
NAVAL WAR COLLEGE NEWPORT PAPERS

27

U.S. Naval Strategy in the 1990s

Selected Documents



John B. Hattendorf, D.Phil., Editor

Cover

*Preparations for evening flight operations
on board the aircraft carrier USS Harry
S. Truman (CVN 75) in March 2005.*

*U.S. Navy photo by Photographer's Mate
Airman Ryan O'Connor.*

U.S. Naval Strategy in the 1990s

Selected Documents

Edited with an Introduction by
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Foreword

This collection of documents reflecting the evolution of official thinking within the United States Navy and Marine Corps during the post–Cold War era concerning the fundamental missions and strategy of the sea services is part of a larger project designed to bring greater transparency to an important dimension of our recent naval history. This project was initiated by Professor John Hattendorf with his authoritative study in Newport Paper 19, which utilized much previously classified material, of the so-called Maritime Strategy developed and promulgated by the Navy during the 1980s. In the present volume, Newport Paper 27, covering the decade of the 1990s, Professor Hattendorf assembles for the first time in a single publication all the major naval strategy and policy statements of this period. Though all are public documents, most of these statements remain very little known and relatively inaccessible, at any rate outside the Navy itself. They are also not always easy to interpret, reflecting as they often do subtle shifts in emphasis or the nuances of internal bureaucratic argument rather than broadly understandable major changes in strategic thought or practice. Accordingly, the documents are accompanied by an introductory essay that attempts to put them in the proper historical and institutional perspective, as well as by a brief commentary for each that provides additional pertinent information and attempts to assess wider significance. A second Newport Paper dealing with comparable naval strategy statements of the 1970s and 1980s, in the same format and also edited by Professor Hattendorf, is currently in preparation and is slated to appear in 2007.

It is important to bear in mind that this material is not merely of historical interest. In his address to the annual Current Strategy Forum at the Naval War College in June 2006, the Chief of Naval Operations. Adm. Michael Mullen, announced his intention to craft what he called a new “maritime strategy” geared to the contemporary and emerging global security environment. The complex and not altogether happy story of earlier efforts within the Navy along similar lines can contribute in vital ways to preparing essential groundwork for such an undertaking.



CARNES LORD

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Acknowledgments

The explanatory notes and introduction to this book of documents from the 1990s and a projected follow-on collection of similar documents from the 1970s and 1980s are adaptations and extensions of the information initially gathered by Capt. Peter M. Swartz, USN (Ret.), of The CNA Corporation, Alexandria, Virginia, which he used in developing a PowerPoint presentation on the history of the U.S. Navy's strategic documents over the thirty-six years between 1970 and 2006. The version used for reference in this work was that presented at a 27 June 2006 Strategy Conference at CNA.*

Captain Swartz presented his briefing widely, extensively circulating it during its development and garnering new insight and information at each iteration over several years. Additionally, in order to support my work in preparing this monograph, the 2006 CNA Strategy Conference devoted considerable time to the strategy documents included in this volume. I am particularly grateful to Captain Swartz for sharing with me his research materials and e-mail correspondence as well as reviewing and critiquing several drafts of this book. In addition, I thank Rear Adm. Michael McDevitt, USN (Ret.), and Christine Fox of CNA for their permission and encouragement to use and elaborate upon these materials.

In essence, the introduction and the explanatory notes in this volume are composites, attempts by the editor to reconcile the various recollections and comments of a variety of the individuals who participated in writing these documents. As such, this volume is only a limited contribution toward a complete and detailed history of naval thinking in this decade, a history written in the light of the additional documents and materials that will progressively become available for historical research and open publication.

Many people who participated in various stages of the writing and publication of these documents made constructive comments and provided additional information at the 2006 CNA Strategy Conference and in subsequent correspondence. I am grateful to all who have provided their insights at various points, whether in the development of Captain Swartz's briefing, during the 2006 CNA conference, or in subsequent e-mail correspondence with me, including: Capt. Roger Barnett, USN (Ret.), Capt. Joe Bouchard, USN (Ret.), Capt. Linton Brooks, USN (Ret.), Cdr. Mitch Brown, USN (Ret.), Capt. John Byron, USN (Ret.), Rear Adm. Bill Center, USN (Ret.), Dr. Greg Cox

* Peter M. Swartz, principal author, with graphics by Karin B. Duggin, "U.S. Navy Capstone Strategies & Concepts (1970–2006): Insights for the U.S. Navy of 2006," version of 8 June 2006.

(CNA), Cdr. Steve Deal, USN, Capt. Dick Diamond, USN (Ret.), Cdr. John Dickmann (Ret.), Capt. Will Dossel, USN (Ret.), Capt. Mike Dunaway, USN (Ret.), Dr. Norman Friedman, Dr. Hank Gaffney (CNA), Cdr. Neil Golightly, USNR (Ret.), Gia Harrington, Capt. Robby Harris, USN (Ret.), Capt. Bradd Hayes, USN (Ret.), Rear Adm. Jerry Holland, USN (Ret.), Adm. James Holloway III, USN (Ret.), Dr. Tom Hone, Kate Lea (CNA), Capt. Ed Long, USN (Ret.), Cdr. Paul Nagy, USN, Capt. Rod McDaniel, USN (Ret.), Rear Adm. Mike McDevitt, USN (Ret.) (CNA), Edward S. Miller, Capt. Judy (Holden) Myers, USN (Ret.), Rear Adm. Frank Pandolfe, USN, Dr. David Perin (CNA), Dr. Peter Perla (CNA), Hon. Robin Pirie, Dr. Bruce Powers, Dr. Mike Price (CNA), Fred Rainbow, Cdr. Steve Recca, USN (Ret.), Capt. Pat Roth, USN (Ret.), Jeffrey Sands, Capt. Brian Scott, USN, Capt. Larry Seaquist, USN (Ret.), Vice Adm. Joseph Sestak, USN, Cdr. Winton Smith, USN, Rear Adm. James Stark, USN (Ret.), Rear Adm. Joseph Strasser, USN (Ret.), Vice Adm. James Stavridis, USN, Capt. Sam Tangredi, USN, Capt. George Thibault, USN (Ret.), Vice Adm. Pat Tracey, USN (Ret.), Cdr. Jim Tritten, USN (Ret.), Dr. Scott Truver, Dr. Harlan Ullman, Cdr. Stan Weeks, USN (Ret.), Mark Werner, Maj. Gen. Tom Wilkerson, USMC (Ret.), and Capt. Robert Zalaskus, USN.

At the Naval War College, I thank Capt. Richard Suttie, USN (Ret.), and Dr. Carnes Lord, who suggested that I undertake this series of volumes for the Naval War College Press; Mrs. Alice Juda, reference librarian in the Henry Eccles Library, who provided valuable assistance in locating copies of the documents published here; and Matthew Cotnoir of Intekras, Inc. for scanning, composition, and final preparation for press.

Introduction

The decade of the 1990s represents a distinctive period in American naval strategic thinking. Bounded on one side by the end of the Cold War in 1989–91 and on the other by the beginning of the era of the global war on terrorism after 11 September 2001, these were years in which the U.S. Navy of the 1990s found itself faced with a dramatically altered strategic situation. For the first time in at least four decades, the U.S. Navy had neither a peer nor a superior naval adversary; further, no credible naval adversary could be discerned in the foreseeable future.

The Cold War, like the two world wars that preceded it, had been characterized by naval strategic situations in which there was at least one major naval power capable of contesting America's use of the seas. In all three conflicts, there had been a serious and active threat from submarines that could conceivably have blocked the U.S. Navy's access to allies around the globe and to the major overseas theaters of war. For that reason, the Navy had invested heavily in ships, submarines, aircraft, sensors, and weapons designed to meet and overcome that threat as an integral part of the U.S. Navy's operational concepts for projecting power in overseas theaters. With the dissolution of the Soviet Union, the withdrawal of the former Soviet navy, and the dispersal of the naval resources of the Warsaw Pact, that threat vanished. As a result, the U.S. Navy immediately faced questions as to what its role and functions were, what they should become in the future, and how they should be justified in terms of budget requests to Congress for the future development of naval forces. The eight documents in this collection are the key published statements that the Navy's leadership created during the 1990s to explain itself to the men and women of the Navy and, in several instances, to Congress, and to the general public.

The General Nature of the Documents

These documents have been typically characterized as being statements of the Navy's strategic concept. The use of the word "strategic" in this context raises some questions and creates a degree of semantic confusion. To clarify the issue, one must first

recognize that there are various kinds of strategies and that each are informed by differing strategic concepts. In terms of military and naval operations, a most careful definition of a strategic concept would be a statement of:

- What to control,
- For what purpose,
- To what degree,
- When to initiate control,
- How long to control, and, in general,
- How to control in order to achieve the strategic objectives.¹

This definition is clearly appropriate to a combat commander dealing with the actual employment of force to achieve a particular objective in a specific context, but the documents here were not designed for that. They have a different, but fundamentally related, purpose. One may think of these documents as dealing with concepts designed to place a large institution in a position, and with the appropriate equipment and mentality, to apply a specific operational concept when and where needed for given purposes.

To call documents such as these “strategic concepts” evokes a particular sense of the term. For the U.S. Navy, this use was emphasized in 1954 by Professor Samuel B. Huntington, who wrote, “The fundamental element of a military service is its purpose or role in implementing national policy. The statement of this role may be called the *strategic concept* of the service.”² Huntington continued, “If a military service does not possess such a concept, it becomes purposeless, it wallows about amid a variety of conflicting and confusing goals, and ultimately it suffers both physical and moral degeneration.”³ Even more pointedly for both the 1950s and the 1990s, Huntington wrote, “If a service does not possess a well-defined strategic concept, the public and the political leaders will be confused as to the role of the service, uncertain as to the necessity of its existence, and apathetic or hostile to the claims made by the service upon the resource of society.”⁴ A military service capable of meeting one threat to the national security loses its reason for existence when that threat weakens or disappears. If the service is to continue to exist, it must develop a new strategic concept related to some other security threat.⁵

While Huntington’s use of this terminology has continued in the U.S. naval service, it has continued to cause confusion and dismay among those devoted to semantic clarification and precision. The documents assembled here, though labeled “strategic concepts,” are not framed in a specific context that allows them to meet the definition of an operational strategy. In conceptual terms, they are closer to doctrine than to strategy; actually, they lie between doctrine and strategy, as strictly defined.

In general, doctrine is an abstract and general statement derived from a combination of analysis of past experience, application of broad general professional principles, and understanding of tried-and-true practical methods, along with an appreciation of the current capabilities of available equipment and the professional operators to undertake a range of specific tasks. Doctrine is generic, not placed in specific contexts, but addresses how one generally expects, or even prefers, to operate to carry out the broad missions that are likely to appear in future scenarios.

Doctrinal statements can range from very broad and general views, or they can reach down to describe particular tactical approaches. At the broader level, one must understand the U.S. Navy's traditional and distinctive views on doctrine. Traditionally, it has not accepted the views on the subject of the other American uniformed services and has been very wary of attempts to make doctrinal statements into prescribed and authoritative procedural directives. The U.S. Navy has typically regarded doctrine as general guidance to be implemented or ignored as the on-scene operational commander judges appropriate to the situation of the moment.⁶ The attitude is not unlike how naval commanders in the Age of Sail regarded orders from their home governments; the decentralized regime of that era emphasized a commander's judgment as to how prudent it was to apply those orders in the light of the situation at the scene of action.⁷ An analogous approach was taken in the U.S. Naval War College's adaptation of military doctrinal ideas in its manual *Sound Military Decision*, used in the years leading up to and during World War II. In particular, this taught a philosophy of the order form, which laid out the levels of command appropriate for issuing various categories of operational orders.⁸ The U.S. Navy has not as of 2006 published a general doctrinal manual of the kind that the Royal Navy issued in the 1990s; *Sound Military Decision* and *Naval Warfare* (the latter republished here) are its closest approaches.⁹

The documents in this collection were all designed to explain the U.S. Navy's broad purpose, role, and contribution to national defense as well as to summarize its guiding ideas and principles. The documents constitute public declaratory strategy, statements to allies and to potential adversaries, meant also to influence others within the government, including the Department of Defense and the Congress, as well as the general public. While these documents were specifically designed to inform and generally reflect the exercise of actual operational strategy, they also touch upon other strategic formulations, variously including acquisition strategy, planned employment strategy, the strategy of force architecture, and personnel education and training strategy.

These documents were typically created under the guidance of the naval service's leaders and in the Navy Department in Washington, D.C., not by the operational or contingency planners. They were creations of relatively small groups of highly intelligent and

articulate officers, working under specific guidance from different sets of senior leaders. Accordingly, each document has its own story, one that arises from the specific bureaucratic situation in which it was created. The personalities of the senior leaders involved influenced the nature of each document, as the leaders themselves reflected aspects of internal politics within the department as well as changing emphases in national politics, Department of Defense strategy, and the U.S. Navy's position relative to the other services in political terms and in competition for roles.

At first sight, it seems remarkable that in the space of a decade the U.S. Navy created and published eight different documents of this broad type. In this there is an aspect that reflects changes in leadership and the desire of individual leaders to have their own statements that defined their own tours of duty. The decade embraced two administrations with presidents of two different political parties; at the same time, there were four successive secretaries of defense, three chairmen of the Joint Chiefs of Staff, four secretaries of the Navy, and three Chiefs of Naval Operations. To a degree such new statements are a necessity, to be expected when national political administrations change, bringing with them new national defense policies, or when changes take place in the structure or nature of international politics. Yet, when one reads these eight documents together, one can discern an incremental and complementary process of development through one document to the next as the decade progressed. Compared and contrasted, side by side, the documents show on one hand a consistency in certain fundamental naval values and approaches, and on the other signs of internal debate and incomplete consensus as to what the Navy's response to the new strategic environment should be. These documents reveal shifting emphases, away from hedging against a Soviet resurgence to defining missions, resisting administration budget priorities, and surviving budget cuts. Nonetheless these documents, taken as a group, contain a common thread—an incremental, bureaucratic process during which the Navy as an institution wrestled to produce successively more comprehensive and overarching statements of purpose, values, and substantive roles, statements that attempted to be enduring as well as to be adaptive to changing circumstances.

A Changing Navy

The years between 1991 and 2000 saw the Navy gradually but steadily decline in total numbers of active warships, dropping from 526 in 1991 to 318 in 2000. At the same time, the total number of active personnel fell from 570,262 in 1991 to 373,193 in 2000.

If total force numbers were declining, however, a range of new capabilities and significant improvements were entering the Navy during the 1990s. The Trident II (D-5) intercontinental ballistic missile, capable of carrying a more sophisticated nuclear payload than its predecessor, was first deployed in USS *Tennessee* (SSBN 734) in 1990.

There followed the commissioning of USS *Arleigh Burke* (DDG 51), the lead ship in a new class of Aegis guided-missile destroyers. A substantial improvement in aerial combat capabilities was introduced with the all-weather, beyond-visual-range Advanced Medium Range Air to Air Missile (AMRAAM AIM-120A) in September 1991. Even more importantly, for communications, the Internet was effectively applied for classified purposes in the Navy with the introduction of the Secret Internet Protocol Router Network (SIPRNet) in March 1994.

In terms of organization and deployment, the Navy and all the other services were in the process of completing a series of major changes from the mid-1980s through the 1990s. The unified and specified combatant commands were first designated in the National Security Act of 1947. The unified combatant command was designed to be composed of forces from several different services, while a specified command was composed of forces from a single command. Each was headed by a commander-in-chief. Carrying on some of the organizational structures from World War II, the immediate postwar combatant commands included those that covered wide ocean areas of the Atlantic and Pacific. Further changes to organization were made in the Defense Reorganization Act of 1958, but this was only a step toward the more complete concept for joint service organization that emerged in the Goldwater-Nichols Defense Reorganization Act of 1986. Its principal thrust was to eliminate counterproductive inter-service rivalry and to try to solve the problems that had emerged in the 1970s and 1980s, when the Defense Department unsuccessfully tried to develop AirLand Battle Doctrine and its follow-on documents as the sole operational doctrine for all the services and as the central approach to joint operations. One of the most serious impediments in doing this was the command structure of the armed forces.

The Goldwater-Nichols Act created a new system in which operational commanders from all services reported to a combined arms commander-in-chief who was responsible for a single region or for a specific broad function. The 1986 Act placed the chairman of the Joint Chiefs of Staff in the key, centralized position as the principal military advisor to the President and created a new position, Vice Chairman of the Joint Chiefs. This allowed the Chairman to direct broad national strategy, but prohibited the chairman from having operational control over any of the services or of the Joint Chiefs. At the same time, the regional and functional commanders, called commanders-in-chief (or CINCs) until October 2002, obtained increased authority over the forces. The CINCs reported directly to the Secretary of Defense, not the Chairman of the Joint Chiefs of Staff, thereby emphasizing civilian control over the country's military forces.

The restructuring in 1986 created a system that allowed for a combined defense effort with integrated planning, improved interoperability, shared procurement, and routine

cooperation between the individual services. The first major combat test of this new command structure occurred during the First Gulf War in 1991.

The strengthening of the regional CINCs in 1986 and the delineation of the boundaries for the regional areas of responsibility (AOR) for each of them had an important effect on naval strategic thinking and planning. Before 1986, naval officers involved in strategic and operational planning had been used to thinking in terms of broad ocean areas as single conceptual units and the older naval organization of the Atlantic and Pacific commands had reinforced that way of thinking. The five regional commands—Atlantic Command, Southern Command, European Command, Pacific Command, and Central Command—divided up the globe among themselves with boundaries drawn between their separate AORs. The majority of these dividing lines were placed in the middle of oceans, dividing them up in ways that were quite foreign to maritime thought. At the same time, the new divisions placed land areas, not maritime theatres, as the central focus for each region, in some cases even dividing coastal areas from their related open ocean regions. While this structural change in command authority had the intended effect of increasing joint strategic and operational planning in specific geographical locations, it also had the unintended effect of making it more difficult to implement coordinated concepts for oceans—the natural geographical unit of maritime space. However, this was echoed by the geographical and regional limitations of the security threats in the late 1980s through the 1990s and mitigated somewhat by the establishment of the four additional functional unified combatant commands—Special Operations Command, Strategic Command, Transportation Command, and Space Command. Moreover, a Joint Forces Command was established in 1999, when Atlantic Command was renamed and given its new mission to focus on transformation of the U.S. armed forces through joint experimentation in effects-based operations and joint education.

Below this broad level of joint organizational change, the Navy activated a new fleet command in July 1995—the U.S. Fifth Fleet, reestablished after a hiatus of forty-eight years to operate once again in the Persian Gulf, Red Sea, and the Arabian Sea. In June 1996, the Low Altitude Navigation and Targeting Infrared for Night (LANTIRN) targeting system was delivered to Fighter Squadron 103 to give the F-14 Tomcat aircraft an improved precision-strike capability for night and adverse weather operations. A month later, three naval aviation commands were amalgamated into one—the Naval Strike and Air Warfare Center, at Naval Air Station Fallon, Nevada—to create a “center of excellence” in naval aviation training and tactical development.

“Information Technology for the 21st Century” (IT-21), launched in June 1997, a reprioritization of the Navy’s command, control, communications, and intelligence

(C4I) programs, created a personal-computer-based tactical and support warfighting network in the fleets. The first of a new class of nuclear-powered attack submarines, USS *Seawolf* (SSN 21), was commissioned that same month. At the same time, Joint Direct Attack Munitions (JDAM), converting conventional, free-falling bombs into “smart” guided weapons by adding a targeting and guidance system, were first delivered for testing in 1997 and 1998 to solve problems that had been experienced in Operation DESERT STORM at the beginning of the decade. A new and improved medium-range precision-guided missile, the Joint Stand-Off Weapon (JSOW), was deployed in January 1998. At the end of the decade, Nulka, an active missile decoy, was introduced for the protection of surface ships through the collaboration of the U.S. Navy and the Royal Australian Navy; a new over-the-horizon, all-weather cruise missile capable of automatically targeting land or sea targets, the Standoff Land Attack Missile-Expanded Response (SLAM-ER), went into service as well.

It was as these changes and innovations were taking place that the U.S. Navy published the series of eight documents presented here, as successive “capstone” explanations of its broad thinking about the direction and approach it was taking at each stage to the unfolding new strategic environment.

The Prelude within the OpNav Staff, 1989–90*

As the Cold War was coming to an end in 1989–90, a number of staff officers in the Navy Department began to develop an informal coalition to begin to think about a new vision statement for the Navy. Three key organizations were involved in this: the CNO Executive Panel (Op-00K) headed by Capt. James Stark; a number of Marine Corps colonels at Headquarters Marine Corps, including Colonel Bridger and Col. Richard Vercautin; and Capt. Richard Diamond, the founding branch chief of the Navy’s Joint Doctrine and Operations Branch (Op-617), created in 1988 as a requirement from the Goldwater-Nichols Act, and then the head of the Strategic Concepts Branch (Op-603) from February 1990 to July 1991.

The catalyst for their work in this direction began with the Navy Long-Range Planners Conference, held annually in a two-day session at the U.S. Naval Academy, which was designed to bring together the various senior staff officers who were known as Strategic thinkers, either by their reputation or by the position of responsibility they held in the Navy’s strategic planning area.

A further catalyst for thinking in this direction was the monthly Navy Discussion Group, hosted by Capt. James R. Stark after hours in his CNO Executive Panel Office to

* This section is based on Captain E. Richard Diamond, Jr., USN (Ret.), e-mail to Hattendorf, 8 September 2006. See also, Naval Historical Center, Washington: Capt. E. Richard Diamond Oral History, in preparation.

discuss issues of interest within the Navy and the Marine Corps, but doing so independently of their immediate staff responsibilities, their relative ranks, or warfare communities. This group of a dozen to twenty political-military specialists in the Washington, D.C., Navy-Marine Corps community, who were involved in working broad policy issues, called themselves “the ancient mariners,” but were more middle-aged, rather than young, Turks. The regular attendees of this group were officers such as Capt. Roger Barnett, Captain Diamond, Capt. Thomas Fargo, Capt. Spencer Johnson, Capt. Michael McDevitt, Capt. Larry Marsh, Capt. Michael Martus, Capt. Donald Pilling, Dr. David A. Rosenberg, Capt. James Stark, Capt. James Suhr, Capt. Peter Swartz, and Dr. Michael Vlahos, along with many others who came and went as their available time, personal schedules, and official assignments allowed. For many working in the political military area, this group was the key, informal gathering that created for the Navy an unseen, off-the-record, informal alliance for exchanging stimulating ideas, promoting critical thinking, and providing a backdrop for the official work of strategic planning within the Navy Department, entirely independent of direction from the top naval leadership. Another complementary informal gathering was Dr. David A. Rosenberg’s Navy Study Group in 1992–93.

On 2 February 1990, Captain Diamond relieved Capt. Michael Martus as Head, Strategic Concepts Branch (Op-603). At the same time, Vice Adm. Robert “Barney” Kelly relieved Vice Adm. Charles Larson as Deputy CNO for Plans, Policy, and Operations (Op-06). The staff within Op-06 saw a noticeable difference between the two admirals and their individual approaches to their position, with Larson stressing new policy ideas and Kelly emphasizing operational priorities. Under Kelly, Rear Admiral P. D. Smith, the Director, Strategy, Plans, and Policy Division (Op-60), sensed the need for a new briefing that senior naval flag officers could use for Washington audiences, on Capitol Hill, and at the range of public speaking opportunities that arose through invitations from organizations such as the Kiwanis Club, Rotary Club, and the Navy League. Captain Diamond and the Op-603 staff completed this as Diamond’s first assignment in Op-603, but this brief was not a replacement for the Maritime Strategy of the 1980s that was still in place.

In the absence of any tasking or guidance from the senior leadership with the Navy Department, the informal alliance of “the ancient mariners” began to take the initiative and to pose the question to each other: “So what do we do for a vision to replace the Maritime Strategy now that the Berlin wall is down and the evil Soviet empire is no more?” After several false starts in February 1990, the informal members of the Navy Discussion Group agreed to Diamond’s proposal that they form four independent, two-man concept teams of action officers, who were given one month to draft the outlines of a new strategy that they would then present to a critical audience in an off-the-

record Saturday morning meeting. The concept teams were organized to pair those with current policy outlooks with the regular OpNav group to those from outside it from think tanks and elsewhere. The teams were kept independent; members knew neither the membership of the other teams nor the ideas they were likely to bring to the discussion. Each team was given twenty minutes to brief their concept, while the assembled audience was told to discuss the various proposals and to choose the strong points from each presentation and to make a composite list of those insights.

The meeting took place on a Saturday morning in late March 1990 in the CNO's Navy Command Center in the Pentagon. It was a relatively large group that cost Diamond \$100 of his own money to pay for the juice, bagels, donuts, and coffee they consumed. Among those who attended were Rear Adm. (select) Donald Pilling from the White House staff, Rear Adm. Tim Wright from the Office of the Secretary of Defence Asia-Pacific desk, Capt. Robert Cepak from the office of the Assistant Chief of Naval Operations for Surface Warfare (Op-03), and Capt. Thomas Fargo from the office of Navy Program Planning (Op-08), among many others.

The results of this meeting produced some key concepts and themes that carried through a number of iterations and presentations in the subsequent years. With near unanimity, the group adopted Commander Joseph Sestak's phrase: "The Navy-Marine Corps team is the enabling force for follow-on joint operations." Other key ideas, the group adopted included:

- The future of the U.S. Navy is not about war at sea, but about supporting the land battle.
- The forward presence and expeditionary nature of the Navy-Marine Corps team makes it the 911 crisis response team and the enabling force for subsequent joint force operations in the world's littorals.
- Neither anti-submarine warfare (ASW) nor anti-air warfare (AAW) remain the number one missions of the Navy, but the Navy must still be able to maintain a seamless ASW/AAW shield whenever it goes in harm's way. Thus, major cuts can be made in submarines, maritime patrol air and global ASW sensors to free money to expand expeditionary and littoral capabilities.
- Emphasis on formal alliances needs to be replaced by new thinking on cultural awareness, increasing the numbers of foreign area officer (FAO) specialists and to develop a new paradigm for regional coalitions and bilateral naval cooperation.

Of the ideas agreed upon in this group, the last one proved to be one ahead of its time and one that found little support either in the fleet or among the Navy's senior leadership. The other ideas, however took hold.

At the conclusion of the March 1990 Saturday morning session, the consensus was to proceed with a small group of writers who produced a central draft vision statement and began to test it out within their various decision making chains of command, reporting back to each other and maintaining a central file of comments and suggestions for improvement. In this, the various naval officers involved worked together to try to avoid the development of diverging tracks. As far as they knew, the Navy's senior leadership was not aware of this process and had given no tasking for it. Within the Marine Corps, Commandant Gen. Alfred Gray and Lt. Gen. Carl Mundy helped to maintain active continuity for the process within the Marine Corps.

About this time another network appeared within the Navy to help develop a cross fertilization of ideas and new thinking. The Strategic Concepts Branch (Op-603) initiated a catered monthly luncheon that became known as the "Strat Lunch Program." The idea was to invite the best strategic thinkers from various agencies in the Pentagon and to have a controversial speaker whose talk might help to provoke and to correlate naval strategic thinking. The first speaker, Dr. Edward Luttwak from the Center for Strategic and International Studies (CSIS), did just that, when he spoke on the topic "Resolved: The U.S. Navy should be Abolished." This provocative topic succeeded in bringing in nine admirals among the fifty who attended the first luncheon.

In June 1990, Adm. Frank Kelso arrived in Washington for his confirmation hearings as the new Chief of Naval Operations and Op-603 worked up information to support these hearings. With Kelso came a number of officers who had been associated with the administration of Secretary of the Navy John Lehman a decade earlier. Among the key people who soon became involved in the strategy process during the early 1990s, Capt. Daniel Murphy moved from being aide to the Secretary of the Navy to executive Assistant to the new CNO and Vice Adm. Paul David Miller moved from being Executive Assistant to the Secretary of the Navy to become Deputy Chief of Naval Operations for Naval Warfare (Op-07).

Within Admiral Miller's office Commander Richard "Rick" Wright moved from the immediate office of the Secretary of the Navy, where he had been Secretary Lehman's special assistant, speechwriter, and idea man, to become Admiral Miller's key idea man and Capt. William Center emerged with a special talent for utilizing new desktop computer graphics technology to produce briefs much more efficiently and quickly than other offices in the Office of the Chief of Naval Operations. This skill eventually gave the technological edge to Admiral Miller and his staff in effectively introducing new strategic ideas to Admiral Kelso in competition with Vice Admiral Kelly, the Deputy Chief of Naval Operations for Plans, Policy, and Operations (Op-06).

The Strategic Concepts Branch (Op-603) first presented the unofficial work it had been doing on a new concept for a post–Cold War naval strategy to Vice Admiral Kelly in July 1990, while Kelly was en route to the Global War Game at the Naval War College. The briefing proposed the concept of naval support for the land battle, littoral warfare operations, and forward presence. At this point, these key concepts had been tested unofficially in a variety of ways through the various informal channels that had developed for substantive strategic discussion among staff officers and others in the Washington area.

On the way back from the 1990 Global War Game, Kelly arranged for Captain Diamond to sit between him and Vice Adm. Paul David Miller to present the briefing with paper slides as a lap brief. Miller immediately liked the concepts and noted that it needed what he termed ‘catchy graphics’ and ‘a snappy title.’ For the title, Miller suggested ‘Won if by Sea,’ but Kelly was not impressed with this twist and pun on Longfellow’s famous poem describing Paul Revere’s lantern signals to announce the British approach in 1775: ‘One if by land; two if by sea.’

Miller, however, asked Kelly to provide him with a copy of the Op-603 brief and then Miller’s Op-07 staff took the initiative and began to redevelop it. Thus, this early developmental work became an ancestor to the series of statements that were soon to follow.

“The Way Ahead”

The first of these statements was an article, “The Way Ahead,” that appeared under the names of the secretary of the Navy, H. Lawrence Garrett III, the Chief of Naval Operations, Adm. Frank B. Kelso II, and the Commandant of the Marine Corps, Gen. Alfred M. Gray, in the April 1991 issue of the U.S. Naval Institute *Proceedings*. After becoming the Chief of Naval Operations at the end of June 1990, Admiral Kelso had seen the need to embrace publicly the changes that the new strategic environment suggested. As an opening-page photo caption for the published article declared, “The way ahead for the sea services is rife with change and uncertainty. We must embrace that change and continue to cover our best as best we can.”¹⁰

On 2 August 1990, shortly after Kelso took office, President George H. W. Bush had publicly announced in a speech at the Aspen Institute the need to reduce the armed forces sharply, by 25 percent, with a corresponding change in national military strategy. The basis for this announcement had been developing since 1989 in discussions between Secretary of Defense Dick Cheney, Under Secretary of Defense for Policy Paul Wolfowitz, Chairman of the Joint Chiefs Gen. Colin Powell, and the service chiefs. The outcome of these discussions would eventually become known as “the Base Force,” which was understood as the level below which U.S. forces should not fall.¹¹ By

coincidence, Bush gave his Aspen speech on the very day that Iraq invaded Kuwait and opened the First Gulf War. Despite this new demand, however, it was already clear that the U.S. Navy would need to reduce from 526 ships to the Base Force level of 450 ships.

In the years between 1989 and 1991, the Navy Staff (particularly the Strategy and Concepts Branch, known as Op-613, the CNO Executive Panel [Op-00K], and the office of Plans Policy and Operations in Headquarters, Marine Corps) had worked closely and cooperatively to prepare updated revisions to the concepts of the Cold War–era Maritime Strategy. This thinking had been kept in the background, however, hedging against a possible Soviet naval resurgence, while Admiral Kelso, with the active cooperation of Vice Adm. Paul David Miller and General Gray, concentrated on the best way for the services to respond to the administration’s new defense policy and for the Navy Department to shape naval forces. The result was “The Way Ahead,” the first significant post–Cold War joint public statement on strategy by the Navy and the Marine Corps.

“The Way Ahead” argued that the new situation required the Navy to alter the length and pattern of its deployments, the composition of its battle groups, and the makeup of amphibious ready groups so as to meet the requirement for overseas naval presence with fewer ships. There was now a need to break up the traditional operational hubs and focus on forward presence and surge capabilities. The Navy’s new emphasis would be not an opposing navy but rather presence operations, including humanitarian assistance, nation building, security assistance, and peacekeeping, along with counter-narcotics, counterterrorism, counterinsurgency, and crisis response.

Despite unusually high-level personal endorsements—from the secretary of the Navy and the Department of the Navy’s two service chiefs—and prominent publication in the *Proceedings*, “The Way Ahead” had little impact. Its ideas proved farseeing but were to take a long time to be realized. In the meantime, General Gray retired and Admiral Miller was promoted, leaving the Pentagon arena to become Commander in Chief, U.S. Atlantic Command. The subsequent September 1991 Tailhook scandal eroded the credibility of the Navy’s leaders and diverted attention from this sort of broad vision; further, the discussion around the Base Force plan and the immediate needs of active operations overseas took precedence over long-range thinking.

The Navy Policy Book

Admiral Kelso became interested in a document that would describe the Navy’s fundamental guiding policies rather than its strategy. The new publication would complement, by addressing related issues, the already-published “The Way Ahead” and an updated version of the Maritime Strategy, available should there be a sudden resurgence of Soviet naval power.

Kelso was highly influenced by the business ideas of W. Edwards Deming (1900–93) and his thinking about “Total Quality Management,” which after its introduction in the U.S. Navy became known there as “Total Quality Leadership.”¹² Deming had been credited with improving American business production in the United States during World War II and, from the 1950s, had initiated in Japan a system of statistical process control that led to innovative production techniques in that country and, ultimately, underlay his ideas on Total Quality Management. One of Deming’s proposals was a “company’s owner’s manual” that explained to all who worked within the organization its values, basic culture, and processes.

With its explicit focus on policy and an implicit understanding that policy is the overall guide to the formulation of strategy, *The Navy Policy Book* did not attempt to create any new ideas; rather, it attempted to inculcate the ideas of Total Quality Leadership and at the same time to express the existing values, proud heritage, and principles of seapower in a manner that everyone in the Navy could understand. The document included a professional reading list that echoed and adapted the recent Marine Corps list, and it appended a general history of the Navy, written by staff members in Op-603 and the CNO Executive Panel.

Coincidentally, a few weeks before *The Navy Policy Book* appeared, the Navy’s inspector general and the Naval Investigative Service issued a controversial two-thousand-page report about the September 1991 Tailhook Association’s Thirty-Fifth Annual Symposium on Naval and Marine Corps Aviation, held in Las Vegas, Nevada, during which a reported eighty-three women and seven men had been victims of assault and sexual harassment. Naval leaders were eager to stress that the service had quite different values than this incident implied.

In general, *The Navy Policy Book* seemed to have little direct impact on the Navy, although it was cited in “. . . From the Sea.” Secretary of the Navy Garrett left office just a month after the appearance of this document, as the Tailhook scandal began to affect deeply the credibility of the Navy’s senior leadership. However, and although explicit references to Total Quality Leadership quickly faded, many of the ideas and approaches that *The Navy Policy Book* suggested have endured to the present day.

“. . . From the Sea”

By coincidence, the Naval Institute published “. . . From the Sea” in a 1993 issue in which another article reflected upon how the Navy could best get its message across. The latter’s authors, Captains Peter Swartz and John L. Byron, argued that the Navy needed “a single voice, a single strong argument and a formal presentation—to serve as the touchstone of Navy strategy, planning, resourcing, marketing, design, and

operations.”¹³ They concluded, “Multiple messages are no message at all. We must form ranks and march as one Navy, with one message and one vision. Our uncertain future hangs on it.”¹⁴

Appearing just four months after *The Navy Policy Book*, “. . . From the Sea” benefited from the arrival of a new secretary of the Navy, Sean O’Keefe. The new document was heavily influenced by thinking within the U.S. Marine Corps. It put forward key ideas about naval expeditionary forces that moved into littoral areas, conducted joint operations, and enabled other services to carry out their missions. Emphasizing that the strategic situation had changed and the Navy along with it, “. . . From the Sea” focused on strike and power projection, underscoring the use of the Tomahawk missile for surface and land attack, while downgrading antisubmarine and other campaigns designed primarily for winning and exercising sea control against an enemy force. Among fifteen specific tasks to be completed immediately, “. . . From the Sea” announced the restructuring of the Navy to carry out the new strategy, including creation of the Naval Doctrine Command, to be alternately commanded by a Navy rear admiral and a Marine major general, and of U.S. Naval Forces, Central Command. The new command, to be headed by a vice admiral, was to develop naval doctrine consistent with the new focus, creating and reorganizing procedures and organizations to meet joint expeditionary requirements more effectively, resolve sealift deficiencies, reorient intelligence from Soviet affairs to littoral threats, and restructure the Naval Reserve for immediate crisis-response and peacetime support.

Overall, “. . . From the Sea” had wide influence within and outside the Navy. It was extensively used as a basis for flag officer speeches and in testimony before Congress, and it was favorably noted by civilian defense analysts.¹⁵ At the same time, it clearly reflected how the fleet was currently operating and resonated with contemporary thinking about the Navy.

Naval Warfare, Naval Doctrine Publication 1

The Naval Doctrine Command quickly produced a number of new documents. The first, *Naval Warfare*, designed to be the basic and overarching volume of a projected series, provided a general overview of its subject. The book and series were remarkable for the U.S. Navy, in that they argued the importance of doctrine and emphasized the principles of war, both ideas that met some skepticism within the service. However, in these years the Department of Defense leadership was striving to have all the services speak the same professional language and embrace congruent understandings of warfare, in order to facilitate the development of joint warfare. In this regard, NDP-1 was modeled on its Army and Air Force counterparts, but considerably more condensed. NDP-1 was very different from most of the other documents in this volume, as it

emphasized basic principles rather than new concepts. NDP-1 contained an important statement of “maneuver warfare,” one that had been carefully coordinated with Marine Corps thinking on this subject; it discussed as well a whole range of issues, including wartime operations, deterrence, presence operations, and operations other than war. In addition, it offered a section on U.S. naval history and a professional reading list.

Outside the Navy, NDP-1 had a considerable influence that continues to this day. Readily available on the Internet, it has been used by professional military colleges at intermediate- and senior-level staff and warfare schools in other nations. In addition, it has been used by modeling and simulation specialists, as well as by civilian analysts. Within the U.S. Navy, however, *Naval Warfare* had limited impact, beyond a citation in an article on “Rethinking the Principles of War”;¹⁶ some in the service found it rambling and aimed at no clear audience but others writing in the U.S. Naval Institute *Proceedings* book review section¹⁷—such as Vice Chairman of the Joint Staffs Adm. David Jeremiah, an army colonel who held the chair of joint warfare at the Naval War College, an Air Force colonel who was commandant of the Air Command and Staff College, Dr. Scott Truver, among others—found it had a good style and appropriately echoed *Joint Publication 1*. In comparison to equivalent issuances by the other services, it had very little doctrinal substance or apparent relationship to the 1991 *Joint Warfare of the U.S. Armed Forces*, Joint Publication 1. Immediately after its publication, Admiral Kelso left office. In 1998 the Naval Doctrine Command was disestablished, many of its functions assumed by a newly created Navy Warfare Development Command (initially part of the Naval War College, later separated). The emphasis in the services on doctrine subsided after a time, many in the Navy at large remained skeptical, and significant differences in approach between the Navy and the Marine Corps persisted. A new edition of *Naval Warfare* was written and planned for publication in 2004, but it had not appeared by 2006.

“FORWARD . . . from the Sea”

Signed jointly in 1994 by Secretary of the Navy John Dalton, Chief of Naval Operations Jeremy Boorda, and Marine Corps Commandant Carl E. Mundy, Jr., “FORWARD . . . from the Sea” was widely recognized as a strategic concept. This new document built directly upon the 1992 “. . . From the Sea” but went farther by introducing new ideas and stressing the concepts of power projection, strategic nuclear deterrence, and combat-credible forward presence. In particular, in connection with forward presence, it proposed mobile sea bases to increase flexibility and encouraged thinking about how to measure effectiveness. The document reaffirmed the Navy’s traditional abilities in sea control operations, strongly emphasized its role in joint operations, and made explicit connections to changes under way with regard to the service’s budget.

“FORWARD . . . from the Sea” was widely cited and became a major resource for flag officer speeches and congressional testimony. The document was widely discussed and had contemporary influence.¹⁸ It played a role as conceptual background for the Navy’s force structure decisions and the service’s contribution to the 1995 Commission on Roles and Missions. The document had significant influence in underscoring forward presence as one of the Navy’s main missions. It satisfied naval leaders’ desire to explain what they meant by forward presence in a way that reflected current employment patterns and made sense to others in terms of national strategy.

Nonetheless, the paper was also criticized. Some critics found the effects of forward presence hard to quantify or even prove—in which case the document seemed to be making unsustainable promises about what the Navy could offer. Others pointed out that naval presence is not always necessary to enable joint-force operations. Naval presence overseas, yet others argued, downgrades readiness to surge from a home base and is costly to sustain for long periods. A number of people in the Marine Corps were concerned that “FORWARD . . . from the Sea” signaled a Navy return to a blue-water focus and away from joint expeditionary warfare. Accordingly, in doctrinal and planning matters the Marine Corps tended to emphasize the original “. . . From the Sea” rather than “FORWARD . . . from the Sea.” Finally, the Army and Air Force reacted to “FORWARD . . . from the Sea” by emphasizing and modernizing their own service contributions to joint forward presence in their presentations on Capitol Hill and within the Department of Defense as well as in their positions in the various overseas theaters. At the same time, some Army and Air Force officers denigrated the Navy’s roles beyond enabling the other services to act. They claimed that the sea services would have little to do in sustained operations once the Navy and Marine Corps had enabled the Army and Air Force to act.

In December 1995 General Mundy, now retired, published in the Naval Institute *Proceedings* an article that was to stimulate a public exchange of views that highlighted some of the tensions between the two services. Mundy’s article began under the epigraph, “Department of the Navy ‘blue’ dollars that fund some Marine Corps programs have a distressing tendency to suffer from a blue-green split that too often resembles a horse-and-rabbit stew: one horse and one rabbit. It’s time for a change.”¹⁹ Recalling the cooperative team spirit that had arisen in the drafting of “. . . From the Sea” and “Forward . . . from the Sea,” Mundy argued that determining team requirements and equitably managing and allocating team resources to meet them were problems that needed to be resolved. Responding in *Proceedings* the following month, Admiral Kelso declared that the documents were “important concepts in the post–Cold War world and give the Navy–Marine Corps team new meaning and strategy.” He continued,

They did not, however, take away a major responsibility of the Navy to ensure safe passage of our Army and Air Force by sea. We have controlled the sea lanes for so long that we take their use for

granted; but they are secure only because of the U.S. Navy. Even in the post–Cold War world, a strategic deterrence must be maintained—and much of that chore is the responsibility of the Navy. These requirements persist and cannot be ignored by the Navy. They must be considered among the total requirements of the Navy, in addition to Navy support of Marines in the littorals.²⁰

In the following month, retired rear admiral Riley D. Mixson, Director of Air Warfare in 1991–93, took up Mundy’s points with respect to Marine Corps aviation. Mixson pointed out that under the leadership of Vice Adm. William Owens as Deputy Chief of Naval Operations for Resources, Warfare Requirements, and Assessments (N-8) and of Lt. Gen. Charles Krulak as Commanding General, Marine Corps Combat Development Command, the two services had jointly taken on the task of eliminating redundancies in warfighting capabilities. This partnership, he recalled, had resulted in the establishment of a new Navy Staff division for Littoral Warfare (N-85), headed by a Marine Corps major general. In this period, Mixson wrote, emphasizing his point with italics, *“there was no paucity of Marine presence or influence in any of our budget/requirement deliberations.”*²¹

The Navy Operational Concept

The discussion and tension that arose between the Navy and the Marine Corps as a result of the perception that “Forward . . . from the Sea” signaled Navy movement away from joint warfare led Gen. Charles Krulak to suggest to the Chief of Naval Operations, Admiral Boorda, that the two services develop an overarching framework tying together “. . . From the Sea,” “Forward . . . from the Sea,” and the Marine Corps concept of “operational maneuver from the sea.” Admiral Boorda agreed, and a Navy-Marine team began work, cochaired for the Navy by Capt. Joseph Bouchard, head of the Navy Staff’s Strategy and Concepts Branch (N-513).²²

The Navy team found the project difficult, in part because the Marines did not have one single overarching concept of its own but three, all tending to justify a large Marine Corps. “Operational maneuver from the sea” was the latest, but there was also a concept for the employment of land-based, nonamphibious expeditionary forces, as well as one for sea basing, developed from an earlier idea of the Maritime Prepositioning Force. Also, it was controversial within the Navy itself. The Naval Doctrine Command saw it as a Navy Staff intrusion upon its own area of responsibility; the Deputy Chief of Naval Operations for Resources, Warfare Requirements and Assessments saw it as a Marine Corps attempt to take a larger share of the Navy Department budget; and the naval aviation community saw it as interference with its efforts to make projecting power ashore the Navy’s primary mission and acquisition of the F/A-18E/F aircraft the service’s number-one budget priority. In particular, it was thought a new “naval operating concept” might involve Admiral Boorda’s “Arsenal Ship” proposal and so divert funds from aviation programs. (The latter fear was entirely unjustified; the Strategy Concepts Branch [N-513] was looking at another concept of small, fast, expendable vessels.)

With Admiral Boorda's death in May 1996, the Navy–Marine Corps team for developing a joint naval operating concept was disbanded and the project canceled, but some of the ideas remained in circulation and carried over into a project that succeeded it. (A related project from Boorda's tenure, "Naval Vision 2010," also canceled after his death, was eventually published in 1997 as chapter 1 of the "Force 2001" annual program guide.)²³ The new Chief of Naval Operations, Adm. Jay Johnson, was well aware that the Navy had felt marginalized in Operation DESERT STORM, having declined during the Cold War to participate in the development of "AirLand Battle" joint doctrine, concentrating instead on the Maritime Strategy. Specifically, the command and control systems used in DESERT STORM had tended to emphasize the Air Force and so precluded a strong Navy role.

In thinking about a conceptual document, therefore, Admiral Johnson made clear that it was not to be a new strategy or a budgetary justification. It was instead to be an internal paper (the CNO initially expressed no interest in publishing it) that would stimulate doctrinal thinking in the Navy as a preliminary to the development of joint doctrine. Captain Bouchard was placed in charge. The completed paper, known as the "The Navy Operational Concept," affirmed "... From the Sea" and "Forward ... from the Sea" as the U.S. Navy's capstone conceptual statements. It focused not on detailed strategic exposition but on broad, operational themes—"operational maneuver from the sea" (but also amphibious operations as only one of many roles of the U.S. Navy), networked command and control, deep and precise naval fires, protection for joint and coalition forces, superior speed of command, and, notably, the idea of naval operations as a continuum, ranging from peacetime through crisis to full-scale war.

The "Navy Operational Concept" was important in that it was the first reflection of ideas that would later become known as "network-centric warfare" and also in that it provided a basis upon which the Navy could begin to reengage with the Marines in the development of a Navy–Marine Corps concept of operations. None of the flag officers to whom Admiral Johnson circulated the paper criticized its ideas, but many found them new, not the time-honored themes by which the Navy had justified its budget and its programs—inevitably a concern to those involved in the program and budgeting process, should the paper be widely circulated. As it happened, however—and although it was published in the Navy League's magazine, *Sea Power*—the paper had little effect beyond its intended purpose of stimulating thought inside the Navy.²⁴

"Anytime, Anywhere"

In contrast, "Anytime, Anywhere," published in November 1997, was designed to be a public statement of the Navy's vision of its broad roles. It too had its distant conceptual roots in the work that had been done during Admiral Boorda's tenure as Chief of Naval Operations, particularly in a series of war games on the revolution in Military Affairs

that were done for CNO and the Department of Defense Office of Net Assessment, headed by Andrew Marshall, to assess how the Navy might project power ashore. In terms of its substance, “Anytime, Anywhere” represented clear conceptual continuity with “. . . From the Sea,” “Forward . . . from the Sea” and “The Navy Operational Concept.” Declaring the U.S. Navy was able to win wars anytime, anywhere, the document stressed its ability to influence events ashore directly and decisively. The article articulated an expanded role for the Navy in national strategy. It underscored the Navy’s ability to deliver precision strikes from the sea that could foreclose an enemy’s options, to support completely a joint force ashore. It also envisioned sea-based campaigns. In addition, it hinted at, but was not explicit about, some of the concepts of network-centric warfare that would emerge later in 1997 and in 1998.

The title of the article quickly became a catch phrase. The Department of the Navy’s Posture Statement for 1998 was titled “Forward . . . from the Sea: Anytime, Anywhere.” In July 2000, the new Chief of Naval Operations, Adm. Vern Clark, used it in his first message to the fleet: “We sail anytime, anywhere as powerful representatives of American sovereignty.”²⁵

“Navy Strategic Planning Guidance”

The final document in this collection, “Navy Strategic Planning Guidance with Long Range Planning Objectives,” was published in 2000. It was designed to bridge the gap that had emerged between the Navy’s strategic and budgetary statements, in light of the presumption that strategy should be the guiding force for the programming and budgeting process.

The largest and most detailed of all the documents presented here, “Navy Strategic Planning Guidance” subsumed many ideas and statements developed earlier in the decade, merging them with and adapting them to the new concept of network-centric warfare. The document emphasized the importance of forward presence and “knowledge superiority” as the means to the desired ends of regional stability, deterrence, timely crisis response, and successful war fighting, and the resulting necessity that the Navy be able to operate in a multidimensional battle space.

“Navy Strategic Planning Guidance” was a detailed catalogue of naval warfare areas, linking them to, on one hand, broad strategic concepts and service roles, and on the other, to the Integrated Warfare Architecture (IWAR) programming process and to the Quadrennial Defense Review (QDR), which recurred every four years to examine defense priorities.

The success of “Navy Strategic Planning Guidance” was fairly modest, even if it did focus the Navy’s efforts in the 2001 QDR.²⁶ All the key people behind the paper’s creation were transferred to new positions shortly after it appeared. The new Chief of

Naval Operations, Admiral Clark, had different ideas on how to improve the Navy's programming process. Clark did not sign a proposed revision to the document completed in 2001, deciding instead to change the process and alter the organizational structure involved.

The eight documents discussed here show incremental developments as the Navy worked throughout the decade of the 1990s to develop an all-encompassing statement of a strategic concept for the its roles and missions—a process as yet incomplete in 2006. The documents here grow in breadth, range, and refinement from one to another as the U.S. Navy wrestled with the changed security environment of the 1990s. The following eight chapters reprint, respectively, the full text of each of the documents discussed here, under brief head notes that offer additional information and describe the specific circumstances surrounding the writing of each document.

Notes

1. Admiral Henry E. Eccles [Rear Adm., USN], "Strategy: The Theory and Application," *Naval War College Review* 22 (May–June 1979), pp. 11–21, quotation at p. 3.
2. Samuel P. Huntington, "National Policy and the Transoceanic Navy," U.S. Naval Institute *Proceedings* (May 1954), pp. 483–93, quote at p. 483.
3. *Ibid.*, p. 483.
4. *Ibid.*
5. *Ibid.*, p. 484.
6. See "Naval Doctrine," in *Naval History and Maritime Strategy: Collected Essays*, ed. John B. Hattendorf (Malabar, Fla.: Robert Krieger, 2000), pp. 241–51.
7. See for example, "English Governmental Machinery in the Conduct of War," in *England in the War of the Spanish Succession: A Study of the English View and Conduct of Grand Strategy, 1702–1714*, ed. John B. Hattendorf (New York and London: Garland, 1987), pp. 43–51.
8. U.S. Naval War College, *Sound Military Decision*, with an introduction by Capt. M. Frank Snyder, USN (Ret.), *Classics of Sea Power* (Annapolis, Md.: Naval Institute Press, 1992).
9. Great Britain, Defence Council, Naval Staff Directorate, *British Maritime Doctrine. BR 1806*, 2nd ed. (London: Her Majesty's Stationery Office, 1997).
10. "The Way Ahead," U.S. Naval Institute *Proceedings* (April 1991), p. 36.
11. For a detailed study of this, see Lorna S. Jaffe, *The Development of the Base Force, 1989–1992* (Washington, D.C.: Joint Historical Office, Office of the Chairman, Joint Chiefs of Staff, 1993).
12. For an exposition of these ideas, see W. Edwards Deming, *Out of the Crisis* (Cambridge: Massachusetts Institute of Technology Center for Advanced Engineering Study, 1986).
13. Peter M. Swartz and John L. Byron [Capts., USN], "Make the Word Become the Vision," U.S. Naval Institute *Proceedings* (November 1992), p. 71.
14. *Ibid.*, p. 73.
15. Bradd C. Hayes [Capt., USN], "Keeping the Naval Service Relevant," U.S. Naval Institute *Proceedings* (October 1993), pp. 57–60; William A. Owens, *High Seas: The Naval Passage to an Uncharted World* (Annapolis, Md.: Naval Institute Press, 1995); Edward A. Smith, "What '... From the Sea' Didn't Say," *Naval War College Review* 48, no. 1 (Winter 1995), pp. 9–33; Charles A. Meconis, "Main Aspects of the 'New U.S. Naval Strategy,'" in

- U.S.-Russian Naval Cooperation*, ed. Boris N. Makeev and Charles A. Meconis (Westport, Conn.: Praeger, 1996), pp. 53–67. See especially footnote 16, with numerous references to additional literature.
16. John Morgan [Vice Adm., USN], Dr. Anthony D. McIvor, and the Secretary of the Navy Action Team, “Rethinking the Principles of War,” U.S. Naval Institute *Proceedings* (October 2003), pp. 34–38.
 17. “Book Reviews,” U.S. Naval Institute *Proceedings* (December 1994), pp. 82–85.
 18. See discussions on this period, see for example, Edward Rhodes, “. . . From the Sea’ and Back Again,” *Naval War College Review* 52, no. 2 (Spring 1999), pp. 43, an earlier version of which appeared in Robert S. Wood and Pelham Boyer, eds., *Strategic Transformation and Naval Power in the 21st Century* (Newport, R.I.: Naval War College Press, 1998), pp. 307–53; Sam J. Tangredi, “Who’s Afraid of the NETF?” U.S. Naval Institute *Proceedings* (November 1999), pp. 44–47.
 19. Carl E. Mundy, Jr. [Gen., USMC (Ret.)], “Navy Marine Corps Team: Equalizing the Partnership,” U.S. Naval Institute *Proceedings* (December 1995), pp. 27–30.
 20. Frank B. Kelso II [Adm., USN, Ret.], “Comment and Discussion,” U.S. Naval Institute *Proceedings* (January 1996), pp. 13–14.
 21. Riley D. Mixson [Rear Adm., USN, Ret.], “Comment and Discussion,” U.S. Naval Institute *Proceedings* (February 1996), pp. 14, 16–18.
 22. This and the following four paragraphs are based on Capt. Joseph Bouchard, USN (Ret.), e-mail to Swartz, Fred Rainbow, Ronald R. Harris, and Hattendorf, 20 March 2006.
 23. Dr. Scott Truver e-mail to Swartz, 14 April 2006.
 24. Ibid.
 25. NavOp 09/00, Chief of Naval Operations message date-time group R222200Z JUL 00, Subj: “Assuming the Watch.”
 26. Gregory V. Cox, *Naval Defense Planning for the 21st Century: Observations from QDR 2001* (Alexandria, Va.: CNA, December 2001).

“The Way Ahead”

The U.S. Naval Institute Proceedings and the Marine Corps Gazette simultaneously published “The Way Ahead” in April 1991 as an article by Secretary of the Navy H. Lawrence Garret III, Chief of Naval Operations Adm. Frank B. Kelso II, and Commandant of the Marine Corps Gen. Alfred M. Gray, Jr. It was the U.S. Navy’s first formally published statement on strategy that attempted to look ahead beyond the Cold War, and it was the first of the four key documents that appeared during Kelso’s four years as Chief of Naval Operations, 1990–94.*

The article appeared during the very final phase of the Cold War, a year and a half after the fall of the Berlin Wall in early November 1989 and immediately after the end of Operation DESERT STORM, the First Persian Gulf War, which had only just been fought in January and February 1991. It was published before the unification of West and East Germany on 3 October 1991 and the subsequent dissolution of the Soviet Union on 25 December 1991. Appearing midway in the terms of President George H. W. Bush and Secretary of Defense Richard B. Cheney, it reflected the ideas of the new Chief of Naval Operations, Admiral Kelso, who had taken office ten months before, on 29 June 1990, and of the outgoing Commandant of the Marine Corps, General Gray, who retired three months later, on 1 July 1991.

