STRATEGIC CONCEPTS OF THE U.S. NAVY

NWP 1 (Rev. A)

PART I

Generation of Naval Force Requirements

PART II

Planning, Employment and Readiness Doctrine for Naval Operating Forces

Strategic Concepts of the U.S. Navy
TABLE OF CONTENTS

		Page No.	Fiche Frame
PART I			
GENERATION OF NAVAL FORCE REQUIREMENTS			
CHAPTER 1 -- INTRODUCTION			
1.1	PURPOSE	I-1-1	1B6
1.2	SCOPE	I-1-1	1B6
1.3	NAVAL CAPABILITY	I-1-1	1B6
1.3.1	Elements of Naval Capability	I-1-1	1B6
1.3.2	Programming Naval Capability	I-1-1	1B6
1.4	RESPONSIBILITIES	I-1-1	1B6
1.4.1	Current Fleet Readiness	I-1-1	1B6
1.4.2	Future Force Capabilities	I-1-1	1B6
1.5	UNIQUE CONSIDERATIONS IN NAVAL FORCE PLANNING	I-1-1	1B6
1.5.1	Long Planning Times	I-1-4	1B9
1.5.2	High Unit Cost	I-1-4	1B9
1.5.3	Evolutionary Nature of Fleet Modernization	I-1-5	1B10
1.6	DETERMINING FUTURE FORCE STRUCTURE	I-1-5	1B10
CHAPTER 2 -- NATIONAL STRATEGY			
2.1	STRATEGY CONSIDERATIONS	I-2-1	1B14
2.1.1	National Interests	I-2-1	1B14
2.1.2	National Objectives	I-2-1	1B14
2.1.2.1	Political	I-2-1	1B14
2.1.2.2	Economic	I-2-1	1B14
2.1.2.3	Security	I-2-1	1B14
2.2	NATIONAL MILITARY STRATEGY	I-2-2	1C1
2.2.1	Defined	I-2-2	1C1

		Page No.	Fiche Frame
2.3	ELEMENTS OF U.S. NATIONAL MILITARY STRATEGY	I-2-2	1C1
2.3.1	Deterrence	I-2-2	1C1
2.3.2	Flexible Response	I-2-2	1C1
2.3.3	Forward Strategy	I-2-2	1C1
2.3.3.1	Requirements of a Forward Strategy	I-2-2	1C1
2.3.3.1.1	Overseas Deployed U.S. Forces	I-2-2	1C1
2.3.3.1.2	Overseas Allies	I-2-2	1C1
CHAPTER 3—U.S. NAVY SUPPORT OF THE NATIONAL MILITARY STRATEGY			
3.1	THE U.S. NAVY MISSION	I-3-1	1C6
3.1.1	Defined	I-3-1	1C6
3.1.2	Implementation	I-3-1	1C6
3.2	U.S. NAVY FUNCTIONS	I-3-1	1C6
	Sea Control	I-3-1	1C6
3.2.1.1	Prerequisite	I-3-1	1C6
3.2.1.2	Implementation	I-3-2	1C7
3.2.1.3	Application	I-3-2	1C7
3.2.1.4	Power Projection as a Part of Sea Control	I-3-2	1C7
3.2.2	Power Projection	I-3-2	1C7
3.2.3.2	Sea Control as a Prerequisite for Power Projection	I-3-2	1C7
3.3	U.S. NAVY ROLES IN THE NATIONAL MILITARY STRATEGY	I-3-2	1C7
3.3.1	Strategic Nuclear Deterrence	I-3-2	1C7
3.3.2	Overseas Deployed Forces	I-3-2	1C7
3.3.3	Security of the Sea Lines of Communication (SLOCs)	I-3-3	1C7
3.4	POSTURE OF U.S. NAVAL FORCES	I-3-3	1C8
3.4.1	Deployed Forces	I-3-3	1C8
3.4.2	Advantages of Deployed Naval Forces	I-3-3	1C8
3.4.2.1	Political Flexibility	I-3-3	1C8
3.4.2.2	Employment Flexibility	I-3-3	1C8
3.4.2.3	Mobility	I-3-4	1C9
3 4.2.4	Ready on Arrival	I-3-4	1C9
3.4.3	Naval Presence	I-3-4	1C9
3.4.3.1	Modulated Visibility	I-3-4	1C9
3.4.3.2	Modulated Capabilities	I-3-4	1C9
3.4.3.3	Relationship Between Presence and Capabilities	I-3-4	1C9
CHAPTER 4—REQUIRED CAPABILITIES AND CHARACTERISTICS OF NAVAL FORCES			
4.1	NAVAL FORCE REQUIREMENTS BASED ON NATIONAL STRATEGY	1-4-1	1C14
4.1.1	Strategic Forces	I-4-1	1C14
4.1.2	General Purpose Forces	I-4-1	1C14
4.1.2.1	Offensive Power	I-4-1	1C14
4.1.2.2	Defensive Strength	I-4-1	1C14
4.1.2.3	Ability to Project Power Ashore	I-4-1	1C14

		Page No.	Fiche Frame
4.1.2.4	Logistic Independence	I-4-2	1C14
4.1.2.4.1	Overseas Bases	I-4-2	1D1
4.1.2.4.2	Overseas Homeporting	I-4-2	1D1
4.1.2.5	Command, Control and Communications (C^3)	I-4-2	1D1
4.2	NAVAL WARFARE	I-4-2	1D1
4.2.1	Naval Warfare Areas	I-4-2	1D1
4.2.2	Naval Warfare Tasks	I-4-2	1D1
4.2.2.1	Fundamental Warfare Tasks	I-4-2	1D1
4.2.2.2	Supporting Warfare Tasks	I-4-3	1D2
4.3	CATEGORIZATION OF NAVAL FORCES	I-4-4	1D3
4.3.1	Strategic Nuclear Force	I-4-4	1D3
4.3.2	General Purpose Forces	I-4-4	1D3
4.3.2.1	Aircraft Carriers	I-4-4	1D3
4.3.2.2	Surface Combatants	I-4-4	1D3
4.3.2.3	Attack Submarines	I-4-4	1D3
4.3.2.4	Patrol Combatants	I-4-4	1D3
4.3.2.5	Amphibious Warfare Ships	I-4-4	1D3
4.3.2.6	Mine Warfare Ships	I-4-4	1D3
4.3.2.7	Auxiliary Ships	I-4-5	1D4
4.3.2.8	Maritime Patrol Aircraft (MPA)	I-4-5	1D4
4.4	NAVAL FORCE STRUCTURE	I-4-5	1D4
4.5	NAVAL TACTICAL FORCE ORGANIZATION	I-4-5	1D4
4.5.1	Battle Forces	I-4-5	1D4
4.5.2	Other Task Forces	I-4-5	1D4
4.6	NAVAL WARFARE TECHNOLOGY	I-4-5	1D4
4.6.1	Tactical Nuclear Weapons	I-4-5	1D4
4.6.2	Nuclear Propulsion	I-4-9	1D8
4.6.2.1	Submarines	I-4-9	1D8
4.6.2.2	Surface Ships	I-4-9	1D8
4.6.3	Organic Air Power	I-4-9	1D8
4.6.4	Cruise Missile	I-4-9	1D8
4.6.4.1	Cruise Missile Targeting	I-4-10	1D9

CHAPTER 5—NAVY PROGRAM DEVELOPMENT

5.1	TRANSLATION OF REQUIREMENTS TO PROGRAMS	I-5-1	1D14
5.1.1	Force Structure Assessment	I-5-1	1D14
5.1.2	Future Force Capabilities	I-5-1	1D14
5.2	THREAT ASSESSMENT	I-5-1	1D14
5.2.1	Potential Enemy Military Strategy	I-5-1	1D14
5.2.2	Weapon Systems and Technology	I-5-3	1E2

		Page No.	Fiche Frame
5.2.3	Current and Projected Order of Battle	I-5-3	1E2
5.2.4	Contribution of Allies of Potential Adversaries	I-5-3	1E2
5.2.5	Maritime Threat Characteristics	I-5-3	1E2
5.2.5.1	Cruise Missiles	I-5-3	1E2
5.2.5.2	Surveillance Systems	I-5-3	1E2
5.3	ANALYSES	I-5-3	1E2
5.3.1	Net Assessment	I-5-3	1E2
5.3.2	Risks	I-5-4	1E3
5.3.3	Deficiencies	I-5-4	1E3
5.4	ALTERNATIVE FORCE LEVELS ASSOCIATED WITH LEVELS OF RISK	I-5-4	1E3
5.4.1	Force Planning Estimate	I-5-4	1E3
5.4.2	Objective Force	I-5-4	1E3
5.4.3	Immediate Force Goal	I-5-4	1E3
5.4.4	Programmed Force	I-5-4	1E3
5.5	RISK ASSESSMENT IN PROGRAM DECISIONS	I-5-5	1E4

PART II

PLANNING, EMPLOYMENT AND READINESS DOCTRINE
FOR NAVAL OPERATING FORCES

CHAPTER 1 – PLANNING CONCEPTS

1.1	PURPOSE	II-1-1	1E10
1.2	TOTAL FORCE	II-1-1	1E10
1.2.1	Operating Forces	II-1-1	1E10
1.2.2	Shore Establishment	II-1-1	1E10
1.2.3	Reserve Forces	II-1-1	1E10
1.2.3.1	U.S. Naval Reserve	II-1-1	1E10
1.2.3.2	Inactive Reserve Fleet	II-1-1	1E10
1.2.4	Naval Fleet Auxiliary Force	II-1-1	1E10
1.3	FLEET CONTROL OF FORCES	II-1-1	1E10
1.3.1	Administrative Control (ADCON)	II-1-1	1E10
1.3.2	Operational Control (OPCON)	II-1-1	1E10
1.4	OPERATIONAL STATUS	II-1-2	1E11
1.4.1	Command Operationally Ready (COR)	II-1-2	1E11
1.4.1.1	Assignment and Readiness	II-1-2	1E11
1.4.2	Command Not Operationally Ready (CNOR)	II-1-2	1E11
1.4.2.1	Assignment and Readiness	II-1-2	1E11
1.4.2.2	Training	II-1-2	1E11

		Page No.	Fiche Frame
CHAPTER 2 — READINESS			
2.1	UNIT READINESS	II-2-1	1F2
2.2	FLEET READINESS	II-2-1	1F2
2.3	READINESS FACTORS	II-2-1	1F2
2.3.1	Personnel Readiness	II-2-1	1F2
2.3.2	Material Readiness	II-2-1	1F2
2.3.3	Training Readiness	II-2-1	1F2
2.4	READINESS MEASUREMENT	II-2-2	1F3
2.4.1	Unit Readiness	II-2-2	1F3
2.4.1.1	Navy Forces Status Report (NAVFORSTAT)	II-2-2	1F3
2.4.1.2	Overall Readiness Ratings	II-2-2	1F3
2.4.2	Composite Readiness	II-2-2	1F3
2.4.2.1	Reporting System	II-2-2	1F3
2.4.2.2	Fleet Readiness Status Report	II-2-2	1F3
2.4.2.2.1	Breakdown of Ready Units	II-2-2	1F3
2.4.2.2.2	Time-Phased Deployment Availability	II-2-3	1F4
2.5	READINESS REQUIREMENTS	II-2-3	1F4
2.5.1	Funding	II-2-3	1F4
2.5.2	Balanced Employment	II-2-3	1F4
CHAPTER 3 — EMPLOYMENT CYCLE			
3.1	EMPLOYMENT CYCLE DEFINED	II-3-1	1F10
3.2	SHIPS' EMPLOYMENT CYCLE	II-3-1	1F10
3.2.1	New Construction/Conversion Phase	II-3-1	1F10
3.2.1.1	Precommissioning Period	II-3-1	1F10
3.2.1.2	Shakedown Period	II-3-1	1F10
3.2.1.3	Post Shakedown Availability Period	II-3-1	1F10
3.2.2	Operational Phase	II-3-1	1F10
3.2.2.1	Ready Period	II-3-1	1F10
3.2.2.2	Preparation for Overseas Movement (POM) Period	II-3-1	1F10
3.2.2.3	Deployed Period	II-3-1	1F10
3.2.2.4	Post Deployment Leave Period	II-3-1	1F10
3.2.3	Refit Phase	II-3-2	1F11
3.2.3.1	Leave Period	II-3-2	1F11
3.2.3.2	Post Deployment Leave Period	II-3-2	1F11
3.2.3.3	Refresher Training (RFT) Period	II-3-2	1F11
3.2.4	Regular Overhaul (ROH) Phase	II-3-2	1F11
3.2.4.1	Regular Overhaul (ROH) Period	II-3-2	1F11
3.2.4.2	Refresher Training (RFT) Period	II-3-2	1F11
3.2.5	Deployment Cycle	II-3-2	1F11
3.2.5.1	Turn Around Time	II-3-2	1F11

		Page No.	Fiche Frame
3.3	AIRCRAFT EMPLOYMENT CYCLES	II-3-2	1F11
3.3.1	Ship-Based Aircraft	II-3-3	1F11
3.3.1.1	Carrier Air Squadrons	II-3-3	1F12
3.3.1.2	Detachments	II-3-3	1F12
3.3.2	Land-Based Squadrons	II-3-3	1F12
CHAPTER 4 — REPORTS			
4.1	COMPOSITE READINESS REPORTING	II-4-1	1G2
4.1.1	Fleet Readiness Status Report	II-4-1	1G2
4.1.2	Fleet Employment Planning Operational Data Report (FER)	II-4-1	1G2
4.1.2.1	Employment Schedule Model	II-4-1	1G2
I X		Index -1	1G8

PREFACE

NWP 1, STRATEGIC CONCEPTS OF THE U.S. NAVY, consists of two parts: PART I — (Generation of Naval Force Requirements); and PART II — (Planning, Employment and Readiness Doctrine for Naval Operating Forces). PART I is intended to provide a sound, common basis for the development and articulation of naval force requirements which fully support national interests and objectives as well as foreign and domestic policies, and which are consistent, coordinated and thoroughly justified. PART II is intended to establish a basic system for the employment planning of the operating forces of the U.S. Navy on both a long and short term basis; and to define the concepts and terms for execution of current operations, and for the derivation of operational planning factors which are required for the formulation of programs and the analysis of readiness.

Throughout this publication, references to other publications imply the effective edition. New or modified information will be indicated by a vertical line in the adjoining margin.

RECOMMENDED CHANGES

Recommended changes to this publication may be submitted at any time using the accompanying sample format.

Atlantic and Pacific fleet units and stations, all other units, and CONUS shore activities submit recommendations to:

Chief of Naval Operations
ATTN: OP-60N
Washington, D.C. 20350

In addition, forward two copies of all recommendations to:

Officer in Charge
Navy Tactical Doctrine Activity
Washington, D.C. 20374

PART I

Generation of Naval Force Requirements

CHAPTER 1
Introduction

1.1 PURPOSE

A clear statement of the process involved in the generation of naval force requirements provides a sound basis for planning future force requirements and ensures understanding and support of naval requirements throughout the Navy and in the Department of Defense, the Congress, and the general public. The complexities involved in the consideration of force generating factors demand an orderly, logical, thorough, and disciplined planning process to ensure the continued capability of the Navy to fulfill its responsibilities in a dynamic world environment Part I of NWP 1 is intended to provide a sound, common basis for the development and articulation of naval force requirements which fully support national interests and objectives as well as foreign and domestic policies, and which are consistent, coordinated and thoroughly justified.

1.2 SCOPE

Part I of this publication

1 Examines briefly U S. national strategy and national military strategy, and also the effect of our insular position on the formulation of these strategies.

2 Reviews the primary mission and functions of the Navy

3 Defines Navy roles in support of the national military strategy.

4 Stipulates the required capabilities and characteristics of naval forces.

5 Considers threats to the Navy's ability to support the strategy and the impact of those threats on Navy force levels.

6 Discusses the element of risk associated with varying force levels.

7 Outlines the system for the generation of naval force requirements.

Figure 1-1 illustrates in diagram format all of the major considerations involved in the generation of naval force requirements. It is, in essence, a picture of the contents of Part I of this publication.

1.3 NAVAL CAPABILITY

1.3.1 Elements of Naval Capability. There are four distinct elements of naval capability which in their aggregate provide the total force capability of a Navy.

1 Force Structure — The numbers and types of organized units, active and reserve, of operating ships (or craft) and aircraft, and the facilities of the supporting base infrastructure

2. State of Modernization — The level of weapon system technology reflected in the components of the force structure

3 Readiness — The degree to which the operating units in the force structure are capable of performing the tasks for which they were designed and organized.

