a. The CATF provides the advance force support for various ATF elements as they accomplish their tasks in preparing the AOA for assault.

(1) Air and Naval Gunfire. All elements of an advance force engaged in preparing the landing area for assault are provided with air and naval gunfire support as necessary.

(2) Artillery. Advance force operations may include pre-D-day landing of artillery to be employed in positions from which it can support units making pre-D-day or D-day landings.

(3) Control and Coordination

(a) The advance force commander establishes an advance force supporting arms coordination center (SACC). The advance force supporting arms

coordinator maintains an up-to-date target list to pass on to the SACC of the ATF.

(b) An advance echelon of the LF fire support coordination center (FSCC) usually accompanies the advance force SACC. The officer in charge of this advance echelon functions as the LF representative in the SACC during advance force operations. He advises the advance force supporting arms coordinator on LF fire support matters. He maintains a complete record of all targets discovered and engaged by air and naval gunfire elements of the advance force.

(c) Control of tactical air operations is exercised by the advance force commander through the tactical air control system.

12. Coordination with Other Forces. The advance force commander coordinates the operations of his force with those of other forces in the same area.

a. Air. All aircraft operating in the amphibious objective area during advance force operations are under the control of the commander of the advance force. In order to avoid confusion and to ensure the safety of friendly forces, coordinated planning is necessary between the advance force and other forces whose aircraft may enter the area. Such forces may include carrier task forces, hunter-killer forces, striking and covering forces, and Air Force forces. Coordinated planning is necessary for strikes, identification, search and rescue, warning, approach to the area, and reconnaissance matters.

b. Demonstration Forces. Generally, deception plans to be carried out by demonstration forces are made at the ATF or higher level. The advance force commander, however, coordinates his efforts with those of such demonstration forces in order to increase the chances for tactical surprise by the main body of the ATF. The plans of the advance force and demonstration forces operating in other areas must be coordinated in order to provide the requisite degree of deception.

c. Other Forces. Prior to the arrival of the advance force in the AOA, other forces may have conducted attacks or reconnaissance therein. The CATF should request the results of such operations from higher headquarters to ensure that pertinent information is made available to the advance force during its planning.

CHAPTER XV

SUBSIDIARY LANDING

1. Introduction

a. Definition. A subsidiary landing is, in an amphibious operation, a landing usually made outside the designated landing area, the purpose of which is to support the main landing (JCS Pub 1-02).

b. Application. Subsidiary landings support the main landing by:

(1) Capturing specific positions for emplacement of artillery, airfields, logistic support facilities, and air warning and control installations to provide support to the main landing.

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

(3) Using deception to induce a hostile reaction that will favor the main landing.

c. Subsidiary Landings Forces. Subsidiary landings can be conducted by assets internal (organic) or external (nonorganic) to the amphibious task force (ATF) and can be conducted prior to, during, or after the main landing.

d. Similarity to an Amphibious Raid. An amphibious raid bears a close resemblance to a subsidiary landing except that specific provision is made for withdrawal. Certain of the factors listed above concerning subsidiary landings apply to amphibious raids. (See Chapter XVII below and JCS Pub 3-02, for detailed coverage of amphibious raids.)

2. Purpose and Scope. This chapter, which complements the information provided in Chapter 5 of JCS Pub 3-02, provides additional information from the perspective of the commander, landing force (CLF) on planning and executing subsidiary landings.

3. General. An amphibious operation may require one or more subsidiary landings to be conducted outside the main landing area to support the main operation. These landings may be conducted before, during, or after the main landing. If made before, the effect on the main effort in terms of possible loss of surprise should be fully considered. Diversion of organic

ATF forces to effect subsidiary landings is justified only when such employment will be of greater expected value than commitment to the main landing. Organic ATF forces employed in subsidiary landings that precede the main landing, in some situations, can be reembarked and employed as reserves for the main landing. These operations may be conducted by the advance force concurrently with preliminary air support, naval bombardment, and underwater demolition tasks or with the full support of the entire ATF.

4. Responsibilities. Responsibilities for the planning and execution of a subsidiary landing are based on many factors, the most significant of which is the forces tasked to conduct the subsidiary landing.

a. Forces External to the Amphibious Task Force. If the subsidiary landing is conducted by forces external to the ATF and the commander, amphibious task force (CATF) is not in control of the area in which the subsidiary landing is to take place, then neither the CATF nor CLF have any direct responsibility. However, they will both have a great deal of interest in the success of the operation. They may be consulted in the formulation of the plans and execution of the subsidiary landing. They may be afforded the opportunity to provide liaison personnel to the forces conducting the subsidiary landing.

b. Forces Internal to the Amphibious Task Force. If the subsidiary landing is conducted by forces internal (organic) to the ATF, then both the CATF and CLF will have major responsibilities. The CATF and CLF may determine that the scope of and/or distances involved are beyond the range of their effective control. In such cases, an attack group and a corresponding landing group may be formed to accomplish the subsidiary landing. The responsibilities and relationships of the attack group commander and landing group commander to plan the operation parallel those of the CATF and CLF. During operations, several command relationship arrangements are possible. (See Chapter 2, subparagraph 9b above.)

5. Planning Considerations

a. Factors. In arriving at a decision to conduct subsidiary landings and in planning for such landings, the following factors are considered:

(1) The effect on the main landing relative to loss of surprise.

(2) The requirement for seizure of specific positions essential for support of the main landing.

(3) The requirement for seizure of areas that would deny use by the enemy opposing the main landing.

(4) The requirement to create a deception that would favor the main landing.

(5) A careful computation of time and space factors relative to the subsidiary landing and the main landing that it is to support.

(6) Whether it is desirable or feasible for the forces employed in subsidiary landings to be reembarked and employed as reserves for the main landing.

(7) The necessity for planning and executing the subsidiary landing with the same precision and comparable support as the main landing.

(8) The relative merits of the advance force or main body to conduct the landings.

b. Deception. Subsidiary landings may be conducted for the purpose of diverting hostile attention and strength from the main landing. Although deception plans to be executed by forces not a part of the ATF are normally prepared by higher authority, the CLF may recommend that deception by such forces be carried out in support of his operations. Raids and demonstrations may be conducted for the same purpose--deception--and are discussed in Chapter XVII. (See also Chapter XIV, paragraph 10 above.)

CHAPTER XVI

ASSAULT

1. Introduction

a. Definition. In an amphibious operation, the assault phase is the period between the arrival of the major assault forces of the amphibious task force in the objective area and the accomplishment of their mission (JCS Pub 1-02).

b. Assault phase. The assault phase of an amphibious operation encompasses:

- (1) Preparation by air strikes and naval gunfire.
- (2) Ship-to-shore movement of the landing force (LF) by helicopters, landing craft, amphibious vehicles, and landing ships.
- (3) Landings in landing and drop zones and on beaches by the assault elements of the LF.
- (4) Operations inland to effect juncture between waterborne, helicopterborne, airborne, and/or air-landed assault forces and to seize the beachhead.
- (5) Provision of logistics, air, and naval gunfire support of the attack throughout the assault.
- (6) Landing of remaining LF elements for the conduct of such operations as may be required to complete the amphibious task force (ATF) mission.

c. Stages of the Assault. The assault phase of an amphibious operation includes the planned progression through a series of intermediate stages. The initial stages include preparatory fires before H-hour and the ship-to-shore movement of the scheduled waves of the LF by surface and helicopter means. Operations ashore may be divided into distinct phases by the commander, landing force (CLF) and will progress through a series of coordinated attacks to capture assigned objectives. The buildup of combat power and sustaining supplies ashore continues throughout the assault. Certain tasks, such as base development, may be initiated during the assault in preparation for subsequent operations. The assault phase is terminated when the ATF mission has been accomplished

and other conditions contained in the initiating directive have been met. (For additional information on termination of the amphibious operation, see Chapter I, paragraph 14 above and paragraph 113 of JCS Pub 3-02.)

2. Purpose and Scope. This chapter provides an overview of the assault phase of the amphibious operation, from its initial stages of preparatory fires and ship-to-shore movement, through the seizure of LF and ATF objectives, to consolidation of the beachhead and the initiation of other tasks incident to the operation. To avoid repetition, detailed information is not presented herein; however, the reader is referred to appropriate chapters of this publication and to Chapter 16 of JCS Pub 3-02, which provides a comprehensive discussion of the assault phase.

3. General

a. Concept of Operations and Flexibility. The primary task of the LF is to secure objectives ashore in order to accomplish the mission of the ATF. Operations of other elements of the ATF are directed toward supporting the landing force during the assault. The LF concept of operations ashore is the basic factor in determining the pattern of the assault. Flexibility of plans and speed in their execution are the essential factors in its conduct.

b. Command and Control. The commander, amphibious task force (CATF) remains in command of all aspects of the amphibious operation, providing unity of command, until the operation is terminated. The complex nature of amphibious warfare requires, at least initially, that control be centralized. Thus, CATF initially controls all aspects of supporting arms, air operations, the ship-to-shore movement, and CSS through his control agencies. Later, as the LF is established ashore and its control facilities become operational, the CATF may incrementally pass control of various functions to the CLF. Certain functions, such as waterborne movement and combat service support (CSS) may be decentralized as the operation progresses; others, including aviation operations, remain centrally controlled.

c. Cooperation and Coordination. The need for close coordination and cooperation during the assault cannot be overemphasized.

4. Authority

a. CATF's authority during the assault phase is discussed in Chapter II, subparagraph 9c(1) above.

b. CLF's authority during the assault phase is discussed in Chapter II, subparagraph 9c(2) above.

c. Planning. The responsibilities for planning for the assault are discussed in Chapters III through XI above.

5. Organization for the Assault

a. Parallel Organizations. The organization for the amphibious assault is based on the parallel organization of the LF and the naval forces that transport, land, and support the LF. The LF organization for landing is the specific tactical grouping of forces for the assault. The tactical unity of the assault elements is maintained insofar as practicable during the ship-to-shore movement. The corresponding organization afloat must parallel that of the troops to facilitate execution of the landing plan and the scheme of maneuver ashore.

b. Additional Information. Chapter II, paragraphs 8 and 9, and Chapter VI, paragraph 15, provide additional information on the organization for assault.

c. Navy Organization. Chapter 16 of JCS Pub 3-02 provides additional information on the organization of Navy forces and area organization. An overview of the Navy organization and information on the area organization are presented in Chapter VI, paragraphs 15 and 16 above.

6. Control

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

b. Supporting Arms and Air Operations. The CATF exercises control of all supporting arms during the initial stages of the assault, through the supporting arms coordination center (SACC) and the tactical air control center (TACC). Control of supporting arms may be passed to the CLF when the LF has the capability to exercise control. Control of air operations may also be passed to the CLF, or to an appropriate commander who has the capability to control air operations, during the assault. Control of various aspects of supporting arms and air operations may be passed on an incremental basis when the necessary control facilities are established ashore; e.g., control of naval gunfire, control of close air support, control of helicopter operations, and responsibility for air defense of the landward sector of the landing area. Normally, the afloat control agencies continue to monitor communication circuits, and are capable of resuming control if required.

c. Combat Service Support. The CATF initially exercises control of CSS, in consonance with his responsibility for control of the ship-to-shore movement.

d. Control System. The system for the control of the ship-to-shore movement is governed by the landing force plan for landing. The maximum area over which effective centralized control of the ship-to-shore movement may be exercised varies in each situation and is, in large part, governed by communications capabilities.

e. Backup Control Capability. The control system must provide the means for rapid fulfillment of landing force requirements during the ship-to-shore movement. Backup control systems are kept in a standby status so that control can be quickly regained if lost due to enemy action, communications outages, or other failures.

f. Additional Information on Control. Additional information on control during the assault is provided in Chapter VI, paragraphs 21 through 27; Chapter VIII; Chapter XI, paragraphs 11 through 18; and Chapter X above.

7. Prelanding Operations

a. General. Prelanding operations encompass the initial events of the assault phase and include final preparation of the landing area and final preparation for the ship-to-shore movement. Prelanding operations are conducted by the ATF and normally take place on D-day.

b. Preassault Operations. Preassault operations are not the same as prelanding operations. Preassault operations are normally conducted by an advance force and take place before D-day, and prior to the arrival of the ATF in the landing area.

c. Prelanding Operations. Prelanding operations normally are conducted by the ATF on D-day. Prelanding operations are discussed Chapters VI, VII, VIII, and IX above. Navy prelanding operations are discussed in Chapter 16 of JCS Pub 3-02.

8. Final Preparation of the Landing Area

a. Final Preparation. Final preparation of the landing area includes minesweeping operations, underwater demolition team operations, air operations, and naval gunfire.

b. Air Preparation. Air attack measures include preplanned air strikes conducted against enemy defensive installations on and in the vicinity of the landing beaches and helicopter landing zones.

c. Naval Gunfire Preparation. Naval gunfire preparation of the landing area is intensified as H-hour approaches. This fire is designed to destroy or neutralize hostile defense installations that might interfere with the approach and final deployment of the ATF, and to assist in isolation of the landing area.

d. Additional Information. See Chapter VIII above for additional information on final preparation of the landing area.

9. Final Preparation for Ship-to Shore Movement. As the ATF starts the final approach to assigned positions for the assault, ships prepare to debark or enplane the embarked troops, equipment, and supplies in accordance with previously prepared plans. The commencement of debarkation and/or enplanement and the timing of the ship-to-shore movement are dependent on the designated H-hour. All elements must be prepared to modify plans on short notice to conform to changes in H-hour.

10. Initiation of the Assault

a. Primary or Alternate Plan. Before the assault elements of the ATF arrive in the landing area, the decision is made to execute either the primary plan or one of the alternate plans for the assault. After arrival of assault shipping in the assigned sea areas, the CATF initiates the landing by signal. H-hour is confirmed as soon as practicable, or is changed as necessary, by the CATF following consultation with the CLF.

b. Assault Operations. Assault operations by the landing force begin with the ship-to-shore movement and the landing of the first scheduled waves and continue until termination of the amphibious assault operation. Other forces continue to provide logistics and fire support during the assault operations of the LF and continue to provide overall protection of the ATF.

c. Additional Information. See Chapter VI above for additional information on ship-to-shore movement; and Chapter VIII and Chapter 16 of JCS Pub 3-02, and NWP 22-3/FMFM 1-8, for additional information on supporting arms in the assault. Initial CSS provided by the landing support organization is discussed in Chapter X, paragraph 3 above.

11. Capture of the Beachhead. Operations are directed toward establishing a secure beachhead that is large enough to ensure the continuous landing of troops and materiel and to provide the terrain features and maneuver space required for initiating planned further operations ashore. Intermediate objectives are designated to enable troop commanders to coordinate their efforts during operations to capture the beachhead. An early juncture between the waterborne forces and troops landed by helicopter, parachute, or transport aircraft may be desirable. Based on the threat and friendly scheme of maneuver, reserves of the assault units are landed as required in order to maintain the momentum of the attack.

12. Combat Support Units

a. Employment of Combat Support. The employment of combat support (CS) units in the assault varies with the scheme of maneuver of the LF.

b. Flexibility in Landing. The landing of such units is planned to provide flexibility in order that they may be used at the time and place best suited for full exploitation of their capabilities. Certain CS units may land in the scheduled waves. Under such circumstances, the initial employment of these units is preplanned. Other CS units for which an early requirement is expected may be placed in the on-call waves.

c. Additional Information. Chapters V, VI, and VIII provide additional information on the employment of CS in the assault.

13. Combat Service Support Units

a. Landing Sequence. CSS units may be assigned to scheduled, on-call, or nonscheduled waves. Equipment and supplies required to support helicopterborne units, and not carried with those units, are landed as requested by the helicopter support team concerned, through the cognizant tactical-logistical group (TACLOG) and naval control agency. The majority of CSS units are placed in a nonscheduled status. Their degree of readiness for landing is governed by tentative plans for their use.

b. CSS Operations Ashore. During the assault phase, the logistics and CSS for the landing force are developed progressively ashore, starting from a sea-based status, proceeding through a period of decentralized support conducted through several beaches and landing zones, and eventually consolidated ashore into a single centrally controlled effort. Since the supplies and equipment carried as basic loads by individuals and organizations in the initial landing are limited, a flexible yet positive CSS system is established to provide timely replenishment of supplies and to build up stocks ashore to sustain the assault and diminish the dependence of the landing force on supplies that are still afloat.

c. Additional Information. Chapters VI and X provide additional information on CSS in the assault.

14. Landing of the Reserves

a. Landing Priority. Landing of the reserve of assault BLTs (or similar formations) is usually scheduled. Reserves of higher echelons, including the LF reserve, are maintained in immediate readiness as on-call waves for landing as required.

b. Additional Information. Chapters V and VI provide additional information on landing of the reserves.

15. Continuation of the Attack

a. General. The attack is continued by coordinated operations conducted by the LF for the capture of all designated objectives within the force beachhead. Continuation of the attack beyond the beachhead depends on the completion of a satisfactory buildup ashore of CS, CSS, and reserve units. Tactical reorganization and reorientation for the attack are accomplished as necessary before the coordinated attack from the beachhead is launched.

b. Additional Information. Chapter V provides additional information on continuing the attack ashore.

16. Initiation of Other Tasks During the Assault Phase

a. General. During the assault, it may be desirable to initiate, as required and as conditions permit, certain tasks such as base development, area defense, and the buildup of forces and supplies for subsequent operations ashore following the amphibious operation. Such tasks are normally undertaken by units that, while initially attached to the ATF for this purpose, are designated to remain in the AOA following termination of the amphibious operation.

b. Initiating Directive. The initiating directive may direct that additional tasks be undertaken by the CATF before to termination of the operation.

17. Termination of the Assault Phase. The termination of the amphibious assault marks the termination of the amphibious operation in accordance with the principles set forth in JCS Pub 3-02. Dissolution of the ATF, reassignment of forces, and transfer of responsibility for subsequent operations in the AOA are accomplished as prescribed in the initiating directive or by other authority.

CHAPTER XVII

RAIDS, DEMONSTRATIONS, AND WITHDRAWALS

1. Introduction. Raids, demonstrations, and withdrawals are other types of amphibious operations in which an entire landing force (LF) or elements thereof may participate. While no two amphibious operations are alike, all are sufficiently similar that basic doctrine and techniques are applicable. These other types of amphibious operations differ from the amphibious assault inasmuch as they do not involve the establishment of a LF ashore.

2. Purpose and Scope. This chapter provides information and planning considerations of interest to the LF on amphibious raids, demonstrations, and withdrawals. The information in this chapter complements the material in Chapters 17, 18, and 19 of JCS Pub 3-02.

3. General. The organizational and command relationships and the planning techniques discussed throughout this manual are generally applicable to amphibious raids, demonstrations, and withdrawals. The salient distinction between these operations and other amphibious operations is that they are designed to achieve limited objectives; therefore, the LF will not need to be firmly established ashore.

4. Responsibilities. The mutual responsibilities of commander, amphibious task force (CATF), commander, landing force (CLF), and other major commanders for the planning and conduct of an amphibious assault generally apply to the planning and execution of amphibious raids, demonstrations, and withdrawals. Such modifications as are required by the situation may be addressed in the initiating directive for the operation or resolved during planning.

5. Amphibious Raids

a. Definition. An amphibious raid is a type of amphibious operation involving swift incursion into or temporary occupation of an objective followed by a planned withdrawal (JCS Pub 1-02).

b. Additional Information. See Chapter 19 of JCS Pub 3-02 for additional information.