The document reflected both the broad aspects of the changing structure of international politics and at the same time the very recent operational experience of the First Gulf War, which had demonstrated an increased operational role for the chairman of the Joint Chiefs of Staff and for the Joint Staff. In that context, the document also showed a determination on the part of both the Navy and the Marine Corps to share fully in preparing a new strategic statement. In preparing the ideas for “The Way Ahead” Kelso did not depend primarily upon the usual source for such work, the Office of the Deputy Chief of Naval Operations for Plans, Policy and Operations (Op-06), but turned instead to other colleagues with whom he had personally worked in the past—most importantly, his executive assistant, Capt. Dan Murphy, and Vice Adm. Paul David Miller, then serving as Deputy Chief of Naval Operations for Naval Warfare (Op-07). In this effort, Vice

* H. Lawrence Garrett III, Frank B. Kelso II, and A. M. Gray, “The Way Ahead,” *U.S. Naval Institute Proceedings* (April 1991), pp. 36–47; *Marine Corps Gazette* 75, no. 4 (2 April 1991), p. 1.

*Admiral Miller was the catalyst who brought all the key individuals together. Reportedly, drafts of the article were reviewed by Admiral Kelso, Admiral Miller, and General Gray sitting around the kitchen table in weekend meetings at the CNO's official residence in the Washington Navy Yard.**

The article's avowed purpose was to replace the Navy's Cold War-era Maritime Strategy, which had been formulated in the 1970s and 1980s, and to explain the rationale for the Navy's force levels in the newly emerging post-Cold War period. In particular, this document signaled a shift away from the Navy's role in blue-water antisubmarine warfare and reinforced an emphasis on its role for power projection, strikes on land targets, and direct contributions to operations ashore. ♦♦

Since the end of World War II, the United States has been the world's preeminent military power—especially at sea, where we enjoy clear maritime superiority. In achieving and maintaining this preeminence, U.S. naval forces have sailed the high seas virtually unchallenged for nearly half a century. Since 1945, most of the world's developed nations have enjoyed peace and stability, often guaranteed by U.S. maritime power.

But now the winds of change are blowing throughout the world—from Washington to New Delhi, from Moscow to Pretoria. Events since the summer of 1989 have brought a fundamental shift in the post-World War II balance of power. No longer do we have the sense of certainty that accompanies a bipolar world power structure and a central, agreed-upon threat.

It is time to challenge many of our ground rules and assumptions. Some will require revision; others must be revalidated. We must reshape naval force structure, strategy, tactics, and operating patterns that are wedded too closely to the concept of an Armageddon at sea with the Soviet Union. At the same time, we will deal increasingly with political and fiscal pressures to reduce the national debt—pressures that unquestionably will affect the level of resources available for defense in the future.

Mastering the post-Cold War challenges will require our full range of skill and knowledge as practitioners of the art of naval warfare. We must respond to new initiatives and be prepared to march in different directions. The old excuse—"Because that's the way we've always done it"—no longer will do. We must work to shape and guide the forces of change in the direction that best serves the needs of our nation. At times, this will be an arduous task, but we have a basic edge over potential adversaries in the quality of our people, whose talent and hard work have given us dominance over the high seas for nearly half a century. We must keep before us one goal: to maintain maritime

* Capt. W. Michael Dunaway, USN (Ret.), e-mail to Peter Swartz, 2 May 2005; Capt. E. Richard Diamond, Jr., (Ret.), e-mail to Hattendorf, 7 July 2006.

superiority well into the 21st century—through a Navy and Marine Corps able to meet the challenges of an uncertain future.

Even though we cannot predict with confidence exactly what the new century will be like, we know that our fundamental interests will remain unchanged. The defense of our nation, our people, and our way of life will continue to be our foremost objectives. It also will remain in our interest to contribute to the maintenance of a stable and secure world—a world that will advance the welfare of all peoples, within an environment that fosters economic development and furthers individual freedom and human rights. We live in a world that is more economically interdependent than ever, and we can never afford to retreat into isolationism.

Clearly, international turmoil, aggression, and conflict are not things of the past. Drives for regional hegemony, resurgent nationalism, ethnic and religious rivalries, drug trafficking, and terrorism are certain to challenge international order during the final decade of this century. Within developing nations, dramatic increases in population and growing dissatisfaction with the perpetual gap between rich and poor will continue to be major causes of unrest and insurgency.

As we confront tomorrow's challenges we must remember that there are things only the United States can do. As General Colin Powell, Chairman of the Joint Chiefs of Staff, has noted, the superpower shingle hangs above only one nation's door. For the United States—a maritime nation—to remain a superpower, it needs a Navy and Marine Corps that can maintain maritime power in the world's ocean and littoral areas, where this nation and its citizens have political, economic, and individual interests.

Implications of Change: National Security Policy

How will this far-reaching change affect our national security policies?

- We are likely to face increasing limitations on U.S. access and influence. Absent a Saddam Hussein as a focal point, developing nations, friends, and even allies may be reluctant to subordinate national interests to a broader common purpose.
- Another reality of the new era will be proliferation of advanced military technology and equipment. As major military powers reduce forces and pull back from forward positions, regional powers and emerging Third World nations will accelerate their acquisition of modern combat weapons and delivery platforms. These countries are arming themselves with high explosives, precision-guided munitions, sophisticated air-defense warfare systems, and guided missiles. In addition, regional powers will continue to develop and acquire the technology to pose chemical, biological, and nuclear threats. The widespread proliferation of advanced weapons—plus a

demonstrated willingness to use them—will present new challenges to U.S. interests and military forces.

- Finally, this will be a period of uncertainty. Warning signs will become increasingly ambiguous and reaction times will be shortened as the identity and motives of potential adversaries—and the timing and scenarios of threatening events—become more difficult to discern. Instead of simply facing a diminished but still-potent force of Soviet tanks and warships, we increasingly will confront new and diverse challenges to worldwide political and economic stability, from organizations and nations bent on disruption or conquest.

An Evolving Strategy

For almost half a century we focused on the possibility of global war, to be fought primarily on the European continent and in its adjacent waters. To deal with the many changes and cope with the new uncertainties, we must shift the objective of our national security strategy from containing the Soviet Union to maintaining global stability. Our evolving strategy must focus on regional contingencies in trouble spots wherever our national interests are involved.

For U.S. naval forces, this shift—from global commitment against a single threat to global commitment against a number of regional threats—poses a dilemma: What do we do with a maritime strategy formulated during the Cold War, focused primarily on global conflict with the Soviet Union? The answer: We extract the strategy's enduring principles, and apply them to current planning. The maritime strategy itself remains on the shelf, with Atlantic and Pacific operations plans as bookends, ready to be retrieved if a global threat should reemerge.

In an address at Aspen, Colorado, on 2 August 1990, President George Bush stated that U.S. defense policy must adapt to the significant changes in the world, without neglecting the enduring realities of the nation's security. The President outlined a future U.S. defense policy based on four major elements:

- Deterrence
- Forward Presence
- Crisis Response
- Force Reconstitution.

Deterrence, both nuclear and conventional, costs less than any level of conflict, and will remain the cornerstone of U.S. defense policy. Nuclear deterrence will be required as long as any country possesses the nuclear-weapon capability to strike the United States or endanger U.S. forces abroad.

Around much of the globe, the Navy and Marine Corps will be the primary means of preserving U.S. regional influence. In a time of decreasing availability of overseas bases for U.S. land and air forces, the presence of capable naval forces near areas of potential crisis remains a key element of national security. In addition to contributing to deterrence, deployed naval forces strengthen our ties with allies and demonstrate continuing U.S. commitment to maintaining world peace. If deterrence fails, forward-deployed forces guarantee timely responses at points of conflict.

Since most of the world's population lives within 50 miles of the sea, our naval power-projection capabilities will remain particularly useful in applying U.S. military might at appropriate places and times. Naval crisis response means much more than simply maintaining the capability to keep the sea lines of communication open to our allies and sources of critical materiel. We must be able to project credible military forces rapidly to meet threats posed to our interests, in places where no friendly forces-in-being exist.

Having the capability to project sea-based power is essential to the defense of these interests, most of which are found in littoral areas. To maintain stability, we must be able to influence events on land, as well. As noted earlier, the reality of declining force levels and shrinking overseas infrastructure means that our naval expeditionary forces will have to be forward-deployed and self-sustaining as they project power over or across the beach. In some cases, they may pave the way for longer-duration joint or combined operations, in which forward-deployed naval forces are present or arrive first on the scene to enable the sequential introduction of additional forces.

While our new defense strategy is geared primarily to regional threats to U.S. interests, it also must take into account the uncertainty surrounding the ongoing upheaval in the Soviet Union and Central Europe, and the capabilities of the Soviet military that we expect to remain in place during the foreseeable future. A global conflict with the Soviet Union appears to be far less likely than in the recent past, but we must preserve our ability to reconstitute adequate forces, if faced with a resurgent global threat to peace.

Combined and Joint Operations

Collective security remains central to U.S. strategy. In the past, our primary security ties and operations centered on countries with whom we maintained formal alliances. Such alliances remain a strategic necessity for the nation, but their character may differ substantially in the future. The Gulf War's allied coalition may be a harbinger of future security arrangements that will complement longstanding treaties, such as NATO. We must heighten our emphasis on combined operations and training with national forces of many regions—both to facilitate cooperation and coordination with them and to maintain our own expertise in likely operating environments.

Joint power-projection operations will be required to protect worldwide U.S. interests. When each service fulfills its respective role, we can capitalize on synergistic capabilities that stem from decades of organizational focus and institutional ethos.

The unique missions and functional capabilities of the services are intended to be complementary, enabling, and enhancing, and they provide us with the means to generate the greatest total combat capability in the shortest time. Operations DESERT SHIELD and DESERT STORM will serve as prototypes for future joint operations. During the DESERT SHIELD buildup in Southwest Asia, we demonstrated the enabling role of maritime forces. Forward-deployed naval forces already on scene were augmented within days by two carrier battle groups, a Marine Expeditionary Force, the Air Force's 1st Tactical Fighter Wing, and paratroopers from the Army's 82d Airborne Division. These forces contributed to the initial defense of Saudi Arabia and covered the subsequent arrival of additional ground and air units. U.S. Navy warships maintained sea control and enforced United Nations sanctions throughout the buildup period. Naval capabilities, which complemented those of allied air and ground forces, were integrated fully into theater-wide planning before hostilities commenced.

But as ongoing developments in both the Soviet Union and Southwest Asia demonstrate, it is difficult to foresee the course of future events. Replays of Operations DESERT SHIELD and DESERT STORM certainly are not the only scenarios we expect to see in the 1990s, so we must maintain prudent hedges against uncertainty. Accordingly, maritime forces will continue to be required to establish and maintain the sea control essential to power projection operations, whenever and wherever they are necessary. Battle space will be more complex. Control of the air, sea, and undersea environments, essential to successful military operations on land, will take on a different character but certainly will be as complex as maintaining control in an open-ocean environment. Sensors and communications systems designed for blue-water operations may not work as well in confined areas, shallow seas, or over land. The threats posed by small coastal-patrol boats, shore-launched cruise missiles, and shallow-water mines will present new challenges to our operators. Quick-reaction combat capabilities and the ability to maintain an accurate and timely tactical picture will be critical for operational success in these non-ocean areas.

Changing Employment/Deployment Concepts

Forward deployment of naval forces in peacetime promotes regional stability by demonstrating continuity of commitment, strengthening friendships, enhancing readiness, and reducing reaction time in crises. Nonetheless, the realities of the post-Berlin Wall era cause us to rethink our employment and deployment concepts.

In the coming decade, naval forces will be called upon to conduct a wide variety of missions: from peacetime situations through crisis to conflict resolution. Many of these missions, such as strategic deterrence and protection of American lives and property, have been with us for years. Others—such as presence; humanitarian assistance; nation-building; security assistance; and peacekeeping, counternarcotic, counter-terrorist, counterinsurgency, and crisis-response operations—will receive new emphasis as we focus our efforts on developing and maintaining regional stability.

It is not easy to determine just how much presence may be required in a given region at a given time. It is clear, though, we no longer can rely on the Cold War's deployment data base. It is also clear that gaps in presence can lead to instability, power vacuums, and regional perceptions of lack of interest or disengagement by the United States, whether accurate or not.

Meeting our presence requirements with fewer assets calls for full exploitation of the mobility and flexibility of our naval expeditionary forces. That means new patterns in length and location of deployments, as well as in the composition of carrier battle groups and amphibious ready groups. The crisis-action and deterrent-force modules recently developed by the Marine Corps are examples of the kind of flexibility that is needed.

From the Korean War until the end of the 1980s we concentrated our operations in deployment hubs, where American and Soviet interests overlapped at likely points of crisis. The changes occurring in our security environment will require us to break out of these hubs. Fortunately, changes in U.S.-Soviet political and military relations will allow greater freedom for operations in broader, less-rigid zones of national interest.

At the same time, reduced superpower friction enables differing configurations of naval forces to meet specific regional requirements. Recent operations off the coasts of Liberia and Somalia, for example, were executed successfully by a task force composed of amphibious ships, a Marine special-purpose force, and surface combatants. To respond effectively to larger crises, however, we need carrier aviation and forcible-entry power, together with credible surge capability. U.S. naval force levels in and around the Persian Gulf rose from a handful of ships on 2 August to more than 100, following the Iraqi invasion of Kuwait. The force included six aircraft carriers, 30-plus amphibious ships, dozens of surface combatants, and several attack submarines. The Marine Corps deployed more than 90,000 active-duty and Reserve Marines to the region—either ashore or afloat. Concurrently, naval forces continued their presence operations in the Mediterranean, Western Pacific, around the Philippines, and off Central and South America, to provide support to U.S. and allied interests in those regions.

In the future, the need for focused forward presence and credible surge capability—more than historical deployment patterns—will dictate peacetime employment of naval forces.

Changing Force Capabilities and Structure

To meet the demands of our national security strategy, we need naval forces that possess a wide range of capabilities. These must include: sea-based strategic forces, for continued deterrence of nuclear attack; surge forces that can react rapidly to any crisis; forward-deployed expeditionary forces capable of going anywhere, with full logistic, medical, and repair support; and a sea-based maritime prepositioned force.

By maintaining a credible Trident submarine force, we will have a modern, survivable, and potent sea-based strategic deterrent capability well into the next century. At the same time, our attack submarine force will retain the numbers and capability needed to hold at risk sea-based strategic platforms able to threaten the United States. We cannot discount the major open-ocean warfighting potential of the Soviet submarine force, which has yet to experience any downturn in production rates or technological developments. Threat of its use could reemerge quickly, should the intentions of the Soviet leadership change—so we can never afford to cede our current technological edge in submarines and antisubmarine warfare.

Preserving our edge does not require a massive building program. Continuation of our current attack submarine force through its programmed service life, together with a construction program to maintain our industrial base for building submarines, will allow us to retain a credible attack submarine force into the next century. Freed from a nearly full-time requirement to train for ASW in far-forward areas, this force now can be available for more regional power-projection and support missions.

Our carrier battle groups and amphibious ready groups are the cornerstones of our forward deployed forces, and will remain so. These supremely independent forces can be tailored to include varying numbers and mixes of tactical aircraft, surface combatants, submarines, logistic support ships, and Marine air-ground task forces. They can be tasked on short notice to conduct combat operations—for extended periods—anywhere in the world.

During the 1990s, we expect to adjust the composition of our carrier battle groups and amphibious ready groups routinely, to suit specific situations. Untethered from the earlier predominant concern with the global war-at-sea scenario, we have new flexibility to shape our combat punch to prescribed missions and expected threats. Often, we will be operating with smaller battle groups, particularly as our older surface combatants are replaced by fewer—but more capable—cruisers, amphibious ships, and destroyers.

Adding the newest generation of strike aircraft to the air wing, just after the turn of the century, will enhance our capability significantly. But improved capability never will be a substitute for adequate numbers. A single unit still cannot be in two places at one time. We must have enough carriers, amphibious ships, and surface combatants to maintain focused, forward, simultaneous peacetime presence in several regions—along with a surge capability to respond to larger crises.

Complementing carrier air power is the formidable firepower distributed through our modern surface combatants and attack submarines. Major advances in weapons technology have brought longer ranges and greater accuracy in weapons and combat systems small enough to be employed from a variety of platforms, making it possible to disperse a significant amount of firepower. The effective employment of Tomahawk missiles against Iraq from battleships, attack submarines, cruisers, and destroyers is a precursor of the multi-mission utility we must continue to emphasize in the future.

Our need to exploit the tactical advantages and flexibility of distributed firepower with sophisticated, state-of-the-art weapons does not obviate the need for guns and other less-complex weapons. We must continue to distribute all forms of striking firepower among many platforms, to give our war fighters a menu of complex and simple weapon systems of varying capabilities and costs. Longer ranges, complex employment considerations, and a wider variety of available weapons will bring renewed emphasis on tactics and techniques, fully as important as firepower itself.

Distributed firepower expands our capability to project power landward. But controlling events ashore ultimately means putting warriors over the beach with the capability to do what must be done. The flexibility inherent within the Marine Corps's force structure of three active (and one reserve) divisions, three active (and one reserve) air wings, and three active (and one reserve) force service support groups—formed into Marine Expeditionary Forces (MEFs)—provides warfighting commanders with a wide range of military capabilities. Our existing MEFs provide a reservoir of integrated combined arms power from which Marine air-ground task forces (MAGTFs)—all special-operations capable—can be task organized to execute simultaneously a wide range of missions around the globe.

All MAGTFs are fully prepared to deploy rapidly by a variety of means. Using amphibious shipping, strategic sealift, strategic airlift, or maritime prepositioned ships, these expeditionary forces are light enough to get where needed and heavy enough to win. More importantly, they arrive capable of conducting sustained combat operations. Taking advantage of the synergistic combat capability resulting from the integration of ground combat, air combat, and combat service support elements under a single commander, a variety of MAGTFs can be formed. Each MAGTF,

regardless of size, is a self-sustaining, fully combat-capable force able to operate either independently or as a part of a joint task force. Each also possesses the command and control capabilities needed to form a command element for joint and combined operations.

Marine Expeditionary Forces are the Corps's principal organization for combat and peacetime preparedness. Today, drawing upon the forces assigned to the MEFs within the Atlantic and Pacific commands and Selected Marine Corps Reserve forces, two task-organized MEFs have been committed to Operation DESERT STORM. Ashore is the I Marine Expeditionary Force, which because of its size and composition is, in essence, a Marine Expeditionary Corps. It is composed of the 1st and 2d Marine Divisions (Reinforced), the 3d Marine Aircraft Wing (Reinforced), and the 1st and 2d Force Service Support Groups, four naval construction battalions, and an Army armored brigade. Additionally, a MEF afloat has been formed by combining two Marine Expeditionary Brigades and one Marine Expeditionary Unit.

Marine Expeditionary Brigades (MEBs) are designed specifically to deploy by a variety of means. They are capable of conducting sustained operations, and they also are the lead elements for larger Marine expeditionary forces. The rapid buildup of combined-arms power demonstrated during Operation DESERT SHIELD resulted from this capability. Two MEBs deployed by strategic airlift and married up with equipment and supplies brought into the theater by two squadrons of maritime prepositioning ships. In addition, two other MEBs deployed to the region on board amphibious shipping. These forces became the lead elements of the MEFs currently serving in Operation DESERT STORM.

Marine Expeditionary Units (MEUs) are forward deployed routinely to maintain influence and enhance stability in regions of interest. Afloat in task-organized amphibious ready groups, these MEUs represent our nation's on-scene, immediately responsive amphibious power-projection capability. MEUs routinely deploy with a special-operations capability. The 22d MEU recently was tasked with providing security for the U.S. Embassy and the evacuation of threatened U.S. and foreign citizens and diplomats in Liberia.

Special-Purpose MAGTFs are configured to accomplish specific missions. These MAGTFs are organized, trained, and equipped to conduct a wide range of conventional and unconventional operations. They can deploy by a variety of means and normally are composed of Marines and sailors who are highly trained in both day and night operations, to include raids and strike operations. Recently, a Special-Purpose MAGTF was formed from amphibious forces in Southwest Asia to respond rapidly to the unexpected crisis in Somalia. Two amphibious ships were detached from the task force

operating in the Persian Gulf and raced to the crisis area. Four hundred and sixty miles from the objective, two helicopters loaded with a special-purpose force were launched. They were refueled in-flight by Marine aircraft. This force was able to reach Somalia in time to protect and evacuate threatened American and foreign citizens, before returning to the Persian Gulf to continue with its other mission.

Any consideration of conducting naval operations in shallow waters along the world's littorals raises the specter of mines. In the maritime environment of the 1990s, we will have to be proficient in mine warfare, both offensive and defensive. On the offensive, our P-3 aircraft and Air Force B-52s can carry large quantities of mines over long distances and place them with accuracy. Tactical carrier-based and Marine aircraft also can deliver mines, as part of a coordinated air strike. Our submarines can plant mines in heavily defended areas and then engage ships with torpedoes or cruise missiles, as they try to evade the mine fields.

We have focused most of our mine warfare efforts in the area of countermeasures. Our helicopter and surface mine countermeasures forces are getting better all the time, but we face new challenges as mine technology spreads worldwide. Shallow-water mines, for example—readily available at low cost—are simple weapons easily employed by potential adversaries. In the 1990s, we will continue to explore and develop new technologies, including laser mine detection and the use of remotely piloted underwater vehicles for locating and neutralizing naval mines. Our surface mine-countermeasures force, manned by both active and reserve personnel employing these new technologies, will be a vital part of our balanced naval force.

An equally vital—though until recently less-noticed—contribution to our maritime power is strategic sealift. During the first 60 days of Operation DESERT SHIELD, 85% of all cargo sent into the Persian Gulf theater moved by sea. We have long recognized that strategic sealift would be a critical component of our maritime force structure in the 1990s, and we were ready for the challenge.

Over the past ten years, we have spent more than \$7 billion on sealift. Our sealift force numbers 130 ships, including eight fast-sealift ships capable of meeting demanding, high-speed schedules, as they carry vital materials for forces airlifted to the scene of action. We expect to add to our inventory over the next few years.

The current shipping pool is sufficient for scenarios with long warning times, but even large numbers of fast-sealift ships would be insufficient for most short-warning scenarios. This is why we have maintained three sets of prepositioned equipment and sustainability on 13 naval ships, with each set capable of equipping and sustaining a Marine Expeditionary Brigade. All of these equipment sets, together with the Marines who use them, are now in Saudi Arabia. This prepositioning program proved its worth

despite the short warning time and long distances of Operation DESERT SHIELD. No matter what the mode of transportation, however, sea and air superiority are the keys to our ability to deliver materials when and where needed.

Preserving our leadership base is more important to our ability to maintain maritime superiority than any category of weapon systems or delivery platforms. A professional officer and enlisted leadership core is essential for any combat-ready military force. Rebuilding an educated, trained, and experienced cadre of professional leaders takes a great deal of time, and is far more difficult than rebuilding force structure.

Training and education will be top priorities in the 1990s. In a constrained fiscal environment, a well-trained and educated force will provide the highest payoff for our investment. Professionalism will remain our primary force-multiplier. As the threats we face become more capable and more technologically sophisticated, shrinking both battle space and reaction time, we will not have the luxury of a practice shot; we will have to do things right the first time.

In addition to the appropriate mix of skills and experience levels our personnel force will require in the 1990s, we also will need the right mix of active and reserve forces. As specified in Title 10, U.S. Code, reserve forces exist to buttress active forces in times of war or national emergency, and when other exigencies demand. The value of a ready, trained reserve component is being demonstrated dramatically in Operation DESERT STORM. Navy and Marine Corps Reserve personnel have responded superbly, and are integrated into our force structure to enhance not only our capability in Southwest Asia, but also our capability to maintain presence and respond to crises in other regions of the world. We will continue to need the reserves.

Since we now anticipate additional warning time with respect to global threats, we can best use shrinking resources by planning for phased mobilization of those reserves needed to augment regular forces in the event of major East-West conflict. Toward that end, we are transferring roughly 25% of our current inventory of surface combatants, the *Knox* (FF-1052) class frigates, to the reserves. Most of these frigates, primarily designed for the ASW convoy mission, will be placed in reduced availability (ready for full duty in 180 days), with operating time devoted exclusively to Selected Reserve training.

The Navy of the 1990s and Beyond

How big a force do we need?

The size of our force will be determined by the following three criteria:

- We need a force capable of supporting the President's national security strategy. We must be able to maintain forward deployments and be able to reinforce in the event

of a regional contingency. We also must retain sufficient strategic forces to deter a resurgent global threat.

- We need a force that can sustain the level of readiness and response capability required to implement that strategy. To sustain that level of readiness, our ships, submarines, and aircraft must be well-maintained and combat ready. Sufficient time and resources must be allocated for overhaul and maintenance. We also must afford opportunities for adequate basic and advanced training in a realistic, stressful environment.
- Our people remain the strong foundation upon which our maritime strength is built. We must continue to attract and retain the best of our nation's youth. To do that we must operate our force in a way that provides our sailors and Marines a decent, realistic quality of life—beginning with stable sea and shore rotation patterns. Current guidelines concerning the time sailors and Marines are away from home port must be followed, even while force structure shrinks. We also must provide them adequate time for maintenance and training. Our sailors and Marines must continue to have confidence in their ships, their equipment, and their shipmates.

With these criteria, we can size our balanced total force for the future at about 450 active and reserve ships, plus three active and one reserve Marine division/wing teams (Marine expeditionary forces). Plans to achieve necessary reductions are in place. We will get smaller in a rational way. And, we remain committed to building a force that will provide a realistic and affordable margin of security for our nation.

With a smaller force, we will find it harder and harder to maintain the wide balance of capabilities required to counter sudden, unexpected geopolitical challenges and newly emerging threats or capabilities. There are clearly increased risks associated with a 25% reduction in our naval forces. Given the fiscal realities of the coming decade, a force adequate to meet our quality-of-life goals during routine peacetime operations likely would be unable to support a regional crisis or conflict for more than a few months without major departure from the preferred rotation and deployment policies. High-tempo operations will be even more difficult to sustain. Smaller forces will be less well-balanced, will have less surge capability, and will be less able to respond in a timely manner. This will place a premium on early political decisions. We must be careful not to encourage, by untimely absence, anyone who might seek to fill a perceived power vacuum or exploit an apparent weakness in our force structure.

Moving into the 20th century's last decade, the naval forces of the United States have adapted rapidly to the dramatic changes of the past year—and stand poised in anticipation of changes yet to come. The forces that U.S. taxpayers bought over the past

decade have served us well; most will still be with us, forming the backbone of the fleet, well into the new century.

As we anticipate the changes and challenges that lie ahead, our efforts will be focused on several key areas:

- *Training and education*, because they are our primary force multipliers
- *Joint and combined operations*, because they generate the greatest combat capability in the shortest time
- *Power projection*, because it is the key to successful implementation of a stability strategy
- *Deployment flexibility*, because we must make adjustments to get the job done with a smaller force
- *Surge capability*, because a premium will be placed on getting adequate combat power rapidly to the scene of action.

We also must continue to ensure that, as technology evolves, we employ it to our best advantage, and have the capability to counter developments by others, if required. The technological gap between our systems and those of potential adversaries most likely will narrow, but we must never lose our comparative advantage.

We must match technology to the battle space of the future, keeping in mind that many of our platforms will spend three or more decades in active service. Low observables, improved weapon seekers, remotely piloted vehicles, netted high-speed computers, and multi-dimensional electronic warfare and command, control, and communications systems are some of the promising areas we are exploring actively.

An affordable technological advantage is essential to successful implementation of our national strategy. The fiscal realities of the 1990s have made affordability an ever more important factor in sustaining our maritime strength. To meet this challenge, we have initiated a top-down Total Quality Leadership approach throughout the Navy and Marine Corps. Our goal is to strive for continuous improvements, in order to provide the best affordable mix of forces and capabilities and to maintain those forces in a high state of readiness, able to get the job done right the first time.

New developments—as dramatic and unforeseen as those capturing our attention and imagination over the past year—surely lie ahead. But as ongoing events in the Soviet Union and Southwest Asia demonstrate, the future may not be as different from the past as we once hoped it might be.

In the years ahead our nation's leaders still will find naval forces just as useful, just as necessary, and just as important as they have been so often during the years of the Cold War. In peacetime, crisis, or conflict, naval forces will continue to serve our nation and

our national leadership through a wide range of roles and military options, from sensitive representation to massive retaliation. They will continue to provide a stabilizing forward presence, protecting U.S. lives and property, and safeguarding the commerce of our maritime nation. They will continue to demonstrate America's resolve, forestalling or punishing hostile acts, and, if required, engaging in combat.

Naval forces have a staying power and mix of capabilities unique to our nation's armed forces. Independent of political access or foreign bases, they have the capability to act swiftly and decisively anywhere in the world—through unilateral action, joint U.S. forces operations, or as part of a coalition of allies.

Future large-scale regional deployments, like Operations DESERT SHIELD and DESERT STORM, necessarily will be joint-service efforts. Naval forces, complementing and enhancing the capabilities of the other services, will serve as enabling and participatory elements, making possible rapid and effective concentration of the country's power in support of our national interests and security policies—anywhere.

The task before us—one which needs to be kept in clear focus more than at any time in the last four decades—is to avoid relearning the lessons of the past as we adjust to the geopolitical and fiscal realities of the present and prepare for the future. This future, regardless of its uncertainty, will still require the United States to have a Navy and Marine Corps of sufficient size, quality, and capability to ensure freedom of the seas and the application of naval power, to maintain peace and stability wherever our national interests lie.

The Navy Policy Book

The Navy Department published The Navy Policy Book in May 1992, with a statement of purpose signed by the secretary of the Navy, H. Lawrence Garrett, and the Chief of Naval Operations, Admiral Kelso. The unclassified, forty-three-page illustrated pamphlet was distributed throughout the U.S. Navy. The publication was designed to summarize what the Navy was all about. It stated the Navy's main values and its enduring broad principles, not to make a statement of any new policies or strategic concepts but to try to establish a common, Navywide understanding of leadership principles and management approaches.

*The second of the four documents published during Admiral Kelso's tenure, this pamphlet appeared just a year after "The Way Ahead," in the last half of the four-year administration of President George H. W. Bush and Secretary of Defense Richard Cheney, and shortly before Secretary Garrett left office on 26 June 1992. This was a time when the chairman of the Joint Chiefs of Staff, Gen. Colin Powell, was promoting the concept of a flexible "Base Force" to meet a variety of far-flung threats, in the place of concentrating on the single threat that the communist block had created during the Cold War era.**

The Navy Policy Book reflected Admiral Kelso's conviction that the service needed basic policy. In developing the original concept for this publication, Admiral Kelso hoped to institutionalize within the Navy an adaptation of the leadership approach that W. Edwards Deming had developed in the business world, "Total Quality Management" (TQM), later known as "Total Quality Leadership" (TQL), in the Navy. Notwithstanding the contemporary Tailhook scandal, this publication was designed to show that, as an organization, the U.S. Navy was committed to accountability, responsibility, ethical conduct, and good stewardship. Its purpose was to explain to everyone with the service what the Navy was about and how it went about its business.

In starting off the process of writing this document, Admiral Kelso called in Capt. James Stark, head of the CNO Executive Panel (N-00K), and told him that the United Parcel Service (UPS) Company had a manual that he wanted to use in adapting Deming's

* See, for example, Colin L. Powell [Gen., USA], "U.S. Forces: Challenges Ahead," *Foreign Affairs* 71, no. 5 (Winter 1992/1993), pp. 32–45.

ideas for the Navy. Stark immediately attempted to get a copy of the manual directly from UPS to use as a model for a projected Navy publication but was told that it was private information and not for distribution. The Navy Policy Book was drafted without it, by a CNO Executive Panel group led by Captain Stark, including his deputy, Cdr. Kevin Cosgriff, and Capt. Richard Diamond, head of the Policy and Concepts Branch (Op-603). At the CNO Executive Panel, Cdr. Judy Holden was the key point person for this project, coordinating the drafting and using information she obtained throughout the Office of the Chief of Naval Operations and the fleet staffs. ♦*

As we distribute the flagship edition of *The Navy Policy Book*, it is important to explain the purpose of this document and to share with all hands the evolution of thought leading to its publication.

The *Navy Policy Book* was written to provide a single reference of the most important guiding principles of our Navy. It was written for every member of the Navy team: seaman recruit to admiral; military and civilian; active duty and reservist. By stating our ideals, missions, objectives and policies, we believe each of us can develop a better appreciation of the Navy's many strengths. Equally important, the ongoing analysis of how well we execute our policies will help us identify and focus on areas requiring improvement.

The idea of continuous improvement—the permanent commitment to do things better every step of the way is at the heart of the *Policy Book*. It is important we carefully preserve those concepts that have served the Navy so well throughout its history. At the same time, we are determined to identify what we need to change to do our jobs better and to take care of our people more effectively. There is no finer source of talent to meet this challenge than the men and women of the Navy. Your ideas will shape the future.

Every member of the Navy team should read the *Navy Policy Book* and use it as a catalyst for improvement. Discuss it frankly up and down the chain of command, and share it with those outside the Navy. Keep it handy and use it as a source of guidance in your work place, afloat and ashore. Like you, we are deeply interested in improving the way we work and how we live.

H. Lawrence Garrett III
Secretary of the Navy

Frank B. Kelso
Chief of Naval Operations

* Hattendorf interview with Rear Adm. James Stark, USN (Ret.), 7 July 2006; Stark, comments during CNA Conference, 27 June 2006; Capt. Judith Holden Meyers, USN (Ret.), e-mail to Swartz, 8 April 2005; Captain Meyers, e-mail to Hattendorf, 26 June 2006; Capt. E. Richard Diamond, USN (Ret.), e-mail to Hattendorf, 7 July 2006.

The Navy's Vision, Guiding Principles and Strategic Goals

Department of the Navy Vision

The fully-integrated Navy–Marine Corps team remains the world's premier force to carry out the national will in an increasingly hostile global maritime environment. It deploys a high-quality, multi-purpose, flexible force designed to meet a variety of the most likely contingencies.

To respond to the volatile and unpredictable nature of the worldwide threat, our forces must provide deterrence through presence and an ability to project power quickly.

The combined force is sustained in this mission by a support establishment which has dramatically decreased the time necessary to field new weapons systems, alter training cycles, accomplish overhaul, etc.

These and other supporting services, including medical care, are of a uniformly high quality because our leadership accepts responsibility for continuously improving all the systems and processes which govern our support establishment.

The support establishment consists of leaders prepared to exercise their responsibilities with quality as the principal focus, properly maintained necessary shore and support facilities, acknowledged experts in the technologies key to maritime operations, acquisition and maintenance strategies which will strengthen the public/private relationships to produce quality products and services faster and at competitive prices, and well trained professionals dedicated to excellence with confidence and pride in their Navy and Marine Corps.

Department of the Navy Guiding Principles

The purpose of the DON support establishment is to provide our sailors and Marines with the ability to go anywhere, anytime, to defend the nation's interests successfully and survive.

In achieving this purpose, the following principles will guide our decisions and actions:

We will accomplish the mission.

We recognize the central fact that our sailors and Marines are the best prepared and that our units have the highest rates of operational readiness in our history. They are at the heart of our ability to perform the mission. We must maintain that quality.

We are all responsible for accomplishing the mission. That is our first loyalty. We must strive to find new ways to cooperate within the DON which look beyond a single service warfare community or traditional role and responsibility. Pride, professionalism and a sense of community are extremely important, but we must ensure that they are

not rigid barriers to our interoperability. The valuable process of competing for resources and roles must not be carried to divisive and destructive extremes.

We accept responsibility for taking control of and improving all the systems and processes through which we support sailors and Marines. We can ensure that the weapons, ammunition, training, transport, health care, housing and all other goods and services which constitute that support are of predictable high quality and available on time and in sufficient quantity for any task they may be called upon to perform.

We must use innovation to meet current and future requirements and challenge ourselves to develop creative methods, including new technologies, to enhance our support to our operating forces.

We are committed to honesty and integrity, recognizing that the public trust and defense of the nation require the highest standards of moral conduct. By integrity we mean that we will make decisions which are in the best interests of the Navy, the Marine Corps and the nation without regard to personal consequences.

We have adopted the term Total Quality Leadership (TQL) as the general term under which we will pursue total quality efforts. However, we understand that the concepts and content of those efforts are the important aspects—not what they are called.

Department of the Navy Strategic Goals

We, the leaders in the Department of the Navy, will optimize the effectiveness of the Navy–Marine Corps team by leading our people and managing our systems as an integrated force within a quality-focused organization. We will work to influence our future by translating our vision, mission and guiding principles into goals, strategies and actions so that resources and improvements are aligned with the same intent.

We believe that everyone has a legitimate contribution to make in accomplishing these goals; Navy and Marine Corps; military and civilian; operational and support. In starting this translation, we have developed a vision and identified five major strategic goals for the Department of the Navy. These strategic goals are: Integration; Human Resources, Education and Training; Acquisition; Innovation and Technology; and Facilities. We believe that continuous improvements in these areas are mandatory if the Department of the Navy is to meet the challenges that confront us.

Integration. The Department of the Navy will operate a fully-integrated Navy–Marine Corps team that will provide maximum operational capability, capitalizing on the synergism of our operating forces and our support establishment.

Specifically, the DON will develop broad strategies and tactical doctrines that maximize naval service combat effectiveness within the framework of joint and combined

operations of the National Military Strategy; create and maintain a consolidated naval acquisition, maintenance and logistics infrastructure that is efficient and responsive to the building, support and sustainability needs of our naval service forces; and integrate the focus and efforts of staffs and management organizations to facilitate integration and educate our personnel, both military and civilian, in multiple disciplines that affect naval service capabilities and applications.

Human Resources, Education and Training. The Department of the Navy will continuously improve the quality of our military and civilian work force through fact-based, innovative, systemic changes affecting recruitment, training and quality of life.

Specifically, the DON will identify and remove the barriers to equal opportunity for our people; improve the military recruiting system through better requirements determination, resource allocation and day-to-day operations; improve determination of military training requirements, feedback systems and delivery of training to meet fleet requirements, and foster student success, properly fund training and eliminate redundancies in the system; improve the civilian recruiting and hiring system through better requirements determination and resource allocation and by assessing national versus local recruiting responsibilities and needs; and enhance the working environment to improve the performance of quality military and civilian personnel.

Acquisition. The Department of the Navy will continuously improve the acquisition process to achieve timely design, development, test, manufacture and support of maritime weapon systems for our Navy Marine Corps team.

Specifically, the DON will reduce the time from concept definition to fleet introduction; stress reduced operating and support costs in all aspects of system design and field fully supported systems with emphasis on interoperability and operational availability; and foster contractor/government working relationships, emphasizing teamwork built on trust, sound business practices and the highest standards of ethical behavior and ensure that an industrial capability for unique naval requirements is maintained.

Innovation and Technology. The Department of the Navy will continuously improve the process of identifying and introducing new technologies; ensure our recognition as a world leader in key maritime technologies; and create a climate that fosters innovation and invention.

Specifically, the DON will improve the process of selecting and evaluating technology opportunities, focus DON investment on those technologies that form the foundation of future Navy–Marine Corps system developments and introduce cost-effective technologies

into our system as they become available, and improve interaction with our sister services, academia, industry and our allies to support the DON technology investment.

Facilities. The Department of the Navy will operate an adaptable and responsive shore facilities establishment that is properly sized and properly supported to allow continuous improvement in the quality of service to operating forces, that consists of well maintained and attractive facilities, resulting in improved living and working conditions and increased productivity at all its installations, and that consistently performs in an environmentally responsible manner and contributes to the quality of life in the communities of which it is a part.

Specifically, the DON will define and implement quality standards for facilities that support mission requirements, family and bachelor housing, family support functions, and morale, welfare and recreational activities; provide the resources to achieve the defined quality standards over time and maintain the support establishment at these levels; in addition to traditional military construction, consider innovative financing and management arrangements (e.g., cost-sharing, public-private venture, leasing); integrate environmental awareness to all DON planning, management and operations to comply with all applicable environmental laws and to protect the natural resources found on Navy and Marine Corps installations; and minimize waste, and conserve energy and adopt pollution prevention measures to avoid adverse impacts on the environment.

Our vision and associated strategic goals require a significant transformation throughout the naval services. By pursuing our vision, we believe we will enhance our ability to determine our future. Achieving these strategic goals will be neither quick nor easy; however, we believe that our people are capable of meeting the challenges that all members of the team have valuable contributions to make to our strategic efforts. As leaders, we will strive to provide the direction and support required for this transformation.

Gen. Carl E. Mundy Jr.
Commandant of the
Marine Corps

H. Lawrence Garrett III
Secretary of the Navy

Adm. Frank B. Kelso II
Chief of Naval Operations

Chapter One: Introduction

The Purpose of The Navy Policy Book

The *Policy Book* was written to provide a common understanding within the Navy of our most important guiding principles. This book is designed to promote a better appreciation of the ingredients of the Navy's strengths and identify areas which need improvement. The *Policy Book*, therefore, has two overall objectives:

- (1) To reinforce those policies which have served our Navy well in the past and which we need to preserve and continue;
- (2) To assist in the ongoing process of identifying those things we want to change to help us do our jobs and take care of our people more effectively.

The *Policy Book* is not intended to be a substitute for the large number of authoritative Navy documents, instructions, manuals and other directives that establish current orders and procedures.

Rather, it is intended to capture the spirit of Navy policies and to establish the baseline for instructions and directives when they are written or revised.

For Whom Was the Navy Policy Book Written?

The *Policy Book* is written for every member and level of the Navy team, civilian and military, active and reserve. The diverse nature of our organization requires that each individual member understand the purpose and objectives of the U.S. Navy and his or her role in its success. Though Navy uniformed personnel and civilians are led and administered by different sections of U.S. law, we are a team mutually dependent on each other. Whether civilian or military, it is critical for every individual to understand and comply with the guiding principles of this book as they apply to him or her. To enable it to achieve its twofold purpose, the *Policy Book* should be read by everyone in the Navy and discussed frankly and openly.

Why You Should Share the Navy Policy Book with Others

We are proud of the Navy and of the part each of us contributes to it. This pride should engender a desire to tell others about the naval service. Because this *Policy Book* will enable you to provide others a unique insider's look at the Navy, all hands are encouraged to share it with family members, friends and any others who care to learn about how we view ourselves.

What Do We Mean by Objectives and Policies?

Objectives are statements of purpose, of things we are trying to achieve. In Chapter Two, you will read about the Navy's objectives. *Policies* are guiding principles which help us accomplish those objectives. Some policies, such as honesty or integrity, may be described as *ideals*, *principles* or *values*. Other policies, such as how we regard our people or how we view the value of training, may be more accurately defined as *attitudes*. Still other policies, such as providing performance evaluations to our people, are really *procedures* or *rules*. Finally, policies such as striving to provide quality facilities for our

people are best described as *intentions*. However, all of them contribute to making the Navy what we are today.

Why We Have Policies

Policies serve three useful purposes:

- (1) They provide all the members of the Navy with a common understanding of the Navy's basic philosophy and the ethical principles and ideals which underlie all our professional and personal actions;
- (2) They promote better communication and an environment of cooperation;
- (3) They provide leaders with an overall framework so they can act independently but within the bounds of our ideals, principles, procedures and rules.

The Origin of The Navy Policy Book

The idea of a U.S. *Navy Policy Book* had several origins. In 1990, the Chief of Naval Operations began introducing Total Quality Leadership (TQL) to the leadership and management of our operating forces. It became apparent that a brief, straightforward publication about how the Navy viewed itself, its people and its responsibilities would be useful in the implementation of TQL throughout the Navy. Such a book could help all of us on the Navy team focus on the character of our organization, examine our beliefs as Navy professionals and communicate policies within the Navy more effectively. Additionally, such a book could provide valuable information about the naval service to those outside the Navy. Some American business corporations produce their own policy books to accomplish similar objectives for their companies and employees. Both the idea and style of the *Navy Policy Book* were influenced by these examples.

Chapter Two: The Navy's Objectives

Objectives Are Statements of Purpose. They Are What We Need to Do to Accomplish the Navy Mission

Organizations, as well as individuals, need a sense of direction, a planned course toward which they direct their efforts. The objectives in this chapter are statements about what the Navy must do in order to achieve its purpose.

Maritime Superiority Is a Fundamental Requirement for U.S. Security

The Navy's purpose throughout history has been directly linked to the economic and political well-being of our nation and the security of our way of life. As a maritime nation, the United States uses the oceans as barriers for defense, as broad avenues of commerce and access to our overseas allies and as a springboard for projection of

power. The U.S. Navy protects America's ability to use the seas, both in peace and war, and is prepared to deny the use of the seas to its enemies.

The U.S. Navy Mission

The Constitution of the United States empowers the Congress to "provide and maintain a Navy." In exercising that power, Congress, in Title 10 of the U.S. Code, directs the Navy to "be organized, trained and equipped primarily for prompt and sustained combat incident to operations at sea." To carry out that mission successfully, the Navy must organize, maintain and equip its forces in a way that most effectively achieves maritime superiority.

We Must Have a Navy Capable of Carrying Out U.S. National Security Strategy

The Navy's capabilities must reflect what our nation expects of us. America's national security strategy requires all the armed forces to work together to contribute to strategic deterrence, provide peacetime presence overseas, respond to regional crises and be prepared to counter a global threat. Navy objectives reflect this strategy through our ability to deter both nuclear and non-nuclear (conventional) conflicts, to deploy overseas and to project power at sea and ashore. Further, we sustain our ability to build and operate ships, aircraft and weapons by supporting research and development and continuing to attract quality people.

Our Navy Must Be Mobile and Flexible

A constantly changing world requires a U.S. Navy prepared to meet new threats and circumstances. We must have the capability to respond quickly to support U.S. interests in any region of the world. Navy forces must be able to transition to combat when directed to do so, seize the initiative, carry the fight to the enemy and conclude the conflict on terms favorable to the United States.

We Must Be Able to Fight in Multiple Dimensions

To project power and win, we must control the battle space. This requires that we have forces—air, surface and subsurface—trained and ready to fight together and with the other services. We must ensure our warfighting concepts include the dimension of space and the use of the entire electromagnetic spectrum. We rely on terrestrial and space-based assets to assist us in navigation, global surveillance, C4I (command, control, communications, computers and intelligence) and electronic warfare. These systems provide key linkages among our forces. We must ensure our shore establishment provides the essential logistical, maintenance, training and education support to the operating forces.

We Must Maintain a Clear and Constant Focus on Our Mission at All Times

While our primary role is to deter conflict, we are war fighters first and foremost. We must never forget, especially during periods of prolonged peace, that we may be called upon to apply swift and decisive force anywhere in the world in support of national objectives.

Total Honesty and Integrity Are Essential to Our Profession

We recognize the public trust and the defense of our nation require the highest standards of moral conduct. We do not tolerate illegal or improper behavior or even the appearance of such behavior. We make decisions which are in the best interests of the Navy and the nation without regard to personal consequences. We fulfill our legal and ethical responsibilities in our public and private lives.

Leadership at All Levels Is a Fundamental Requirement

Leadership is the single most important ingredient in motivating people and successfully getting the job done regardless of the demands or hardships. Improving leadership skills at all levels of the organization must be a continuous process.

We Operate Closely with the Other U.S. Services and Our Allies

All of the U.S. armed services have unique capabilities which complement one another. Because future combat is likely to involve more than just the Navy, we must train and operate effectively with other U.S. armed services to increase our combat capability. Similarly, we must plan and conduct combined exercises with the armed forces of other countries to ensure we can work well together in a future crisis or conflict.

We Must Be Responsible for Both Our Mission and Our People

For Navy men and women, carrying out our mission to the very best of our ability is our primary responsibility. Caring for the safety and the professional and personal well-being of our people is inherent in Navy values—it is indispensable to mission accomplishment.

We Must Retain Our Quality People

Our system depends on self-motivated, reliable and well-trained people. We need to attract and retain proven professionals by combining the best available equipment, training and experience with leadership which challenges, inspires pride in accomplishment and recognizes effort. We strive to provide a quality standard of living for our people, and we recognize the importance of family well-being to our Navy men and women.

We Must Provide Every Navy Man and Woman the Ability to Go Anywhere, Anytime to Defend the Nation's Interests Successfully, and to Survive

It is our fundamental responsibility to ensure our people possess the right equipment, training, education and support to do their jobs effectively and safely. Accordingly, we must prioritize our resources to ensure our people are trained and equipment is maintained at the highest possible state of readiness.

Concern for the Environment Must Be an Integral Part of Our Operations

Every one of us must be aware of the potential impact of our actions on the environment. From littering to oil spills, we have the potential to damage the world in which we live. Consequently, we have a special responsibility to safeguard our world. We must stress constantly the requirement for every Navy member to support initiatives to improve and protect the environment.

We Must Manage Responsibly the Money the American Taxpayer Provides to Maintain a Navy

The cost of keeping America's military defense strong and effective is borne by the American people. We must ensure we use the monies entrusted to us in an honest, careful and efficient way. Every one of us has a responsibility to fight waste and wisely use the resources provided us.

We Require a Robust Research and Development Program

We must pursue new technologies which anticipate future requirements while improving our efficiency and effectiveness today.

We Are Committed to Continuous Improvement

We must be alert to the need for positive change and be willing to adjust to new challenges. We support change which produces improvements to the way we do our jobs and the way we take care of our people. *This must involve all hands.* By continuously examining our jobs, procedures and functions, we identify areas for improvement and follow through with the right changes. We call this overall process "Total Quality Leadership," or TQL.

Chapter Three: The Navy's Structure: How We Are Organized, Led and Managed

We Are Responsible to Civilian Authority for the Nation's Defense

The ultimate authority over the nation's armed forces rests with the President, our Commander-in-Chief. The Secretary of Defense is his principal adviser on all matters

relating to national defense. Together, they constitute the National Command Authority. The Chairman of the Joint Chiefs of Staff is the principal military adviser to the President and Secretary of Defense. The other Joint Chiefs (military Chiefs of the Services) also serve as military advisers.

We Follow a Chain of Command

The chain of command is a structure of communication which enables orders and information to pass from one level to another. Its purpose is to provide each commander and member with a clear sense of direction so all members of the team know their jobs and responsibilities, who they work for and who works for them. It also provides the opportunity and means for seniors to receive the views, recommendations and concerns of their people.

We Are Organized into Operational and Administrative Chains of Command

The Navy is divided into two categories: “providers” (administrative) and “combatant forces” (operational). The administrative chain of command stems from the responsibility of the Secretary of the Navy and the Chief of Naval Operations to train, equip and provide naval forces to conduct operations and flows through the Fleet Commanders-in-Chief (CINCs) to all naval units. The operational chain of command runs from the Unified CINCs to the combatant or operational forces, normally through the Fleet CINCs. Unified CINCs are the military commanders who command forces from all the armed services and report to the Secretary of Defense. These two chains of command interact to provide trained, well-equipped combatant forces to fight successfully alongside the other services.

The Navy Team Is Composed of Active and Reserve Components and Civilian Personnel

In addition to our regular active duty personnel, military personnel also include Reservists. Some Navy mission areas are nearly exclusively assigned to the Reserves. Mobilization of the Reserves can expand the force to meet various threats. Our Reserves must be trained and ready at all times. We require a properly balanced mix of active duty and Reserve personnel and must ensure the Naval Reserve is fully integrated into our planning objectives and policy. Civilian employees are an integral part of the Navy team and serve in all levels of the organization. Predominately assigned ashore, especially in sustaining repair, design and acquisition requirements, they provide the continuity and expertise required to support our operating forces fully.

We Are Responsible for Meeting Our Obligations and Carrying Out Duties Assigned to Us by Higher Authority

As professionals we follow orders from seniors in the chain of command. It is Navy policy to assign responsibility and delegate the necessary authority to the lowest qualified level. This encourages individual initiative and develops in subordinates the skills they need to assume greater responsibility.

Accountability Is Critical to Our Success

We accept the consequences of our own actions. In leadership positions, we bear responsibility for the actions of our subordinates. We are members of the naval service 24 hours a day, and we are accountable for our professional and personal behavior, both on and off the job.

Leadership Is the Essence of Our Profession

Leadership is the ability to inspire people, to make them feel confident they can do the job no matter how tough it gets. Leadership provides direction, sets priorities and upholds standards. We strive to give our people the tools and training they need to do their jobs correctly. Through effective leadership we guide and assist subordinates to achieve individual and team goals. We also must train our subordinates to become good leaders. The best way to do this is to lead by example. We strive to be open-minded, to be willing to accept change and to solicit feedback actively. Good leaders understand their own success is measured through the success and the personal and professional growth of their subordinates.

Individuals Have the Right to Communicate Directly with Their Commanding Officers

Each individual's chain of command ultimately leads to the Commanding Officer. Although most issues will be resolved by the chain of command, each individual is guaranteed the right to speak directly with the Commanding Officer without anyone suppressing that right and without fear of retribution. Commanders are responsible for ensuring everyone understands this prerogative and for putting in place the procedures to make it happen. Of primary importance is the requirement for the chain of command to respond to suggestions and to solve problems. Feedback must be part of the process. Each individual deserves to know what action has been taken on his or her suggestion or recommendation.

We Are Committed to Total Quality Leadership (TQL)

We have adopted Total Quality Leadership (TQL) as the way to achieve continuous quality and productivity improvement. TQL is defined as the application of quantitative

methods to assess and improve materials and services supplied to the organization, all significant processes within the organization and responsiveness to those we serve both inside and outside of the Navy.

TQL is a top-down approach to managing work and leading people that has quality as its focus. Quality is defined by the user or customer of the organization's products and services. What this means in a practical sense is that customer needs drive the design and continuous improvement of processes and systems affecting those products and services. In other words, the needs of our sailors and their families drive the systems that support them. It is the job of our leadership to ensure that the weapons, ammunition, training, transport, health care, housing and all other goods and services supplied to sailors are of predictable high quality, are of sufficient quantity and are available on time.

TQL is an approach to leading and managing that is based on an understanding of how all systems of work and people blend together to meet mission requirements. We know from experience that as quality improves, operational readiness also improves, productivity increases and costs decline, benefitting the user and, ultimately, the American taxpayer.

Improvements and innovations of processes and systems are accomplished through fact-based decision making and team participation. All naval personnel are members of the team and have valuable contributions to make to these efforts.

Good Judgment, Trust and Effective Communication Are Critical

We balance the need to complete our mission successfully with the responsibility to care for our people. Trust exists where there is confidence in the abilities and integrity of shipmates. We must be willing to make honest recommendations, deliver bad news even when it is unpopular and encourage good ideas. Judgments and decisions must be made regardless of their potential consequences to ourselves. We reward people who show us where improvements are needed or how improvements can be made, no matter how big or small.

Privileges Are Earned

Privileges are granted to those who have earned them through successful performance. Privileges also may be withheld for substandard performance. In this way, superior performance and professional growth are encouraged and positively reinforced.

We Are Committed to the Efficient Management of Our Resources

Managing our wide-ranging resources requires establishing goals and priorities and innovative decision making. We emphasize continuous improvement at all levels of responsibility.

People. We identify how many people are needed to operate and maintain our warfare capabilities and shore activities.

Platforms and weapons systems are designed for maximum performance with the minimum number of operators and maintainers needed. Our manpower requirements are reviewed and updated on a periodic basis, when new capabilities are added to ships or aircraft and when the shore establishment is modified. We recognize the individuality of all our people and strive to use them in areas best suited to their strengths. We also recognize that some individuals will not adapt and may become detriments to their commands. Money and time invested in training is not justification for transferring poor performers to another command or into another warfare or staff community when further useful service is unlikely. We attempt to provide a fair balance between sea assignments and jobs ashore to maintain readiness, professional development and an acceptable quality of life.

Time. We must set realistic milestones for what we need to accomplish. We communicate goals and use the chain of command to complete our objectives. We encourage both independent thinking and teamwork to ensure the experts at the most junior level are given the opportunity to apply the most efficient procedures to achieve desired and timely results.