4 Sustainability — The ability of operating units to continue to conduct naval operations over extended periods

1.3.2 Programming Naval Capability. Of the four elements which make up total naval capability, only readiness and sustainability are immediately responsive to corrective actions in the short term Readiness and sustainability are elements which can rapidly change with the redeployment of forces, the redistribution of resources, and the increase of operating tempos to train ship and aircraft crews. Some aspects of readiness improvement do require somewhat longer to accomplish, such as increasing availability of replacement parts, or

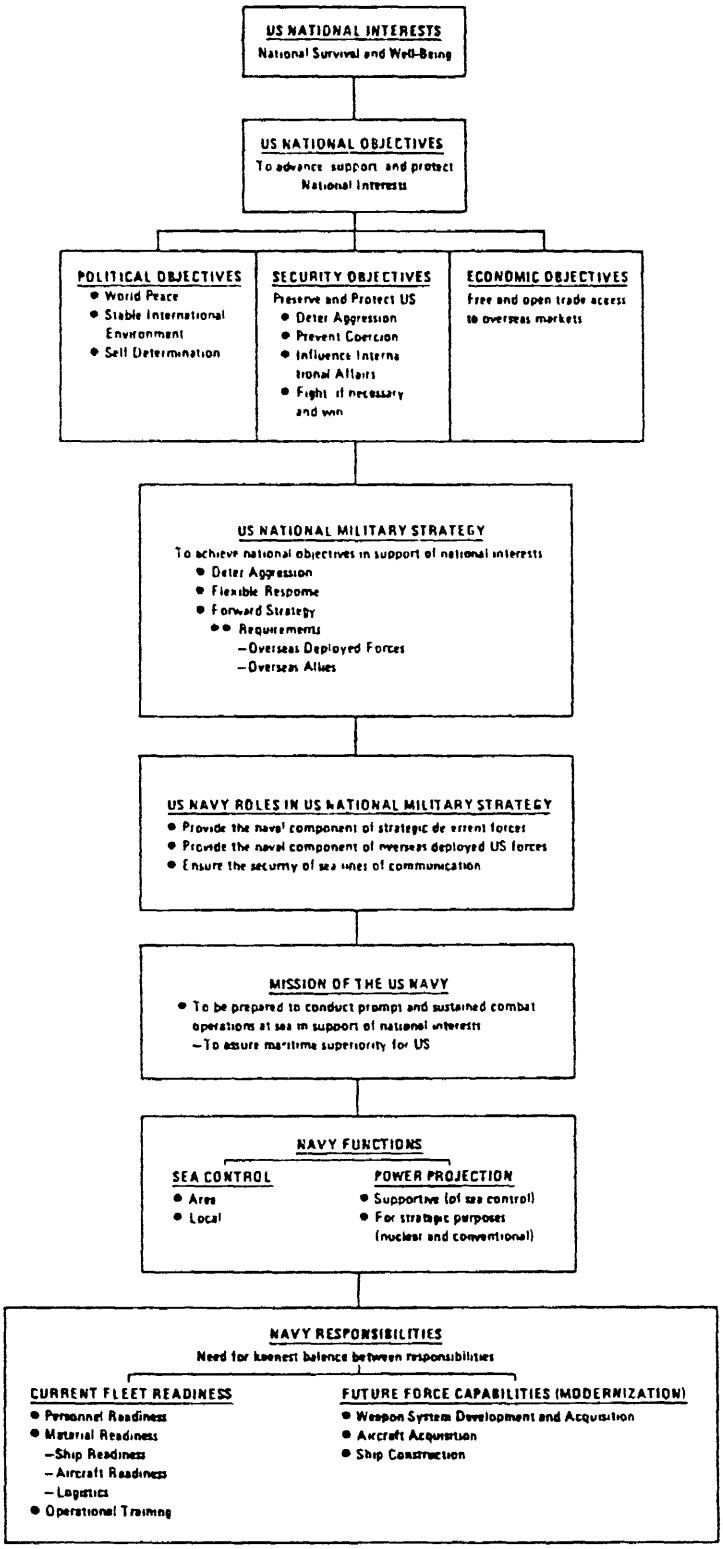

Figure 1-1. Generation of Naval Force Requirements

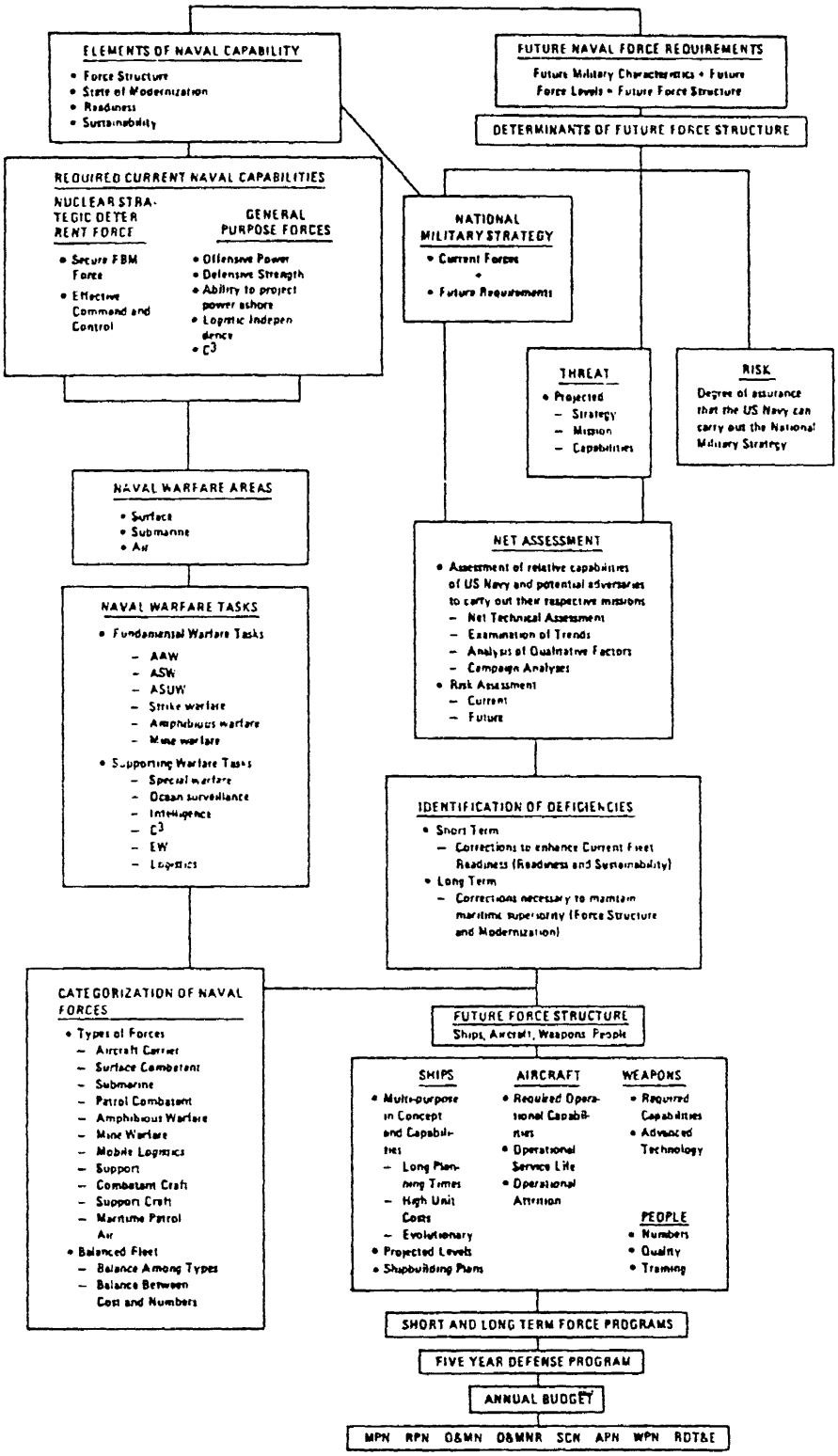

Figure 1-1. Generation of Naval Force Requirements (Cont.)

achieving higher levels of intermediate and depot-level maintenance. Similarly, there are aspects of sustainability, such as the procurement of weapon systems and replacement parts, which take longer to influence than the simple redistribution of existing assets. But the improvements achieved in the short term must not be at the cost of future capability. Actions such as deficit spending, priority manning of selected fleet units, preferential supply support for deployed units, or permitting a surge in operating tempo to modify a level-funded flying hour or steaming day program, all mortgage the future. Instead, improvements must be carefully programmed and fully funded to achieve current benefits without a drawdown in capability at a later time. Improvements in the other two elements of naval capability, that is, force structure and state of modernization, occur over the longer term. Improvements in force structure can only occur through construction and procurement programs, which normally involve a 3 to 5 year span. Similarly, modernization requires research, development, procurement, and then construction or installation, a process which may take 10 years or more. Thus, from a programmatic point of view, a distinction must be made between those elements of total naval capability, that can be effected in the short term (readiness, sustainability) and those in the longer term (force structure, state of modernization).

1.4 RESPONSIBILITIES

In order to assure its continued capability to carry out the roles prescribed by the national military strategy, the Navy has two principal and distinct responsibilities to maintain current fleet readiness, and to ensure future force capabilities These two correspond to the short and long term programming actions just discussed.

1.4.1 Current Fleet Readiness. This refers to the capability of naval forces to carry out their roles in prompt response to the National Command Authorities. It is the product of personnel readiness, material readiness and operational training. Current fleet readiness depends upon

1. Personnel — Maintaining the numbers, skills, and experience of personnel.

2. Material — An efficient and effective logistic support structure to provide higher material readiness and sustainability.

3. Training — A training program to achieve the most effective utilization of current sensor and weapon systems and platforms.

1.4.2 Future Force Capabilities. The future force capabilities of the U.S. Navy are mainly influenced by the projected force structure (numbers and types of units) and state of modernization (the level of weapon system technology incorporated in the force structure) Future force capabilities depend upon

1. Weapons — Weapon system development and procurement to provide naval ships and aircraft with the most modern weapons technology available.

2 Aircraft — Aircraft acquisition to maintain or increase force structure, and to maintain a high level of force modernization.

3 Ships — Ship construction to maintain, increase, or adapt force structure to changing requirements or projected threats

1.5 UNIQUE CONSIDERATIONS IN NAVAL FORCE PLANNING

In discussing the factors involved in the generation of naval force requirements, and the translation of those requirements into future force capability, it is important to consider planning factors that are unique to naval forces. Shipbuilding is an especially complex and demanding process which, because of the long life and high initial unit cost of a ship, is unique in defense programs The most careful planning is therefore required to ensure that a ship will be a useful investment over its programmed lifetime. For this reason, major ships must be multi-purpose in concept and capability in order to adapt to changes in strategies and areas of operation. Their design must be sufficiently flexible to permit weapon system modernization needed to counter emergent threats and weapon technologies, The factors which must be considered in shipbuilding are:

1.5.1 Long Planning Times. The construction period of a major warship will take 4 to 7 years from Congressional approval to operational deployment

depending upon, size, complexity, and design. The useful lifetime of a major combatant is 20 to 30 years. A ship's lifetime can be extended for another 10 to 15 years through extensive rework and weapon system modernization.

1.5.2 High Unit Cost. The high unit cost of a naval ship is due primarily to its complexity in comparison to a commercial ship. All installed weapon systems must be included in the total cost of a naval ship in the end cost system of budgeting. In addition, the full funding method used by the Department of Defense in naval ship procurement requires that costs be escalated over a ship's lengthy construction period to accommodate inflation.

1.5.3 Evolutionary Nature of Fleet Modernization. The long life of a ship and the high cost of replacement results in most major ships remaining in active service for the full span of their material lives For this reason, the composition of the fleet is relatively slow to change. One can predict the force structure of the fleet for the next 10 years because of the 5-year shipbuilding plan and the 5-year average construction period. Twenty years from now 70 percent of the ships in the active force today will still be in the fleet Forty years in the future, the major units in the fifth year of the five year construction period will just be reaching the end of their useful lifetimes. Because of the evolutionary nature of naval change, new ships must be designed to operate both in the future and in a compatible way with those ships already in the force

1.6 DETERMINING FUTURE FORCE STRUCTURE

From the foregoing it is clear that the process of generating naval force requirements demands a disciplined and carefully developed approach. In essence, the process is based on three factors

1 Strategy — The national military strategy which the naval force structure will be called upon to support

2 Threat — The military force and weapons technology which the naval force structure will encounter in fulfilling its roles within the national military strategy, and

3 Risk — The degree of assurance that the Navy can successfully fulfill its roles in support of the national military strategy

These factors are examined in further detail in subsequent chapters

CHAPTER 2

National Strategy

2.1 STRATEGIC CONSIDERATIONS

National strategy is that broad course of action designed to achieve national objectives in support of national interests. U.S. defense forces are maintained to preserve the physical security and protect the political independence of the United States The defense forces' ability to satisfy this objective depends on a capacity to deter aggression, to prevent coercion, and to exercise a degree of influence to shape world events in a manner conducive to U.S. interests.

2.1.1 National Interests. National interests are generalized conditions, frequently of a continuing nature, the pursuit or protection of which is perceived to be advantageous to the nation. They range from the ultimate interest, national survival, to very specific regional interests which collectively determine the importance of a particular region to the security of the United States

2.1.2 National Objectives. National objectives are specific goals which a nation seeks in order to advance, support or protect identified national interests. National objectives can be broadly categorized as political, economic or security.

2.1.2.1 Political. The political objective of U.S. national strategy is to foster an international environment that is conducive to the maintenance of world peace and stability and in which the United States, its allies, and its friends can pursue their national objectives in security and freedom. The United States alone cannot maintain such an environment, however, the experience of World War II emphasized the unmistakable fact that the security and well-being of the United States, even its very survival as a free nation, are dependent upon the utilization and application of its power to influence the international environment in a manner compatible with U.S. and allied interests and security.

The United States is linked closely by strong historic, political, economic, and cultural ties to Western Europe, by close political and economic ties to Japan, and by one or more of these ties to other selected nations, but to a lesser degree. These associations, which reflect the fact that no nation has the capability to combat unilaterally the total potential threat to its security, have resulted in a series of mutual defense or collective security agreements between the United States and its allies which serve to provide for a common defense against aggression.

2.1.2.2 Economic. The economy of the United States depends heavily upon international trade for raw materials to support its industry, and for markets in which to sell its agricultural and manufactured goods In large measure, it is the effectiveness with which we engage in this trade that determines the standard of living enjoyed by U.S. citizens Therefore, the basic objective in international economics is to promote a system of free and open trade which will enable the U.S. to benefit from those areas in which it has a relative productive advantage

An important economic consideration is the portion of U.S. foreign trade that moves over the oceans of the world. In terms of volume, 99 percent of U.S. overseas exports and imports are transported by sea. The seas will become increasingly important as highways of commerce and as a source of food and mineral supplies In the next decade alone trade predictions indicate that both imports and exports will increase over 200 percent by volume. Additionally, over 50 percent of the U.S. requirements for 19 of 29 critical raw materials are met by imports, most of them delivered by sea. The search for additional sources of energy, minerals and food will inevitably result in international competition over future exploitation of sea-bed resources Control of the level and intensity of this competition will depend in part on political and military strength

2.1.2.3 Security. The basic national security objective is to preserve the United States as a free nation with its fundamental institutions and values intact. This involves assuring the physical security of the United States and

maintaining an international environment in which U.S. interests are protected. Achieving this objective is contingent upon the ability of the United States to deter aggression, to prevent coercion, to influence international affairs from a position of recognized strength and credibility, to fight when necessary, and to terminate conflict on terms compatible with U.S. national security interests.

2.2 NATIONAL MILITARY STRATEGY

2.2.1 Defined. The national military strategy is that component of the national strategy prescribing the manner in which the elements of national military power will be developed and employed. To be effective it must be integral to the national strategy, able to achieve the national objectives in the face of the projected threat, and capable of accommodating to change. The U.S. national military strategy includes three principal elements.

2.3 ELEMENTS OF U.S. NATIONAL MILITARY STRATEGY

2.3.1 Deterrence. Deterrence of aggression requires a clear and evident capability and resolve to fight at any level of conflict, so that any potential opponent will assess his own risk to be unacceptable. Toward this end the United States maintains forces capable of exerting military power across the entire spectrum of requirements from show-the-flag deployments overseas to retaliation for strategic nuclear attack

2.3.2 Flexible Response. Should deterrence fail, a full range of options for applying military power should be available to control the escalation, scope, intensity and duration of any conflict. Military forces available to provide for flexible response include strategic nuclear forces, theater nuclear forces and general purpose forces.

2.3.3 Forward Strategy. The national military strategy of the United States is a forward strategy, driven by geopolitical considerations. The U.S. is characterized by its insular position on the North American continent It has only two international borders, neither of which is threatened by a hostile force, and communicates with the rest of the world to the east, west and south by way of two major oceans. One of the states and all of the territories for which the U S. is responsible lie overseas. Additionally, the interdependent free-world economy increasingly depends upon the use of ocean shipping and access to the resources of the seas and sea bottoms This forward strategy of the United States utilizes the oceans as barriers for the defense of the country, as military lines of communication with overseas allies, and as avenues of world trade.

2.3.3.1 Requirements of a Forward Strategy

2.3.3.1.1 Overseas Deployed U.S. Forces. U.S. forces are deployed overseas to be in position to engage promptly a hostile threat to the security of U.S. interests or allies These forward deployed forces are a commitment which reassures our allies and deters the potential aggressor. Additionally, these forces provide a capability for flexible and timely response to other crises and contingencies. To carry out their mission within the national strategy, naval forces are deployed as naval components of theater forces These forces provide the National Command Authorities (NCA) with a mechanism for exercising U.S. power and protecting U.S. interests in conditions short of general war. Because of the unique character of international waters, naval forces can operate in a considerably different fashion from ground and land-based air forces. In any situation short of actual hostilities, all nations of the world have access to international waters. The free passage afforded all vessels on the high seas provides for greater mobility and flexibility in the employment of naval forces. Therefore, naval forces can be positioned in international waters in the vicinity of a crisis, ready to respond, but without having to request overflight or landing rights, or to violate the sovereign rights of any nation. As a prelude to hostilities, naval forces of any nation may assume a posture which will facilitate the destruction of enemy sea commerce at the initiation of conflict or enhance the projection of military force from the sea to targets ashore.