6. Characteristics and Purposes

a. Covert or Overt. Amphibious raids may be supported to such a degree that they will resemble the early stages of an amphibious assault or may be accomplished largely by stealth.

b. Independent or Support Other Operations. Raids may be independent operations or support other operations such as another landing, land campaign, or air or naval operation.

c. Aims of Amphibious Raids. Typical aims of amphibious raids are to:

(1) Destroy certain targets, particularly those that do not lend themselves to destruction by other means. Targets for destruction may include military, naval, or industrial installations; communications facilities; and transportation facilities such as bridges and tunnels. Raids aimed at destruction may have either strategic or tactical significance, or both.

(2) Harass the enemy by attacks on isolated posts, patrols, and headquarters and to capture or kill key personnel. In addition to specific aims, harassment lowers the enemy's morale.

(3) Attack the enemy rear or flank positions on a seacoast, in support of forces engaged with the enemy.

(4) Obtain information on hydrography, terrain, and the enemy, including enemy dispositions, morale, strength, movements, and weapons.

(5) Create a diversion in connection with strategic or tactical deception.

(6) Evacuate individuals, including agents, or materiel.

(7) Establish, support, or coordinate unconventional warfare activities.

7. Planning Considerations

a. General. The amphibious raid is planned and executed in the same general manner as the attack of an objective ashore in an amphibious assault. Plans will invariably be

made for withdrawal of the force conducting the raid. In most cases, the raid relies on the element of surprise to accomplish the mission; thus it may be possible to conduct the operation without local naval and air superiority. The limited objectives and short duration of the amphibious raid normally simplify tactical and logistic support requirements. Executing the small-scale raid with limited communications means may be possible.

b. Mission. The raiding force must be given a simple mission. Assignment of alternate missions is undesirable unless the object is to create a diversion. In that case, contingent missions may be assigned or permission given to engage targets of opportunity. However, the assignment of tasks to subordinate elements of the raiding force should be such that failure of one will not cause the entire operation to fail.

c. Sequence of Planning

(1) The amphibious raid will be conducted in the following sequence:

- (a) Attack of the objective.
- (b) Movement from the landing beach or LZ to the objective.
- (c) Ship-to-shore movement.
- (d) Withdrawal to reembarkation sites.
- (e) Reembarkation.

(2) In planning the raid, the attack of the objective is considered first. Plans required for a raid are similar to those for the amphibious assault; i.e., scheme of maneuver, landing plan, and plan of supporting fires, except that the scheme of maneuver must provide for withdrawal and reembarkation.

d. Scheme of Maneuver

(1) Selection of Landing Zones and Beaches. After all intelligence on the area and the enemy has been assembled, the size and type of raiding force is determined concurrently with the plans for attacking the objective. In developing the scheme of maneuver,

the selection of the landing beach(es) or zone(s) is of particular importance. The beaches or zones selected should permit easy access to the objective; however, if surprise is of paramount importance, a less suitable beach or landing zone (or one more distant from the objective) may be chosen.

(2) Size and Composition of Force. The size and composition of the raid force will vary with the situation. A covering force or detachment may be required to prevent interference with both the attack and the withdrawal of the main body.

(3) Nature of a Raid. The nature of a raid requires that plans be detailed and explicit. The raid force may well be attacking an area where the enemy has vastly superior forces and must compensate by surprise, concentration, and massed firepower to achieve decisive results. Specific tasks for each element of the force, individuals, the covering element, and the reserve, as well as alternate procedures for each, may be necessary. In general, the raid will require more precise timing and more specific taskings than other operations. However, if precise timing is important to the operation, flexible procedures to slow or advance the time schedule should be provided.

(4) Withdrawal. Withdrawal is the final step in the scheme of maneuver. Factors considered in planning the withdrawal are the time required to attack and reduce the objective, the expected enemy reaction, the delay expected because of this reaction and friendly casualties, and availability of a covering force. A reembarkation point(s) is selected while planning the scheme of maneuver. Once the operation begins, this point is not changed unless it becomes absolutely necessary, since changes at any time during the raid is confusing and may be disastrous. Although raiding force will usually reembark at the point at which it landed, circumstances may dictate that a different point or beach be designated. For example, if the raiding force lands on a small island or narrow peninsula, consideration should always be given to reembarking on the opposite side. In addition, landings or withdrawals by water may be combined with air entry or evacuation.

e. Fire Support. If supporting fires are desirable and feasible, they are planned in great detail. Preliminary naval gunfire and air support are seldom employed in advance of covert raids but may be employed as fully as in an amphibious assault in a large raid. Between these two extremes, the CLF determines the extent to which supporting fires are of value to him. For example, to achieve surprise during a predawn landing, fires may be withheld until the objective is attacked or the force discovered. Supporting fires are especially valuable during the withdrawal.

f. Ship-to-Shore Movement

(1) Daylight. The techniques employed to land the raid force are dependent on such factors as the mission and enemy situation. If the situation permits, transporting ships move close inshore so landing craft, amphibious vehicles, and helicopters have a relatively short run to the beach. In other situations, the force may be launched by helicopter or LCAC from over-the-horizon. Support ships may then move closer to the beach to provide fire support or effect a withdrawal by surface means. If supporting or preparatory fires are used, the ship-to-shore movement for a raid is similar to that for a major amphibious assault. Control ships and lines of departure off landing beaches are normally used only for large-scale raids.

(2) Limited Visibility. Since a primary reason for landing at night or under other limited visibility conditions is to gain surprise, preparatory fires will rarely be used. Other techniques that preserve surprise are emphasized, including communications restrictions, late deployment of landing craft, and alternate plans for changing landing sites in the event of discovery. Consideration is also given to the possibility of landing either a pre-H-hour covering force or the first troop waves in rubber boats to seize immediate objectives and to cover the landing of the remainder of the raid force in other types of craft.

8. Rehearsals. Rehearsals assume even greater importance in preparation for an amphibious raid than for other operations. All participating forces must be drilled in every detail of debarkation, movement and operations ashore, withdrawal, and

reembarkation. Precise timing, which may be a prerequisite to success, cannot be accurately estimated without adequate rehearsal of the entire force.

9. Execution of the Raid

a. Ship-to-Shore Movement. The ship-to-shore movement commences with the arrival of transports off the beach or helicopter or LCAC launches from more distant areas. A covering element may be landed first to protect the main body during its movement from the beach or LZ to the objective. The raiding force attempts to arrive at the objective without being engaged en route.

b. Rapid Withdrawal. After accomplishing its mission, the raiding force withdraws rapidly. The covering force develops its disposition to ensure an orderly withdrawal and reembarkation. Supporting fires may be intensified as the withdrawal progresses. Withdrawal and reembarkation proceed concurrently until the last man is reembarked.

10. Command and Control

a. Similar to Amphibious Assault. Command and control arrangements for large-scale raids will be similar to those for the amphibious assault.

b. Decentralized. Small-scale raids may rely heavily on surprise and stealth to reach the objective. The CATF and CLF (unless ashore) generally will not be in a position to influence the conduct of the raid unless assistance is requested. Thus, C2 of the raid force will be decentralized. The raid force commander operates from a tactical command post located where he can best control his forces.

11. Amphibious Demonstrations

a. Amphibious Demonstration. An amphibious demonstration is a type of amphibious operation conducted for the purpose of deceiving the enemy by a show of force with the expectation of deluding the enemy into a course of action unfavorable to him (JCS Pub 1-02).

b. Turn-Away Landing. This amphibious demonstration is a feint at landing involving only an approach to a beach or LZ without actually landing. It is a deception operation that is largely naval in character. Thus, although LF

assets (helicopters, amphibious assault vehicles) may be employed to promote the deception, no actual landing is made; the involvement of LF personnel is minimal. In those instances where troops are actually landed, the operation is appropriately termed a raid or subsidiary landing, both of which may be conducted for deceptive purposes.

c. Additional Information. See Chapter 18 of JCS Pub 3-02 for additional information.

12. Characteristics and Purposes

a. Conducted In or Outside Objective Area. In the AOA, an amphibious demonstration may be conducted in or near the landing area, in conjunction with an amphibious assault. In other cases, a demonstration may be conducted outside the AOA by a separate ATF to divert or immobilize enemy strategic reserve forces that could threaten the amphibious assault.

b. Purpose. The demonstration is intended to confuse the defender as to the time, place, or strength of the main attack. It normally includes preparatory and supporting fires.

13. Planning Considerations

a. Early Decision Required. The decision to conduct an amphibious demonstration in support of the main landing or a separate amphibious operation must be made as early as possible so that plans for the two operations may be thoroughly coordinated for the desired deception effect. This decision is made by the CATF, after consultation with the CLF and the Air Force commander, when appropriate.

b. Commander, Landing Force, Interest. Although participation by the LF in the execution of a demonstration is limited, the CLF is active in the planning of the demonstration to ensure proper support of the main attack. Other interests include the role of the LF reserve or helicopter units when such forces are to be employed in the demonstration. The CLF is particularly interested in the evaluation of the results of the demonstration to determine its precise effect on the main landing.

c. Risk to the Main Landing. A demonstration involves a calculated risk to the main landing. This risk must be evaluated when plans for the demonstration and the main attack are made. The demonstration should enhance the success of the main landing but, if unsuccessful, must not jeopardize it.

d. Flexibility. A demonstration is directed at causing the enemy to misuse his capabilities, thus weakening his response to the main landing. However, the demonstration may produce an unexpected reaction; and sufficient flexibility must exist in the execution of the main landing either to exploit unexpected successes or to react to unexpected negative effects resulting from the demonstration.

e. Limited Effect. An amphibious demonstration is only effective for a limited period of time and every effort must be made to achieve its full potential. An accurate estimate of the probable duration of its effectiveness requires a knowledge of the enemy's psychology and intelligence capabilities.

f. Avoid Stereotyped Demonstrations. When a succession of amphibious assaults has been made or is contemplated, particular attention must be paid to varying the size of the demonstration, fire support, and means of conducting the ship-to-shore movement. The repeated use of a stereotyped demonstration will eventually terminate its usefulness. Variation may be obtained by alternately employing waterborne and helicopterborne ship-to-shore movements or a combination of the two, or the occasional use of smoke and by conducting a night demonstration, when feasible. If demonstrations have been used in each of a succession of operations, there may be deceptive value in operating without a demonstration in a subsequent operation.

14. Amphibious Withdrawals

a. Amphibious Withdrawal. An amphibious withdrawal is a type of amphibious operation involving the extraction of forces by sea in naval ships or craft from a hostile or potentially hostile shore (JCS Pub 1-02).

b. Purpose. Amphibious withdrawal operations are conducted to evacuate forces to preclude their loss or to retract them for employment elsewhere.

c. Additional Information. See Chapter 17 of JCS Pub 3-02 for additional information.

15. Characteristics

a. Forced or Voluntary Withdrawal. An amphibious withdrawal may be forced or voluntary. The amphibious withdrawal begins with initial measures in defense of the embarkation area and ends when all elements of the force have been embarked.

b. Distinguishing Characteristics. While sharing the basic maritime features of the amphibious assault, in that it depends upon the sea for support and transportation, the amphibious withdrawal embraces the following distinguishing characteristics:

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

(2) Where enemy action against the LF is substantial or when the requirement for the forces elsewhere is great, the time available for execution of the withdrawal will be brief.

(3) Facilities for embarkation and loading may be extremely restricted, with consequent intensification of logistic problems.

(4) Where the withdrawal is conducted in the face of strong enemy action, the requirements for security are of paramount importance.

(5) All of the requisite fire support means may not be available.

(6) Means for controlling the withdrawal may be limited.

(7) The operation may, of necessity, be conducted under adverse conditions of weather, terrain, and hydrography.

(8) Circumstances may render it advisable to conduct the operation under conditions of limited visibility.

16. Command Relationships

a. General. The amphibious withdrawal may be viewed as an amphibious assault in reverse. As such, CATF exercises command authority as specified by the joint force commander having overall authority for the operation. The CLF is responsible for the conduct of operations ashore, subject to the overall authority of CATF.

b. Dictated by Conditions. The conditions that give rise to the need to conduct a forced withdrawal require that the relationships of the CATF, CLF, and other commanders ashore be most carefully prescribed by the authority who issues the initiating directive. The need for clearly established lines of command authority and control responsibility is illustrated by the following examples:

(1) A withdrawal may involve forces of more than one Service or nation.

(2) Prior to or during the amphibious withdrawal, it may be necessary to conduct a linkup of forces, a relief in place, passage of lines, or withdrawal through a rearward position. Such operations are conducted in accordance with the appropriate doctrine for land warfare.

(3) A covering force will be required to ensure the safety of the withdrawing forces. The mission of the covering force is to prevent enemy interference with the withdrawal, beginning with the initial defense until final embarkation of covering force elements (if required).

(4) The CLF will normally be the commander of the withdrawing force and will provide the covering force. In some cases, however, the commander of the covering force could be designated as CLF. Conceivably, a LF might be inserted ashore for the specific purpose of covering the withdrawal.

(5) Control of aviation and fire support initially may be ashore. Plans must provide for phasing control of the withdrawing force's aviation elements to afloat agencies of the CATF as the operation progresses.

17. Planning Considerations

a. Planning Process Shortened. The planning process will normally be abridged since it may not be possible to predict the need for withdrawal in advance. Nevertheless, the plans for the operation must be of adequate detail and flexibility to respond to a situation that may change rapidly.

b. Landing Force Liaison Officers. The CLF may not be personally available to participate in plan preparation. Liaison officers, empowered to make decisions, should be provided to assist the CATF in planning the withdrawal.

c. Security. Operations security is essential. Secure communication means between the withdrawing forces and the naval forces must be provided.

d. Night Withdrawal. To facilitate deception (if employed) and reduce the effectiveness of enemy observation, an amphibious withdrawal may be conducted partially or totally at night. Whenever possible, it is desirable to withdraw and embark priority elements such as tanks and artillery under cover of darkness. To minimize confusion, night withdrawal plans are carefully prepared, kept as simple as possible, and are rehearsed by, as far as practicable, key personnel.

e. Selection of Beaches and Embarkation Areas

(1) Factors. The embarkation area and beaches are selected by the CATF in consultation with the CLF. To achieve maximum speed in embarkation and to provide passive protection against mass destruction weapons, multiple embarkation beaches within the embarkation area are desirable. Other factors to be considered in selecting the location and number of embarkation beaches include hydrography, distance from transport area, availability of suitable assembly areas, proximity to the withdrawing force as a whole and the covering force in particular, and protection from enemy observation and fires.

(2) Terrain Considerations. When all factors involved in the selection of embarkation beaches or the embarkation area as a whole are more or less equal, terrain may be the deciding factor in final selection. Good observation and fields of fire toward the shore

are desirable so that the enemy can be engaged at long ranges. Natural and manmade obstacles, including barrier systems, mine fields, chemical agents, and demolitions, are exploited in combination with the terrain to minimize enemy interference with the withdrawal. Cover and concealment are sought for assembly areas and routes of movement to embarkation beaches.

f. Covering Force

(1) Minimum Size. The size of the covering force should be held to the minimum consistent with providing adequate protection. The strength and composition of the covering force may vary in different portions of the embarkation area. A unit occupying a sector protected by a formidable obstacle may require only minimum security posts, while units under attack may be required to remain at full strength.

(2) Supporting Forces. Supporting forces are attached to the covering force consistent with requirements. Support requirements may conflict with the requirement for the early embarkation of heavy support equipment. A careful evaluation of these conflicting requirements is necessary to achieve effect and acceptable balance. As a minimum, reconnaissance, engineer, and medical personnel are included as part of the covering force.

g. Supporting Arms

(1) Increased Need for Supporting Fires. The requirement for supporting fires increases as the covering force withdraws and its capability to repel the enemy diminishes. Emphasis is placed upon maximum use of external fire support agencies, including air support and naval gunfire support.

(2) Air Support. To accomplish part of the withdrawal, air support requirements may include transport helicopters, naval gunfire spotting, close air support, and protection from enemy air, reconnaissance, and interdiction. Forward air controllers with the covering force control airstrikes in support of the withdrawal. In the final stages, this function is assumed by the tactical air coordinator (airborne) (TAC(A)).

h. Logistics

(1) Special Considerations. The impact of the withdrawal on logistics support must be anticipated in order to ensure adequate support for the operation, prevent the unnecessary destruction or loss of supplies, provide for the destruction of supplies and equipment (other than medical materiel) not evacuated, and provide prompt evacuation of casualties.

(2) Refugees and/or Foreign Nationals. The possibility of large numbers of refugees, or the requirement to evacuate foreign nationals, must be anticipated.

i. Embarkation

(1) Embarkation Plan. Movement to embarkation beaches is controlled through the use of assembly areas, routes of withdrawal, initial points, and checkpoints. The plan for embarkation must emphasize speed and provide for maximum coordination between the arrival of units at embarkation beaches and the arrival, loading, and departure of landing craft. The amount of detail included in the plan is determined by the size of the operation, experience of personnel, and the time available. The following should be included:

(a) Announcement of whether the embarkation is to be in accordance with normal procedures for combat loading or for administrative loading.

(b) Designation of embarkation beaches.

(c) Designation of the landing support element as a control agency and the assignment of specific responsibilities to shore party teams or helicopter support teams.

(d) Detailed instructions concerning embarkation.

(e) Schedule for movement of units to embarkation beaches.

(f) Evasion and escape procedures to be followed in event personnel are inadvertently left behind.

(2) Control Agencies. Embarkation is controlled by the landing support element, assisted by ships' platoons and embarkation personnel. Control agencies provided for each embarkation beach summon and guide units from the assembly areas to the embarkation beaches and expedite loading. Combat loading is facilitated by the fact that heavy equipment and supplies, which would normally be loaded first, are withdrawn first.

CHAPTER XVIII

LANDINGS IN LIMITED VISIBILITY

1. Introduction

a. Landing in Limited Visibility. A landing in limited visibility is one in which the ship-to-shore movement is executed and at least the initial objectives captured under cover of darkness or under limited light conditions imposed by fog, rain, snow, or smoke.

b. Terms. For the purposes of this chapter, the terms low, reduced, and limited visibility are synonymous. However, the term "limited visibility" will be used herein. It is consistent with NATO usage and avoids possible confusion in the use of the term "low visibility," a JCS Pub 1-02 defined term connoting some of the characteristics of covert operations.

c. Requirement to Conduct Landings in Limited Visibility. With the increase in capabilities of potential enemies to defend or reinforce a landing beach and with the availability of improved night vision devices and navigational aids, consideration must be given to conducting amphibious operations under conditions of limited visibility.

2. Purpose and Scope. Chapter 20 of JCS Pub 3-02 provides information on landings under limited visibility to include some landing force (LF) considerations. This chapter will reiterate the LF considerations and add those developed from recent operational experiences.

3. General

a. Element of Surprise. In today's environment, potential enemies have the ability to organize strong defenses of threatened areas and the mobility to reinforce rapidly. Consideration should be given to conducting amphibious landings under conditions of limited visibility in order to gain the element of tactical surprise and reduce the effectiveness of enemy defenses and reinforcements. It is apparent that to conduct such a landing, a tradeoff is required, i.e., to gain the element of surprise, preparation of the landing area has to be considerably reduced.

b. Other Reasons for Conducting Landings in Limited Visibility. Other reasons, such as changes in the situation ashore, unexpected changes in the weather, or direction from higher authority may require the amphibious operation to be conducted under conditions of limited visibility.

c. Covert Operations. Additionally, operations under limited visibility may be required to covertly land reconnaissance or raiding units.

d. Difficulty in Landing in the Correct Location. When landings are made under limited visibility a much higher probability exists that forces may be mistakenly landed (either by surface or helicopter) in places other than the planned location.