Technology. We maintain and expand the technological superiority of our naval forces with a robust research and development (R&D) program. We apply the most promising scientific research to develop programs which solve specific fleet problems or enhance our warfare capabilities. We test newly developed systems for their effectiveness and suitability to provide superior equipment for our forces. We thoroughly evaluate our systems to ensure they will be capable of absorbing future technology developments.

Acquisition. We must develop and prioritize our requirements for new resources based on our warfighting needs and quality of life for our people. Our purchasing and acquisition programs are designed to fulfill those requirements. Our acquisition process must ensure the best value.

Maintenance. We take care of our equipment and property by ensuring the right training and the right tools are available at all levels. We train continuously to ensure our equipment is maintained properly and is always ready to perform at its highest capacity. We develop maintenance programs during the purchase or construction process for the entire life of equipment. Preventive maintenance is scheduled for our systems to ensure all aspects of support are identified and resources are available on delivery. We

upgrade systems periodically to extend the lives of our platforms and improve their technological performance.

We Stress the Importance of Procedures

We establish procedures to ensure the job—administrative, maintenance or operational—is accomplished right every time. Approved procedures ensure a process is understood by everyone at all levels and give us confidence tasks will be properly completed. They are a primary guarantee of safety. Certain critical procedures require a two-person check as an additional assurance. The use of proper procedures promotes good communication throughout the command and helps develop individual and team skills. Rather than inhibiting innovation, standard procedures can provide the pathway to see where improvements can be made.

We Conduct Inspections to Help Us Manage Our Resources and to Ensure Safety

The purpose of inspections is to ensure each command, unit, division, watch team and individual performs at a required uniform standard. Every ship, squadron and station should be trained and operated every day in such a manner that it continually meets the required uniform standards. The inspection is a periodic check to confirm the required standards are being applied and followed. Inspectors must look at the right areas, in the right way, at the right time. Inspectors and command teams measure mission capability, observe procedures to assist with making actual improvements and plan for possible follow-on assistance to include identifying institutional or procedural obstacles. They must be open, realistic and committed to solving problems as well as finding them. Inspections can be conducted by people outside the command or within the command, but the purpose and goals are the same.

Chapter Four: The Navy's People

People Are the Navy's Most Valuable Asset

All Navy decision making must include careful consideration of the professional and personal needs of our men and women. We must devote our efforts and resources to meet those needs.

The Navy Must Attract Quality Individuals

Attracting highly motivated, qualified and dedicated young men and women is essential to a combat-ready Navy. We recruit and hire without regard to race, gender or religion and seek people who have the potential to work capably and successfully within the Navy.

We Encourage Our People to Make the Navy a Career

We want to keep people in the Navy who are proven professionals, skilled in leadership, management and technical ability. Retaining these people allows us to continue to use the benefits of their training and apply their knowledge, skills and experience. It is critical, therefore, that we support quality-of-life initiatives, especially job satisfaction, to encourage our best men and women to make the Navy a career. We also recognize the valuable contributions made by those who do not wish to make the Navy a career. We show our appreciation and provide them as much assistance as possible in transitioning to civilian life. Whenever possible, we will encourage our veterans to remain a part of the Navy team through participation in the Naval Reserve.

We Provide Frequent Recognition to Deserving Individuals and Units

Everyone appreciates an occasional pat on the back. It lets us know we are on the right track, helps us to feel we belong, provides job satisfaction and inspires our best efforts. We make a conscious effort to praise our people to show our appreciation for their everyday efforts. We award medals and other forms of recognition to acknowledge publicly exceptional performance and bravery. We reward outstanding civilian performers with a variety of honorary and cash awards. We need to be generous in making award recommendations. We determine the level of award based on the contribution of the individual to the overall mission, independent of his or her pay grade. Delegating to Commanding Officers the authority to award Navy Achievement Medals and to advance outstanding enlisted individuals serving at sea to the next pay grade encourages immediate recognition of superior performance at the unit level. Awards provide incentive and build morale. As such, they must be timely, appropriate and meaningful.

Our Goal Is to Promote People to the Highest Grade or Rank according to Their Abilities

We believe in the importance of upward mobility and provide the opportunity to advance throughout a career. We promote our people based upon their proven abilities. All those who perform their duties capably and have the capacity to assume greater responsibility are eligible for further promotion. We seek qualified enlisted personnel for officer programs. Navy leaders are responsible for developing their subordinates and encouraging them to advance.

We Make Duty Assignments Based on Both the Needs of the Navy and the Individual

When we detail an individual to a job, we take into account three important factors: the needs of the Navy, to make sure the right individual is in the right place when required; the professional needs of the individual, to ensure continued career growth; and the individual's personal desires. Each case is considered on its own merits. Assignments

will be made to avoid billet gaps both at sea and ashore, and, where this is not possible, the length of billet gaps will be minimized. Collocation of military spouses and geographic stability for enlisted personnel are given special consideration. The Exceptional Family Member Program (EFM) seeks to ensure transfers to areas where necessary health care and special education are available for family members with handicaps or other special medical conditions. While not precluding service members from sea duty or unaccompanied tours, these policies encourage and permit individuals and their detailers to work together to meet professional goals and family needs whenever possible.

Some Personal Hardships May Require Reassignment or Discharge from Naval Service

We recognize the unpredictability of personal problems and try to respond appropriately, with understanding and support. At the same time, we have a responsibility to ensure all Navy personnel can be assigned to duty anywhere in the world or can deploy to sea when required. Without this guarantee, our ability to meet our responsibilities or get our ships underway is seriously impaired. We realize there are unforeseen developments which can be resolved only through release from active duty. Should an individual or a member of his or her family face this situation, we consider the active duty individual for a Hardship Discharge. In cases which can be resolved, but which require more time than leave provides, we may reassign individuals for humanitarian reasons to enable them to alleviate the hardship situation.

Training and Education Are Vitrally Important

Training. Training to improve our ability to fight and win is our number one peacetime priority. Training must be a continuous process throughout our careers. It includes specialized and on-the-job training, indoctrination programs and instruction associated with new systems and equipment. Training needs to be, as much as possible, a hands-on approach. Quality training performance is more important than mere training attendance or training completion. We must measure our training performance against real-life requirements to ensure we are learning the correct lessons and practicing the correct procedures. We must train so people understand why procedures are necessary as well as how the procedures are used to do the job. Through quality training in peace, we develop the confidence necessary to perform capably in combat.

Education. Education provides the framework for learning and better prepares our people, regardless of Navy rating or specialty. Education produces better-informed, more capable and more highly motivated men and women. We encourage Navy personnel to take advantage of available educational opportunities, including the Navy Campus and tuition assistance programs. We help people on sea duty continue their

education by coordinating correspondence course programs and providing instructors to ride ships. We send selected enlisted personnel to college full-time for a degree and subsequent commissioning. We award advancement points to enlisted members who achieve degrees through off-duty education programs. We send selected officers to advanced education at service colleges or through graduate education at the Naval Postgraduate School or civilian institutions. We encourage civilians to continue their education through training opportunities and educational assistance.

We Value and Depend on Professional Input and Ideas from All Our People

Cooperation and teamwork are essential to our readiness and mission accomplishment. We must be loyal to superiors, peers and subordinates. We encourage open communication up, down and across the chain of command. By involving our subordinates in planning, decision making and problem solving, we encourage teamwork and a sense of ownership. We encourage our people to suggest improvements, and we provide them feedback on what is being done with their suggestions.

We Do Not Tolerate Discrimination

Respect for all citizens is the cornerstone of our Constitution. We fully accept responsibility for demonstrating this personal respect toward all Navy members without regard to race, religion or gender. We teach all Navy people to recognize discrimination, and we expect them to take positive steps to eliminate it. We know that teamwork, which is so essential to mission accomplishment, requires that we accept, train, inspire and support every member of our team. We recognize the importance of a Navy that reflects the diversity in gender, race and culture of our nation, and we seek to ensure representation from this diversity in all ranks and ratings. We must provide whatever training, education and counseling is needed to develop the skills and leadership necessary to ensure equal opportunity to senior positions. Duty assignments, advancements and promotions must reflect the objective of equal opportunity. This requires the personal commitment of everyone, especially those in supervisory and leadership positions.

We Do Not Tolerate Any Form of Sexual Harassment

Sexual harassment violates the Navy's commitment to maintaining high standards of integrity and impartiality. It is unprofessional and ultimately damages the mission effectiveness of the command involved. It will not be tolerated at any level. This policy applies to all military and civilian supervisors, co-workers and peers. Sexual harassment prevention is addressed through periodic quality training; a proper, supportive command climate; and a system that inspires confidence that all complaints will be handled in a swift, fair and effective manner.

We Do Not Allow Fraternization

Inappropriate personal relationships between seniors and subordinates within the same chain of command or between officers and enlisted personnel are unprofessional. Fraternization inevitably results in favoritism or the perception of favoritism. Whether actual or perceived, favoritism is detrimental to our organization.

We Provide Timely, Constructive Counseling to Each Individual

We use informal and formal, documented counseling to ensure our people know at all times what we think of their performance. We make sure they understand what is expected of them. They must be praised for good performance, informed of unsatisfactory or inadequate performance and counseled about how to improve. Counseling is provided to assist with career planning and to help resolve personal problems such as financial and family support difficulties.

We Provide Periodic, Constructive Written Evaluations of Performance

Goal setting, counseling and performance evaluations are separate (although related) processes. Evaluations must be given significant thought because they are meant not just to record performance but to motivate and instruct. Written evaluations must be completed on time. They should emphasize what an individual has accomplished during the reporting period; how well he or she has done it; the individual's most important strengths, and if necessary, significant weaknesses; and the individual's potential for increased responsibility and advancement. No one should be surprised by the contents of his or her evaluation. Regular counseling and feedback, including guidance on how to improve, are the primary vehicles to encourage strengths and identify weaknesses. Once addressed, weak performance that has been corrected during the reporting period normally will not be addressed in the written evaluation.

We Provide Leave for Every Member

All members earn 30 days leave per year to ensure ample time for leisure, family activities and personal business. Leave normally may be taken in any number or length of increments the member desires. However, operational commitments may dictate when and how much leave is granted at a particular time. Commands are responsible for ensuring their people have the opportunity to take up to 30 days leave per year. Commands must be organized and personnel trained to allow all individuals to take leave without impairing the accomplishment of the command's mission.

We Provide Liberty Time away from Work

Liberty and working hours should be clearly defined. Leaders are responsible for organizing work schedules which do not extend beyond the normal workday except in extraordinary circumstances. Liberty is normally granted at the end of working hours until the start of the next day's work. Liberty is a privilege, however, and it may be curtailed when work assignments have not been completed or when the member's presence is required to maintain readiness or to complete emergent work. Special liberty is time off granted on a case-by-case basis during the workday to conduct personal business.

We Provide All Benefits Allowed by Law and Seek to Keep Pace with Changing Economic Conditions

Pay and Allowances. Few things are more important than making sure Navy men and women receive fair compensation for their services. We strive to make Navy pay and allowances comparable to the wage scales of private industry. We seek periodic adjustments to special allowances to provide adequately for our people stationed in high-cost areas or overseas. We provide additional pay and incentives for people serving in special jobs and programs. We recognize the unique hardships associated with sea duty and reward our people accordingly. We provide non-taxable allowances to assist with rent or mortgage payments for those members not residing in Navy housing. We pay a subsistence allowance to assist with food purchase. We also maintain a commissary and exchange system to provide food and retail goods at reasonable cost for our people and their families.

Medical and Dental Care. Good health is important, and we are committed to meeting the health needs of our people and their families. We strive to provide modern, efficient medical and dental facilities near most major naval installations. When a Navy member is not stationed near a military medical facility, we must provide quality medical and dental coverage through the civilian health care system. The Civilian Health and Medical Program for the Uniformed Services (CHAMPUS) program provides medical care for families of Navy members at civilian facilities, both to augment military health care and as the primary health care source, depending on the proximity to military facilities. Overseas military dental facilities can provide dental care for both our active duty personnel and their dependents. Within the United States, Navy families are provided emergency and preventive dental coverage with low-cost, voluntary insurance through the Dependent Dental Plan (DDP). Though DDP guidelines are mandated by Congress, we actively seek to expand dental services under DDP while maintaining its low cost.

Insurance. All Navy men and women are provided low-cost life insurance under the Servicemen's Group Life Insurance (SGLI) program. The SGLI policy currently pays a maximum \$100,000 in survivors benefits.

Retirement. The United States military offers a unique retirement program by which our members are eligible for retirement after 20 years of service. Members have the potential to remain on duty up to 30 years, and, with waivers for specialized expertise, some members may serve beyond 30 years. Retirement pay is based on a percentage of active duty base pay and the number of years served. We seek to ensure retirement pay reflects changes in the cost of living. Navy retirees receive the rights, privileges and benefits to which their faithful service and sacrifice entitle them, including medical, dental, commissary and exchange privileges. Moreover, we treat them with the same respect and courtesies they received on active duty.

We Strive to Provide High-Quality, Attractive, Modern Facilities for Our People

We must commit the resources to provide efficient, high-quality work places; available, attractive and high-quality housing; and a range of modern recreational facilities. These efforts must include making our bases and housing areas safe and free from crime. We work closely with local authorities to make sure the areas around our facilities are also safe. We must keep pace with the support requirements of our operating forces, the commands and people who support them and Navy families. We emphasize shore infrastructure improvement at all decision-making levels. We act in an environmentally responsible manner and contribute to the ecological well-being of the communities where Navy installations are located.

We Are Committed to the Safety of Our People

Protecting the well-being and lives of our people is a fundamental obligation of the Navy. Our safety program is instituted to foster operational readiness while preserving both lives and material resources. Its basic elements consist of trained, qualified and properly supervised personnel; well-designed and maintained equipment; and approved operating procedures. In especially critical areas we observe formal two-person checks to guarantee safety. In peacetime, there can be no commitment or operation which justifies the compromise of safety. Safety must always underscore training and procedures. Ensuring our own personal safety and the safety of our shipmates is the responsibility of all members of the team. Safety is a way of life and must be stressed both on and off the job. Safety compromised on the job sets the wrong standard for behavior off the job. We also work actively to prevent unsafe actions during off-duty time because they jeopardize the well-being of our personnel, their families and unit readiness.

We Are Accountable to Standards of Conduct, Federal Statutes and Regulations

Our standards of conduct and performance are different from and more demanding than those of the civilian community we protect and defend. We hold ourselves accountable for adherence to these standards and know we likewise will be held accountable by both our superiors and the American public. Accountability is ensured through our personal commitment, strong leadership and when necessary, the laws and regulations which govern our conduct.

We Do Not Tolerate the Illegal or Improper Use of Drugs or Alcohol

Abuse of alcohol and drugs is incompatible with our high standards of performance, military discipline and combat readiness. It undermines the very foundations of morale, health, safety and reliability. We stress preventive education, active deterrence and detection at all levels. Use of illegal drugs violates the law and will not be tolerated. Drug abusers will be promptly separated from the Navy. For those who elect to drink alcohol, we stress a responsible, socially acceptable approach. However, we take firm, constructive disciplinary action against those who choose to abuse alcohol. For those who suffer from the disease of alcoholism and show potential for future useful service, we provide state-of-the-art rehabilitation programs.

We Look After the Individual Needs of Our People

Morale, Welfare and Recreation (MWR). We encourage all Navy people, active and retired, and their families to use the services of our MWR activities. These include recreation (fitness, sports, libraries, movies, recreation centers, skill development, gyms, activities aboard ship); retail activities (base exchanges, bowling, golf, marinas, clubs); and community support (child development centers, youth programs, family home care). We encourage innovation and sound practices to provide better programs and to generate non-appropriated revenues. We spend MWR appropriated and non-appropriated funds only on MWR facilities, equipment and activities.

Personnel Tempo of Operations (PERSTEMPO). We have a specific policy called PERSTEMPO to balance the amount of time our people spend away from their families with the maintenance of readiness and the Navy's forward deployed commitments. It is built around the following specific goals: maximum peacetime deployment lengths of six months; at least twice the deployment length between deployments (e.g. six months deployed, 12 months until next deployment); at least 50 percent time in home port for a command during its operating cycle. We are fully committed to adhering to this policy, except in extraordinary circumstances such as a major military contingency or conflict.

Religious Support. We provide for the free exercise of religion for all our people and support and assist them in meeting individual needs. We strive to ensure everyone is provided opportunities for pastoral care, religious education and divine worship. Special programs, such as personal growth retreats, initiatives to address the well-being of singles and families and suicide prevention are provided through our own religious resources.

Legal Services. We provide legal assistance to enhance the morale and welfare of military personnel and to relieve the stress that personal legal problems may cause on the job. Assistance is provided routinely concerning wills, powers-of-attorney, consumer problems, domestic relations, support and indebtedness, landlord/tenant matters and protection offered by the Soldiers' and Sailors' Civil Relief Act. We also provide legal advice and support to Commanding Officers who are responsible for enforcing regulations. Navy lawyers provide both defense services for personnel charged with violations of the Uniform Code of Military Justice and prosecution services on behalf of the government.

Chapter Five: The Navy's Character and Reputation

The United States Navy Is Special

We in the Navy have a pride which has evolved from attitudes and convictions steeped in honored tradition. This pride is a direct result of the incomparable experience of living and fighting on the sea—a dangerous and unforgiving environment which demands from all of us a high degree of personal and family sacrifice. It includes the spirit of adventure in travel and living overseas. Most important, it is the experience known to every Navy man and woman of being on watch around the clock in the service of our country and of being a shipmate to all past, present and future sailors.

The United States Navy Has Always Been Ready to Respond to America's Needs

We are dedicated to maintaining a Navy upon which the American people can count in times of peace or conflict. We are committed to constant improvement of our ability to respond to the needs of the nation in time of crisis.

We Accept Change and Plan for Uncertainties

We must work continuously to shape a Navy which can respond to the world of the future. We cannot be constrained by the limitations or scenarios we face today. Our planning gives us the capability to support national objectives in a world in which there is a limitless variety of problems which may require military response. Our planning process also must reflect fiscal realities. We must ask difficult questions and consider all appropriate options for the future Navy when we look ahead. We explore promising new ideas and discard flawed and unproductive concepts.

We Adhere to Values of Integrity, Professionalism and Tradition

We must conduct ourselves in the highest ethical manner in all relationships with peers, seniors and subordinates. Navy people do not lie, cheat or steal. Honesty is the cornerstone of our profession, and we must be truthful in our dealings with each other and with those outside the Navy. As professionals, we embrace mission accomplishment and improvement. Our commitment to teamwork and mission reflects traditions passed down since our founding more than 200 years ago. These include patriotism, courage to meet the demands of our job, a genuine concern for our people and a belief in the fundamental principles of our spiritual and ethical heritage.

The Commanding Officer Is the Focal Point of Leadership, Authority, Responsibility and Accountability

The position of the Commanding Officer rests on more than 200 years of Navy tradition and is virtually unique in its scope. In the earliest days of our Navy, U.S. warships represented the interests of the nation worldwide—usually doing so for months at a time without communication with authorities ashore. Those chosen to command were selected carefully because their skill, leadership and judgment would ensure the success of the ship's tasking. Accordingly, they were given great authority to lead their crews, care for their ships and execute their assigned missions. They were held strictly accountable for the performance of their commands in all circumstances. This unique combination of authority, responsibility and inescapable accountability continues to this day. This is the essence of command and sets the Navy's Commanding Officers apart from those in other senior positions in the world of business or government.

We Stress the Importance of Protecting Classified Information

Security is the safeguarding of information, capabilities, procedures and intentions which would damage the nation if revealed to potential enemies. The U.S. government and all the military services have strict laws and regulations which govern the handling of classified material (physical security) and the responsibilities of individuals for protecting it (personal security). Two basic criteria are applied to determine if an individual may receive classified material: (1) possession of a proper security clearance; and (2) a genuine need to know the information. Providing classified information to unauthorized individuals is an extremely serious offense in war or peace, as it can provide significant combat advantage to enemy forces and result in the loss of lives of our own and friendly forces. We are required to know our responsibilities for the protection of classified information, to carry out those responsibilities to the best of our ability and to ensure practices dangerous to sound security are identified and properly reported.

We Support Open and Frequent Communication with the News Media

As a public institution, the Navy has a legal and moral responsibility to keep our nation's citizens informed about matters under our cognizance. It is Navy policy to provide maximum disclosure of unclassified information to the public through the media, with minimum delay. This policy, which applies to both negative and positive stories, ensures that reporting on matters of public interest includes the Navy point of view and gives us the opportunity to secure public recognition of the superb jobs our people do. Public affairs is a function of command and a key component of Navy leadership. Public Affairs Officers are assigned throughout the Navy to provide advice and assistance to Commanding Officers for timely release of information through the chain of command.

We Seek to Expand Our Professional Technical Knowledge as Well as Our Understanding of History, Culture and Politics

We strongly encourage our people to increase their professional knowledge and to appreciate the history, institutions, culture and geography which shape our world. The *Navy Professional Reading List* recommends both fiction and non-fiction books designed to complement Navy training and outside education courses. A copy is contained as Appendix A to this *Policy Book*. Reading encourages both emotional and intellectual growth. Intellectual growth improves reasoning and analytical skills, teaches us to evaluate critically and enhances our ability to think rather than simply react. Use of the reading list is voluntary. No one is expected to read all the books identified on the list, nor is the list intended to be all-inclusive. Most of the books are available at major shore station libraries and in shipboard libraries of larger ships.

We Subscribe to the Military Code of Conduct

The Code of Conduct applies to all members of the Navy and contains the guiding principles upon which our actions must be based should we become prisoners of war. The Code also is the basis of similar rules which apply if we are detained by a hostile government or terrorists in peacetime. The Code emphasizes that members of the Armed Forces guard our country and our way of life. We are prepared to give our lives in their defense. Should we become prisoners, we must keep faith with our country and our fellow prisoners. We must not give any information or take any action which would be harmful to our country, its allies or our fellow prisoners.

We Foster Esprit de Corps among Our Shipmates, Our Unit, the Navy and the United States Armed Forces

Esprit de corps (team spirit) is an intangible but important element of the Navy's character. It is seen through our pride in the accomplishments of our shipmates, our unit, our Navy and our nation's armed forces. We stand side by side in times of need and celebration. Esprit de corps helps us work together as a team to accomplish what cannot be accomplished alone. It is reflected in our loyalty and respect for our peers, our subordinates and our seniors. We demonstrate respect through giving and returning salutes and addressing each other by the rank and title we have earned.

The Navy Has Specific Uniform Requirements and Sets High Standards of Personal Appearance

We wear uniforms to identify quickly our rate and position and thus our skills and level of authority. The uniform identifies us as members of the Navy and reflects our pride in our profession. It inspires confidence and trust both within and outside the Navy. Therefore, we wear our uniforms as a visible standard of excellence. As representatives of the Navy at home or abroad, we always maintain our appearance—in uniform or civilian attire—as a reflection of the special organization to which we belong.

We Require High Standards of Health and Physical Readiness

Physical fitness is a way of life for Navy people regardless of rank or rating. Physical fitness promotes good health and helps relieve physical and mental stress. Obesity is incompatible with Navy standards and requirements for mission readiness. Our physical fitness program is designed to ensure stamina for whatever demanding task we face, particularly the stress of battle. Fitness also builds self-esteem and confidence. Leaders are responsible for setting the example and encouraging all hands to exercise individually or as teams to build a winning spirit. We provide a variety of healthy food aboard ships and in Navy facilities, encourage proper eating habits for good health, discourage tobacco use and promote a greater awareness of positive lifestyles.

We Are Responsible Citizens and Support Our Local Communities

We stress the importance of our responsibilities as citizens by encouraging our people to participate in local community activities during off-duty time. It is important for Navy personnel to foster a sense of belonging to their communities and for communities to recognize Navy men and women as contributors to their well-being. Involvement in community activities also provides a focus for off-duty time and builds self-esteem.

Voting. All Navy members should exercise the right to vote. Previous generations of American men and women gave their lives for this privilege—a privilege citizens of many other nations do not share. We emphasize the responsibility of all citizens to participate in our form of government by voting for their candidates of choice. We provide voting assistance to help simplify absentee voting procedures.

Partnerships in Education. Our young people are the future of America. Further, a strong educational system ensures that future generations of sailors will have the intellectual and mechanical skills to deal with a more complex and demanding world. Navy people participate in numerous projects to promote the development of America's youth. Helping young people in local schools is an investment in our country's future and is rewarding to student and sailor alike.

Combined Federal Campaign. We encourage our members to participate in the Combined Federal Campaign as a direct channel for support of charities, programs and community assistance efforts.

We Are Committed to Operating Ships and Shore Facilities in a Way Which Is Compatible with the Environment

To accomplish its mission, the Navy must operate around the globe on land, in the air and on and under the sea. An important part of the Navy's mission is to protect the environment, prevent pollution and conserve natural, historic and cultural resources. To do so, we must provide formal training to ensure knowledge of environmental laws and regulations. By leadership and personal example, each one of us must demonstrate an everyday appreciation for environmental protection. The Navy provides the necessary resources to implement responsible environmental programs and then confirms our commitment with accountability. Environmental considerations are an integral element of our acquisition process. We ensure the public is provided accurate and timely information about our efforts to protect and improve the environment.

Navy Leadership Represents Our Requirements and People before Congress

The Navy's leadership has the responsibility to represent Navy requirements and personnel interests within the government. The Secretary of the Navy and the Chief of Naval Operations provide advice to the Executive and Legislative branches concerning the Navy and its people.

All Navy Members Have the Right to Communicate with Their Congressional Representatives

All citizens have the right to convey their views to their Senators and Representatives. This applies to everyone in the Navy, military and civilian.

We Take Care of Our Own through Navy Relief, Sponsor Programs, Ombudsmen and Family Support Programs

Our well-being and that of our families rest primarily with us as individuals. Each command must be prepared to offer support and assistance through a variety of informal and formal routes. In addition, the Navy invests in larger programs where a greater expertise is required or to simplify extended support to the family.

Sponsors. We recognize the difficulties involved in changes of duty station. To ease the burden of relocation of Navy personnel and their families, Navy commands designate sponsors who play an important role in easing the difficulties and reducing the apprehensions encountered during a move. A sponsor represents the new command, providing information about the new duty station, acting as a liaison between the new arrival and local organizations and meeting and orienting the new member reporting to the new command. Sponsors are trained thoroughly in their duties and are fully supported by command leadership.

Ombudsmen. Commanding Officers appoint one or more Ombudsmen to provide a better link between Navy commands and the families of our sailors. Normally, the Ombudsman is the spouse of a service member and has both an interest in helping others and experience as a Navy spouse. Command Family Ombudsmen are valuable assets in stimulating better communication between Commanding Officers and family members, fostering a better understanding of the needs and viewpoints of Navy personnel and their families and providing information, assistance and support to family members. Ombudsman activities may include information and outreach, family support through visits and newsletters, coordination of welcoming programs and interaction and cooperation with military organizations on behalf of command family members. Ombudsmen work directly with the Commanding Officer of each unit to address the family's welfare, morale and safety. This important network is especially critical during deployments when Ombudsmen play a major role in coordinating activities of and communicating with families of deployed sailors.

Family Service Centers. We train and develop our leaders to be sensitive to the pivotal role families play in readiness and retention. We also have a network of professionally staffed Family Service Centers worldwide to help Navy families and single sailors

address a wide range of social issues. Family Service Centers provide a comprehensive information and referral service on a large number of programs available in both the military and civilian communities, as well as counseling and educational and training programs that address practically every area of Navy life. Each Center also aids command Ombudsmen and sponsor programs and functions as the major delivery system for overseas duty support.

Navy and Marine Corps Relief Society. The Navy and Marine Corps Relief Society is a private organization dedicated to taking care of Navy and Marine Corps members. It is supported by our voluntary contributions, not tax dollars. Navy Relief provides financial counseling and financial aid in the form of interest-free loans, grants or a combination of both based on need.

Navy Men and Women Are Ambassadors of the Navy and the United States at Home and Abroad

Wherever we go, we represent the United States Navy. Through pride in and knowledge of our profession, we are the Navy's best envoys at home and abroad. Our overseas presence offers us a unique opportunity to symbolize the attributes of our country and its Navy—professionalism, integrity, honesty and compassion. This is reinforced by our frequent humanitarian activities. Wherever we are, Navy men and women have an obligation to represent our country actively and positively.

Chapter Six: Navy Operations

The Navy's Vital Role in History and Its Importance for the Future

As our country has grown, ultimately to its position as a world superpower, the U.S. Navy has been a key factor in support of a wide range of national policy objectives. From the round-the-world cruise of the Great White Fleet early in this century, the United States established itself as an international leader willing to use its Navy as an instrument of national policy. The U.S. Navy's global reach, forward presence and technological leadership set the pace for the growth of American influence. To this day, Navy men and women and the ships and aircraft they operate continue to be a very flexible and effective means of influencing events and protecting U.S. interests worldwide. This national capability rests upon the quality of our readiness, continuous presence abroad, a dedication to American values and a willingness to combat aggression whenever and wherever required. For a more detailed account of the Navy's role throughout America's history, see Appendix B.

The Navy's Role in National Security

Because the United States is a maritime nation, the Navy plays a critical role in national security. America must be able to use the oceans to guarantee our defense, protect our trade and ensure access to our allies. The Navy's maritime strategy is designed to guarantee a naval force to ensure maritime superiority. Our strategy reflects how we respond to the four primary elements of the National Security Strategy as determined by the President: deterrence, forward presence, crisis response and reconstitution. We support these four elements through readiness with quality personnel, high technology and cooperation with our allies and sister services.

We Conduct Joint Operations with Other U.S. Services and Combined Operations with Our Allies

Each of our armed services has unique assets and capabilities. Using them together in a well-designed, integrated campaign allows us to generate the greatest combat capability in the shortest time and assures the best use of our power. We train and operate extensively with the other U.S. armed services as well as with the armed forces of many other nations to take advantage of their unique capabilities and to enhance communication. Cooperation with these other forces improves our ability to provide peacetime presence abroad, to respond to crises and when required, to conduct combat operations.

The U.S. Navy and U.S. Marine Corps Team

Since the earliest days of this nation, the Navy and the Marine Corps have been an effective combat team. These complementary forces represent the principal elements of power projection from the sea. Our robust amphibious warfare capability provides access to virtually any coastal area in the world. The Navy–Marine Corps team uses the same strategic concepts in development of doctrine and tactics. We train and exercise together to ensure interoperability of equipment and procedures. We deploy together, and Navy men and women provide logistical, medical, dental and religious support for the Marines.

Naval Forces Conduct a Wide Variety of Operations

Our capabilities give the President a wide range of options from low-key, diplomatic representation to massive retaliation. Naval forces provide the capability to respond to crises by quickly concentrating military force at the scene of a problem. Our forces protect American citizens and property worldwide. They provide rapid disaster relief and humanitarian assistance around the globe. In times of crisis, they may protect our own sea and air traffic or interdict those of our enemies. They can defeat enemy naval forces and project power ashore. The Navy has the ability to operate independent of overseas

bases or political access, either alone or together with our allies and the other services. We also can tailor our diverse forces to meet specific missions and threats. The core of this capability is the striking power of our battle groups and our amphibious forces.

Deterrence Applies to Nuclear and Non-Nuclear Conflict

During peacetime, forward-deployed forces promote regional stability and discourage aggression by their very presence in potential trouble spots around the world. Our long-range nuclear delivery systems—fleet ballistic missile submarines—along with potent, visible conventional forces and the ability to use them are designed to deter any adversary from initiating conflict.

Forward Presence Is Essential to Maintain Stability and for Timely Response to Crises

Forward-deployed naval forces help preserve U.S. influence overseas, even in places where we have no bases or political access. They enhance our ability to deter aggression, promote regional stability, strengthen diplomatic relations abroad and respond quickly to crises. Naval forces provide policy-makers with unique flexibility. We can quickly position a powerful fighting force off the coast of a country, out of sight to influence subtly or within sight to make a strong statement.

Similarly, we can remove ourselves from the situation quickly once our objectives have been achieved. We can shift our forces rapidly between regions in reaction to changes in the world situation. Our forces can be deployed into a theater, disperse to conduct a wide variety of operations and then regroup quickly to form a powerful battle force.

Force Projection Is Our Number One Warfighting Priority

To be effective in support of national policy we must have the ability to influence events on land and at sea. When required, we must be able to respond with appropriate firepower from our carrier, surface, submarine and amphibious forces to take the battle to the enemy. This will require:

Sea Control. Sea control is a fundamental function of the Navy and is defined as the ability to control designated areas in, over and under the sea as necessary to perform our mission. It does not necessarily mean permanent control of an entire ocean. Instead, it is selective, requiring that we control specific portions of the ocean whenever needed. Sea control is a prerequisite for most naval operations and includes anti-submarine, anti-surface and anti-air warfare.

Power Projection. We must be able to strike an enemy at sea and affect events ashore. Power projection is the use of naval forces to launch strikes against the enemy. It includes attacks by carrier aircraft, strikes by cruise missiles, amphibious assaults by

embarked U.S. Marines, bombardment by naval gunfire, mine operations and landing of supplies and equipment by sealift vessels. Power projection is an offensive arm of operations which helps us to defeat the enemy on land.

Balanced Naval Forces. Because of the many tasks the Navy must be able to accomplish, we require balanced forces. This means that every element of the Navy plays a vital role—combatants, aircraft, special warfare, logistics, support units, mine warfare forces and the shore establishment. While some may be more necessary than others in specific situations, we need them all to perform our mission.

Distribution of Firepower. The distribution of our offensive firepower among a variety of platforms gives us tremendous flexibility. It allows us to tailor units rapidly for specific missions and to choose the right weapon and launching platform for each situation. Distributing our offensive power makes it harder for an enemy to target our key units or successfully carry out a preemptive strike.

Sealift. Since America is separated from most of the world by vast expanses of ocean, our ability to move large amounts of military equipment and supplies by sea is critical to U.S. strategy. When sealift is combined with airlift and programs which preposition military equipment in ships or storage depots located in key foreign areas, we strengthen our ability to move U.S. military forces quickly to any region of the world.

Hedging Against Global War

Changes in eastern Europe and the former Soviet Union have lowered the threat of global war. These changes should give us a greater period of warning if circumstances in that region were to change for the worse. This enables us to reduce the forces aimed at countering a global war scenario and to place those forces in reserve. The nation can invest those defense dollars in other necessary programs with the option to recall or reconstitute forces if threatened by global war.

Logistics Are Essential

We provide our forces the support they require to conduct operations anywhere in the world.

Unit and Battle Group Logistics. We design our ships, aircraft and systems to be largely self-sustaining. Using our combat logistics force, Navy ships can be resupplied with people, ammunition, food and stores even while underway. We also pool our expertise and equipment for maintenance and repair capabilities within each deployed Battle Group and have mobile repair and support units to sustain our readiness while deployed.

Stateside and In-Theater Support. We purchase and stock all material needed to support our operating forces. We have the capability to maintain the flow of material and personnel to those forces at all times, during all levels of operations. We maintain construction and repair facilities. We can return damaged weapons systems and equipment to the fleet through stateside base repair facilities, through deployable units and through overseas repair activities and supply depots.

Tactics and Training Help Us Use Our Forces More Effectively

Tactical Development. The battlefield of the future will be increasingly technical and complex. Tactics and techniques will be as important as firepower. We develop tactics and techniques to optimize our capabilities. Our tactics ensure effective coordination among the different areas of the Navy (aviation, surface and submarine). We integrate our tactics with operating doctrine and with the tactics of other U.S. and allied forces. We conduct tactical training in the most stressful, realistic environment we can create without compromising safety. Training programs must result in demonstrated tactical and technical competence, increased confidence and new initiatives to improve performance under fire.

We Employ New Technologies to Maintain Our Technological Edge

As new technologies are developed, we must use them to our operational advantage. The ships we build today will serve in the fleet for an average of 30 or more years. We must ensure ships and airplanes are designed to employ new technologies to fight in the battlefields of tomorrow. We also must be able to counter the technological developments of potential adversaries.

Chapter Seven: The Navy's Forces

Battle Groups and Task Forces Are the Centerpieces for Naval Operations

To carry out assigned missions, Commanders-in-Chief and their subordinate naval commanders organize their forces by task capabilities. In practice, this means organizing various ships, aircraft, submarines, support units and often units of other services or nations to carry out each specific task. Some examples of task-organized groups that are commonly employed are: Joint Task Forces, Carrier Battle Groups, Surface Action Groups, Amphibious Task Forces, Underway Replenishment Groups and Convoy Escort Groups. Since a situation may not always require a full battle group, the fleet commander can tailor the size of a specific task force to the military objective or expected threat.

Aircraft Carriers

Aircraft carriers with their embarked air wings are the most capable ships at sea and form the nucleus of our carrier battle groups. An air wing is composed of fighter, attack, airborne early warning, electronic warfare, anti-submarine and logistics aircraft. These modern, long-range forces are capable of striking airborne, surface or sub-surface targets at sea, as well as targets ashore deep in an enemy's homeland. The aircraft carrier is essential to achieving and maintaining sea control. Not every mission requires a carrier—or a carrier battle group—but there are certain events or crises when only a carrier can do the job.

Surface Combatants

Our multi-mission surface combatants are important elements of battle group and amphibious operations and are also able to operate together as surface action groups. Cruisers and destroyers commonly operate with all types of battle groups and possess extensive anti-air, anti-submarine, anti-surface and strike warfare capabilities. Frigates are designed to escort shipping and also can be used as part of a battle group. Many surface combatants carry helicopters which add an important dimension to anti-submarine warfare, anti-ship surveillance and targeting operations. The *Harpoon* and *Tomahawk* cruise missiles allow surface combatants to conduct lethal strikes on distant surface targets and on targets ashore.

The Submarine Force

Our submarines are the most capable undersea force in the world today. Cost-effective and survivable, fleet ballistic missile submarines are the cornerstone of America's strategic deterrent forces. Our powerful, quiet attack submarines are designed to defeat enemy naval forces alone or in battle group operations, lay mines off enemy ports, provide covert intelligence, support special operations and conduct cruise missile strikes on targets ashore.

Land-Based Naval Aircraft

We operate a variety of land-based aircraft to carry out important Navy missions. Long-range antisubmarine patrol planes detect, track and destroy enemy submarines and keep track of surface ships over large areas of the ocean. Special communications aircraft link the President with our submerged ballistic missile submarines. Various types of logistics aircraft provide transport, training and refueling support to our operating forces.

Amphibious Forces

Amphibious forces, working together with the U.S. Marine Corps, provide the United States with an unmatched capability to project land combat power ashore nearly anywhere along the world's coastlines. Amphibious vessels transport, land and sustain Marines and their equipment via embarked landing craft, amphibious vehicles and helicopters. This forward-based, mobile and highly flexible Navy–Marine Corps team ensures our ability to influence events ashore rapidly.

Special Warfare

Naval Special Warfare forces are highly trained units which specialize in unconventional warfare missions. They are composed of SEALs (Sea-Air-Land Units) and Special Boat Units. They perform such missions as beach and coastal reconnaissance, underwater demolition, direct action, intelligence collection, coastal and riverine interdiction, hostage and prisoner rescue and other specialized tasks in support of Battle Group and Joint Task Force operations. Quickly deployable and highly mobile, Special Warfare forces are lightly armed and rely on stealth, concealment and surprise to accomplish their tasks.

Mine Warfare

Mines are formidable weapons. Cheap, difficult to detect and deadly, they are in the hands of many countries around the world today. Modern U.S. mines and our air and subsurface delivery platforms allow us to threaten the seaborne traffic and naval forces of any adversary. Additionally, our helicopter and surface minesweepers and minehunters give us the capability to clear vital waterways of even the most sophisticated mines.

Mobile Logistics and Support

Combat logistics ships enable us to sustain our naval forces anywhere in the world. They shuttle petroleum products, ammunition, stores and other goods to battle groups and task forces. Support ships, which include such vessels as tenders, repair ships, tugs and hospital ships, provide essential maintenance, repair and logistics force support for forward deployed forces. Additionally, large stocks of Marine Corps equipment are stored afloat in Maritime Prepositioned Ships for immediate use in Navy/Marine Corps operations. As overseas U.S. bases decline in numbers, these logistics and support forces will become increasingly important.

Intelligence and Cryptology

The intelligence and cryptologic communities provide a wide range of intelligence support to tactical forces and commands and staffs ashore. Shore-based intelligence and cryptologic operations involve the collection, processing, analysis and reporting of information from many sources from communications intelligence to human intelligence. Afloat intelligence provides immediate, on-scene warfighting support to tactical commanders in the form of immediate combat information, indications and warning (I&W) of impending enemy activity and assessments of ongoing hostile force intentions and capabilities. Such afloat support is produced through the combined use of tactical sensors within the force, those of the other military services and national technical collection systems. Our emphasis is on joint intelligence efforts to provide timely, accurate and complete information to our tactical commanders.

Space and Electronic Warfare

The gathering, processing and transmission of information is becoming an increasingly important part of all warfare. Our ability to use assets in space; the exploitation of the entire electromagnetic spectrum for surveillance, targeting and communication; and the countering of an opponent's ability to perform these functions are all crucial to our success. This new warfare area is an integral supporting element for all other warfare areas, and is key to ensuring interoperability with other U.S. military services and the armed forces of other nations.

The Shore Establishment

The focus of the shore establishment is to support the requirements of the operating forces. From training, logistics and maintenance to direct support of operational units, the shore establishment has a vital role in keeping the fleet ready to fulfill its missions. To be effective, the shore establishment must understand and be responsive to the requirements of the operating forces. It also must measure in a meaningful way the effectiveness of the support it provides. The shore infrastructure must be compatible with and reflect the size of the operating forces. We strive to maintain modern, efficient shore facilities and equipment to provide state-of-the-art support to the fleet and quality conditions for military and civilians assigned to duties ashore.

Chapter Eight: The Navy's Future: Continuity and Continuous Improvement

The Navy's Fundamental Purpose Will Remain Unchanged

As a maritime nation, the United States will continue to depend upon the world's oceans for security, economic strength and access to trading partners and allies. For the future, just as over the past 200 years, the Navy will be required to preserve freedom of

the seas, to protect our country's shores from attack and to serve as an instrument of U.S. foreign policy. Our missions are enduring.

The World Is Changing

In today's world we are witnessing many profound and rapidly unfolding changes. The end of the Cold War is very welcome, but it also has removed restraints on many nations. This, coupled with the spread of high technology weapons, growing competition for energy sources and economic advantage and longstanding political, social, territorial and religious disputes among and within numerous nations, makes our security environment more complicated.

The Navy Must Improve Continuously to Ensure It Remains a Strong Instrument for National Security

The Navy must be well prepared to meet the challenges posed by the dramatic changes in the world. We need to maintain our current high degree of readiness, flexibility, responsiveness and dependability if we are to address the challenges of the 1990s and beyond. We also must take into account the need to operate within a tight budget. We may not have the resources which have been available to us in the past. Affordability, efficiency and the need for quality and continuous improvement will become ever more important to our ability to remain a strong, effective Navy. For this reason, the day-to-day job of every Navy man and woman will be to work together as a team to improve the quality of our work, our people and ourselves; to take advantage of new ideas and new technologies; and most important, to understand that the pursuit of quality never ends.

The Navy's People Have Been the Essence of Our Strength in the Past, and You Are the Future of Our Navy

We have built, operated and maintained the best Navy ever to sail the world's oceans. Our countrymen and women have provided us with the world's finest aircraft, ships, submarines and weapons. But the true source of our strength, the linchpin of our effectiveness as a fighting force, has been and always will be the resourcefulness and devotion to duty of our finest asset, the Navy men and women who serve our country around the world.

Appendix A: Navy Professional Reading List

The Professional Reading List includes a number of books, both fiction and non-fiction, which address our profession. Naturally, there are many others you also will want to examine; this is simply a starting point. The list has been divided into three categories:

basic, intermediate and advanced. The list is included in the Policy Book as a reaffirmation of our commitment to professional growth for all Navy men and women.

TITLE	AUTHOR
A. BASIC	
<i>All Quiet on the Western Front</i>	Erich M. Remarque
<i>American Caesar: Douglas MacArthur 1880–1964</i>	William Manchester
<i>Brief History of Time: From the Big Bang to Black Holes</i>	Stephen M. Hawking
<i>Command of the Seas: A Personal Story</i>	John F. Lehman
<i>Everything We Had: An Oral History of the Vietnam War</i>	Al Santoli, ed.
<i>Flight of the Intruder</i>	Steven Coontz
<i>Hunt for Red October</i>	Tom Clancy
<i>In Love and War</i>	James B. & Sybil Stockdale
<i>In Search of Excellence</i>	Thomas J. Peters
<i>On Watch</i>	Elmo Zumwalt
<i>Red Badge of Courage</i>	Stephen Crane
<i>Red Storm Rising</i>	Tom Clancy
<i>Run Silent, Run Deep</i>	Edward L. Beach
<i>The Caine Mutiny</i>	Herman Wouk
<i>The Cruel Sea</i>	Nicholas Monsarrat
<i>The Killer Angels</i>	Michael Shaara
<i>The Right Stuff</i>	Tom Wolfe
<i>The Russians</i>	Hedrick Smith
<i>The Sand Pebbles</i>	Richard McKenna
<i>The Source</i>	James A. Michener
<i>The United States Navy: A Two Hundred Year History</i>	Edward L. Beach
<i>Two-Ocean War</i>	Samuel E. Morison
<i>War and Remembrance</i>	Herman Wouk
<i>Winds of War</i>	Herman Wouk
B. INTERMEDIATE	
<i>A Bright Shining Lie: John Paul Vann and America in Vietnam</i>	Neil Sheehan
<i>Admiral Arleigh Burke: A Biography</i>	E. B. Potter
<i>At Dawn We Slept: The Untold Story of Pearl Harbor</i>	Gordon W. Prange

<i>Assignment: Pentagon</i>	Perry M. Smith
<i>Bull Halsey: A Biography</i>	E. B. Potter
<i>Commander in Chief: Franklin Delano Roosevelt: His Lieutenants and Their War</i>	Eric Larrabee
<i>Chrysanthemum and the Sword: Patterns of Japanese Culture</i>	Ruth Benedict
<i>Eagle Against the Sun: An American War with Japan</i>	Ronald H. Spector
<i>Eisenhower: At War, 1943–1945</i>	David Eisenhower
<i>Fate Is the Hunter</i>	Ernest K. Gann
<i>First to Fight: An Inside View of the U.S. Marine Corps</i>	Victor H. Krulak
<i>From Hiroshima to Glasnost</i>	Paul Nitze
<i>Kaizen: The Key to Japan's Competitive Success</i>	Masaaki Imai
<i>Makers of Modern Strategy</i>	Peter Paret
<i>Master of Seapower: A Biography of Fleet Admiral Ernest J. King</i>	Thomas Buell
<i>Miracle at Midway</i>	Gordon W. Prange
<i>Modern Times: The World from the Twenties to the Eighties</i>	Paul Johnson
<i>Mountbatten</i>	Philip Ziegler
<i>Nelson, The Biography</i>	David Walder
<i>Nimitz</i>	E. B. Potter
<i>Out of the Crisis</i>	W. Edwards Deming
<i>Presidential Management of National Security</i>	Carnes Lord
<i>The Deming Management System</i>	Mary Walton
<i>The Guns of August</i>	Barbara W. Tuchman
<i>The Maritime Strategy, Geopolitics and the Defense of the West</i>	Colin S. Gray
<i>The Mask of Command</i>	John Keegan
<i>The Pentagon and the Art of War</i>	Edward N. Luttwak
<i>The Quiet Warrior</i>	Thomas Buell
<i>Today's Isms: Communism, Facism, Capitalism, Socialism</i>	William Ebenstien & Edwin Fogelman
<i>Sea Power: A Navy History</i>	E. B. Potter & Chester Nimitz
<i>Silent Victory: The U.S Submarine War against Japan</i>	Blair, Clay, Lippencott
<i>The American Way of War</i>	Russell F. Weigley

<i>The Atlantic Campaign: World War II's Great Struggle at Sea</i>	Dan Van Der Vat
<i>The Future of Sea Power</i>	Eric J. Grove
<i>The KGB Today: The Hidden Land</i>	John Barron
<i>The Face of Battle</i>	John Keegan
<i>The Last Lion: Visions of Glory, 1874–1932</i>	William Manchester
<i>The Last Lion: Alone 1932–40</i>	William Manchester
<i>The Price of Admiralty</i>	John Keegan
<i>The Rise of American Naval Forces, 1776–1918</i>	Harold & Margaret Sprout
<i>The Rivals: America and Russia since WW II</i>	Adam B. Ulam
<i>The Second World War</i>	John Keegan
<i>The U.S. and the Origins of the Cold War</i>	John L. Gaddis
<i>Vietnam: A History</i>	Stanley Karnow

C. ADVANCED

<i>America at Century's End</i>	James R. Schlesinger
<i>Cold Dawn: The Story of SALT</i>	John Newhouse
<i>Democracy in America</i>	Alexis de Toqueville
<i>Deterrence in American Foreign Policy: Theory and Practice</i>	Alexander George
<i>Fleet Tactics: Theory & Practice</i>	Wayne P. Hughes
<i>From Beirut to Jerusalem</i>	Thomas L. Friedman
<i>How Democracies Perish</i>	Jean-Francois Revel
<i>Man, the State and War: A Theoretical Analysis</i>	Kenneth N. Waltz
<i>Military Strategy: A Naval Theory of Power Control</i>	Joseph C. Wylie
<i>Origins of the Maritime Strategy: American Naval Strategy in the First Postwar Decade</i>	Michael A. Palmer
<i>On War</i>	Carl Von Clausewitz
<i>Power & Change: The Administrative History of the Office of the CNO</i>	Thomas C. Home
<i>Seapower and Strategy</i>	Colin S. Gray & Roger Barnett
<i>Some Principles of Maritime Strategy</i>	Julian S. Corbett
<i>Strategy for Defeat: Vietnam in Retrospect</i>	U. S. Grant Sharp
<i>Strategy: The Logic of War and Peace</i>	Edward N. Luttwak
<i>The Art of War</i>	Sun Tzu
<i>The Geopolitics of Superpowers</i>	Colin S. Gray

<i>The Influence of Sea Power upon History</i>	Alfred T. Mahan
<i>The Soldier and the State: The Theory & Politics of Civil-Military Relations</i>	Samuel P. Huntington
<i>The White House Years</i>	Henry Kissinger
<i>The U.S. Navy: The View from the Mid-1990s</i>	James L. George
<i>The Ultra Secret</i>	F. W. Winterbotham
<i>U.S. Defense Policy in an Era of Constrained Resources</i>	Robert L. Pfaltzgraff, Jr. & Richard H. Shultz, Jr.
<i>War and Politics</i>	Bernard Brodie

Appendix B: The Navy's Purpose through History

Throughout our history, the United States has depended upon the world's oceans for its security and economic well-being. For more than 200 years, the roles played by the United States Navy have remained remarkably consistent: to guard our shores from foreign attack, preserve freedom of the seas for the passage of trade and commerce, protect our overseas interests, support our allies and serve as an instrument of America's foreign policy. The bravery, dedication and hard work of generations of American sailors have ensured the Navy's success in these diverse and challenging tasks.

The Revolution (1775–1785): The Navy's Vital Role in the Birth of Our Nation

America's origins are intimately linked to the sea. North America was discovered and colonized by Europeans who took passage across the Atlantic Ocean to the New World. Overseas trade was a mainstay of the economies of the 13 English colonies for more than a century before the War of Independence. During that war, the Continental Navy, privateers and commerce raiding squadrons chartered by individual American states, and the navy of our French ally all played vital roles in our fight against the British.

The Continental Navy's squadrons and individual ships attacked British sea lines of communications and seized transports laden with munitions, provisions and troops. Continental and state Navy ships and privateers also struck at enemy commerce, taking nearly 200 British ships as prizes, forcing them to divert warships to protect convoys and trade routes. In one of those shipping raids, off Flamborough Head on the coast of England in 1779, Captain John Paul Jones, commanding an old, half-rotten former merchantman, *Bonhomme Richard*, gave the new Navy one of its first battle cries, "I have not yet begun to fight!" as he defeated a much superior British ship, the frigate *Serapis*.

The Battle of Yorktown in 1781 was a near-perfect example of how naval forces can support an army. At the Battle of the Virginia Capes off Chesapeake Bay, the French Navy under Admiral De Grasse prevented the British from evacuating their troops under siege at Yorktown. This led to the surrender of British forces under General

Cornwallis to General George Washington and, shortly thereafter, final victory for the newborn United States.

The War of 1812 and the Rebirth of the U.S. Navy (1785–1815): Protecting Free Trade and Preserving Freedom of the Seas as an Instrument of Foreign Policy

In the 1780s and 1790s, pirates from the Barbary states on Africa's north coast attacked our defenseless merchant ships, stealing their cargoes and enslaving their crews. Determined to protect the freedom of the seas, the new American Congress authorized the building of a naval force to be sent to the Mediterranean. After a series of sea fights and operations ashore between 1801 and 1807, and another expedition in 1815, the Barbary rulers agreed to stop their attacks on American shipping.

Conflict with Revolutionary France in the so-called Quasi-War prompted the establishment of the permanent Navy Department in 1798. French attacks on U.S. merchantmen led to intermittent hostilities between American and French warships through 1800. American warships captured more than 80 French vessels and defeated two French men-of-war in combat on the high seas, giving the world a convincing demonstration of both the new Navy's force and capability and U.S. determination to protect its commerce.

In the early 1800s, as the Napoleonic Wars in Europe wore on, Britain also interfered with U.S. merchant shipping, boarding our ships and forcibly "pressing" U.S. sailors into the Royal Navy. Congress declared war on Britain in June 1812, in part over the issue of freedom of the seas and free trade. Outnumbered by the powerful British Navy, American sailors nevertheless distinguished themselves in a series of ship-to-ship engagements on the high seas, in squadron combat on Lakes Erie and Ontario and in coastal waters defending New Orleans.

Following the War of 1812, Navy ships participated in the suppression of piracy in the Caribbean, anti-slavery patrols off Africa and Brazil, diplomatic initiatives such as Commodore Matthew Perry's expedition to open relations with Japan in 1852 to 1854, naval exploration in the Pacific and the Arctic and amphibious and blockade operations during the Seminole and Mexican Wars.

Civil War (1861–1865): Blockade and Joint Riverine Operations

The Navy's principal role during the Civil War was to blockade the South's coastline and support Union army operations on inland rivers. Over the course of the war, these joint operations with the Army cut the South off from outside support and gradually constricted its trade and commercial livelihood.

Rapid improvements in engineering and weaponry led to the beginning of a revolution in naval technology, illustrated by the construction of ironclad warships by both sides. The Union Navy's *Monitor* contained more than 40 patentable inventions. The *Monitor* was built to counter the Confederate *Virginia*, an armored ship built on the hull of the former USS *Merrimac*. Although the 1862 battle between the *Monitor* and *Virginia* ended in a draw, this first battle of ironclads signalled a profound change in the nature of naval warfare. The war also saw innovations in mines, mine counter-measures and submarines.

In the years following the Civil War, the Navy was reduced in size until the 1880s when, with the settlement of the American West essentially complete, the U.S. became increasingly interested in overseas trade and foreign affairs. The Navy had undergone considerable decline since the Civil War. Many of the technological innovations introduced from 1861 to 1865 had been adopted and improved upon by foreign navies, but the U.S. fleet was essentially a force of antiquated wooden-hulled gunboats. Construction began in the late 1880s and early 1890s on a new Navy of all-steel ships. The ideas of Captain Alfred Thayer Mahan about the role maritime power played in building great nations and how battle fleets were critical components of those nations' defense provided a useful framework for the resurrection of American sea power.

The Spanish-American War: The Navy's First Two-Ocean Conflict

American support for Cuban independence from Spain escalated into conflict when the battleship USS *Maine* exploded and sank in Havana harbor in February 1898. The United States blamed Spain for the explosion and declared war on April 25. Five days later, the Spanish Navy was completely defeated in the Pacific at the Battle of Manila Bay, and on July 3, the U.S. Atlantic Squadron devastated the bulk of Spain's remaining naval power in a fleet engagement off Santiago, Cuba. A subsequent naval blockade of Santiago enabled the U.S. Army to capture the city.