2.3.3.1.2 Overseas Allies. All but two of the nations with which the U.S. has formal security arrangements are overseas. The strength of the United States is complemented by that of other nations through participation in regional security arrangements. However, the U.S. must be able to deter or counter adventurism on the part of potential adversaries even when, for reasons of their own national interest, allies choose not to support U.S. efforts with forces, material, or base rights.

CHAPTER 3

U.S. Navy Support of the National Military Strategy

3.1 THE U.S. NAVY MISSION

3.1.1 Defined. The mission of the U.S. Navy, as set forth in Title 10, U.S. Code, is to be prepared to conduct prompt and sustained combat operations at sea in support of U.S. national interests, in effect, to assure continued maritime superiority for the United States This means that the U.S. Navy must be able to defeat, in the aggregate, potential threats to continued free use of the high seas by the United States In its simplest terms, defeating the maritime threat means destruction of hostile aircraft, surface ships, and submarines which threaten the seaborne forces of the United States and its allies

3.1.2 Implementation. The Navy carries out its mission within the framework of a national strategy, in joint coordination with the other Services and in combined planning with U.S. allies U.S. naval force requirements cannot be regarded in isolation from U.S. foreign policy, domestic considerations, and the force requirements and capabilities of the other Services and selected allies.

3.2 U.S. NAVY FUNCTIONS

In order to achieve the basic military objectives of the United States, the respective Services are tasked with specific primary and collateral functions by Department of Defense Directive 5100.1 The Department of the Navy is tasked

> To organize, train, and equip Navy . forces for the conduct of prompt and sustained combat operations at sea, including operations of sea-based aircraft and land-based naval air components — specifically, forces to seek out and destroy enemy naval forces, and to suppress enemy sea commerce, to gain and maintain general naval supremacy, to control vital sea areas and to protect vital sea lines of communication, to establish and maintain local superiority (including air) in an area of naval operations, to seize and defend advanced naval bases, and to conduct such land and air operations as may be essential to the prosecution of a naval campaign.

Briefly, the Navy's two basic functions are sea control and power projection. The ability to perform these functions is a requirement if the U.S. is to utilize the seas to support its national policies and to defeat the forces of any state that would seek to deny such use The functions of sea control and power projection are closely interrelated. Some degree of sea control is necessary in the sea area from which power is to be projected, depending on the type force to be employed. Conversely, the capability to project power was developed in naval forces largely as one means of achieving or supporting sea control

3.2.1 Sea Control. Sea control is the fundamental function of the U.S. Navy and connotes control of designated sea areas and the associated air space and underwater volume. It does not imply simultaneous control of all the earth's ocean area, but is a selective function exercised only when and where needed. Sea control is achieved by the engagement and destruction of hostile aircraft, ships, and submarines at sea, or by the deterrence of hostile action through the threat of destruction. Sea control is a requirement for most naval operations It is required so that the U.S. Navy may have operating areas that are secure for the projection of power, such as carrier strike or amphibious assault, and sea lines of communication that assure buildup and resupply of allied forces in the theater of operations, and free flow of strategic resources. Effective sea control also enhances security for the nation's sea-based strategic deterrent

3.2.1.1 Prerequisite. Sea control is a prerequisite to the conduct of sustained overseas operations by U.S.

Army and U.S. Air Force general purpose forces. Modern land warfare generates logistic reqirements of such proportions that the overwhelming amount of material needed must be supplied by sea

3.2.1.2 Implementation. Sea control is achieved by the destruction or neutralization of hostile aircraft, surface ships and submarines which, by their presence, threaten U.S. or friendly forces operating in those maritime areas which the United States must use. Sea control can also be effected by deterring the intrusion of hostile forces into those areas However, deterrence is less effective than destruction in that it permits the enemy to retain a threatening force in being

3.2.1.3 Application. For analytical purposes sea control may be categorized as area or local Area sea control includes extended operations to engage and destroy hostile forces, such as seizure or neutralization of enemy bases or denial to the enemy of access routes to the sea. Local sea control includes close defense of U.S. and allied naval and merchant units and of friendly forces engaged in other operations, such as amphibious assault and mine warfare. Sea control can be achieved or supported in several ways.

1. Sea control is primarily effected by operations designed to locate and destroy hostile naval combat units on the high seas.

2. Barrier operations are designed to deny enemy naval forces access to open oceans or specific areas, taking advantage, where possible, of geographic choke points.

3 Sea control is also accomplished through the use of moving screens to clear the sea area surrounding ships in transit such as military or commercial convoys and amphibious or support forces

4 The utilization of mines in such areas as harbor entrances and choke points is an important means of sea control.

3.2.1.4 Power Projection as a Part of Sea Control. The use of carrier and Marine amphibious forces in the projection of military power can be an absolute necessity to ensure control and continued safe use of the high seas and contiguous land areas essential to control of the seas. This entails destruction of enemy naval forces at their home bases or en route to those ocean areas which the United States desires to protect, destroying their logistic support, or preventing the approach of enemy forces within range from which their weapons can be employed against U.S. forces

3.2.2 Power Projection. As an independent function, power projection is a means of supporting land or air campaigns utilizing capabilities designed for naval tasks. Power projection covers a broad spectrum of offensive naval operations including strategic nuclear response by fleet ballistic missile forces, employment of carrier-based aircraft, amphibious assault forces and naval bombardment with guns and missiles of enemy targets ashore in support of air or land campaigns.

3.2.2.1 Sea Control as a Prerequisite for Power Projection. An essential element of power projection is the Navy amphibious ship with Marines embarked, the nation's only major means of inserting U.S. ground forces into the hostile environment of an opposed landing operation. Carrier aircraft, in the power projection function, are able to strike land targets with a variety of weapons, conventional or nuclear The ultimate means of power projection is the Fleet Ballistic Missile (FBM) submarine force, one element of the U.S. strategic offensive force mix Each element of power projection requires a measure of sea control for its effective execution, and that function can be exercised simultaneously with the projection function, if necessary.

3.3 U.S. NAVY ROLES IN THE NATIONAL MILITARY STRATEGY

In the functional exercise of its mission responsibilities within the national military strategy, the U.S. Navy has three main roles strategic nuclear deterrence, to provide overseas-deployed forces, and security of the sea lines of communication (SLOCs)

3.3.1 Strategic Nuclear Deterrence. The effectiveness of the submarine launched ballistic missile combined with the virtual invulnerability of the SSBN provides the strongest deterrent in our strategic nuclear forces, and thus a stabilizing factor in the strategic nuclear balance.

3.3.2 Overseas Deployed Forces. The Navy provides operationally ready naval components of overseas deployed U.S. forces to support allies and

protect U.S. interests. These fleet elements are deployed to locations where they can engage hostile forces at the outbreak of hostilities and rapidly support forward-positioned U.S. ground and air forces, as well as U.S. allies

3.3.3 Security of the Sea Lines of Communication (SLOCs). The success of a forward military strategy depends upon the Navy's ability to maintain the integrity of the sea lines of communication between the United States and its forward deployed forces, its allies, and those areas of the world essential for the supply of imports. The most vulnerable segments of these SLOCs are the overseas portions lying closest to potential hostile bases and farthest from friendly territory where land-based air and patrol combatant craft can assist in the protection of shipping The protection of these most vulnerable sea areas requires that U.S. Navy forces be present in sufficient strength to defeat hostile air, surface and submarine threats The deployment of United States Navy sea control forces so far from United States bases and in such close proximity to hostile bases and operating areas places one of the most demanding requirements upon the capabilities of U.S. naval forces both in terms of individual ship characteristics and in total force levels of multi-purpose combatant ships

3.4 POSTURE OF U.S. NAVAL FORCES

The heavy emphasis on overseas deployed forces demanded by a forward strategy and the vulnerability of the overseas segments of the sea lines of communication demands that a high percentage of U.S. naval forces be committed to overseas deployment

3.4.1 Deployed Forces. Under normal peacetime conditions, about 30 percent of the active operating force is deployed overseas in a fully operationally ready status. An additional 40 percent of the active forces, also operationally ready, is assigned to operating fleets based in U.S. ports, ready for immediate deployment or reinforcement of overseas U.S. naval forces in the case of war, contingency or crisis. The remaining 30 percent of the fleet is in a reduced operational status, undergoing planned maintenance and conducting basic training. In times of tension or crisis the percentage of the fleet which can be deployed overseas can be increased to about 50 percent However, this surge posture, if maintained indefinitely without mobilization, would have a progressively deleterious effect upon material readiness and personnel morale Under conditions of general war with full mobilization, up to 85 percent of the fleet can be deployed, such as occurred during World War II

3.4.2 Advantages of Deployed Naval Forces. In the implementation of the overseas deployment role, the special advantages and broad options inherent in the employment of naval forces make them uniquely valuable to the National Command Authorities. Naval forces have the organic ability to respond to contingencies or crisis situations worldwide with the discrete type and magnitude of forces necessary to achieve a given objective, from classic show of force, through landing of troops, to strategic nuclear attack. Most overseas operations by other types of forces require the support of naval forces These advantages generally stem from the free use of international waters, a principle long used by sea-faring nations, and one almost universally recognized and accepted. Because of the international character of the sea, several benefits accrue to naval forces that are not enjoyed by other military forces

3.4.2.1 Political Flexibility. Naval forces may be positioned near potential trouble spots without the political entanglement associated with the employment of land-based forces Naval forces, unlike land-based forces, do not have to rely on prior international agreements before taking a position in an area of potential crisis By loitering in the proximity of a potential or real trouble spot, naval forces communicate a capability for action which ground or air forces can duplicate only by landing or entering the sovereign air space of another nation The latter action presumes the crisis involves a nation with positive attitudes toward U.S. involvement and a willingness to host U.S. forces, this is not always the case Thus, naval forces provide decision makers the option of influencing events without committing forces to combat, and allow a flexibility with regard to commitment and withdrawal not available when employing other forces.

3.4.2.2 Employment Flexibility. Although bases on foreign soil are desirable, they are not mandatory for naval forces as they are for other types of military forces Ships are integral units which carry much of their own support, and, through mobile logistics support, they can be maintained on forward stations for long periods of time. Naval forces, therefore, are relatively immune to the political difficulties which can be generated by bases

on foreign soil, and they do not generate the same pressures toward involvement — the erosion of options — that occur when U.S. forces are ashore in an area of crisis If U.S. forces in an area are sea-based, they can provide military or logistic support, or protect or evacuate U.S. citizens without becoming involved in a land war which may be contrary to both U.S. intentions and national interests. Additionally, sea-based forces cannot be subjected to host country employment limitations.

3.4.2.3 Mobility. Naval forces have unrestricted global mobility based on the traditional and time-honored concept of the free use of international seas In many cases, naval forces can perform assigned missions while remaining beyond the range of the local enemy threat As a minimum, the mobility of naval forces serves to seriously complicate the enemy's detection and targeting ems It also gives the naval force the initiative as to when or if the land force should be engaged, thereby retaining the elements of surprise and concentration of force.

3.4.2.4 Ready on Arrival. Another major advantage of naval forces is their ability to commence combat operations immediately on reaching a crisis location. They are ready on arrival Other types of forces, particularly when the contingency takes place in a remote location, require the construction of staging areas prior to commencing combat operations, or the ready and uncontested availability of such facilities. As the U.S. military base structure overseas has diminished, the ability of naval forces to arrive in an area fully prepared to conduct sustained combat operations has taken on added importance

3.4.3 Naval Presence. Naval forces are forward deployed primarily for the purpose of being in position to engage the enemy promptly at the initiation of hostilities, to provide protection and support to friendly, allied, and U.S. forces in time of war, and to stop the advance of the enemy as soon as possible. However, the deployment of these naval forces far forward in sensitive areas of the globe, positioned for war fighting, also provides a clear side benefit known as presence. The international character of the high seas and the sovereign rights associated with men-of-war provide such overseas deployed naval forces with a unique ability to make U.S. military presence overseas known in crises short of conflict This presence can be modulated to exert the degree and kind of influence best suited to resolve the situation in a manner compatible with U.S. interests

3.4.3.1 Modulated Visibility. The sight of a single U.S. warship in the harbor of a friend or ally can serve as visible evidence of U.S close relations with or commitment to that country In a crisis where force may be required to protect U.S. interests or evacuate U.S. nationals, but where visibility could provoke the outbreak of hostilities, the U.S. fleet can remain out of sight, over the horizon, ready to respond in a matter of minutes. To a friendly regime which is unable to control the situation, a clearly visible show of force by U.S. naval warships operating in international waters can serve to restore stability.

3.4.3.2 Modulated Capabilities. U.S. naval presence can be visible or invisible, large or small, provocative or peaceful, depending upon what best serves U.S. interests. Naval forces do not have to request overflight authorization or diplomatic clearance before taking a position in a crisis area. By remaining on station for indefinite periods of time, naval forces communicate a capability for action which ground or air forces can duplicate only by landing or entering the sovereign air space of another nation.

3.4.3.3 Relationship Between Presence and Capabilities. The effectiveness of naval presence cannot be considered separately from warfighting capability. In order to encourage friends, deter enemies, or influence neutrals, forces deployed to crisis areas must possess a warfighting capability. They must also reflect the degree of U.S. interests in the area relative to that of a potential enemy as demonstrated by his level of naval forces. To be effective in the presence role, naval forces must reflect a readily perceived combat capability for effectively carrying out the implied threats.

CHAPTER 4

Required Capabilities and Characteristics of Naval Forces

4.1 NAVAL FORCE REQUIREMENTS BASED ON NATIONAL STRATEGY

The roles of the U.S. Navy within the national military strategy and the unique advantages of naval ships operating in international waters influence the required capabilities of U.S. naval forces Certain basic general capabilities are necessary if the Navy is to be successful in performing its primary functions.

4.1.1 Strategic Forces. Fleet ballistic missile submarines (SSBNs) must be capable of delivering ballistic missile attacks against assigned targets. A virtually invulnerable SSBN force with highly capable missiles and an effective and survivable command and control system constitute an assured retaliatory capability which is required to provide a credible strategic nuclear deterrent SSBNs must be maintained in sufficient numbers to ensure that no asymmetry in overall strength is perceived by a potential foe, and they must be capable of a full range of responses to varying political circumstances

4.1.2 General Purpose Forces. U.S. naval general purpose forces require the following capabilities·

4.1.2.1 Offensive Power. The offensive power to destroy or neutralize hostile forces routinely present in the theater of operations, or which represent a threat within that theater, is essential to maintain the credibility of stated commitments to allies and to deter or defeat potential adversaries More importantly, if conflict should break out, the very survivability of U.S. naval forces and the accomplishment of their missions depend on it This type of offensive power is provided by sea control forces, usually operating as an integrated unit Such integrated forces may be geographically distant, but their movements, sensors, and weapons are coordinated to provide maximum mutual support and offensive capability.

4.1.2.2 Defensive Strength. The defensive strength to cope with large scale attacks by enemy forces which can concentrate in a given theater of operations on short notice is essential The Navy must recognize the capability of a potential aggressor to capitalize on the mobility inherent in sea and air forces, and to mass them quickly in a position for launching a surprise attack. This is especially important since the advent of long range antiship cruise missiles (ASCMs) with large conventional or nuclear payloads, which have greatly multiplied the offensive power of small surface units, submarines and aircraft Naval defensive capability should include long range detection systems such as airborne early warning (AEW), quick reacting command and control systems, and effective defensive weapon systems Each of these categories should exploit the full technological potential of satellites and other space-based systems When necessary, naval forces must be able to operate in a silent electromagnetic and acoustic environment so as to minimize the probability of detection by the enemy.

4.1.2.3 Ability to Project Power Ashore. The ability to project power-ashore by gunfire, missiles, carrier-based aircraft, and amphibious landing is required to achieve and maintain sea control and to support allied forces or U.S. land-based forces ashore Use of sea-based projection in defense, denial, or seizure of advanced bases is an essential element in ensuring continued use of vital sea areas, in preventing enemy transit to open ocean areas, and in destroying enemy base areas from which assaults against friendly forces at sea may be launched. Perhaps more importantly, a capability to project power ashore lends substance to U.S. political initiatives when the implied threat of the application of military power is used in an effort to convince other nations to act in consonance with U.S. national interests.

4.1.2.4 Logistic Independence. A high degree of logistic independence from foreign bases, which may be temporarily denied through political decision, or which may be seized by an enemy, dictates that U.S. naval

combatant ships be able to carry large quantities of combat consumables such as fuel and ammunition, have good sea-keeping qualities to ride out heavy weather for long periods of time, and be able to steam long distances without refueling stops It also requires an underway replenishment force which can resupply combatant ships in the combat zone.