4. Responsibilities. The responsibilities of the commander, amphibious task force (CATF) and commander, landing force (CLF) are basically the same as for any amphibious operation. However, because of the difficulty in landing forces in the correct locations, these responsibilities are highlighted:

a. Commander, Amphibious Task Force. The CATF is responsible for landing the surfaceborne forces on the correct beaches. This is accomplished with special navigational procedures and equipment to guide the craft to the beach and by sea-air-land (SEAL) team personnel and/or landing force reconnaissance personnel on the beach to guide craft to the correct beaches. The CATF is also responsible for providing directional guidance for helicopters en route to the landing zones (LZs).

b. Commander, Landing Force. The CLF is responsible for providing terminal guidance in the helicopter landing zones (HLZs). This can be accomplished by inserting LF reconnaissance personnel into the area in advance.

5. Planning Considerations. Planning considerations for an amphibious operation under conditions of limited visibility are similar to those for other amphibious operations. Plans for such operations require the greatest possible detail on the landing beaches and HLZs and the approaches thereto, terrain, enemy dispositions, and obstacles to movement. The plan of attack must emphasize simplicity and provide for the seizure of limited ground objectives and use of approaches that are easily recognizable.

a. Basic Considerations

(1) Primary Questions. In considering a limited visibility landing, the primary questions are:

(a) Can the landing force capture initial objectives that will place the force in advantageous positions to defend against a counterattack? Are the chances of success increased or decreased?

(b) Does the absence or minimal employment of preparatory fires endanger the landing force? Will the LF potentially suffer greater casualties if tactical surprise is not achieved?

(c) If tactical surprise is lost prior to the landing, should the landing be postponed?

(2) Flexible and Alternate Plans. These questions illustrate the need for flexibility in plans, the need for alternate plans, and the requirement that supporting fires be planned as carefully as those for other operations in the event that preassault or prelanding fires are needed.

b. Special Considerations

(1) Navigation and Control. Landing the LF at the correct location either by surface or helicopter means may be critical to the success of the operation. In operations under limited visibility, and possibly during radio silence, the individual on the ground has difficulty orienting himself. Thus, a major assumption is that he was landed correctly. Accordingly, all measures possible must be taken to ensure the correct positioning of all units.

(2) Weather. Weather conditions that may be tolerable in daylight may be disastrous during limited visibility; e.g., heavy rain, snow, or fog.

(3) Landing Force Reconnaissance. Landing force reconnaissance personnel may be inserted covertly to provide intelligence, to mark HLZs and landing beaches, and/or to guide the helicopters and landing craft into the respective zones or beaches. SEAL teams can also be used to mark the landing beaches.

(4) Protection. Protection provided the landing forces by the conditions of limited visibility serves the enemy as well in that the landing force's ability to receive close support, particularly from air and naval gunfire, is restricted. Special measures will have to be taken to provide for close support.

(5) Special Preparation. If surprise is an objective, steps are required to maintain noise and light discipline throughout the force.

(6) Special Equipment. Special equipment such as night vision devices, visual signal apparatus of directional and secure nature, luminous markings, radar beacons, and radar reflectors are required for enhanced vision, direction finding, position location, and identification.

(7) Ship-to-Shore Movement. Under conditions of limited visibility, ship-to-shore movement requires additional navigational and terminal control equipment for both the helicopterborne and waterborne forces.

(8) Radios and Radars. The use of radios and radars is restricted until the last possible moment in order to preserve tactical surprise.

(9) Plans. Plans must be kept simple, since coordination and movement are far more difficult under conditions of limited visibility. However, even though the plan is simple, the orders may need to be more detailed.

(10) Rehearsals. Extensive rehearsals are required to ensure that participants are familiar with their responsibilities. Unless reconnaissance has been conducted on the ground in advance, guides will not be available.

6. Supporting Arms Considerations

a. Tradeoff-Tactical Surprise and Preparation of Landing Area. As stated earlier, a tradeoff is required between tactical surprise and preparation of the landing area. If assets and time are available, areas in addition to the prospective landing area can receive preparation fires in an attempt to deceive the enemy as to the actual landing area.

b. Naval Gunfire. The preliminary bombardment must not divulge the intended landing places and thereby sacrifice surprise. Preliminary bombardment emphasizes the destruction of the defender's radar and other detection devices. Effective close support of troops ashore by naval gunfire can be accomplished by the use of radar beacons and by special training of fire support ships and shore fire control parties. Sight contact or positive radar plot of the leading wave is required if fire is to be delivered on the beaches or LZs just before H-hour.

c. Air Support. Preassault air operations must be designed so as not to disclose either the intent to land or the selected landing area. Timing air strikes on the actual landing beaches or LZs just before H-hour is difficult since pilots may not be able to observe the approaching waves during darkness. Close support for troops ashore can be delivered by utilizing suitable means for identifying targets and fire support control measures and compatible electronic control systems such as the PPN-18 (RABFAC).

CHAPTER XIX

COLD WEATHER OPERATIONS

1. Introduction. The potential requirement to conduct amphibious operations in arctic or subarctic conditions exists in many areas of the world. Historic examples of cold weather operations indicate that success or failure is most dependent on the knowledge, training, and physical stamina of the forces involved. The basic considerations of training and equipping personnel and preparing equipment for cold weather operations on land apply to amphibious warfare.

2. Purpose and Scope This chapter provides information on planning and conducting landing force (LF) operations in cold weather. The various definitions of cold weather conditions and detailed discussions of various types of cold weather amphibious operations are contained in applicable Service publications. This chapter complements Chapter 21 of JCS Pub 3-02, which addresses cold weather operations primarily from the Navy point of view. Service reference publications include the following:

- a. ATP 17 (A), "Naval Arctic Manual."
- b. FMFRP 7-10, "Cold Weather Operations (USMC)."
- c. FM 31-70, "Basic Cold Weather Manual."

3. General. Amphibious operations conducted under cold weather conditions and in sea-ice areas follow the same basic principles as amphibious operations under other conditions. Cold weather amphibious operations, however, impose certain limitations on the amphibious task force (ATF) because of reduced visibility; effects of sea-ice on mobility of ships, landing craft, and amphibious vehicles; possible loss or decreased reliability of communications; effects of low temperatures on efficiency of personnel and materiel; and poor cross-country mobility. These limitations require careful and detailed consideration during planning and preparation for cold weather amphibious operations, including provision for:

- a. Adaptation and preparation of ships, aircraft, landing craft, vehicles, and equipment for operations under conditions of extreme cold.
- b. Adequate and flexible plans for logistic support of landing forces during the operation.
- c. Special equipment and supplies required for the landing and operations ashore.

d. Acclimatization of personnel, including training in survival, special operating techniques and procedures, and maintenance of equipment.

4. Responsibilities. The responsibilities of the commander, amphibious task force (CATF) and commander, landing force (CLF) do not change from those associated with a normal amphibious operation.

5. Planning Considerations

a. Basic Considerations

(1) Flexibility Required. Cold weather amphibious operations impose unique stresses on the efficiency and effectiveness of personnel and equipment. Such operations require flexibility and an increased capability to modify plans as a result of adverse weather conditions.

(2) Training and Equipment. Cold weather operations are best conducted by experienced forces properly trained in cold weather fighting and survival techniques. Specialized personnel and support equipment will be required.

(3) Additional Time Requirements. From the planning perspective, it must be understood that everything takes longer to accomplish than under normal conditions. Time must be allowed for starting and warming equipment. Additional time is also required to embark troops in landing craft. Bulky cold weather clothing inhibits movement.

(4) Cancellation or Postponement. Under extreme weather conditions, consideration should be given to canceling or delaying the operation. Experience has shown that under such conditions, men and equipment are all but inoperative and casualties from the elements increase significantly. Low lying coastal fogs, low cloud cover in coastal areas, snow stirred up by high winds, and periods of long winter darkness may delay or cause cancellation of landing operations. Supporting aviation, naval gunfire, and artillery are extremely limited in such situations. However, limited visibility may provide a LF with the advantage of concealment for assembly and movement.

(5) Care of Personnel. Troop exposure to cold weather must be minimized to ensure fighting effectiveness. Troops should remain inside the ship until they are required to embark in landing craft and/or helicopters. Troops should don extreme cold weather clothing just before leaving the protective shelter to avoid the discomfort and unnecessary expenditure of energy that comes with overheating.

(6) Rotation of Personnel. Personnel working outside must be rotated regularly and frequently.

(7) Care of Equipment. Equipment, particularly that which is exposed aboard ship; e.g., deck loaded, must receive cold weather preparation and, if possible, be operated at least daily.

(8) Hypothermia. Extreme sea temperatures require that personnel be landed dry. Immersion for more than a few minutes can be fatal. Provision must be made, both aboard ship and ashore, for the handling of immersion cases.

(9) Sea-Air-Land Teams. Reconnaissance units and underwater demolition teams (UDT) require special individual clothing and equipment and will be restricted in their activities by the water temperature.

(10) Surf and Swell Conditions. Surf and swell are nonexistent in sea-ice areas because of the damping effect of the ice. In areas where ice does not inhibit the action of the sea, the same consideration will have to be given to surf and swell as in other areas of the world.

(11) Raised Beaches. In parts of the Arctic, "raised beaches" commonly occur. They exist as a series of flat topped gravel ridges, left by rising land surfaces, some of which have water or ice-filled marshes behind them. These beaches, resembling giant gravel terraces, parallel the shore line and may extend several hundred yards inland, increasing the requirement for beach matting.

(12) Obstacles to Movement. Glacial action has left many coastal areas encumbered with great quantities of rocks and boulders, both on the beach and inland. These can constitute a formidable obstacle to the

movement of land and amphibious vehicles. Beaches can also become littered with heavy ice floes left by an ebbing tide, making it difficult for boats to land and for men and cargo to be moved ashore.

(13) Combat Service Support. The hazards in conducting combat service support (CSS) operations increase significantly. Changes of wind or current may choke open areas with pack ice so dense as to bring operations to a halt and to stop the movement of supporting ships.

(14) Critical and Emergency Supplies. It is essential that critical supplies be put ashore as rapidly as possible. CSS plans for an operation must provide alternative methods of delivering emergency supply. If weather conditions permit, consideration should be given to the extensive use of helicopters and fixed-wing aircraft for emergency drops. The landing support element should be given the means for handling this commitment.

(15) Seabased Support. In consideration of the requirements for establishing and maintaining logistics installations ashore in an arctic or subarctic environment, consideration should be given to operating from the seabase.

(16) Effect of Arctic Nights. Naval gunfire support ships and air support will be hampered by winter darkness and will have to rely on radar beacons for direction.

(17) Spotting and Target Designation, and Effects on Targets. Air and naval gunfire support may encounter difficulties in spotting and target designation. Snow will obliterate landmarks and deep snow will cushion explosions by absorbing energy and reducing the effectiveness of high explosive fragmentation projectiles.

(18) Helicopter Assault Considerations

(a) Increased Launch Cycle Time. Helicopter launch cycle times increase in cold weather because of:

1. Fatigue among flight deck personnel, which results from exposure to wind chill from rotor wash.
2. Subfreezing temperatures, which require aircraft and ground support equipment to remain below decks until just before flight quarters.
3. Decreased mobility of embarking troops, which is imposed by restrictive cold weather clothing or equipment, bulky life preservers, and slippery decks. During cold weather, an additional 5 minutes may be required to embark each medium helicopter and an additional 7 minutes to embark each heavy helicopter.

(b) Reduced Lift Capability. Cold weather reduces the lift capacity of assault helicopters. This is due to the increases in space requirements and weight that are imposed by the cold weather clothing and equipment worn or carried by embarked troops. For general planning purposes, each combat-equipped individual weighs about 300 pounds and requires about one and one-half aircraft seats.

(c) Minimum Use of Aircraft Heaters. Pilots should be cautioned to make minimum use of aircraft heaters in assault helicopters, since embarked troops are dressed for cold weather and can easily become overheated. Overheating will increase the potential for hypothermia and frost bite once embarked personnel are exposed to cold weather.

(d) Difficulties in Enplaning and Deplaning. Assault troops may encounter extreme difficulty in embarking and debarking helicopters over ice-covered surfaces and, in particular, in deep snow. Hot engine exhaust, blown downward by rotor wash, may melt the top layer of snow, which will subsequently turn to ice and cause the surface to become extremely slippery. Rotor wash can also drive personnel into the ground in slippery LZs, thus delaying debarkation or reembarkation. Consideration should be given to using lines to

assist troop embarkation in snow-covered or icy locations and to using the helicopter's side doors rather than its rear ramp, since the rear ramp is subjected to greater rotor wash.

b. Special Planning Considerations

(1) Impact of Weather Changes on Plans. Variations in temperature, wind, and visibility, which occur throughout the Arctic, require special emphasis in the following areas:

(a) Flexible Plans. Flexible operation plans that allow latitude in time of landing and selection of landing area are required.

(b) Alternative Plans. Alternative plans are necessary, particularly where weather is subject to sudden and severe change.

(c) Alternative Means of Support. Alternative means of logistic support and employment of supporting arms should be provided in the operation plan. These must be rehearsed before an operation to determine applicable time and distance factors. Time must be allowed to clear ice and snow from exposed equipment; e.g., helicopters and trucks. Additional time must be allowed for starting and warming equipment. Additional time is also required to embark troops in landing craft. Bulky cold weather clothing inhibits movement.

(2) Landing Operations in Sea-Ice Areas

(a) Avoid Areas Where Sea-Ice Predominates. A surface assault within an area where sea-ice predominates may be too risky to attempt. Instead, a landing should be made where ice will not jeopardize operations and enemy interference will not be a factor. The landing force would then travel overland to its objective. Once the attack has been initiated, speed in landing and in providing logistic support will be critically important.

(b) Flexibility Needed. Reports of ice conditions can be meaningless since conditions are constantly changing under the influence of wind

and tide, making it all the more necessary to retain flexibility in the planning and conduct of the operation.

(c) Effects of Limited Landing Sites. A reduction in the landing sites available will make achievement of tactical surprise more difficult and could increase the requirement for preassault operations.

(d) Landing Means Available Will Govern Operation. In an area protected by unnavigable ice, helicopters or air cushion vehicles may be the only means of ship-to-shore movement. Accordingly, the manner in which the operation will be conducted will be governed, both tactically and logistically, by the landing means available.

(e) Helicopters Supported. The ship-to-shore movement normally relies on helicopters, with landing craft or LCAC as a second choice. Amphibious operations without helicopters, conducted over pack ice impenetrable to ice-breakers, must be limited in scope. Operations of this type would normally be raids mounted against undefended or lightly held enemy positions and conducted by lightly armed, fast moving, highly trained units.

(f) Air Support. If weather conditions permit, air support for a raid force may include the dropping of trail markers to simplify cross-country navigation and the use of aircraft for the withdrawal. The evacuation of wounded is best done by helicopter.

(g) Neutralization Supporting Arms. Ice can restrict the movement of naval gunfire support ships, thus effectively neutralizing this type of support. Air strikes should be available as an alternative. Fog and ice occurring together could prevent both means of providing fire support.

(h) Ice can Preclude Landing of Heavy Equipment. Ice will impose difficulties upon the landing of heavy equipment and the operation of amphibious vehicles over the beach. Divers, explosives, and

considerable time may be required to clear the landing beach. In such circumstances, infantry organizations may have to remain unsupported by heavier weapons or equipment.

6. Rehearsals for Amphibious Operations in Cold Weather. Rehearsals assume an even greater importance in the cold weather environment because of the special considerations involved in conducting cold weather amphibious operations and the unique factors that affect timing. The rehearsal must be conducted in an area that closely duplicates the assault area in order that the effects of adverse weather and sea conditions can be accurately measured and necessary corrective actions taken before the actual assault. One or more well executed, integrated rehearsals, followed up by a meaningful critique, will significantly enhance the success of cold weather amphibious operations.

CHAPTER XX

RELATED OPERATIONS

1. Introduction. Routine peacetime naval operations frequently involve the employment of afloat forward deployed landing forces. These operations may be conducted in a secure environment, during times of international tension, or during periods of open hostilities. The landing force (LF) is normally a forward-deployed Marine expeditionary unit, but larger size forces may be involved. Further, such LF operations may be of a joint or combined nature. For purposes of the discussion, such operations are considered related operations; they are naval in character and may involve many of the characteristics of amphibious operations, but are not amphibious operations such as.

2. Purpose and Scope. The purpose of this chapter is to provide information on operational matters that relate to employment of forward deployed landing forces. These related operations include disaster relief, noncombatant emergency evacuation, operations in times of tension, and administrative landings, which are discussed in the following chapters. Brief discussions of seabasing and the Maritime Pre-positioned Ships (MPS) Program are also included.

3. General

a. Afloat Forward Deployed Landing Forces. The United States has maintained forward deployed landing forces for decades. These forces are normally embarked in amphibious shipping and are capable of a rapid, although limited, response to a myriad of crisis situations; e.g., they:

- (1) Assist US diplomatic efforts through peaceful projection of influence and, during periods of crisis, provide a selective show of force and interest.
- (2) Permit early commitment of US forces to combat when required.
- (3) Preserve options limiting the degree, direction, and character of US involvement.
- (4) Assist allies through provision of flexible and selective levels of military assistance.
- (5) Provide humanitarian assistance or disaster relief.
- (6) Protect or evacuate noncombatants.
- (7) Protect installations.

b. Limited Capability of Forward Deployed Landing Forces. Forward deployed landing forces have limited combat power and are not intended to be committed independently for extended periods. Any commitment of forward deployed landing forces must include consideration of the requirement for rapid reinforcement and/or support. Certain programs have been instituted to pre-position ashore and/or afloat supplies and equipment for the Services that would join with airlifted forces and/or provide a source for rapid resupply of forces. (See paragraphs 11 and 12 below.)

c. Evolving into Joint or Combined Operation. The various activities involving forward deployed forces may quickly evolve into joint or combined operations.

4. Responsibilities

a. Command and Control of Forward Deployed Forces. The commitment of forward deployed forces will be at the direction of the National Command Authorities (NCA) and may involve US unilateral or bilateral action. Combatant command (command authority) may be exercised only by commanders of unified and specified combatant commands; operational control may be exercised by commanders at any echelon at or below the level of command. Further, certain aspects of these operations will be at the direction of, and must be coordinated with, the US ambassador or other designated officials.

b. Commitment of Naval Forces. In actions that involve the US unilateral commitment of naval forces, including embarked landing forces, responsibilities do not vary significantly from those associated with amphibious operations.

c. Command Relationships. The command relationships for afloat forward deployed landing forces require amplification. The afloat forward deployed commander, landing force (CLF) retains coequal status with the commander of the amphibious ready group (ARG) in whose ships he is embarked. Operational control of the LF is vested in the ARG commander as directed by the initiating directive or by a common senior directing the conduct of a specific operation or exercise and designating the commander ARG as commander, amphibious task force (CATF). This authority ceases upon termination of the specific operation or exercise. Such transition in command relationships should be stipulated in the initiating directive and/or activation

order. Command relationships in other than amphibious operations will be established in the appropriate operation order and will be reflected in the LF activation order.