As a result of the Spanish-American War, Spain ceded the Philippines and Puerto Rico to the United States. Congress subsequently annexed Hawaii, Wake Island and part of the Samoa Islands, giving the U.S. far-flung possessions to protect and overseas bases from which to defend its interests.

World War I (1917–1918): Submarine Warfare and Seafight to Europe

During World War I, the principal contributions of the U.S. Navy were to help neutralize the German U-boats which were sinking allied shipping in the approaches to the British Isles and the ports of France, and to provide the ships to transport men and material to Europe. By 1918, more than 2 million American troops of the American Expeditionary Force had safely crossed the Atlantic.

World War I saw the introduction of new, more lethal technologies for sea warfare. The American bluejacket proved his professionalism in a completely new area of naval combat, anti-submarine warfare (ASW), while the infant shore-based U.S. naval aviation force saw its first combat over European shores and coastal seas. In addition, American minelayers helped lay the North Sea Mine Barrage designed to isolate the German submarine force in home waters, and after hostilities ended, American mine-sweepers helped take up the vast minefields.

In the years following World War I, the United States signed a series of naval arms control treaties which limited shipbuilding and modernization and restricted growth in the size of the U.S. Navy. By the mid-1930s, however, as international tensions increased, those treaties expired and were not renewed, allowing the U.S. to begin the naval buildup which became critical for victory in World War II.

Despite the limits placed on the interwar fleet, the American Navy had at last reached a point where it was second to none in both size and capability. The U.S. Fleet was also unsurpassed in the innovations in naval warfare it introduced and tested. In the 1920s, the first U.S. aircraft carrier, USS *Langley*, was commissioned, and additional flattops followed. In the 1930s, the Marine Corps established the Fleet Marine Force and began perfecting the amphibious assault techniques that would make the island-hopping campaign of World War II possible.

World War II (1941–1945): The Navy's Role in Global War

The Atlantic. The United States followed a strategy of defeating Germany first during the second World War. This meant that while the Navy had to fight in both oceans simultaneously, the threat presented by Nazi Germany generally received highest priority in the men and material being mobilized and the offensive campaigns being planned. Just as in World War I, the primary role of the Navy in the Atlantic was to ensure the safe transport of American soldiers and equipment overseas. In 1942, large numbers of experienced German U-boats threatened to sever Allied sea lanes and starve Britain into submission. In a long and bitter anti-submarine campaign, American, British and Canadian ships gradually gained the upper hand. Wise allocation and routing of precious shipping resources saved many convoys from attack, and after 1943, intelligence derived from deciphered German naval radio messages gave the Allies a vital edge. But it still took many destroyers, escort carriers and shore-based air units to drive the U-boats from the seas. If the Atlantic battle had not been won, there would have been no victory on land.

Larger Navy units supported Allied landings in North Africa in October 1942, and in Sicily and mainland Italy in 1943. These ever more powerful amphibious operations formed the prelude to the largest amphibious assault ever—the Allied invasion of

northern France June 6, 1944 (D-Day). Involving nearly 2,500 ships and countless landing craft, Allied navies put 150,000 U.S. Army, British, Canadian and French troops ashore and supported them as they steadily destroyed the Nazi army in Western Europe.

The Pacific. The surprise attack on Pearl Harbor sank or damaged most of the Pacific Fleet's battleships, but the U.S. aircraft carriers, submarines and Hawaii's critical fuel depots and repair installations remained unscathed. The Japanese overran British possessions in Hong Kong, Malaya, Burma, French Indochina, the Dutch East Indies and, after a valiant fight by Americans and Filipinos, the Philippines. By the spring of 1942, Japan appeared to be threatening Australia, Hawaii and the American West Coast.

In May 1942, U.S. Navy carriers stopped the Japanese advance on Australia in the first naval battle waged entirely by aircraft against ships, the Battle of the Coral Sea. In early June, U.S. naval intelligence revealed that the Japanese were planning to attack Midway Island in preparation for an assault on Hawaii. A badly outnumbered American Fleet met the Japanese armada near Midway, sinking four Japanese carriers and destroying 322 enemy aircraft, breaking the back of Japanese naval aviation for much of the rest of the war. The Battle of Midway marked the end of the Pacific War's defensive phase.

During the next three years, the U.S. Navy fought its way across the Pacific, supporting Marine and Army landings aimed at bypassing heavily-defended Japanese island bases. The bitter six-month sea, air and land struggle for Guadalcanal in the South Pacific from 1942 to 1943 was followed by a march across the Central Pacific, from the Gilbert Islands through the Marshalls, Marianas and Palaus. In June, the remainder of Japanese naval air power was destroyed off the Marianas at the Battle of the Philippine Sea. The newly taken Marianas gave the Army Air Forces bases to attack Japan itself. In October, a combined assault by Central Pacific forces under Admiral Chester Nimitz and Southwest Pacific forces under General Douglas MacArthur on Leyte island led to the largest naval battle ever fought, the Battle of Leyte Gulf. That battle allowed U.S. Army troops to liberate the Philippines without fear of any further Japanese naval intervention. In 1945, American assaults on Iwo Jima and Okinawa brought the U.S. Navy to the shores of Japan itself.

Beginning immediately after Pearl Harbor, American submariners carried the war into Japanese sea lanes and home waters. By 1944, they had effectively cut Japan off from access to East Indies oil, severely curtailing the ability of the surviving units of the Imperial Navy to threaten American landings. U.S. submarines relentlessly blockaded Japan, bringing down her industry as well as her war machine. By the time the United States dropped the atomic bomb in August 1945, the Navy's carriers, surface combatants and submarines were in position to starve Japan into surrender or support an invasion of the Japanese home islands.

From World War II until Today (1945–Present): Deterrence, Crisis Management and Regional Conflict

In the nearly half a century since the end of World War II, U.S. sailors and Marines have been called upon more than 200 times to support our allies, or, in conjunction with Army and Air Force units, to stabilize a troubled area. Because of its mobility and staying power, the Navy has been called upon whenever it has been necessary to preserve our interests overseas. Some of these episodes have been relatively minor, while others have been major conflicts.

In the immediate aftermath of World War II, the U.S. Navy adopted a peacetime strategy of deploying a significant portion of its offensive striking power overseas to the Northeast Atlantic, Mediterranean Sea, Western Pacific and later, the Indian Ocean, on a continuing basis to deter aggression against U.S. allies and interests. Army and Air Force units were based overseas in Western Europe and East Asia as well. This was a departure from pre-war years when the bulk of the battle fleet and nearly all of the Army was based at home. If deterrence failed, those forward-deployed forces would halt enemy advances and undertake offensive operations against the adversary as soon as possible.

The basis of U.S. naval war planning for four decades, this forward strategy was publicly codified in the Navy's Maritime Strategy in the 1980s.

In June 1950, Communist North Korea invaded South Korea. Navy units in the Sea of Japan quickly flew air strikes against the Communists and secured command of the seas while U.S. Marines, Army, Air Force and Allied units moved to support South Korea ashore. In September, the brilliant amphibious landing at Inchon turned the tide against the North Korean aggression. Two more years of hard land and air fighting followed until the war ended with an armistice in 1953.

During the Cold War, as the Soviet Union and the United States faced each other from opposite sides of the Iron Curtain, the Navy contributed a key element to the U.S. policy of nuclear deterrence. In 1955, the U.S. Navy began developing the Fleet Ballistic Missile system, which in 1960 demonstrated that nuclear-armed missiles could be accurately fired from submerged submarines against targets more than a thousand miles away. Thereafter, nuclear-powered submarines, equipped first with Polaris, then with Poseidon, and now with Trident missiles, have patrolled beneath the seas as an invisible, secure and survivable deterrent against thermonuclear aggression.

When the Soviet Union attempted to install nuclear-armed missiles in Cuba in 1962, President John F. Kennedy established a naval quarantine of the island, emphasizing American determination to see the missiles removed. Because the U.S.S.R. then lacked

an effective ocean-going navy, it could not challenge the U.S. and agreed to withdraw its missiles after 14 tense days.

Through the 1960s and early '70s, the Navy played an important role in efforts to sustain a non-Communist government in South Vietnam. After the Tonkin Gulf incident in August 1964, Navy aviators flew the first air strikes against North Vietnam. After 1965, when the U.S. bombed North Vietnam and Laos to stop the flow of men and supplies moving south on the Ho Chi Minh trail, Navy aircraft played a major part in the air campaign. Surface ships provided gunfire support for American, South Vietnamese and Allied forces in South Vietnam and shelled targets in North Vietnam. Navy riverine forces supported Army and Allied units in operations on Vietnam's inland and coastal waterways. Although the U.S. withdrew after 1973, Navy and Air Force units moved quickly to rescue as many refugees as possible when the government of South Vietnam collapsed in 1975.

The Atlantic Fleet played a key role with Marine, Air Force and Army contingency forces in dealing with crises in the Caribbean and Central America, notably the Dominican Republic in 1965, Grenada in 1983 and Panama in 1989. In 1985, the Sixth Fleet in the Mediterranean helped apprehend the terrorist hijackers of the cruise ship *Achille Lauro*. In 1986, Navy and Air Force aircraft struck at Libyan command and control centers in response to Libyan support of international terrorism. During the Iran-Iraq War in 1987 to 1988, U.S. Navy ships escorted oil tankers and swept mines in the Persian Gulf, thus maintaining Free World access to oil and preserving freedom of the seas.

When Iraq overran Kuwait in August 1990, Navy units were first on the scene, and their presence helped deter Iraq from invading Saudi Arabia. The Navy's fast sealift and maritime logistics forces ensured the rapid buildup of forces in Operation DESERT SHIELD. This massive movement of Army, Air Force, Marine and Allied manpower, equipment and supplies from Europe and the U.S. depended on the free use of the seas made possible by American maritime supremacy. Subsequently, Navy ships formed the core of the multinational coalition and put teeth into U.N. decisions by undertaking maritime interdiction operations that cut off Iraq's seaborne trade links. When Iraq refused to evacuate Kuwait by the Jan. 15, 1991, United Nations deadline, Navy aircraft and *Tomahawk* cruise missiles operating from both the Persian Gulf and the Red Sea were among the first to hit Iraqi forces in Kuwait and in Iraq.

Throughout America's history, the U.S. Navy has played a key role in the defense of our nation and its interests overseas. As the United States faces the post-Cold War world, the Navy will be there to serve the nation's objectives in times of crisis and conflict. The same pride, professionalism and fighting spirit that enabled the 13 colonies to survive more than 200 years ago remain alive and well in the Fleet today.

“... From the Sea: Preparing the Naval Service for the 21st Century”

Originally dated and distributed in September 1992, “. . . From the Sea” was also issued as a U.S. Navy news release on 6 October. It was eventually published in three slightly differing versions. The first version appeared with several grammatical errors, which were corrected for the version that appeared in the U.S. Naval Institute Proceedings and the Marine Corps Gazette.†*

The publication of “. . . From the Sea” coincided with the national presidential election campaign in the autumn of 1992. In January 1993, after the election and just as the Clinton administration was taking office, the Navy published the same text, without the signatures of the secretary and service chiefs. This glossy-covered, illustrated pamphlet, with a circulation of some 140,000 copies, was a key tool in an eighteen-month-long, coordinated media campaign.‡

The third of the four key documents published during Admiral Kelso’s term of office, “. . . From the Sea” appeared just four months after The Navy Policy Book, and it benefited directly from the appointment on 29 October 1992 of the new secretary of the Navy, Sean O’Keefe, whose considerable political influence helped overcome the persisting negative influence of the Tailhook scandal. Even after O’Keefe’s departure from office on 20 January 1993 at the end of George H. W. Bush’s administration (Admiral Kelso served additionally as acting secretary of the Navy during the first six months of the Clinton administration, from 20 January to 21 July 1993), “. . . From the Sea” continued to be widely circulated.

This document was written to underscore the determination of the Navy’s leadership to change, align itself more effectively with the concept of the Base Force developed by the

* A photocopy with facsimile signatures is in the Naval War College Library, shelf number VA56.4.V546 1992, c.1. The text is available online at www.chinfo.navy.mil/navpalib/policy/fromsea/fromsea.txt. Originally published as item NNS130 of Navy News Service (NavNews 048/92), 6 October 1992.

† U.S. Naval Institute *Proceedings* (November 1992), pp. 93–96; *Marine Corps Gazette* 76, no. 11 (November 1992), p. 18.

‡ U.S. Navy Dept., . . . *From the Sea: Preparing the Naval Service for the 21st Century* (Washington, D.C.: [1992]).

chairman of the Joint Chiefs of Staff, Gen. Colin Powell, apply the lessons the Navy had learned from the First Gulf War, and to take into consideration the context of the technology provided by the Tomahawk missile and the Aegis combat system.

The document was initially drafted by a concepts group known as the Naval Force Capabilities Planning Effort, headed by Brig. Gen. (select) Thomas L. Wilkerson, USMC. Their work was revised after the arrival of Vice Adm. Leighton W. Smith as Deputy Chief of Naval Operations for Plans, Policy, and Operations (Op-06). Having just come from a tour of duty as Director of Operations, U.S. European Command (1989–91), Admiral Smith emphasized joint operations as a key element and directed that the document reflect the concept of naval power as joint, littoral, and enabling. “. . . From the Sea” continued the earlier deemphasis on antisubmarine warfare, as a “post–Cold War dividend,” and the renewed stress on crisis response and long-range reach. In the end, the principal drafters were Vice Admiral Smith and Capt. Howard A. “Rusty” Petrea from the OpNav staff. Their final draft was edited personally by Secretary O’Keefe, with help from his special assistant, Cdr. James Stavridis.† ♦*

A New Direction for the Naval Service

“. . . From the Sea” is a Navy and Marine Corps White Paper. It defines a combined vision for the Navy and Marine Corps. *The Navy Policy Book* and the *Marine Corps’ Master Plan* describe internal policy issues and serve to complement the task of articulating the shape and size of our service for the next century.

FRANK B. KELSO II
Admiral, U. S. Navy
Chief of Naval
Operations

SEAN O’KEEFE
Secretary of the Navy

C. E. MUNDY, JR.
General, U. S. Marine Corps
Commandant of the
Marine Corps

Introduction

The world has changed dramatically in the last two years, and America’s national security policy has also changed. As a result, the priorities of the Navy and Marine Corps have shifted, leading to this broad assessment of the future direction of our maritime forces.

The fundamental shift in national security policy was first articulated by the President at the Aspen Institute on 2 August 1990. The new policy is reflected in the President’s

* The members of the Naval Force Capabilities Planning Effort included Cdr. Bradd Hayes, USN (Capt. sel.); Capt. Howard A. (Rusty) Petrea, USN; Col. Michael Strickland, USMC; Col. Richard (Rick) Stearns, USMC; Capt. Larry Kelly, USN; Capt. Edward Smith, USN; Cdr. Richard (Rich) Snead, USN; Col. Wallace (Chip) Gregson, USMC; Mr. Ferd Neider, CNA analyst; Dr. Thomas Barnett, CNA analyst; Capt. Robert Crawshaw, USN; Capt. Eric Briggs, USN; Capt. Charles Schaefer, USN; Cdr. Joseph Connelly, USN; Cdr. Al Seifert, USN; Capt. Frank Dobrydney, USN.

† Vice Adm. James Stavridis, USN, e-mail to Hattendorf, 6 July 2006; Stavridis e-mail to Swartz, 28 June 2006; Maj. Gen. Thomas L. Wilkerson, USMC (Ret.), e-mail to Hattendorf, 7 July 2006.

National Security Strategy and the “Base Force” concept developed by the Secretary of Defense and the Chairman of the Joint Chiefs of Staff.

This National Security Strategy has profound implications for the Navy and Marine Corps. Our strategy has shifted from a focus on a global threat to a focus on regional challenges and opportunities. While the prospect of global war has receded, we are entering a period of enormous uncertainty in regions critical to our national interests. Our forces can help to shape the future in ways favorable to our interests by underpinning our alliances, precluding threats, and helping to preserve the strategic position we won with the end of the Cold War.

Our naval forces will be full participants in the principal elements of this strategy—strategic deterrence and defense, forward presence, crisis response, and reconstitution.

With a far greater emphasis on joint and combined operations, our Navy and Marine Corps will provide unique capabilities of indispensable value in meeting our future security challenges. American Naval Forces provide powerful yet unobtrusive presence; strategic deterrence; control of the seas; extended and continuous on-scene crisis response; project precise power from the sea; and provide sealift if larger scale warfighting scenarios emerge. These maritime capabilities are particularly well tailored for the forward presence and crisis response missions articulated in the President’s National Security Strategy.

Our ability to command the seas in areas where we anticipate future operations allows us to resize our naval forces and to concentrate more on capabilities required in the complex operating environment of the “littoral” or coastlines of the earth. With the demise of the Soviet Union, the free nations of the world claim preeminent control of the seas and ensure freedom of commercial maritime passage. As a result, our national maritime policies can afford to de-emphasize efforts in some naval warfare areas. But the challenge is much more complex than simply reducing our present naval forces. We must structure a fundamentally different naval force to respond to strategic demands, and that new force must be sufficiently flexible and powerful to satisfy enduring national security requirements.

The *new* direction of the Navy and Marine Corps team, both active and reserve, is to provide the nation:

Naval Expeditionary Forces

Shaped for Joint Operations

Operating Forward From the Sea

Tailored for National Needs.

This strategic direction, derived from the National Security Strategy, represents a fundamental shift away from open-ocean warfighting on the sea toward joint operations conducted *from* the sea. The Navy and Marine Corps will now respond to crises and can provide the initial, “enabling” capability for joint operations in conflict—as well as continued participation in any sustained effort. We will be part of a “sea-air-land” team trained to respond immediately to the Unified Commanders as they execute national policy.

In addition to our new direction, the Navy has a continuing obligation to maintain a robust strategic deterrent by sending nuclear ballistic submarines to sea. As long as the United States maintains a policy of nuclear deterrence, our highly survivable nuclear powered ballistic missile submarines will remain *critical* to national security. We also need to turn our attention and explore potential naval contributions to other forms of conventional strategic defense. In particular, we are carefully examining the naval capabilities which could contribute to theater missile defenses.

Beyond the shift in emphasis for the naval forces, there are some traditional naval missions for which we must redouble our efforts to improve our capability. Of particular importance, *sealift is an enduring mission for the Navy*. Our nation must remain capable of delivering heavy equipment and resupplying major ground and air combat power forward in crisis. Sealift is the key to force sustainment for joint operations and we are committed to a strong national sealift capability.

Defining the New Direction

Naval Expeditionary Forces

The restructured Naval Force must expand on and capitalize upon its traditional *expeditionary* roles. “Expeditionary” implies a mind set, a culture, and a commitment to forces that are designed to operate forward and to respond swiftly. Specifically, Naval Expeditionary Forces are:

- Swift to respond, on short notice, to crises in distant lands. Naval Forces, deployed overseas, are poised to respond to national tasking. Recent examples include the initial rapid response to meet the requirements for DESERT SHIELD and provide assistance to storm battered Bangladesh and the war torn Kurds following DESERT STORM.
- Structured to build power from the sea when required by national demands. The Navy and Marine Corps “sea-air-land” team is capable of a full range of action—from port visits and humanitarian relief to major offensive operations. Even as DESERT SHIELD intensified, tailored Naval Forces responded to evacuation requirements in both Liberia and Somalia.

- Able to sustain support for long-term operations. Ships at sea in remote areas of the world have a healthy self-sufficiency. Naval Forces can remain on station for extended periods. Amphibious forces remained off Liberia for seven months. The USS *Eisenhower* task force remained in the Indian Ocean at sea for five months during the Iranian Hostage Crisis.
- Unrestricted by the need for transit or overflight approval from foreign governments in order to enter the scene of action. The international respect for freedom of the seas guarantees legal access up to territorial waters of all coastal countries of the world. This affords Naval Forces the unique capability to provide peaceful presence in ambiguous situations before a crisis erupts.
- In sum, Naval Expeditionary Forces provide unobtrusive forward presence which may be intensified or withdrawn as required on short notice.

Shaped for Joint Operations

The Navy and Marine Corps are full partners in joint operations. The battlefield of the future will demand that everyone on the field be teammates. Such teamwork “enables” joint combat operations. Some examples of how Naval Forces will implement this concept include:

- As a highly sustainable force on scene, a Naval Force commander can command the joint task force while the operation is primarily maritime; and shift that command ashore if the campaign shifts landward at the discretion of the Unified Commander.
- Focusing on the littoral area, the Navy and Marine Corps can seize and defend an adversary’s port, naval base or coastal air base to allow the entry of heavy Army or Air Force forces. *The success of modern U.S. military strategy depends on forces organized, trained, and equipped for this division of combat labor.*
- Sealift will provide the maritime bridge to ensure heavy joint forces can arrive and fight effectively in major crisis.

Operating Forward, from the Sea

As the U.S. withdraws from overseas bases, Naval Forces will become even more relevant in meeting American forward presence requirements.

The Navy and Marine Corps operate forward to project a positive American image, build foundations for viable coalitions, enhance diplomatic contacts, reassure friends, and demonstrate U.S. power and resolve. Naval Forces will be prepared to fight promptly and effectively, but they will serve in an equally valuable way by engaging day-to-day as peacekeepers in the defense of American interests. Naval Forces are unique in offering this form of international cooperation.

Operating forward, Naval Forces demonstrate United States commitment overseas and promote American interests. A scheduled, coalition-building multinational exercise involving U.S. Navy and Marine forces provides visible assurance to friends—and a warning to potential enemies. Humanitarian assistance and nation-building efforts have similar effects.

Naval Forces also *contain crises* through forward operations and rapid responses with flexible and sustainable sea-based forces. The seeds of conflict will continue to sprout in places where American interests are perceived as vulnerable. The art of managing crises in these areas is delicate and requires the ability to orchestrate the appropriate response and to send precisely tailored diplomatic, economic, and military signals to influence the actions of adversaries.

Naval Forces provide a wide range of crisis response options, most of which have the distinct advantage of being easily reversible. If diplomatic activities resolve the crisis, Naval Forces can withdraw *without* action or build-up ashore.

THE LITTORAL REGION



■ = Within 650 nautical miles of coastal region, the striking range of Naval Forces

Operating forward means operating in the littoral or “near land” areas of the world. As a general *concept*, we can define the littoral as comprising two segments of the battlespace:

Seaward: The area from the open ocean to the shore which must be controlled to support operations ashore.

Landward: The area inland from shore that can be supported and defended directly from the sea.

If diplomacy fails, Naval Forces operating forward, as part of a joint U.S. military team, *can project United States combat power* as required.

The littoral region is frequently characterized by confined and congested water and air space occupied by friends, adversaries, and neutrals—making identification profoundly difficult. This environment poses varying technical and tactical challenges to Naval Forces. It is an area where our adversaries can concentrate and layer their defenses. In an era when arms proliferation means some third world countries possess sophisticated weaponry, there is a wide range of potential challenges.

For example, an adversary's submarines operating in shallow waters pose a particular challenge to Naval Forces. Similarly, coastal missile batteries can be positioned to "hide" from radar coverage. Some littoral threats—specifically mines, sea-skimming cruise missiles, and tactical ballistic missiles—tax the capabilities of our current systems and force structure. Mastery of the littoral should not be presumed. It does not derive directly from command of the high seas. It is an objective which requires our focused skills and resources.

Tailored for National Needs

As Naval Forces shift from a Cold War, open ocean, blue water naval strategy to a regional, littoral, and expeditionary focus, Naval organizations will change. Responding to crises in the future will require great flexibility and new ways to employ our forces. As an example, the Naval Services will make available to Unified Commanders a notional Expeditionary Force Package from among the following:

- Aircraft carrier and air wing
- Submarines
- Amphibious ships with embarked Marines
- Maritime Patrol Aircraft
- Surface combatants
- Mine Warfare Forces
- Navy Special Warfare Forces.

Under the aegis of the Unified Commander, these forces would be available for tasking in the full range of joint operations with the other services, thus providing a cohesive joint team capable of rapid and decisive action—from peacetime presence and exercises to joint strike in major crisis.

The Expeditionary Force Package can operate with other elements of joint or combined task forces, including:

- Air Force composite wing

- Army infantry, airborne, or air mobile forces
- Special Operations forces
- Surveillance, refueling, air defense assets
- Coast Guard assets
- Reserve Forces in contributory support
- Allied forces and assets.

Naval Forces can be continuously tailored to developing events. The answer to every situation may not be a carrier battle group. It may be an amphibious readiness group and a surface action group with Tomahawk missiles. It may be a group of minesweepers, with several guided missile frigates for defense. Or it may be the overwhelming power of a carrier battle group and an amphibious ready group with embarked Marines, operating with Air Force and Army forces. *The key is continuously tailoring our forces to anticipate and support national needs.*

Forces can be “shared” across theater boundaries to demonstrate capabilities, signal commitment to local leaders and promote opportunities for regular exercises and exchanges with air, sea, and ground forces of our allies and coalition partners.

Rapid movement of these forces across Unified Command boundaries will occur to forestall or respond to crises.

Operational Capabilities

All services are enhancing and streamlining their capabilities to maximize efficiency, particularly in joint and combined operations. The Naval Service will focus on complementing the capabilities of the other Services, examine ways to minimize duplicative capabilities, and thereby efficiently meet the challenges of the new security environment. The shift in focus to littoral operations requires a corresponding shift of emphasis toward accelerating the adaption of existing forces to counter littoral threats.

In addition to our traditional operational capabilities of forward deployment, crisis response, strategic deterrence, and sealift, *four key operational capabilities are required to successfully execute the new direction of the Navy and Marine Corps:*

- Command, Control, and Surveillance
- Battlespace Dominance
- Power Projection
- Force Sustainment.

Command, Control, and Surveillance

The Navy and Marine Corps will continue to structure command and control capabilities to promote efficient joint and combined operations as part of an overarching command, control, and communications architecture that can adapt from sea to shore. We will also exploit the *unique* contributions which Naval Forces bring to littoral operations.

Our surveillance efforts will continue to emphasize exploitation of space and electronic warfare systems to provide commanders with immediate information, while denying and/or managing the data available to our enemies. Integrated information and netted sensors will allow us to *use surveillance data from all sources—national and combined—and to target and strike from a variety of land, sea, and air platforms.*

The Naval Force Commander will have the capability to command a joint task force and function as, or host, a Joint Force Commander. Command and control system capabilities enable domination of the battlespace and power projection, and are central to the precise application of power.

Particular emphasis will be placed on the ability to collect intelligence through covert surveillance early in crisis. Naval intelligence efforts will be directed to a regional focus.

Battlespace Dominance

The battlespace is the sea, air, and land environment where we will conduct our operations. The dominated battlespace expands and contracts and has limits. Dominating the battlespace presupposes effective command and control capabilities and serves as the logical prerequisite for the projection of power ashore. Battlespace dominance means that we can maintain access from the sea to permit the effective entry of equipment and resupply. This dominance implies that Naval Forces can bring to bear decisive power on and below the sea, on land, and in the air. We must use the full range of U.S., coalition and space-based assets to achieve dominance in space as well.

Naval Forces must also have the capability to deny access to a regional adversary, interdict the adversary's movement of supplies by sea, and control the local sea and air. For the Naval Service, then, dominating the battlespace means ensuring effective transition from open ocean to littoral areas, and from sea to land and back, to accomplish the full range of potential missions. This is the essence of naval adaptability and flexibility which are the keys to contingency response. *Battlespace dominance is the heart of naval warfare.*

Power Projection

Naval Forces maneuver from the sea using their dominance of littoral areas to mass forces rapidly and generate high intensity, precise offensive power at the time and location of their choosing under any weather conditions, day or night. *Power projection requires mobility, flexibility, and technology to mass strength against weakness.* The Navy and Marine Corps Team supports the decisive sea-air-land battle by providing the sea-based support to enable the application of the complete range of U.S. combat power.

Power projection from the sea means bombs, missiles, shells, bullets, and bayonets. When Marines go ashore, naval aviation aboard aircraft carriers and—if required—land based expeditionary aircraft will provide them sustained, high-volume tactical air support ashore to extend the landward reach of our littoral operations. Rugged naval aircraft are well suited for expeditionary airfield operations. *These capabilities—the ability to generate high intensity power projection from the decks of our carriers and expeditionary airfields—are critical.* They must continue to be sufficiently available and ready to contribute to joint warfare and decisive victory.

Our carrier and cruise missile firepower can also operate independently to provide quick, retaliatory strike capability short of putting forces ashore. Remaining ready indefinitely to strike, this potential force *from the sea* is a critical tool for diplomacy and influence. The mere arrival of naval strike forces into an area of heightened U.S. interest sends a clear signal.

Joint operations between Naval and Air Force strike assets—including carrier-based aircraft, land-based naval expeditionary aircraft, land-based Air Force aircraft from both local and distant bases, and Tomahawk missiles from surface forces and attack submarines—have become standard.

Finally, forces projected ashore can maneuver and build up power rapidly deep in the objective area to disorient, divert, and disrupt the enemy.

Force Sustainment

America's influence depends on its ability to sustain military operations around the globe. The military options available can be extended indefinitely because sea-based forces can remain on station as long as required. Naval Forces encompass the *full range* of logistics support that is the critical element of any military operation. It requires a comprehensive and responsive logistics support system, including air and sealift, replenishment ships, mobile repair facilities, and advanced logistic support hubs. It requires open sea lanes of communication so that passage of shipping is not impeded by an adversary.

In peace, naval logistics forces support the day-to-day forward operations of Naval Forces. During crisis, warfighting materiel afloat in maritime prepositioning ships enables the near-immediate projection of credible military power. Finally, during war, strategic sealift ships will deliver heavy equipment and resupply heavy ground and air combat forces. *Forward logistics, prepositioning, and strategic sealift, coupled with strategic airlift, are the keys to force sustainment.*

Conclusion

The Navy and Marine Corps Team is changing in response to the challenges of a new security environment. The shift in strategic landscape means that *Naval Forces will concentrate on littoral warfare and maneuver from the sea*. Maneuver from the sea, the tactical equivalent of maneuver warfare on land, provides a potent warfighting tool to the Joint Task Force Commander—a tool that is literally the key to success in many likely contingency scenarios.

The new direction of the Naval Service signals changes in doctrine, education, service integration, training, acquisition, infrastructure, operations, risk reduction, and other areas.

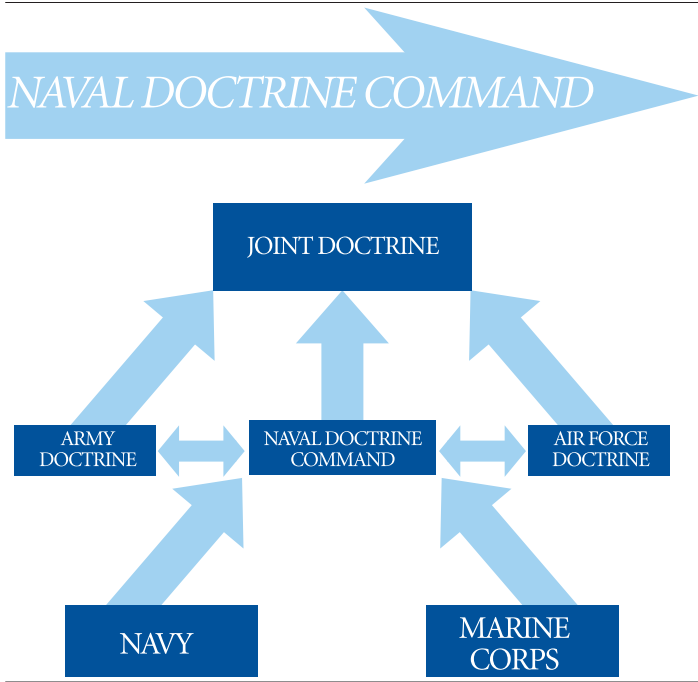
Amplifying documents and policy statements will follow on these subjects.

Naval Forces must be both capable and affordable, supported by relevant concepts, doctrine, and training. These changes will refine and implement the operational capabilities of expeditionary warfare so that Naval Forces can help provide the Nation's leaders with a full range of options to preserve regional balances, lay the foundations for coalition operations, provide assistance to Americans in danger, respond to crises of every type, and project decisive power ashore in conflict.

Implementation

Naval Doctrine Command

We are establishing a Naval Doctrine Command. Integration on the battlefield starts with integration of doctrine and training. The regional and littoral warfighting environment requires new doctrinal thinking to get the most out of integrating the Navy/Marine Corps and the joint sea-air-land team. The new Naval Doctrine Command, alternately commanded by a Navy Rear Admiral and a Marine Corps Major General, will provide for smooth integration of Naval Forces into joint operations at any level, close the gap between the air-land battle and amphibious warfare, and translate “operational maneuver from the sea” into naval doctrine. Above all, it will build doctrine for expeditionary warfare.



Examining Our Current Force

We will examine functions and capabilities, seeking to eliminate areas of redundancy and enhancing areas considered deficient in light of this shift in strategy. Navy and Marine Corps equipment design, tactical training, logistics support, and task force structure will be optimized for taking and holding objectives on or near the enemy's coastline. We specialize in maneuver warfare from over the horizon, using the ocean to project force at soft points in the enemy's defense. Our job during a regional conflict is to control the ocean adjacent to the littoral battlefield, the ground from the shore to our objectives, and the skies above both. We rely on Navy and Marine Corps strike assets to neutralize enemy threats that may engage us from outside of established defense perimeters. Our goal is to *focus our procurement strategy on systems that best support the unique capabilities of the Navy and Marine Corps.*

Immediate Tasks

Fiscal realities and a newly defined regional, littoral naval focus require new thinking, significant changes, and a commitment to undertake challenging tasks. The Navy and Marine Corps will:

- Restructure to accommodate the strategy outlined in this document.
- Link air, land, and naval warfare to ensure truly joint warfare.

- Develop naval doctrine consistent with the new direction and focus—including an examination of functions and capabilities.
- Organize, train, and implement new Naval force packages for expeditionary operations. Train commanders and man their staffs for joint operations.
- Configure, train, and man numbered fleet and Marine expeditionary staffs to be able to command a joint task force and function as, or host, a Joint Force Air Component Commander.
- Enhance communications, command, and control on naval flag ships to the degree necessary to host the commander of a joint task force.
- Establish Commander U.S. Naval Forces Central Command as a Vice Admiral billet; provide additional permanent staff billets and communications command and control capabilities necessary to execute his responsibilities.
- Provide the Marines with the medium-lift they require.
- Increase emphasis on generation of high intensity power projection, support of force ashore, and weapons necessary to fulfill the mission.
- Expand the integration of Navy and Marine Corps fixed-wing air capabilities.
- Fully integrate attack submarines, maritime patrol aircraft, and mine warfare assets into the expeditionary task forces.
- Resolve sealift deficiencies.
- Continue to reorient naval intelligence resources from the former Soviet Navy to regional, littoral threats.
- Structure the Naval Reserve for immediate crisis response and peacetime contributory support.
- Procure equipment systems to support this strategy and remain ahead of the global technological revolution in military systems.

Naval Warfare

Naval Doctrine Publication 1

*Naval Warfare was published on 28 March 1994, the first of a series of six unclassified capstone documents projected by the newly established Naval Doctrine Command at Norfolk, Virginia. Five of the six documents eventually appeared as uniformly designed, glossy, illustrated booklets—respectively, Naval Doctrine Publications 1, 2, 4, 5, and 6. The third of the series, Naval Operations, which might have had relevance to this volume, was never published. The first, Naval Warfare, also published on the World Wide Web, was designed to stand alone, but still be a part of the series. Its purpose was to explain the inherent nature of the enduring principles of naval force and to translate the vision and strategy of “. . . From the Sea” into doctrinal reality.**

The booklet appeared when the administration of President William J. Clinton and Secretary of Defense Les Apsin, Jr., was just two months old. The fourth and final document to appear during Admiral Kelso’s tenure as Chief of Naval Operations, it was signed jointly by Admiral Kelso and the Commandant of the Marine Corps, Gen. Carl E. Mundy, Jr., just three weeks before Kelso was relieved by Adm. Jeremy M. Boorda.

The idea behind this booklet, and the work of the Naval Doctrine Command in general, was to contribute to commonality in thinking about joint warfare and establish for naval affairs an approach and language comparable to that being used in the Army, Air Force, and Marine Corps. Traditionally, the U.S. Navy had, by and large, never been sympathetic to the Army’s use of the principles of war as a basis for doctrinal thinking, preferring a much broader and more flexible approach in thinking about operational concepts, notwithstanding the long effort of the Naval War College to merge military ideas and theory into naval thinking in the late nineteenth century and the first half of the twentieth. By the mid-1990s, the pressures for joint operations outside the Navy and the difficulties in joint operations experienced during the First Gulf War had combined with an desire to establish within the service a basic understanding about the roles of the Navy. At this same time, these trends presented an

* Available at www.dtic.mil/doctrine/jel/service_pubs/ndp.1.pdf.

opportunity for the Navy and the Marine Corps to work more closely together and to merge some Marine Corps doctrinal thinking into naval thought, most particularly the Corps's recent thinking on maneuver warfare.

The Naval Warfare booklet was drafted entirely in-house at the Naval Doctrine Command, whose establishment in 1993 had been heralded in “. . . From the Sea.” The key figures involved with its preparation in Norfolk, were the Commander, Naval Doctrine Command, Rear Adm. Fred Lewis, and his deputy, Col. Marvin Floom, USMC; they were assisted by Capt. Peter Bulkeley, Cdr. Robert Zalaskus, and Dr. James Tritten. The Naval Historical Center, at the Washington Navy Yard, was tasked to supply historical insights; other ideas came from a wide range of sources, among them an academic advisory committee that included faculty members at the Naval War College. Cdr. Zalaskus was assigned as the principal writer. Few of the staff members involved were graduates of the Naval War College and so they developed their ideas from wide and independent reading as well as discussion among themselves. They specifically avoided collaboration in order to develop an independent approach. Although they sought comment and constructive criticism, they chose what they wanted to accept and to include. The final product was designed and laid out in one of the first versions of Adobe Pagemaker. ♦*

The only satisfactory method of ensuring unity of effort lies in due preparation of the minds of the various commanders, both chief and subordinate, before the outbreak of hostilities. Such preparation comprehends not only adequate tactical and strategic study and training, but also a common meeting ground of beliefs as to the manner of applying principles to modern war.

LCDR DUDLEY W. KNOX, USN, “THE ROLE OF DOCTRINE IN NAVAL WARFARE,”
U.S. NAVAL INSTITUTE PROCEEDINGS, 1915

Department of the Navy

Office of the Chief of Naval Operations

Washington, DC 20350-2000

and

Headquarters United States Marine Corps

Washington, DC 20380-0001

28 March 1994

* Dr. James J. Tritten e-mails to Swartz, 11 April and 21 May 2005; Capt. Roger Barnett, USN (Ret.), comments at CNA Conference, 27 June 2006; Capt. Robert Zalaskus e-mail to Hattendorf, 10 August 2006.

Foreword

Naval doctrine is the foundation upon which our tactics, techniques, and procedures are built. It articulates operational concepts that govern the employment of naval forces at all levels. A product of more than 218 years of U.S. Navy and Marine Corps experience in warfighting, it incorporates the lessons of history, learned in both the flush of success and the bitterness of failure.

C. E. MUNDY, JR.

General, U. S. Marine Corps

Commandant of the Marine Corps

F. B. KELSO, II

Admiral, U.S. Navy

Chief of Naval Operations

This publication outlines the principles upon which we organize, train, equip, and employ naval forces. It explains how naval forces attain both enduring and evolving national objectives, emphasizing our participation in joint and multinational operations. It presents broad guidance for the total Navy and Marine Corps team, active and reserve. Every naval professional must understand its contents.

Introduction

The success of an organized military force is associated directly with the validity of its doctrine. Doctrine is the starting point from which we develop solutions and options to address the specific warfighting demands and challenges we face in conducting operations other than war. Doctrine is conceptual—a shared way of thinking that is not directive. To be useful, doctrine must be uniformly known and understood. With doctrine we gain standardization, without relinquishing freedom of judgment and the commander's need to exercise initiative in battle.

Naval doctrine forms a bridge between the naval component of our nation's military strategy and our tactics, techniques and procedures, such as those found in our Naval Warfare Publications and Fleet Marine Force Manuals. A commander, however, cannot operate solely under the guidance of broad strategy. Neither can he make appropriate mission decisions if guided only by tactics and techniques. Doctrine guides our actions toward well-defined goals and provides the basis for mutual understanding within and among the Services and the national policymakers. It ensures our familiarity and efficiency in the execution of procedures and tactics.

Naval Doctrine Publication (NDP) 1, *Naval Warfare*, provides a framework for detailed Navy and Marine Corps doctrine. It describes the character and employment of our naval forces, highlighting the distinctiveness of warfare in the maritime environment. Its concepts apply to all who serve in or work with the Naval Services.

The United States, the most powerful nation on earth, depends upon transoceanic links—commercial and military—to allies, friends, and interests. Our nation’s maritime strength has enabled us to endure more than two centuries of global crisis and NDP 1 confrontation that have reflected the world’s unending religious, ethnic, economic, political, and ideological strife. Whenever these crises have threatened our national interests, our leaders traditionally have responded with naval forces.

This publication introduces who we are, what we do, how we fight, and where we must go in the future. It examines the importance of readiness, flexibility, self-sustainability, and mobility in expeditionary operations. It shows how these characteristics make naval forces inherently suitable for maintaining forward presence and responding to crises. NDP 1 outlines the varied missions naval forces routinely execute and the wide range of capabilities that naval forces possess.

Naval forces alone however, never were intended to have every military capability needed to handle every threat or crisis that our nation may face. Just as using complementary capabilities within our naval forces compounds our overall strength, combining the capabilities and resources of other Services and other nations in joint and multinational operations can produce overwhelming military power. In future conflicts and calls for major assistance, our nation will answer with joint forces in most cases. To be prepared for those challenges, we must maintain our ability to conduct day-to-day operations with other Services and other nations. NDP 1 emphasizes the importance of honing the teamwork needed to operate efficiently in the joint and multinational environment.

NDP 1 describes the ways naval forces accomplish their missions and execute their roles as part of the joint military team of the future. It reviews the principles of war from the naval perspective, and describes how naval forces focus their resources to attain operational superiority. The ultimate source of peacetime persuasive power, however, lies in the implied guarantee that both the intent and capability to protect our national interests are present just over the horizon, with the fortitude and staying power to sustain operations as long as necessary.

This introductory publication is the first in a series of six capstone documents for naval forces that translate the vision and strategy of the White Paper “... From the Sea” into doctrinal reality. The top-down focus will help ensure consistency between naval and joint doctrine, increase fleet awareness and understanding, and provide standardization for naval operations. The full series is composed of the following:

- NDP 1, *Naval Warfare*, describes the inherent nature and enduring principles of naval forces.

- NDP 2, Naval Intelligence, points the way for intelligence support in meeting the requirements of both regional conflicts and operations other than war.
- NDP 3, Naval Operations, develops doctrine to reaffirm the foundation of U.S. Navy and Marine Corps expeditionary maritime traditions.
- NDP 4, Naval Logistics, addresses the full range of logistical capabilities that are essential in the support of naval forces.
- NDP 5, Naval Planning, examines planning and the relationship between our capabilities and operational planning in the joint and multinational environment.
- NDP 6, Naval Command and Control, provides the basic concepts to fulfill the information needs of commanders, forces, and weapon systems.

Clearly, the uses of military force are being redirected toward regional contingencies and political persuasion, moving away from the prospect of all-or-nothing global war with another superpower. Nevertheless, a significant theme of this publication is that our Naval Services' fundamental missions have not changed. Our nation's continued existence is tied to the seas, and our freedom to use those seas is guaranteed by our naval forces.

Chapter One: Who We Are—The Nature of Naval Services

Whosoever can hold the sea has command of everything.

THEMISTOCLES (524–460 B.C.)

We are a maritime nation with many interests, global economic interdependence, and a heritage inextricably tied to our geography. Routine intercontinental commercial flights and instantaneous worldwide communications have created new trade opportunities and brought nations closer together, yet we still rely on the oceans to serve as both a defensive barrier and a highway to commerce abroad. World economic stability depends upon vigorous transoceanic trade. Today, 90% of the world's trade and 99% of our import-export tonnage is transported on the sea. Although the U.S. economy, with vast industrial, technological, agricultural, and resource components, is one of the most powerful in the world, it is not self-sufficient. We depend on the continued flow of raw materials and finished products to and from our country. Ensuring that the world's sea lanes remain open is not only vital to our own economic survival; it is a global necessity.

Establishment of the Naval Services

In both war and peace, the oceans and coastal waters of the world have been the life-lines of supply and communications. Recognizing the strategic importance of British resupply by sea during the American Revolutionary War, General George Washington initiated America's first sea-based offensive against the British. Washington's armed

vessels provided significant support to colonial efforts, demonstrating the value of military operations at sea.

We assembled the initial continental fleet from converted merchantmen. As Congress continued to commission ships, notable leaders such as John Paul Jones helped to develop a proud and capable Navy. It was not long before that force was able to capture the world's attention by displaying its ability to carry the fight overseas, far from American shores.

In manning their early fleets, American commanders provided for Marines as part of their ships' crews. In essence, the first Marines were soldiers detailed for sea service. Convinced that crews with Marines could fight successfully at sea and also mount military operations ashore, Congress passed an Act stating "That, in addition to the present military establishment, there shall be raised and organized a Corps of Marines." Congress continued to provide for Marines as long as there was one Navy ship still at sea. After the Revolutionary War, however, both the Continental Navy and Marine Corps were disbanded.

The government of the United States soon recognized new threats to our young nation. Smuggling was diverting desperately needed tax money from our almost empty treasury. Alexander Hamilton, the first Secretary of the Treasury, proposed, and the Congress authorized in 1790, a fleet of "ten boats for the collection of revenue." It became commonly known as the Revenue Marine, precursor to the U.S. Coast Guard.¹ Another threat was the seizure of U.S. merchant shipping by predatory French privateers and pirates from the Mediterranean's Barbary coast. In addition to their Treasury duties, the ten boats, or "Revenue Cutters," constituted the sole seaborne defense of the United States until Congress exercised its constitutional power and voted to "*establish and maintain a Navy*." For the next few years, struggling with postwar debts, the nation still was not united in supporting the costly venture. In 1794, however, Congress authorized the Department of War to construct six frigates, for the protection of American merchantmen against the Barbary corsairs. Four years later, in response to renewed aggression by France during its war against Great Britain, Congress finally established the Department of the Navy, authorized the Marine Corps, and began the first significant buildup of naval forces² as we know them today.

The palpable necessity of power to provide and maintain a navy has protected that part of the Constitution against a spirit of censure which has spared few other parts. It must, indeed, be numbered among the greatest blessings of America that as her Union will be the only source of her maritime strength, so this will be a principal source of her security against danger from abroad.

JAMES MADISON, *THE FEDERALIST PAPERS*, 1788

Our three maritime Services—Navy, Marine Corps, and Coast Guard—conduct operations in the world's oceans and littoral regions.³ With such capable naval forces, we view the oceans not as an obstacle, but as our base of operations and our maneuver

space, which we either can control or deny to an opponent. Whenever we face an adversary without a blue-water fleet, the oceans serve as barriers for our defense. As important though, the oceans provide the United States avenues of world trade and military lines of communication with allies and friends—when they are protected by our strong naval forces. To appreciate operations in the maritime environment, it is necessary to understand the distinctive character of naval forces.

The Character of Naval Forces

We are, first, American fighting men and women. We take ships and submarines to sea, fly aircraft, land on foreign shores, stand watches around the clock and around the world and, when required, engage the enemy at sea and ashore. Our people are our most valued resource and provide the element of will against adversity, supply essential creativity amid the uncertainties of conflict, and combine inspiration, reason, and experience to achieve our national objectives in peace and in war.

Every day, dedicated Sailors and Marines make countless sacrifices while supporting our national objectives. At the heart of this selflessness are core values that drive personal standards of excellence and moral strength. Our nation places special trust and confidence in these men and women while giving them the sobering responsibility of properly exercising military power that is greater than any in history. This trust is warranted by our continued *competence* in carrying out roles, absolute *integrity* in actions and relationships, and personal *courage* that overcomes moral dilemmas and physical obstacles through an unyielding sense of duty and commitment. This professional ethic, shared by every member of our naval forces, enhances cohesion and promotes teamwork. It establishes an environment in which we are able to share and delegate responsibilities in working toward a common goal.

Naval forces reflect the partnership among our active, reserve, and civilian components. Our planning is predicated on each component contributing its part in day-to-day support operations, mobilization, and force augmentation. Our reservists and civilian employees share the same sense of dedication and purpose, and fill critical positions in carrying out our operations. Working and training together, the active, reserve, and civilian components permit naval forces to maintain readiness to respond effectively to a wide array of demands on short notice.

Naval forces have been organized for fighting at sea—or from the sea—for more than two thousand years. The qualities that characterize most modern naval forces as political instruments in support of national policies are the same as those that define the essence of our naval Services today. These qualities are *readiness*, *flexibility*, *self-sustainability*, and *mobility*. They permit naval forces to be expeditionary—that is, being able to establish and maintain a forward-based, stabilizing presence around the

world. Naval expeditionary operations are offensive in nature, mounted by highly trained and well-equipped integrated task forces of the Navy and Marine Corps, organized to accomplish specific objectives. Naval expeditionary forces draw upon their readiness, flexibility, self-sustainability, and mobility to provide the National Command Authorities⁴ the tools they need to safeguard such vital national interests as the continued availability of oil from world producers and maintenance of political and economic stability around the globe. Through these qualities, naval forces reassure allies and friends, deter aggressors, and influence uncommitted and unstable regimes.

A Ready Force

A man-of-war is the best ambassador.

OLIVER CROMWELL, 1650

To be effective instruments of power, our naval forces must be available and credible—not just when crises occur but daily, wherever our allies and friends rely on our presence and wherever potential adversaries must perceive our firm commitment to defend our interests. Since the early 1800s, the United States consistently has made naval forces readily available to defend its vital interests abroad by maintaining a forward naval presence. Naval forces first deployed to South America, the Mediterranean, the Far East, and the Caribbean to protect our sea lines of commerce from pirates. Today, our national economic interests are still tied directly to sea-based commerce, and the United States accepts certain responsibilities with respect to the health of the global economy. Our ready force promotes regional stability and safeguards the flow of resources among trading partners, helping preserve our national well-being.

We are operational; in keeping with the National Military Strategy,⁵ forward-deployed naval forces help deter conflict and attain a rapid, favorable end to hostilities if conflict should occur. A strength of our naval forces lies in their immediate availability to respond to contingencies through tangible readiness. Our deploying forces certify their proficiency in their advertised capabilities by demonstrating their ability to carry out specific tasks and missions prior to departure. When they arrive in the operating theater, they are ready to operate; trained and organized to function as a cohesive force. It is no coincidence that naval operations in war—especially in supporting roles such as construction, medical functions, and logistics—are similar to peacetime operations. To maintain our readiness, we design many peacetime operations to parallel wartime operations as closely as possible.

Operating in forward regions of the world enables us to maintain a situational awareness that is critical in gaining the upper hand during any conflict's early stages. By training in the places and climates where we expect to fight, we also gain familiarity with the operational environment and its effects on our people and equipment. Because the transition from

peace to conflict in an unstable theater can occur quickly, the Commander-in-Chief's assets in the region are likely to form the core of the initial response. The readiness and presence of deployed naval forces provide the Commander-in-Chief the enabling force he needs to respond decisively and without the limitations of lengthy transit times.

Operating forward from the sea has long been a characteristic of the Navy–Marine Corps team. With limited overseas basing, naval forces become especially relevant in meeting national forward presence requirements. National policymakers rely upon forward presence to display U.S. commitment and resolve to allies and friends. This presence is called upon to deter aggression, to participate in regional coalition-building and collective-security efforts, to further regional stability, to promote U.S. access and influence over critical areas, and to provide initial crisis response wherever necessary. Forward deployed naval forces, including selected Coast Guard forces, demonstrate that the United States is involved and committed to shaping events in the best interests of itself, its friends, and its allies.

A Flexible Force

The seas are no longer a self-contained battlefield. Today they are a medium from which warfare is conducted. The oceans of the world are the base of operations from which navies project power onto land areas and targets. The mission of protecting seelanes continues in being, but the Navy's central missions have become to maximize its ability to project power from the sea over the land and to prevent the enemy from doing the same.

TIMOTHY SHEA: PROJECT POSEIDON, 1961

Naval forces have been on scene independently or as part of joint task forces time and again, assisting those in distress. Since 1945, U.S. naval forces have been involved in more than 280 crises, including 75 since 1976, and 80% of all post–World War II incidents. The flexibility of naval forces enables us to shift focus, reconfigure, and realign forces to handle a variety of contingencies.

We provide our commanders and decisionmakers a wide range of weapon systems and military options, supported by a core of trained professionals equipped as a sea, air, and land team. Capable of adapting to a variety of situations, naval forces can support the many challenges facing our theater Commanders-in-Chief. Our ability to fight other naval forces or land-based air forces, to conduct air strikes, to battle ground forces inland, or to evacuate noncombatants creates uncertainty in the adversary's mind about what our naval forces might do in any given situation. The combination of a robust amphibious ready group integrated with a carrier task force, for example, provides both a perception and a potential for offensive action ashore without committing such forces.

Carriers, amphibious task forces, surface combatants, cutters, submarines, aircraft, and their associated Navy, Marine Corps, and Coast Guard equipment, vehicles, and personnel are the building blocks of our multidimensional operating capability. Naval forces provide the National Command Authorities the tools to respond to a full range of needs, from disaster relief and humanitarian assistance to forcible entry and strike operations. Naval flexibility—as shown in our forward deployed posture, mobility, and self-sustainability—enables us to control the seas and provide diplomatic leverage, in peace or time of crisis.

A Self-Sustaining Force

When we operate in forward areas at the end of long supply lines without a significant land-based supply structure, we need the ability to resupply at sea. Consequently, naval forces carry their own ammunition, spares, and consumables—as well as support and repair facilities for use early in a crisis or throughout a protracted conflict. This self-sustainability provides the National Command Authorities critical time to create an environment that will bring success. Our ships are designed to travel significant distances without replenishment. They carry the striking power of aircraft, guns, missiles, and Marine forces that can execute operations ashore immediately, without an assembly period or a lengthy logistics buildup. If conflict should continue over an extended period, naval forces can remain on station through augmentation and resupply by combat logistics ships. With provisions made for on-station replacement of personnel and ships, such operations can be continued indefinitely.

A Mobile Force

Naval forces, with their strategic and tactical mobility, have the ability to monitor a situation passively, remain on station for a sustained period, respond to a crisis rapidly, and maneuver in combat with authority. Naval forces can respond from over the horizon, becoming selectively visible and threatening to adversaries, as needed. If diplomatic, political, or economic measures succeed, our agility permits us to withdraw promptly from the area without further action or buildup ashore.

Mobility enables naval forces to respond to indications of pending crises by relocating rapidly from one end of the theater to another or from one theater to another, independent of fixed logistics. Operational speed is part of our flexibility. Maintaining control of the seas permits us to exercise our mobility in positioning naval forces to meet the crisis of the moment, then moving on to other potential crisis locations. Naval mobility ensures that an adversary cannot take offensive action with any confidence that the expanse of the oceans will protect him from the long reach of U.S. retaliation.

Our mobility makes naval forces difficult to target and severely taxes the enemy's ability to launch a credible attack. Mobility complicates the enemy's efforts to prepare adequate defenses because he cannot be certain of our attack axis. To cover all possibilities, the enemy may be forced to spread his defenses too widely, thus exposing vulnerabilities.

Mobility is a key to decisive naval operations. The ability to maneuver ships into position to strike vulnerable targets, or to threaten amphibious assault at multiple locations along an extended coastline, is a significant tactical and operational advantage. After we have launched our strikes, our ships can press the advantage, maneuver out of range, or reposition themselves for the next strike phase. In amphibious operations, we place troops in a position to attack the weakness of the enemy while avoiding his main strength. A landing force's ability to maneuver from attack positions over the horizon through designated penetration points—without a slowdown or loss of momentum—could be critical to the success of the landing. When the Marines have accomplished their mission ashore, they can backload to await the next contingency.