4.1.2.4.1 Overseas Bases. Overseas bases in foreign countries are not required for the operation of most naval forces in forward areas. However, they do allow both more efficient and higher intensity operations by providing routine organizational and emergency intermediate and depot level support for ships and aircraft Overseas bases are becoming more expensive both economically and politically, and their availability in all contingencies cannot be guaranteed. The Navy must be prepared to augment and rely totally on the mobile logistics support force (MLSF), in lieu of overseas bases on foreign soil. The ability to do so will place increasing dependence on the Navy as the service most capable of conducting sustained operations overseas without base support.

4.1.2.4.2 Overseas Homeporting. The homeporting of fleet units in overseas forward areas allows higher deployed force levels with fewer total assets. Overseas homeported units also provide more on station time than CONUS based forces due to greatly decreased transit time. There are, however, inherent risks involved in homeporting units in a foreign country Simply stated, political instability or conflicting national interests in many countries cause the United States to lose a certain degree of control over units homeported in foreign countries. In addition, overseas homeporting is becoming more expensive, both in terms of payment demanded by host countries, and in terms of international and domestic political considerations. These considerations must be carefully weighed in any overseas homeporting decisions.

4.1.2.5 Command, Control and Communications (C^3). A command, control and communications system which will permit the reconnaissance and surveillance of hostile forces and the direction of U.S. forces in the conduct of naval warfare on a global basis is required. Naval command, control and communications systems must provide for coordinated operations of U.S. and allied forces at sea, and for coordination between forces at sea and land-, air-, and space-based naval/national/other services command centers and surveillance systems Operational security demands that at-sea forces minimize electromagnetic emissions in affecting this coordination. The command, control and communications system must possess the flexibility and redundancy to permit reconfiguration following a conventional or nuclear attack in order that surviving forces can be reconstituted into an effective system.

4.2 NAVAL WARFARE

4.2.1 Naval Warfare Areas. Naval warfare is conflict in which at least one of the opponents is operating from the sea with surface ships, submarines, or sea-based aircraft The three naval warfare areas are surface, submarine, and air Each of these areas has its operating characteristics derived from the nature of the operating medium, and each has its own particular strengths and limitations The art of naval warfare is to employ surface, submarine, and air forces in such a manner as to exploit the strengths and minimize the weaknesses of each. This objective has led to the integrated employment of surface, submarine, and air forces operating together, with the common objective of gaining advantage over the enemy by enhancement of offensive capabilities and decreasing individual vulnerabilities through mutual support. Naval forces now and in the future must be structured to integrate all three warfare areas in the prosecution of their tasks in order to meet a similarly multi-dimensional threat.

4.2.2 Naval Warfare Tasks. The Navy's functions include both sea control and power projection. Therefore, naval warfare tasks must address the accomplishment of the Navy's functions through the three areas of surface, submarine and air warfare, against the opposition of similarly delineated forces. The resulting warfare tasks are classified as fundamental tasks and supporting tasks.

4.2.2.1 Fundamental Warfare Tasks

1. Antiair Warfare (AAW) — The destruction of enemy air platforms and airborne weapons, whether launched from air, surface, subsurface, or land platforms. It comprises all the measures that are employed in achieving air superiority.

2 Antisubmarine Warfare (ASW) — The destruction or neutralization of enemy submarines. The aim of

antisubmarine warfare is to deny the enemy the effective use of his submarines

3 Anti-Surface Ship Warfare (ASUW) — The destruction or neutralization of enemy surface combatants and merchant ships Its aim is to deny the enemy the effective use of his surface warships and cargo carrying capacity.

4 Strike Warfare — The destruction or neutralization of enemy targets ashore through the use of conventional or nuclear weapons This includes, but is not limited to, targets assigned to strategic nuclear forces, building yards, and operating bases from which an enemy is capable of conducting or supporting air, surface, or subsurface operations against U.S. or allied forces

5 Amphibious Warfare — Attacks, launched from the sea by naval forces and by landing forces embarked in ships or craft, designed to achieve a landing on a hostile shore. It includes fire support of troops in contact with enemy forces through the use of close air support or shore bombardment

6 Mine Warfare — The use of mines and mine countermeasures It consists of the control or denial of sea or harbor areas through the laying of minefields and countering enemy mine warfare through the destruction or neutralization of hostile minefields

4.2.2.2 Supporting Warfare Tasks

1 Special Warfare — Naval operations generally accepted as being non-conventional in nature, in many cases clandestine in character Special warfare, which often accomplishes fundamental warfare tasks, includes special mobile operations, unconventional warfare, coastal and river interdiction, beach and coastal reconnaissance, and certain tactical intelligence operations.

2 Ocean Surveillance — Ocean surveillance is the systematic observation of ocean areas to detect, locate, and classify selected high interest aerospace, surface, and subsurface targets and provide this information to users in a timely manner A target may be any hostile, neutral, or friendly platform of interest Ocean surveillance provides the current operational setting in which Navy commanders deploy forces to do battle. Ocean surveillance is supportive of and dependent on C^3 and intelligence, and therefore must be integrated with both.

3 Intelligence — Intelligence is the assessment and management of information obtained via surveillance, reconnaissance and other means to produce timely indications and warning, location, identification, intentions, technical capabilities, and tactics of potential enemies and other countries of interest Current and complete intelligence, correctly interpreted according to the task at hand permits military decisions to be based on accurate knowledge of the enemy's forces and capabilities

4 Command and Control and Communications (C^3) — The overall operational management of the Navy in peace and war The Navy Command and Control System (NCCS) provides the means to effectively exercise the authority and direction of naval forces in the accomplishment of their mission. The objectives of NCCS are to ensure that the National Command Authorities, unified commanders, naval component commanders, and subordinate naval commanders are able to discharge their individual responsibilities by receiving sufficient, accurate and timely information on which to base their decisions and by having available the means to communicate these decisions to the forces involved. Efffective control over its forces allows the Navy to operate on a coordinated basis in fulfilling its worldwide operational responsibilities.

5 Electronic Warfare — The electronic support for all warfare tasks Its primary objective is to ensure the effective use of the electromagnetic spectrum by friendly forces while determining, exploiting reducing or denying its use by an enemy. Electronic warfare assists in the detection and targeting of hostile forces while making it more difficult for the enemy to detect and target friendly forces.

6 Logistics — The resupply of combat consumables to combatant forces in the theater of operations. It may often be a major factor in determining the success or failure of an operation. A principal aim of naval logistics is to make the operating forces as independent as possible of overseas bases. Most movement of supporting supplies to engage U.S. naval forces, and to all other U.S. combatant and allied forces is by sealift

The U.S. maritime mobility forces are composed primarily of ships of the Military Sealift Command, various ships held in reserve for defense employment, and ships provided from the U.S. Merchant Marine.

4.3 CATEGORIZATION OF NAVAL FORCES

In recent years comparisons and net assessments of different navies have been plagued by lack of a clear and universally accepted framework within which naval forces can be categorized. Results of numerical analyses often have been misleading because they do not accurately represent comparisons of force elements of equivalent warfare capability Furthermore, loose definitions of ship categories permit erroneous perceptions of the net force balance between U.S. and potential adversary naval forces In order to establish a rehensive and widely accepted framework for analysis and force level description, the categorization set forth below has been adopted. The basic approach divides navies into four fundamental categories combatant ships, auxiliary ships, combatant craft, and support craft. These categories are further subdivided into "classifications" and "types" which can be modified additionally by hull descriptors to provide the detail necessary to identify all fleet units. Figure 4-1 is a block diagram of all ship/craft categories. As an example all combatants which form U.S. Navy battle groups are drawn from the "combatant ship category," "warship classification." The characteristics of the principal types of ships are described in the following:

4.3.1 Strategic Nuclear Force. Fleet ballistic missile (FBM) submarines, the Navy's strategic nuclear force, are equipped with sea-launched ballistic missiles for attack and with torpedoes for defense. As the most survivable component of the U.S. strategic nuclear forces, FBM submarines must be capable of executing a broad range of options on receipt of direction from the NCA. They are highly survivable and reliable no matter how or when hostilities may be initiated. Such qualities provide the basis for the FBM force's significant contribution to the overall strategic balance.

4.3.2 General Purpose Forces

4.3.2.1 Aircraft Carriers. These are ships designed primarily for the purpose of conducting combat operations by aircraft which engage in attacks against airborne, surface, subsurface and shore targets. Aircraft carriers are able to accommodate a broad range of conventional take-off and landing (CTOL) aircraft types which perform tasks encompassing AAW, strike, reconnaissance, air, surface and subsurface surveillance, ASW, electronic warfare and logistics. Aircraft carriers can also accommodate helicopters and vertical/short take-off and landing (V/STOL) aircraft The carrier's complement of aircraft can be adapted on short notice or on a long term basis to accomplish the prescribed tasking

4.3.2.2 Surface Combatants. These are large, heavily armed surface ships which are designed primarily to engage enemy forces on the high seas Surface combatants include cruisers, destroyers, and frigates Equipped with guns, missiles, torpedoes, and advanced complex weapon systems such as light airborne multipurpose system (LAMPS) helicopters, they conduct combat operations against submarines aircraft, and surface ships at sea and against targets ashore

4.3.2.3 Attack Submarines. These include all self-propelled submersible types designed to locate and destroy other submarines, surface combatants, and merchant ships. Their principal armament consists of torpedoes and torpedo tube-launched missiles for employment against enemy ships and submarines and shore targets

4.3.2.4 Patrol Combatants. These combatants missions may extend beyond coastal duties Their characteristics include adequate endurance and sea keeping to provide a capability for operations exceeding 48 hours on the high seas without support. They are employed for ASUW, surveillance, and shadowing in control of narrow seas and choke points.

4.3.2.5 Amphibious Warfare Ships. All ships having an organic capability for amphibious assault and which have characteristics enabling long duration operations on the high seas are included in this category. Amphibious ships transport troops and their essential equipment to an objective area, and land forces on and over the beach.

4.3.2.6 Mine Warfare Ships. These are ships with the primary function of mine warfare on the high seas They are used to clear choke points, militarily important sea areas, and amphibious objective areas

4.3.2.7 Auxiliary Ships. As opposed to the foregoing description of ship types, this paragraph describes a ship category These are Navy-subordinated ships designed to operate in the open ocean in a variety of sea states to provide underway replenishment, direct material support, maintenance, repair and general support to deployed units, combatant forces or shore-based establishments They include oilers, ammunition ships, combat stores ships, repair vessels, towing, salvage, rescue, special project, and other such specialized non-combatant ships In forward areas, mobile logistic forces supply the materials of war to all other forces afloat, as well as to the bases which they build and maintain. They are equipped to replenish combatant units underway with fuel, ammunition, food, and spare parts. They also provide maintenance and repairs to afloat units at forward operating bases and anchorages.

4.3.2.8 Maritime Patrol Aircraft (MPA). These are long range, high endurance, land-based patrol aircraft Navy MPA conduct all-weather operations in antisubmarine warfare reconnaissance, ocean surveillance, aerial mining, and, when equipped with missiles, antishipping As MPA are not a ship type, they do not appear in Figure 4-1, but are described here for completeness

4.4 NAVAL FORCE STRUCTURE

The capabilities and characteristics required by the U.S. Navy to conduct its mission, functions, roles, and tasks in support of the U.S. national military strategy are translated through a process of analysis and judgment (treated in Chapter 5) into the platforms discussed in the preceding paragraphs and in Figure 4-1 The prosecution of the Navy's warfare tasks must be carried out against opposition that ranges from limited to severe, but that always presents a multi-dimensional threat Therefore, the force structure of the U.S. Navy must be comprised of that proper balance of ship types which will most effectively accomplish the required warfare tasks. Figure 4-2 displays individual platform capabilities to accomplish warfare tasks. It is the matching of capabilities to tasks that generates the first level of naval requirements.

4.5 NAVAL TACTICAL FORCE ORGANIZATION

Naval force structure is concerned with both the proper balance of the total Navy and the proper balance of individual forces assigned to specific roles and tasks in specific geographic areas The total fleet inventory is made up of the various categories, classes, and types of ships and craft, and units are aggregated by type in the administrative organization of the Navy to facilitate material management However, the grouping of units to achieve the proper balance for specific tactical employment is the purpose of that element of the naval force structure called tactical force organization. In the operational sense, units are tactically deployed in task organizations tailored to the intended employment of the force Because the sine qua non of all Navy missions is sea control, the principal task organization must be those established to meet hostile forces in battle at sea

4.5.1 Battle Forces. Therefore, battle forces are made up of those units designed for combat at sea, that is, the warships, carriers surface combatants, and submarines Further, each included battle group must be able to perform effectively the full spectrum of at-sea offensive warfare tasks. Thus, as a minimum the battle group would include within its task organization a carrier, surface warships, and submarines in direct support.

4.5.2 Other Task Forces. Although the battle forces are formed for the specific purpose of challenging the enemy's main combatant force at sea, other (and particularly subsequent) naval tasks may require other types of ships with other capabilities Therefore, the underlying concept of naval tactical force organization is to aggregate units of specific warfare capabilities (as shown in Figure 4-2) so as to form a structure whose total capability most effectively meets the requirements of the assigned tasks. In naval warfare, as in all combat, economy of force can be as important as sufficiency of capability

4.6 NAVAL WARFARE TECHNOLOGY

4.6.1 Tactical Nuclear Weapons. In order to gain and maintain control of sea areas and sea lines of communication vital to the nation's forward strategy, the U.S. Navy requires sufficient offensive power and defensive strength to maintain maritime superiority with conventional weapons However, since a potential enemy of the United States is capable of employing tactical nuclear weapons at sea, the impact of their employment must be assessed.