5. Planning Considerations. Situations that have required the commitment of landing forces to the related operations discussed in this chapter historically have presented unique sets of circumstances. From the perspective of CLF, however, the following factors will be common to most related operations:

- a. Planning Time. Planning time will be reduced.
- b. Command Lines. Command lines of authority will be complex and must be clearly understood.
- c. Amphibious Objective Area. An AOA may not be established.
- d. Rules of Engagement. Rules of engagement may circumscribe the use of force except under carefully controlled conditions. Constraints that are imposed must be balanced to ensure that the LF is not at undue risk.
- e. Requirements Versus Capabilities. The requirements of the operation may exceed organic capabilities. The potential need for special equipment, additional communications, or units with special expertise must be assessed early and steps taken to acquire the needed capability.

6. Noncombatant Evacuation Operations

a. Characteristics. Noncombatant evacuation operations (NEO) will normally occur in a hostile or potentially hostile environment and involve the evacuation of US nationals and/or other civilians. These operations require liaison, security forces, supporting forces, screening of evacuees, and transportation of evacuees by surface and/or air. The decision to employ afloat forward deployed landing forces would be made by the NCA, and the CATF normally would be tasked through the commander of the unified command. Operations in foreign countries are characterized by a high level of interest and detailed media coverage. Overall responsibility is normally vested in the ambassador or senior Department of State representative. The command channels for military forces are separate and distinct from the channels of the diplomatic agencies. NEO may require the withdrawal and delivery of evacuees to safe havens.

b. Plans

(1) Embassy Plans. Embassy emergency and evacuation plans, distributed to the appropriate military headquarters, include the projected numbers of evacuees, options for evacuation, standing operating procedures, and communications and support capabilities.

(2) Unified Command Plans. Noncombatant evacuation plans are published by commanders of the unified commands and coordinated with current embassy plans.

(3) Evacuation Force Plans. Afloat forward deployed forces and forces activated for NEO develop operation plans or orders for each evacuation operation in support of existing plans as directed.

c. Operations

(1) Communications/Liaison. Upon arrival in the area, the CATF establishes and maintains positive communications and effects liaison with local diplomatic representatives. The CLF must be prepared to augment or duplicate communications as needed.

(2) Security. The LF may be tasked to augment existing security forces or to provide forces to secure the evacuation area. Specific and detailed rules of engagement will be promulgated.

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

d. Evacuation

(1) Surface

(a) Shipping. Evacuation may be made by ATF shipping or commercial shipping arranged by higher authority. Shore-to-ship movement may be made with organic landing craft or helicopters of the ATF.

(b) Motor March. Evacuation may be by motor vehicle arranged by higher authority. The LF may be tasked to provide convoy control, communications, and security.

(2) Air. Evacuation by air may be via aircraft from airfields arranged by higher authority or by use of LF aviation assets.

e. Delivery to Safe Haven. Delivery to safe haven may be accomplished by ships of the ATF. The LF may be tasked to provide guides, baggage handlers, shipboard security, and medical and dental augmentation.

7. Operations to Protect Noncombatants and Installations

a. Characteristics. Operations to protect noncombatants or installations are characterized by the necessity for detailed planning and liaison, extensive coordination and communications between military and civilian agencies, high level interest requiring additional reporting, positive C2, and restrictive rules of engagement.

b. Operational Environment. Operational environments may range from civil disorders to full-scale combat operations requiring a LF supported by ATF shipping and supporting arms.

c. Landing Force Functions. The LF could be expected to provide:

(1) Ground combat elements for security or to reinforce existing defense forces.

(2) Aviation combat element assets for transport or aerial gunfire support.

(3) CSS to forces ashore or to the installation involved.

d. Flexibility. Military participation will be kept to the minimum required, with the task force maintaining a tactical posture permitting a rapid shift to combat operations if required.

8. Disaster Relief

a. Characteristics. The provision of US military support to disaster relief operations in foreign countries is conducted under the overall authority of the commander of

the appropriate unified command in response to requests from the US Department of State. Deployed naval forces are often tasked to provide such support on short notice. Therefore, afloat deployed landing forces are normally tasked by standing fleet operation orders to be prepared to provide disaster relief to foreign countries. The most common type of disaster relief operation is one conducted in response to a natural disaster and in a permissive environment with the complete cooperation of the foreign government concerned. Security requirements, in most cases, are either not required or minimal. This section will focus on the special considerations inherent to disaster relief operations conducted in a permissive environment. In the event security of US forces becomes a basic consideration, normal tactical planning procedures are followed.

b. Planning Considerations. Each disaster relief situation will have its own peculiarities. Standing operating procedures should be developed by afloat forward deployed landing forces to expedite planning and should include: command, control, communications, intelligence, operations, and logistic support.

c. Task Organization. Developing a responsive and efficient task organization for the operation may be a significant and complex problem. In some cases, task organizing into a disaster control organization (e.g., disaster control teams, elements) to best fit the situation and mission is necessary. The estimate of capabilities made upon deployment should serve as a guide to task organizing the skills and capabilities related to the situation and mission.

d. Types of Disasters. Types of disasters include storms (hurricanes, typhoons, and tornadoes), floods, earthquakes, tidal waves, and major fires.

e. Results of Natural Disasters. The effects of a natural disaster vary in intensity, the environment in which it occurs, the amount of advance warning, and the preparation measures taken. Most result in fatalities and injuries, stranded or dispossessed people, widespread property damage, contamination or elimination of water sources, and disruption of public utilities. Certain disasters can produce, as one of the effects, another equally devastating disaster.

f. Types of Disaster Relief Assistance. Based on the commonalities addressed above, the functions included in most disaster relief operations are damage assessment, fire fighting, medical assistance, engineer and maintenance support, graves registration, mass feeding and housing, explosive ordnance disposal, chaplain support, security, and transportation.

g. Landing Force Estimate of Disaster Relief Capabilities. Upon deployment, the LF should prepare an estimate of disaster relief capabilities. This estimate would include an analysis of personnel skills, equipment, supplies, and special capabilities of units as they individually relate to likely disaster relief functions and tasks. The ATF staff would prepare an estimate of Navy capabilities including housing, feeding, supplies and equipment for medical and disaster relief, personnel availability and their skills, and the extent of contingency funding.

9. Seabasing

a. Combat Service Support from Ships of the Task Force. In many operations, projecting a buildup of CSS ashore is unnecessary or undesirable. Seabasing provides for the majority of CSS to be provided from the ships of the task force. This concept may be employed when the LF mission is consistent with seabasing concepts. That is, seabasing is possible when the nature of the operation is such that facilities ashore to perform major CSS tasks such as supply, transportation, medical, intermediate level maintenance, automated data processing, and engineer support are not desired; further, seabasing requires that shipping remain in the area to provide continuous support.

b. Embarkation Considerations. From an embarkation point of view, seabasing requires that supply stocks be loaded and stowed for easy access by supply and maintenance personnel. Also, selected ships must be dedicated to maintenance operations and spaces reserved for repair facilities. Moreover, maintenance personnel must be embarked aboard ships that will allow either surface or helicopter delivery of maintenance contact teams to support units engaged ashore. Seabasing of supply, medical, and maintenance functions requires that the embarkation configuration be structured to perform these functions for the duration of the operation, if required.

c. Size of Units to be Supported From a Seabase. Seabasing is normally appropriate for a reinforced battalion size organization. For larger landing forces, increased consideration should be given to placing some, if not most, of the support ashore.

d. Transition from Seabase to Shorebase Support. The transition from a seabase supporting mode to a conventional mode may be made at any time after completion of the initial landing.

e. Resupply Operations. For extended deployments of afloat forward deployed landing forces, resupply operations must be conducted while ships are at sea or in friendly ports. Embarkation officers, working in conjunction with the LF staff and CATF staff officers, must plan for and be prepared to coordinate embarkation and debarkation of personnel, equipment, and supplies throughout the deployment.

10. Operations in Times of Tension

a. Employment of Amphibious Forces. Amphibious forces may be employed in times of tension to support a national strategy of credible deterrence, forward defense, and flexible response, and to demonstrate resolve and solidarity. Amphibious forces can remain offshore for long periods, providing a presence without having to put forces ashore. If forces are required ashore, they must be capable of landing rapidly.

b. Flexibility. Operations in times of tension can be conducted in either a hostile or a nonhostile environment. Planning must provide for the support necessary in the event a secure environment changes to a hostile environment.

c. Responsibilities. CATF and CLF responsibilities and command arrangements are as described in Chapter II above and as set forth by higher authority.

d. Guidance for Operations. In any hostile or potentially hostile situation, the initiating directive will prescribe the boundaries of the AOA (if established), provide rules of engagement, and provide guidance for landing forces ashore. CATF and CLF may develop or request additional guidance appropriate to eventualities of the operation, such as conditional rules of engagement in the event of hostilities.

e. Air Space Control. In the event an AOA is not established, specific procedures for airspace control must be arranged.

f. NATO Operations. For operations in times of tension involving a NATO country or forces, see Chapter 22 of ATP 8.

11. Maritime Prepositioning Ships Program

a. Characteristics. The MPS Program provides for rapid commitment of sizable Marine forces to crisis areas and combines the best features of the total force airlift and sealift capabilities. As a primary mode of rapid response, the MPS Program is designed for unloading in a secure port or beach with an airfield in close proximity. The concept also provides a means to rapidly reinforce previously committed forces and thus complements an amphibious forcible entry capability.

b. Not a Forcible Entry Capability. The MPS Program is designed to complement, not replace, the forcible entry capability of amphibious operations. In time of crisis, Marines can be airlifted to a contingency area for linkup with pre-positioned supplies and equipment and subsequently form for combat.

c. MPS Support Capability. The MPS Program provides forward deployed, specially designed ships with embarked equipment and supplies to support three brigade-sized Marine Air-Ground Task Forces (MAGTFs). Each of the three MPS squadrons possess a self-load and off-load system for pierside and instream cargo discharge.

d. Flexible Alternative. The MPS concept is naval in character and, when married with designated combat forces, provides an independently employable force of combined arms capable of stand-alone operations. This concept provides response capability with a wide range of flexible alternatives, including:

(1) Preemptive Occupation and Defense of Key Points Along Lines of Communications.

(2) Reinforcement/Support of an Ally or Friendly Nation.

Use of a maritime pre-positioning force operation in support of an allied or friendly nation prior to commencement of hostilities can demonstrate US resolve, establish a credible force to support allied combat operations, and provide a secure area for further introduction of US forces.

(3) Reinforcement of an Amphibious Operation. Maritime pre-positioning force operations provide the capability to rapidly surge forces into a beachhead area secured by amphibious assault forces.

(4) Occupation/Reinforcement of Advanced Naval Bases. MPF operations can be conducted to either initially occupy or provide rapid reinforcement and subsequent protection of existing naval bases.

(5) Augmentation of Fleet Defense by Supporting Fleet Air Operations From Ashore. MPF operations provide the capability to add additional forces and provide alternate or divert airfields in support of fleet air operations.

(6) Establishment of a Sizable Force Ashore in Support of a Continental Campaign. Maritime pre-positioning force operations facilitate establishment of a Marine expeditionary brigade ashore in a relatively short period of time to provide a theater commander a substantial force for use in a variety of options; e.g., force or theater reserve, main or supporting attack, or reembarkation aboard amphibious ships for further employment.

(7) Political Signalling. The freedom of shipping to move in international waters allows sending political signals by relocating an MPS squadron to positions in proximity to crisis areas.

12. Administrative Operations

a. Purpose. An administrative load, offload, or administrative landing of an afloat forward-deployed landing force may be conducted in a nonhostile environment for a variety of reasons, such as:

- (1) Reorganization for a combat mission.
- (2) Reorganization or change in shipping.
- (3) Return from deployment to home base.
- (4) Preparation for and termination of withdrawal operations.
- (5) Disaster relief operations.

b. Characteristics. Administrative operations generally are characterized by procedures that promote speed and efficiency. Logistic considerations rather than tactical considerations predominate. In other cases, such as reorganization for a combat mission, combat loading will be required.

c. Scope of Operations. Administrative operations may take place in a port, at anchor, or on a beach. They may also involve transfers between ships by landing craft or helicopter.

d. Nature of Operation. Command relationships, planning procedures, and responsibilities of the LF will vary with the nature of the operation.

e. Additional Information. For additional information on administrative movements, see Chapter 12 of JCS Pub 3-02.2.

APPENDIX

THE LANDING PLAN

1. Composition of the Plan for Landing

a. The plan for landing is composed of specific documents that present, in detail, all instructions for execution of the landing. The documents are incorporated into appendixes, tabs, and enclosures to the operation plans of the amphibious task force and the landing force.

b. Commanders responsible for the preparation of the numerous landing documents furnish copies to interested naval and landing force commanders for the purpose of extracting or otherwise using pertinent portions of the documents as required.

2. References. The following publications contain similar and additional illustrations of landing plan documentation:

a. NWP 22-1/FMFM 1-14, "The Amphibious Task Force Plan."

b. NWP 22-3/FMFM 1-8, "Ship-to-Shore Movement," Chapter 3.

c. ATP 36, "Amphibious Operations - Ship-to-Shore Movement," Chapter 3.

d. FMFM 3-1, "Command and Staff Action," Chapter 2.

3. Responsibility and Application. Documents that support the landing plan are prepared by both the Navy and the landing force. The purposes and illustrations of the most commonly used documents are presented in this annex. Not all the Navy-prepared documents will be contained in the landing force landing plan. The documents illustrated have been developed for general use and have been employed on many occasions. This does not imply that all sample documents will be required on every operation or exercise, nor that additional documents cannot be prepared when needed. Further, the documents may be modified as necessary to meet specific requirements. For example, times and distances displayed are for illustration purposes, actual times and distances are dependent on the tactical situation.

a. Navy Documents. Responsibility rests with Navy officers for preparation of the following documents:

TITLE	PAGE
Landing Craft Availability Table	A-4
Landing Craft Employment Plan	A-5
Sea Echelon Plan	A-6
Debarkation Schedule (jointly prepared by CO of ship and CO of embarked troops)	A-7
Ship's Diagram	A-8
Approach Schedule	A-9
Assault Area Diagram	A-10
Transport Area Diagram	A-11/A-12
Assault Wave Diagram	A-13/A-14
Beach Approach Diagram	A-15/A-16

b. Landing Force Documents. Responsibility rests with commanders at various levels within the landing force for preparation of the following documents:

TITLE	PAGE
Allocation of Serial Numbers	A-17
Landing Priority Table	A-18
Surface Landings	
Amphibious Vehicle Availability Table	A-19
Landing Craft and Assault Amphibious Vehicle Assignment Table	A-20/A-21
Landing Diagram (Surface)	A-22
Assault Schedule	A-23
Assault Amphibious Vehicle Employment Plan	A-24
Landing Sequence Table	A-25
Helicopter Landings	
Helicopter Availability Table	A-26
Heliteam Wave and Serial Assignment Table	A-27
Helicopter Landing Diagram	A-28
Helicopter Employment and Assault Landing Table (HEALT)	A-29
Serial Assignment Table	A-30/A-31

Sample Landing Plans	
RLT Landing by Surface and Helicopter	A-32/A-33
BLT Landing by Surface	A-34/A-35
-- Preparation of the Surface	A-36
Landing Plan	
BLT Landing by Helicopter	A-37/A-38
-- Preparation of the Helicopter	A-39
Landing Plan	
Organization for Embarkation and	A-40/A-41
Assignment to Shipping Tables	
-- Sample Unit Table	A-42
-- Sample Group Table	A-43

LANDING CRAFT AVAILABILITY TABLE

This table lists the type and number of landing craft that will be available from each ship of the transport group, specifies the total required for Navy use, and indicates those available for troop use. The table is the basis for assignment of landing craft for the ship-to-shore movement. It is prepared by the transport group commander or, in his absence, by the amphibious task force commander.

	LCM	LCU	LCAC	SERV BOAT
<u>TOTAL LANDING CRAFT ON BOARD</u>				
MT WHITNEY (LSD 41)			4	4
TARAWA (LHA 1)	4	1	1	3
WASP (LHD-1)			3	3
Other ships (listed seperately)	8	3	20	40
TOTAL	12	4	28	50
LESS 10% FOR SPARES	1	1	2	5
TOTAL AVAILABLE FOR EMPLOYMENT	11	3	26	45
<u>LANDING CRAFT FOR NAVAL USE</u>				
Safety boat				8
Boat group commander				4
Asst Boat group commander				
Causeway tender boats				6
Salvage boats				6
Medical boats	2		2	4
Bowser boats	2			10
TOTAL FOR NAVAL USE	4		2	38
TOTAL AVAILABLE FOR LANDING FORCE USE	7	3	24	7

Landing Craft Availability Table
Landing Craft Availability Table

LANDING CRAFT EMPLOYMENT PLAN

This plan provides for the assigned movement of landing craft from the various ships to satisfy Navy and landing force requirements. It indicates the number of landing craft, their type, their parent ship, the ships to which they will report, the time at which they will report, and the period attached. The plan is prepared by the transport group commander or in his absence, by the amphibious task force commander.

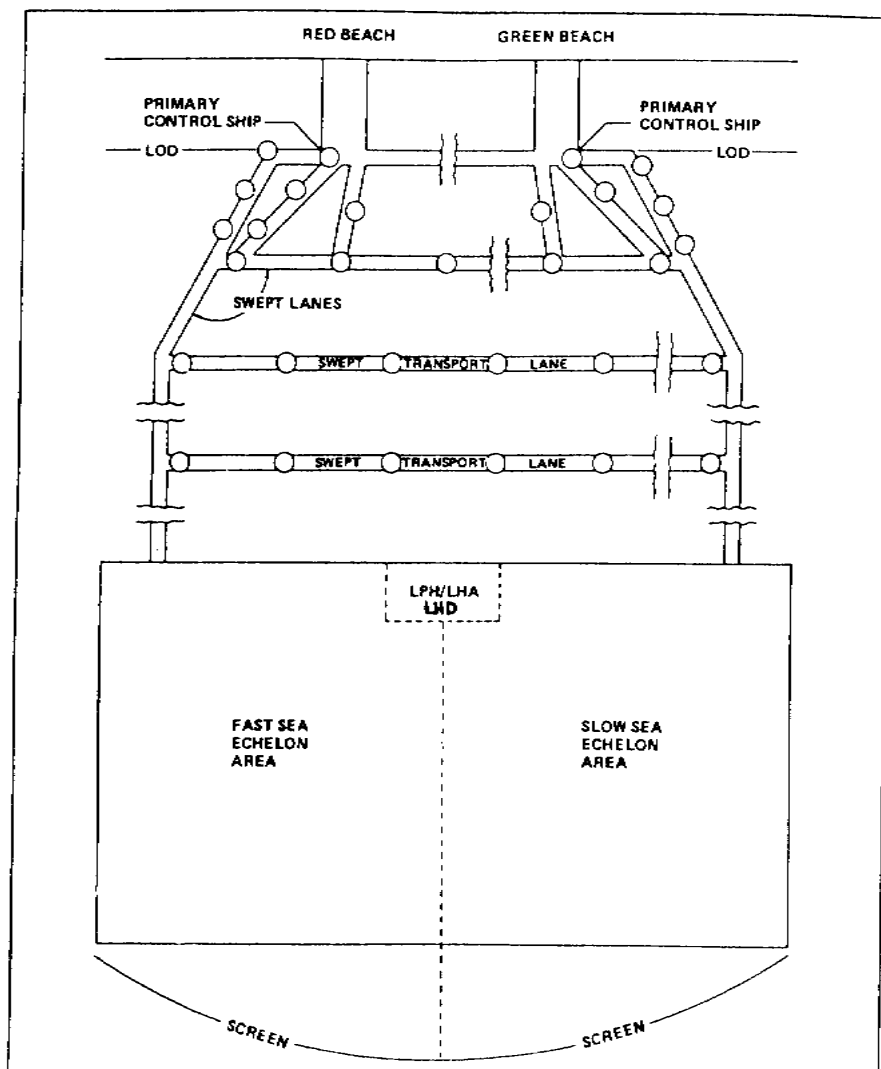
PART I -- RED BEACH				A. PRE-H-HOUR TRANSFERS		
No. of Craft	Type	From	To	Time of Arrival	Period Attached	Remarks
2	LCM 6	LKA-115	LPD-4	LTLF*	One Trip	Transfer Serials 321 and 217 to LST 1181
1	LCPL	LPD-13	LSD 36	LTLF	Until Released	Control boat to LSD 36. Pick up primary control party from LFD-13.
*LTLF as used here means "Land the Landing Force".						
PART I -- RED BEACH (PORTION)				B. SCHEDULED AND ON-CALL WAVES		
4	LCM 8	LPD 4	LSD-36	H-50 min	Until Released	Wave 3
1	LCU	LSD-39	LSD-36	H-20 min	Until Released	On-call wave
2	LCM (8)	LSD-39	LSD-36	H-50 min	Until Released	Wave 3
PART I -- RED BEACH (PORTION)				C. LANDING CRAFT FOR NAVAL USE		
1	LCVP	LKA-115	LKA-115	H-80 min	One Trip	Wave Guide, Wave 2
PART II -- BLUE BEACH (SAME FORM AS ABOVE)						

Sample Landing Craft Employment Plan
 Sample Landing Craft Employment Plan

SEA ECHELON PLAN

1. This plan is not always employed, but when used, results in a reduction in the concentration of amphibious shipping in the inner transport area and a reduction in the area to be swept of mines. Since its use influences the landing force landing plan, decisions on the use of a sea echelon and the extent of its use are reached jointly by the amphibious task force commander and the landing force commander. The sea echelon plan is prepared by the amphibious task force commander.