Supported by a rich maritime heritage, the strength of our naval Services continues to reside in our well-trained, high-quality people—active duty, reserves, and civilian. They remain at the heart of our force readiness and warfighting effectiveness. As a team, operating at sea and in the world's littorals, naval forces are able to shift quickly from low-profile, passive, forward-deployed operations to high-tempo crisis response. In this environment, we are expeditionary in character, a force whose readiness, flexibility, self-sustainability, and mobility is capable of deterring and, if necessary, winning regional battles, resolving crises, or serving as the naval component of joint task forces to protect our national interests.

Chapter Two: What We Do—Employment of Naval Forces

Congress assigns the armed forces of the United States specific roles.⁶ The basic roles of our naval forces are to promote and defend our national interests by maintaining maritime superiority, contributing to regional stability, conducting operations on and from the sea, seizing or defending advanced naval bases, and conducting such land operations as may be essential to the prosecution of naval campaigns. Naval forces accomplish these roles through deterrence operations and specific peacetime operations, while maintaining warfighting readiness through continuing forward deployed presence, exercising a robust sealift capability, and developing our interoperability with all Services.

Fundamentally, all military forces exist to prepare for and, if necessary, to fight and win wars. To carry out our naval roles, we must be ready to conduct prompt and sustained combat operations—to fight and win at sea, on land, and in the air. Defending the

United States and controlling its seaward approaches are the first requirements. Gaining and maintaining control of the sea and establishing our forward sea lines of communication are our next priorities. As we operate in littoral areas of the world on a continuing basis, naval forces provide military power for projection against tactical, operational, and strategic targets. In both peace and war, we frequently carry out our roles through campaigns. A campaign, although often used only in the context of war, is a progression of related military operations aimed at attaining common objectives. Campaigns focus on the operational level of war.

The concept of “levels of war” can help us visualize the relative contribution of military objectives toward achieving overall national goals and offer us a way to place in perspective the causes and effects of our specific objectives, planning, and actions. There are three levels: tactical, operational, and strategic—each increasingly broader in scope. Although the levels do not have precise boundaries, in general we can say that the tactical level involves the details of individual engagements; the operational level concerns forces collectively in a theater; and the strategic level focuses on supporting national goals. World War II, for example, a strategic-level and global war, included operational-level combat in the Pacific theater consisting primarily of U.S. led maritime, air, and supporting allied land campaigns. Within each specific campaign were a series of important and often decisive battles. At the tactical level, each contributed to the achievement of that campaign’s objectives. The culmination of these campaign objectives resulted in overall victory in the Pacific theater.

The naval contribution in the Pacific in World War II exemplifies all the strategies of campaigning: protection of U.S. ports; maneuver warfare at sea to check the advance of the Japanese Navy; submarine warfare against Japanese shipping; war at sea to gain control of the sea; and amphibious assault of enemy-held islands, pushing the enemy back and forcing his final unconditional surrender. Campaigning is not an activity seen only in war. In peace, naval forces actively engage in forward presence and peace-support campaigns. Today, campaigns range from supporting economic sanctions imposed by United Nations and other international organizations, to maintaining a visible deterrent to regional aggression, and to efforts that stem the flow of illicit drug traffic.

Deterrence

It is our nation’s policy to deter aggression. Deterrence is the state of mind brought about by a credible threat of retaliation, a conviction that the action being contemplated cannot succeed, or a belief that the costs of the action will exceed any possible gain. Thus, the potential aggressor is reluctant to act for fear of failure, costs, and consequences. The presence of naval forces or their movement to a crisis area are two of the strongest deterrent signals we can send. They are unequivocal evidence that a fully

combat-ready force stands poised to protect our national interests, and that additional force—whatever it takes—will be forthcoming. Our naval forces are the leading edge of the world's most capable military, and their well-understood ability to project power is a key factor in deterrence. Forward deployed naval forces are available to respond quickly, require minimal support, and are not restricted in their movements. They are available for diplomatic, political, and economic deterrent actions that can influence, persuade or pressure uncooperative governments around the world to choose peaceful means of achieving their goals.

Nuclear Deterrence

Deterring nuclear war is a cornerstone of our national security strategy. Credible nuclear deterrence is based on adequate capability and the certitude that our nation can and will inflict unacceptable losses on any adversary that uses nuclear weapons to attack the United States or its allies. Although the risk of a global nuclear conflict has diminished significantly, proliferation of nuclear weapons is continuing, and the danger of attack from an unstable, hostile, and irresponsible maverick state or terrorist organization cannot be discounted. Since deterring nuclear attack remains the highest defense priority of the nation, we maintain a credible, survivable, sea-based strategic deterrent capability through continued deployment of ballistic-missile submarines.

Conventional Deterrence

The proliferation of weapons of mass destruction—including chemical and biological weapons—and other threats such as terrorism directed against U.S., allied, and other friendly nations' interests dictate that we maintain a full array of retaliatory capabilities. Our nation's clear willingness to employ its military might against adversaries who may consider employing such weapons will remain our primary deterrent to their use. Chemical or biological weapons are so repulsive to world society that most major countries are signatories to international treaties banning the production, storage, and use of such weapons. The United States is a party to these treaties. Yet, chemical and biological weapons already exist in many countries and they are still proliferating. Our nation's continuing involvement with friends, allies, and potential coalition partners is helping to dissuade further proliferation and buildup of these arsenals. By being able to depend on the strength and commitment of the United States, friendly nations should not feel the need to own weapons of mass destruction for their defense. Our continued regional naval presence is helping to provide assurance to our friends and is an important part of our nation's conventional deterrence.

Naval forces provide U.S. military presence around the world and can be tailored to meet these growing regional threats. Our nation's use or threatened use of our

conventional military force in the past has contributed to deterrence by showing national interest, resolve, and capability to influence events. Naval forces can move rapidly to a specific area to influence political action. In such a show of force, we establish credibility by demonstrating our readiness to use force if necessary. A show of force can be particularly effective when conducted with allies to prove solidarity and resolve. Limited use of force includes counterterrorist operations, self-defense, retaliatory raids, rescue operations, or a direct attack to achieve a specific objective. In this sense, it is the employment of military force by the National Command Authorities without a formal declaration of war.

Forward Presence

Overseas presence promotes national influence and access to critical global areas, builds regional coalitions and collective security, furthers stability, deters aggression, and provides initial crisis-response capability. Naval presence is more than the day-to-day operation of our forces in a forward region. Those operations have crucial significance, but governments, like individuals, react to change. The sortie of powerful forces such as the repositioning of a highly visible carrier battle group or an amphibious ready group sends a powerful signal to the political leaders of nations or regimes who might seek to press their temporary advantage against U.S. interests. *Routine presence* includes our permanently based forces overseas and periodic deployment of naval forces, as well as port visits and participation in a broad range of regional, bilateral, or multilateral training exercises. *Crisis response*, the emergent, timely dispatch of naval forces to a specific area, allows us to render assistance or exert military force. Forward deployed Navy ships, aircraft, and Marine forces are essential to permit the United States to act quickly in meeting any crises that affect our security. Such a forward presence enables us to support our security interests and is a critical element in encouraging regional stability and continuing world confidence in America's leadership.

Forward presence assures our nation that potential partners will join with us when the time comes. In addition to assured U.S. response, an adversary may be deterred from conducting hostile actions if he perceives that regional neighbors will actively oppose him. A strong balance of power in a region can isolate an aggressor. One way to establish this deterrent environment is through coalitions and alliances. Our nation promotes stability throughout the world by establishing supportive relationships with responsible nations to ensure that the balance of power discourages aggression. In the face of enemy threats, these allies and coalition partners need the assurance of knowing they are joining the side that will win. We establish and strengthen this assurance in our day to day relationships with these partners through a robust program of exercises

and operations designed to enhance and improve our capability to work with them in that region.

Naval Operations—Other than War

Sea power in the broad sense . . . includes not only the military strength afloat that rules the sea or any part of it by force of arms, but also the peaceful commerce and shipping from which alone a military fleet naturally and healthfully springs, and on which it securely rests.

CAPTAIN ALFRED THAYER MAHAN, 1890

Our nation routinely calls upon naval forces—independently or as part of joint task forces—to exercise two fundamental elements of our national military strategy: forward presence and crisis response. Our operations include rendering assistance in such peacetime activities as providing disaster relief and assistance to civil authorities. We support U.S. law-enforcement agencies, as illustrated by the close cooperation between Navy and Coast Guard units in counterdrug operations. Additionally, naval forces may be tasked to conduct such contingency activities as shows of force, freedom-of-navigation operations, combat operations associated with short duration interventions, and post-combat restoration of security.

Under international law, nations have a right to use force for individual or collective self-defense against armed attack, and to help each other in maintaining internal order against insurgency, terrorism, and other threats. Naval forces operating under the direction of the National Command Authorities and unified commanders implement this international right to:

- Conduct contingency operations.
- Evacuate noncombatant personnel.
- Combat terrorism.
- Aid host nations through security assistance and foreign internal defense.
- Assist other nations in defending themselves.
- Enforce United Nations' economic sanctions.
- Participate in peace-support operations.
- Intercept vessels to prevent uncontrolled immigration.
- Plan and conduct disaster relief, humanitarian assistance, and civil support operations.
- Coordinate public health operations.
- Assist interagency counterdrug operations.

Naval forces are organized, trained, and equipped to defend our nation and its interests. We defend our nation by maintaining a visible and credible capability both to fight and to take that fight abroad. Application of our expertise in operations other than war also exercises many of our wartime capabilities and our ability to accomplish our Service roles in defense of our nation.

OPERATIONS OTHER THAN WAR

Peacekeeping Operations

Former Yugoslavia/Adriatic Sea, 1993/1994—Supporting United Nations Security Council resolutions, NATO Standing Naval Forces and other U.S. and Western European Union naval forces in a cooperative effort join to form combined task forces. In the Adriatic Sea, destroyers, frigates, attack submarines, and support ships from 11 nations conduct maritime patrols for Operation Sharp Guard. In the airspace over the Republic of Bosnia-Herzegovina, five nations support Operation Deny Flight—enforcing a No-Fly Zone with shore and carrier-based fighter and attack aircraft.

Noncombatant Evacuation

Liberia, 1990—Increasing internal unrest threatens U.S. diplomats and civilians. Elements of a Marine Expeditionary Unit embarked in the USS *Saipan* (LHA-2) amphibious ready group provide support to the U.S. Embassy and stood by to evacuate American citizens and others from 2 June to 5 August. They evacuate a total of 2,609 people between 5 August and 9 January 1991.

Disaster Relief

Bangladesh, 1991—A tropical cyclone sweeps a wall of water nearly 20 feet high across the coast of Bangladesh and three miles inland, killing as many as 140,000 and rendering 1.7 million people homeless. Within 24 hours of a request for support from the government of Bangladesh, Operation Sea Angel is launched, and advance teams from the III Marine Expeditionary Force arrive in country for initial liaison. A fifteen-ship amphibious task force composed of Amphibious Group 3 and the 5th Marine Expeditionary Brigade, homeward bound from five months of operations in the Persian Gulf, is diverted to the Bay of Bengal to assist. Over the next month, 6,700 Navy and Marine Corps personnel working with U.S. Army, Air Force, and multinational forces, provide food, water, and medical care to *nearly two million people*.

Counterdrug Operations

United States, 1989 and ongoing—Congress declares illicit drug trafficking a threat to national security. The Department of Defense takes the lead in federal detection and monitoring efforts against illegal drug traffic into the United States. Joint task forces are formed that include U.S. Navy and Coast Guard ships, aircraft and personnel, dedicated to stop the influx of illegal drugs into our country. Naval forces continue to provide surveillance of smuggling routes and to assist in the search of suspect vessels and seizure of illegal drugs.

Sealift

Sealift is a national asset, providing the majority of support for large-scale deployment, reinforcement, and resupply. As military operations have progressed, sealift has accounted historically for 90–95% of the total cargo delivered over their duration. To meet these requirements, strategic sealift forces include ships in three broad categories:

- **Prepositioning**—This capability allows us to place sustainment supplies—e.g., large quantities of petroleum products, ammunition, and fleet hospitals—near crisis areas for delivery to contingency forces. (The Maritime Prepositioning Force is not considered a part of sealift. It consists of complete equipment sets to support Marine Corps operations in theater. The Maritime Prepositioning Force is discussed in Chapter Four as a power projection asset.)
- **Surge**—The initial deployment of U.S.-based equipment and supplies in support of a contingency, transported in rapid-reinforcement shipping.
- **Sustainment**—Shipping that transports resupply cargoes to stay abreast of force consumption rates and to build up theater reserve stock levels.

Joint Operations

Campaigns of the U.S. Armed Forces are joint. . . . Modern war fighting requires a common frame of reference within which operations on land and sea, undersea, and in the air and space are integrated and harmonized.

JOINT PUB 1, JOINT WARFARE OF THE U.S. ARMED FORCES, 1991

We are committed to full partnership in joint operations. The value of naval forces operating and fighting in concert with our Army and Air Force has been underscored throughout the 20th century from the Allied invasion of Normandy in 1944 to the 1991 liberation of Kuwait in Operation DESERT STORM. By routinely operating with other Services, we establish common procedures and mutual credibility, reinforcing bonds of partnership. The many successes achieved by joint forces in carefully planned and intricate operations remind us not only of the importance of interservice cooperation, but also of the inherent complexities involved in coordinating such major efforts.

In refining our ability to operate as a completely integrated force we face many challenges, but we remain committed to achieving success in conducting the full range of joint operations. To bring this about in a confluence of complex warfighting needs, we focus on standardization and improving our interoperability with other Services. This may require rethinking our force organization and even our warfighting methodologies. Members of each Service—from warfighter to planner—must be thoroughly trained to gain expertise in each other's doctrine and capabilities. Training, education, and

experience developed in frequent joint operations and exercises—where we explore and develop innovations and new doctrine—advance our understanding of ways to work with each other efficiently. This knowledge permits us to integrate basic warfighting principles properly and to support effectively the Joint Force Commander’s intent and focus of effort. Success in joint warfare depends on mutual understanding and cooperation. Coherent joint doctrine is the catalyst for this essential cooperation between Services. Our naval doctrine must fully support and be a logical extension of joint doctrine.

Naval Operations in War

Control of the sea is fundamental to accomplishing our naval roles. It supports directly our ability to project power ashore by encompassing control of the entire maritime area: subsurface, surface, and airspace, in both the open oceans and the littoral regions of the world. Control of the sea allows us to:

- Protect sea lines of communication.
- Deny the enemy commercial and military use of the seas.
- Establish an area of operations for power projection ashore and support of amphibious operations.
- Protect naval logistic support to forward deployed battle forces.
- Control of the sea can be accomplished through decisive operations by:
 - Destroying or neutralizing enemy ships, submarines, aircraft, or mines.
 - Disabling or disrupting enemy command and control.
 - Destroying or neutralizing the land-based infrastructure that supports enemy sea control forces.
 - Seizing islands, choke points, peninsulas, and coastal bases along the littorals.
 - Conducting barrier operations in choke points that prevent enemy mobility under, on, and above the sea.

By establishing control of the sea in every dimension, thus ensuring access to an adversary’s coast from the sea, we open opportunities for power projection, insertion and resupply. Control of the sea, however, has both spatial and temporal limits. It does not imply absolute control over all the seas at all times. Rather, control of the sea is required in specific regions for particular periods of time, to allow unencumbered maritime operations.

War from the Sea

Control of the sea is usually a prerequisite for larger strategies involving a land-based objective. Our national well-being may require that we direct military power or

threaten its use against an adversary's vital interests or homeland. War from the sea is the extension of our naval influence through power projection over the shore. Amphibious assault capability is an integral component of our overall naval forces. Maritime forces provide not only sea lines of communication to bring men and materiel to the area of concern, but also mobile bases from which to conduct military operations. Naval forces may be tasked to spearhead joint and multinational power projection operations, as part of a larger sea-air-land team.

Power projection takes the battle to the enemy. It means applying high-intensity, precise, offensive power at the time and place of our choosing. We provide commanders with a full range of power projection options that include: employment of long range, accurate cruise missiles; Marines conducting high-speed maneuver across the shore and inland aided by naval surface fire support; and a great variety of weapons released from naval strike aircraft.

In some cases, power projection by naval forces alone may be sufficient to meet national objectives. But, the teamwork and diversity that enable naval forces to dominate all dimensions of the battlespace simultaneously while conducting strike operations also facilitate the addition of joint, multinational, or coalition forces. Arriving at the scene of a crisis with a flexible command and control structure already in place and operating, a naval forces commander can command a Joint Task Force afloat or shift command ashore, depending on the tactical situation. When acting as an "enabling force,"⁷ the naval component may conduct operations initially to seize a hostile port facility or airfield as a precursor to the arrival of airlift, sealift, and prepositioned assets. After achieving maritime and air superiority, naval forces can continue to operate as an integrated part of a larger joint organization or disengage to respond to another need for their presence.

War at Sea

War at sea is the application of decisive offensive force to achieve control of the sea. It conjures visions of classic struggles for dominance between battle fleets armed with short-range weapons and maneuvering within sight of each other—relics of a past when the most heavily armed ship was the arbiter of national power. Today, the accuracy, lethality, and range of modern weaponry favor the force that first detects its enemy, launches an effective strike, and counters incoming weapons. Battles between heavily armed and armored battle lines have given way to short, sharp, and usually decisive engagements which may have been preceded by periods of increasing tension and substantial diplomatic effort.

The ability to engage the enemy at sea decisively will always remain paramount to our naval forces. Dominating the enemy at sea permits our forces to maintain a forward presence and is the first step in establishing our superiority in any region. War at sea emphasizes the offensive, bringing to bear information, intelligence, and tactical initiative against an adversary. It requires appropriate and well-understood rules of engagement at the brink of war to win the first clash of arms. But offensive action is incomplete without full consideration of defensive requirements. Success in engagements at sea demands preparation to counter an adversary's gunfire, missiles, torpedoes, and mines. Additionally, we must thwart the enemy's information base—his capability to control his forces and to locate and target ours—while enhancing our own. War at sea involves fully integrated offensive and defensive tactics that span the subsurface, surface, air, space, and electromagnetic environments.

In accomplishing our assigned roles, naval Services prepare to fight and win wars. We also play an important role in preventing them. Routine forward presence establishes and maintains regional, economic and political stability and deters aggression. We further strengthen positive relations with our world neighbors day-to-day by providing humanitarian assistance and supporting operations other than war. Naval presence is an important factor in minimizing regional conflict, but, when hostilities threaten U.S. interests, naval forces can provide the initial crisis response, projecting decisive military power from the sea to land if necessary, and an enabling capability to support follow-on joint forces. These daily, on-going operations significantly promote the world's confidence in America's leadership.

Chapter Three: How We Fight—Naval Warfare

The last thing that an explorer arrives at is a complete map that will cover the whole ground he has traveled, but for those who come after him and would profit by and extend his knowledge, his map is the first thing with which they will begin. So it is with strategy. . . . It is for this reason that in the study of war we must get our theory clear before we can venture in search of practical conclusions.

SIR JULIAN CORBETT, 1911

War is an instrument of a nation's power, initiated to achieve national objectives when other means to resolve differences have failed. Our fundamental military purpose is to attain national policy objectives through our capacity to wage war successfully. How well we in the Naval Services accomplish our mission depends on how thoroughly we understand both the nature and the conduct of war and learn war's many lessons.

Only through such understanding can we prepare ourselves for its tests.

Two Styles of Warfare

Naval forces have followed several styles or philosophies of warfare throughout history. Two specific types—attrition and maneuver—have evolved in response to particular needs and force capabilities. Although they vary significantly in efficiency, flexibility, and decisiveness, each type of warfare has its own utility, depending on circumstances, and both types are conducted today.

THE BATTLE OF THE ATLANTIC

Using Attrition Warfare

In World War II, allied naval forces engaged in attrition warfare by employing their resources against the German undersea fleet. Analyzing the effectiveness of submarine warfare, the former Soviet Union Admiral of the Fleet, Sergei Gorshkov, noted in his study of this period that German submarines nearly ended the war through the rapid destruction of the allied merchant fleet. German forces, especially U-boats, were credited with sinking more than 2,800 merchant ships—68% of all tonnage sunk by Nazi Germany in the war. So devastating was this weapon that, at the height of the allied counteroffensive, for each German U-boat, there were 25 U.S. and British warships and 100 aircraft in pursuit. For every German submariner at sea, there were 100 American and British antisubmariners. A total of six million men, 5,500 specially constructed ships, and 20,000 small craft were dedicated to the antisubmarine war. As the allies pressed their offensive, Germany's losses exceeded its war industry's capacity to keep pace. At the same time, the allies were able to replace their damaged merchant fleet and even expanded it by adding replacements numbering twice the losses suffered. In the Battle of the Atlantic, the threat of the U-boat was checked by overwhelming allied response. This resource-intensive, time-consuming effort was an effective use of attrition warfare.

Attrition Warfare. A key difference between attrition warfare—the wearing down of an enemy—and maneuver warfare—a high tempo, indirect philosophy—is our method of engaging the enemy. In the days of sail, fleet “line” tactics were much less involved. Ships in single lines exchanged heavy broadsides against an enemy similarly arrayed, all within sight of each other. Their simple doctrine called for sailing directly to the enemy’s location and systematically engaging his fleet. Attrition warfare is the application of our strength against an enemy’s strength. It is typically a “linear” or two-dimensional style of fighting that is frequently indecisive and inherently costly in terms of personnel, resources, and time. When success in war on the operational and strategic levels depends on our ability to destroy or deny the enemy crucial resources faster than he can recover, we are employing classic attrition warfare techniques. We attrite the enemy through systematic application of overwhelming force that reduces his ability or capacity to resist.

Maneuver Warfare. Naval forces also have used the preferable and more effective—albeit more difficult to master—fighting style known as maneuver warfare. Closely associated with the writings of Sun Tzu and used by the great practitioners of expeditionary, naval, and land war, maneuver warfare is a philosophy, rather than a formula—an approach, rather than a recipe. Like attrition warfare, it has long served as common doctrine for naval forces. It emphasizes the need to give the commander freedom to deal with specific situations. Maneuver warfare is further characterized by adaptability and is not limited to a particular environment. Though enhanced by a variety of technologies, it is not dependent upon any one of them.

Maneuver warfare emphasizes the indirect approach—not merely in terms of mobility and spatial movement, but also in terms of time and our ability to take action before the enemy can counter us. Maneuver warfare requires us to project combat power. Unlike attrition warfare, however, this power is focused on key enemy weaknesses and vulnerabilities that allow us to strike the source of his power—the key to his existence and strength as a military threat.

INCHON—SEOUL

Using Maneuver Warfare

The Navy and the Marines have never shone more brightly than this morning.

GENERAL DOUGLAS MACARTHUR, 15 SEPTEMBER 1950

The amphibious operation at Inchon in the Korean War was a classic example of how the naval Services have employed maneuver warfare. Prior to the operation, the North Korean Peoples' Army had driven the U.S. and allied forces into a constricted corner of South Korea and threatened to push them from the peninsula altogether. Even though his forces were in dire straits, General Douglas MacArthur, Supreme Commander of the United Nations forces in Korea, recognized that the naval Services in his command had the ability to reverse dramatically the tide of the battle. A landing on the Korean peninsula north of the enemy lines, he reasoned, would allow his forces to sever the critical north/south rail and road supply lines running through nearby Seoul that provided vital support to the North Korean siege of the Pusan perimeter. By 15 September 1950, U.S. Navy surface combatants and carrier air squadrons, along with shorebased Marine and Air Force air units, had cleared Korean waters and air space of North Korean opposition. Thus protected and concealed from the enemy, Vice Admiral Arthur D. Struble's nine-ship, 260-ship, Joint Task Force Seven transported Army and South Korean ground units and the amphibious-trained 1st Marine Division to the strategically important port of Inchon, north of enemy lines. These troops stormed ashore via lanes cleared of obstructions by naval underwater demolition teams and behind the gunfire of four cruisers, eight destroyers, and the aircraft of six carriers. Amphibious support ships soon brought in reinforcements and the supplies needed to maintain and expand the beachhead. This bold, surprise maneuver severed the lines of communications to 90% of the enemy's

ground forces positioned far to the south opposite the UN's Pusan perimeter. By the end of September, faced with entrapment and almost certain destruction, the North Korean Peoples' Army fled the Republic of Korea, a nation they had invaded so eagerly only a few months before.

The Conduct of War

Hold the attention of your enemy with a minimum force, then quickly strike him suddenly and hard on his flank or rear with every weapon you have.

GENERAL A. A. VANDEGRIFT, USMC, *BATTLE DOCTRINE FOR FRONT LINE LEADERS*, 1944

Success in war often is the result of decisive action that destroys the enemy's will or capacity to resist. Because protracted war can cause high casualties and unwanted political and economic consequences, the rapid conclusion of hostilities is a key goal. Maneuver warfare, based on the twin pillars of decisiveness and rapidity, is our preferred style of warfighting. It is as applicable today in the maritime environment as it has been in traditional land warfare. Modern maneuver warfare requires integration and understanding of four key concepts—center of gravity, critical vulnerability, focus of effort, and main effort. We convey these concepts in context to our forces using a mechanism called the commander's intent.

Center of Gravity and Critical Vulnerability

The center of gravity is something the enemy must have to continue military operations—a source of his strength, but not necessarily strong or a strength in itself. There can only be one center of gravity. Once identified, we focus all aspects of our military, economic, diplomatic, and political strengths against it. As an example, a lengthy resupply line supporting forces engaged at a distance from the home front could be an enemy's center of gravity. The resupply line is something the enemy must have—a source of strength—but not necessarily capable of protecting itself. Opportunities to access and destroy a center of gravity are called critical vulnerabilities. To deliver a decisive blow to the enemy's center of gravity, we must strike at objectives affecting the center of gravity that are both critical to the enemy's ability to fight and vulnerable to our offensive actions. If the object of a strike is not critical—essential to the enemy's ability to stay in the fight—the best result we can achieve is some reduction in the enemy's strength. Similarly, if the object of a strike is not vulnerable to attack by our forces, then any attempts to seize or destroy it will be futile.

YORKTOWN

Exploiting A Critical Vulnerability

During the Revolutionary War, British forces in North America depended on free use of the adjacent seas to move and resupply their ground troops. This became especially critical to the British ability to continue fighting in August 1781, on the peninsula between Virginia's York and James Rivers, when American land forces successfully severed the British Army under General

Lord Cornwallis from their ground-based resupply. At this location, British resupply by sea was vulnerable because access to the Yorktown port could be denied by controlling entry at the mouth of the Chesapeake Bay. The French West Indian Fleet under Rear Admiral François de Grasse positioned itself at this strategic location in advance of the British fleet. When British Admiral Thomas Graves arrived to support Cornwallis, de Grasse maneuvered his ships to engage the enemy outside the bay. His actions not only denied Cornwallis his needed support, but permitted another French squadron sailing from Rhode Island to enter the bay and reinforce American and French land forces. As a result, the British succumbed at Yorktown surrendering their entire Army of 7,600 men. The Franco-American alliance was effective in blocking British access to and from the sea and thereby exploiting this critical vulnerability. Losing their ability to sustain their forces by sea doomed the British war effort in North America.

The appearance of critical vulnerabilities depends entirely upon the situation and specific objective. Some—such as electrical power generation and distribution facilities ashore or the fleet oilers supporting a task group—may be obvious. On a strategic level, examples may include a nation's dependence on a certain raw material imported by sea to support its warfighting industry, or its dependence on a single source of intelligence data as the primary basis for its decisions. Alternatively, a critical vulnerability might be an intangible, such as morale. In any case, we define critical vulnerabilities by the central role they play in maintaining or supporting the enemy's center of gravity and, ultimately, his ability to resist. We should not attempt to always designate one thing or another as a critical vulnerability. A critical vulnerability frequently is transitory or time-sensitive. Some things, such as the political will to resist, may always be critical, but will be vulnerable only infrequently. Other things, such as capital cities or an opponent's fleet, may often be vulnerable, but are not always critical. What is critical will depend on the situation. What is vulnerable may change from one hour to the next. Something may be both critical and vulnerable for a brief time only. The commander's challenge is to identify quickly enemy strengths and weaknesses, and recognize critical vulnerabilities when they appear. He must rapidly devise plans to avoid the strengths, exploit the weaknesses, and direct the focus of effort toward attacking the critical vulnerabilities so that he can ultimately collapse the enemy's center of gravity.

Focus of Effort and Main Effort

The focus of effort is the paramount objective to be accomplished by the force and is therefore always on the critical vulnerability that will expose the enemy's center of gravity. Since we concentrate all our resources and energy on that objective, designating the focus of effort is an important decision requiring the acceptance of risk. Responsibility for attaining the focus of effort lies with the main effort. A commander unifies the force toward the focus of effort by assigning one unit or group as the main effort.

The main effort is supported directly and indirectly by all parts of the force. When all elements of the force are focused, the strengths of each element can be brought to bear on the enemy effectively. There is only one main effort at a time and it is always directed against the focus of effort. Designating a main effort does not imply that the offensive is limited to a single attack or series of attacks. A commander may shift designation of the main effort as necessary and that designation may assign the bulk of the force or only a small fraction of the resources available. Whatever the size, designation as the main effort means that this element is central to the complete success of the operation and supporting units are obligated to do everything they can to ensure that the main effort succeeds. Supporting units are crucial to the success of mission. Leaders of supporting units, guided by the commander's intent, choose actions aimed at doing all they can to support the main effort.

Commander's Intent

Decisive action requires unity of effort—getting all parts of a force to work together. Rapid action, on the other hand, requires a large degree of decentralization, giving those closest to the problem the freedom to solve it. To reconcile these seemingly contradictory requirements, we use our understanding of the main effort and a tool called the commander's intent.

The commander's intent conveys the “end state,” his desired result of action. The concept of operations details the commander's estimated sequence of actions to achieve this end state and contains essential elements of a plan—i.e., what is to be done and how the commander plans to do it. A commander issues the concept of operations as part of a formal operation plan or order. The commander's intent differs from the concept of operations; a significant change in the situation that requires action often will alter the concept of operations, but the commander's intent is overarching and usually remains unchanged. The commander's intent reflects his vision and conveys his thinking through mission-type orders, in which subordinates are encouraged to exercise initiative and are given the freedom to act independently.

Mission-type orders define the contract that the commander's intent establishes between the delegating commander and his subordinates. We achieve unity of effort by promulgating the commander's intent, designating a focus of effort, and training subordinates to think in terms of the effect of their actions “two levels up” and “two levels down” in the chain of command. Since stereotyped actions are inherently predictable and thus easily countered, commanders must tailor their actions to the situation at hand, using initiative, imagination and experienced judgment.

Effective commanders at all levels neither expect nor attempt to control every action of their subordinates. Nor do they profess to foresee or attempt to plan for each contingency. Two great commanders in naval history, Admirals Horatio Nelson and Arleigh Burke, rarely issued detailed instructions to their subordinate commanders. Instead, they frequently gathered their captains to discuss a variety of tactical problems. Because of these informal discussions, the captains became aware of what their commanders expected to accomplish and how they planned, in various situations, to accomplish it. Thus prepared, they later were able to act independently, following their commanders' intent, even though formal orders either were brief or nonexistent.

The commander's intent is particularly important in cases where the situation that gave rise to orders has changed and, as a result, the original orders are no longer applicable. In such cases, subordinates can structure their decisions by asking such questions as "What would my commander want me to do in this situation?" and "What can I do to help my commander attain the objectives?"

Tempo

Using the philosophy of maneuver warfare, we destroy or eliminate an adversary's center of gravity indirectly by attacking weaknesses or vulnerabilities that are vital to his source of power. One method of indirect attack is to create a dilemma, by putting the enemy in a situation where any step taken to counteract one threat increases his vulnerability to another. This is an indirect approach. Through rapid high-tempo actions, we present him with a series of unexpected situations and developments, each of which demands a response. In the ideal situation, the enemy would find that his best counter in one situation puts him at unacceptable risk in another—a no-win situation.

A powerful enemy can protect his critical vulnerabilities. A skillful enemy may disperse them. In each case, there is little chance of striking a decisive blow unless such an enemy can be forced to expose one or more of his critical vulnerabilities. One way of doing this is to exploit the dynamics of warfighting by maintaining a high tempo. Tempo is the pace of action—the rate at which we drive events. A rapid tempo requires that commanders be provided timely, accurate intelligence to find enemy weaknesses, enough decentralization to allow subordinate commanders to exploit opportunities, and clearly understood and well-rehearsed procedures at the lowest levels.

The decision cycle is a vital aspect of tempo. Forces with rapid decision cycles enjoy an advantage over those whose leaders need more time to gather and process information before making decisions. Tempo is more than a means to employ weapons better; it is a weapon itself. Directed against an enemy with a slower decision cycle, a series of rapid

and unexpected attacks on critical vulnerabilities can be overwhelming, depriving him of his power to react effectively and ultimately destroying his center of gravity.

As in the martial art of judo, the objective in fighting with a high tempo is to take action that sets in motion a series of actions and reactions, each of which potentially exposes—if only for a brief time—a critical vulnerability. In such a contest, we achieve victory by making the most rapid and unpredictable moves specifically selected to catch the enemy in a vulnerable position long enough to deliver a decisive blow. It is an aggressive style of warfare in which we gain advantage by observing the enemy, orienting ourselves to these surroundings, deciding on a move, and acting more rapidly than the enemy.

On a tactical level, this warfighting technique, formally noted in the extraordinary success enjoyed by U.S. pilots during the Korean War,⁸ also served as the root of success in similar experiences of naval aviators during the latter stages of the Vietnam War.

AIR COMBAT MANEUVERING

Tactical Use of Tempo

During the early stages of the Vietnam War, our aircraft exchange rate in combat was only two to one. Air-to-air missiles, thought to be the technological answer to future aerial combat, were ineffective in many cases. Our pilots needed to develop close-in maneuvering skills and proficiency in the use of their missiles as well as newly installed guns to counter the principal communist fighters, the MiG-series.

In several traditional measures of aircraft performance the MiG was superior to the U.S. F-4. However, following the lessons taught at Top Gun—the Navy Fighter Weapons School established to study and improve air combat maneuvering skills—fighter crews improved the kill ratio sixfold in the skies over Vietnam. The F-4 crew forced its opponent into a series of tactical actions designed to gain and maintain advantage after each maneuver. The F-4 crew quickly saw how the situation changed and immediately followed with new actions. With each change, the MiG's actions became more inappropriate, until it gave the F-4 an acceptable firing opportunity. Occasionally, the MiG pilot realized what was happening to him, panicked, and ultimately made the F-4 crew's job that much easier. Success resulted from conducting a series of sudden unexpected moves to which the enemy could not adjust.

Because tempo is so important in maneuver warfare, commanders must have the freedom of action to make decisions and execute them without any externally imposed delay. Commanders must be allowed to seize the initiative and respond to rapidly changing situations. Response time is a key to maneuver warfare. Activity at the operational level must contribute directly to the military strategic aim. Such aims, broadly set, demand that the operational commander have wide-ranging independence to exercise creativity and originality. Such freedom allows him to gain and retain the initiative and adapt to the developing situation. Mission-type orders, specifying a result but

leaving open the methods of attaining that result, allow the decentralization necessary for local rapid response.

Success in war depends upon properly implementing our overall warfighting philosophy which includes understanding the commander's intent and the concepts center of gravity, critical vulnerabilities, focus of effort, and main effort. Additionally, we must correctly apply the basic tenets or principles of war.⁹ The principles of war are based on hard-won and often bitter experience gained in conflict. These important lessons emphasize its nature and form the basis for our warfighting doctrine.

The Principles of War

An important issue throughout military history has been the way a military organization addresses the qualities that war demands from its participants. Military leadership has dealt best with the intractable problems of war as a form of military and naval art. In the maritime environment, with its distinctive factors, we fight using the principles that apply to combat everywhere. Wisdom gained from study of the basic principles of war underscores that war is not the business of managers with checklists; it is the art of leaders.

- *Objective. Direct every military operation toward a clearly defined, decisive, and attainable objective.* The naval Services focus their operations to achieve political purposes defined by the National Command Authorities. With national strategic purpose identified, we can select theater military objectives and form operational and tactical objectives based on specific missions and capabilities. Whether the objective is destroying an enemy's armed forces or merely disrupting his ability to use his forces effectively, the most significant preparation a commander can make is to express clearly the objective of the operation to subordinate commanders.
- *Mass. Concentrate combat power at the decisive time and place.* Use strength against weakness. A force, even one smaller than its adversary, can achieve decisive results when it concentrates or focuses its assets on defeating an enemy's critical vulnerability. A naval task force, using the sea as an ally, can compensate for numerical inferiority through the principle of mass. Mass further implies an ability to sustain momentum for decisive results.
- *Maneuver. Place the enemy in a position of disadvantage through the feasible application of combat power.* Use of maneuver (mobility) capitalizes on the speed and agility of our forces (platforms and weapons) to gain an advantage in time and space relative to the enemy's vulnerabilities. Whether seen in historic warships "crossing the T," or modern ground forces enveloping an enemy, or forcing the tempo of combat beyond an adversary's ability to respond, maneuver allows us to get ahead of the enemy in

several dimensions. Our advantage comes from exploiting the maneuver differential—our superiority in speed and position relative to our adversary.

- *Offensive. Seize, retain, and exploit the initiative.* Since the days of sail—racing an opponent for the upwind advantage to take the initiative—offensive action has allowed us to set the terms and select the place of confrontation, exploit vulnerabilities and seize opportunities from unexpected developments. Taking the offensive through initiative is a philosophy we use to employ available forces intelligently to deny an enemy his freedom of action.
- *Economy of Force. Employ all combat power available in the most effective way possible; allocate minimum essential combat power to secondary efforts.* With many more available targets than assets, each unit must focus its attention on the primary objectives. A successfully coordinated naval strike at an enemy's critical vulnerability—for example, knocking specific command-and-control nodes out of commission—can have far more significance than an attempt to destroy the entire command-and-control system.
- *Unity of Command. Ensure unity of effort for every objective under one responsible commander.* Whether the scope of responsibility involves a single, independent ship at sea or the conduct of an amphibious landing, we achieve unity in forces by assigning a single commander. After he expresses his intent and provides an overall focus, he permits subordinate commanders to make timely, critical decisions and maintain a high tempo in pursuit of a unified objective. The result is success, generated by unity in purpose, unit cohesion, and flexibility in responding to the uncertainties of combat.
- *Simplicity. Avoid unnecessary complexity in preparing, planning, and conducting military operations.* The implementing orders for some of the most influential naval battles ever fought have been little more than a paragraph. Broad guidance rather than detailed and involved instructions promote flexibility and simplicity. Simple plans and clear direction promote understanding and minimize confusion. Operation Order 91-001, dated 17 January 1991 summarized the allied objectives for the Desert Storm campaign into a single sentence: "Attack Iraqi political-military leadership and command and control; sever Iraqi supply lines; destroy chemical, biological and nuclear capability; destroy Republican Guard forces in the Kuwaiti Theater; liberate Kuwait." These objectives were succinct, tangible, and limited.
- *Surprise. Strike the enemy at a time or place or in a manner for which he is unprepared.* Catching the enemy off guard immediately puts him on the defensive, allowing us to drive events. The element of surprise is desirable, but it is not essential that the enemy be taken completely unaware—only that he becomes aware

too late to react effectively. Concealing our capabilities and intentions by using covert techniques and deceptions gives us the opportunity to strike the enemy when he is not ready.

- *Security. Never permit the enemy to acquire unexpected advantage. Protecting the force increases our combat power.* The alert watchstander, advanced picket, or such measures as electronic emission control all promote our freedom of action by reducing our vulnerability to hostile acts, influence, or surprise. Tools such as gaming and simulation allow us to look at ourselves from the enemy's perspective. We enhance our security by a thorough understanding of the enemy's strategy, doctrine, and tactics.

MIDWAY

The Principles of War Applied at Sea

After the Battle of the Coral Sea, 4–8 May 1942, Admiral Chester W. Nimitz, Commander in Chief, U.S. Pacific Fleet, learned from signals intelligence that a large Japanese naval force, led by Admirals Isoroku Yamamoto and Chuichi Nagumo, would attack Midway, a strategic atoll west of the American fleet base at Pearl Harbor, Hawaii. Other enemy forces would make a feint toward the Aleutian Islands in the North Pacific. The priceless advantage afforded by intercepting Japanese communications gave the Americans unprecedented knowledge of enemy intentions and force dispositions.

Every available carrier and escort the United States could muster was assigned to the operation—including the carrier *Yorktown*, which made a hasty sortie after repairs thought impossible by the Japanese Naval Staff. Nevertheless, the U.S. force was numerically inferior to the Japanese striking group. Nimitz assigned Rear Admiral Frank Jack Fletcher, a veteran of battle who had recently faced Japanese carrier forces at Coral Sea, as the officer in tactical command. Nimitz's *objectives* were clear and simple: "hold Midway and inflict maximum damage on the enemy by strong attrition tactics." Nimitz further added "In carrying out the task assigned . . . you will be guided by the principles of calculated risk." Fletcher had *unity of command* and broad latitude in executing his tasks. He directed Rear Admiral Raymond A. Spruance, Commander Task Force 16, to attack the enemy carriers as soon as the ships were located. Fletcher, embarked in the carrier *Yorktown* with Task Force 17, would follow soon afterward. Early in the battle, when enemy air attacks placed his flagship out of action, Fletcher transferred that unity of command to Spruance who retained tactical control for most of the fight.

Knowledge of the Japanese plan allowed Nimitz to invoke *economy of force* by deploying minimal forces in front of a Japanese diversion toward the Aleutian Islands while *massing* his most effective combat power—his three aircraft carriers—against the main enemy thrust at Midway. Also, knowing that the Japanese would use submarines and long-range flying boats to determine if the U.S. fleet had sortied from Pearl Harbor, Nimitz used *maneuver* to frustrate the operation of these enemy units. With our intelligence advantage, the U.S. carriers were able to deploy and were in

place well in advance of the enemy fleet. To retain their advantage, U.S. units maintained *security* through radio silence and darken-ship procedures at night. The fact that the U.S. carriers had departed the base before the battle was not known to Yamamoto. The Japanese were also conscious of the need for security and surprise. In contrast, however, excessive emphasis on security and surprise actually worked against Yamamoto and Nagumo. Convinced that the invading force would catch the island of Midway unprepared, the Japanese admirals failed to assess fully the size and location of their opposing forces. Complete reconnaissance would have shown that the U.S. Navy did not have adequate fleet strength at the time to win in a direct at-sea confrontation. The Japanese could have concentrated their efforts against Fletcher's and Spruance's forces and then attacked the lightly defended Midway later.

On the morning of June 4, 1942, Nagumo launched a routine, limited dawn air search, convinced that the Americans could not be in the vicinity. He then followed with his initial attack against Midway, opposed only by the relatively few ground-based Navy, Marine Corps and Army Air Corps search, attack, and fighter aircraft on the island. By the time Japanese reconnaissance aircraft did discover the presence of the American force, it was too late. After the Japanese aerial assault, Spruance and his staff reasoned that Yamamoto's force might be in the process of recovering their aircraft and preparing for additional land attacks. Seizing the initiative, Fletcher and Spruance immediately attacked the Japanese carriers with every aircraft available. Although outnumbered, Fletcher and Spruance maintained an aggressive *offensive*. Japanese combat air patrol intercepted the U.S. attack, but became preoccupied with low-flying torpedo planes. When the dive bombers from *Yorktown* and *Enterprise* arrived at the battle site, the fight was taking place at low altitude, allowing them to attack Yamamoto's force unimpeded. In fact, the American air strike did *surprise* the Japanese carriers in an exceptionally vulnerable situation—with unstowed ordnance and bomb- and torpedo-laden planes on deck being refueled. In the fighting that followed, the Japanese lost the carriers *Hiryu*, *Soryu*, *Akagi*, and *Kaga* and their scores of veteran aviators. Deprived of air cover, Admiral Yamamoto canceled the planned invasion of Midway Island. The Japanese never regained the initiative in the Pacific.

The principles of war have been proven effective in preparing for combat, but the complexities and disorder of war preclude their use as a simple checklist. Instead, we must be able to apply these principles in war's turbulent environment, to promote initiative, supplement professional judgment, and serve as the conceptual framework in which we evaluate the choices available in battle. These principles provide a solid basis for our warfighting doctrine, that complements the experience and operational skill of our commanders by describing a flow of action toward objectives, rather than prescribing specific action at each point along the way. In a chaotic combat environment, doctrine has a cohesive effect on our forces, while enabling us to create disorder among our adversaries. It also promotes mutually understood terminology, relationships, responsibilities, and processes, thus freeing the commander to focus on the overall conduct of war.

Preparation for War

Success in naval warfare is founded on properly applying sound doctrine and understanding the principles of war. With a foundation established and reinforced through a continuing education and training program, we are able to plan our operations and readily adapt when situations change.

Doctrine. “Fundamental principles by which the military forces or elements thereof guide their actions in support of national objectives. It is authoritative but requires judgment in application.” (Joint Pub 1-02, *DoD Dictionary of Military and Associated Terms*)

Doctrine is the heart of naval warfare. It governs our actions beyond the ordered execution of military operations, but is not prescriptive. Within the broader guidelines of national strategy, doctrine provides the basis for mutual understanding and trust within our naval Services as well as with other Services and our national leaders. It is not a set of concrete rules, but rather a basis of common understanding throughout the chain of command. Composed of “shared convictions” that guide naval forces as a whole, it fuses our Service-unique tactics, techniques, procedures, and warfighting philosophies.

Tactics is the art of selecting the right tools for the job. A technique describes a way systems or units can be employed in combat. Our choice of specific techniques—as well as ways we might combine them—depends on many factors, including the overall operating situation and surrounding environment. Techniques specify ways to use various systems. Procedures provide us with instructions for specific systems and equipments. Techniques and procedures are tools a commander employs in his tactics. For example, procedures tell us how to maintain a particular weapon system; a technique describes ways to employ it against an enemy threat; and tactics is the art of choosing the right systems and techniques for the situation. Doctrine is the underlying philosophy that guides our use of tactics and weapons systems to achieve a common objective.

Naval doctrine forms a bridge between the naval component of our nation’s military strategy and our tactics, techniques and procedures, such as those found in our Naval Warfare Publications and Fleet Marine Force Manuals. A commander, however, cannot operate solely under the guidance of broad strategy. Neither can he make appropriate mission decisions if guided only by tactics and techniques. Doctrine guides our actions toward well-defined goals and provides the basis for mutual understanding within and between Services and our national policymakers. It ensures our familiarity and efficiency in the execution of procedures and tactics.

Our training and education are based on doctrine. Within this common framework of understanding, we maintain readiness for war by tasking forces with day-to-day missions and exercising our tactics, techniques, procedures, and planning.

Training and Education. “It cannot be too often repeated that in modern war, and especially in modern naval war, the chief factor in achieving triumph is what has been done in the way of thorough preparation and training before the beginning of war.” (President Theodore Roosevelt, Graduation Address at the U.S. Naval Academy, 1902)

The primary means for improving and displaying our readiness to fight and win is training, which includes basic military, skill-specific, and weapons-specific training (both hardware and tactical), as well as formal education. We train at each level of employment: individual, unit, task force, and joint or multinational force.

Training and education build proficiency, cohesion, and teamwork while providing opportunities to supplement limited combat experience. In this post–Cold War era, naval professionals may never experience general war. A realistic training program is the best means, short of actual combat, of preparing our force and generating confidence in and knowledge of our plans, tactics, and procedures. Through large-scale free-play exercises, including war gaming, and command-post exercises—enhanced by simulation—we involve all elements of naval forces and connect people to their missions before they are actually employed. We focus our training and education on maintaining a capability to fight, as if war were imminent. This goal should not change when naval forces are involved in operations other than war. The same organizational structure, procedures, command and control, equipment, and thinking apply. The keys to combat effectiveness are realistic training and relevant education.

Training provides us with skills, abilities, and a base of knowledge that supports our development of tactics. It should provide all members of our naval forces an understanding of the roles of each group and of how each group supports the force. Naval training does not seek to turn Marines into capable Sailors, nor does it seek to prepare those who operate our ships to land across a beach; but within limits, training is fundamental to achieving unity of effort. We master ways to employ our basic skills, abilities, and knowledge through professional military education.

Education hones our thinking and ability to make decisions. The foundation of knowledge developed early in a career supports the leader—officer or enlisted—in applying experience and understanding to the complex relationships of our naval forces as a whole. Professional military education focuses on the science and art of warfighting. Such art challenges the professional to analyze, reaffirm, and perhaps rethink truths; to seek innovations through new and varied application of conventional guidance that has been successful in the past; and to recognize the cases when the paths taken in history no longer apply. Education refines our ability to see more than the final statistics of a conflict or operation. It enables us to see war’s lessons and the thinking of its masters, as well. The refined tools of education may be provided by the experience of

instructors in an academic environment, but can be advanced only by individual commitment and self-discipline.

Naval Warfare Planning. When military action is one of the potential responses to a situation threatening U.S. interests, a plan is prepared using either the joint deliberate-planning process or crisis-action procedures.¹⁰ Although military flexibility demands a capability to conduct short-notice crisis planning when necessary, U.S. military strength is best enhanced by deliberate peacetime analysis, planning, and exercises.

An operation plan is a commander's complete description of a concept of operation. It is based on the commander's preparation of the battlespace,¹¹ a formal evaluation, supported by intelligence, that integrates enemy doctrine with such factors as physical and environmental conditions. From this evaluation, the commander identifies the forces and support needed to execute the plan within a theater of operations. Naval forces operation plans are integrated into the complete inventory available to the Joint Force Commander. For execution, plans become operation orders. Operation plans include: the theater strategy or general concept and the organizational relationships; the logistics plan shows ways the force will be supported; and the deployment plan sequences the movement of the force and its logistical support into the theater. Elements of planning that produce a concept of operations include the commander's estimate, deciding possible courses of action, preparation of the mission statement and its execution strategy, situation analysis, and formulation of the commander's intent. These elements are applicable up, down, and across chains of command.

Effective deliberate and crisis-action planning is essential and should be complementary at all levels in the chain of command. For example, where a joint campaign plan coordinates all available land, sea, air, space, and special-operations forces, each component of those forces must plan for its particular assets to support the focus of effort. Additionally, commanders must account for the operational limits of logistics and transportation and the associated risks to their units.

By its nature, the uncertainty of war invariably involves the acceptance of risk. This is especially true when we employ high-tempo operations characteristic in maneuver warfare. High tempo involves risks when all possible information is not available at the time decisions must be made and executed. We are sometimes placed in a position of weighing certainty in outcome against the benefits of taking prompt action. We have seen how prompt, decisive action can have significant advantages in keeping ahead of the enemy's decision-and-action cycle. The risk of uncertainty in our decisions must be balanced by the gains of striking during a fleeting window of opportunity. Every commander can expect to be faced with accepting a certain level of risk in conflict. We assess risk to the overall mission and to

the individuals involved in the task continuously during execution as well as during formal advanced planning.

Risk management and risk assessment are formal, essential tools of operational planning. Sound decisionmaking requires the use of these tools both in battle and in training. Naval commanders evaluate risk by using combinations of real-time, deliberate, and indepth assessments to determine the cumulative effect on the mission and seek ways to eliminate or control unnecessary hazards to their forces. Go/No-Go criteria are one form of evaluating our tolerance to risk. A mission may not be initiated, for example, if the base of operations is in jeopardy or would be unprotected when the force departed. Because risk is often related to gain, leaders weigh the risks against the benefits to be obtained from an operation, recognizing that unnecessary risk can be as great a hindrance to mission success as enemy action. On the other hand, carefully identifying the risks, analyzing and controlling as many factors as possible, and executing a supervised plan that accounts for these factors have contributed to the success of some of the greatest military operations in history.

NORMANDY

Accounting for Risk in Warfare

An excellent application of risk assessment and risk management is illustrated in the largest amphibious operation ever conducted—the Allied landing at Normandy, June 6, 1944. Operation Overlord was one of the most intricately planned invasions in history. One uncertainty however, the weather, threatened its success. General Dwight Eisenhower, the Supreme Commander, Allied Expeditionary Forces, recognized that high winds, low clouds, and heavy seas converging in the objective area presented unacceptable risk to his forces. He therefore delayed the operation, despite the realization that this might upset the precise timing of the enormous military undertaking. Carefully monitoring the situation, Eisenhower sought a balance where the advantage of attacking under adverse physical conditions, which might surprise the enemy not expecting him to take this risk, would offset the hazards associated with the poor weather itself. After 24 hours the weather had only moderately improved, but Eisenhower felt he had found that balance. With the risk now warranted, he made his irrevocable decision, launching a force of more than 5,000 vessels, 11,000 aircraft, and 700,000 men, in one of the most significant joint and multinational operations of the war.

How well we fight depends upon how we think about fighting.

Our thinking is shaped and reinforced by a continuing professional military training and education process drawing upon:

- Sound military doctrine—the framework and philosophy for our approach to fighting, which complements the principles of war.

- The principles of war—precepts developed from experience that, when applied with judgment, have led to success.
- Planning—formal, detailed analysis of options and contingencies for known situations.

But theory alone does not win battles. Our ability to fight is also dependent upon the physical means we have to fight—making the best use of our technology and having the ability to sustain our forces in conflict and day-to-day operations—and our ability to lead and motivate our forces to fight as a team. Leadership, the foremost quality of command, enhances our physical ability to fight by inspiring unit cohesion and sense of purpose. It is the means by which we draw upon the courage, fortitude, and dedication within our people. Confident in our ability to fight and win as a team with the Army and Air Force, we are ready to carry out our assigned roles supporting our nation's objectives into the 21st century.

Chapter Four: Where We Are Headed—Into the 21st Century

The United States is and will remain a maritime nation, relying on the day-to-day forward presence of strong naval forces that can project power as required to execute national policy. Our extensive security commitments and vital global interests will not diminish in the next century. Presence forces, both deployed periodically and permanently stationed, are essential elements in extending U.S. influence, enhancing stability, promoting interoperability among allies and potential coalition partners, deterring aggression and providing rapid response to crises. The challenge facing U.S. defense planners today is to provide forces that are flexible, capable, and able to dominate in a broad array of scenarios.

While naval forces are built to fight and win wars, perhaps as important, is their contribution to deterring conflict. They are significant contributors to this aim because they represent a credible, survivable, and timely crisis response capability on a daily basis in critical regions of the world. “. . . From the Sea,” published in September 1992, forms the basis of the naval input to the National Military Strategy. Its philosophy replaces the “Maritime Strategy”¹² and sets the direction of naval forces in the 1990s by reemphasizing their expeditionary role. It is a shift from the global struggle envisioned under the Cold War maritime strategy—which called for independent blue-water, open-ocean naval operations on the flanks of the Soviet Union—to preparation for regional challenges. Though we retain our Service roles of deterrence, sea superiority, and the protection of maritime trade, our naval focus has shifted to the world's unstable regions holding critical and vital interests of the United States, placing a new emphasis on littoral operations. Naval expeditionary forces play a central role in safeguarding national interests. To maintain a strong peacetime forward presence capable

of projecting sustainable power from the sea, these forces possess a full range of naval combat capabilities.

Naval expeditionary forces are cohesive, self-sustaining, and tactically and strategically mobile. These task-organized, forward deployed teams can execute a broad range of options initiated from the sea. The specific composition of naval expeditionary forces is tailored by operational need to become one of the basic building blocks for maritime joint and multinational options ordered by the National Command Authorities. Such options range from what has become our day-to-day peacetime employment—forward presence, humanitarian, and peacekeeping operations—to fighting in regional conflicts.

Naval expeditionary forces can respond to crises unilaterally or provide the initial enabling capability for joint and multinational operations. These forces capitalize on the expanding capabilities of modern naval forces to project power in an increasingly sophisticated and lethal environment. Our continuing challenge is to enhance U.S. naval warfare superiority and contribute to our nation's campaigns, through teamwork and cooperation—particularly in joint and multinational operations. Our nation's interest in remaining engaged with other nations of the world forges special bonds with regional leaders. Naval presence is used to provide a regional stabilizing influence, foster strong alliances, and encourage multinational friendships. This spirit of cooperation is desirable in deterring or confronting crises.