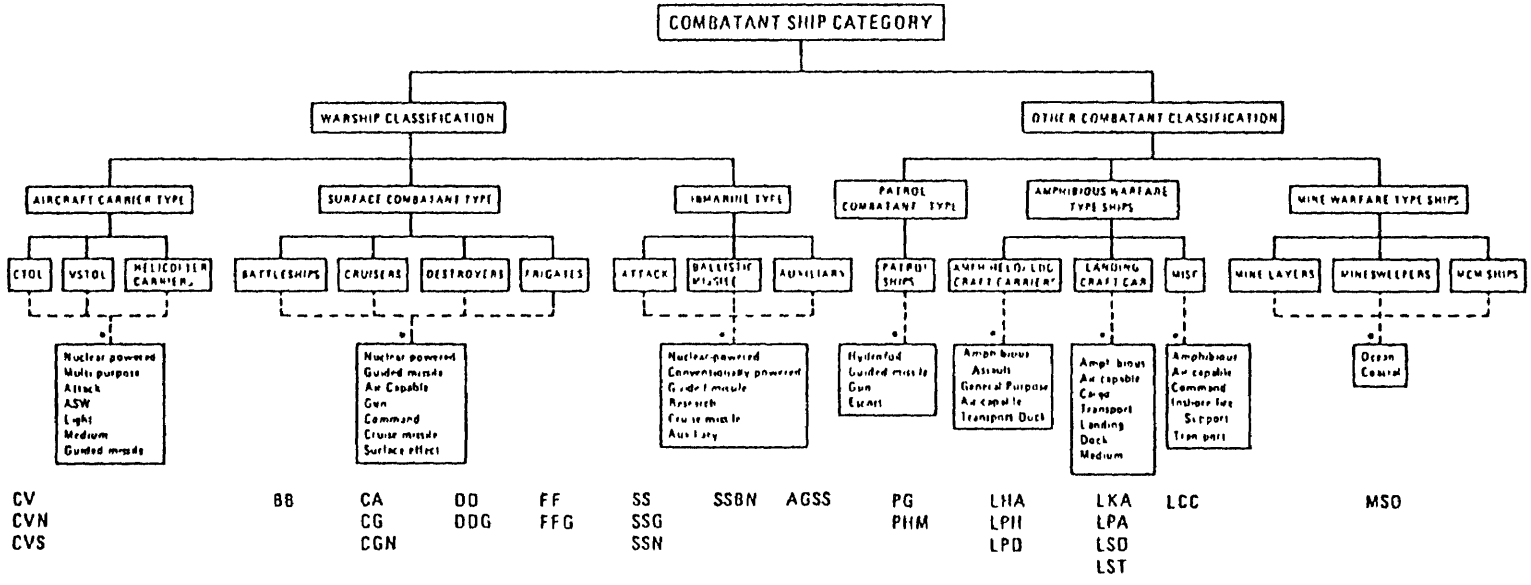

Figure 4-1. Categorization of Naval Ships and Craft

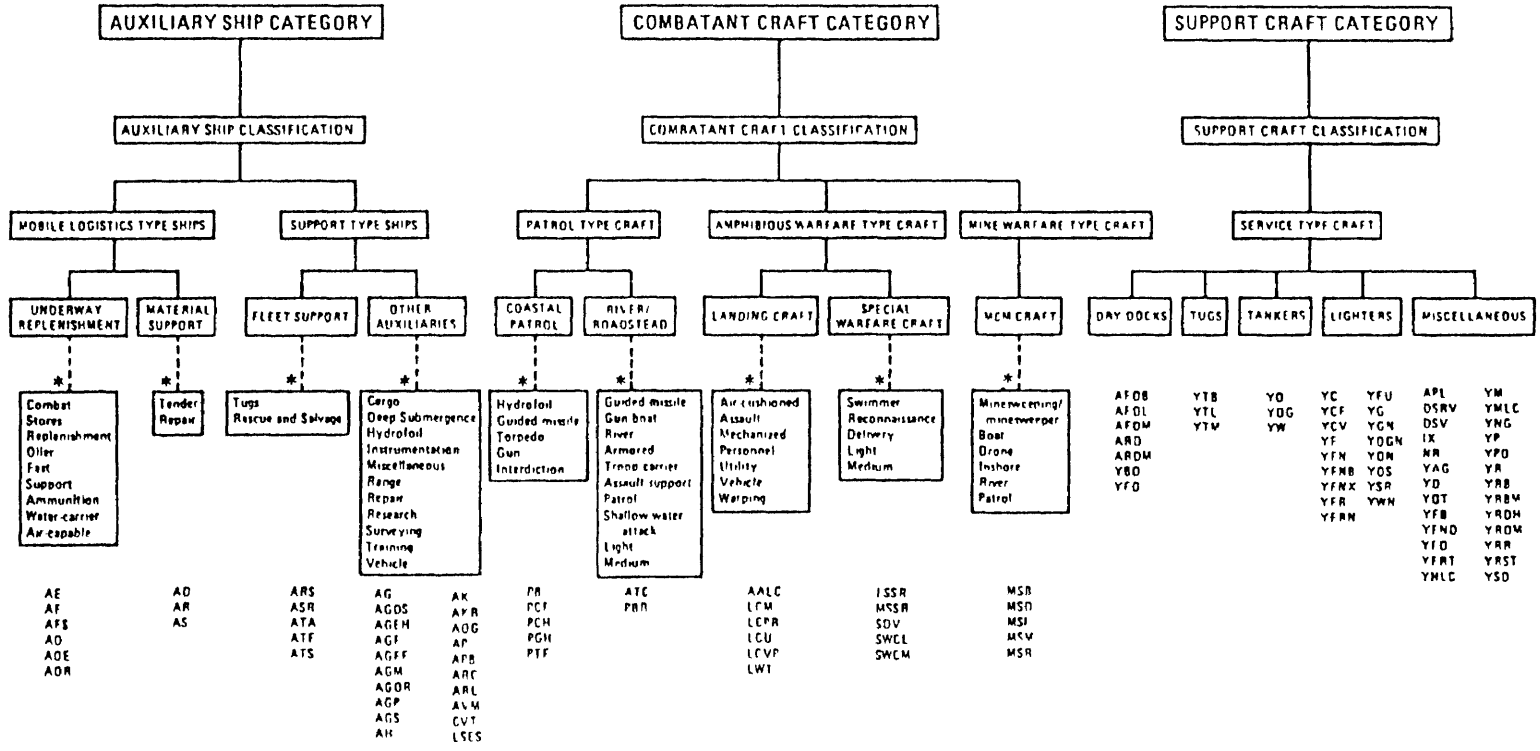

Figure 4-1 Categorization of Naval Ships and Craft (Cont.)

WARFARE TASKS	CARRIER	SURFACE COMBATANT	SUBMARINE SSN	SUBMARINE SSBN	AMPHIBIOUS	MARITIME PATROL AIRCRAFT (MPA)	SUPPORT
Fundamental Tasks							
ANTIAIR WARFARE							
Air Superiority	0						
Air Defense	0	0					
ANTISUBMARINE WARFARE							
Distant Operations	0		0			0	
Close Operations	0	0	0			0	
ANTISURFACE WARFARE							
Distant Operations	0	(1)	0			(2)	
Close Operations	0	0	0			(2)	
STRIKE WARFARE							
Nuclear	0	(3)	(3)	0			
Conventional	0	(4)	(4)				
AMPHIBIOUS WARFARE							
Vertical Assault					0		
Over the Beach					0		
Close Support	0	0			0		
MINE WARFARE							
Offensive	0		0			0	
Countermeasures		0			0		
Supporting Tasks							
SPECIAL WARFARE			0		0		
OCEAN SURVEILLANCE	0	0	0			0	0
INTELLIGENCE							
Imagery	0						
Reconnaissance	0		0			0	
COMMAND, CONTROL AND COMMUNICATIONS (C^3)	0	0	0	0	0	0	0
ELECTRONIC WARFARE	0	0	0	0	0	0	0
LOGISTICS							
Long Haul Resupply							0
Local Resupply	0						0
Repair	0						0

Legend: Major Capability 0
Planned Capability ( )

NOTES:
(1) Sea-launched cruise missile (SLCM) with extended range, over-the-horizon targeting.
(2) HARPOON capability enables maritime patrol aircraft to attack ships.
(3) SLCM with terrain contour matching (TERCOM) will provide nuclear strike capability.
(4) SLCM (second generation) with guidance accuracies to permit conventional warheads.

Figure 4-2. Platform Type Capabilities for Warfare Tasks

1 If both the U.S. and its adversaries are restricted to conventional weapons in the war at sea, the U.S. Navy can prevail

2 If both sides employ tactical nuclear weapons in the war at sea, the U.S. Navy will probably prevail, but with a thinner margin of confidence of success, and with substantially greater losses at conflict termination.

3 If adversary maritime forces employ nuclear weapons and U.S naval forces have only a conventional weapon capability, the U.S. Navy will lose Therefore, it is essential that the U.S. Navy maintain a capability to use nuclear weapons if the U.S. is to be able to fight and win at sea

4.6.2 Nuclear Propulsion. The advantages of nuclear propulsion in providing naval ships with the capability to steam virtually unlimited distances at high speed are clearly useful and important to the United States Navy with its global responsibilities, forward deployed posture, and limited availability of forward bases. In addition, it reduces the Navy's dependence on oil as an energy source. On an individual ship basis, the addition of nuclear propulsion results in a ship significantly superior to one with similar military characteristics, but having conventional propulsion However, nuclear propulsion does add to both the acquisition and life cycle costs of a ship, so the numbers of nuclear-powered ships in a finite budget must be constrained. Therefore, the advantages of a limited application of nuclear propulsion technology can best be realized under the following approach.

4.6.2.1 Submarines. All submarines should be nuclear-powered, because with nuclear power the submarine attains the ultimate capabilities of the true submersible

4.6.2.2 Surface Ships. Carriers and cruisers are the only warships of the U.S. Navy large enough to accommodate nuclear propulsion. Because the Navy today consists of both conventionally and nuclear-powered ships, new construction of nuclear-powered ships should be pursued with the objective of forming all-nuclear-powered battle groups, since that is the principal way in which the advantages of nuclear propulsion in surface ships can be realized, and the offensive capabilities of surface combatants fully utilized Each nuclear-powered battle group consists of one carrier, two to three cruisers, and one to three submarines There should be enough of these nuclear-powered battle groups to constitute a strategically significant segment of the fleet These nuclear-powered battle groups have the ability to steam unlimited distances at high speeds without refueling and to arrive at a crisis point fully ready to conduct combat operations until the crisis is resolved or conventional forces with logistic support can arrive. Three of these battle groups in both the Atlantic and the Pacific, for example, would permit one to be deployed overseas at all times, one to be combat-ready operating out of continental U.S. ports, and the third to be in maintenance status The Navy's build-up toward this nuclear-powered battle group capability should continue in an orderly and balanced nuclear ship construction program.

4.6.3 Organic Air Power. Because U.S. naval forces routinely deploy to areas well beyond the range of U.S. land-based air cover where they may be exposed to attack by potential adversary land-based air, and because the manned aircraft presently provides the most capable and sophisticated weapon system available to counter enemy manned aircraft and establish and maintain local air superiority in areas of U.S. naval operations, it is essential that U.S. naval battle forces and groups include organic tactical air power at certain times and places. This capability is currently exemplified by the large-deck multipurpose aircraft carrier Further, the United States Navy is investigating the future potential advanced VSTOL technology both to permit wider latitude in the design and size of aircraft carriers and to expand the operation of high performance tactical aircraft to more air capable ships, with the end objectives of achieving improved warfighting ability, and operational responsiveness and flexibility for sea-based forces

4.6.4 Cruise Missiles. Cruise missile technology has important applications in naval warfare. They will permit long-range stand-off attacks against geographically fixed land targets and against surface ships at sea. Cruise missiles may be categorized by launch platform (aircraft, surface, ship or submarine), by function (land attack or antiship), by warhead (nuclear or conventional) Cruise missiles employment policies will be largely governed by their basic characteristics high accuracies and kill probabilities against surface ship targets, lesser accuracy against land targets (with potential for improvement under some circumstances) and relatively high cost per

unit Current state of cruise missile technology optimizes conventionally armed cruise missiles against land targets. Improvements in guidance systems should expand the tactical employment of long-range cruise missiles from sea-based forces against high value identifiable geographically fixed targets on land.

4.6.4.1 **Cruise Missile Targeting.** As cruise missile ranges increase, more targets will be within range of a single launch platform and more launch platforms will be capable of attacking the same target Therefore, antiship cruise missile engagements must be managed at a command level which permits the designation of priorities and the assignment of missiles in such a manner as to avoid omission or overkill of targets. To accomplish this, the Navy is approaching the over-the-horizon targeting (OTH-T) concept by establishing a sensor/coordination center/launch platform system which will operate according to the following procedures

1 Target detected by one or more sensors,

2 Additional sensors cued to acquire the target using information from original contact,

3 Target data transmitted to coordination centers (ship and shore) for identification, localization, and threat analysis,

4 Using the facilities of his coordination center, the operational commander evaluates the threat, his capabilities to counter it, and then designates the target to the appropriate launch platform under his command,

5 Assigned launch platform attacks designated target with a weapon suitable to the desired level of target damage

CHAPTER 5

Navy Program Development

5.1 TRANSLATION OF REQUIREMENTS TO PROGRAMS

Three primary factors determine naval force requirements strategy, threat and risk. U.S. national military strategy is characterized by forward defense, and requires naval forces able to meet a broad spectrum of contingencies from peacetime deployment and crisis management to the most demanding case of a major war The threat reflects probable force levels and capabilities of potential foes Risk is the degree of assurance that U.S. naval forces could satisfactorily carry out the strategy when opposed by the potential threat

5.1.1 Force Structure Assessment. To assess this risk and ensure that programmed forces will have the numbers, balance and platform capabilities required to execute the Navy's mission at an acceptable level of risk, an annual force structure assessment of naval capabilities is conducted. The methodology of this process is shown in Figure 5-1 The assessment starts with the current force structure, i e., the ships, aircraft and weapon systems presently in the fleet Current forces are then projected ten years into the future, adding units under construction or programmed to enter service during this period and deleting those forces which will reach the end of their expected service lives The resulting future force structure is then used as a basis for assessing the capabilities of naval forces to support national strategy requirements when opposed by the expected threat The actual assessment is a complex series of analyses which considers various strategies by the U.S. and its potential enemies in several planning scenarios The result is a net qualitative assessment of the maritime balance in each fundamental warfare task (AAW, ASW, etc), identifying deficiencies in future forces and indicating the level of risk inherent in current programs This annual net assessment serves as the basis for formulating changes to the programmed forces This appraisal process leads to the decisions which will eventually reallocate funds among Navy programs within fiscal guidelines, correcting deficiencies and making incremental changes to ship, aircraft and weapon procurement programs The revised programs are then used as the basis for future naval force structure.

5.1.2 Future Force Capabilities. The composition of naval forces can be projected ten years into the future using current force levels as a base Added to this are those units expected to enter service in the next ten years This includes ships already under construction as well as those units authorized by the Congress or included in the Department of Defense Five Year Defense Program (FYDP) The impact of force aging is accounted for by dropping units as they reach the end of their expected service lives In the same manner, new weapon and sensor developments may be projected using programmed operational dates and procurement figures. The possible contributions of allies are factored into this process

5.2 THREAT ASSESSMENT

In assessing the threat, all capabilities which might operate to prevent the U.S. Navy from fully supporting the national military strategy must be considered. Ideally, U.S. forces would be planned to combat successfully the capabilities of all potential enemies, however, constraints on national resources which can be applied to defense require that there be an evaluation of intentions to allow priority assignment of available resources. This is a delicate task. Intentions as to the employment of a capability may change very quickly. Narrow threat assessments which limit flexibility of response must be avoided. The threat assessment must include the primary considerations of a potential enemy's military strategy, available weapon systems and technology, current and projected military strength, and specific employment capabilities.

5.2.1 Potential Enemy Military Strategy. Assessment of a potential enemy's strategy requires

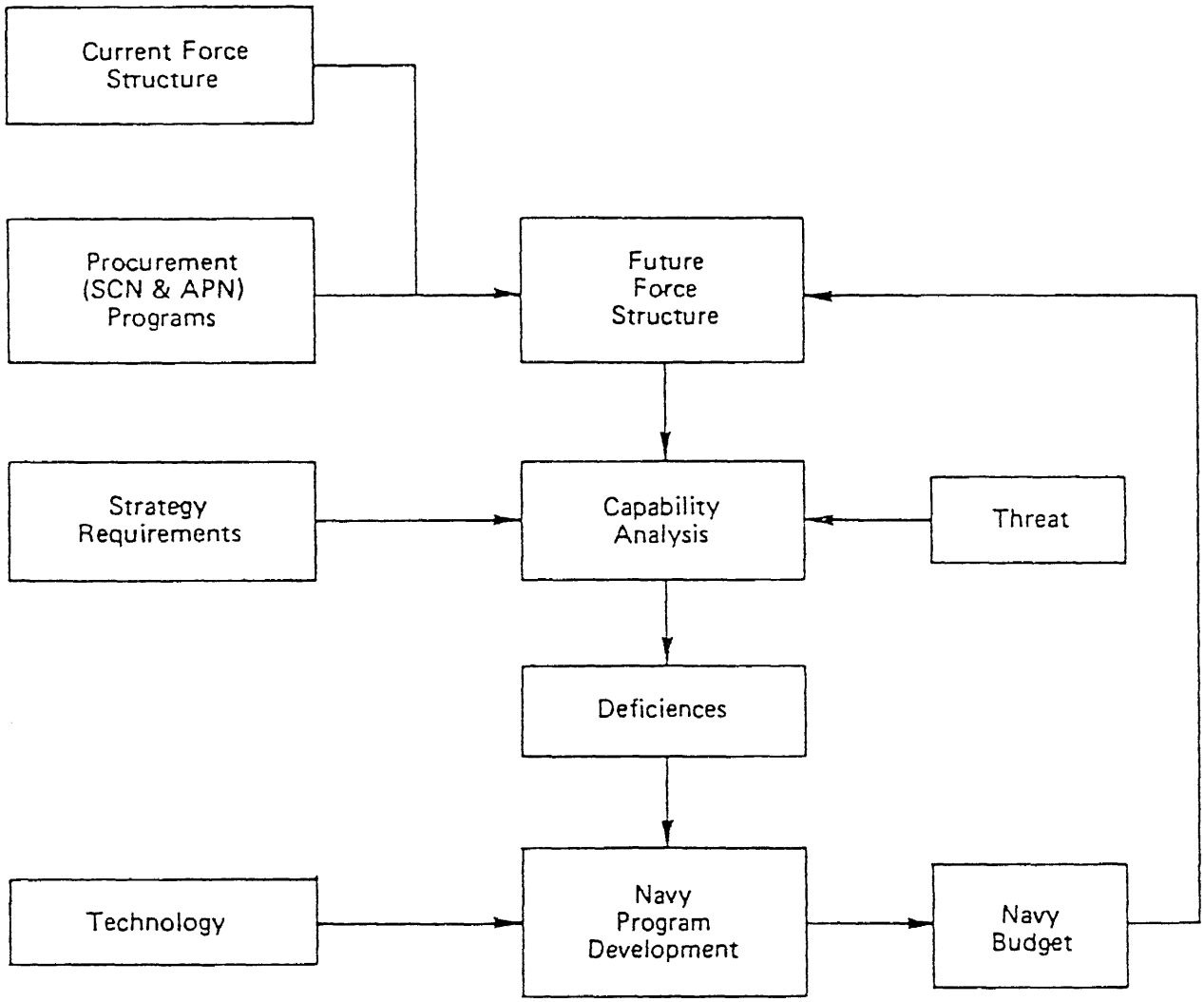

Figure 5-1. Force Structure Assessment of Naval Capabilities

continued updating as world events evolve. There are many approaches to the examination of a potential enemy's military strategy, but each approach should include an examination of the historical context which has fostered strategic perceptions, political ideologies, diplomatic initiatives, internal politico-economic factors, technological development, and military force structure trends. This approach, when combined with an examination of current projected force strength and capabilities, enables deduction of possible roles of naval forces in support of military strategy. Through this process, possible directions of potential enemy military strategy may be projected. The paramount consideration throughout the process of force derivation, however, must be given to enemy capabilities.

5.2.2 Weapon Systems and Technology. Assessment of a potential enemy's weapon systems and technology involves an examination of the technological trends in such major weapon systems as submarines, aircraft and surface ships, and in significant capabilities such as cruise missiles and surveillance systems. It also entails investigation of enemy research and development efforts so as to estimate accurately the potential for major technological breakthroughs which might quickly and drastically alter the military balance.

5.2.3 Current and Projected Order of Battle. Assessment of a potential enemy's military force strength includes the current and projected number and type of nuclear and conventional forces in all major warfare areas. Total force strength is not indicated by numbers alone, but requires detailed knowledge of individual unit capabilities, and training and readiness levels. The numbers of units by type, their total firepower and technological sophistication, and knowledge about platform combat maneuverability and endurance all combine to produce a total force capability assessment. Current and projected naval construction, modernization efforts, and construction capacity must be considered in projecting the future naval force strength of potential adversaries. It is on this projected threat that the planning process must focus.