2. Specific information relating to individual ships is contained in enclosures to this plan.



Sample Sea Echelon Plan
Sample Sea Echelon Plan

DEBARKATION SCHEDULE

1. This schedule is prepared jointly by the commanding officer of each ship carrying troops and by the commanding officer of troops embarked. It is usually prepared after the troops are aboard and is distributed to all personnel responsible for control of debarkation. Debarkation schedules ordinarily are not prepared for units landing in amphibious vehicles departing from landing ships, since other forms are available.

2. Instructions in the schedule are supplemented and clarified by a ship's diagram (see following chart) of the debarking stations that lists alongside each station the boat teams that load there. Those teams that load their craft or vehicles while in the well deck are also to be noted on the ship's diagram of the debark stations.

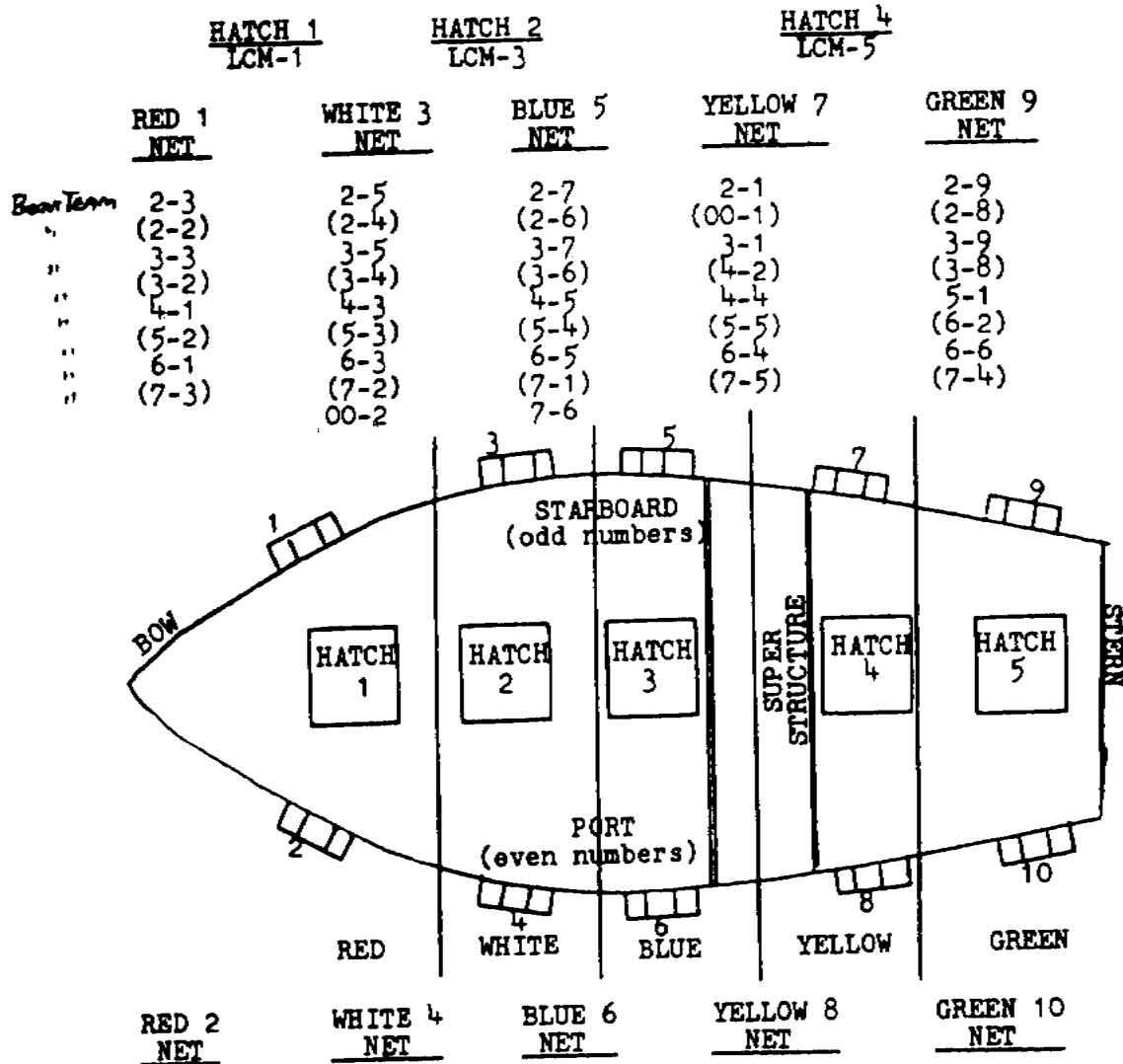
BOAT	RED 1	WHITE 3	BLUE 5	YELLOW 7	GREEN 9
1st	LCVP 2-3 BT 2-3	LCVP 2-5 BT 2-5	LCVP 2-7 BT 2-7	LCVP 2-1 BT 2-1	LCVP 2-9 BT 2-9
2d	LCVP 2-2 BT 2-2	LCVP 2-4 BT 2-4	LCVP 2-6 BT 2-6	LCVP 00-1 BT 00-1	LCVP 2-8 BT 2-8
3d	LCVP 3-3 BT 3-3	LCVP 3-5 BT 3-5	LCVP 3-7 BT 3-7	LCVP 3-1 BT 3-1	LCVP 3-9 BT 3-9
4th	LCVP 3-2 BT 3-2	LCVP 3-4 BT 3-4	LCVP 3-6 BT 3-6	LCVP 4-2 BT 4-2	LCVP 3-8 BT 3-8
5th	LCVP 4-1 BT 4-1	LCVP 4-3 BT 4-3	LCVP 4-5 BT 4-5	LCVP 4-4 BT 4-4	LCVP 5-1 BT 5-1
6th	LCVP 5-2 BT 5-2	LCVP 5-3 BT 5-3	LCVP 5-4 BT 5-4	LCVP 5-5 BT 5-5	LCVP 6-2 BT 6-2
7th	LCVP 6-1 BT 6-1	LCVP 6-3 BT 6-3	LCVP 6-5 BT 6-5	LCVP 6-4 BT 6-4	LCVP 6-6 BT 6-6
8th	LCVP 7-3 BT 7-3	LCVP 7-2 BT 7-2	LCVP 7-1 BT 7-1	LCVP 7-5 BT 7-5	LDVP 7-4 BT 7-4
9th		LCVP 00-2 BT 00-2	LCVP 7-6 BT 7-6		
	RED 2	WHITE 4	BLUE 6	YELLOW 8	GREEN 9
(If sea conditions permit unloading from both sides of the ship, boat teams listed on lines 2, 4, 6, and 8 debark over port side, even numbered, debarkation stations. Under these circumstances, the columns above are applicable.)					
		HATCH 1	HATCH 2	HATCH 4	
1st		LCM-1 1 MC1150	LCM-3 1 TRK M563	LCM-5 1 TD-15	
	RAIL LOAD				
	WHITE 3 Davit	WHITE 4 Davit	BLUE 5 Davit	BLUE 6 Davit	

Sample Debarkation Schedule (BLT)

Sample Debarkation Schedule (BLT)

SHIP'S DIAGRAM

This ship's diagram supplements a debarkation schedule, graphically showing the location where boat teams will load.



If debarked from both sides of the ship, boat teams in parentheses will debark at even numbered debarkation stations.

Sample Ship's Diagram

Sample Ship's Diagram

APPROACH SCHEDULE

1. This schedule indicates, for each scheduled wave, the times of arrival at and/or departure from various points: the parent ship, rendezvous area, LOD, and other control points; and the time of arrival at the beach. It gives wave numbers; courses the landing craft follow; names of control officers, boat group commanders (BGCs) and assistants; numbers of control ships; and other necessary information.

2. The approach schedule is prepared by the transport group commander embarking an assault battalion (or equivalent) landing team. Schedules of subordinate units are submitted to higher command for coordination and consolidation. The amphibious task force commander, together with the landing force commander, makes any modifications necessary to coordinate the overall ship-to-shore movement.

H-HOUR 0900 BEACH RED 1			
WAVE	LEAVE RENDEZVOUS AREA	LEAVE LINE OF DEPARTURE	LAND
1	H-30 minutes	H-22 minutes	H-Hour
2	H-28 minutes	H-20 minutes	H/2 minutes
3	H-21 minutes	H-13 minutes	H/9 minutes
4	H-14 minutes	H-6 minutes	H/16 minutes
5	H-7 minutes	H/1 minute	H/23 minutes
6	H-Hour	H/8 minutes	H/30 minutes
7	H/17 minutes	H/22 minutes	H/37 minutes

Courses: a. Rendezvous Area to LOD: 140° True, 144° Magnetic
 b. LOD to Beach: 274° True, 278° Magnetic

Boat Group Commander: LT HEYWOOD, USN
 Asst Boat Group Commander: LTJG GEORGE, USNR
 Primary Control Officer: LCDR QUEEG, USN, Embarked in LSD.

NOTE: 1. Distances used for computing times listed:
 a. Rendezvous Area to LOD. 1,000 yards
 b. LOD to Beach. 4,000 yards

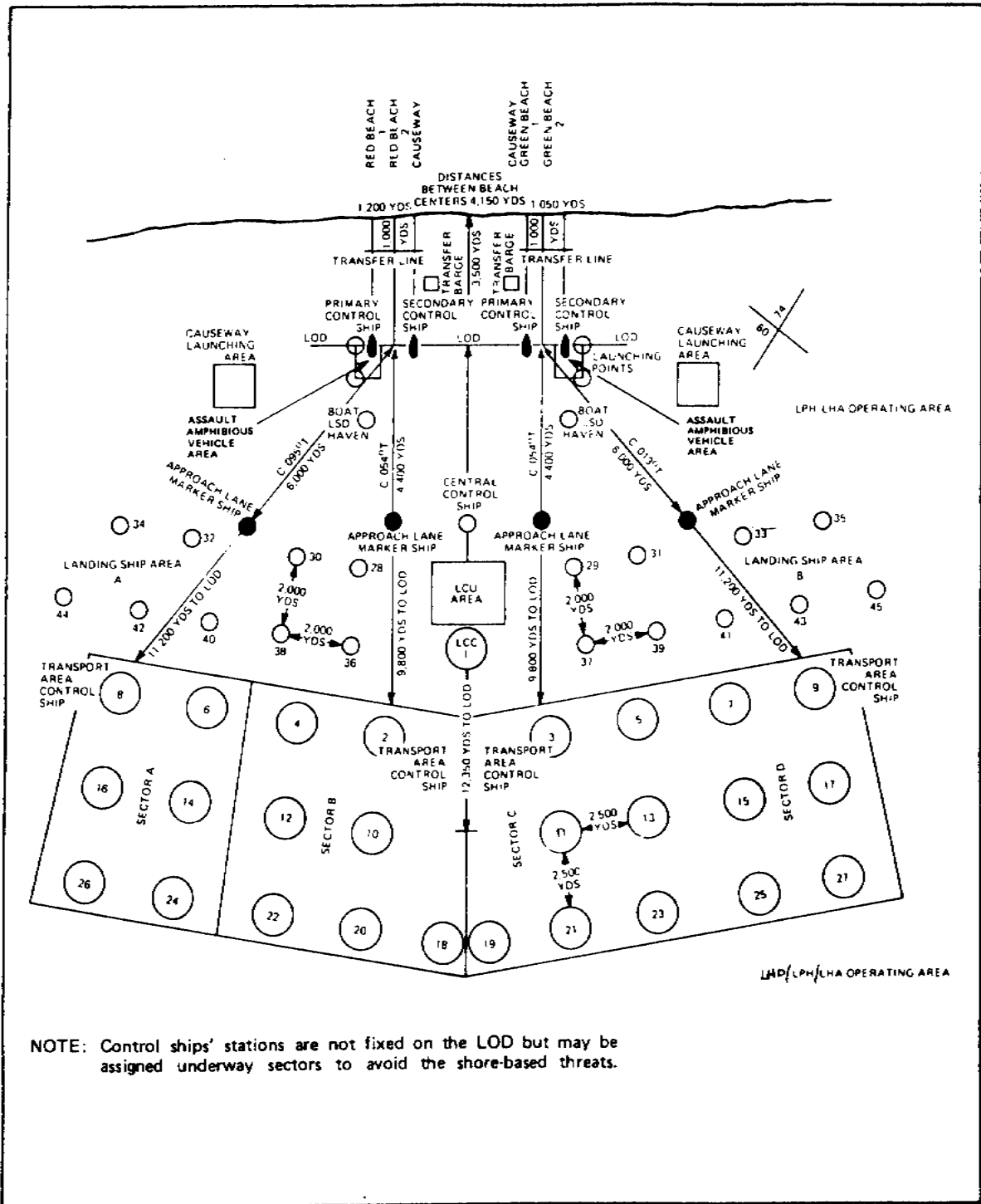
2. Speeds used for computing times listed: LCAC AAVP
 a. Rendezvous Area to LOD 40 kts 4 kts
 b. LOD to Beach 25 kts 8 kts

Sample Approach Schedule

TRANSPORT AREA DIAGRAM

The transport area diagram is prepared as an overlay for a chart of the objective area. The overlay will show the area extending from at least 1,000 yards off the beach to seaward and at least 1,000 yards to seaward beyond the outermost berth in the designated transport area. Two diagrams will be required if both an outer and inner transport area are to be used. Overlays will include the following as appropriate:

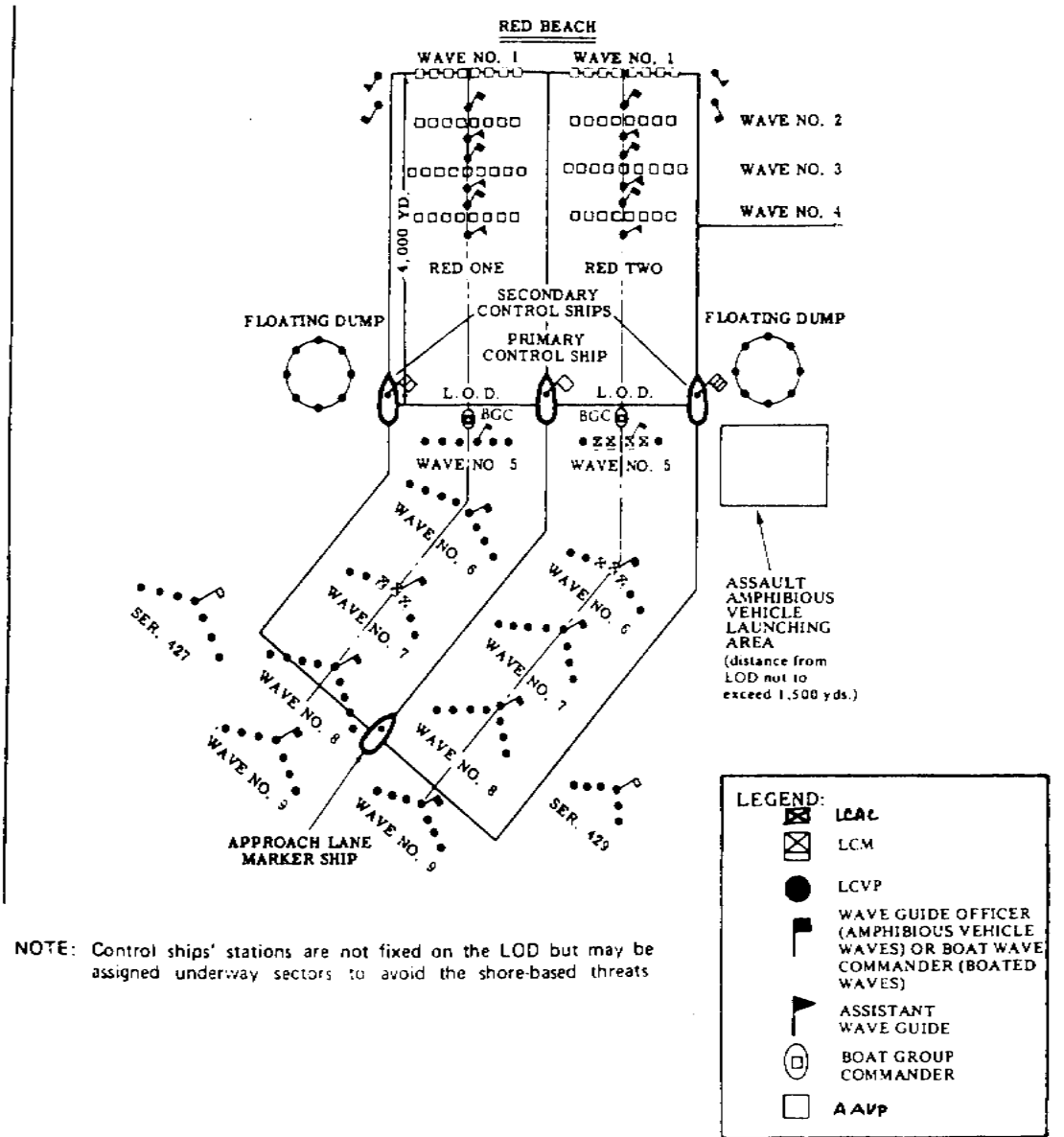
- a. Transport area(s) and assignment of all deep-draft ships to berths.
- b. Landing ship areas and assignment of all landing ships to berths.
- c. LHD/LHA/LPH operating areas, if applicable.
- d. Position of all control ships.
- e. Boat and approach lanes.
- f. Line of departure (to include separate LOD for AAV control when appropriate).
- g. Assault amphibian vehicle launching area.
- h. Causeway launching area.
- i. Beaches.
- j. Position of bowser tender LST.
- k. Distances:
 - (1) From beach to center of transport area.
 - (2) From beach to line of departure.
 - (3) From approach lane marker ships to line of departure.
 - (4) Lengths of beaches.
- l. Courses (true and magnetic):
 - (1) From line of departure to beaches.
 - (2) From approach lane marker ships to line of departure.