In most contingencies, naval forces complement the capabilities and resources of the Army and Air Force, and possibly forces of other nations. Although we have many inherent capabilities that can be used independently, naval forces simply cannot perform independently every military function that our nation may require. However, the critical operational capabilities naval expeditionary forces can provide include:

- Command, Control, and Surveillance
- Battlespace Dominance
- Power Projection
- Force Sustainment.

Command, Control, and Surveillance

Command, control, and surveillance encompasses the gathering, processing, and distribution of information vital to the conduct of military planning and operations. It forms the foundation of unity of command and is essential to the decision process at all levels. In peacetime, command, control and surveillance systems permit us to monitor situations of interest, giving us indications and warnings that allow us to position our forces when necessary. In humanitarian relief and other support operations, our

command and control system becomes part of the overall network by tying together diverse government and non-government agencies, as well as the many international and interservice forces that may join the operation.

Warfare in every dimension of the battlespace—and even within many weapon systems—requires external information. Commanders and their forces have many requirements for information such as navigation, meteorology/oceanography, mapping/charting, communications, and evaluated information—intelligence. Because “command, control, communications, computers, and intelligence” (C4I) is so important, commanders also seek to degrade or interrupt an adversary’s information support systems and structure. At the same time, operations security is essential to deny the enemy knowledge of our capabilities and intentions. It also contributes to our ability to exercise the element of surprise. Intelligence identifies key enemy information vulnerabilities and can allow the commander to focus his resources against the enemy’s center of gravity.

Good intelligence results from collection, processing, integration, analysis, evaluation, and interpretation of available information concerning potential adversaries. It produces timely indications and warnings, locations, identifications, intentions, technical capabilities, and tactics of potential enemies and other countries of interest. Current and relevant intelligence permits commanders to make decisions based on accurate estimates of the enemy’s forces, capabilities, and intentions.

Intelligence is central to the decisionmaking process. Proliferation of technology increases the complexity of joint battlespace information management, and compresses the time cycle for decisionmaking. Space systems rapidly collect and distribute large volumes of information. They also provide services that link widely separated forces and provide an important advantage to naval forces in all areas of the world. Intelligence estimates, disseminated in a timely fashion, center on the focus of effort, identify critical vulnerabilities, and enhance combat effectiveness.

Integrating global C4I systems that directly link and support naval forces and joint forces will provide us an accurate picture of the battlespace. Some C4I operational capabilities include: enhanced battle management systems; fully interoperable, user centered, multimedia (voice, video, and data) links; embedded cryptographic security; and the ability to collect, evaluate, disseminate, and receive near-real-time, all-source, fused intelligence and surveillance data.

Technologically advanced equipment is available to any nation or individual that can afford to pay for it. It presents our potential adversaries with new capabilities through off-the-shelf information-management systems, global navigation, and commercial communications. Nevertheless, these capabilities, though modern, are still vulnerable

to exploitation through information warfare. Control of information exploitation is so important that it has become a warfare objective in its own right. Battlespace dominance and projection of power ashore are intricately linked with and dependent upon effective C4I capabilities.

Battlespace Dominance

Modern battlespace is multidimensional. Navy and Marine Corps operations encompass air, surface, subsurface, land, space, and time. Dominance of these dimensions continues to be an important factor in the survival and combat effectiveness of our force. Command and control integrates ships, submarines, aircraft, and ground forces, so their full range of capabilities can be extended effectively throughout our battlespace.

The battlespace in which naval forces operate is neither fixed in size nor stationary. We can visualize it as zones of superiority, surrounding one or more units or even the entire force, that are shifted as the situation requires. The zones are regions in which we maintain superiority during the full period of our operations by detecting, identifying, targeting, and neutralizing anything hostile that enters or passes through. The battlespace is our base of operations that we position over any area of concern and from which we can project power. We can establish multiple zones of superiority as specific task forces are separated from the main force. All these zones are regions into which we receive information and support from outside sources, and from which we project power. Theater commanders may direct naval forces to conduct a mission independently if the size of the battlespace they can dominate adequately covers the region of concern. By combining complementary capabilities of units working together—including the U.S. Army and Air Force, allied, or coalition capabilities in joint or multinational operations—we effectively extend the range and geographic influence of our battlespace.

What distinguishes naval forces among armed forces is the combination of operational readiness and agility that creates these zones of superiority. These zones, based on the capabilities of our sensor and weapon systems, can reach out for hundreds of nautical miles and protect other entities such as convoys, amphibious groups, and land masses. We maintain our protective zones of superiority around us, establishing them not just upon arrival, but enroute to our objective area. The battlespace moves with the force. By extending zones of superiority over landing forces, naval commanders protect those forces while they are accomplishing their missions and establishing their own defensive zones. This concept applies both in war and in operations other than war.

Power Projection

Our ability to project high-intensity power from the sea is the cornerstone of effective deterrence, crisis response, and war. In peacetime, the recognized and credible capacity

to project power underpins our nation's ability to influence events, deter potential aggressors, promote regional stability, and provide, in conjunction with friends and allies, a means of collective security. In war, the capacity to develop sustained and lethal power rapidly stems from the use of combined arms to generate concentrated offensive power at the time and location of our choosing. Combined arms include, but are not limited to: bombs, bullets, missiles; the synergy of sea, ground, and air operations; electronic warfare operations; deception and ruses; psychological operations; and special warfare operations. The ability to take the fight to the enemy is a strength enjoyed by naval forces and has always been one of our nation's primary objectives in war.

Naval expeditionary forces provide the National Command Authorities with the operational depth of naval power projection, independently or as part of a joint or multinational operation, by using:

- *Carrier-Based Strike Aircraft.* These tailored air wings are equipped with heavy payloads of advanced precision-guided munitions, capable of long-range strikes over hundreds of nautical miles. They provide a variety of power projection and crisis response options.
- *Marine Air-Ground Task Forces.* These forces, the most capable of their kind in the world, are task-organized, self-sustaining, rapidly deployable air, ground, and logistic units. They provide a wide range of power projection options from short-duration raids to large-scale forcible-entry operations. Amphibious forces provide the ultimate conventional demonstration of power by landing on an adversary's sovereign territory.
- *Long-Range Sea-Launched Cruise Missiles.* These precision-guided munitions launched by our surface ships and submarines are a key element of power projection and provide a flexible and powerful application of force at ranges to nearly a thousand nautical miles.
- *Special Warfare Forces.* These forces, capable of operating clandestinely, are task organized to provide advance-force operations, hydrographic and near-shore reconnaissance in advance of a landing, direct-action missions, combat search-and-rescue missions, and the ability to degrade enemy lines of communications.
- *Naval Surface Fire Support.* This support provides accurate, all-weather fire support responsive to the task force commander, augmenting air-delivered strike munitions in the destruction of enemy emplacements, systems, and personnel.
- *Command and Control Warfare.* This warfare discipline provides the capabilities and organization needed to disrupt, neutralize, and deceive the enemy's command and control systems while protecting our own. A classic example is the suppression of enemy air defenses through overt electronic warfare.

- *Maritime Prepositioning.* These forces, while often thought of as force sustainment, are integral to our operational power projection and provide the United States with a rapid, sustainable, global-response capability. By employing maritime prepositioning ships that are maintained in-theater, naval expeditionary forces can travel directly to conflict areas, joining with these ships to build a potent fighting force.

Power projection takes the battle to the enemy. This is best done before the enemy's influence can become established, developed, or expanded. Even if no offensive action is planned, naval forces can be used as a credible show of force that can influence a potential adversary's actions by providing unequivocal evidence that a fully combat-ready force stands poised to inflict unacceptable losses upon him.

Force Sustainment

Sustained naval and joint operations are made possible by a logistic support system that has two major components: fleet-based sustainment assets and strategic sustainment assets. Fleet-based sustainment assets include replenishment ships of the combat logistics force providing direct fleet support, combat service support units, mobile repair facilities, and advanced logistic support hubs. Strategic sustainment is provided by air and sea assets that are shared by all Services. Successful global response to contingencies depends upon our ability to project and sustain U.S. forces in all theaters of operations. Integrated support resources in the form of fleet-based sustainment assets and strategic assets provide naval expeditionary forces and joint and multinational forces the ability to operate in peacetime and in war wherever and whenever our national interests demand. Our ability to move and sustain forces at great distances from our shores is critical to the forward presence component of our military strategy.

The same sustainment system that makes it possible for us to conduct operations in war also allows our nation to extend its influence in the form of credible U.S. presence in operations other than war. Naval forces can provide critically needed support personnel and relief supplies in the earliest stages of need.

Sustainment starts with combat-ready forces that are provided with effective, reliable and maintainable weapon systems, trained operators and maintenance personnel, and the necessary consumable supplies, spare parts, and facilities to be operationally self-sufficient. Naval forces bring a significant organic logistic capability—afloat with the Navy's Combat Logistics Force ships and ashore with the Marine Corps' force service support groups—providing a task-organized combat service support element. Our naval logistical support systems are built around six areas of operational logistics:

- *Supply.* From the producer to the user, the supply system provides our forces with the requisite materiel for conducting naval operations.

- *Maintenance.* From normal upkeep to damage repair to updating and upgrading capabilities, maintenance activities afloat and ashore keep equipment operating. Private and public shipyards, aviation depots, and logistic bases form the core of our industrial support.
- *Transportation.* Coordinated transportation is required to get personnel, equipment and supplies from point of origin to destination. The Navy is responsible for the management, operation, and protection of all strategic afloat assets.
- *General Engineering.* Such specialized units as Marine Corps engineer support battalions and naval construction battalions construct temporary or permanent facilities such as roads, airfields, and port facilities to support combat-forces operations.
- *Health Services.* Afloat and ashore, the Navy provides medical and dental care for the naval Services to maintain, preserve, or restore personnel combat readiness. Assets include fleet hospitals, hospital ships, and organic Marine Corps assets.
- *Other Services.* Filling the administrative, security, and personnel-support requirements of combatant forces is necessary to keep them fully operational.

Logistic support provides assured delivery of the materiel required for U.S. forces to remain on station, combat ready, for as long as necessary. These forces are served by a support organization that begins at the loading dock of the manufacturer in the United States and ends when the needed materiel is put in the hands of the user. Their delivery depends upon our ability to maintain open sea lanes of communications to ensure the unimpeded flow from origin to destination.

As we move forward into the 21st century, naval forces will continue to play a significant role in providing peacetime influence and safeguarding our nation's interests around the globe. Alone or as part of a joint or multinational force, naval forces provide critical operational capabilities that include:

- Command, Control, and Surveillance
- Battlespace Dominance
- Power Projection
- Force Sustainment.

These capabilities will be increasingly relevant in facing future regional threats and challenges to U.S. interests. They allow naval forces to maintain a strong forward presence to deter and react effectively to armed aggression with the ability to project sustainable power from the sea in time of crisis.

Conclusion

NDP 1, *Naval Warfare*, describes our warfighting philosophy, distinctive characteristics, capabilities, and basic missions. Our warfighting philosophy incorporates the principles of war while making the best use of the inherent characteristics and advantages of our naval forces. The enduring characteristics of readiness, flexibility, sustainability, and mobility make us uniquely suited to be our nation's first response to crises of all sizes at sea and along the world's littorals. Through the effective employment of sensors and weapons, and supported by a comprehensive intelligence and logistics infrastructure, naval forces dominate the battlespace from which we project power ashore.

The intent of this introductory publication is to reaffirm the reader's sense of identity and purpose in the naval Services. The varied seniority, experience, and employment of its readers influences what each person will gain from its concepts. For some, NDP 1 may prompt a search for essential elements of our warfighting philosophy—such as identification of the commander's intent—in their review of operation orders and procedures. For others, it might suggest a review of other Service doctrines. If it stimulates discussion, promotes further study, and instills in readers a feeling of ownership as contributing members of a coordinated Navy/Marine Corps team, then NDP 1 will have properly served its purpose.

Our naval forces contribute decisively to U.S. global leadership and are vital to shaping an environment that enhances our national security. A strong naval team—capable of deterrence, war at sea and from the sea, and operations other than war—is essential to that effort. Our forward presence, timely crisis response, and sustainable power projection provide naval and joint force commanders a broad and flexible array of combat capability.

Glossary

Area of Influence: A geographical area in which a commander is directly capable of influencing operations by maneuver or fire support.

Area of Interest: That area of concern to the commander, including the area of influence, areas adjacent, and areas extending into enemy waters or territory to the objectives of current or planned operations. This also includes areas occupied by enemy forces that could jeopardize the mission.

Attrition Warfare: The application of overwhelming combat power that reduces the effectiveness of an enemy's ability to fight through his loss of personnel and materiel.

Battlespace: All aspects of air, surface, and subsurface, land, space, and the electromagnetic spectrum that encompass the area of influence and area of interest.

Battlespace Dominance: The degree of control over the dimensions of the battlespace that enhances friendly freedom of action and denies the enemy freedom of action. It permits power projection and force sustainment to accomplish the full range of potential missions.

Center of Gravity: That characteristic, capability, or location from which enemy and friendly forces derive their freedom of action, physical strength, or will to fight.

Coalition Force: A force composed of military elements of nations that have formed a temporary alliance for a specific purpose.

Combined Arms: The use of several arms or branches of one military Service together in an operation such as Marine Corps infantry, armor, artillery, and aviation.

Crisis Response: The ability to maintain the forces and agility to respond quickly and decisively to regional crises with a range of options.

Focus of Effort: The most important task to be accomplished by the force. It is the critical vulnerability we have chosen to exploit, the paramount objective we desire to accomplish. All our actions should be oriented on that task. If we focus our effort on the destruction of an enemy capability, then the destruction of that capability becomes our “focus of effort.”

Force Sustainment: Capabilities, equipment, and operations that ensure continuity, freedom of action, logistic support, and command and control.

Forward Presence: Maintaining forward deployed or stationed forces overseas to demonstrate national resolve, strengthen alliances, dissuade potential adversaries, and enhance the ability to respond quickly to contingency operations.

Joint: Activities, operations, or organizations in which elements of more than one Service of the same nation participate.

Lines of Communication: The routes (sea, air, and land) that connect a military force with a base of operations and along which military forces and logistics support move.

Littoral: Those regions relating to or existing on a shore or coastal region, within direct control of and vulnerable to the striking power of naval expeditionary forces.

Main Effort: The friendly unit or group (controlled by a single designated commander) that constitutes the principle means by which we will accomplish an objective. The commander ensures the success of the main effort by providing it the preponderance of the support and by alerting supporting units to reinforce—or, if necessary, assume—the main effort.

Maneuver Warfare: A philosophy that seeks to collapse the enemy's cohesion and effectiveness through a series of rapid, violent, and unexpected actions that create a turbulent and rapidly deteriorating situation, with which he cannot cope.

Marine Air-Ground Task Force: A task organization of Marine forces (ground combat, air, and combat service support elements) under a single command and structured to accomplish a specific mission. The MAGTF will also include Navy support elements.

Multinational: An alliance, coalition, or other international arrangement.

Multi-Service: Two or more Services in coordination.

National Command Authorities: The President and the Secretary of Defense or their duly deputized alternates or successors. Commonly referred to as the NCA.

Naval Special Warfare: A designated naval warfare specialty that conducts operations generally accepted as being unconventional in nature and, in many cases, covert or clandestine in character. These operations use specially trained forces to conduct unconventional warfare, psychological operations, beach and coastal reconnaissance, operational deception operations, counterinsurgency operations, coastal and river interdiction, and certain special tactical-intelligence-collection operations, in addition to intelligence functions normally required for planning and conducting special operations in a hostile environment.

Naval Surface Fire Support: Fire provided by Navy surface gun, missile, and electronic-warfare systems in support of a unit or units on land.

Power Projection: The application of offensive military force against an enemy at a chosen time and place. Maritime power projection may be accomplished by amphibious assault operations, attack of targets ashore, or support of sea control operations.

Suggested Follow-On Reading

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Notes

1. The United States Coast Guard was established in 1915 as the functional successor to the Revenue Marine of the 1790s, which later had become known as the Revenue Cutter Service. The Coast Guard is a military Service and a branch of the armed forces at all times. It is also a federal maritime law enforcement agency that operates under the Department of Transportation. In time of war, or when the President directs, the Coast Guard operates as a Service in the Navy, reporting to the Secretary of the Navy and the Chief of Naval Operations as guided by wartime directives.
2. Hereafter, the term *naval forces* will mean both the Navy and the Marine Corps, and when under Navy operational control, the Coast Guard.
3. The term *littoral*, as it applies to naval operations in this publication, is not restricted to the limited oceanographic definition encompassing the world's coastal regions. Rather, it includes that portion of the world's land masses adjacent to the oceans within direct control of and vulnerable to the striking power of sea-based forces.
4. Joint Publication 1-02 defines the *National Command Authorities* (NCA) as the President and Secretary of Defense together or their duly deputized alternates or successors. The term NCA is used to signify constitutional authority to direct the Armed Forces in their execution of military action. Both the movement of troops and execution of military action must be directed by the NCA; by law, no one else in the chain of command has the authority to take such action.
5. The National Military Strategy conveys the advice of the Chairman of the Joint Chiefs of Staff, in consultation with the Joint Chiefs of Staff and the combatant commanders, to the President, the National Security Council, and the Secretary of Defense regarding how the military supports attaining national security objectives. It is combined with political, diplomatic, and economic strategies to support the National Security Strategy. The National Military Strategy is published "as needed," when changes in the strategic environment dictate.
6. "Roles," "missions," and "functions" often are used interchangeably, but the distinctions between the terms is important. "Roles" are the broad and enduring purposes for which the Services were established in law. "Missions" are the tasks assigned by the National Command Authorities to the combatant commanders. "Functions" are specific *responsibilities* assigned by the National Command Authorities to enable the Services to fulfill their legally established roles. Thus, the primary function of the Services is to provide forces organized, trained, and equipped to perform a role—to be employed by a combatant commander in the accomplishment of a mission. The cited roles of the Navy and Marine Corps are a consolidation of Title 10 U.S.C., DOD 5100.1, *Functions of the Department of Defense and its Major Components, and the Chairman of the Joint Chiefs of Staff Report on the Roles, Missions, and Functions of the Armed Forces of the United States*, February 1993.
7. The term *enabling* refers to our ability to respond rapidly to a crisis and take the action necessary to control its escalation, while facilitating the introduction of a larger joint force. This may include establishing a lodgment or seizing usable ports and airfields.
8. A discussion of air-to-air combat in the Korean War can be found in Boyd, John R. Col. USAF (Ret.), "Patterns of Conflict," an unpublished lecture cited in William S. Lind,

Maneuver Warfare Handbook (Boulder, Co.: Westview Press, 1985), pp 4–6.

9. Nine principles of war are discussed in such authoritative publications as Joint Publication 0-1 “Basic National Defense Doctrine,” Joint Publication 1 “Joint Warfare of the U.S. Armed Forces,” FM 100-5 “Operations,” and FMFM 1 “Warfighting.”
10. Joint Publication 5-0, “Doctrine for Planning Joint Operations” (Washington, D.C.: Joint Chiefs of Staff, 1993) has additional discussion of joint planning.
11. *Commander’s Preparation of the Battlefield* is a term used by the Marine Corps and Army. In a naval context, we use battlespace to mean analysis of the physical and environmental characteristics of a geographic area and its effects on our ability to establish superiority in every dimension of this space. It includes a detailed study of enemy capabilities, vulnerabilities, and probable enemy courses of action.
12. The Maritime Strategy/Amphibious Warfare Strategy was, for the 1980’s, our “White Paper”—that is, an official statement of policy—on how naval forces, in combination with other Services and the forces of our allies, would prepare for, fight, and terminate war on favorable terms. The U.S. Naval Institute published an unclassified version of these strategies as a special supplement to *Proceedings* in January 1986.

“Forward . . . from the Sea”

On 9 November 1994, the Chief of Naval Information released the text of “Forward . . . from the Sea.” Signed by President Clinton’s secretary of the Navy, John H. Dalton, with the Chief of Naval Operations (Admiral Boorda) and the Commandant of the Marine Corps (General Mundy), the document appeared in the U.S. Naval Institute Proceedings, the Marine Corps Gazette, and two undated pamphlet versions. The first pamphlet was circulated in photocopy form with black-and-white charts, while the second was an elegant publication with glossy paper, color graphics, and well-designed typographical layout.†*

This document was written to provide a statement of naval thinking that reflected the Clinton administration’s defense policy, with two new civilian leaders in office: Secretary Dalton and the new secretary of defense, William J. Perry. “Forward . . . from the Sea” was intended to reflect the concepts of the 1993 Bottom-Up Review of the Defense Department and of the president’s 1994 National Security Strategy of Engagement and Enlargement. The Navy hoped that this broadly conceived conceptual statement would be widely circulated and received as a credible rationale for the Navy’s renewed emphasis on forward deployment, supporting the budgetary requests that would be necessary to develop naval forces for this role. The Bottom-Up Review endorsed the Navy and Marine Corps emphasis on forward presence to the chagrin of some officers in the other services. In “FORWARD . . . from the Sea,” the Navy and Marine Corps sought to maintain and to enhance their new-found claim to the conceptual high ground within the Department of Defense by emphasizing combat-credible forward presence as the centerpiece of their new statement.

The key people involved in the preparation and writing of “Forward . . . from the Sea” were Secretary Dalton, who initially requested a document specifically reflecting President William Clinton’s policies and his own administration of the Navy Department; Rear Adm. Philip Dur, USN, head of the Strategy and Policy Division in the Office of the Chief of Naval Operations (N-51); and in Admiral Dur’s office, Capt. Joseph Sestak, USN, head of the Strategy and Concepts Branch (N-513), with Lt. Cdr. Edward

* U.S. Naval Institute *Proceedings* (December 1994), pp. 46–49; *Marine Corps Gazette* 78, no. 10 (October 1994), pp. 32–35.

† A copy of the first pamphlet version is in the Naval War College Library, shelf number VA 58.4.U5461 1994a.

*O'Callahan and (in Sestak's office) Cdr. Edward A. Smith, Jr. Capt. Ronald R. Harris, USN, in the Navy's Office of Legislative Affairs, made the case that in this document the Navy should more effectively establish a relationship between forward presence and force structure. At Headquarters, U.S. Marine Corps, the key person was the Chief Marine Corps planner, Maj. Gen. Thomas L. Wilkerson.** ♦

In 1992 the Navy–Marine Corps paper . . . *From the Sea* defined the strategic concept intended to carry the Naval Service—the Navy and Marine Corps—beyond the Cold War and into the 21st century. It signaled a change in focus and, therefore, in priorities for the Naval Service away from operations on the sea toward power projection and the employment of naval forces from the sea to influence events in the *littoral regions* of the world—those areas adjacent to the oceans and seas that are within direct control of and vulnerable to the striking power of sea-based forces.

The purpose of U.S. naval forces remains to project the power and influence of the nation across the seas to foreign waters and shores in both peace and war. *Forward . . . From the Sea* updates and expands the strategic concepts articulated in our 1992 paper to address specifically the unique contributions of naval expeditionary forces in peacetime operations, in responding to crises, and in regional conflicts. *Forward . . . From the Sea* amplifies the scope of our strategic concept while confirming the course and speed for the Naval Service as defined in the original document.

Admiral J. M. Boorda, USN
Chief of Naval Operations

John H. Dalton
Secretary of the Navy

General Carl E. Mundy, Jr.,
USMC
Commandant of the
Marine Corps

Introduction

With the publication of . . . *From the Sea* in September 1992, the Navy and Marine Corps announced a landmark shift in operational focus and a reordering of coordinated priorities of the Naval Service. This fundamental shift was a direct result of the changing strategic landscape—away from having to deal with a global maritime threat and toward projecting power and influence across the seas in response to regional challenges.

In the two years since . . . *From the Sea* became our strategic concept, the Administration has provided expanded guidance on the role of the military in national defense. A major review of strategy and force requirements resulted in a shift in the Department of Defense's focus to new dangers—chief among which is aggression by

* Maj. Gen. Thomas L. Wilkerson, USMC (Ret.), e-mail to Hattendorf, 7 July 2006; Capt. Ronald R. Harris, USN (Ret.), e-mail to Swartz, 11 April 2005; Dr. Henry H. Gaffney e-mails to Swartz, 7 April 2006, 22 April 2005; Capt. Bradd Hayes, USN (Ret.), e-mail to Swartz, 22 April 2005.

regional powers—and the necessity for our military forces to be able to rapidly project decisive military power to protect vital U.S. interests and defend friends and allies. In defining our national strategy for responding to these new dangers, the review emphasized the importance of maintaining forward-deployed naval forces and recognized the impact of peacetime operational tempo on the size of Navy and Marine Corps force structure. In addition to recognizing the unique contributions of the Navy and Marine Corps in the areas of power projection and forward presence, it restated the need for the Navy to support the national strategic objectives through our enduring contributions in strategic deterrence, sea control and maritime supremacy, and strategic sealift.

Forward . . . From the Sea addresses these naval contributions to our national security. Most fundamentally, our naval forces are designed to fight and win wars. Our most recent experiences, however, underscore the premise that the most important role of naval forces in situations short of war is to be engaged in forward areas, with the objectives of *preventing* conflicts and controlling crises.

Naval forces thus are the foundation of peacetime forward presence operations and overseas response to crisis. They contribute heavily during the transitions from crisis to conflict and to ensuring compliance with terms of peace. At the same time, the unique capabilities inherent in naval expeditionary forces have never been in higher demand from U.S. theater commanders—the regional Commanders-in-Chief—as evidenced by operations in Somalia, Haiti, Cuba, and Bosnia, as well as our continuing contribution to the enforcement of United Nations sanctions against Iraq.

The Strategic Imperative

The vital economic, political, and military interests of the United States are truly global in nature and scope. In many respects these interests are located across broad oceans, and to a great extent they intersect those of current and emergent regional powers. It is in the world's littorals where the Naval Service, operating from sea bases in international waters, can influence events ashore in support of our interests.

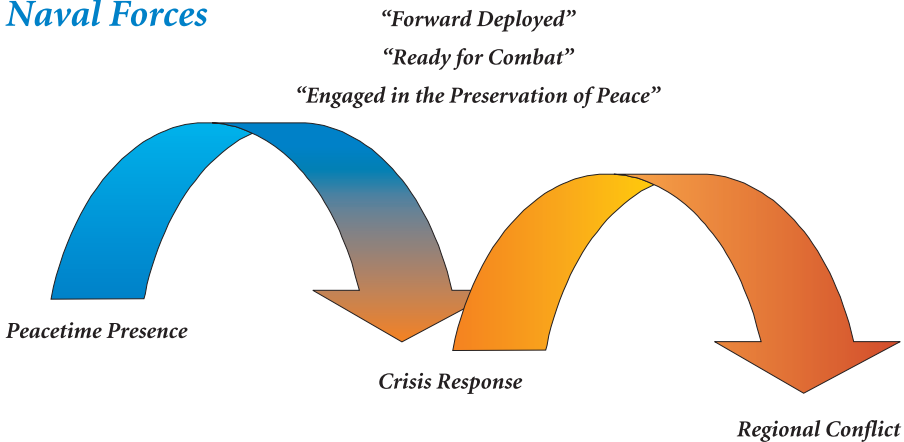
Because we are a maritime nation, our security strategy is necessarily a transoceanic one. Our vital interests—those interests for which the United States is willing to fight—are at the endpoint of “highways of the seas” or lines of strategic approach that stretch from the United States to the farthest point on the globe. Not surprisingly, these strategic lines and their endpoints coincide with the places to which we routinely deploy naval expeditionary forces: the Atlantic, Mediterranean, Pacific, Indian Ocean, Red Sea, Persian Gulf, and Caribbean Sea. Reductions in fiscal resources, however, dictate that we must refocus our more limited naval assets on the highest priorities and

the most immediate challenges, even within these areas of historic and vital interest to the United States.

Naval forces are particularly well-suited to the entire range of military operations in support of our national strategies. They continue the historic role of naval forces engaged in preventive diplomacy and otherwise supporting our policies overseas. Moreover, forward-deployed naval forces—manned, equipped, and trained for combat—play a significant role in demonstrating both the intention and the capability to join our NATO and other allies, as well as other friendly powers, in defending shared interests. Finally, if deterrence fails during a crisis and conflict erupts, naval forces provide the means for immediate sea-based reaction. This could include forcible entry and providing the protective cover essential to enabling the flow of follow-on forces which will be deployed, supported, and sustained from the continental United States.

In short, forward-deployed naval forces will provide the critical operational linkages between peacetime operations and the initial requirements of a developing crisis or major regional contingency.

Naval Forces



... A Continuum of Forward Operations

Peacetime Forward Presence Operations

Naval forces are an indispensable and exceptional instrument of American foreign policy. From conducting routine port visits to nations and regions that are of special interest, to sustaining larger demonstrations of support to long-standing regional security interests, such as with UNITAS exercises in South America, U.S. naval forces underscore U.S. diplomatic initiatives overseas. Indeed, the critical

importance of a credible overseas presence is emphasized in the President's 1994 National Security Strategy:

... presence demonstrates our commitment to allies and friends, underwrites regional stability, gains U.S. familiarity with overseas operating environments, promotes combined training among the forces of friendly countries, and provides timely initial response capabilities.

In peacetime U.S. naval forces build "interoperability"—the ability to operate in concert with friendly and allied forces—so that in the future we can easily participate fully as part of a formal multinational response or as part of "ad hoc" coalitions forged to react to short-notice crisis situations. Participation in both NATO Standing Naval Forces and in a variety of exercises with the navies, air forces, and land forces of coalition partners around the Pacific rim, Norwegian Sea, Arabian Gulf, and Mediterranean basin provide solid foundations for sustaining interoperability with our friends and allies.

Additionally, the outreach to the former Warsaw Pact countries in the NATO Partnership for Peace program will further build solidarity and interoperability. We have already made solid progress in expanding and intensifying our cooperation with the navies in Eastern Europe with exercises such as BALTOPS 94 and BREEZE 94, which included units from Bulgaria, Estonia, Latvia, Lithuania, Poland, Romania, Russia, and Ukraine.

U.S. forward-deployed naval forces have also contributed to humanitarian assistance and disaster-relief efforts—from the Philippines to Bangladesh to Rwanda—with similar, very positive, results.

Although naval presence includes a wide range of forward-deployed Navy and Marine Corps units afloat and ashore in friendly nations, our basic presence "building blocks" remain *Aircraft Carrier Battle Groups*—with versatile, multipurpose, naval tactical aviation wings—and Amphibious Ready Groups—with special operations-capable Marine Expeditionary Units. These highly flexible naval formations are valued by the theater commanders precisely because they provide the necessary capabilities forward: ready and positioned to respond to the wide range of contingencies and available to participate in allied exercises, which are the bedrock of interoperability.

We have also turned our attention to examining the naval capabilities that could contribute to extending conventional deterrence. In this regard, forward-deployed surface warships—cruisers and destroyers—with theater ballistic missile defense capabilities will play an increasingly important role in discouraging the proliferation of ballistic missiles by extending credible defenses to friendly and allied countries. By maintaining the means to enhance their security and safety, we may reduce the likelihood that some of these nations will develop their own offensive capabilities. Our efforts will thereby slow weapons proliferation and enhance regional stability.

In addition, even as we have shifted our emphasis to forward presence and power projection from sea to land, the Navy continues to provide a robust strategic nuclear deterrent by maintaining strategic ballistic missile submarines at sea. As long as it is U.S. policy to ensure an adequate and ready strategic nuclear deterrent, our highly survivable strategic ballistic missile submarines will remain critical to national security.

Crisis Response

U.S. naval forces are designed to fight and win wars, as are all elements of our military arsenal. To successfully deter aggressors, we must be capable of responding quickly and successfully in support of U.S. theater commanders. Forces deployed for routine exercises and activities undergirding forward presence are also the forces most likely to be called upon to respond rapidly to an emerging crisis. The potential for escalation dictates that presence forces must be shaped for missions they may encounter. This provides theater commanders with credible crisis-response capabilities in the event *normal* conditions or outcomes do not turn out as we expect.

Building on normally deployed forces, we can mass, if the situation requires, multiple Aircraft Carrier Battle Groups into Carrier Battle Forces, Amphibious Ready Groups with embarked Marine Expeditionary Units, and as needed project our naval expeditionary forces ashore using the afloat Maritime Prepositioning Force. Such a massing of naval units can be complemented by the deployment of Army and Air Force complements to provide a joint force capable of the full range of combat operations that may be required.

A U.S. warship is sovereign U.S. territory, whether in a port of a friendly country or transiting international straits and the high seas. U.S. naval forces, operating from highly mobile “sea bases” in forward areas, are therefore free of the political encumbrances that may inhibit and otherwise limit the scope of land-based operations in forward theaters. The latter consideration is a *unique* characteristic and advantage of forward-deployed naval forces. In many critical situations, U.S. naval forces alone provide theater commanders with a variety of flexible options—including precise measures to control escalation—to respond quickly and appropriately to fast-breaking developments at the operational and tactical levels.

Whether surging from adjacent theaters or from continental U.S. deployment bases, naval forces are uniquely positioned, configured, and trained to provide a variety of responses in the event of an unexpected international crisis. Their operational flexibility and responsiveness are a matter of record. The most recent examples of crisis-response measures are summarized in table 1:

TABLE 1
Sharing of Major Forces between Theaters/Operations

DATE	FORCES	ORIGINAL DEPLOYMENT	CRISIS LOCATION
December 1992	USS <i>Ranger</i> Battle Group USS <i>Tripoli</i> Amphibious Ready Group/15th Marine Expeditionary Unit (SOC)*	Persian Gulf	Somalia Humanitarian Relief
January 1993	USS <i>Kitty Hawk</i> Battle Group	Somalia	Persian Gulf Strike Operation Against Iraq
June 1993	USS <i>Theodore Roosevelt</i> Battle Group	Mediterranean/ Adriatic	Red Sea Support Tomahawk Strike Against Iraq
October 1993	USS <i>America</i> Battle Group USS <i>Guadalcanal</i> Amphibious Ready Group 22nd Marine Expeditionary Unit (SOC)*	Mediterranean/ Adriatic	Somalia Response to Increasing Casualties on Land
April 1994	USS <i>Peleliu</i> Amphibious Ready Group/11th Marine Expeditionary Unit (SOC)*	Somalia	Mombasa Support of DISTANT RUNNER—Rwanda Non-combatant Evacuation Operations
August 1994	USS <i>Tripoli</i> Amphibious Ready Group/15th Marine Expeditionary Unit (SOC)*	Mombasa	Entebbe, Uganda to Rwanda Humanitarian Relief—Operation SUPPORT HOPE
October 1994	USS <i>George Washington</i> Battle Group USS <i>Tripoli</i> Amphibious Ready Group/15th Marine Expeditionary Unit (SOC)*	Mediterranean/ Adriatic	Persian Gulf/Red Sea Iraq

*SOC—Special Operations Capable

Regional Conflict

Naval forces make a critical contribution in a major regional contingency during the transition from crisis to conflict. Forward naval forces deployed for presence and reinforced in response to an emerging crisis can serve as the transition force as land-based forces are brought forward into theater.

Using a building-block approach, U.S. naval forces can be “tailored” with specific capabilities. The resulting naval expeditionary force—conceptually built around fleet operational forces and a forward-deployed Marine Expeditionary Force—can provide a highly flexible force for a wide range of missions, including long-range strike operations and early forcible entry to facilitate or enable the arrival of follow-on forces.

Focusing on the littoral area, Navy and Marine Corps forces can seize and defend advanced bases—ports and airfields—to enable the flow of land-based air and ground forces, while providing the necessary command and control for all joint and allied

forces. The power-projection capabilities of specifically tailored naval expeditionary forces can contribute to blunting an initial attack and, ultimately, assuring victory. The keys to our enabling mission are effective means in place to dominate and exploit littoral battlespace during the earliest phases of hostilities.

Moreover, the unique capabilities inherent in naval tactical aviation operating from our sea bases or expeditionary airfields, as well as the capability to contribute to sustained land combat operations, provide theater commanders with flexibility in the conduct of littoral operations. Throughout the 20th century, Marine Air-Ground Task Forces, placed ashore initially as an enabling force, have fought and contributed decisively in every major ground conflict. Similarly, naval tactical aviation has made pivotal contributions when the nation's air power was needed in combat.

In the event of a future regional conflict, U.S. naval forces will assume critical roles in the protection of vital sealift along the strategic lines of approach to the theater of conflict including the air- and sea-ports of debarkation. Our success in a major regional contingency will depend upon the delivery of heavy equipment and the resupply of major ground and air elements engaged forward. Sealift is the key to force sustainment for joint operations, and we are committed to a strong national capability.

Joint and Combined Operations

No single military service embodies all of the capabilities needed to respond to every situation and threat. Our national strategy calls for the individual services to operate jointly to ensure both that we can operate successfully in all warfare areas and that we can apply our military power across the spectrum of foreseeable situations—in peace, crisis, regional conflict, and the subsequent restoration of peace.

The enhanced combat power produced by the integration of all supporting arms, which we seek to attain through joint operations, is inherent in naval expeditionary forces. For example, the Aircraft Carrier Battle Group integrates and focuses diverse technologies and combat capabilities to assure the dominance of the air, surface, and sub-surface battle space necessary for the prosecution of subsequent campaigns. Further, Marine Expeditionary Forces, employing Marine Air-Ground Task Force (MAGTF) combined-arms doctrine, are the most versatile expeditionary force in existence. Established by law to be “forces of combined arms, together with supporting air components,” MAGTFs are expeditionary, rapidly expandable air-ground formations, capable of operating from sea bases, ashore, or both, simultaneously. They are the model for the joint air-ground task forces evolving as conflicts grow smaller and the forces available grow fewer.

Naval expeditionary forces have long operated as integral elements of joint forces acting with other joint or allied sea, land, air, and space forces. Just as the complementary capabilities of Navy and Marine Corps forces add to our overall strength, combining the capabilities and resources of other services and those of our allies will yield decisive military power.

Maintaining Our New Direction

The new direction for the Naval Service remains focused on our ability to project power from the sea in the critical littoral regions of the world. We remain committed to structuring our naval expeditionary forces so that they are inherently shaped for joint operations, with the emphasis on operations forward from the sea, tailored for national needs. Recent Department of the Navy budget decisions, which resulted in a real increase in spending on littoral warfare and the means for power projection, are illustrative of the shift in priorities we have undertaken since the publication of . . . *From the Sea*. (Figures 1 and 2.) As we continue to improve our readiness to project power in the littorals, we need to proceed cautiously so as not to jeopardize our readiness for the full spectrum of missions and functions for which we are responsible.

In the two years since . . . *From the Sea* was published, we have expanded on and capitalized upon its traditional expeditionary focus. "Expeditionary" implies a mind set, a

FIGURE 1
Department of the Navy Budget History

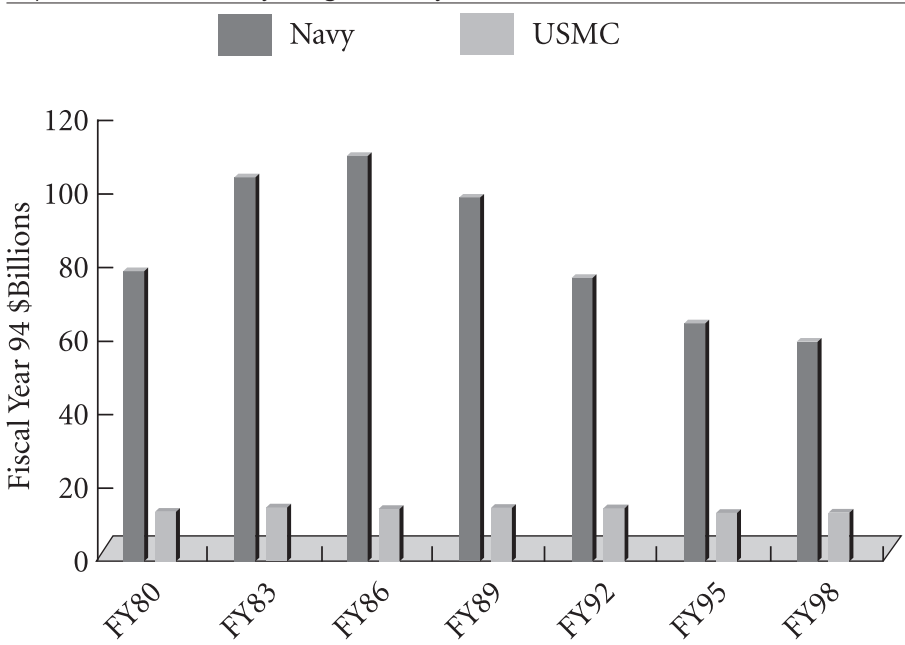
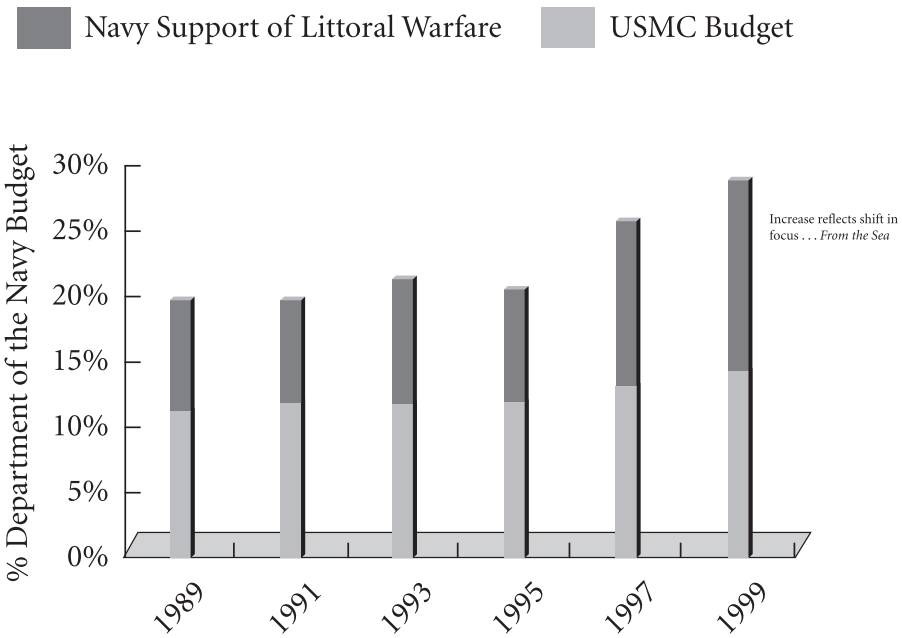


FIGURE 2

Department of the Navy Support of Littoral Warfare

culture, and a commitment to forces that are designed to be deployed forward and to respond swiftly. Our new direction provides the nation:

- Naval Expeditionary Forces—Shaped for Joint Operations
- Tailored for National Needs—Operating Forward . . . *From the Sea*.

Conclusion

. . . *From the Sea* was the initial step in demonstrating how the Navy and Marine Corps responded to the challenges of a new security environment. Our strategy and policies continue to evolve as we learn from our recent experiences and prepare for the new challenges and opportunities of this highly dynamic world. Naval forces have five fundamental and enduring roles in support of the National Security Strategy: projection of power from sea to land, sea control and maritime supremacy, strategic deterrence, strategic sealift, and forward naval presence. We will continue to carry out these roles to protect vital U.S. global interests, citizens, allies and friends, wherever they may be at risk.

The Cold War may be over, but the need for American leadership and commensurate military capability endures. Many of our most vital interests remain overseas where the Navy and the Marine Corps are prepared for new challenges—*forward* deployed, *ready* for combat, and *engaged* to preserve the peace.

“The Navy Operational Concept”

On 26 March 1997, the Chief of Naval Operations, Adm. Jay L. Johnson, announced at a luncheon given in his honor during the Navy League’s Sea-Air-Space Exposition that he would shortly publish a new operational concept to implement the Navy’s 1994 “Forward . . . from the Sea.” Admiral Johnson had already communicated his new document to flag officers by e-mail; shortly after this announcement to the Navy League, the Chief of Naval Information published it on the Internet. It then appeared in print in the May issue of Sea Power, the Navy League’s magazine, as “The Navy Operational Concept: Forward . . . From the Sea.”† This was the first of three important documents to be produced during Johnson’s four-year tenure as Chief of Naval Operations.*

Admiral Johnson had moved up from Vice Chief of Naval Operations on 16 May 1996 upon Admiral Boorda’s sudden death. During Admiral Boorda’s tenure, the Marine Corps Commandant, Gen. Charles M. Krulak, had been pressuring the Navy to produce an operational schema for naval operations that complemented what the Marine Corps already had in place, the “operational maneuver from the sea” concept. The Navy had done some work toward that goal but had stopped when Boorda died. Starting anew, Admiral Johnson moved ahead with two simultaneous, but separate, initiatives: what became “The Navy Operational Concept” and “Anytime, Anywhere,” reprinted in the next chapter of this collection.

“The Navy Operational Concept” was published in January 1997, shortly after William S. Cohen became secretary of defense. Created in the context established by the chairman of the Joint Chiefs of Staff, Gen. John M. D. Shalikashvili, USA, in the 1995 National Military Strategy and the 1996 Joint Vision 2010, the new document was designed to focus the Navy’s doctrinal work. Its purpose was to stimulate innovative thinking that would create a prominent role for the service in the joint doctrine process. Its intended audience was primarily within the Navy, but the paper was aimed also at the Marine

* Available at www.chinfo.navy.mil/navpalib/policy/fromsea/ffseanoc.html.

† “The Navy Operational Concept: Forward . . . From the Sea,” *Sea Power* 40, no. 5 (May 1997), pp. 15–22.

Corps and other services—to answer criticism that the Navy lacked a conceptual framework for its operations and to emphasize that the Navy had roles beyond its connection to the Marine Corps in amphibious warfare.

The key drafter was Capt. Joseph Bouchard, USN, then head of the Strategy and Concepts Branch (N-513) in the Office of the Chief of Naval Operations. Admiral Johnson directed Bouchard to work closely with Vice Adm. Arthur K. Cebrowski, USN, Director for Space, Information Warfare, Command and Control (N-6). Vice Admiral Cebrowski was at this time separately developing the concept of network-centric warfare, which Johnson first publicly announced at Annapolis on 23 April 1997, a month after “The Navy Operational Concept” appeared. ◆*

Foreword by Admiral Jay L. Johnson, U.S. Navy, Chief of Naval Operations

The Navy and Marine Corps published . . . *From the Sea* in 1992 as our combined vision for the 21st century. Since then, we have been constantly checking our bearings to ensure we stay on course. We refined our direction in 1994 with *Forward . . . From the Sea*. These two documents continue to drive the on-going process of innovation that is rapidly transforming the Navy into a 21st century force.

I have expressed my vision for the Navy in four guiding stars: operational primacy, leadership, teamwork, and pride. This paper promulgates guidance on operational primacy—the ability to carry out swiftly and effectively any naval, joint or coalition mission and to prevail decisively over any foe that may oppose us. It directs *how we operate Forward . . . From the Sea* across the three components of the National Military Strategy: peacetime engagement, deterrence and conflict prevention, and fight and win.

This paper sets our direction for operational primacy in the next century. Emerging technology and innovative operational concepts are creating new opportunities for employing naval forces in support of national strategy. We will have an integral role in future joint operations, including those described in *Joint Vision 2010*. In the 21st century as today, the most important contributions we make to national security will exploit fully the advantages we gain from operating on, under, above and from the sea.

Introduction

The Navy’s unique contributions to national security stem from the advantages of operating on, under, above and from the sea. This is the message of *Forward . . . From the Sea*. The primary purpose of forward-deployed naval forces is to project American power from the sea to influence events ashore in the littoral regions of the world across

* Capt. Joseph Bouchard, USN (Ret.), e-mail to Swartz, Fred Rainbow, Ronald R. Harris, and Hattendorf, 20 March 2006; Dr. Joseph F. Bouchard, “Thoughts on Selected Navy Capstone Documents,” unpublished paper, 8 April 2005.

the operational spectrum of peace, crisis and war. That is what we do. This paper describes how we do it today, and how we will do it in the future.

The roles of America's armed forces are defined by the three components of the *National Military Strategy*: peacetime engagement, deterrence and conflict prevention, and fight and win. Although national policy changes as the strategic landscape evolves, there will be continued emphasis on using the armed forces across this spectrum. Operations in peacetime and crisis to—maintain regional economic and political stability are traditional roles of the Navy–Marine Corps team. These roles are rooted in our fundamental ability to maneuver independently of political constraints and fight and win. A key operational advantage of forward-deployed naval forces is that we provide on-scene capabilities for executing simultaneously all three components of the *National Military Strategy*, and do so without infringing on any nation's sovereignty. This advantage exists because we operate in international waters. Our hallmark is forward-deployed forces with the highest possible readiness and capability to transition instantly from peace to crisis to conflict. This flexibility positions us to fight and win early, or to contain conflict. More importantly, our presence may prevent conflict altogether. By any standard or measure, peace is cheaper than war.

Our forces are optimized for this forward role in national strategy. As we enter the 21st century, we will continue to develop and adopt innovative concepts and technologies to remain the force on the cutting edge of our nation's defense.

How the Navy Operates

Forward. . . From the Sea provides the basis for a simple, yet powerful, operational concept of how we will operate to carry out expeditionary operations. We conduct forward naval operations both to ensure unimpeded use of the seas and to project American influence and power into the littoral areas of the world. Expeditionary operations achieve U.S. objectives across the spectrum of the *National Military Strategy*. They are a potent and cost-effective alternative to power projection from the continental United States and are suited ideally for the many contingencies that can be deterred or quickly handled by forward-deployed forces. Expeditionary operations complement, enable and dramatically enhance the effectiveness of continental power-projection forces when a larger military response is needed.

Our attention and efforts will continue to be focused on operating in and from the littorals. The landward side of the littoral can be supported and defended directly from the sea. It encompasses areas of strategic importance to the United States. Seventy-five percent of the Earth's population and a similar proportion of national capitals and major commercial centers lie in the littorals. These are the places where American

influence and power have the greatest impact and are needed most often. For forward-deployed naval forces, the littorals are a starting point as well as a destination. Tactically, the distance we reach inland from the sea depends on terrain and weather, the contributions of joint and coalition forces, the potential adversary's capabilities, and the nature of our mission. The mission may require us to exercise our considerable reach and operate far inland.

We will deploy carrier battle groups and amphibious ready groups with embarked Marines to provide naval expeditionary forces for the Combatant Commanders. When required, we deploy separate units—such as for maritime interception force operations—but each remains capable of being integrated into a larger naval expeditionary force. We train carrier battle groups and amphibious ready groups together to ensure immediate readiness for a wide range of contingencies. Once overseas, we disperse the force and maintain a dynamic presence posture. Our forces are constantly in motion to make their capabilities visible throughout the theater while carrying out numerous simultaneous missions in support of U.S. interests. We can operate individual units—such as submarines—independently or completely integral to the force. We link dispersed units as an integrated force with command and control networks. When necessary for a specific crisis-response operation, we rapidly assemble elements of the force into a mission-tailored task group, such as a surface battle group. We rapidly converge from our forward deployment hubs to the scene of a potential conflict to deter aggression or to project power should deterrence fail. We take advantage of the reach of our sensors and weapons to project power over vast areas from a dispersed, networked force—concentrating combat power rather than our platforms and delivering fire-power far inland when required by the mission. We are on-scene and ready for peacetime engagement, deterrence and conflict prevention, and fighting and winning.

Peacetime Engagement

The Navy's role in peacetime engagement is to project American influence and power abroad in support of U.S. efforts to shape the security environment in ways that promote regional economic and political stability. Stability fosters a sense of security in which national economies, free trade practices, and democracies can flourish. Democratic states, especially those with growing economies and strong trade ties, are less likely to threaten our interests and more likely to cooperate with the United States. This stability and cooperation, which our peacetime engagement promotes, assists in meeting security threats and promoting free trade and sustainable development. We execute peacetime engagement by staying constantly engaged abroad as a visible tool of U.S. foreign policy and by supporting U.S. coalition-building efforts.

Naval forces are constantly engaged abroad in peacetime as a visible tool of U.S. foreign policy. Our global presence ensures freedom of navigation on international trade routes and supports U.S. efforts to bring excessive maritime claims into compliance with the international law of the sea. When disaster strikes, we provide humanitarian assistance, showing American compassion in action. Our forward deployments always include a wide range of diplomatic activities, such as: sending Sailors and Marines ashore as representatives of the American people; bringing foreign visitors onto sovereign U.S. naval vessels; and carrying out a wide range of community relations activities. These efforts promote American democratic ideals abroad, enhance mutual respect and understanding with the peoples of other countries, and demonstrate U.S. support for friendly governments. Our forces support U.S. diplomatic efforts aimed at shaping the security environment, such as improving relations with former adversaries or reducing tensions with potential adversaries. We take advantage of our mobility and sovereignty at sea to extend the reach of U.S. peacetime engagement efforts to countries not readily accessible by other forces.

Our forward-deployed forces support peacetime coalition building efforts. We exercise and train frequently with the naval, ground and air forces of friendly nations, improving our ability to operate together and increasing mutual understanding, confidence and respect. These exercises allow us to explore means of coordinating the operations of diverse forces to achieve maximum combat power. We build confidence in U.S. security pledges by demonstrating our ability to ensure that land-based forces deploying from the continental United States will have ready access to the region in a crisis.

Deterrence and Conflict Prevention

Signaling with military forces is an important element of deterring aggression and preventing conflicts, and forward-deployed naval forces are a superb means of signaling U.S. capabilities and resolve to friend and foe alike. Credible military presence in areas of long-standing interest or immediate concern reaffirms the U.S. leadership role abroad, reassures allies with tangible proof of U.S. commitment to their security, and helps prevent potential sources of instability from generating crises. We deter by putting potent combat power where it cannot be ignored, and by serving as a highly visible symbol of the overwhelming force the United States can deploy to defeat aggression. We enhance the credibility of conventional deterrence by demonstrating our combat capabilities in live-fire training and in exercises with friends and allies.

In peacetime, we position the wide range of capabilities inherent in naval expeditionary forces where they are readily available for any contingency. Operating in international waters, our forces are sovereign extensions of our nation, free of the political constraints that can hamper land-based forces. We put the right capability in the right

place at the right time. We possess the unique capability of responding to ambiguous warning that either would not justify costly deployments from the continental United States, or might be insufficient to persuade nations in the region to host U.S. forces on their soil. When a visible presence might be provocative or foreclose U.S. military options, we can position submarines covertly to provide on-scene surveillance capabilities and firepower. Rotational deployments allow us to maintain our forward posture indefinitely. We spread our surveillance and reconnaissance capabilities across a wide area, providing detailed coverage that improves our knowledge and understanding of the region. We maintain combat readiness during forward operations by training and exercising regularly for potential contingencies. As we carry out peacetime tasks in distant waters, we often are laying the groundwork for a crisis-response operation or joint campaign that has not yet even begun.

Ballistic missile submarine (SSBN) deterrence patrols will continue to be an essential element of U.S. strategy for deterring a wide range of potential threats. SSBNs are central to U.S. nuclear strategy due to their stealth and survivability, the reliability and security of their command and control systems, and the accuracy and flexibility of their weapons.

Forward-deployed naval forces rapidly bring a wide range of capabilities to bear in crisis response operations. We can take direct action to protect American lives and interests, to prevent an unstable situation from deteriorating further, and to control or even resolve a crisis. In recent years, naval crisis response has included landing Marines to reinforce endangered U.S. embassies, non-combatant evacuation operations, maritime interception operations to enforce international sanctions, show of force operations to counter intimidation and deter aggression, escort operations to protect shipping endangered by a local conflict, and air and missile strikes against transgressors. We provide on-scene command and control capabilities for rapidly executing joint crisis response operations. Our self-sustaining endurance allows us to remain on scene as long as necessary to stabilize or resolve the situation. When required, we rapidly redeploy—without incurring additional expense or political debts—to deter a potential aggressor who might exploit U.S. involvement in a major contingency elsewhere.

Naval deterrence and crisis-response operations prevent aggressors from achieving a *fait accompli*. Having combat-credible naval forces on scene shapes the battlespace and demonstrates our capability to halt aggression early in a conflict, well before the aggressor can achieve his objectives. These efforts to deter aggression and resolve crises, while prudent, do not always succeed—but our efforts make a profound difference in how we think about our role in a potential conflict. Our ability to shape the battlespace well before a joint campaign commences is vital because even small changes in the

early stages of a conflict can have a major impact on its outcome. We focus on halting aggression early in a conflict. We enhance the credibility of deterrence by thwarting the potential aggressor who hopes to prevail by delaying or disrupting the U.S. response.