5.2.4 Contribution of Allies of Potential Adversaries. Just as the U.S. must consider the possible contributions of its allies, a comprehensive threat assessment should also include the contribution of the allies of potential adversaries and the potential for transfer of modern weapon systems to client states of such adversaries. High performance weapon systems in the hands of such nations could present a significant threat to U.S. Navy forces in crisis or limited war situations.

5.2.5 Maritime Threat Characteristics. Hostile naval forces can be expected to be encountered in all three of the warfare areas: surface, submarine and air. They will possess the general characteristics, advantages, and vulnerabilities of similar U.S. weapon systems. Consideration of the unique capabilities and limitations inherent in each naval warfare area of a potential enemy is important in determining requirements for U.S. naval forces both in types and numbers of ships and aircraft.

5.2.5.1 Cruise Missiles. The addition of cruise missiles, whether launched from air, surface or subsurface platforms, to the capabilities of potential adversaries further intensifies the threat by making it necessary to destroy not only enemy platforms but enemy missiles as well.

5.2.5.2 Surveillance Systems. Until recent years the ability of naval forces to remain undetected prior to engagement was a significant tactical advantage. However, modern technology is giving some potential adversaries increasing ability to locate and track naval units in many weather conditions and across broad areas of the world's oceans. Using undersea and overhead surveillance systems, an enemy may achieve advance warning of naval force dispositions. This capability is a significant factor in planning for appropriate employment of U.S. naval forces.

5.3 ANALYSES

5.3.1 Net Assessment. The Navy believes that it is the balance of capabilities achieved and the innate flexibility of naval forces that weigh most heavily in any assessment. Therefore, in its net assessments it examines the missions of the United States and potential adversary navies and estimates the capability of each Navy to carry out its mission in the face of determined opposition by the other. Numerous analyses are used to conduct the net assessment of U.S. naval power relative to that of potential adversaries. Some of these examine the performance of individual ships, aircraft, and weapon systems. Others measure trends in force structure and the ability of the forces of each side to carry out their respective missions. Still others, such as campaign

analyses, are used to estimate the probable outcome of interactions between forces. Any analysis is highly dependent upon its foundation of assumptions, most of which are uncertain. Nevertheless, by employing good judgment on a broad range of analyses drawn from the lessons of experience, grave miscalculations can be avoided.

5.3.2 Risks. Risk can be measured in several ways. First among these is the degree of confidence that U.S. Navy forces can fulfill their mission; i.e., that they can win in a given scenario. This type of assessment is used to generate the minimum risk and prudent risk forces, to weigh the level of risk inherent in programmed force objectives, or to calculate the degree of attrition which is expected or accepted for convoys or naval forces in various scenarios. A second form of risk assessment examines rapidity of success and indicates the time required to achieve sea control or accomplish a specific mission. A third measurement of risk focuses on simultaneity of execution, which is governed by geographic priorities. This method of risk assessment shows strategic flexibility and implies that, within fixed force levels, increasing capabilities in one area must come at the price of reduced capabilities in other regions.

5.3.3 Deficiencies. In addition to the identification of various levels and types of risk, the annual assessments of the naval balance expose specific deficiencies in programmed forces. These relate to various fundamental warfare tasks and address force level deficiencies for individual ship types or aircraft, imbalances in force structure, or vulnerability to certain threats. Identification of specific quantitative or qualitative deficiencies serves as a point of departure for optimizing future naval forces.

5.4 ALTERNATIVE FORCE LEVELS ASSOCIATED WITH LEVELS OF RISK

Several identifiable force levels are generally understood to be associated with levels of risk and provide convenient terms of reference. These force levels are: Force Planning Estimate, Objective Force, Immediate Force Goal, and Programmed Force. These are discussed below in descending order of size.

5.4.1 Force Planning Estimate. The force planning estimate is the level of military force that is required to counter the threat, worldwide, in simultaneous operations irrespective of the strategy which a potential enemy has the capability to pursue. It provides the highest assurance of worldwide naval superiority at a minimum level of risk. Force planning estimates are developed for each of the force planning cases unconstrained by fiscal, manpower, logistic or other limitations.

5.4.2 Objective Force. The objective force is the naval-force level required within a definite time frame and resource level to accomplish approved military objectives, missions or tasks. It is a Navy which is capable of providing reasonable assurance of success in the primary areas of national interest in both Atlantic and Pacific Oceans at a prudent level of risk. Recommended objective force levels are derived from the force planning estimates through acceptance of prudent risk and in consideration of reasonable attainability. The force is not fiscally constrained but its derivation is fiscally responsible.

5.4.3 Immediate Force Goal. The immediate force goal is a balanced, flexible force, fiscally constrained but with most qualitative deficiencies in the programmed force corrected, capable of fulfilling the national strategy against the projected threat. It is a Navy which can maintain fully capable forces forward deployed. An acceptable risk force, with mobilization warning and redeployment it can prevail in the primary theater, and simultaneously provide selective thrusts in a secondary theater.

5.4.4 Programmed Force. The programmed force is that contained in the currently approved Five Year Defense Plan as well as the Extended Planning Annex (ten year projection). This force is fiscally constrained and provides variable capability in fulfilling critical elements of the national strategy depending upon the extent of this fiscal constraint. The programmed force should be a balanced Navy able to maintain representative forces forward deployed. At its lowest level, it is a marginally acceptable risk force which could prevail with heavy losses in a major conflict with mobilization warning and extensive redeployment. Simultaneously with a major overseas conflict it would be able to protect vital maritime interests in the Western Hemisphere. With lessening of fiscal constraints the programmed force could progress to one of acceptable risk or even prudent risk allowing for the time involved from budget authorizations to forces in being.

5.5 RISK ASSESSMENT IN PROGRAM DECISIONS

Naval force structure is derived from consideration of strategy, threat, and risk. The importance of risk assessments is that they determine the level of risk, and thereby indicate the degree to which the projected force structure is adequate to carry out the strategy in the face of the threat. By pointing out strengths and weaknesses in the force structure, risk assessments highlight areas requiring attention in Navy programming actions.

The process by which future naval force requirements are determined is both simple in concept and complex in execution. Starting with national military strategy, forces which have been approved and will reach the fleet within the time period under consideration are added, and those units which will reach the end of their useful service lines are deleted in order to estimate future force structure. The capabilities of these forces are evaluated against the expected threat, and the ability of the U.S. Navy to carry out its functions of sea control and power projection is assessed in various scenarios. Significant uncertainties and judgmental factors are an integral part of this continuing process. The final and most difficult step is to determine the number, type, and mix of ships and aircraft needed to correct deficiencies in our forces and minimize risks, keeping in mind the requirement to maintain balanced force levels and fiscal realism. If the proper strategy is projected, the threat correctly assessed, and risks accurately identified, uncertainty can be minimized and naval requirements can be established.

PART II

Planning, Employment and Readiness Doctrine for Naval Operating Forces

CHAPTER 1

Planning Concepts

1.1 PURPOSE

The purpose of this doctrine is to establish, at the Chief of Naval Operations' level, a basic system for the employment planning of the operating forces of the U.S. Navy on both a short and long-term basis. The doctrine defines standard concepts and terms for execution of current operations, and for the derivation of operational planning factors which are required for the formulation of programs and the analysis of readiness.

1.2 TOTAL FORCE

For the purpose of assessing the full range of U.S. naval capabilities, the total force must be considered. The total force of the U.S. Navy includes:

1.2.1 Operating Forces. The operating forces of the U.S. Navy consist of ships, aircraft squadrons, units, and staffs, assigned to the Fleet Commanders in Chief (FLTCINCs). These forces include both active and reserve commissioned units and ships of the Naval Fleet Auxiliary Force.

1.2.2 Shore Establishment. The shore establishment consists of all activities ashore assigned to support the operating forces in terms of personnel, material, supply, and fiscal procurement; training; maintenance; and planning and operational guidance.

1.2.3 Reserve Forces

1.2.3.1 U.S. Naval Reserve. The Naval Reserve is the reserve component of the Navy, and includes those personnel who may augment the regular force, either individually or in units, to support and expand the Navy under full or partial mobilization. Included within the Naval Reserve is the Naval Reserve Force (NRF), the equipment component of the Naval Reserve — organized into operational commands of ships, aircraft squadrons, construction battalions and coastal riverine squadrons.

1.2.3.2 Inactive Reserve Fleet. The Inactive Reserve Fleet consists of ships and aircraft retired from operational status but retained under preservation for activation, including industrial refurbishment and modernization, in contingency situations.

1.2.4 Naval Fleet Auxiliary Force. Military Sealift Command (MSC) provides ships to the Naval Fleet Auxiliary Force. In general, these are mobile logistics type and support type ships (e.g., TAO, TATF, TAP) which operate under operational control (OPCON) of the FLTCINCs and are manned with civilian crews.

1.3 FLEET CONTROL OF FORCES

All of the fleet operating forces of the U.S. Navy, consisting of staffs and commissioned ships and aircraft squadrons, are administratively assigned by the Chief of Naval Operations to the Atlantic and Pacific Fleet Commanders in Chief (FLTCINCs).

1.3.1 Administrative Control (ADCON). Administrative control (ADCON) of individual commands is normally further delegated from the Atlantic and Pacific FLTCINCs to the Type Commanders (TYCOMs). A Type Command is an administrative subdivision of a fleet into ships or units of the same type, as differentiated from a tactical subdivision.

1.3.2 Operational Control (OPCON). Operational control of the naval operating forces is exercised by the Commanders of the Unified Commands (CINCs: CINCLANT, CINCPAC, and CINCEUR), under the Unified Command Plan (UCP). The responsibility for OPCON is normally delegated through the Naval Component Commanders (CINCLANTFLT, CINCPACFLT, and CINCUSNAVEUR) to the Type Commander or to an Operational Fleet Commander (OPFLT).

1.4 OPERATIONAL STATUS

All units in the operating forces are categorized as being Command Operationally Ready (COR) or Command Not Operationally Ready (CNOR). The FLTCINC monitors the status of the ships, including the assigned aviation detachments of air capable ships, and land-based aircraft squadrons through review and quality assurance of all pertinent data including the following reports: Navy Forces Status (NAVFORSTAT), Casualty (CASREP), Movement (MOVREP) and Employment Schedule (EMPSKD). The relationship between C-ratings as reported in NAVFORSTAT and COR/CNOR status is that the overall C-ratings of C-1, C-2, and C-3 correspond to COR, and C-4 corresponds to CNOR. C-ratings are described in detail in Section 2.4.1.1 and 2.4.1.2. In the context of command operational readiness, Marine units embarked in amphibious ships should not be reported as part of the ship's readiness.

1.4.1 Command Operationally Ready (COR). When COR, the unit is capable of conducting underway operations in support of general war plans. The determination of operational status must be flexible enough to accommodate differences in design capabilities within types, and to recognize that ships with material casualties or personnel shortages, which reduce but do not eliminate required mission capabilities (C-2 and C-3) can still carry out operational tasks which contribute to the effective accomplishment of the FLTCINC's responsibilities.

1.4.1.1 Assignment and Readiness. COR units must be reporting an overall C-rating of C-1, C-2, or C-3 and, based on FLTCINC judgment, able to support their mission as required by the general war plans. Maintenance on units reporting C-1, C-2, or C-3 which requires more than 96 hours to complete may be scheduled and the units remain C-1, C-2, or C-3 provided that the personnel can be recalled in time to have the unit RFS in 96 hours.

1.4.2 Command Not Operationally Ready (CNOR). A unit is CNOR when it does not meet the requirements to be COR.

1.4.2.1 Assignment and Readiness. Commands CNOR are normally assigned to the OPCON of the Type Commander who is responsible for conducting the training and maintenance required for the unit to attain COR status.

1.4.2.2 Training. Basic training is that required to attain the level of basic mission capability necessary to achieve COR status. It includes FAST cruises, sea trials, shakedown, work up, and type training as required. Type training is included in basic training but is also conducted by operationally ready ships as required to maintain basic proficiencies.

CHAPTER 2

Readiness

2.1 UNIT READINESS

Operational readiness in specific terms of naval usage derived from JCS Pub 1 is the capability of a unit or ship to perform the missions or functions for which it was organized or designed. The term may be used in a general sense or to express a level or degree of readiness.

2.2 FLEET READINESS

In its broadest sense, fleet readiness is the degree to which the force is ready to carry out its mission to wage prompt and sustained combat at sea. Supporting military strategy involves not only having units properly manned, trained, equipped and supported, but also deployed to positions from which they may be able to best support U.S. interests and rapidly engage potential enemies, if required. The U.S. Navy's ability to respond to national tasking is reflected in the percentages of the fleet that are deployed, immediately available for deployment, and subsequently available for deployment upon the completion of scheduled maintenance and training. The gradations of the factors affecting readiness (discussed below) are the essential determinants for measuring individual unit, and in turn, composite fleet preparedness for combat, regardless of deployed status.

2.3 READINESS FACTORS

Fleet readiness is comprised of personnel readiness, material readiness and training readiness.

2.3.1 Personnel Readiness. This factor refers to having the quantity of people to man the ships, squadrons, and support activities to full allowance; the quality in terms of skills required to operate and maintain the ships, aircraft, facilities and installed equipment, and the experience to provide organizational leadership and morale. Crew morale is considered an important part of personnel readiness as it impacts on the individual and group quality of effort, and the sustainability of that effort.

2.3.2 Material Readiness. This factor refers to maintenance, both scheduled and unscheduled, and logistic support.

2.3.2.1 Maintenance. Maintenance is accomplished at three levels: organizational, intermediate, and depot.

1. Organizational Maintenance — Accomplished by the crews of units when operational or, in the case of major propulsion machinery which must be non-operating for maintenance, during periods of upkeep when units are not operational. Necessary spare parts are maintained aboard ships and air stations for this purpose.

2. Intermediate Level Maintenance — Usually accomplished when the ship is not underway. It is conducted by intermediate maintenance activities, such as tenders or Shore Intermediate Maintenance Activities (SIMAs).

3. Depot Maintenance — Accomplished by shipyards. The ship may be in the shipyard, or not in the shipyard but with the shipyard workers and equipment onboard.

2.3.2.2 Logistic Support. This part of material readiness refers to furnishing spare parts for ships and aircraft to be installed at any of the three maintenance levels. Also, logistic support in the context of material readiness includes the availability of combat consumables, fuel, and ammunition carried in the ship's hull.

2.3.3 Training Readiness. Training readiness is the combining of personnel and equipment in the operation of the ship and its embarked weapons system. It is mainly achieved through operations at sea or flying hours for aircraft crews either from the ships themselves or from temporary land basing at naval air stations. The ultimate in training readiness is achieved by realistic

exercises which approximate as closely as possible combat situations. Advanced exercises usually require special facilities such as ranges for impact measurement, live firing, air combat maneuvering, and services of electronics countermeasures, targets, drones, and submarines, ships and aircraft for tracking.

2.4 READINESS MEASUREMENT

The two levels of readiness measurement are unit readiness and composite readiness.

2.4.1 Unit Readiness. Unit readiness is the degree to which an individual ship or aircraft squadron is able to accomplish its primary missions. Unit readiness measurement has two functions. First, it is the basic building block upon which further levels of composite readiness are developed. Second, through identification of deficiencies, unit readiness becomes a measure used for resource management by indicating the qualitative and quantitative requirements for the correction of those deficiencies in order to achieve readiness improvement. This function of resource management is primarily for internal naval purposes.

2.4.1.1 Navy Forces Status Report (NAVFORSTAT). The NAVFORSTAT is a component of the JCS Readiness Reporting System, and a basic means for analyzing unit readiness. In addition, the NAVFORSTAT provides information of particular interest to Navy commanders and managers. The NAVFORSTAT has three main parts: the mission area or M-rating which measures the capability of the unit to perform in each of its primary mission areas; the resource area or C-rating measuring the resource areas of personnel equipment, equipment and supplies on hand, and training; and an evaluation of the overall readiness of the ship which is made from a synthesis of the M and C-rating analyses into an overall C-rating, which is used to determine COR/CNOR status.

2.4.1.2 Overall Readiness Ratings. Overall readiness C-ratings are C-1, Fully Ready; C-2, Substantially Ready; C-3, Marginally Ready; and C-4, Not Ready. These C-ratings and the descriptive terms are standard for all Services through the JCS Readiness Reporting System. The amplifying terms, such as for the descriptor "Substantially Ready," described as minor deficiencies which are insufficient to cause the loss of any primary mission area, were written by the Navy explicitly for naval forces. The degrees of readiness, C-1 through C-4, identify those units which are ready through those which are not ready and, therefore, which need the application of additional effort and/or resources, or to complete scheduled maintenance or training.

2.4.2 Composite Readiness. Composite readiness describes the ability of an organized force to carry out its missions and tasks. Composite readiness may be described in terms of a geographic area: naval readiness in the Indian Ocean. It may be described in terms of a force readiness: readiness of the fleet ballistic missile submarine force. In the aggregate, the composite readiness of all units in the force will give an accurate picture of the active force readiness of the U.S. Navy, which is essential for strategic and operational decision making at the theater, JCS, or National Command Authorities (NCA) level. The means for displaying composite readiness is the Fleet Readiness Status Report.