Sample Transport Area Diagram
 Sample Transport Area Diagram

ASSAULT WAVE DIAGRAM

This diagram displays the assault waves as they will appear at a specified time prior to H-hour. The diagram is consolidated jointly at the amphibious task force/landing force level and given wide distribution.



Sample Assault Wave Diagram

Sample Assault Wave Diagram

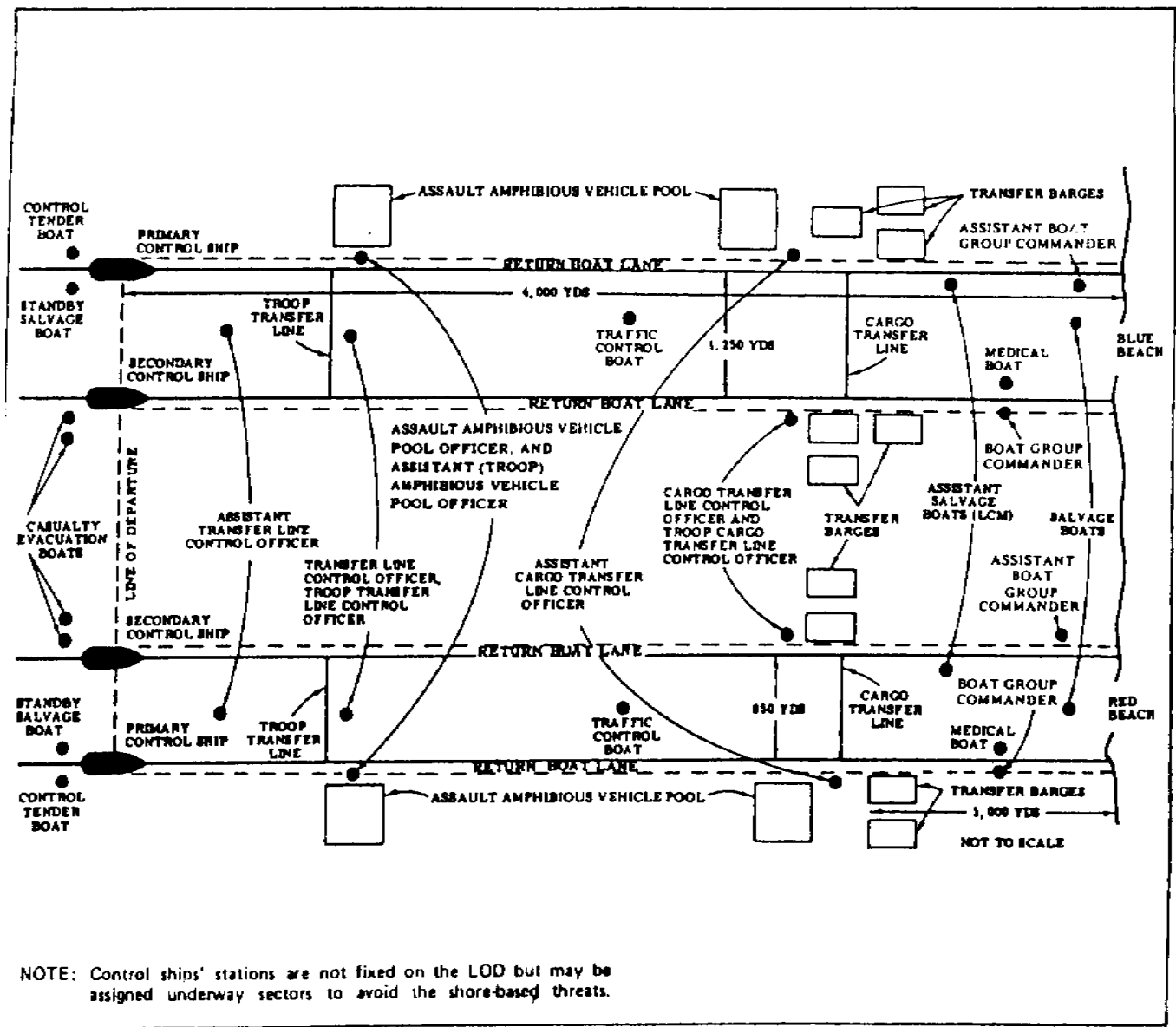
Wave	Beach	Craft	Pass Marker Ship or Leave Assault Amph. Veh. Launching Circle	Lv. LOD	Arr. Beach	Beach Designation									
1	RED 1	8 LVT	H-45 min	H-30 min	H-hour	<p>The beaches on which the 2nd Marine Division (-) Reinforced will land in assault are designated Beach RED and Beach BLUE. From seaward, Beach RED is on the left, 2900 yards from the flank of Beach BLUE. Beach RED is divided into RED One and RED Two. RLT 2 is landing over Beach BLUE; RLT 6 over Beach RED. BLT 1/6 is landing over RED One, BLT 3/6 is landing over RED Two, and BLT 2/6 is in reserve on RED Beach.</p> <p>Explanatory Notes</p> <p>1. Positions of waves shown are those of H-hour. Note that arials 427 and 429 are en route to the Secondary Control Ships.</p> <p>2. Positions of waves shown are based on the following speeds.</p> <table border="1"> <thead> <tr> <th>Type</th> <th>Assault Amph. Veh. Launching Circle or Transport Area to LOD</th> <th>LOD to Beach</th> </tr> </thead> <tbody> <tr> <td>AAVP</td> <td>3 kt.</td> <td>4 kt.</td> </tr> <tr> <td>LCVP - LCM</td> <td>6 kt.</td> <td>8 kt.</td> </tr> </tbody> </table> <p>3. Floating dump boats are scheduled to arrive at LOD at H-hour.</p> <p>4. On-call waves are either en route from the Transport Area to the LOD (note arials 427 and 429) or on board transports awaiting landing craft of the scheduled waves to return and embark them.</p> <p>5. All positions shown are approximate. The intent of the diagram is to give a picture of the Boat Group and Control Ships operating off Beach RED at H-hour. Distribution of this diagram to all coxswains in the Boat Groups is desirable.</p>	Type	Assault Amph. Veh. Launching Circle or Transport Area to LOD	LOD to Beach	AAVP	3 kt.	4 kt.	LCVP - LCM	6 kt.	8 kt.
	Type	Assault Amph. Veh. Launching Circle or Transport Area to LOD	LOD to Beach												
AAVP	3 kt.	4 kt.													
LCVP - LCM	6 kt.	8 kt.													
RED 2	8 LVT	H-45 min	H-30 min	H-hour											
2	RED 1	8 LVT	H-42 min	H-27 min	H+3 min										
	RED 2	8 LVT	H-42 min	H-27 min	H+3 min										
3	RED 1	9 LVT	H-38 min	H-23 min	H+7 min										
	RED 2	9 LVT	H-38 min	H-23 min	H+7 min										
4	RED 1	8 LVT	H-36 min	H-19 min	H+11 min										
	RED 2	8 LVT	H-36 min	H-19 min	H+11 min										
5	RED 1	6 LCVP	H-19 min	H+1 min	H+16 min										
	RED 2	4 LCM	H-23 min												
		2 LCVP													
6	RED 1	8 LCVP	H-14 min	H+6 min	H+21 min										
	RED 2	3 LCM	H-18 min												
		4 LCVP													
7	RED 1	3 LCM	H-8 min	H+12 min	H+27 min										
	4 LCVP														
8	RED 1	8 LCVP	H-12 min												
	RED 2	8 LCVP	H-12 min												
8	RED 1	9 LCVP	H-2 min	H+18 min	H+33 min										
	RED 2	8 LCVP	H-6 min												
9	RED 1	7 LCVP	H-4 min	H+24 min	H+39 min										
	RED 2	7 LCVP	H-hour												
			On-Call Waves												
	Serial			Arrive											
	427	7 LCVP	H+10 min	Secondary Control Ship RED 1	H+30 min										
	429	6 LCVP	H+6 min	Secondary Control Ship RED 2	H+30 min										

Sample Assault Wave Diagram (Con't)

BEACH APPROACH DIAGRAM

The diagram is prepared by the transport group commander as an overlay for a large-scale chart of the landing beaches. The overlay extends from the beach seaward, 300 to 500 yards beyond the LOD. The overlay incorporates the following, as appropriate:

- a. Designation (color and number) and dimensions of landing beaches.
- b. Line of departure.
- c. Distance from beach to LOD.
- d. Position of the following:
 - (1) Primary and secondary control ships.
 - (2) Control tender boats.
 - (3) Casualty evacuation boats.
 - (4) Medical boats.
 - (5) Salvage boats.
 - (6) Bowser boats.
 - (7) Traffic control boats.
 - (8) Boat group commander.
 - (9) Assistant boat group commander.
 - (10) Transfer line control boats.
 - (11) Assault amphibious vehicle control boats.
- e. If a cargo transfer line is established, position of:
 - (1) Cargo transfer line.
 - (2) Cargo transfer barges.
 - (3) Cargo transfer line control boats.
- f. Return boat lanes.
- g. If a personnel transfer line is established, position of:
 - (1) Transfer line.
 - (2) Assault amphibious vehicle assembly area.
 - (3) Transfer line control boats.
 - (4) Assault amphibious vehicle control boats.



Sample Beach Approach Diagram

ALLOCATION OF SERIAL NUMBERS

1. A serial is a group of landing force units and their equipment that originate from the same ship and that, for tactical or logistic reasons, will land on a specified beach or a specified helicopter landing zone at the same time. A serial number is assigned to each serial (group). Serial numbers are abstract numbers and do not in themselves prescribe a priority in landing. They are assigned only for reference purposes and the assignment in no way precludes the use of code names, designations or unit titles when such a use is expedient.
2. Early in the planning stage, the landing force commander allocates a block of consecutive serial numbers, on the basis of administrative organization, to each landing force unit and Navy element to be landed, regardless of their location in the assault echelon (AE) or assault follow-on echelon (AFOE). Allocation begins at the highest echelon; each unit then allocates a consecutive portion of its block to its subordinate units; and allocation continues until each element within the landing force has a block of consecutive numbers for assignment to its subordinate and attached elements.
3. After the landing and embarkation plans have been determined, each planning echelon assigns serial numbers from its allocated block to its units, parts of units, or groupings. It is important to note that, while allocation of blocks of serial numbers to units is based on the administrative organization, the actual assignment of individual serial numbers is based on the organization for landing. The method of assignment does not depend either on the priority or on the estimated sequence of landing of nonscheduled units.

ALLOCATION OF BLOCKS BY LANDING FORCE

H&S I MEF	0-500
1ST FSSG	501-1200
UNASSIGNED	1200-1300
1ST MARDIV	1301-2200
3D MAW	2201-3100

ALLOCATION OF BLOCKS BY DIVISION

HQBN	1301-1350
1ST MAR	1401-1600

ALLOCATION OF BLOCKS BY REGIMENT

HQCO 1ST MAR	1401-1425
1ST BN 1ST MAR	1426-1475

Allocation Of Serial Numbers

LANDING PRIORITY TABLE

1. This is a worksheet used at the landing force level that may be prepared and issued to prescribe the planned buildup of the landing force ashore. The table is based on the commander's tactical plan and provides a foundation for the orderly deployment of landing forces in support of the plan. It lists all major units to be landed, the order of priority, the planned time of landing, and the designated beaches and/or landing zones, if known. Format of the table is determined by the command using it.

2. As indicated by the example below, the landing priority table is used principally when the landing force is complex or when a phasing of landing force units is required.

LANDING PRIORITY TABLE											
UNIT	DAY OF ANTICIPATED LANDING										REMARKS
	D	D-1	D-2	D-3	D-4	D-5	D-6	D-7	D-8		
SOUTHERN LANDING GROUP	X-	→									S LGBH DESIGNATED ZONE
NORTHERN LANDING GROUP	X-	→									N LGBH DESIGNATED BEACHES & LANDING ZONE
LANDING FORCE AVIATION	X-									→	BEACHES & AIR FACILITIES TO BE DESIGNATED
H&S BN, I MEF			X								N LGBH, IN OBJECTIVE AREA ON D-DAY
1ST COMM BN (-)			X								N LGBH
1ST RADIO BN (-)		X-	→								N LGBH
1ST MEDICAL BN (-)					X-					→	N LGBH
MEDICAL CO (REIN)		X-	→								BEACHES TO BE DESIGNATED
1ST FSSG	X-									→	N LGBH

Sample Landing Priority Table

Sample Landing Priority Table

AMPHIBIOUS VEHICLE AVAILABILITY TABLE

This is a list of the type and number of vehicles available for assault landings and for support of other elements of the operation. It also indicates the ships in which the assault amphibious vehicles are carried to the objective area.

SHIP	AMPHIBIOUS VEHICLE UNIT	NUMBER AND TYPE AMPHIBIOUS VEHICLES			REMARKS
		AAVC	AAVP	AAVR	
LST 1183	Elms Co A (-), 1st Aslt Amphib Bn; 1st Plat (Rein), Co A (-), 1st Aslt Amphib Bn		14	1	
LST 1184	Elms Co A (-), 1st Aslt Amphib Bn; 2d Plat (Rein), Co A (-), 1st Aslt Amphib Bn	1	11		

TOTAL	5	40	2
-------	---	----	---

Sample Amphibious Vehicle Availability Table
 Sample Amphibious Vehicle Availability Table

LANDING CRAFT AND ASSAULT AMPHIBIOUS VEHICLE ASSIGNMENT TABLE

1. This table indicates the organization of landing force units into boat teams and the assignment of boat teams to scheduled waves, on-call waves, or nonscheduled units. It may also include instructions for assigning floating dump supplies to landing craft or assault amphibious vehicles. The table, together with the debarkation schedule, furnishes the ship's commanding officer with information for debarking troops and floating dump supplies. The landing craft and assault amphibious vehicle assignment table is prepared and promulgated at the same time as the landing diagram. Both tables are prepared by the landing force.

2. Boat Space. The space and weight factor used to determine the capacity of boats, landing craft and amphibious vehicles, it is based on the requirements of one person with individual equipment, who is assumed to weigh 224 pounds and to occupy 13.5 cubic feet of space. (JCS Pub 1-02).

3. Allowance of boat spaces must be made for troop equipment, such as mortars, machine guns, vehicles, and heavy equipment. A smaller number of personnel embark in craft carrying such equipment. The number of boat spaces the equipment occupies is included in column three of the table.

4. Tactical integrity required by the tactical plan must be maintained. Units must land in proper tactical formations. For example, a rifle squad and its equipment takes its place in the wave formation in proper relation to the other squads of the platoon. Nonscheduled units are also boated tactically in a similar way. The example on page A-21 shows the column formation of AAVs in the first wave, and vee formation of LCMS in wave 3.

5. Guidelines for Assignment to Boat Teams. The assignment of command elements and any attached or supporting troops, such as forward observers, naval gunfire spotters, and communications personnel, is made to the craft carrying the rifle units to which they are attached or which they directly support. If such units are assigned to separate craft, the craft are given positions in the waves that will facilitate small unit employment on beaching. A separate wave may be organized for command elements, mortar platoons, and antitank platoons.

a. The risk of heavy losses in command elements is reduced by distributing elements of command and liaison personnel among two or more landing craft. For example, the BLT commander and a skeleton command group is boated in a free boat; the executive officer and his skeleton command section are boated in another craft. Each staff is capable of conducting the operations of the BLT if the other staff is

lost. Similarly, the risk of heavy loss in one arm or service is reduced by distribution among several craft. For example, personnel of a communications platoon are boated in several landing craft.

b. The priority of craft assignment is in the following order: assault platoons, supporting units, and reserve units.

6. Serials landing directly by beached LST are not normally included on the landing craft and amphibious vehicle assignment table. Such serials would be indicated and specified in the assignment to shipping document.

CR CRAFT NO	PERSONNEL AND MATERIAL	BOAT SPACES	FORMATION
FIRST WAVE			
241 AAVP*	1st Sqd, 1st Plt, Co B Corpsman MG Tm, 1st MG Sqd 81mm FO Tm/w 1 Radio Operator	11 1 3 2 <u>17</u>	X 1-1 X 1-2*
242 AAVP*	Plt Cmdr, 1st Plt, Co B Msgtr-Radio Operator 2d Sqd Corpsman 1st & 2d Tms, 3d AArim Sec, Weapons Co	1 1 11 1 4 <u>18</u>	X 1-3 X 1-4 X 1-5 X 1-6
243 AAVP*	Sqd Ldr, 3d Sqd, 1st Plt, Co B 1st Fire Tm, 3d Sqd, Co C Corpsman MG Tm & Sqd Ldr, 1st MG Sqd 60mm Sec Ldr 1st Sqd, 60mm Sec 1st Ash Tm	1 5 1 4 1 3 2 <u>17</u>	X 1-7 X 1-8 X 1-9 X 1-10
THIRD WAVE			
341 LCM-8	Sec Ldr, 1st TK Sec Tank Crew, 1st TK Sec 1 M60A1	1 3 65 <u>72</u>	Wedge -0- 3-1 -0- 3-3
ON-CALL			
Serial LCM-8	VTR Det, 1st Plt (Rein), Co A, 2d TA Bn	68 5 <u>73</u>	
FREE BOATS			
00-1 AAVC-7	BLT Cmd Group Bn Cmdr S-3 Asst S-3, ALO NGF LNO Wpns Co Cmdr Arty LNO Radio Op	1 1 1 1 1 1 4 <u>10</u>	
FLOATING DUMP			
LCVP	Floating dump		

LEGEND: O LCVP LCAC X AAVP -0- LCM-8 * Wave Commander
 O LCM-6 (X) AAVC (M) LCU (X) LARC-5

Sample Landing Craft and Amphibious Vehicle Assignment Table

ASSAULT SCHEDULE

This schedule prescribes the formation, composition, and timing of waves landing over the beaches. In preparing the schedule, the landing force or landing group commander considers the recommendations submitted by subordinate unit commanders in regard to the number of waves and the number and types of landing craft and amphibious vehicles required in each wave.

BEACH		RED 1		RED 2	
WAVE	TIME	CRAFT/VEH SERIAL	UNIT	CRAFT/VEH SERIAL	UNIT
1	H - hour	8 AAVP 601 & 701	Aslt Plats E & F Cos	8 LVTP 201 & 301	Aslt Plats A & B Cos
2	H+3 min	8 AAVP 602 & 702	E & F Cos (-)	6 LVTP 202 & 302	A & B Cos (-)
3	H+7 min	4 AAVP 801	Leading Plats G Co	4 LVTP 403	Leading Plats C Co
4	H+11 min	4 AAVP 802	G Co (-)	4 LVTP 404	C Co (-)
5	H+16 min	7 LCU 906	A Co (Rein) 2nd Tk Bn	8 LCVP 501	81mm mortar Plat, Leading Plt C Co

Rept PCS GREEN 1 at H+40 min		3 LCM(6) 1 LCVP 101	SP Team #1		
Rept PCS GREEN 2 at H+40 min		2 LCM(6) 2 LCVP 102	SP Team #2		
Rept PCS GREEN 2 at H+45 min		3 AAVP	RLT 2 Float ing Dumps		
Rept PCS GREEN 1 at H+45 min		4 LCVP 104	Hq RLT 2		
Rept PCS GREEN 2 at H+50 min		10 LCVP 1301/1501	Leading Plats I and K Cos		
Rept PCS GREEN 2 at H+55 min		2 AAVP 1601	Recon Party 1/10		

Sample Assault Schedule
Sample Assault Schedule

ASSAULT AMPHIBIOUS VEHICLE EMPLOYMENT PLAN

This table shows the planned employment of assault amphibious vehicles in landing operations, including employment after initial movement to the beach. The landing force or landing group commander is responsible for preparation of the plan. He is guided in the preparation of the table by recommendations from subordinate commanders. The employment plan is completed based on information contained in landing diagrams and assault schedules.