Our organic intelligence, surveillance and reconnaissance capabilities augment national sensors, enhancing U.S. awareness of a potential aggressor's activities. We can do this overtly—with surface ships and aircraft—signaling U.S. interest in the situation and covertly—with submarines and Naval Special Warfare units—learning what we need to know without being provocative or tipping our hand as to our future intentions.

On-scene naval forces begin shifting the strategic and operational situation in the favor of the U.S. and its allies by forcing a potential aggressor to consider our combat capability when formulating his plans. We make it exceedingly difficult for an adversary to target us and deny him the option of pre-emption by keeping our forces dispersed and moving, by operating unpredictably or covertly, and by employing deception. The wide range of options we provide for immediate response to aggression leaves a potential aggressor uncertain of the intended U.S. course of action. This uncertainty keeps him off balance, disrupting his ability to formulate a coherent campaign plan and eroding confidence in his ability to effectively execute operation plans. Uncertainty may compel a leader to redeploy forces from his main objective to hedge against our wide range of capabilities. Our sensors can monitor such redeployments to detect weaknesses or gaps we can exploit. U.S. Navy and Marine Corps operations in the Arabian Gulf during Desert Shield demonstrated these advantages by pinning down significant Iraqi forces on Kuwaiti beaches during Desert Storm.

We extend our protective shield over allies, potential coalition partners, and critical infrastructure ashore to enhance the effectiveness of deterrence. Our emerging theater air and missile defense capabilities are particularly important elements of our shield. We create a sanctuary that neutralizes a potential aggressor's attempts at intimidation and encourages the perception that he is powerless to prevent the U.S. from reinforcing our allies. This reality may cause him to alter campaign plans, forego use of certain forces or weapons, or focus efforts on more limited objectives.

Fight and Win

We will take advantage of our robust command and control systems and the reach of our sensors and weapons to concentrate combat power from dispersed, networked forces and project power far inland. In contingencies of limited size and duration, we project power with decisive impact ashore. In larger conflicts, we are an integral part of joint operations to fight and win. We have a vital role throughout a joint campaign, from beginning to end.

Forward-deployed naval forces have a vital role in halting aggression early in a conflict. The United States normally enters a conflict in response to aggression against an ally or vital American interest. Consequently, U.S. and allied forces are usually on the strategic defensive early in a conflict. Our ability to deliver a wide range of naval firepower and generate very high aircraft sortie rates can have major impact on the course and outcome of a conflict, especially during this critical early period of a joint campaign, when continental U.S.-based forces are just starting to arrive in theater. We can use submarines, lurking covertly in littoral waters, to deliver naval fires or special operations forces where the enemy least expects to be attacked. Our forces also take offensive action to hold enemy centers of gravity at risk and seize the strategic advantage. We degrade and destroy enemy defensive systems with uniquely naval offensive operations, including suppression of enemy air defenses, leaving opponents vulnerable to sustained attacks. While we are crippling enemy defenses, we hit his offensive forces hard to disrupt important campaign objectives and to achieve a quick *fait accompli*.

Initial operations by forward naval forces are critical for enabling the joint campaign. We ensure access to the theater for forces surging from the United States by supporting coalition forces to keep them in the fight, by seizing or defending shore bases for land-based forces, and by extending our defensive systems over early-arriving U.S. joint forces ashore. Our ability to dominate the littorals, including the undersea environment, allows us to operate with impunity in the face of enemy area denial threats while taking initial action to defeat those threats and prepare the battlespace for follow-on forces. By defeating enemy area denial threats and keeping vital sea and air lanes open, we ensure an uninterrupted flow of reinforcements into the theater. We provide highly capable afloat command and control capabilities to launch initial combat operations without delay. For example, we lead early efforts to gain air superiority and take the war to the enemy by initially taking charge of the joint air battle as afloat Joint Force Air Component Commander. Our forward-deployed fleet flagships and carriers can provide fully equipped afloat command centers for the Commander Joint Task Force, as we did when USS *Mount Whitney* served as afloat JTF headquarters in Operation RESTORE/UPHOLD DEMOCRACY in Haiti. Our afloat systems allow joint forces deploying from the continental United States to “plug” into on-scene networked command and control systems.

Our counter to the aggressor seeking to prevent the United States from bringing in overwhelming forces is to disrupt and exploit enemy efforts to target U.S. and allied forces. Area denial threats to joint air, ground and maritime forces include enemy tactical and theater ballistic missiles, weapons of mass destruction, air threats, and sea denial capabilities. They also include enemy use of ground or special operations forces to seize or destroy vital en route and on-scene infrastructure ashore. Area-denial

threats are becoming more lethal, increasing U.S. force vulnerability. These threats cannot defeat us, but they can delay our response, prolong the conflict and increase the cost of thwarting aggression. Our ability to counter enemy area-denial threats effectively with potent information warfare, power projection and force-protection capabilities increases our decisive impact early in a joint campaign. The more an enemy depends on denial capabilities to achieve his objectives, the greater our impact when we defeat those capabilities.

Naval operations continue throughout the joint campaign. Naval operations include delivering precision naval fire, conducting naval operational maneuver, providing protection for joint and coalition forces ashore, keeping the seaborne logistics pipeline flowing, and remaining on scene after the joint campaign to enforce sanctions and maintain regional stability.

We deliver precision naval fires to accomplish strategic, operational and tactical objectives. Precision means having the desired effect on the enemy, limiting collateral damage, lessening the risk to our forces, and achieving maximum impact with our combat resources. We can deliver all naval fires—strike, interdiction and fire support—with the degree of accuracy required to accomplish the mission. We exploit the tactical depth we gain from our weapons reach to attack the enemy throughout the battlespace. Precision includes smart targeting, so that our ordnance is directed against key targets for greatest impact, and rapid, accurate battle damage assessment. New systems, such as unmanned aerial vehicles and afloat mission planning systems, are essential elements of smart targeting. Precision also includes extremely accurate delivery of “level-of-effort” munitions. We must organize our forces and focus their efforts to rapidly and decisively accomplish campaign objectives. Precision encompasses how we employ Naval Special Warfare forces and Marines, as well as naval fires. In some tactical situations, such as operations on urban terrain, a SEAL or Marine with a sniper rifle may be the optimum precision weapon.

The closely related concepts of naval operational maneuver and speed of command define how we employ naval combat power to have decisive impact ashore. Naval operational maneuver means using the advantages we gain by operating on and from the sea to establish operational and strategic advantage over enemy forces ashore. We do this by defeating enemy sea denial efforts and gaining maritime superiority, thus providing unimpeded use of strategic sea lanes and freedom of operation in littoral waters. We take advantage of our maritime superiority by operating in the fluid manner described earlier—dispersed, yet rapidly concentrated; constantly moving and ever changing; appearing to be a distant threat far over the horizon, then suddenly striking the enemy where he felt secure. Our simultaneous ability to attack the enemy

throughout the battlespace with precision naval fires and Marine combat power generates an inescapable tactical quandary. Not knowing when or where we will strike, the enemy must either concentrate his forces where he guesses we will attack, or spread his forces to defend as many potential targets as possible. In either case, the enemy exposes weaknesses we can exploit.

Our superior speed of command enhances the advantages of operating from the sea. Speed of command is the ability to rapidly collect information, assess the situation, develop a course of action, and immediately execute with overwhelming effect. Just as in the modern high-tech market place, speed of command achieves disproportionately larger returns for relatively modest, but precisely placed, initial investments. This capability is characterized by extraordinarily high rates of change that lock out enemy solutions, while locking in our success. We use speed, deception and surprise to create and exploit enemy vulnerabilities, to seize rapidly fleeting opportunities, and to shift the tactical and operational situation to our advantage. We apply combat power in a high-tempo continuum, vice in incremental steps, to keep the enemy disoriented and reactive, unable to take the initiative or carry out a coherent plan of action. Our actions foreclose enemy options to reverse our gains or alter the ultimate outcome of a conflict, and develop powerful self-fulfilling expectations of victory that demoralize the enemy while increasing coalition and domestic support.

Naval forces can provide sustained protection for joint and coalition forces ashore, creating a sanctuary from which they can operate at will against the enemy. We support joint and coalition forces ashore, securing vital sea and air lines of communication, establishing battlespace dominance in the littoral, and providing defensive capabilities, such as air superiority and theater ballistic missile defense. Just as important, we use offensive operations to protect forces by countering threats at their source, placing the enemy on the defensive, and degrading his ability to employ his forces.

As we have always done, we keep the vital seaborne logistics pipeline flowing throughout the joint campaign. During the 1991 Gulf War and every other large-scale conflict in this century, more than 95 percent of all material, supplies, and equipment sent to the theater went by sea. We protect strategic sealift and afloat prepositioning ships and logistics facilities critical for large-scale joint operations.

Finally, naval forces can remain on scene after the joint campaign concludes to enforce sanctions and to maintain a U.S. presence for regional stability. We prevent the need for yet another joint campaign by taking advantage of our self-sustaining endurance to keep combat credible forces in the region. Our most significant contribution well may be to prevent the next conflict entirely through our forward presence for engagement and deterrence.

Our Course for the 21st Century

Forward . . . From the Sea emphasizes that projecting influence and power ashore requires naval forces shaped for joint operations. *Joint Vision 2010* provides the template for joint combat operations in the 21st century and envisions future joint combat operations leveraging information superiority to execute dominant maneuver, precision engagement, full-dimensional protection, and focused logistics. These operational concepts were anticipated in large measure by *Forward . . . From the Sea*. In many areas the Navy is at the leading edge of *Joint Vision 2010* capabilities. We will continue actively to develop and implement a wide range of technological and operational innovations. Our Fleet Battle Lab experiments will be a process by which we make vital contributions to these efforts. The fleet is our battle lab. We will test new ideas and equipment every time we deploy or get underway for a significant exercise.

Our innovation efforts will examine operational concepts and doctrine, how we organize and command our forces to carry out our missions, the capabilities of future systems and platforms, the manner in which we provide maintenance and supply support, and the education and training of our people. We will focus our innovation and modernization efforts in the following areas.

Naval forces will be able to provide sea-based overt and covert surveillance, reconnaissance, and information warfare capabilities for joint forces, and sea-based command and control up to the Commander Joint Task Force level. Our forces will be integrated into networked command and control systems that provide a common tactical picture of the battlespace to all commanders and are fully interoperable with joint command and control systems. Our Cooperative Engagement Concept will provide an unprecedented level of battlespace awareness and combat power by linking the sensors and weapons systems of an entire force into a highly integrated network. We will achieve faster speed of command, closer joint integration, and enhanced means of ensuring the warrior has the right information in the optimum display for immediate action.

We will be a full partner in developing new amphibious warfare concepts and capabilities for implementing the Marine Corps concept *Operational Maneuver from the Sea* (OMFTS). OMFTS emphasizes using the sea as a secure area from which to conduct ship-to-objective movement. We will have a vital role in OMFTS-style operations as part of a highly integrated sea-air-land combined-arms team. We will provide enhanced naval fires, force protection, command and control, surveillance and reconnaissance, and logistics support for Marines ashore—enabling the high-tempo operations envisioned by OMFTS.

We will be capable of providing every type of joint fire the nation requires, throughout the battlespace and with the precision the operation dictates. We will deliver precision

naval fires fully integrated as an element of joint combat power. Navy innovations, like networked command and control systems and cooperative engagement, are a significant step in this direction. We will be able to deliver a large volume of firepower through new ways of achieving very high aircraft sortie rates and new weapons and platforms for delivering joint fires. Emerging precision and information capabilities rapidly are making traditional views—that specific platforms (air, surface or subsurface) and specific types of ordnance (missile, bomb or shell) have specialized roles—obsolete. We will deliver integrated joint fires with enhanced range, lethality, accuracy and timeliness from aircraft, ships and submarines for any type of mission.

Building upon our already robust information, air and maritime superiority capabilities, we will provide integrated protection for joint and coalition forces. Naval defensive capabilities, such as theater air defense and ballistic missile defense, will be integrated with joint systems for maximum protection of the joint force. Our defensive capabilities will complement land-based systems and in some situations may be the only U.S. capabilities readily available, particularly in the opening phase of a crisis or conflict. We will enhance the range, lethality and joint integration of our force-protection capabilities and enhance our ability to defeat sea-denial threats and dominate the littoral battlespace.

We will increasingly be capable of providing secure afloat joint logistics support. Our logistics innovation efforts will enhance strategic sealift and seaborne logistics. These efforts also support Department of Defense initiatives to improve logistics support, such as the total asset visibility system and “just-in-time” logistics. We will seek alternatives to maintaining large quantities of spares and explore ways of enhancing the joint and commercial commonality of system components.

Conclusion

The Navy’s course for the 21st century set by *Forward . . . From the Sea* has proven to be the right one for executing our critical roles in all three components of the *National Military Strategy* and for conducting the future joint operations envisioned in *Joint Vision 2010*. We will maintain our on-going process of technological and operational innovation that has put us on the cutting edge of future warfighting capabilities. Our Navy people—well-led, working as a team, and taking pride in our Navy—will be the source of these innovations. The imagination and initiative of individual Sailors have given our Navy a rich heritage of innovation. Our people will keep us on a steady course toward continued operational primacy as we enter the 21st century.

“Anytime, Anywhere: A Navy for the 21st Century”

The U.S. Naval Institute Proceedings of November 1997 published the article “Anytime, Anywhere: A Navy for the 21st Century.” This document appeared just seven months after “The Navy Operational Concept,” reprinted in the last chapter. “Anytime, Anywhere” was designed to be quite different from the latter, presenting a broad public vision for the Navy, where “The Navy Operational Concept” focused on doctrinal matters. Written within the same broad context, “Anytime, Anywhere” was additionally affected by events that had occurred since the publication of “The Naval Operational Concept.” Chief among them were the publication of the results of the Defense Department’s first Quadrennial Defense Review and General Shalikashvili’s announcement of the updated National Military Strategy, “Shape, Respond, Prepare Now: A Military Strategy for a New Era,” both of which appeared in May 1997. The National Defense Panel’s report appeared just a month after “Anytime, Anywhere.”*

“Anytime, Anywhere” was the second of Admiral Johnson’s three key documents touching on strategy and operational concepts. It was designed to be a statement of positive strategic vision for the Navy and its future development, one that would offset the bad publicity from the series of unfortunate incidents, including Admiral Boorda’s death, which the Navy had suffered over the past decade. The article was part of Admiral Johnson’s desire to get the Navy out of this sort of headline news and establish a low-key but positive public presence. The article was meant to put substance behind Johnson’s idea, which he had shared privately with President Clinton, that “the Navy was going to steer by the stars that were out ahead of us and not the wake that was behind us.”†

The article was drafted in the Office of the Chief of Naval Operations, at the CNO Executive Panel (N-00K), by Capt. Ronald R. Harris, USN, and Capt. Edward A. Smith, Jr., USN. Their work was overseen and inspired by the CNO Strategic Planning Group, which consisted of the Vice Chief of Naval Operations, Adm. Donald Pilling; the Director

* U.S. Naval Institute *Proceedings* (November 1997), pp. 48–50.

† Johnson quoted from an interview in Edgar F. Puryear, Jr., *American Admiralship: The Moral Imperatives of Naval Command* (Annapolis, Md.: Naval Institute Press, 2005), p. 35.

for Operations, Plans, and Policy (N-3/N-5), Vice Adm. James O. Ellis, Jr.; the Deputy Chief of Naval Operations for Resources, Warfare Requirements, and Assets (N-8), Vice Adm. Conrad C. Lautenbacher, Jr.; the Chief of Naval Information, Rear Adm. Kendall Pease; and Captain Harris as director of the CNO Executive Panel. Smith became the principal writer of the article and, at one point, it was going to be published as a joint article by Admiral Johnson and Smith together. As the initial basis of the article, Smith utilized a draft article he had written earlier, but never submitted, based on his earlier work from the Boorda period and the first months of Johnson's tenure as Chief of Naval Operations. The title of the article echoed the motto of Captain Harris's former command, Destroyer Squadron 32, "Anywhere, Anytime"—which the Naval Institute reversed in publishing the article. ♦*

As it looks to the 21st century, the Navy is redefining sea power: to shape the strategic environment, fight through any opposition, and project and sustain enough power ashore—carrier air, gunfire, missiles, and Marines—to deter a conflict, stop an aggressor, or pave the way for heavier joint forces. Simply put, the U.S. Navy will influence, directly and decisively, events ashore from the sea—anytime, anywhere.

This is an exciting time for the U.S. Navy, a time of great promise and a time to make bold plans for the future. We stand on the threshold of a new century, in an era of almost dizzying technological change. Change is our ally. It presents an unprecedented opportunity to transform the face of warfare, to give a new dimension to sea power, and to expand enormously the contribution that the U.S. Navy will make to our nation's security.

Yet, this also is a time of transition, with the concomitant uncertainty, dislocation, and anxiety—a period that will be marked by continued crises and threats to American lives and security and in which maintaining the operational primacy of our naval forces will be critical. We are unquestionably the world's premier maritime power, but I foresee a 21st century in which "power" will be measured differently from today and in which power from the sea more than ever will be the key to shaping the peace and stability of a troubled world.

We already are shaping our Navy to meet the challenges of the 21st century. The landmark 1992 white paper "... From the Sea" took the first steps, followed by "Forward ... from the Sea" in 1994 and the "Navy Operating Concept" earlier this year. Each of these steps revolved around a simple idea: the purpose of the U.S. Navy is to influence, directly and decisively, events ashore from the sea—anytime, anywhere.

That straightforward statement is the core of my vision of 21st-century naval power. It describes who we are and what we do. It encompasses our broad missions of sea control, power projection, presence, and deterrence, and it says how we will use naval

* Capt. Robert L. Harris, USN (Ret.), manuscript notes to Swartz; Edward A. Smith, Jr., e-mail to Hattendorf, 10 July 2006.

forces to meet the requirements of our National Security Strategy and National Military Strategy, while we continue to perform enduring operations such as sanctions enforcement and strategic sealift. But it does more than that. It says to the American people that we, with our sister services, can and will shape the strategic environment and have a decisive impact from the sea on the crises and conflicts of the future; that we can and will fight our way through any opposition at sea or in the air; and that we can project and sustain enough power ashore—carrier air, gunfire, missiles, and Marines—to deter a conflict, to stop an aggressor, or to pave the way for heavier joint forces. That is a bold promise and a greater task than any other navy has ever undertaken. Our challenge—the challenge of every Navy man and woman, and mine most of all—is to implement that bold promise, now and in the decades to come.

New Challenge, Old Realities

Three points are obvious to me from the outset:

- A military force that cannot win is worthless, in war and peace.
- War is a messy endeavor with unpredictable outcomes.
- A big part of being more effective is being able to fight smarter.

The first point means that the focus of whatever we do has to be our ability to win any conflict, anytime, anywhere. We cannot sacrifice today's readiness to invest in tomorrow's promises. We must be able to answer the call both tomorrow and today.

The second point says that there is no simple, absolute technological answer to all our warfare problems. We cannot assume that our future conflicts will be swift and bloodless. We still will face many contingencies in which more traditional combat capabilities on land and at sea will be needed and may be our only option. We must take full advantage of new technologies, but we also must retain traditional combat skills.

The final point says that we must move aggressively to harness change and make it work for us. However, there is more to harnessing change than simply adapting new technologies to current warfare tasks. We must think differently and creatively about what our Navy does and what it might do to better serve our nation in the years ahead. Specifically, we must ask ourselves how we can give a highly trained, well-equipped, but perhaps smaller military force such as ours an impact so disproportionate to its numbers as to make it decisive in peace and in war. That problem is not unique to the Navy; all of our sister services are grappling with the same dilemma. The Navy, however, brings unique sea-based solutions to the equation and can make a unique contribution to our country's security.

Sea and Area Control

Mahan was right: navies are about more than just fighting other navies; they are powerful instruments of national policy whose special strength stems from their ability to command the seas. In fact, at the core of U.S. security requirements lies one prerequisite—sea control. U.S. military strategy is based on forward presence and power projection—maintaining a presence in key regions and, when necessary, deploying and sustaining sea, land, and air forces overseas. If we cannot command the seas and the airspace above them, we cannot project power to command or influence events ashore; we cannot deter; we cannot shape the security environment. That is a consequence of our geography; it will not change in the 21st century.

What will change is our foes, ability to block such presence and power projection. Over the past ten years, it has become evident that proliferating weapon and information technologies will enable our foes to attack the ports and airfields needed for the forward deployment of our land-based forces. I anticipate that the next century will see those foes striving to target concentrations of troops and materiel ashore and attack our forces at sea and in the air. This is more than a sea-denial threat or a Navy problem; it is an *area*-denial threat whose defeat or negation will become the single most crucial element in projecting and sustaining U.S. military power where it is needed.

The future world that I foresee will demand a new and expanded understanding of sea control and battlespace dominance. It still will be necessary to dominate the air and sea to secure the air and sea lanes and project power ashore; however, we also will have to be able to defeat a foe's land-, air-, and space-based surveillance and strike capabilities over a broad theater of operations. We will have to merge our sea control seamlessly into control of the littorals and fully integrate our capabilities into the land battle. We can and will do this. In fact, expanded sea control and battlespace dominance, as I see it developing, will encompass everything from an information warfare battle of surveillance systems, to precise strikes against critical surveillance nodes, to theater missile defense, to command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) and a cooperative engagement capability that includes a comprehensive defense of both the fleet and forces ashore. Indeed, without the ability to assert such area control, any sustained forward operations, whether by land-based or seabased forces, quickly could become very costly in American lives and very risky—if not impossible.

Power Projection

If expanded area control is our greatest challenge for the early 21st century, power projection is one of our greatest opportunities. I believe we will be able to use sea power in a way that Alfred Thayer Mahan could only dream about at the turn of this century.

The battleships of Mahan's day could fire their projectiles only ten miles inland; the aircraft and missiles of today's Navy can project power to distances 1,000 miles or more from the coast, and MV-22 tilt-rotor aircraft can insert Marines hundreds of miles inland. This means that our "littoral" operations even today can encompass most of the earth's land masses, more than 80% of its population, and most of its capitals and major cities. And this is just the beginning. If we accept the challenge of a new age and grasp its opportunities, our future sea power will take on a whole new dimension.

As precision weapons become cheaper and more numerous, naval dominance of the littorals will acquire a new scale and importance. Advanced joint and national information and targeting systems will multiply the impact of our long reach with global battlespace awareness. This will enable us to mass the effects of distributed but precise fires from the sea wherever they will have the greatest effect and to support the land battle well inland. In addition, they will give us the capacity to act and react so quickly as to anticipate and forestall an enemy's moves. In short, we will possess the means to disorient and shock an enemy sufficiently to break his resistance.

When these emerging capabilities are combined with traditional strengths of sea-based power—such as the ability to maneuver freely in international waters and to sustain operations without bases or access for as long as needed—an exciting new dimension of sea power begins to emerge. I envision a hard-hitting future naval campaign that combines highly mobile Marine operations deep into the littoral with responsive close air and fire support and long-range precision strikes—all mounted and sustained entirely from the sea.

Presence and Deterrence

The Navy's enhanced control and power projection capabilities also will have a major impact on the ability of naval forces to prevent war and to both shape and keep an uneasy peace in the 21st century. One irreplaceable element is and will remain the strategic nuclear deterrence of our ballistic-missile submarine force, but deterrence is more than that. Our national strategy places great emphasis on the active use of military forces to prevent conflict, to shape our security environment, and to serve as the basis for a lasting peace. Forward naval presence always has been inextricably linked to conventional deterrence, but I see a new dimension for sea power here, too. I look to a future in which balanced forward naval presence will be increasingly vital in shaping the peace.

One reason for this expanded naval role already is apparent. The number of U.S. bases overseas is declining, and our access to facilities in friendly countries can be problematic—especially in times of crisis. Under such circumstances, the ability of naval forces to get where they are needed and to stay as long as needed is essential. Naval forces are

the visible guarantee that the United States can and will react to provocation and will support its friends in time of need.

There is, however, an even more exciting prospect. Forward naval forces offer us the opportunity to combine a demonstrable assurance of protection across the full range of operations—including theater missile and air defense with balanced power projection capabilities and an implied guarantee of a rapid expeditionary deployment of additional forces from the continental United States. That is, we can use naval presence to foreclose an enemy's options entirely. Naval forces can deter by demonstrating that any aggression, large or small, is doomed to failure. No matter what a foe's intentions or how much he may strive for a swift military fait accompli, he would be forced to recognize that our forces can deny him his objective, defend against his threats, and bring sufficient tailored power to bear quickly enough to prevent even temporary success. In effect, forward naval forces shape the peace by becoming a force-in-being—a tangible part of the local security calculus that any would-be aggressor must take into consideration.

Deterrence also depends on the power our allies can bring to bear. Enhanced forward naval forces will build such deterrence in two new ways. We will provide potential partners an offshore air and missile defense against an aggressor's threats and thereby enable them to freely join us or grant access to our land-based forces. And we will use our technology, especially our battlespace awareness, to help them help themselves by multiplying the impact of their forces and lending a new dimension to what they can do in battle. Truly, forward naval forces are the key to regional stability.

We have the opportunity and the means to make the next century a golden age of maritime power. Over the past five years, we have come a long way. We have experimented with new ideas and technologies and have made some hard choices. Now, the goal is within our grasp. I challenge our Navy to think still more innovatively and to build on the Navy–Marine Corps team's unmatched expeditionary tradition. Together, we will set a new standard for operational primacy both at sea and over vast overland reaches of our chaotic world. We will redefine sea power in new, far-reaching terms that can change the face of 21st-century warfare. And together, we will continue building a strong, balanced Navy that will prevail today, tomorrow, and for decades to come—anytime, anywhere.

Admiral Johnson is Chief of Naval Operations

“Navy Strategic Planning Guidance with Long Range Planning Guidance”

In April 2000, Adm. Jay Johnson released the second edition of “Navy Strategic Planning Guidance,” just three months before Adm. Vernon Clark relieved him as Chief of Naval Operations on 21 July 2000. The last of the three key documents touching strategy and operational concepts published during Johnson’s tenure, “Navy Strategic Planning Guidance,” appeared two and a half years after “Anytime, Anywhere” in November 1997 and a year and a half after Richard J. Danzig began his term as secretary of the Navy on 16 November 1998. It reflected the ideas of President Clinton’s 26 February 1999 speech, which became known as the “Clinton Doctrine” on selective intervention.

For some time before actual work began on this document, Capt. Joseph Bouchard and like-minded officers had observed that the Navy’s approach to strategy was too sporadic, that it needed ongoing and cyclical reviews to keep it attuned to changes in world affairs and joint planning, as well as linked to the Planning, Programming, and Budgeting System and the recurring Quadrennial Defense Reviews. There was considerable opposition in some quarters to a new process that might constrain budgetary flexibility within the specialized warfare communities. Nonetheless, the overall line of thinking made sense to many and led to work on “Navy Strategic Planning Guidance,” as the Navy began to plan for the second Quadrennial Defense Review, scheduled for 2001.

In August 1999, the Navy had issued a “Strategic Planning Guidance,” but this had been classified, because of a section that contained intelligence information. It had been intended to provide specific guidance to the Navy in implementing the basic presidential and Defense statements on strategy: the National Security Strategy, the National Military Strategy, and Defense Planning Guidance. The original “Navy Strategic Planning Guidance” described “the organizing principles and operational concepts, and priorities by which future naval forces will exploit new opportunities and capabilities to assure U.S. access and influence forward in the Information Age, despite an adversary’s efforts to preclude our presence.”

*The new, revised, unclassified edition appeared in 2000 but was at first held closely within the Navy as a Planning, Programming, and Budgeting System document. Fairly quickly, however, Navy Department officials distributed it to widen its influence and even posted it on the Navy Department's website, where it was cited as a source in publications.**

The principal person coordinating the writing work on the second "Navy Strategic Planning Guidance" was Rear Adm. Joseph Sestak, head of the Strategy and Policy Division in the Office of the Chief of Naval Operations (N-51). In addition, Sestak was the principal driver and conceptualizer for this work. Within his office, Sestak assigned responsibility to the N-512 branch, with Cdr. Craig Faller and Lt. Chris Cavanaugh drafting.[†] ♦

Preface

As we continue to build a Navy for the Information Age, it is imperative that we remain focused on both our enduring role of forward presence and our transformation to a network-centric and knowledge-superior force. Implementing a strategy-based approach to the planning, programming, and budgeting process will provide our nation a Naval Service that remains capable of assuring U.S. access abroad and influence ashore in the 21st Century. The maritime concept described in Section III is the first step in this process. It guides our transformation by describing the organizing principles, operational concepts, and priorities by which future naval forces will exploit new opportunities and capabilities to ensure our access forward. This second edition of *Navy Strategic Planning Guidance* provides a critical bridge from the ideas contained in our maritime concept to a set of prioritized strategic capabilities that are linked directly to operational concepts and serve as the foundation for the Integrated Warfare Architecture assessment process. The IWAR process then captures these prioritized capabilities in end-to-end analyses, providing programmatic recommendations in the form of the CNO's Program Assessment Memorandum, upon which resource sponsors base their programs.

In this planning cycle, we must all be cognizant of the upcoming Quadrennial Defense Review. Our ultimate objective will be to maintain and enhance our ability to project U.S. power and influence from the sea to directly and decisively impact events ashore during peacetime, crisis, and war. Forward presence and knowledge superiority are the two means upon which we will structure our Navy for the Information Age. Now and in the future, our command of the seas must be complemented by an improved speed

* See, for example, Daniel Gouré, "The Tyranny of Forward Presence," *Naval War College Review*, volume LIV, no. 3 (Summer 2001), p. 23, footnote 6, in which the author refers to Chief of Naval Operations (N3/N5), *Navy Strategic Planning Guidance*, April 2000, available at www.hq.navy.mil/n3n5/files/NSPG2000.pdf.

[†] Cdr. Paul Nagy, USN, e-mail to Swartz, 12 April 2005; Cdr. Winton Smith, USN, e-mail to Swartz, 27 June 2006; Bouchard, "Thoughts on Selected Navy Capstone Documents."

of command via cyberspace in order to dictate the operational tempo across an expanded battlespace—sea, air, land, space, and cyberspace. We must also outline in our planning process the new mission areas that will become an integral part of the Navy's operations early in the 21st Century. As we expand this mission envelope to include new capabilities such as Theater Missile Defense and Land Attack, we must also ensure that we have the capacity to perform them with power and responsiveness.

Throughout this planning process, we must also be mindful of our most valuable resource: the men and women of the U.S. Navy. They are the brightest and most highly motivated individuals that our nation has to offer, and keeping faith with them is our highest duty. We must take full advantage of emerging technologies and concepts in order to equip them with increasingly capable ships, aircraft, systems, and equipment as they stand ready to respond to our nation's call—*anytime, anywhere*.

Jay L. Johnson
Admiral, U.S. Navy
Chief of Naval Operations

Introduction

This second edition of *Navy Strategic Planning Guidance* (NSPG) provides a prioritized set of capabilities to the IWAR/OPNAV PPBS planning process with direct strategic linkage to a maritime concept (described in Section III) that builds upon *From the Sea* and *Forward . . . From the Sea* and provides the organizing principles by which naval forces will exploit new concepts and capabilities to assure U.S. access forward in order to continue to influence events directly and decisively ashore in the future. The NSPG expands on these principles and provides the conduit to translate the strategic guidance of the maritime concept into specific required operational capabilities that will build the foundation upon which the OPNAV planning process will be based.

After detailing the key capabilities of potential 21st Century adversaries, based on the Office of Naval Intelligence (ONI) assessment, the NSPG describes the maritime concept that provides the organizing principals and concepts developed in response to ONI's assessment. The NSPG then defines the strategy-based process that will be the foundation of the OPNAV planning process in the 21st Century. This section includes: (1) a discussion of the genesis of the Operational Concepts that are based on the maritime concept; (2) the requirement for a set of prioritized operational capabilities in the form of Long Range Planning Objectives; (3) a description of the end-to-end capability assessment process of the IWARs that will be used to guide the CNO's Program Assessment Memorandum (CPAM) development and, finally; (4) because of the unique implications of this upcoming planning process on the first Defense review of

the 21st Century, an outline of the emerging themes and actions for the Quadrennial Defense Review (QDR) and the potential naval implications. The fifth section of the NSPG provides the critical link between these concepts and resources by providing a series of Long Range Planning Objectives in the form of prioritized, strategy-based capabilities. The last section of the document then presents a list of studies that the Navy needs to undertake in order to help sustain our strategy in the future.

This document establishes the bridge from strategy to capabilities within the IWAR assessment process. Accordingly, the IWAR assessment process will employ this guidance in their end-to-end analyses. The NSPG will be released on an annual basis in the March–April timeframe, and will provide IWAR teams an updated focus on capability priorities enhancing stability throughout a continuous planning process.

Abstract

The following is a brief synopsis of the remaining sections of the NSPG:

- Section II summarizes key 21st Century potential adversary capabilities. ONI capabilities-based assessments offer IWAR teams the in-depth critical information necessary for a rigorous analysis of potential adversary capabilities in the 21st Century. Leveraging these analyses will be fundamental to a successful IWAR planning effort, enabling IWAR Integrated Process Teams (IPTs) to clearly identify areas where risks can be taken and where we need to hedge against an uncertain future.
- Section III contains a summary of the maritime concept that will guide the IWAR and CPAM efforts in terms of the relevancy and the prioritized capabilities outlined in Section V. In those instances where capabilities do not enhance the key tenets of this concept, those capabilities should be considered lower priority.
- Section IV details the OPNAV PPBS planning process. Contained in this section is an overview of the genesis for the operational concepts that are applied to each of the “means” and “ways” of the maritime concept, the Long Range Planning Objectives associated with them, the background of the IWAR process and an abstract of each IWAR domain, and finally, the issues/topics that will impact the Navy in the upcoming QDR.
- Section V details the NSPG Long-Range Planning Objectives. It provides the link between strategy and the assessment and programming process in the form of a series of prioritized, strategy-based capabilities that will guide the CPAM/POM development.
- Section VI provides a listing of topics for study and analysis to be completed within OPNAV, CNA, NWDC and the Fleet to better assess emerging concepts and capabilities for the Navy of the future.

NSPG Development: The NSPG will be released on an annual basis in the March–April timeframe to provide OPNAV planning forums an updated focus on capability priorities. This will maximize stability throughout the continuous planning process.

Additional Planning Guidance Documents: Related documents that will significantly impact the continuing development of the PR-03 IWAR roadmaps and CPAM issue development include the FY02–07 Defense Planning Guidance and the PR-03 SECNAV Planning Guidance.

Section II: The Strategic Environment

The security environment in which we live is dynamic and uncertain, replete with a host of threats and challenges that have the potential to grow more deadly.

PRESIDENT CLINTON, NATIONAL SECURITY STRATEGY, 1999

The Strategic Environment at the Turn of the Century

No one can predict with certainty the future security environment, but there are emerging trends that make it imperative for our Navy to focus on the littorals and the land beyond. The growing role of regional and non-state actors in international affairs and the increasing globalization of the world economic networks and systems portend a future security environment of greater complexity. These and other forces combine to lend uncertainty to the planning process.

To frame the planning guidance of Section V, the Navy assumes that no peer competitor on a global scale will arise prior to 2020. The United States and the Navy will remain engaged in areas of vital interest in the Middle East, Asia, Europe, and the Americas. Potential adversaries will obtain technologically advanced weapon systems and access to sensor systems to employ these weapons in an effort to thwart our efforts in geographically limited regions. We must continue to be prepared to fight and win at the high end of military conflict, while maintaining a clear focus on the day to day shaping responsibility through the forward presence and engagement activities that our forces conduct throughout the world.

In preparing for the high intensity end of conflict, the Navy must consider those countries, with the potential and desire to exercise regional hegemony which may be hostile to the U.S. or its presence. These countries will seek to exercise influence antithetical to U.S. interests in their corners of the world. The political influence of regional powers is derived from their economic and military power, and they may often employ military strategies aimed at raising the perceived cost of engagement to the United States. A

probable course of action for many adversaries will be to challenge our access to their region of influence.

The Navy must maintain the capability to dominate the maritime environment to dissuade global naval ambitions by a future regional power, while also retaining the capacity to handle operations at the lower end of the spectrum of conflict and to perform our enduring role in strategic deterrence. By ensuring credible U.S. combat capability remains forward, the Navy assures U.S. influence is always present across the spectrum of operations, promoting U.S. and allied interests through day to day engagement. This engagement process also encompasses the spectrum of military operations other than war (MOOTW), which repeatedly employ naval forces in missions such as humanitarian disaster relief, non-combatant evacuation operations (NEO), peace support missions, enforcement of embargoes and no-fly zones, counterproliferation measures, and rapid reaction to terrorism. Future forces also must be prepared to support law enforcement agencies to deal effectively with non-military challenges to our national security, such as illegal immigration, illegal drug trafficking, and other international criminal activity. These types of activities will not necessarily be inhibited or stopped through traditional military means; and, while these challenges pose less risk than war, they occur with much greater frequency.

The Rise of Regional Actors

For the foreseeable future, regional and local actors will continue to pursue increased influence within their areas of interest. These actors include rogue states, states with aspirations of regional hegemony, and new non-state actors with a capability to influence events on a disproportionate scale. While none are projected to have the ability to challenge the United States on a global scale, the availability of weapons and technology on the global market permits potential adversaries the opportunity to challenge U.S. interests on a limited or regional scale.

Each of the world's countries has its own approach to its national defense, but none can match the United States' capability to project power and very few, if any, can confront the United States on equal terms, even close to their own territories. Some, however, can mount a defense designed to discourage the United States from initiating or, once initiated, from continuing operations against their forces and territory. Analysts in the United States have collectively termed these widely differing strategies as "area denial" strategies.

The objective of an area denial strategy is to form the impression that presence in, or entry into, the region would produce unacceptable losses, thereby limiting U.S. involvement and influence. An area denial strategy may employ naval mines, submarines, anti-ship cruise

missiles, ballistic missiles or weapons of mass destruction in an attempt to prevent the movement of U.S. forces into or through an area. The objective is not necessarily to destroy U.S. forces but to inflict enough damage to make the political cost of involvement in a region unacceptably high.

The increased globalization of the world marketplace puts sophisticated military technology in the hands of any nation or group with sufficient economic means. Ultimately, the success of any foreign area denial strategy relies on U.S. willingness and ability to remain forward to enable the successful transition to conflict and in order to fight and win any contingency.

Globalization

The interconnection and interdependence of national economies, networks and systems present new challenges in the security environment. This globalization affects every day operations as well as future planning. The global economy permits the widespread proliferation of advanced weapons which has the potential to limit the traditional technological edge of U.S. weapons and sensors. We must also recognize that globalization and the power available from access to the new competitive domain of cyberspace provides a new international medium for non-state, as well as regional actors to advance their agendas by unconventional means.

As borders open and the flow of information, technology, money, trade and people across borders increases, the line between domestic and foreign policy continues to blur. We can only preserve our security and well-being at home by being actively involved in the world beyond our borders.

NATIONAL SECURITY STRATEGY FOR A NEW CENTURY

From terrorism to the proliferation of weapons of mass destruction, potential adversaries will challenge us in innovative and insidious ways by using commerce, information and technology readily available on the global market. The Navy must use cyberspace to gain a superior knowledge position if we are to act with timeliness and decisiveness despite an adversary's denial efforts. Knowledge superiority combined with forward presence will provide stability and further our national security objectives in an era of globalization.

The Naval Environment

Foreign military forces will acquire more effective and sophisticated sensors, weapons and platforms over the coming two decades through indigenous and cooperative industrial development, technology transfer and outright arms purchases. The force that can best combine surveillance, strike, and support capabilities to secure control of the littoral battlespace and large ocean areas will prevail. Despite the advances in the military capabilities of foreign governments and non-state actors, it will be the intentions of these actors, which will determine whether or not they pose a threat to U.S. naval forces.

The spectrum of challenges to U.S. naval forces will be broad, ranging from information attack operations and pirates in small go-fast boats to fully modernized regional combat fleets of surface combatants, aircraft and submarines. Capabilities will vary from region to region and regime to regime and exist in virtually every theater from East Asia to Western Europe and across the entire spectrum of operations from peacetime presence to combat missions.

Additionally, the potential for U.S. forces to be involved as a third party in a conflict remains high, with several regions of the world where the United States retains vital national interests, such as the Middle East and Korea, being historic areas of unrest. Tensions exist in many other parts of the world on an international, national and sub-national level, and the potential failure of a state, for example, may require U.S. involvement in either support of a government or faction or in dealing with the humanitarian crises resulting from civil war. It is from a posture of forward presence that the Navy will respond to such crises.

In view of the above, there are two likely challenges for which our forces must be prepared: Potential Adversary Capabilities, and Probable Other Areas of Concern.

Potential Adversary Capabilities. The Office of Naval Intelligence (ONI) assesses that our potential adversaries will continue to pursue area denial strategies over the next 15 to 20 years. These challenges will primarily be land-based and in the near-coastal regions. Some potential adversaries will expand their denial strategy to include space and cyberspace as well as adjacent sea and air space to provide a defense in depth.

Both the sophistication and the performance of weapons will increase substantially.

Platform and weapons survivability will increase through multi-spectral signature control and advanced countermeasure designs. Increasingly, these weapon systems and platforms will be supported by more sophisticated sensor systems. This requires sophisticated counter-targeting systems and doctrine to enable U.S. and allied forces to defeat such weapons. There will be significant threats to forward presence forces from defensive mine warfare; massed small boat attacks employing man-portable weapons; advanced air, surface and submarine launched cruise missiles; and potential for chemical/biological weaponry. Another area of concern is the availability of advanced air independent propulsion systems for submarines.

Ballistic missiles will remain the primary strike capability for many states. The range and accuracy of available systems are expected to increase due to the proliferation of technology and advances in miniaturization techniques, although the capability to target mobile naval forces will remain low. The greatest threat will be to allied state population centers and fixed infrastructures including both air and surface points of

debarcation. Ballistic missiles increasingly will have the potential to carry chemical, biological, and nuclear warheads.

Most states attempting area denial face a number of challenges in effectively executing such a strategy. The most significant shortfalls are: (1) a lack of precision strike capability; (2) a lack of national or regional-level C4ISR capabilities; (3) a lack of credible area air defense systems; (4) limited quantities of modern military equipment; and (5) an inability to sustain most military operations. However, many of the technologies and systems required to overcome these shortfalls are readily available on the international open market. The operational proficiency of potential adversaries must be closely monitored to strategically anticipate risk.

The following areas are of specific interest and must be accounted for when conducting risk analysis. Each potential adversary capability is presented in the following format: Trends; Representative states pursuing; and U.S. Navy implications. Also listed is a forecast of future capabilities (including select friendly and neutral countries).

I. Theater Ballistic Missiles (TBM)

A. Trends:

The TBM threat continues to grow in complexity, and advances are to be expected in multiple warhead technology that will allow for tactical flexibility. This implies both multiple warheads on the same missile and different warhead types available for the same missile system.

- Accuracy will improve due to satellite navigation and/or terminal guidance capability. GPS will allow the user to quickly and accurately determine coordinate positions, thereby reducing targeting and set-up time.
- Warhead survivability will increase due to warhead cross section reduction, decoys and onboard jammers included with the ballistic missile package.

B. States Pursuing:

Among the states pursuing advanced ballistic missile systems are Iran, Iraq, Libya, China, North Korea, Pakistan and India.

C. Navy Implications:

Challenges to battlespace control will increase as TBM/WMD technologies improve and proliferate. While mobile naval forces will remain difficult to target, the greater accuracy of the systems will increase the risk in the future. The greater variety of warheads and the potential for decoys make the defense of allied territory more difficult. This will require a large number of interceptor missiles or improved intelligence to allow for acceptable P_k on threats. These issues point out the need

for greater knowledge superiority in order to inhibit or impede an adversary's courses of action.

II. Submarines

A. Trends:

The challenge of detecting, tracking, and if necessary, destroying nuclear and conventional submarines will increase. The driving factors are improved quieting techniques, better submarine deployed sensors, improved torpedoes, and improved endurance for conventional submarines.

- Improved quieting techniques increase the stealth of submarines. Advances are occurring in pumpjet/propulsor technology, improved outer hull coatings, skewed propellers, and machinery sound isolation mounting.
- Flank and towed array sonars are available for export.
- Improvements noted in torpedo technology include improved counter-counter measures (CCM) that employ advanced logic, multiple influence fuses, and stealth designs; ultra high speed torpedoes on the export market; and advanced seekers capable of improved target discrimination in the littoral environment.
- The evolution and proliferation of air independent propulsion will greatly improve the endurance of conventional submarines. The use of fuel cell technology will allow submerged operation for up to thirty days with an acoustic signature comparable to current battery operations.

B. States Pursuing:

Russia is one of the leaders in developing advanced submarine systems. The Russians use exports to fund future quieting research and development. They are continuing to develop ultra high-speed torpedoes. China and Iran employ advanced conventional submarines and will continue to improve their ability to employ these platforms.

C. Navy Implications:

The reduction in detectability of future submarines and the increased export of the technology impose significant challenges for naval operations in and beyond the littorals. Advances in detection, prosecution and torpedo defenses are required.

III. Anti-Ship Cruise Missiles (ASCM)

A. Trends:

ASCM design trends indicate a focus on defeating ship air defense systems.

- Expect significant increases in missile terminal velocity from predominantly subsonic speeds now through supersonic speeds in the next ten years to hypersonic by 2020.
- Designers are employing radar and IR signature reduction to reduce missile detectability.
- Complex terminal maneuvers and seekers are being designed to tax point defense systems with improved countermeasure discretion.
- Expect flight profiles to get lower in altitude, making detection and targeting much more difficult.

B. States Pursuing:

Several suppliers of advanced cruise missiles compete in the world market. Russia, China and North Korea are all suppliers. In addition, several Western states are deeply involved in advanced research and sales of cruise missiles. The missile market is global, and advanced missiles will be available to anyone with hard currency. Assume that many states will have a variety of launch platforms, including manned aircraft, ships, submarines and mobile land based launchers.

C. Navy Implications:

Naval forces will be exposed to increased missile capabilities over time. To operate effectively in the littorals, active and passive defense systems must be improved. Counter-targeting of launchers may provide the only high probability means of defeating the threat.

At a minimum, ships will require advanced sensors to detect more stealthy missiles, improved stealth characteristics to complicate enemy target selection, effective hardkill and softkill capability and the ability to sustain missile damage and continue to function.

IV. Mines

A. Trends:

Mine warfare continues to provide many potential adversaries a potent and relatively inexpensive tactic for area denial. Significant advances are projected in the following areas:

- Improved explosives and directional warheads to improve lethality.
- Increased stealth through use of advanced materials.
- More complex, multiple influence fusing technology to reduce susceptibility to current countermeasure techniques.
- Layered mine threats from the surf zone to deep water.

- An expansion of both overt and covert employment means.
- Mines designed to attack countermeasure platforms (e.g., helicopters).

B. States Pursuing:

Russia, China and North Korea have extensive mine stockpiles and sophisticated mine tactics. Iran and Iraq have previously employed mine warfare in the Arabian Gulf. Due to the low technology required to employ even very advanced mines, non-state actors may easily use mines.

C. Navy Implications:

Naval forces must be able to either breach or avoid mine fields to execute a littoral strategy. We must think in terms of “counter-mine” vice “mine countermeasures.” This will require investment in intelligence and sensor capabilities. Adversary use of mines may lead to significant delays in the execution of U.S. and allied operational plans.

V. Surface to Air Missiles

A. Trends:

Advances in airframes, propulsion, guidance and warheads will increase the lethality of air defense systems both ashore and afloat.

- Improvements in airframes and propulsion will be required to meet the challenge of countering ballistic missiles. These improvements will be equally effective against air breathing systems.
- Sensor and fusing improvements will improve missile performance against stealthy targets. These improvements will include multispectral guidance and search systems.
- These advances will also decrease the effectiveness of current countermeasure systems.

B. States Pursuing:

Russia, China and Iran possess advanced weapons and are actively pursuing air defense technology. Advanced man-portable missiles are expected to proliferate widely.

C. Navy Implications:

Counters to both manned and unmanned aircraft will improve. Battlespace attack with missiles will also be more difficult.

- Manned aircraft will be placed at greater risk due to sophisticated air defense systems.
- The importance of stealth will continue, but Electronic Warfare support will remain critical.

VI. Surface Ships

A. Trends:

Surface warship design trends depict a movement toward modular construction and signature reduction.

- Modular design allows for customer specific variation without significant added cost.
- All new surface combatants for sale on the world market incorporate signature reduction. Signature reductions include not just radar cross section reduction but multi-spectral low observability (IR, visual, magnetic and acoustic).
- Fire control systems are beginning to evolve from radar/electro-optical (EO) to combine radar/EO/IR and laser for AAW and ASUW.
- At the low technology end of the spectrum, the advances in man-portable weapons increase the lethality potential of small boat attacks.

B. States Pursuing:

Major warship procurement is expensive. Russian production has decreased markedly over the past ten years. China is developing indigenous designs, and also is acquiring (at least) two *Sovremennyy*-class destroyers from Russia. Iran has the potential for acquiring advanced Western built warships. Iran is the major small boat operator, but small boats are within the reach of all foreign countries.

Advanced weapons may be backfitted into older platforms, but many existing ships are reaching the end of projected service lives.

C. Navy Implications:

Advanced warships will require improved sensors for detection and targeting. While no global peer competitor is projected, the global arms market will make advanced designs available to many foreign actors. The increasing availability of technology will make the individual warship lethal within its weapons envelopes.

VII. Identifying Future Capabilities

There are no states at present that can challenge the maritime capabilities of the United States nor do there appear to be any within the timeframe of this estimate. There is, however, a small number of states that have been hostile to the United States, its policies, and, frequently, its allies—in some cases, for decades. There is no evidence or reason to believe that the most obvious examples, North Korea, and Iraq, will change their attitudes. Therefore, they will continue to be of significant interest with regard to future naval planning. Moreover, it is clear that other states could easily become hostile and threatening to the U.S. and its interests; Iran's "overnight switch" in 1979 from key

U.S. ally to hostile revolutionary state is the most obvious example. Included below are states that are also pursuing area denial capabilities but are not currently in an adversarial relationship with the United States.

A. North Korea:

North Korea is, and likely will remain, at the lower end of the technology scale. The country nonetheless maintains significant coastal defense and monitoring capabilities. Primary area denial tactics would rely on mine warfare and cruise missiles. The major shortcoming is the lack of advanced over-the-horizon sensors that limit defensive measures to visual range. The development of ballistic missile technology capable of attacking U.S. facilities and allies in the region utilizing a sizable chem-bio stockpile affords the North Koreans an avenue for attack. North Korea also has been the source of ballistic missiles and related technology for Iran, Iraq, and Pakistan.

B. Iran:

By virtue of its size and geographic location, Iran will remain a significant player in the Persian Gulf region. Although recent political events in Iran hold the promise of improving relations between Iran and the U.S., no official Iranian “sea change” with respect to U.S. interests and presence in the Gulf region has been seen. Unless and until real movement towards better relations occurs, it is only prudent to continue to accept Iran’s publicly stated positions and past actions representing Iran’s policies and stance towards the United States. Since one of Iran’s most important goals is the eventual elimination of the U.S. presence from what Iran considers its sphere of influence, there are bound to be periods of increased tension, especially with U.S. naval forces that are the centerpiece of U.S. presence in the Gulf. Iran employs a layered defense in support of a stated area denial strategy. The Iranians are actively seeking advanced aircraft, cruise missiles and mines. The continued modernization of their forces increases the risk to opponents. The mix of air, surface and subsurface platforms provides significant ability to control strategic choke points in the Persian Gulf. Iran will continue to improve its capabilities over the coming years. Its geography and natural resources afford it the ability to remain a significant player in the region. It is actively developing ballistic missiles and WMD that will give it an area denial capability and the ability to hold U.S. allies and its neighbors in the region at risk.

C. Iraq:

Iraq suffers from continued isolation and international sanctions. This forces reliance on older systems. The elimination of the Iraqi Navy during the Gulf War limits the

capacity for interdiction of naval forces. Iraq continues to attempt to improve its ability for asymmetric attacks, principally with ballistic missiles and WMD. Iraq retains significant conventional ground forces at the low end of the technology scale, and retains the ability to hold its neighbors at risk.

D. China:

Heavy emphasis is being placed on modernizing both naval and air forces. China seeks to develop or purchase effective electronic countermeasures, low observable technologies, laser targeting, satellite navigation technology, improved space surveillance and tracking capability, anti-satellite weapons and advanced surface to air missile systems. Naval forces could expect limited coordinated joint air, surface and subsurface attacks. At present Chinese C4ISR systems are poor to good with limited range, but technology globalization offers the ready ability to improve in this area. Mine warfare offers China a means of area denial. In addition, China is trying to jump several generations ahead in technology by purchasing submarines, surface ships, and cruise missiles. It is actively seeking system improvements across the weapons spectrum, including the continued development of its ballistic missiles and their nuclear capability.

E. Russia:

Russia continues to use arms and exports as a major source of hard currency. Military readiness and modernization has suffered greatly due to economic difficulties, but Russia retains strategic and tactical capabilities, including an extensive NBC arsenal. In terms of area denial capabilities, Russia maintains submarine, mine and cruise missile inventories. It is continuing to invest in research and development of sensors and weapons. This research is often funded by foreign military sales.

Probable Other Areas of Concern. As previously noted, naval forces can expect to be involved in a multitude of missions at the lower end of the violence continuum. The Navy must retain the capability to act in support of maritime interdiction operations, humanitarian support, terrorist reaction, and peace-support missions. These missions are much more likely than regional—or even local—war and will require focused capabilities. Of emerging interest are non-lethal force capabilities.

Military objectives in these types of actions are often less clear than during war. The objective is often not the destruction of an enemy force, but humanitarian action. This requires tools to conduct relief operations and limited force demonstrations. Examples of such actions include hurricane relief operations in the Caribbean basin, maritime interception operations in support of United Nations sanctions, and peacekeeping operations in numerous hot spots throughout the world. These operations remain dependent on

both forward presence and knowledge superiority. Naval forces on watch throughout the world are poised to take prompt action in support of unplanned situations.

Of particular note, many of these situations require immediate response with very limited planning. The ability to gather and disseminate information on a daily basis during peacetime provides a background to conduct contingency operations in a crisis. Short or no-notice tasking in response to either natural disasters or terrorist attack remains highly likely for forward-deployed naval forces. The response required ranges from providing basic life sustaining aid to precision military strikes.

At an increased level of violence, it is reasonable to assume that sustained low level tactical responses may be required to enforce U.S. policies. The continued pace of naval operations following the Gulf War stands as a case in point. There has been a repeated need to swing naval forces between theaters to support military action in order to contain a foreign actor with extra-territorial aspirations. The risk is not just war on a theater scale, but isolated situations of military violence. The requirement for knowledge superiority is just as great in these circumstances. Naval forces must remain capable of preempting hostile actions.

Significant proliferation of high technology weapons continues. The same weapons that threaten U.S. forces during major theater wars will threaten them during smaller scale contingencies. The technology proliferation factor must be considered in all military planning. The risks to U.S. forces posed by this trend will continue to grow as the technology improves and becomes more affordable and accessible through globalization.

Any of the technologies discussed in the threat section are available to any nations or groups with sufficient means to purchase them. Therefore, the most benign operations may imply significant military risk from either state-controlled formal military groups or other nonstate actors with technologically advanced munitions. The capabilities and operational employment likely to be encountered include, but are not limited to:

- Massed small boat attacks, armed with a wide variety of man-portable weapons including RPG's, shoulder-launched missiles and automatic rifles
- Small-scale mining of strategic sea-lanes and straits
- Unalerted, single-salvo cruise missile attacks on naval and merchant shipping
- Short-range ballistic missile attacks upon civilian population centers or strategic military installations
- Terrorist actions against U.S. or allied installations and personnel.

In view of the above, the following are presence missions in which our naval forces must be postured appropriately to handle both the high-end and the lower-level, yet still lethal, capabilities:

- Ready Duty Strike
- Noncombatant Evacuation Operations
- Maritime Interception Operations
- No-Fly Zone Enforcement
- Migrant Interdiction—to include humanitarian operations, security operations and potential hostile force interdiction
- Strategic Sealift/Pre-positioned Force Escort
- Engagement/Exercise
- Area Defense
- C4ISR and IPB.