2.4.2.1 Reporting System. NAVFORSTAT information, along with MOVREP, EMPSKD and CASREP data serve as the basis for the analysis of unit and composite readiness. Data from these reports comprise the Naval Status of Forces (NSOF) data base which is used in the Fleet Readiness Status Report. NSOF data are computerized and available automatically in several different formats. This system is called the Readiness Information Service. In determining composite readiness, senior operating commanders are mainly interested in the numbers, types and locations of ships which are ready or not ready. COR and CNOR are the two primary readiness status indicators established for this purpose and are presented by type, command and location in the Fleet Readiness Status Report.

2.4.2.2 Fleet Readiness Status Report. Based on data received from the FLTCINCs and subordinate commands, the Fleet Readiness Status Report is compiled in OPNAV (OP-64) and distributed daily. The purpose of the Fleet Readiness Status Report is to present a broad overview of fleet readiness.

2.4.2.2.1 Breakdown of Ready Units. The National Command Authorities and senior level operational commanders are interested in the number of ships which are operationally ready. Further, if a crisis is developing, the National Command Authorities are particularly concerned with which operationally ready units are in the geographic area of the crisis. Therefore, the first half of this report is designed to show a breakdown of ready units, by type, in geographic areas.

a. Command Operationally Ready (COR) Ships. COR ships are normally assigned to the OPCON of an operational commander. COR submarines are assigned OPCON to their TYCOM.

b. Deployed Ships. Included in the COR category are deployed ships which are normally assigned to the OPCON of COMSIXTHFLT, COMSEVENTHFLT, or COMIDEASTFOR. The length and frequency of deployment for an individual ship are limited by requirements for training, intermediate and depot level maintenance, and more practically, by crew morale considerations driven by the percentage of time out of homeport.

2.4.2.2.2 Time-Phased Deployment Availability. The second item of interest on the part of the Secretary of Defense or the Joint Chiefs of Staff would be how soon additional forces could be made ready in the case of a growing crisis. Therefore, the time-phased deployment availability is presented in the second half of this report.

a. Ships Available for Time-Phased Deployments

1. Active Forces. All active ships in the operating forces are available for phased deployment. Active ships not operationally ready can be deployed when COR status is attained.

2. Naval Reserve Forces. When mobilized and COR, Naval Reserve Force (NRF) ships can be deployed within 96 hours. NRF ships may also be temporarily assigned to an OPFLT commander during training (with reservists aboard) or with reduced manning (active duty complement) for assignments not requiring full command operational readiness.

b. Time-Phased Deployments. Time-phased deployments are further categorized into ships which can be operationally ready in: 96 hours; one month; six months; one year.

2.5 READINESS REQUIREMENTS

The attainment of a high state of readiness requires both funding and a balanced fleet employment program.

2.5.1 Funding. The funding associated with readiness is found principally in the O&M accounts where fuel, repairs, overhauls, aircraft rework, spares, fleet training, steaming days and flying hours are financed; and the MPN account which provides for manpower levels, TAD funding for schools, and rank and rate structure.

2.5.2 Balanced Employment. A properly balanced employment schedule is essential to attain high states of readiness, because the individual requirements for maintenance, training, and morale are frequently in competition with each other.

2.5.2.1 Maintenance Requirements. While some preventive maintenance can be done at sea, intermediate and depot maintenance are normally done in port.

2.5.2.2 Training Requirements. Realistic training requires a ship to be operating at sea. Some training is available ashore using simulators; however, a ship must be operating in order to take advantage of the specialized ranges for live firing, electronic warfare, and other available target services, and to participate in multi-ship training exercises.

2.5.2.3 Personnel Requirements. Morale is an extremely important aspect of readiness; morale has a significant impact on personnel readiness through the quality of individual and group effort, and retention levels. In a steady state, peacetime operating condition, it is necessary that a ship spend at least 40 to 50 percent of its total time in its homeport. With a ship in homeport 40 percent of the time, a sailor standing one watch in four will be able to go home to his family in the evening after work only 30 percent of his total days during a 4-year sea tour.

2.5.2.4 Requirement for Overseas Deployment. Despite the need for time in U.S. ports for basic training, some types of maintenance, and morale enhancement, a unit must not only be operationally ready, but also must be deployed to reach its highest state of readiness to react in a particular area. A primary advantage of deployments is that units are in better positions to respond rapidly to NCA tasking in time of need.

CHAPTER 3

Employment Cycle

3.1 EMPLOYMENT CYCLE DEFINED

The planning baseline for operating forces is the employment cycle. For ships, this cycle extends from the completion of one regular overhaul, or upon commissioning in the case of new ships, through the completion of the subsequent regular overhaul. This employment cycle is measured in months and is repetitive over the life of the ship.

3.2 SHIPS' EMPLOYMENT CYCLE

The employment cycle for ships encompasses four distinct phases: The new construction phase, the operational phase, the refit phase, and the regular overhaul phase. Phases are further subdivided into periods.

3.2.1 New Construction/Conversion Phase. This is the initial phase of a ship's employment, and includes the precommissioning, shakedown, and post shakedown availability periods.

3.2.1.1 Precommissioning Period. During this period, the ship is under construction and has not yet been commissioned. Personnel may be assigned, and the ship is administratively assigned to a Type Commander (TYCOM). The ship has not yet commenced an employment cycle.

3.2.1.2 Shakedown Period. During the shakedown period, the ship is in commission after new construction or conversion but not yet operationally ready, due principally to training deficiencies. The command is undergoing basic training under the OPCON of the TYCOM.

3.2.1.3 Post Shakedown Availability Period. In this period, the newly commissioned ship is normally undergoing depot level maintenance and is not able to carry out its mission due to the nature of the repair work. The command remains under the OPCON of the TYCOM and is CNOR.

3.2.2 Operational Phase. The operational phase initially follows the new construction phase and subsequently recurs between regular overhaul or refit phases. It includes the ready, preparation for overseas movement (POM), deployed, and post deployment leave periods.

3.2.2.1 Ready Period. In the ready period, the ship is normally COR, and assigned to the OPCON of the SECOND or THIRD Fleet Commander. Submarines and other selected units (AD, AR, ARS, ATF, NRF, etc.) are assigned to their TYCOM for OPCON. The ship is conducting intertype fleet operations and type training, primarily operating out of U.S. bases in local operating areas.

3.2.2.2 Preparation for Overseas Movement (POM) Period. During the POM period, the ship is COR and assigned to the OPCON of the SECOND or THIRD Fleet Commander. (Submarines remain assigned to their TYCOM.) The ship is in homeport, pierside, loading out and preparing for deployment. Although the ship maintains 96-hour ready-for-sea status, the ship is scheduled primarily in port to fulfill POM requirements.

3.2.2.3 Deployed Period. A ship is considered deployed when it is homeported overseas, when it is operating out of homeport for more than eight weeks, when specified as deployed by the FLTCINC or CINCUSNAVEUR, or when assigned to the operational control of COMSIXTHFLT, COMSEVENTHFLT, or COMIDEASTFOR. (Note: Although a unit must be COR to deploy, casualties or planned maintenance (in the case of overseas homeported ships) which prevent a deployed ship from getting underway in 96 hours will result in a status of deployed/CNOR.)

3.2.2.4 Post Deployment Leave Period. Post deployment leave may be granted upon return to homeport. The ship is in homeport with minimum scheduled activity and up to 50 percent of the crew may

be on leave. The ship may remain COR under OPFLT OPCON if members of the crew on leave are available for recall to meet the 96 hour RFS requirement. Crew members not on leave during this period perform their normal duties.

3.2.3 Refit Phase. The refit phase of the employment cycle follows the operational phase, normally after the deployed period. It includes the post deployment availability period, refresher training period and may include the post deployment leave period.

3.2.3.1 Leave Period. When a post deployment leave period is not scheduled in the operational phase, or is less than four weeks in duration, the initial part of the refit phase may be a scheduled leave period of two to four weeks duration. Up to 50 percent of the crew may be on leave.

3.2.3.2 Post Deployment Availability Period. In this period, the ship is normally in homeport for a maintenance availability. During the availability, the ship would probably be CNOR and under the OPCON of the TYCOM.

3.2.3.3 Refresher Training (RFT) Period. When a ship completes a post deployment availability and refresher training, it commences a new operational phase. The refresher training period consists of basic training and upkeep. In this period, the TYCOM's goal is early attainment of COR status in order that the ship may be assigned to OPFLT OPCON (except in the case of submarines) for intertype training and deployment.

3.2.4 Regular Overhaul (ROH) Phase. The ROH phase follows an operational phase, and consists of a regular overhaul period and a refresher training period. The ship is CNOR under the OPCON of the TYCOM.

3.2.4.1 Regular Overhaul (ROH) Period. In the ROH period, the ship is in a shipyard, naval or civilian, undergoing depot level maintenance. Whenever possible, the location of the ROH is scheduled in a shipyard in the vicinity of the ship's regular homeport. When ROHs are scheduled in shipyards other than regular homeports and the duration of the ROH is six months or more, the homeport may be changed to the location of the ROH shipyard. The crew is employed in ship material improvement, maintenance and training, with some training being accomplished at schools ashore.

3.2.4.2 Refresher Training (RFT) Period. When a ship completes ROH, it commences refresher training. The refresher training period consists of basic training and upkeep. In this period, the TYCOM's goal is early attainment of COR status in order that the ship may be assigned to OPFLT OPCON (except in the case of submarines) for intertype training and deployment.

3.2.5 Deployment Cycle. The deployment cycle is that period of time from the commencement of one deployment to the commencement of the next deployment. This cycle incorporates both the operational and refit phases, and is an important planning factor in the preparation of operational schedules.

3.2.5.1 Turn Around Time. Turn around time is that period beginning upon the conclusion of one deployment and ending upon commencement of the next deployment. Under normal circumstances, this period will include the entire refit phase, and the ready and POM periods of the operational phase. It is an important consideration in analyzing the feasibility of operational schedules.

3.2.6 Employment Cycle Pattern. The employment cycle would typically commence with the new construction phase, followed by the operational phase, then the refit phase. Operational and refit phases would alternate until the ship enters the regular overhaul phase to complete the first employment cycle. Subsequent cycles would run from overhaul to overhaul, alternating operational and refit phases. The length of the employment cycle is established for each class of ship, based upon the depot maintenance requirements for that class of ship. The FLTCINCs have, for each class ship, a peacetime employment cycle (model) which puts into optimum balance the requirements for maintenance, morale and training in order to maximize the fleet's potential for wartime operations. Normally, peacetime operations/deployments should not be scheduled which degrade the fleet's readiness to conduct sustained combat operations at sea. The optimized peacetime employment schedule which has as its objective maximizing combat readiness should always be the goal and guide.

3.3 AIRCRAFT EMPLOYMENT CYCLES

Aircraft employment cycles are similar to, and often parallel, the employment cycles used by ships.

3.3.1 Ship-Based Aircraft

3.3.1.1 Carrier Air Squadrons. In general, the employment cycles of carrier air wings and their integral squadrons parallel the cycle of the aircraft carrier to which they are assigned. Upon completion of the refit phase leave period, emphasis is placed on individual squadron training, including the assimilation of recently reported aircrews and aviation maintenance personnel. After approximately three months of shore-based operations as individual squadrons, coordinated carrier air wing operations are conducted during a period of concentrated weapons flights at an advanced training base. The carrier air wing is then ready to rejoin its ship at sea for the refresher training period, followed by the operational phase. During extended periods ashore, such as when an air wing's assigned aircraft carrier is in overhaul, the longer cycle is normally phased coincident to squadron transition to new aircraft, in order to complete the extensive training required in the new model aircraft.

3.3.1.2 Detachments. Other aviation units deploying aboard ship are helicopter detachments: LAMPS (Light Airborne Multipurpose System) units for antisubmarine warfare/electronic surveillance from surface combatants, and utility detachments aboard mobile logistic and support type ships for underway vertical replenishment. Their employment cycles parallel those of the ships on which they deploy; their training cycle is similar to that of other sea-going aircraft described in the preceding paragraph..

3.3.2 Land-Based Squadrons. The employment cycle for maritime patrol squadrons normally consists of a 12-month ready phase followed by a six-month deployment phase. While both operational and training evolutions are flown throughout the entire 18-month cycle, the emphasis is on training during the ready phase.

CHAPTER 4

Reports

4.1 COMPOSITE READINESS REPORTING

The proper implementation of this employment doctrine and the evaluation of fleet readiness resulting from that implementation require a system for the measurement and reporting of basic parameters. The data are required for operational planning, operations analysis, formulating readiness goals, and the measurement of progress toward readiness objectives. The particular data requirements listed below have been selected as some of those necessary to provide the Chief of Naval Operations with current information needed to realistically express to the JCS, OSD, and other high level civilian authorities the readiness level of the fleet. At this time, the data refer primarily to active commissioned ships.

4.1.1 Fleet Readiness Status Report. The information in Figure 4-1 for the unit categories of Figure 4-2 will be compiled daily from data received from the fleet through the Navy Worldwide Command and Control System and computer-generated as the Fleet Readiness Status Report. The automated report will be sent via secure facsimile to the FLTCINCs for review, verification and correction, if necessary, to ensure that each unit's reported readiness is accurate and compatible with the FLTCINC plans to use that unit in support of the general war plans. Verification, error corrections, and problems which would impact on execution of the general war plans should be reported to the Navy Department Duty Captain within 12 hours after receipt of the report.

4.1.2 Fleet Employment Planning Operational Data Report (FER). The information in Figure 4-3 for PACFLT and LANTFLT by unit categories in Figure 4-2 will be extracted from the WWMCCS data base (Source: Employment Schedule data received from the FLTCINCs) and promulgated monthly for use in planning and analysis. Similar data for individual ships are available on request.

4.1.2.1 Employment Schedule Model. FLTCINCs keep a current employment schedule model for each type ship. The employment schedule model covers normal peacetime operations and puts into optimum balance the requirements of maintenance, morale and training in order to maximize the readiness of the fleet to conduct combat operations at sea. Commitments for deployed forces are not considered in the development of the model.

Total Active Commissioned

Assigned by Fleet

Total COR: C-1, C-2, or C-3

Total CNOR: C-4

Total CNOR for scheduled maintenance or scheduled training.

CNOR ships listed by name, command and location, showing primary reason code for CNOR status and providing an estimated COR date.

Operationally Ready (COR):

East Coast, U.S. (including Caribbean waters)

North Atlantic (Europe)

South American and African waters

Mediterranean

Eastern Pacific - PACOM waters east of 140 degrees west

Mid Pacific - between 140 degrees west and the THIRDFLT/ SEVENTHFLT chop line

Western Pacific - west of chop line

Indian Ocean

Total COR/CNOR Deployed

Deployment Availability

Deployable in 96 hours

Deployable in one month

Deployable in six months

Deployable in one year

Figure 4-1. Information Compiled Daily from Fleet Readiness Status Report

Total Active Ships Assigned

Aircraft carriers (CV, CVN)
Cruisers (CG, CGN)
Destroyers (DD, DDG)
Frigates (FF, FFG)
Attack Submarines (SS, SSN)
*Ballistic Missile Submarines (SSBN)
Patrol Combatants (PG, PHM)
Amphibious Warfare (LCC, LHA, LKA, LPA, LPD, LSD, LST)
Mine Warfare (MSO)
Mobile Logistics (AD, AE, AF, AFS, AO, AOE, AOR, AR, AS)
Support (AG, AGDS, AGEH, AGF, AGFF, AGSS, ARS, ASR, ATA, ATF, ATS, AVM)
Land-Based Air Squadrons (VP)

*Some data on Ballistic Missile Submarines (SSBN) will not be included in this report.

Figure 4-2. Unit Categories (data shown in Figure 4-1 is maintained by unit categories shown in this figure).

UNDERWAY	–	Percentage of days underway at sea.
TNGANCH	–	Percentage of days spent on miscellaneous training at anchorage/anchor.
INPORT	–	Percentage of days inport.
INHOMEPORT	–	Percentage of days in assigned homeport.
UPKEEP	–	Percentage of days in upkeep.
DEPLOYED	–	Number of month (to nearest tenth) deployed.