ORIGIN	NUMBER AND TYPE AMPHIBIOUS VEHICLES			WAVE	DESTINATION	REMARKS
	AAVP	LARC	AAVC			
LST 1183	5			1	Beach RED 1	Aslt Plats Co A 1/23
LST 1184	5					Aslt Plats Co B
LST 1187	5			1	Beach RED 2	Aslt Plats Co E 2/23
LST 1188	5					Aslt Plats Co F 2/23
LST 1183	4			2	Beach RED 1	Co A(-) 1/23
LST 1184	4					Co B(-) 1/23
LST 1187	4			2	Beach RED 2	Co E(-) 2/23
LST 1188	4					Co F(-) 2/23
LST 1183			1		Beach RED 1	CO BLT 1/23*
LST 1184			1			XO BLT 1/23*
LST 1187			1		Beach RED 2	CO BLT 2/23*
LST 1188			1			XO BLT 2/23*

*FREE BOATS

SECOND TRIP

1st & 2d Plats, Co A, 4th Aslt Amphib Bn	20				Transfer Line RED 1	Embark troops as directed
1st Plat, Co B, 4th Aslt Amphib Bn	5 5				PCS RED	To land Arty Ammunition

Sample Assault Amphibious Vehicle Employment Plan

Sample Assault Amphibious Vehicle Employment Plan

LANDING SEQUENCE SCHEDULE

1. This table is a complete list of the estimated landing sequence of the nonscheduled units of the landing force (including appropriate combat support, combat service support, and aviation units). It is used by troop and Navy agencies as the principal document in executing and controlling the ship-to-shore movement of these units and is the basis for their embarkation and loading plans. The landing force commander prepares the landing sequence table and issues it as part of the landing plan. Subordinate commanders extract pertinent parts of the table for their use.

2. The landing proceeds in accordance with the estimated sequence shown in the landing sequence tables, unless specific requests for changes are made during the execution of the ship-to-shore movement. If suitable beaching areas for landing ships are limited, it may be desirable to reduce the exceptions to the planned landing sequence table for units embarked in landing ships that are to be beached for unloading.

3. This document answers two questions: (a) In what order are vehicles and equipment of nonscheduled units to be loaded so as to be available when requested from the beach? (b) What sequence is preferred to beach the LSTs that will land nonscheduled serials? The document is a guide to the embarkation officer in preparing his loading plans. It indicates to him the commander's priorities in offloading nonscheduled serials aboard the assigned shipping. In this regard, only items of heavy equipment are of major consequence.

UNIT	ELEMENT	SERIAL NO.	CARRIER NO. TYPE	SHIP	BEACH	REMARKS
1st & 2nd Plat ACo 2nd Tk Bn (FMF)		905	3 LCU	LSD	RED	
ACo(-) 2nd Tk Bn (FMF)		906	3 LCU	LSD	RED	
1st & 2nd Plat BCo 2nd Tk Bn		907	3 LCU	LSD	BLUE	
BCo(-) 2nd Tk Bn		908	3 LCU	LSD	BLUE	
1/10 1/10	ABtry BBtry CBtry	1013 1014 1015	7 LCM 7 LCM 7 LCM	LPD- LPD- LPD-	RED RED RED	

Sample Landing Sequence Table

Sample Landing Sequence Table

HELICOPTER AVAILABILITY TABLE

The table shows the number and models of helicopters available for a proposed helicopterborne operation. It lists the helicopter units, the number of helicopters available for first and subsequent lifts, their tentative load capacity, and the ships on which the helicopters are transported. The table is prepared by the senior helicopter unit commander.

HELICOPTER UNIT AND DESIGNATION	NUMBER OF A/C	A/C AVAILABLE NUMBER		MODEL	CARRIER	DECK LAUNCH CAPACITY	TENTATIVE LOADS PER A/C		REMARKS (as appropriate)
		FIRST TRIP	OTHER TRIPS				TROOPS	CARGO	
		90%(1)	75%(1)						
HMM-163 (as assigned)	12	10	9	CH-46E	LPH-2 LHA-1	7(2) 9(2)	16	4,080	All external lift capable.
HMH-463 (as assigned)	16	14	12	CH-53D	LPH-2 LHA-1	4(2) 9(2)	32	8,160	All external lift capable.
HML/A-267 (as assigned)	24	21	18	UH-1N	LPH-2 LHA-1	7(2) 9(2)	8	3,000(3)	Ten armed with GAU/28/A.
HMH-465 (as assigned)	16	14	12	CH-53E	LPH-2 LHA-1	2(2) 6(2)	32(4)	32,000(5)	Equipped with aircraft recovery sling.

Notes:

1. These percentages may vary from operation to operation.
2. These figures represent maximum deck launch capacities from these ships.
3. The UH-1N has only 220 cubic feet of cargo space and would normally exceed available volume before exceeding weight limitations.
4. The CH-53E is limited to 32 troops because centerline seating is not yet available.
5. Sea level at 90 °F.

Sample Helicopter Availability Table

HELITEAM WAVE AND SERIAL ASSIGNMENT TABLE

1. This table indicates the tactical units, equipment, and supplies that are to be loaded into each helicopter. It identifies each heliteam (person and equipment) by its assigned serial number, and the serial number with the flight and wave. The weight column ensures that maximum helicopter payloads are not exceeded by troop units.
2. This table is prepared by the commander of the helicopterborne unit, assisted by the helicopter unit commander, and in coordination with the ship's commanding officer, and is submitted to the next higher echelon for approval.
3. All landing categories are included in the heliteam wave and serial assignment table. The scheduled waves will be organized into helicopter waves and listed in numerical sequence. On-call and nonscheduled serials will be listed by wave and serial following the scheduled waves.
4. This table is not normally prepared above the BLT or similar unit level. The serials listed will be included in the serial assignment tables at regimental and higher levels of the landing force.

WAVE	HELITEAM FLIGHT SERIAL	PERSONNEL		SUPPLIES AND EQUIPMENT	WEIGHT (4200/CH46 MAX)		
		TROOP UNIT	NO.		PERS	EQUIP	TOTAL
1	Anvil 101 230-1	1st Sqd, 1st Plt, Co A	11	1 M60MG (24#)	4080	126	4206
	1st MG Tm, 1st MG Sqd, Wpns Plt	3	MG Ammo (80#)				
		Plt Cmdr, 1st Plt	1	AN PRC/77 (22#)			
		Msgr/Radio Op, 1st Plt	1				
		Corpsman	1				
			17				
	Anvil 102 230-2	2d Sqd, 1st Plt, Co A	11		4080	166	4246
		1st Tm, 1st Dragon Sec, Anti-Armor Plt, Wpns Co	2	1 60mm Mort (45#)			
		1st 60mm Mort Sqd, Wpns Plt	3	Mort Ammo (40#) 1 M47 Dragon (31#)			
		Sec Ldr, 60mm Mortar, Wpns Plt	1	2 Dragon Rds (50#)			
			1				
			17				

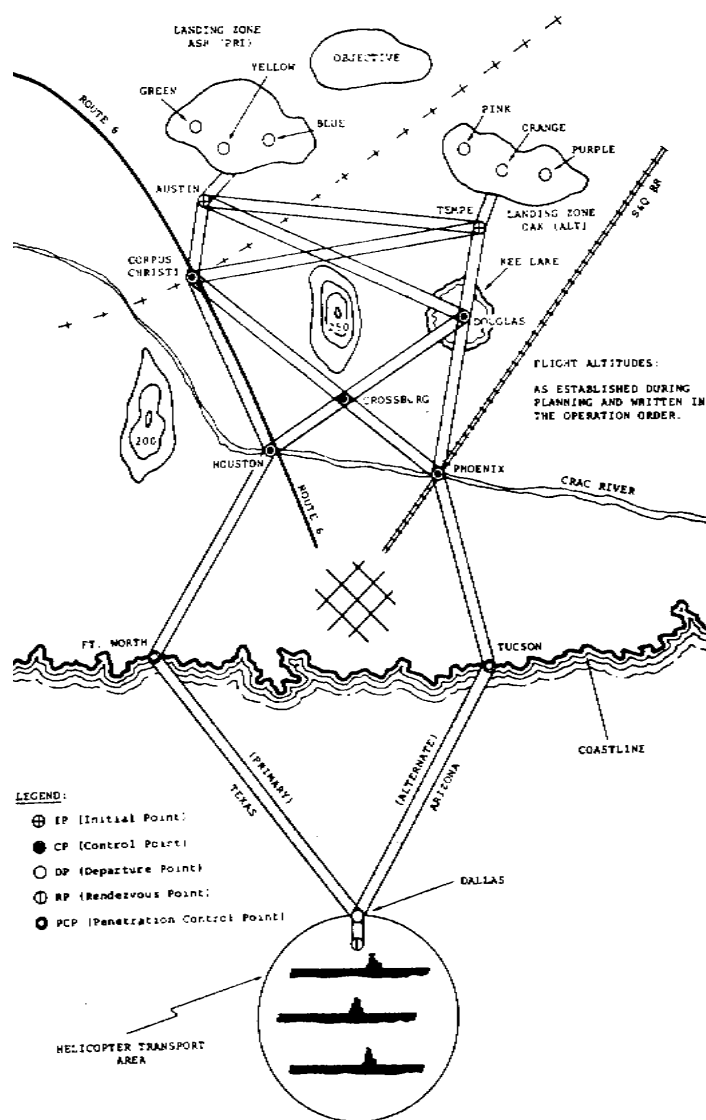
NOTE: 1. The Heliteam Flight Serial is as follows:
 ANV(L): Squadron Radio Call Sign

101 Heliteam Wave Number 230-1 Troop Unit Serial Number
 101 Heliteam Position in the Wave 230-1 Troop Unit Heliteam Number

Sample Heliteam Wave and Serial Assignment Table
 Sample Heliteam Wave and Serial Assignment Table

HELICOPTER LANDING DIAGRAM

The routes to and from LZs are illustrated in these diagrams. They include the helicopter transport area, rendezvous points, approach and retirement routes, departure and initial points, other control points, LZs and sites, and such other details and remarks as are necessary for clarity. The diagrams are prepared by the senior helicopter unit commander in coordination with cognizant helicopter transport group/unit commanders and are submitted through the chain of command to the amphibious task force commander for approval and coordination with planned supporting fire.



Sample Helicopter Landing Diagram

Sample Helicopter Landing Diagram

HELICOPTER EMPLOYMENT AND ASSAULT LANDING TABLE (HEALT)

1. This table is a detailed plan for the movement of helicopterborne troops, equipment, and supplies. It provides the landing timetable for the helicopter movement and indicates the assignment of specific troop units to specific numbered flights.

2. This document is the basis for the helicopter unit's flight schedules and the control of helicopter movement by the appropriate air control agency. It is prepared by the commander of the helicopterborne unit and the associated helicopter unit commander, working in close coordination.

3. This table is analogous to the assault schedule and landing sequence table prepared by surface-landed units. On-call waves and nonscheduled units (serials) will be listed in the priority of landing following the listing of the scheduled waves.

WAVE	HELICOPTER UNIT AND FLIGHT NO.	NO./TYPE AIRCRAFT (1)	FROM CARRIER (ORIGIN)	REPORT TO (LOAD)	TIME			DESTINATION		TROOP UNIT, EQUIPMENT, AND SERIAL EXTERNAL LOADS
					LOAD	LAUNCH	LAND	LZ	LS	
1st	ANVIL-1	10 CH-46	LHA-1	LHA-1	Preload	H-21	H-Hr	Code Name	Color	Co A (1) (Rein) Ser 101
	RIPPER-1	7 CH-46	LPH-7	LPH-7	Preload	H-21	H-Hr	Code Name	Color	Co B (1) (Rein) Ser 105
	SCARFACE-1	4 AH-1	LPH-2	LPH-2	Preload	H-21	NA	NA	NA	Escort
	HOBO-1	1 UH-1	LHA-1	LHA-1	Preload	H-21	NA	NA	NA	HCA (refuel as necessary)
2nd	ANVIL-2	12 CH-46	LHA-1	LHA-1	Preload	H-11	H+10	Code Name	Color	Elms Co "A" Ser 107
	RIPPER-2	7 CH-46	LPH-7	LPH-7	Preload	H-11	H+10	Code Name	Color	Elms Co "B" Ser 103
	SCARFACE-2	4 AH-1	LPH-2	LPH-2	Preload	H-11	NA	NA	NA	Escort
3rd	ANVIL-3	9 CH-46	LHA-1	LPH-5	H+38	H+45	H+71	Code Name	Color	Co C (1) (Rein) Ser 211
	RIPPER-3	6 CH-46	LPH-7	LPH-5	H+38	H+45	H+71	Code Name	Color	Elms Co "C" Ser 212
	SCARFACE-3	4 AH-1	LPH-2	LPH-5	NA	H+45	NA	NA	NA	Escort
On Call	HAULER-1	6 CH-53	LHA-3	LHA-3	TBA	On order	TBA	TBA	TBA	Resupply

Note: (1) Current model designators will be used in the actual plan.

Sample Helicopter Employment and Assault Landing Table
 Sample Helicopter Employment and Assault Landing Table

SERIAL ASSIGNMENT TABLE

1. This table lists by identifying serial numbers all units, except floating dumps, that are to be landed prior to general unloading. The serial numbers are listed in numerical order, so that the table may be a ready reference for information on the composition and landing requirements of each unit to which a number is assigned.

2. This document is prepared by BLT commanders and the commanders of separate task organizations of the landing force that are expected to land before commencement of general unloading. These tables are promulgated in the appropriate unit's landing plans and are forwarded to higher echelons for approval and ultimately for consolidation into the landing force serial assignment table. Other subordinate units prepare lists of assignments by serial number from the block of serial numbers allocated to them. These lists are forwarded to the next higher echelon for approval and inclusion into their serial assignment table. When finally compiled at landing force level, it becomes a consolidation of facts obtained from documents prepared by all elements of the landing force. The table contains: a description of the unit comprising the serial, the number of personnel in the serial, the ship from which the serial is to be landed, the materiel and equipment in the serial, the number and type of landing craft or amphibious vehicles required to land the serial, and special instructions where needed.

3. Serial numbers assigned to helicopterborne units in the BLT heliteam wave and serial assignment tables will be consolidated into the serial assignment tables of higher echelons of the landing force.

4. Information to complete this table is obtained from:
- a. Allocation of serial numbers.
 - b. Assignment to shipping documents.
 - c. Landing Diagram.
 - d. Landing Sequence Table.
 - e. Landing Craft and Amphibious Vehicle Assignment Tables.
 - f. Heliteam Wave and Serial Assignment Tables.

SERIAL NO.	UNIT	PERS	MATERIAL EQUIPMENT VEHICLES	CRAFT NUMBER TYPE	SHIP	REMARKS
101	Aslt Plats, Co A (Rein)	104	Normal Combat	5- AAVP	LST-	2nd Wave Beach RED 1
102	Co A (-) (Rein)	91	4 Trk. Platform, Utility, M274	4- AAVP	LST-	3rd Wave Beach RED 1
105	Aslt Plats, Co B (Rein)	142	Normal Combat	5- AAVP	LST-	2nd Wave Beach RED 1
106	Co B (-) (Rein)	95	4 Trk. Platform, Utility, N274	4- AAVP	LST-	3rd Wave Beach RED 1

Sample Serial Assignment Table

Sample Serial Assignment Table

SAMPLE LANDING PLAN APPENDIX FOR AN RLT LANDING BY
SURFACE AND HELICOPTER
CLASSIFICATION

Copy No. of Copies
RLT-23, 4th MarDiv (Rein), FMF
c/o FPO, San FRANCISCO, CALIF
012000Z June 198
1-PDG-6

APPENDIX 3 (Landing Plan) to Annex R (Amphibious Operations)
To Operation Plan 3-8

Ref: (a) CTF 76.2 Operation Plan 9-8
(b) NWP 22-3/FMFM 1-8
(c) FMFM 6-2

Time Zone: H

1. General

- a. This plan calls for:
- (1) Landing one BN by helicopter in Landing Zone WREN.
 - (2) Landing one BN over Beach RED in amphibious vehicles with two companies abreast.
 - (3) Landing the RLT Reserve by helicopter, landing craft, and/or amphibious vehicles.
 - (4) Landing combat support and combat service support elements by surface and helicopter as required.
- b. For detailed instructions, see Tabs A thru J.

2. Control Measures

- a. Ship-to-shore control in accordance with references (a), (b), and (c).
- b. TACLOGs organize, embark, and function in accordance with Appendix 5, Annex R to the Operation Plan.

3. Pontoon Causeways, Barges, and Transfer Lines
See Annex P to reference (a).

J. F. DOUBLEDAY
Colonel, U. S. Marine Corps
Commanding

CLASSIFICATION

CLASSIFICATION

Tabs:

- A. Assault Schedule
- B. Helicopter Availability Table
- C. Landing Craft Availability Table
- D. Amphibious Vehicle Availability Table
- E. Serial Assignment Table
- F. Landing Sequence Table
- G. Amphibious Vehicle Employment Plan
- H. Helicopter Landing Diagram
- J. Helicopter Employment and Assault Landing Table

Distribution: Annex Z (Distribution) to Operation Plan 3-8 .

CLASSIFICATION

Sample Landing Plan Appendix for an RLT Landing by
Surface and Helicopter (Con't)

SAMPLE LANDING PLAN APPENDIX FOR A BLT LANDING

BY SURFACE MEANS
CLASSIFICATION

Copy No. of Copies
BLT 2/23, 4th MarDiv (Rein),
FMF c/o FPO SAN FRANCISCO, CALIF
050930Z June 198
15-DEF

APPENDIX 3 (Landing Plan) to Annex R (Amphibious Operations) to
Operation Plan 3-8

Ref: (a) CTF 76.2 Operation Plan 9-8
 (b) RLT-23 Operation Plan 3-8
 (c) NWP 22-3/FMFM 1-8
 (d) FMFM 6-3

Time Zone: H

1. General

- a. This plan provides for:
 - (1) Landing BLT 2/23 in amphibious vehicles over Beach RED ONE with two assault companies abreast and the reserve company in column.
 - (2) Landing H&S Co (-) over Beach RED ONE in landing craft.
- b. For detailed instructions, see tabs.

2. Control Measures

- a. Ship-to-shore movement control in accordance with reference (a), (b), (c), and (d).
- b. BLT embarkation officer designated TACLOG representative to transfer aboard PCS, Beach RED at H-2 hours. Functions in accordance with 4th MarDivO 4000.4A (CSS SOP).

TWO-Dash TWENTY-THREE

Lieutenant Colonel, U. S. Marine Corps

Commanding

CLASSIFICATION

CLASSIFICATION

Tabs:

- A. Landing Diagram
- B. Serial Assignment Table
- C. Landing Craft and Amphibious Vehicle Assignment Table
- D. Landing Sequence Table
- E. Landing Craft Availability Table
- F. Amphibious Vehicle Availability Table
- G. Amphibious Vehicle Employment Plan

Distribution: Annex Z (Distribution) Operation Plan

CLASSIFICATION

Sample Landing Plan Appendix for a BLT Landing

By Surface (Con't)

PREPARATION OF THE LANDING PLAN (SURFACE)

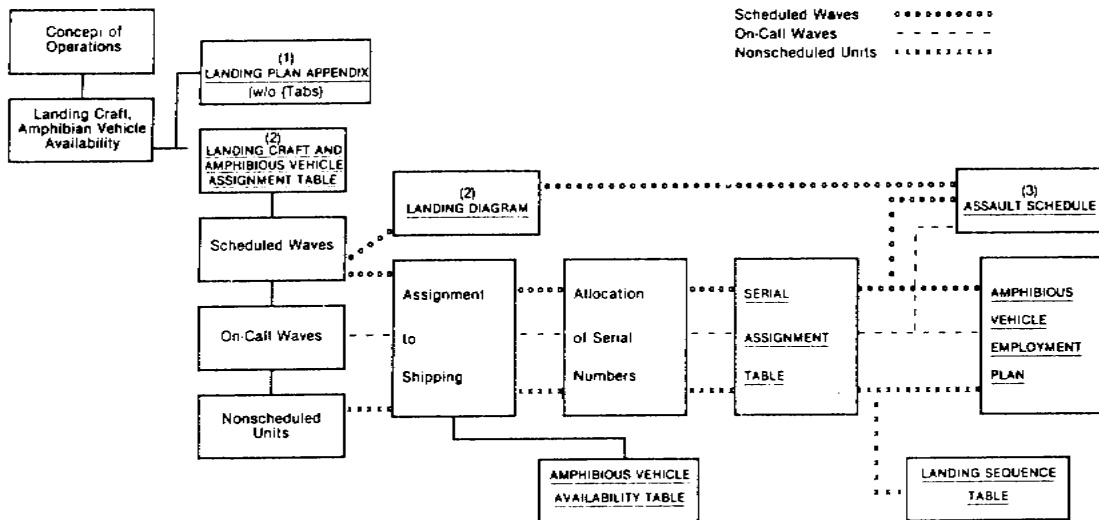
1. Preparation of the landing plan appendix with necessary tabs is the culmination of all efforts in the preparation of the plan for landing.

2. The information needed to complete the landing plan of higher echelons of the landing force will be dependent on input from subordinate elements. Correspondingly, before subordinate elements can begin preparation of their landing plans, they will require certain information: allocation of shipping, landing craft availability, assignment of serial numbers, etc.

3. Tabs contained in a landing plan appendix will depend on the level of the landing force involved. Some are prepared at all levels. Some are common only to the higher or to lower echelons. Final preparation of some tabs will depend upon completion of others.

4. The sequence of the preparation of the Landing Plan and tabs with related planning considerations for a surface ship-to-shore movement are as shown on the following page.

NOTE: The tabs are shown in the sequence at which time information should be available to prepare the completed document.



NOTE: (1) Landing plan documents (Appendix and Tabs) are CAPITALIZED and underlined
 (2) Prepared only at BLT level.
 (3) Prepared at RLT and higher levels.

Preparation of the Landing Plan (Surface)

Preparation of the Landing Plan (Surface)

SAMPLE LANDING PLAN APPENDIX FOR A BLT

LANDING BY HELICOPTER

CLASSIFICATION

Copy No. of Copies
BLT /3, 4th MarDiv (Rein), FMF
c/o FPO SAN FRANCISCO, CALIF
031430Z June 198
23 - RIQ

Appendix 3 (Landing Plan) to Annex R (Amphibious Operations) to
Operation Plan 6-8

Ref: (a) CTF 76.2 Operation Plan 9-8
(b) 11th MEB Operation Plan 3-8
(c) NWP 22-3/FMFZM 1-8
(d) FMFM 6-3

Time Zone: H

1. General. This plan provides for landing BLT /3 by
helicopter in the Landing Zone WREN (Alternate LZ-GULL).

2. Control Measures

a. Ship to shore movement control:

(1) HDC aboard LPH-4 will control the ship-to-shore
movement.

(2) Authority to change:

(a) Approach and Retirement Routes - By request to
TACC, HDC, or HC(A). Flight leaders may change in
emergency if safety of helicopters is involved.

(b) Landing Zone-BLT commander in conjunction with
flight leader if change does not involve a change
of route. In the event a change of route is
required, the flight leader will request HDC to get
permission from CATF or designated authority.

b. TACLOG will function aboard LPH-4 in accordance with
Appendix 5. Annex R to the Operation Plan.

ONE-DASH TWENTY-THREE

Lieutenant Colonel, U. S. Marine Corps

Commanding

CLASSIFICATION

CLASSIFICATION

Tabs:

- A. Helicopter Availability Table
- B. Helicopter Employment and Assault Landing Table
- C. Heliteam Wave and Serial Assignment Table
- D. Helicopter Landing Diagram
- E. Serial Assignment Table

Distribution: Annex Z (Distribution) to Operation Plan 6-8

CLASSIFICATION

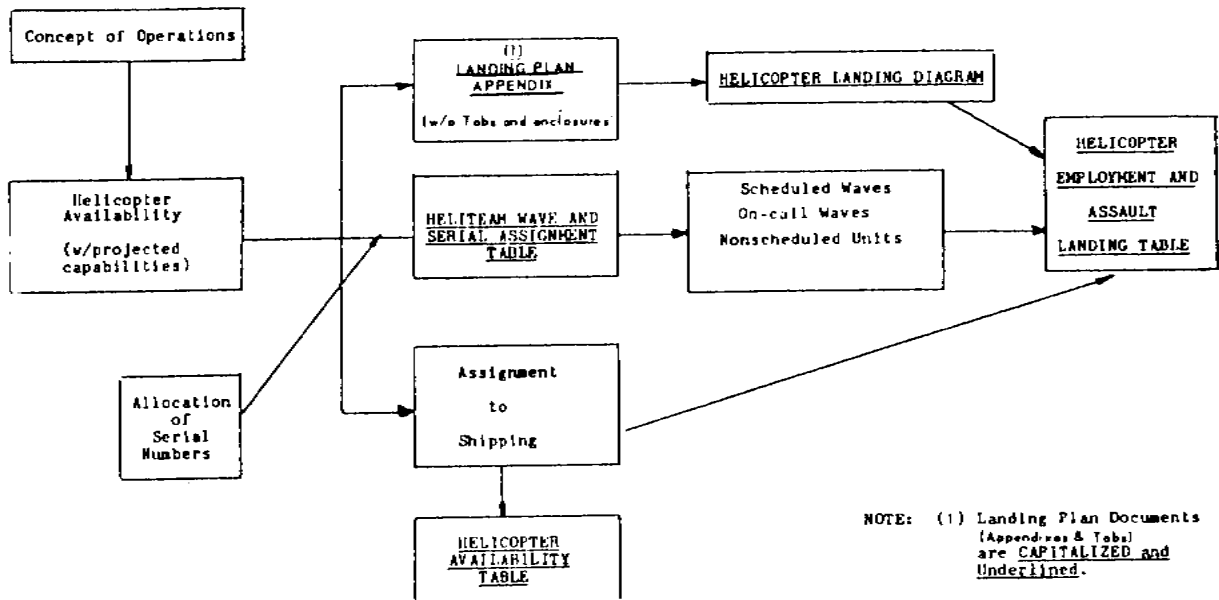
Sample Landing Plan Appendix for a BLT

Landing by Helicopter (Con't)

PREPARATION OF THE LANDING PLAN (HELICOPTERBORNE)

1. Preparation of landing plan appendix and tabs will be the final steps in the preparation of the plan for landing.
2. The information needed to complete the landing plan of higher echelons of the landing force will be dependent on input from subordinate elements. Subordinate elements will require certain information; allocation of shipping, helicopter availability and lift capacity, assignment of serial numbers, etc., before they can prepare their landing plans.
3. Tabs contained in the landing plan appendix will depend on the level of the landing force involved.
4. The sequence of the preparation of the landing plan and tabs with related planning considerations for helicopterborne ship-to-shore movement are as shown on the opposite page.

NOTE: The tabs are shown in the sequence at which time information should be available to prepare the completed document.



Sample Preparation of the Landing Plan (Helicopterborne)
 Sample Preparation of the Landing Plan (Helicopterborne)

ORGANIZATION FOR EMBARKATION AND ASSIGNMENT TO SHIPPING TABLES

1. These documents are developed based on the shipping assigned to the CATF for the mission. The commander landing force (CLF) evaluates the shipping available to support his concept of operations. Based on this evaluation, the landing force is embarked to provide maximum flexibility and force integrity for the operation. Serial numbers are assigned to the units or elements on assigned ships.
2. Preparation. The organization for embarkation and assignment to shipping table is prepared at the embarkation group and unit levels and, if desired, at the landing force level. This table is not part of any landing plan but is included as an annex to the embarkation plan or order. Its purpose is twofold: it serves as a convenient form or worksheet to facilitate allocation of units and supplies to assigned shipping, and it also serves as the means of promulgating this information in embarkation plans and orders. The following pages illustrate forms prepared at the embarkation unit and group levels. In final form, the tables show:
 - a. Capacity of assigned shipping.
 - b. Number of personnel to be embarked.
 - c. Distribution of troop units.
 - d. Proportion of vehicles, equipment, and supplies to be embarked in assigned shipping.
3. Ship's Capacity. Each ship's capacity is obtained from the information contained in its ship's characteristics pamphlet. The embarkation officer studies the pamphlets to determine embarked personnel spaces, square feet capacity, cubic feet capacity for general cargo, and capacity for special stowage cargo such as drums, ammunition, and bulk fuel.
4. Explanation of Table. The organizations comprising the embarkation group (A-42) are indicated in the left columns of the form under the heading "organizations." The lift requirements for these respective organizations are in the second column under the heading "lift requirements." The organization for embarkation is reflected in columns Alfa, Bravo, etc. The equipment and supplies indicated in this portion of the table are the authorized allowances of the troop organizations making up each embarkation unit.

a. The lower portion of the table indicates the distribution of landing force supplies by classes to be embarked with each embarkation unit. These supplies are differentiated from those of the troop units comprising the force only in that they are the supplies required to support the operation and have not been issued to a specific unit. Grand totals are computed by adding troop unit personnel and cargo totals to landing force totals.

b. An example of the organization for embarkation and assignment to shipping table prepared at the embarkation unit level is shown (A-43). This form reflects the organization and composition of respective embarkation teams and allocation of landing force supplies.

EMBARKATION GROUP		ALFA	BRAVO	CHARLIE	DELTA
EMBARKATION GROUP COMMANDEA					
EMBARKATION GROUP OFF					
DEPT: SUPPLY	TOTAL CUFF	LCC 80 286	LPH 184 1587	LKA 15 82 C130 14	
OFF ENL	REQUIREMENTS	1 850 0	3 4700 30291	3 18643 40759 C44E 2	
SCFT CUFF	OFF ENL	LKA 8 78	LPH 152 1581	LKA 8 54 F4B 15	
General cargo only	SCFT S/T	8 13063 172193	4 4584 371051	6 16587 81545 A4E 20 or	
	SCFT S/T	8 96 181	LPO 74 282 103	LHA 171 8731 AF4B 4	
		7 7000 189015	2 31329 42982	1 24416 107000	
C03 41129	844 10830				
31345 83071	121913 419 4				
	110047 81967				
		LST 47 158103 LKA 8 129 17	LSD 18 182		
		43 8640 1791 10	5000 153218 8	4409 977	
		Total Ship 302 3073	Total Ship 801 813	Total Ship 250 2769	
		Cap 122173 226752	Cap 149680 428789	Cap 88492 220001	
Ammo Cuff - 216240	164295 36170	Ammo Cuff 75124	Ammo Cuff 108312	Ammo Cuff 100000	
Drums - 35 0	2921	Drums 1869	Drums 2075	Drums 4186	
Bulk Gas	805300	Bulk Gas 252923	Bulk Gas 309113	Bulk Gas 152000	FLIGHT FERRY
AvGas - 719283	431863	AvGas 252923	AvGas 297845	AvGas 115810	IF APPLICABLE
MoGas - 509679		MoGas 106000	MoGas 297845	MoGas 115810	
Diesel JP 5 - 0		Diesel JP 5 0	Diesel JP 5 0	Diesel JP 5 400000	
Total - 1225960	1031155	Total 337815	Total 628716	Total 667810	
ORGANIZATION	Off Enl Cuff S/T				
No MEB	71 289	48 142	20 146	3 7	
	2844 2219	1284 2219			
	500 81	1500 81			
	0 3	0 3			
Cal Fin Comm Bn FMF	191 1 0	191 1 9			
	73 1 0	70 1 1			
	66 190		66 190		
MAN (24 Ch 48)	21 9 18 6		21 9 18 6		
	7626 28 1		7626 28 1		
	30 311		30 311		
MABS VMA/VMFA	4 172 21 7		4 172 21 7		
	149559 287 4		149559 287 4		
	21 101		21 101		
Del VMFP 1	2812 21 4		2812 21 4		
4 BF4B	4 1 29 6		4 1 29 6		
	50 298		50 298		
Del VMFAVMFA	8254 54 1		8254 54 1		
120 A4E of 12 A6A	9323 88 4		9323 88 4		
	5 42		5 42		
Ph BSSG	547 3 1		547 3 1		
	0 0		0 0		
	18 128		18 128		
Del 445 Co	1087 7 8		1087 7 8		
	546 3 9		546 3 9		
	646 10630	256 2844	490 8177	88 1829	88 71 258
TOTAL	126503 419 3	118221 147 9	138438 198 4	88863 72 8	88 11988 75 3
TROOPS & EQUIPMENT	328179 58 1	182815 181 7	265774 328 9	168880 70 1	88 13408 88 6
LANDING FORCE SUPPLIES					
CLASS I	32466 540 8	7500 138 6	18067 310 6	5816 84 8	
CLASS II Drums					
MoGas	3267	1000	1300	867	
Diesel	656	218	176	33	
Total	2625	1218	1476	900	
CLASS III Bulk					
AvGas	805300	153000	299300	753000	
MoGas	431863	100000	221880	100000	
Diesel JP 5	0	0	0	0	
Total	1037163	253000	521180	253000	
TOTAL SUPPLIES					
Off Enl S/T (Gen Cargo)	43304 604 6	80210 152 8	21762 328 8	11336 178 8	
GRAND TOTAL					
TROOPS & EQUIPMENT:					
LANDING FORCE SUPPLIES:					
Off Enl	846 10830	256 2844	490 8177	88 1829	88 71 258
S/T	278521 419 3	118221 147 9	138438 198 4	88863 72 8	11988 75 3
Cuff S/T	550087 1196 7	193225 344 5	287138 355 6	88826 188 3	13408 88 6
Ammo Cuff S/T	164295 3617 0	53612 1099 0	88808 1614 0	41072 884 9	0
Drums	2925	1218	1476	900	0
Bulk POL GAS	1637165	253000	521185	253000	0
NOTES: (a) 17123 BAH converted to 49998 CUFF					
(b) 1200 BAH deducted for 4 sections (4-useless)					
(c) 71000 BAH converted to 7000 CUFF					
(d) 11877 BAH converted to 66782 CUFF					
(e) Includes 2100 BAH in 4 LC A6A's					
(f) Includes 1800 BAH in 1 LC U1 A6A					
(g) Not included in surface ship's report					
(h) Cuff figures exclude ammo, drums, and bulk fuel					

Sample Embarkation Group Organization for Embarkation and Assignment to Shipping Table

Sample Embarkation Group Organization for Embarkation and Assignment to Shipping Table

SHIP Name		UNIT: Emb Unit ALFA		
Number	TOTAL CAPACITY	USS LHA 1	USS LPH 1	USS LKA-1
CAPACITY - OFF - ENL	365 5486	171-1731	110-1500	20-125
VEHICLES - SQ FT	91600	24416	5200	11800
BULK CARGO - CU FT	217900	107000	31000	145700
EMB TEAM		ALFA 1	ALFA 2	ALFA 3
EMB TEAM CMDR		LtCol	LtCol	Capt
EMB OFFICER		Capt	Capt	Lt
ORGANIZATION	LIFT REQUIREMENT			
	OFF ENL			
	VEH SQ FT - S/T			
	BULK CARGO CU FT - S/T			
Hq Co, 9th Marines	17-152 1519-28.4 1202-12.5	15-132 40-8.2 1202-12.5	0-5 59-1.6 0	2-10 1000-77.0 0
1st Bn (-), 9th Marines	46-116 3456-57.3 1270-10.0	1-0 0 0	45-116 3456-57.3 1270-10.0	
2d Bn, 9th Marines	48-1136 3456-57.3 2310-23.5	1-0 0 0		0-4 0 2310-23.5
3d Bn, 9th Marines	48-1136 3456-57.3 2310-23.5	48-1-36 3456-57.3 2310-23.5		
2d Bn, 12th Marines	42-552 11084-201.3 2064-27.8	18-114 59-1.4 0	9-128 1065-25.4 350-3.6	4-40 5720-161.1 1724-18.2
Co B, FSSG Med Bn	5-16 1922-50.9 2127-17.7	5-9 115-2.9 2137-17.7	0-10 0 0	1-16 1807-48.0 0
Co B, Com Eng Bn, FSSG	5-146 1640-66.6 1190-14.2	1-8 59-1.4 0	1-42 116-1.3 258-3.1	2-52 1028-43.4 922-11.1
Det. Maint Bn, FSSG		0 0-1.4 0		0-2 0 1500-15.0
Shore Party Group Alfa	17-400 9219-459.2 4861-54.0	4-30 59-1.4 0		2-50 1000-46.0 4661-54.0
Assault Amp Co	9-316 23249-2558.1 3672-33.0	1-1 59-1.4 0		0-3 0 3672-33.0
Tank Co	5-111 5785-303.2 3579-28.7	1-1 59-1.6 0		0-3 0 1579-28.7
Det. MABS 16 (LZCP) MAG 16 (HH)	0-4 59-1.6 0		0-4 59-1.6 0	
TOTAL TROOPS & EQUIPMENT	253 5300 75392-4964.1 25895-253.9	97-465 4385-78.4 5649-53.7	55-1305 5055-87.2 1868-16.7	11-180 10555-315.5 18378-183.5
LANDING FORCE SUPPLIES	CU FT - S/T			
CLASS I				
Water				
2 Galn Cans	2221-46.2	481-10.0	481-10.0	1189-24.8
1 Gal Palletized	1447-28.0	362-6.9	362-6.9	723-14.2
1 Gal Tris (14)	0-23.8			0-6.8
Rations				
2 Days Ind Comb	2222-35.2	379-6.0	379-6.0	1092-17.4
Cookers	168-3.4	25-0.5	25-0.5	118-2.4
Food Packet	254-3.3	38-0.5	38-0.5	173-2.3
4 Days Sin I	4444-63.2	844-12.0	844-12.0	2756-39.2
CLASS II				
TOTAL SUPPLIES	84661-1737.5	8291-161.7	7840-153.3	32603-587.5
GRAND TOTAL	253 5300 75392-4964.1 1-0556-1991.1	97 1465 4385-78.4 14340-215.4	55-1305 5055-87.2 9708-170.0	11-180 10555-315.5 50981-771.0

CLASSIFICATION

Sample Embarkation Unit Organization for Embarkation and Assignment to Shipping Table

Sample Embarkation Unit Organization for Embarkation and Assignment to Shipping Table