TOTAL SHIPS

Average Months Deployed Per Ship

Figure 4-3. Information for Planning and Analysis

INDEX

	Para/ Figure	Page	Fiche Frame
A			
Administrative control (ADCON) of forces	1.3.1	II-1-1	1E10
Adversaries, potential, assessing contribution of allies of	5.2.4	I-5-2	1E1
Aircraft carriers	4.3.2.1	I-4-4	1D3
Aircraft employment cycles			
land-based squadrons	3.3.2	II-3-3	1F12
ship-based aircraft	3.3.1	II-3-3	1F12
Air power, organic	4.6.3	I-4-9	1D8
Allies of potential adversaries, assessing contribution of	5.2.4	I-5-2	1E1
Allies, overseas	2.3.3.1.2	I-2-2	1F3
Amphibious warfare	4.2.2.1	I-4-2	1D1
Amphibious warfare ships	4.3.2.5	I-4-4	1D3
Analyses, use in program development	5.3	I-5-2	1E1
Antiair warfare	4.2.2.1	I-4-2	1D1
Antisubmarine warfare	4.2.2.1	I-4-2	1D1
Anti-surface ship warfare	4.2.2.1	I-4-2	1D1
Areas, naval warfare	4.2.1	I-4-2	1D1
Assessment of force structure	5.1.1	I-5-1	1D14
	Fig. 5-1	I-5-2	1E1
Assessment of risk in program development	5.5	I-5-5	1E4
Assessment of threat, primary considerations			
contribution of allies of potential adversaries	5.2.4	I-5-3	1E2
enemy military strategy, potential	5.2.1	I-5-1	1D14
maritime threat characteristics	5.2.5	I-5-3	1E2
order of battle, current and projected	5.2.3	I-5-3	1E2
weapons systems and technology	5.2.2	I-5-3	1E2
Assessment of U.S. naval power relative to potential adversary	5.3.1	I-5-3	1E2
Attack submarine	4.3.2.3	I-4-4	1D3
Auxiliary force, naval fleet	1.2.4	II-1-1	1E10
Auxiliary ships	4.3.2.7	I-4-5	1D4
B			
Battle forces	4.5.1	I-4-5	1D4

	Para/ Figure	Page	Fiche Frame
C			
Carrier air squadrons employment cycle	3.3.1.1	II-3-3	1F12
Categories of naval forces	4.3	I-4-4	1D3
ships and craft	Fig. 4-1	I-4-6	1D5
Command, control and communications system			
requirement for	4.1.2.5	I-4-2	1D1
supporting warfare task	4.2.2.2	I-4-3	1D2
Command not operationally ready (CNOR) force	1.4.2	II-1-2	1E11
Command operationally ready (COR) force	1.4.1	II-1-2	1E11
Communication, security of sea lines of	3.3.3	I-3-3	1C8
Construction/conversion phase of ship's employment			
post shakedown availability period	3.2.1.3	II-3-1	1F10
precommissioning period	3.2.1.1	II-3-1	1F10
shakedown period	3.2.1.2	II-3-1	1F10
Cruise missiles	4.6.4	I-4-6	1D5
Cruise missiles, potential adversary			
assessing threat of	5.2.5.1	I-5-3	1E2
D			
Defensive strength of general purpose forces	4.1.2.2	I-4-1	1C14
Deficiencies in programmed forces assessing	5.3.3	I-5-4	1E3
Deployed forces overseas	3.3.2	I-3-2	1C7
	3.4.1	I-3-3	1C8
advantages of	3.4.2	I-3-3	1C8
Deployed naval forces			
advantages of	3.4.2	I-3-2	1C7
Deployment cycle	3.2.5	II-3-2	1F11
Depot maintenance	2.3.2	II-2-1	1F2
Detachment, aircraft, employment cycles	3.3.1.2	II-3-3	1F12
Deterrence of aggression	2.3.1	I-2-2	1C1
Deterrence, strategic nuclear	3.3.1	I-3-2	1C7
E			
Economic objectives of national strategy	2.1.2.2	I-2-1	1B14
Electronic warfare	4.2.2.2	I-4-2	1D1
Elements of national military strategy			
deterrence	2.3.1	I-2-2	1C1
flexible response	2.3.2	I-2-2	1C1
forward strategy	2.3.3	I-2-2	1C1
Elements of naval capability	1.3.1	I-1-1	1B6
Employment cycle pattern	3.2.6	II-3-2	1F11
Employment cycle(s)			
aircraft	3.3	II-3-2	1F11
definition	3.1	II-3-1	1F10
ship's	3.2	II-3-1	1F10

	Para/ Figure	Page	Fiche Frame
Employment of deployed naval forces flexibility of	3.4.2.2	I-3-3	1C8
Employment schedule model	4.1.2.1	II-4-1	1G2
Enemy, potential, assessing military strategy	5.2.1	I-5-1	1D14
F			
Fleet control of forces	1.3	II-1-1	1E10
Fleet readiness, current	1.4.1	I-1-4	1B9
Fleet readiness	2.2	II-2-1	1F2
Fleet Employment Planning Operational Data Report, Fleet (FER)	4.1.2	II-4-1	1G2
Fleet Readiness Status Report	2.4.2.2	II-2-2	1F3
	4.1.1	II-4-1	1G2
Flexible response by military forces	2.3.2	I-2-2	1F4
Flexibility of deployed forces			
employment	3.4.2.2	I-3-3	1C8
political	3.4.2.1	I-3-3	1C8
Force capabilities, future	1.4.2	I-1-4	1B9
	5.1.2	I-5-1	1D14
Force planning estimate	5.4.1	I-5-4	1E3
Force goal, immediate	5.4.3	I-5-4	1E3
Force structure as element of naval capability	1.3	I-1-1	1B6
Force structure assessment of naval capabilities	5.1.1	I-5-1	1D14
	Fig. 5-1	I-5-2	1E1
Force structure, future, determining	1.6	I-1-5	1B10
Forward strategy, requirements of			
deployment of forces overseas	2.3.3.1.1	I-2-2	1C1
overseas allies	2.3.3.1.2	I-2-2	1C1
Functions of U.S. Navy			
power projection	3.2.2	I-3-2	1C7
sea control	3.2.1	I-3-1	1C6
Funding, requirement for readiness	2.5.1	II-2-3	1F4
G			
General purpose forces	4.1.2	I-4-1	1C14
categorizing	4.3.2	I-4-4	1D3
H			
Homeporting, overseas	4.1.2.4.2	I-4-2	1D1
I			
Intelligence	4.2.2.2	I-4-3	1D2
Intermediate level maintenance	2.3.2	II-2-1	1F2

	Para/ Figure	Page	Fiche Frame
L			
Land-based aircraft squadrons, employment cycles	3.3.2	II-3-3	1F 12
Logistics	4.2.2.2	I-4-3	1D2
Logistic independence of general purpose forces	4.1.2.4	I-4-1	1C14
Logistic support	2.3.2	II-2-1	1F2
M			
Maritime patrol aircraft (MPA)	4.3.2.8	I-4-5	1D4
Maritime threat characteristics	5.2.5	I-5-3	1E2
Material readiness	2.3.2	II-2-1	1F2
Military strategy, national			
definition	2.2.1	I-2-2	1C1
elements of	2.3	I-2-2	1C1
Military strategy, potential enemy, assessing	5.2.1	I-5-1	1D 14
Mine warfare	4.2.2.1	I-4-2	1D1
Mine warfare ships	4.3.2.6	I-4-4	1D3
Mission of U.S. Navy			
definition	3.1.1	I-3-1	1C6
implementation	3.1.2	I-3-1	1C6
Mobility of deployed naval forces	3.4.2.3	I-3-4	1C9
Modernization, state of as element of naval capability	1.3	I-1-1	1B6
N			
National			
interests	2.1.1	I-2-1	1B 14
objectives	2.1.2	I-2-1	1B 14
National military strategy, U.S. Navy role in	3.3	I-3-2	1C7
functions of U.S. Navy	3.1	I-3-1	1C6
mission of U.S. Navy	3.1	I-3-1	1C6
Navy role in	3.3	I-3-2	1C7
overseas deployed forces	3.3.2	I-3-2	1C7
posture of naval forces	3.4	I-3-3	1C8
sea lines of communication (SLOCs) security of	3.3.3	I-3-3	1C8
strategic nuclear, deterrence	3.3.1	I-3-2	1C7
National strategy			
considerations	2.1	I-2-1	1B 14
military	2.2	I-2-2	1C1
National strategy, naval force requirements based on	4.1	I-4-1	1C14
Naval capability			
elements of	1.3.1	I-1-1	1B6
programming	1.3.2	I-1-1	1B6
Naval fleet auxiliary force	1.2.4	II-1-1	1E10

	Para/ Figure	Page	Fiche Frame
Naval forces(s)			
deployment overseas	3.4.1	I-3-3	1C8
requirements, generation of	Fig. 1-1	I-1-2	1B7
Naval forces, required capabilities and characteristics			
categorization of forces	4.3	I-4-4	1D3
naval warfare	4.2	I-4-2	1D1
organization of tactical force	4.5	I-4-5	1D4
requirements based on national strategy	4.1	I-4-1	1C14
structure of force	4-4	I-4-5	1D4
technology of naval warfare	4.6	I-4-5	1D4
Naval force structure	4.4	I-4-5	1D4
Naval force planning considerations			
fleet modernization, evolutionary nature of	1.5.3	I-1-5	1B10
planning times, long	1.5.1	I-1-4	1B9
unit cost	I-5-2	I-1-5	1B10
Naval presence	3.4.3	I-3-4	1C9
Naval reserve	1.2.3.1	II-1-1	1E10
Naval tactical force organization	4.4	I-4-5	1D4
Naval warfare			
areas	4.2.1	I-4-2	1D7
platform type capabilities for	Fig. 4-2	I-4-8	1D7
tasks	4.2.2	I-4-2	1D1
Naval warfare technology	4.6	I-4-5	1D4
Navy Forces Status Report (NAVFORSTAT)	2.4.1.1	II-2-2	1F3
Nuclear propulsion, advantages of	4.6.2	I-4-6	1D5
Nuclear deterrence strategic	3.3.1	I-3-2	1C7
Nuclear weapons, tactical	4.6.1	I-4-5	1D4

O

Objective force level	5.4.2	I-5-4	1E3
Ocean surveillance	4.2.2.2	I-4-3	1D2
Overseas			
allies	2.3.3.1.2	I-2-2	1C1
deployed U.S. forces	2.3.3.1.1	I-2-2	1C1
Overseas bases in foreign countries	4.1.2.4.1	I-4-2	1D1
Overseas deployed forces	3.3.2	I-3-2	1C7
	3.4.1	I-3-3	1C8
overseas homeporting	4.1.2.4.1	I-4-2	1D1
Offensive power of general purpose forces	4.1.2.1	I-4-1	1C14
Operating forces	1.2.1	II-1-1	1E10
Operational control (OPCON) of forces	1.3.2	II-1-1	1E10
Operational phase of ships' employment			
deployed period	3.2.2.3	II-3-1	1F10
post development leave period	3.2.2.4	II-3-1	1F10
preparation for overseas movement (POM) period	3.2.2.2	II-3-1	1F10
ready period	3.2.2.1	II-3-1	1F10

	Para/ Figure	Page	Fiche Frame
Operational status of forces	1.4	II-1-2	1E11
Organizational maintenance	2.3.2	II-2-1	1F2
Order of battle, potential enemy, assessing	5.2.3	I-5-3	1E2
Organization, naval tactical force	4.5	I-4-5	1D4
individual platform capabilities	Fig. 4-2	I-4-8	1D7
P			
Patrol combatants	4.3.2.4	I-4-4	1D3
Personnel readiness	2.3.1	II-2-1	1F2
Planning concepts			
fleet control of forces	1.3	II-1-1	1B6
operational status of forces	1.4	II-1-2	1B7
total force	1.2	II-1-1	1B6
Planning, naval force, considerations in	1-5	I-1-4	1B9
Political flexibility of deployed naval forces	3.4.2.1	I-3-3	1C8
Political objective of national strategy	2.1.2.1	I-2-1	1B14
Posture of naval forces			
advantages of deployed forces	3.4.2	I-3-3	1C8
deployment overseas	3.4.1	I-3-3	1C8
naval presence	3.4.3	I-3-4	1C9
Power projection	3.2.2	I-3-2	1C7
as part of sea control	3.2.1.4	I-3-2	1C7
Program development			
analyses	5.3	I-5-3	1E2
force levels associated with levels of risk	5.4	I-5-4	1E3
risk assessment	5.5	I-5-5	1E4
threat assessment	5.2	I-5-1	1D14
translation of requirements	5.1	I-5-1	1D14
Programmed force	5.4.4	I-5-4	1E3
Programming naval capability	1.3.2	I-1-1	1B6
Projection of power ashore by general purpose forces	4.1.2.3	I-4-1	1C14
Purpose of NWP 1	1.1	II-1-1	1E10
R			
Readiness			
fleet	2.2	II-2-1	1F2
material	2.3.2	II-2-1	1F2
measurement	2.4	II-2-2	1F3
personnel	2.3.1	II-2-1	1F2
requirements	2.5	II-2-3	1F4
units	2.1	II-2-1	1F2
Readiness as element of naval capability	1.3	I-1-1	1B6

	Para/ Figure	Page	Fiche Frame
Readiness, current fleet	1.4.1	I-1-4	1B9
Readiness measurement			
composite readiness	2.4.2	II-2-2	1F3
unit readiness	2.4.1	II-2-2	1F3
Readiness ratings, overall	2.4.1.2	II-2-2	1F3
Readiness of deployed naval forces	3.4.2.4	I-3-4	1C9
Readiness reporting, composite	4.1	II-4-1	1G2
Readiness reporting system	2.4.2.1	II-2-2	1F3
Readiness requirements			
balanced fleet employment program	2.5.2	II-2-3	1F4
funding	2.5.1	II-2-3	1F4
Reporting system, readiness	2.4.2.1	II-2-2	1F3
Refit phase of ships' employment cycle			
leave period	3.2.3.1	II-3-2	1F11
post deployment availability period	3.2.3.2	II-3-2	1F11
refresher training (RFT) period	3.2.3.3	II-3-2	1F11
Regular overhaul (ROH) phase of ships' employment cycle			
refresher training (RFT) period	3.2.4.2	II-3-2	1F11
regular overhaul (ROH) period	3.2.4.1	II-3-2	1F11
Reports, readiness			
Employment Planning Operational Data Report, Fleet (FER)	4.1.2	II-4-1	1G2
Status Report, Fleet Readiness	4.1.1	II-4-1	1G2
Reserve forces	1.2.3	II-1-1	1E10
Responsibilities of the Navy	1.4	I-1-4	1B9
Risk assessment in program development	5.5	I-5-5	1E4
Risk, measuring in program development	5.3.2	I-5-4	1E3

S

Scope of NWP 1	1.2	I-1-1	1B6
Sea control	3.2.1	I-3-1	1C6
as prerequisite for power projection	3.2.2.1	I-3-2	1C7
Sea lines of communication (SLOCs), security of	3.3.3	I-3-3	1C8
Security objectives of national strategy	2.1.2.3	I-2-1	1B14
Security of sea lines of communication (SLOCs)	3.3.3	I-3-3	1C8
Ship-based aircraft employment cycles			
carrier air squadrons	3.3.1.1	II-3-3	1F12
detachments	3.3.1.2	II-3-3	1F12
Ships' employment cycle			
deployment cycle	3.2.5	II-3-2	1F11
employment cycle pattern	3.2.6	II-3-2	1F11
new construction/conversion phase	3.2.1	II-3-1	1F10
operational phase	3.2.2	II-3-1	1F10
refit phase	3.2.3	II-3-2	1F11
regular overhaul (ROH) phase	3.2.4	II-3-2	1F11
Shore establishment	1.2.2	II-1-1	1E10

	Para/ Figure	Page	Fiche Frame
Special warfare	4.2.2.2	I-4-3	1G4
Squadron employment cycles			
carrier air	3.3.1.1	II-3-3	1F12
land-based	3.3.2	II-3-3	1F12
Strategic forces	4.1.1	I-4-1	1C14
nuclear	4.3.1	I-4-4	1D3
Strategy, national military, Navy support of			
functions of Navy	3.2	I-3-1	1C6
mission of Navy	3.1	I-3-1	1C6
posture of naval forces	3.4	I-3-3	1C8
role of Navy	3.3	I-3-2	1C7
Strategic nuclear deterrence	3.3.1	I-3-2	1C7
Strike warfare	4.2.2.1	I-4-2	1D1
Structure of naval force	4.4	I-4-5	1D4
Submarines, nuclear	4.6.2.1	I-4-6	1D5
Surface combatants	4.3.2.2	I-4-4	1D3
Surface ships, nuclear-powered	4.6.2.2	I-4-6	1D5
Surveillance systems of potential adversaries, assessing threat of	5.2.5.2	I-5-3	1E2
Sustainability as element of naval capability	1.3	I-1-1	1B6

T

Targeting, over-the-horizon (OTH-T)	4.6.4.1	I-4-7	1D6
Task forces			
battle forces	4.5.1	I-4-5	1D4
other types of ships	4.5.2	I-4-5	1D4
	Fig. 4-2	I-4-8	1D7
Tasks, naval warfare			
fundamental	4.2.2.1	I-4-2	1D1
supporting	4.2.2.2	I-4-3	1D2
Technology, naval warfare			
air power, organic	4.6.3	I-4-6	1D5
cruise missiles	4.6.4	I-4-6	1D5
nuclear propulsion	4.6.2	I-4-6	1D5
tactical nuclear weapons	4.6.1	I-4-5	1D4
Threat assessment	5.2	I-5-1	1D14
Total force of U.S. Navy			
operating forces	1.2.1	II-1-1	1E10
reserve forces	1.2.3	II-1-1	1E10
shore establishment	1.2.4	II-1-1	1E10
Training readiness	2.3.3	II-2-1	1F2
Turn around time	3.2.5.1	II-3-2	1F11

	Para/ Figure	Page	Fiche Frame
U			
Unit readiness	2.1	II-2-1	1F2
W			
Weapon systems and technology, potential enemy assessing	5.2.2	I-5-3	1E2