Another emerging concern is asymmetric warfare—attempts to circumvent or undermine U.S. strength while exploiting U.S. weaknesses using methods that differ significantly from the expected method of operations. Asymmetric approaches often employ innovative, nontraditional tactics, weapons, or technologies, and can be applied at all levels of warfare—strategic, operational, and tactical and across the spectrum of military operations. Asymmetric warfare may range from weapons of mass destruction use to guerrilla warfare, but it is almost always intended to be unanticipated or difficult to counter by the stronger opponent. It is clear that the imperative for future opponents to employ asymmetric counters against technologically superior U.S. armed forces is becoming greater. Furthermore, advances in technology and proliferation of certain means of warfare, such as information warfare, will generate new types and combinations of asymmetric threats to the United States.

Asymmetric warfare is not limited to nation-states; sub-national and transnational groups will also use asymmetric means as the only form of military action available to influence and attack the U.S. or any other nation. Opponents engaging in asymmetric warfare will probably not limit their attacks to our deployed and deploying forces. Asymmetric measures may be taken across the spectrum of military operations and in virtually all crisis and conflict scenarios in which U.S. naval forces could become involved. These measures may be taken to prevent or delay U.S. deployment into a region, limit U.S. ability to form an effective coalition and obtain and sustain basing support, and degrade U.S. military effectiveness—especially limiting U.S. application of technology—before and during combat. As a result, we must analyze the evidence of

potential opponents' capabilities and intentions to direct asymmetric attacks at U.S. logistical and staging nodes, neighboring countries, actual and potential U.S. coalition partners, and the U.S. homeland, including our national infrastructure. The ultimate goals of such asymmetric warfare actions will be to raise the risks and costs of U.S. action such that an opponent would hope we would elect not to intervene militarily in a situation; or once intervention has begun, to compel disengagement because of unacceptable costs.

The spectrum of asymmetric options available to potential opponents is broad and will likely grow over the next two decades. Potential forms of asymmetric warfare that are the objects of ongoing, dedicated intelligence community (including ONI) analysis include: information operations, use of weapons of mass destruction (nuclear, chemical, and biological), use of unconventional forces and state-sponsored terrorism, environmental sabotage, denial and deception, guerrilla warfare tactics and prolonged insurgency, inflicting and accepting mass casualties, use of urban terrain, and mine warfare.

These military measures will often be combined with political actions to achieve desired results. Future opponents will probably select asymmetric measures based on available capability and means on hand, observation and analysis of our capabilities and vulnerabilities, cultural incongruities, and desired effects. Some countries may elect to obtain an asymmetrical capability by concentrating available resources on the development of specific technologies to counter U.S. advantages in weaponry, communications and intelligence. While no country is expected to have achieved the ability to counter the United States across the entire range of technological capabilities by 2015, "niche competitors" are likely.

In the context of future conflict environments, asymmetric warfare can be a means through which an opponent, by combining advanced technologies with unexpected, non-linear operational concepts can render our preferred strategy militarily or politically untenable. Given the present and growing reliance of U.S. forces on global distributed information networks, coupled with the increasing proliferation of information technologies, one prominent asymmetric threat against which the Navy must plan is Information Operations (IO).

IO refers to efforts to disrupt or manipulate the flow of information across distributed networks as well as efforts aimed at preventing an opponent from disrupting or manipulating one's own flow of information. These efforts aim to deny the commander the use of his information processing systems, to drive the adversary to use more exploitable media, or to shape the adversary's understanding of the battlefield.

IO subsumes traditional counter-C2 warfare within a broader information campaign. IO tactics include:

- Trusted insiders who destroy the system from within
- Sabotaging equipment during the manufacture, transport, storage, repair, and installation of updates
- Network penetration and compromise
- Electronic and/or physical attack
- Denial of service attacks
- Denial/spoofing/jamming of sensors
- Manipulation of trusted information sources in order to condition/control the adversary's thinking.

The ultimate goal of IO is information dominance, defined as a superior understanding of an adversary's strengths, weaknesses, intentions, and locations, while denying the adversary similar information on friendly assets. The side with information dominance is best able to enjoy battlespace dominance over his opponent. Effective IO is a powerful force multiplier. Perfectly effective IO may even enable the commander to usurp the opponent's understanding of battlefield reality.

An adversary may conduct IO either as an alternative to a costly conventional engagement with a superior U.S. force or as a complement to conventional operations. IO does not necessarily require high-technology or strictly military systems to disrupt or deny our information systems, corrupt key data, or alter our perceptions of a situation.

Increasingly, as the U.S. naval advantage turns on the superior information processing capability of U.S. forces, potential adversaries will develop the knowledge and the capabilities to attempt IO attacks against us. Virtually any state, group—even friendly or neutral—can use IO to attack other nations. Four countries—Russia, China, India, and Cuba—currently have an acknowledged IO policy and a rapidly developing IO capability. Rogue states, such as North Korea, Iran, Iraq, Libya, and Syria have some IO capability and may covertly employ it at any time that suits their needs. Many other nations, including France, Japan, and Germany, are players in IO and are also potential proliferators of IO capabilities to other states.

Knowledge superiority and credible combat capability remain vital to the success of the Navy's forward presence mission due to the short notice responses and limited planning timelines demanded of our forces during the course of routine operations. The Navy must therefore be prepared to address the challenges from both the dangers presented by traditional military operations as well as from anti-access and asymmetric capabilities.

Section III: The Maritime Concept

For more than 200 years, the United States has depended on the Naval Service—the *Navy and Marine Corps Team*—to promote peace and stability and to defeat adversaries when necessary. The current *National Security Strategy* outlines a broad approach to enhance America's security, bolster prosperity, and promote democracy through active engagement abroad in partnership with allies and friends. The *National Military Strategy* supports these goals and describes the application of military power to help shape the international environment and respond to dangers, while preparing for an uncertain future. Naval forces are uniquely suited to support these strategies by remaining forward in peacetime, ready to provide timely initial crisis response, and, when called upon, to fight and win—*anytime, anywhere*.

While the traditional objectives of the United States and its military remain largely unchanged, we are compelled to constantly reassess the methods by which they are achieved. The Navy–Marine Corps vision . . . *From the Sea* steered us from blue water into the littorals where most of the world's population resides and where most conflicts occur. The strategic concept *Forward . . . From the Sea* refined this course by articulating the naval contributions to national security made by expeditionary forces present forward and credibly shaped for combat during peacetime, crisis, and war.

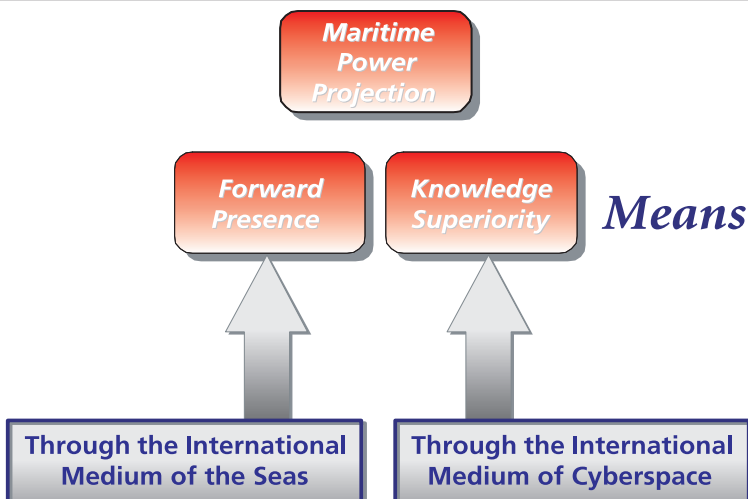
The maritime concept presented here builds upon the landward focus of those documents and, more specifically, describes the organizing principles, operational concepts, and priorities by which future naval forces will exploit new opportunities and capabilities to assure U.S. access and influence forward in the Information Age, despite an adversary's efforts to preclude our presence. By maintaining a robust and scalable forward presence, and with superior knowledge of the battlespace, the Naval Service will continue to achieve its ultimate objective: projecting U.S. power and influence from the sea to directly and decisively influence events ashore throughout the spectrum of operations.

The vast majority of America's global trade will continue to move by sea, and freedom of the seas remains the enduring responsibility of the Naval Service. However, the ultimate objective of our nation's overall maritime strategy has always been to impact political, military, and economic interests ashore—where U.S. interests predominantly lie. Until recently, the Naval Service could only pursue this strategy indirectly by first winning or denying command of the seas; naval forces were therefore only available to directly affect a land campaign on a sequential, or secondary, basis. But the Navy–Marine Corps contribution to national security has

broadened since the end of the Cold War. Operations during the past decade—from humanitarian and evacuation missions to contingency responses against both coastal and landlocked countries—affirm that the Naval Service is steering the proper course by emphasizing the ability to influence, directly and decisively, events ashore . . . from the sea. We must also recognize that assuring naval access forward will remain a prerequisite for continuing this strategic heading landward in the future.

The Strategic Imperative

No nation will match the United States globally in the foreseeable future, but some regional actors will seek to exercise influence that competes with U.S. interests in their respective corners of the world. Pursuing economic, political, and military policies designed to raise the cost of U.S. engagement, they will seek to diminish the stature and cohesion of regional partnerships with the United States. These regional actors will value their militaries to the extent that they are perceived to affect America's willingness or ability to remain engaged on behalf of friends and allies. Our unrivaled ability to dominate the world's oceans and operate in forward areas dissuades the global ambitions of regional powers, affording us the opportunity to focus upon defeating the conventional, asymmetric, and anti-access capabilities they are likely to field. By remaining forward, combat-credible naval expeditionary forces guarantee that the landward reach of U.S. influence is present to favorably shape the international environment. Through the international medium of the seas, forward naval forces—ready to respond to any contingency—promote regional stability, reassure allies, and check the competing influence of regional actors.



Freedom of the seas will always be a requirement for our maritime nation, but the information age has revealed a second international medium—*cyberspace*—equally critical to the global interchange. The globalization of markets, networks, and systems inextricably links U.S. economic and security interests. This trend also accelerates the proliferation of information and technology, providing state and non-state actors both conventional and unconventional means to advance their agendas. The rapid exchange of information has, in fact, become so much a part of our day-to-day operations and so critical to our success that cyberspace must be viewed as a new element of the battlespace. We must, therefore, exploit our own access to cyberspace to provide naval, joint, and combined forces a superior knowledge position relative to our opponents, from which to act with timeliness and decisiveness. Combat-credible forward presence through the seas and *knowledge superiority* via cyberspace will, together, provide the means for effective maritime power projection.

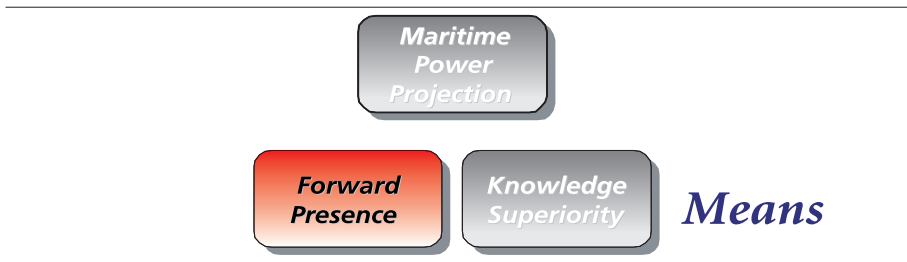
Maritime Power Projection—Shaping and Responding

Projecting U.S. power and influence from the sea is the heart of the Navy and Marine Corps' contribution to national security. The unrivaled strategic agility and operational flexibility of forward-deployed naval expeditionary forces provide the United States extraordinary reach and access overseas. Sea-based, self-contained, and self-sustaining naval forces are relatively unconstrained by regional infrastructure requirements and uniquely suited to exploit the access afforded by the seas to respond to the full spectrum of contingencies. Our inherent versatility allows us to seamlessly expand the size and capability of forces to match a broad range of missions and situations. At one end of the spectrum, naval forces are engaged daily around the globe to project U.S. influence and favorably shape the security environment. These same forces are available at a moment's notice for humanitarian assistance, disaster relief, or crisis response. At the other end of the spectrum, on-station naval expeditionary forces can provide timely and powerful sea-based response through the full range of amphibious and precision strike operations. These forces also enable the unimpeded flow and sustainment of follow-on naval, joint, and combined forces in both small-scale contingencies and major theater war. Naval forces also provide the most cost-effective and survivable component of America's strategic nuclear deterrence triad. Ultimately, naval expeditionary forces, capable of direct and decisive influence through maritime power projection, are the nation's essential first responders and shape the early phases of hostilities to set the conditions for victory.

Our Means

Together, the *means* of forward presence and knowledge superiority enable maritime power. Acting through the international media of the seas and cyberspace, naval forces assure access and project both power and influence in peacetime, crisis, and war.

Forward Presence. Forward Presence is being physically present with combat credible forces to Deter Aggression, Enhance Regional Stability, Protect and Promote U.S. interests, Improve Interoperability, and provide Timely Initial Crisis Response where our national interests dictate.



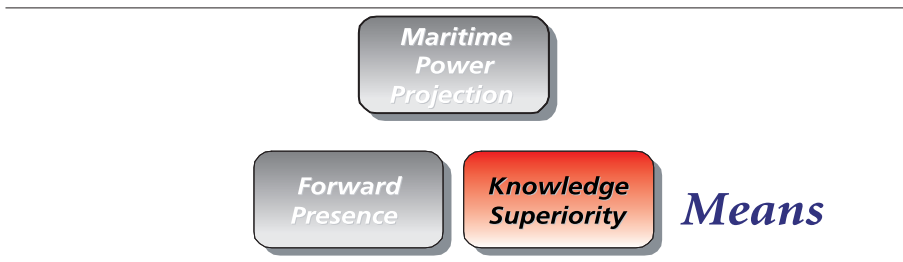
The foundation of maritime power projection is our ability to go where America wants us to go. Naval expeditionary forces that are present forward—where our economic, political, and military interests are most concentrated—provide a security framework that helps to permit the other instruments of national power to build stability and favorably shape regions of interest. Our engagement with potential coalition naval, air, and ground forces enhances interoperability and helps to develop critical partnerships. In cooperation with these friends and allies, forward forces also discourage challenges to shared interests. The powerful presence of a Navy–Marine Corps team deters aggression on the part of would-be adversaries; and when deterrence fails, these on-scene forces provide both a unique understanding of an emerging crisis and the means for timely response. Should combat operations by joint and coalition forces be required to resolve conflict, the early, sustained response of naval expeditionary forces will have shaped the battlespace to the advantage of U.S. and allied forces.

Combat-credible forward presence is an enduring contribution of naval expeditionary forces. But structuring the Naval Service to continue this contribution in the future means exploiting new opportunities made possible by technology and addressing the anti-access strategies and asymmetric approaches that adversaries may seek to counter U.S. access and influence. Sea control will remain the cardinal prerequisite that guarantees access forward for naval forces as well as for our sister Services that increasingly rely both on movement of assets by the sea and their pre-positioning on the sea. To

ensure America's continued maritime dominance, the Navy and Marine Corps must remain forward in peacetime—both overtly and covertly—routinely collecting intelligence and gaining valuable knowledge of the operating areas where they will most likely be called to respond during crisis or conflict. Further, network-centric operations among these geographically dispersed, forward forces will serve as the “bridge” that transforms today's Naval Service into the knowledge-superior Naval Service of the future. A shared knowledge of the battlespace and the ability to synchronize our actions, along with new defensive capabilities, will allow naval forces to remain forward with assured access.

Now and in the future, command of the seas must be complemented by an improved speed of command via cyberspace.

***Knowledge Superiority.** Knowledge Superiority is the ability to achieve a real-time, shared understanding of the battlespace at all levels through a network which provides the rapid accumulation of all information that is needed—and the dissemination of that information to the commander as the knowledge needed—to make a timely and informed decision inside any potential adversary's sensor and engagement timeline. In peacetime, this provides the assured knowledge to be an appropriate instrument for shaping events in the region. During a crisis, this knowledge superiority ensures a confident and timely response by in-theater forces.*



Knowledge superiority will allow us to know what is occurring and to act quickly; it is the second means that underpins the projection of maritime power. Through our access to cyberspace, naval forces will achieve an unprecedented awareness of the battlespace. Information, however, will not improve understanding unless it provides commanders the real-time knowledge required to make timely and informed decisions. And improvements in networking and communications technology, matched by agile and adaptive organizations, will dramatically accelerate the operations of dispersed and maneuvering naval forces. Knowledge superiority will also provide us a better understanding of adversaries' decision-making and engagement timelines. Further, it will provide naval forces the speed of command to operate faster than those adversaries—

inside their decision timelines. Ultimately, networked operations will improve our operational tempo and provide the knowledge to maneuver or produce effects that “lock out” an opponent’s intended actions and defeat his overall strategy. In short, combat credibility in the information age will depend as much on speed of command as on weapon or platform. No foe, present or future, will match our knowledge—or our ability to apply it.

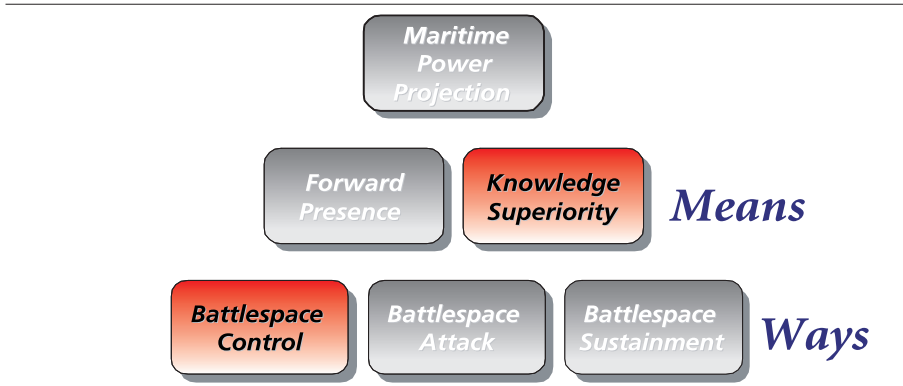
U.S. Armed Forces, as well as interagency and coalition partners, will benefit from a regional knowledge base that is built and enhanced by day-to-day naval presence, familiarity with forward operating environments, and foreign-area expertise. During peacetime, knowledge superiority will enable naval forces to act as effective instruments for shaping the international environment. During a crisis or conflict, it will mitigate “fog” and “friction” and permit a confident, timely response by in-theater forces. Further, interoperable communications networks will allow all elements of U.S. foreign policy to “plug-and-play” in this regional knowledge base upon their arrival in theater.

Just as forward presence has become a way of life for the Navy and Marine Corps, so too will knowledge superiority become a part of our naval character. The ability to master this new domain in warfare—cyberspace—must become a core competency across all warfare specialties. Forward presence and knowledge superiority are, in fact, like two sides of the same coin. By routinely operating forward, naval forces gain knowledge of the environment where they will be called to act during crisis or conflict. This superior knowledge and the resultant ability to operate inside an adversary’s decision and engagement timeline will then contribute, in large measure, to the ability of naval forces to remain forward. Ultimately, these two means will provide the Naval Service both the capability and capacity to assure U.S. access and to project power in the Information Age.

Our Ways

The *ways* we use the *means* can be described through the three components of maritime combat power: battlespace control, battlespace attack, and battlespace sustainment. These components underwrite the conduct of naval expeditionary operations at sea, in the littorals, and beyond. The battlespace—determined by our dispersed, networked forces and their organic and joint sensor and weapon reach—is the only appropriate dimension in which to consider the boundaries of our operations. Naval expeditionary forces must be able to control, attack, and sustain seamlessly across all elements of the battlespace, transitioning smoothly from peacetime presence to crisis response or large-scale warfighting and forcible-entry operations as the situation warrants.

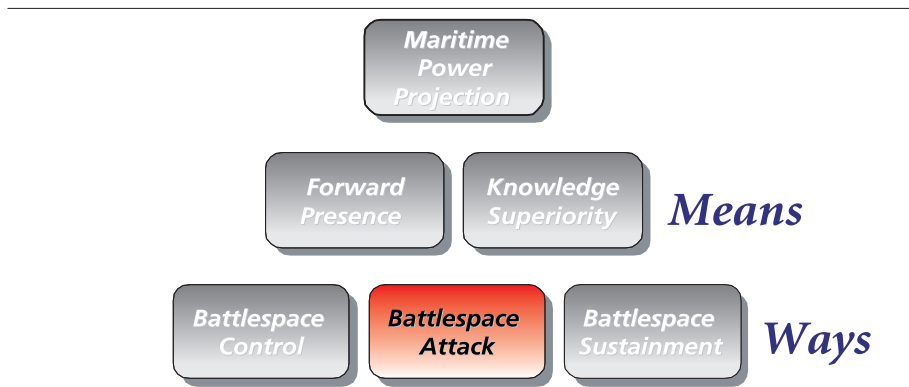
Battlespace Control. Battlespace control encompasses the range of actions required to assure our access and shape the battlespace for naval, joint, and combined forces. Our enduring mission of sea control remains both a cardinal prerequisite for, and a unique naval contribution to, joint warfighting; it is essential to assuring the flow of follow-on forces into a theater. However, it is no longer sufficient to think only in terms of sea or area control.



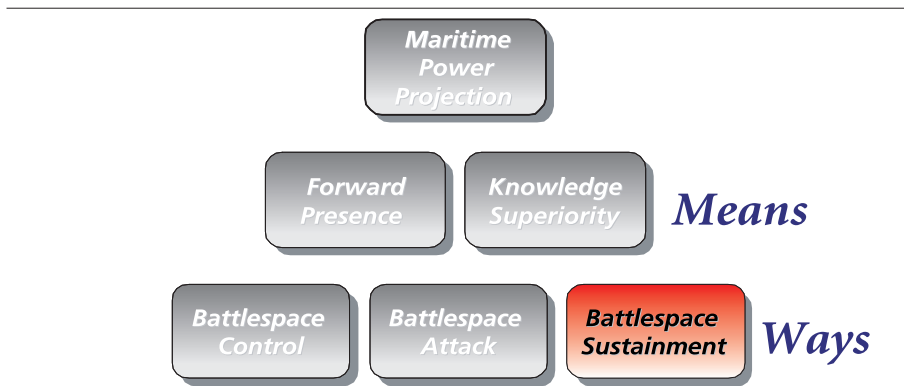
Future naval forces will be challenged by anti-access capabilities such as land-based cruise missiles, space-based satellite targeting, and information operations. Naval forces must therefore control the entire battlespace—sea, air, land, space, and cyberspace—in order to defend against, defeat, deny or negate these capabilities. Forward naval forces will also project defensive power over land to protect U.S. and allied forces and their homelands with sea-based theater air and missile defense. Long-range, responsive and accurate reconnaissance, surveillance and target acquisition; strike operations; and the range of actions required to protect our forces will enable simultaneous offensive operations. Battlespace control is therefore more than efforts to assure access in order to place follow-on forces and power ashore; it permits naval forces to simultaneously produce decisive effects—both offensively and defensively.

Ultimately, countering an adversary's anti-access capabilities will have an overwhelming impact on his overall warfighting strategy because the heart of his investment—these anti-access capabilities—will have been defeated. In the final analysis, our battlespace control capabilities may foreclose the attractiveness of an adversary's investing in or employing anti-access capabilities as that adversary recognizes the ability of naval forces to credibly operate forward and project power despite his area-denial efforts. Together, command of the seas and speed of command will provide the freedom of action necessary to control the battlespace and assure access for the naval, joint, combined, and interagency team.

Battlespace Attack. Concurrent with battlespace control, attack operations such as precision strike and ship-to-objective maneuver exploit the advantages of maneuver and firepower from the sea. The speed of employment afforded by networked forces forward is invaluable when speed of deployment from the United States—and the loss of surprise—is a disadvantage. But the unprecedented reach, volume, and precision of our weapons and sensors, along with the flexibility described in *Operational Maneuver from the Sea*, allow us to project power deep inland. Improving and connecting our sensor, information, and targeting systems—including focusing on the real-time location of an adversary’s mobile and time-critical targets—will accelerate the operational tempo at which attacks can be delivered for decisive effects. The ability to apply these effects inside an adversary’s decision timeline, with a knowledge and understanding of their impacts, permits effects-based planning to disrupt his operational design. Concurrent offensive and defensive operations—attack and control—will also enable joint and combined battlespace attack by making follow-on forces more immediately available for offensive operations as they enter a battlespace where naval forces have already asserted control. In the end, the battlespace attack capability afforded by forward presence and knowledge superiority will deter would-be aggressors in peacetime, and permit the decisive application of combat power in crisis or conflict.



Battlespace Sustainment. Mobile, dispersed forces require an equally agile and tailored logistics system to support their dynamic operations. Logistics from the sea that are focused to arrive where and when needed, without a large footprint requiring significant protection, will support sustained maneuver in an expanded battlespace. Netted logistics that include pre-positioning, strategic sealift, and airlift are key to sustaining future joint and coalition forces. Moreover, maneuvering sea-based forces will permit commanders to conduct fully integrated joint command and control, surveillance, targeting, logistics and re-supply.



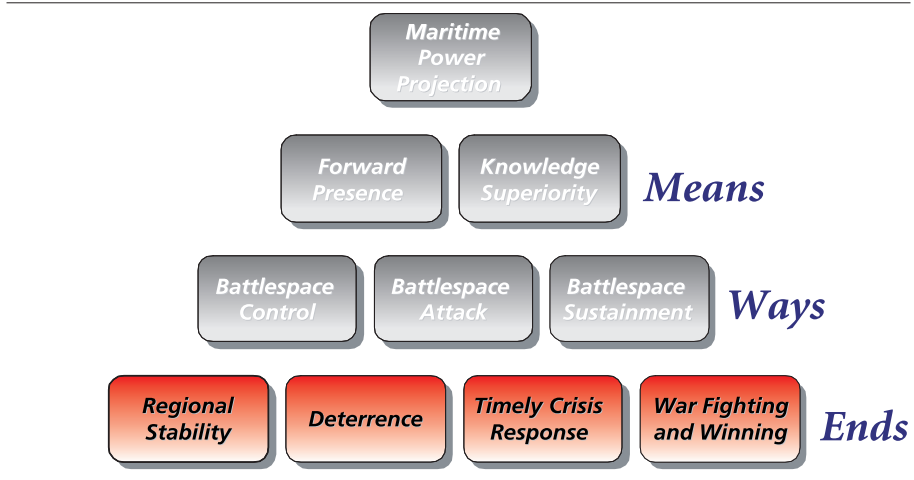
Configured to the mission, sea-based logistics and joint command and control will support maneuver forces across the battlespace—from replenishing and refueling forces at sea to delivering tailored seaborne logistics that sustain operations on land. In the future, both conventional and asymmetric threats will require ground forces to become less dependent on vulnerable fixed bases or stockpiles ashore. Force sustainment through sea-based logistics will reduce the threat of an attack on key logistics nodes and the requirement for dedicated forces to protect shore-based logistics concentrations.

In the end, the joint team will depend upon the ability of forward naval forces to provide sustainment from the sea and protection of the entire logistics pipeline at sea for as long as U.S. interests require.

Our Ends

The Navy and Marine Corps support America's security objectives by promoting regional stability, deterring aggression, providing timely crisis response, and defeating the enemy—*anytime, anywhere*. In the future, regional disturbances will have a more immediate and disproportionate effect on the global community and U.S. national interests. Expeditionary naval forces, present forward with sustainable combat power, help shape the regional security environment. As sovereign and maneuverable bases, they can be uniquely positioned to project influence and reassure allies and friends.

The credible presence of both conventional and nuclear naval forces is an effective deterrent that convincingly demonstrates aggression will not succeed. Translating national strategic interests into military objectives and tasks allows us to effectively size and configure future forces with the correct capabilities and capacity for deterrence. As a result, defining the forces required forward to support regional security interests and deter a prospective opponent need not be guesswork.



Forces rotationally deployed and permanently stationed for peacetime presence are also the forces most likely to be called upon by theater and joint force commanders to respond rapidly during an emerging crisis. Naval expeditionary forces can provide a powerful and timely crisis response from forward positions, free of the political encumbrances that can limit the access of land-based forces.

The most important contribution of naval forces is their ability to prevent wars—but like all elements of a military arsenal, they are built to fight and win them. The unique contribution of the Naval Service comes as enabling forces during the critical transition from crisis to conflict. Combat-credible naval expeditionary forces forward, configured to handle the spectrum of contingencies and prepared to operate jointly or with interagency and coalition partners, are key to this enabling role.

Operational Concepts

Two complementary capstone operational concepts will chart our course to the future. *Naval Operations in the Information Age* outlines our transition from platform-centric to network-centric warfare and *Operational Maneuver from the Sea* underwrites the conduct of naval expeditionary operations in the littorals by combining the proven principles of maneuver warfare and maritime power projection. Together, *Naval Operations in the Information Age* and *Operational Maneuver from the Sea* capitalize on technology and improvements in mobility, weaponry, sustainment, and command and control, as well as doctrine and organization. These concepts will guide our efforts to dominate the entire battlespace across the full operational continuum and to seamlessly project power ashore to attain critical campaign objectives. Each is tailored to the unique challenges of naval expeditionary operations and consistent with the

concepts outlined in *Joint Vision 2010*: Dominant Maneuver, Precision Engagement, Full-Dimensional Protection, and Focused Logistics.

Our Priorities—Preparing Now

The paramount objective of the Navy and Marine Corps will remain the projection of American power and influence—*anytime, anywhere*. But taking the proper “lead angle” on the future requires balancing the Naval Service in terms of both capabilities and force levels. It also demands a steadfast commitment to innovation and experimentation. Our priorities for meeting the challenges and exploiting the opportunities of the information age are described below.

Keeping Faith with Our People. People will always be our top priority. The recruiting, training, and retention of quality men and women is key to the Naval Service’s continued success. The consistent lesson of naval operations is that their outcomes often hinge on the actions of even our most junior personnel.

To prevail in the complex battlespace of the future, tomorrow’s Sailors and Marines will require the training, experience, and strength of character to make sound and timely decisions. We must, therefore, ensure that our people are proficient in the use of increasingly sophisticated weapons, sensors, and information systems and have an understanding of the entire battlespace. Regional, joint, combined, and interagency experts must be cultivated. We must also harness the leadership ability and dedication to excellence resident in all our personnel and develop in each Sailor and Marine a life-long commitment to education and innovation. Our recruiting efforts must extend to all segments of the population to ensure that we represent the nation’s rich diversity. Finally, we must act to improve the quality of life of the entire Navy–Marine Corps team—Sailors, Marines, civilians, and their families.

Influence Ashore. The unprecedented reach and accuracy of our sensors and weapons provide the Naval Service the ability to influence events far inland—in both peace and war. In the future, that capability will be improved through the refinement of precision strike capabilities, naval fires, ship-to-objective maneuver, sustained land operations, operations other than war, and special operations. Enhancing our maritime prepositioning force; developing effective doctrine, organization, training, and equipment for military operations on urban terrain, counter-terrorism, and counter-proliferation operations; and building close working relationships with other governmental and non-governmental security actors are also priorities. Person-to-person interactions in vital areas of the world are equally important. And finally, our ability to enable the flow and sustainment of follow-on joint and combined forces will be strengthened.

Sensors and Networks. Today's naval forces have impressive striking power, but it must be enhanced by improvements in information technology and agile, adaptive command organizations in order to operate within an adversary's sensor and engagement timeline. Network-centric operations will link shooters, sensors, and commanders and will permit effects-based planning in order to provide the knowledge required to attack rapidly an adversary's critical vulnerabilities, avoid strengths, and destroy centers of gravity. Sensors under the tactical control of commanders and networked systems for real-time shared awareness are priorities for improving our exploitation of cyberspace, synchronization, and overall combat-effectiveness.

Numbers Count. The conspicuous forward presence of combat-credible naval forces is a visible and compelling deterrent, and a symbol of American power and influence. As we build the future force, we must remember that numbers for presence are not a lesser-included case of regional contingencies; sufficient platforms and personnel are required to maintain a presence wherever we require access and influence. Sufficient numbers of platforms permit naval forces to shape regions of U.S. interest and ensure they can be positioned for timely crisis response. Manpower levels are also critical and must support the demands of both routine deployments and contingency responses. Insufficient numbers entail strategic risk as well as excessive personnel and operational tempos. Clearly, numbers of platforms and naval forces matter.

Assured Access. Sea control is a unique naval contribution to joint warfighting, and it is fundamental for projecting U.S. power and influence overseas. But the battlespace has expanded and now includes—alongside the traditional dimensions of air, land, and sea—space and cyberspace. In the future, naval forces will be challenged by anti-access strategies built upon varied asymmetric and conventional threats and weapons. In order to assure U.S. access forward, naval forces will be required to counter a host of threats: sea and land mines, cruise missiles, submarines, chemical and biological weapons, space-based sensors, and information warfare. Maintaining our ability to assure access and project power in light of these threats will be increasingly vital and remains one of our most important priorities.

Projecting Defense. Naval forces must be capable of projecting both offensive and defensive power ashore to protect American forces, those of our allies, and their homelands. Control of the multidimensional battlespace will hinge on our ability to project a defensive umbrella landward. This umbrella will be built largely on our emerging air and missile defense capabilities. Projecting defense ashore will enable *Operational Maneuver from the Sea*, and it will be critical for setting the conditions necessary to protect the flow of follow-on forces into a theater. Moreover, this unique capability will make

arriving joint and coalition forces more immediately available for offensive operations. Our priorities in this area include the development of capable sensors and networks and credible theater ballistic missile defense.

Sea-based Logistics. Efficient sea-based command, control, and logistics will be crucial to naval and joint warfighting as well as the realization of emerging operational concepts. Robust Maritime Prepositioning Forces and strategic lift capabilities will be key to the projection and sustainment of combat power. Advanced work practices, borrowed from the ongoing revolution in business affairs, will also improve the overall efficiency of sustainment operations and permit the development of near real-time, in-transit supply and underway replenishment tracking.

Force Protection. Asymmetric and conventional threats will make protection of naval, joint, and combined forces increasingly challenging. Improving our ability to protect air and sea ports of debarkation, intermediate staging bases, strategic “hub” ports, other assets, and personnel throughout all dimensions of the battlespace is a high priority. Enhancing our capabilities to counter terrorism, to respond to chemical or biological attack and operate in a chemical or biological environment, and to treat and process mass casualties is essential. The extension of a missile defense umbrella, effective counter-mine capabilities, and the ability to locate and negate or destroy key enemy weapon systems are also fundamental to our efforts to achieve full-dimensional protection.

Homeland Defense. By remaining forward, naval forces are positioned to address threats as far from the United States as possible. However, some of the dangers that characterize the international security environment will undoubtedly reach America’s shores. The precise nature of our involvement in homeland defense and coastal security is evolving, but we must be prepared to support civil authorities in the areas of civil disturbance, disaster relief, migrant and refugee control, counter-terrorism, and counter-drug operations if called to do so. Our role in consequence management, as exemplified by our Chemical/Biological Incident Response Force, will also likely expand.

Conclusion

The Naval Service exists to project U.S. power and influence from the sea throughout the spectrum of operations in peacetime, crisis, and war. Forward presence and knowledge superiority are the means that will guarantee both the capability and the capacity of naval forces to influence, directly and decisively, events ashore. Concurrent battlespace control, attack, and sustainment are the ways we will assure the United

States global access in the information age. Ultimately, the combat credibility of naval forces will guarantee the achievement of our *ends*: regional stability, deterrence, timely crisis response, and when called upon, warfighting and winning.

In almost every instance, future challenges to our national security will originate forward. Having achieved its naval prerequisite—command of the seas—the Naval Service is afforded an unprecedented opportunity to expand our contribution to national security by focusing landward. No matter where or when the challenge arises, naval expeditionary forces will be there, as they have always been, with credible combat power from the earliest stages of a crisis or conflict through the return to peace and stability. In short, an increasingly capable Navy and Marine Corps team will remain on station, protecting and promoting U.S. interests with forces for presence that are shaped for combat.

Section IV: The Process

A primary objective of the planning process is to develop a thorough understanding of how naval forces contribute to the nation's joint force capabilities, and then to ensure this contribution is translated into operational capability requirements that guide programmatic decisions. The planning process has four essential phases that must be understood at all levels of the organization to achieve the above objective: (1) The development and continuous refinement of a strategic concept; (2) the operationalizing of the concept into warfighting concepts and capabilities; (3) the establishment of a set of prioritized strategic planning objectives that will achieve the operational concepts and capture the strategic direction of the organization; and, finally, (4) the assessment of those capability requirements translated into programmatic recommendations.

The maritime concept described in Section III establishes the organizing principles for new concepts and capabilities required for enhancing and transforming the Navy in the 21st Century. This concept also provides the strategic framework from which the OPNAV planning process evolves. The next step is to clearly define the overarching Operational Concepts that are derived directly from the maritime concept that will shape the employment of our forces. These concepts provide the structure to identify and prioritize a set of Long-Range Planning Objectives (LRPOs) that define specific capability requirements directly linked to the maritime concept. The LRPOs (contained in Section V) are structured under the “means” of Forward Presence and Knowledge Superiority, as well as the “ways” of Battlespace Control, Attack and Sustainment. The Integrated Warfare Architecture process captures these prioritized capabilities in end-to-end analyses and provides balanced programmatic recommendations in the CNO Program Analysis Memorandum (CPAM) allowing the resource sponsors to develop

balanced programs that fully support the maritime concept. This strategy-based process forms the foundation of OPNAV PPBS planning for the 21st century.

The catalyst for the strategy-based process described above is the Navy Strategic Planning Guidance (NSPG). The NSPG provides the Fleet and OPNAV staff a vehicle that guides the planning phase. The NSPG is designed to impact strategic planning and assessments through the IWAR and QDR 2001 process. Structured under the “means” and “ways” of the maritime concept we have defined the Operational Concepts and prioritized specific long-range capability planning objectives. The combination of concepts and capabilities provide the initial focus for the IWAR “road maps.” Additionally, this year we need to think about how the Navy can leverage the ongoing assessments of the IWARs to support the identified themes of the QDR. To provide a fuller understanding of the steps of the planning process, the following paragraphs identify the methodology behind the development of the Operational Concepts, the Long Range Planning Objectives associated with them, a description of the individual IWARs, and, finally; a look ahead at the QDR process identifying current and planned actions and issues that will best position the Navy for the QDR.

I. Operational Concepts

If the United States is to remain the world’s leading Naval power, it is imperative that we maintain our edge over our potential adversaries, now and in the future, through innovation and the application of emerging technologies and ideas. Over the past year, emerging concepts have been further developed by various naval organizations, including: in particular, the Concepts Branch and Maritime Battle Center of the Naval Warfare Development Center, the CNO’s Strategic Studies Group, and professional naval writings. The methodology for refining current operational concepts and the development of future ones relies to a large extent on our ability to determine and understand the strategies being pursued by potential adversaries. The operational concepts presented (in section V) will build upon current operating modes and expand them into the 21st Century.

The maritime concept outlines how our Navy intends to operate in broad terms to meet the objectives of the National Security Strategy and the National Military Strategy. In order to best determine what capabilities our naval forces require to accomplish these strategies, specific operational concepts have been applied to each of the “means” and “ways” of the maritime concept. These operational concepts will, in effect, “operationalize the strategy” and are grounded in the real world application of naval assets to meet our mission. As such, the operational concepts described for the “means” of Forward Presence and Knowledge Superiority, and the “ways” of Battlespace Control, Attack, and Sustainment, are the warfighting links between strategy and resources.

The Long Range Planning Objectives delineate those specific capabilities that will be needed to execute the concept of operations.

II. Long-Range Planning Objectives

To ensure the Operational Concepts discussed above can be executed, specific capability requirements must be identified, developed and acquired. Additionally, because resources are not unlimited and a balance of capabilities is required to meet the objectives of the concepts, there must be some reference to priority among the capabilities. Section V presents the capabilities in terms of strategic risk and the requirement to directly support or enhance the core naval competencies.

The NSPG (specifically Section V) provides a set of prioritized operational capability requirements that can be directly linked to the maritime concept. It is these capability requirements that provide the IWAR end-to-end capability assessments a “road map” to focus their assessments. These capabilities when coupled with the operational concepts will provide a fleet that is trained, organized and equipped to support the Navy’s role in the National Security and National Military Strategies.

III. Navy Integrated Warfare Architectures (IWAR) Assessment Process

Established in 1998, the IWAR provides the CNO an end-to-end, *capabilities*-based view of the Navy for the *near*, *mid* and *far* terms. It is not tied to any specific PPBS milestones, but is continuously refined to reflect a comprehensive and accurate representation of the Navy’s present and projected capabilities. The primary focus is on warfighting *capabilities* as opposed to the traditional focus on platforms and systems. The Assessment Division (N81) leads a process organized into five Warfare and seven Support IWAR teams. The individual IWAR teams carefully *integrate* their analyses to ensure that all dependencies between Navy capabilities and programs are understood. In this sense, the IWAR teams are building an “architecture” that captures the complexity of, and relationships among, naval warfare and support capabilities, thereby providing the CNO a more accurate understanding of current and programmed capabilities and the capability impacts of programmatic and process changes and decisions.

Starting with the guidance on strategic goals and capabilities provided in the Long-Range Planning Objectives in the NSPG, the twelve IWAR teams (the “architects”) first identify the operational tasks necessary to achieve the objectives. They then assess the capabilities necessary to carry out those tasks; the effectiveness and efficiency with which these capabilities are provided by current, funded, and projected programs and systems, balanced against the projected threat. The teams take care to ensure that their analyses of these capabilities include all the components necessary to field the capability—support resources such as personnel, training, maintenance, and infrastructure as

well as the system and equipment elements. Care is also taken to identify complementary or redundant capabilities. Each year, in the fall, each of the twelve IWAR teams report the results of that year's IWAR analyses to the CNO. This provides senior leadership with a basis for decision-making and the baseline necessary to judge proposed programmatic alternatives.

The programmatic element of the IWAR process is the CNO's Program Analysis Memorandum (CPAM) that, unlike the IWAR, is linked directly to the PPBS cycle. CPAM development initiates the programming phase of the annual PPBS cycle as IWAR teams examine the upcoming Navy program and assess the difference between desired capabilities, capabilities being provided by the current Program of Record, and available resources. Out of this examination come programmatic and process alternatives designed to balance capability risk and resource availability. The IWAR teams carefully analyze the cost, operational risk, and effectiveness (benefits) of each of the alternatives. These analyses and a set of recommendations form the CPAM. The CPAM is thus a decision tool for senior DoN leadership as well as the analytic foundation for the Navy's programming guidance (published by N80) for the next POM.

Although the CNO Staff is responsible for developing IWARs and the CPAM, active support and input from Fleets, Systems Commands, and Headquarters Marine Corps are critical to the effectiveness of the process.

Information Superiority and Sensors. Information Superiority and Sensors (ISS) is concerned with those capabilities that enable commanders at all levels to control and shape the pace, phasing, and space of battle by rapidly integrating and synchronizing dispersed forces to apply appropriate effects at the right place and time. ISS includes:

- Access and assurance of radio-frequency spectrum
- Sensors and primary detection systems
- Local, operational, regional, and global area networks, communications, and information distribution services
- Command and control
- Intelligence, surveillance, and reconnaissance
- Meteorology and oceanography
- Navigation
- Information Operations.

Sea Dominance. Sea Dominance includes naval warfighting capabilities that help to establish and sustain superiority on and below the surface of the world's oceans. Sea Dominance includes the employment of naval mines in offensive and defensive operations and mine countermeasures, surface warfare superiority, and anti-submarine warfare superiority. These capabilities are essential to joint-force operations in both choke points and littoral regions worldwide.

Sea mining and offensive/defensive mine countermeasures include those capabilities used to employ mines against an adversary's forces or to neutralize an enemy's efforts to use mines against U.S. or allied forces. Surface warfare superiority involves those actions necessary to neutralize an adversary's efforts to utilize his surface combatants against friendly forces. Antisubmarine warfare superiority includes capabilities that neutralize or defeat an adversary's efforts to employ submarines against friendly forces. Acting either independently or as a joint force component, naval forces provide capabilities that are critical to ensuring freedom of maneuver and power projection from the sea.

Air Dominance. Air Dominance includes those naval warfighting capabilities that establish and maintain overwhelming control of theater air space, in both open-ocean and littoral regions. By providing a protective umbrella above U.S. and friendly forces through Theater Missile Defense (TMD) and air superiority, Air Dominance is a key enabler of the Navy's role in power projection and is a core mission required for protection of naval, joint, and allied forces.

Theater Missile Defense, which includes both Cruise Missile Defense (CMD) and Theater Ballistic Missile Defense (TBMD), employs aircraft, air warfare-capable surface warships, and self-defense-capable surface units to defend against enemy cruise and ballistic missiles. Included in Theater Missile Defense is the capability to engage enemy missiles through both hardkill and softkill measures, and to conduct attack operations against missile launch systems.

Air Superiority provides the capability to ensure full use of theater airspace by U.S. and allied forces through offensive and defensive operations. Offensive options involve attacking the enemy's warfighting capabilities with Offensive Counter-Air (OCA) operations that include attack operations, Suppression of Enemy Air Defenses (SEAD), Electronic Warfare (EW), and fighter escort and sweep. Defensive Counter-Air (DCA) operations focus on maintaining air superiority with the capability to detect, identify, intercept, and destroy enemy air forces with aircraft or air warfare-capable surface warships before they attack or penetrate the friendly air environment.

Power Projection. Power Projection includes naval fires and amphibious warfare. When naval fires are required, the joint task force commander will have a variety of naval weapons to choose from including accurate stand-off munitions delivered from aircraft, gun-fired precision guided munitions, and sophisticated ballistic and cruise missiles launched from surface warships and submarines. The essence of this capability is aircraft carriers equipped with long range attack aircraft, surface warships and submarines capable of launching a variety of responsive, accurate long range missiles, and a robust naval surface fire support capability.

Amphibious warfare includes the ability to amass overwhelming naval, joint and allied military force and deliver it ashore to influence, deter, contain, or defeat an aggressor. Amphibious forces provide the joint task force commander with the ability to conduct military operations in an area of control extending from the open ocean, to the shore, and to those inland areas that can be attacked, supported, and defended directly from the sea.

Navy–Marine Corps expeditionary forces—acting independently, jointly with the Army and Air Force, or combined with allied forces—provide the backbone of America’s ability to project credible and effective military power throughout the world, quickly and effectively.

Deterrence. Deterrence connotes the ability to influence the decision-making and actions of a nation’s or a group’s leadership based on a perceived credible military capability. It is the use of a clear, convincing, and precisely tailored military capability to hold potential opponents’ most-valued assets at risk so that they will assess the cost of aggression or escalation and conclude that their best option is to remain at, or return to, peace.

Conventional deterrence rests on credible capability and willingness to deny an aggressor his objectives or make him suffer unacceptable consequences for his actions.

The critical element of conventional deterrence is the full-spectrum, non-nuclear warfighting capability enhanced by the positional advantage of combat-credible, forward-deployed forces.

Deterrence focused on countering Weapons of Mass Destruction (WMD—chemical, biological, nuclear/radiological devices) includes activities that ensure U.S. forces and interests are protected from WMD by countering their effective use. This can be accomplished by counter-force measures taken to destroy these weapons or their means of delivery before they can be launched, active defense measures taken to intercept these weapons after their launch but prior to their delivery, and passive defense measures. Nuclear deterrence involves maintaining a survivable, responsive, secure, and

credible nuclear strike force, thereby creating a perception that the cost for the use of WMD against the United States or its allies would far exceed any gain.

Thus, deterrence is applied to the entire spectrum of aggression and is accomplished through Navy's ability to shape regional political-military environments, to respond to incidents and crises, and ultimately to the actual employment of U.S. conventional and nuclear weapons.

Sustainment. Sustainment—the specific naval surface and air logistics functions enabling the movement and support of U.S. combat forces and other friendly forces afloat and ashore—remains an area of intense interest. During Operations DESERT SHIELD and DESERT STORM, for example, sealift transported some 95 percent of all supplies and equipment to and from the Arabian Gulf. This mission area also includes the Combat Logistics Force (CLF), hospital ships, the fleet hospital program, Maritime Prepositioning Force ships, Ready Reserve Force strategic sealift assets, and commercial lift assets.

Marine Corps Assault Echelon and Assault Follow-On Echelon operations are supported by prepositioned ships and surge sealift. Sealift also carries Navy sustainment supplies and ammunition from storage sites to forward logistics bases where CLF shuttle ships pick up and deliver this material to combatant forces at sea. Likewise, sealift is vital to Army and Air Force regional operations, as the nation's land-based Armed Services are almost totally dependent upon the "steel bridge" of sealift ships to deliver everything a modern fighting force requires to accomplish its missions.

Sealift and the protection of in-transit ships by naval expeditionary forces allow joint and allied forces to deploy and sustain operations, without the compelling requirement for shoreside infrastructure in forward areas. In the near future, sea-based logistics assets will increasingly support emerging concepts for operational maneuver and ship-to-objective maneuver.

Infrastructure. This IWAR consists of the supporting infrastructure—shore facilities and services—necessary to support operational units. It includes the capability to provide waterfront and air operations; community support, including housing, medical, morale/welfare/recreation (MWR), and child care services; readiness support, including shipyards and Naval Aviation Depots (NADEPs); ranges; and shore force protection. As the Navy sails into the 21st century, our challenge will be to find ways to support our infrastructure using a smaller percentage of Navy resources while maintaining acceptable quality of profession, quality of life, and operational standards.

Manpower and Personnel. An essential part of the Navy's warfighting ability is our manpower and personnel capability—active, reserve and civilian. Our capacity to provide sufficient operational forces, as well as shore support, to sustain a force structure that provides credible naval combat power is critical to meeting the missions of the Navy. It ensures critical naval capabilities to support national strategic requirements for sustained deployed presence, deterrence, prompt and assured crisis response, and warfighting. It also includes the capabilities provided by the personnel system for the acquisition, development, retention and management of the civilian and military workforce, including programs for recruiting, community management, and the distribution of personnel.

Readiness. The Navy is changing the way it does business—finding innovative and less costly methods while supporting the critical training, supply, and maintenance programs that are essential to readiness. This IWAR team evaluates these programs and reviews current indicators and trends to ensure that readiness is maintained. Included in the readiness area are Navy operating funds, force operations, flying hour/steaming day programs, all levels of maintenance, spares, and safety and survivability.

Training/Education. Training and education capabilities are provided in four major functional categories: accessions, skills, professional development, and unit/force training. Programs include the staff, facilities, equipment, and services required to train. The objective of naval training and education programs is to deliver efficiently and effectively the appropriate level of quality training and education as part of a cost-effective process to provide a career-long continuum supporting Navy operational readiness and personal excellence.

Technology. One of the foundations of U.S. military strategy is technological superiority over potential adversaries. For the Navy, maintaining this technological edge has become more challenging as the size of the fleet declines and high technology weapons become readily available to potential adversaries on the world market. Research, development, test and evaluation (RDT&E) funds must be spent as efficiently and effectively as possible. This IWAR analyzes and assesses Navy RDT&E funding and priorities to ensure that Navy technology investments meet current and emerging warfighting needs.

Force Structure. Naval force capabilities are most visibly manifested in the number of ships, submarines, and aircraft in the Fleet. This IWAR is focused on assisting Navy leadership in best matching available resources with desired capabilities in the near, mid, and far terms. Evolving threats, desired capabilities, developing technologies, doctrinal and operational concepts, and fiscal realities all play a role in shaping resource-allocation decisions leading to the naval forces the United States actually deploys. The

force structure IWAR team analyzes the resources required to recapitalize or modernize the force, develops alternative force structure paths and subsequent consequences of the trade-offs, and frames relevant issues via integrated decision timelines.

IV. Quadrennial Defense Review (QDR)

The QDR is the latest in a series of comprehensive national security posture reviews that have taken place since the end of the Cold War. Most of those reviews were conducted on a biennial basis. The first QDR was mandated by the National Defense Authorization Act of 1996, which also indicated a need for recurring reviews every four years.

The outcome of the first QDR, completed in May 1997, has been widely judged as supportive of the naval contribution to national security. However, one of the most significant lessons learned from QDR 1997 is the need to make early preparations for participation in the next QDR process. This is especially important because, while the 1997 QDR's force of 305 ships—if fully manned, properly trained, and adequately resourced—is sufficient for today's requirements within acceptable levels of risk, there is mounting evidence that this naval force posture is not likely to be enough to meet the security challenges of the next century.

The next QDR is scheduled to begin in early 2001 and should be completed around September of that year. N3/N5 has been charged with directing the initial OPNAV preparations for QDR 2001. Such preparation includes, but is not limited to, the identification of key issues, the assignment of areas for study and analysis, development of models and other analytical tools, development of information and associated staff products, and recommendations on Navy positions on defense issues to the Chief of Naval Operations through the Vice Chief of Naval Operations.

The QDR Planning Group has developed three major themes for the Navy to guide it during and beyond QDR 2001:

- The Navy's *enduring contribution* is combat-credible forward presence, providing our Nation with the means for both continuous shaping and timely crisis response. The other Services are transforming to become *expeditionary*—which we already are.
- The Navy's *transformation* is into a knowledge-superior force, enabling it to dictate the operational tempo across sea, air, land, space, and cyberspace—an *expanded battlespace*.
- Technology is driving Navy into *new mission areas*—such as theater ballistic missile defense and deep land attack—and these, in turn, drive requirements for both *new capabilities and additional capacity*.

Initially briefed to the CSPG in March 1999, N3/N5 has put into place a plan to identify and research potential issues for QDR 2001. To this extent, ten subgroups were established in the following areas: Overseas Presence; Asymmetric Warfare and Homeland Defense; Space; Force Structure; Strategy for Balance Among Readiness, Recapitalization and Transformation; 21st Century Defense Support/RBA; Transformation; Nuclear Deterrence and NMD; Total Force; and Modeling. These subgroups identified potential issues, determined what areas have been studied and what issues require further study to prepare the Navy for the next QDR.

Following six months of issue identification, QDR Phase II (Issue Development) commenced. Each of the ten subgroups was given a detailed Plan of Action and Milestones (POAM) to execute. The POAMs consisted of a series of issue papers, roundtable discussions and articles that synergistically work to develop, test and disseminate the Navy's national security contributions.

Intertwined with the POAM was the Engagement Plan for QDR 2001. This plan consisted of the following:

- Roundtables: to present the Navy rationale to the larger defense community on QDR related issues, and obtain an early look at criticism, opposing views, and an opportunity to engage non-DoD personnel.
- Strategic Concepts Wargame: to assess organizing principles of the Maritime Concept for assuring access in peacetime, crisis, and conflict despite an adversary's anti-access strategy.
- Forward Presence Workshops: a series of seven workshops, beginning in November 1999 with the goal of describing the relationship between regional strategic and diplomatic interests and the presence of combat-credible naval forces. Participation comes from a multitude of government agencies to include DoD, Departments of State and Commerce, regional CINCs, all Services, the Joint Staff as well as the Fleets, NWDC, ONI and representatives from the Center for Naval Analyses. The workshop process is based on a methodology that uses a strategy-to-task approach to describe the relationship between the strategic interests, military objectives that support those interests and the force and capabilities required in achieving those objectives. The workshop process will make a meaningful contribution to the discussion of how forward presence forces support regional stability, deter conflict, provide timely crisis response, and ultimately support the transition to war fighting and winning. An additional goal of the workshops is to articulate the linkage between strategic risk and the availability (or non-availability) of forces for forward presence.

- Knowledge Superiority Workshop: A workshop and roundtable were undertaken to discuss the concept of Knowledge Superiority and how the service will best pursue this concept as one of the “means” of the maritime concept. During the first six-day workshop seven goals under which objectives and strategies were produced were agreed upon.
 - Develop a process for the coherent development of the Knowledge Superiority capability.
 - Develop a Navy “all hands” training and education continuum for core Knowledge Superiority competencies.
 - Develop levels of Knowledge Superiority in the Navy.
 - Develop the Information Operations protection capability of Knowledge Superiority to affect adversary information and information systems while protecting our own.
 - Develop an architecture process which supports/enhances the full range of naval missions.
 - Develop and resource an integrated, end-to-end investment strategy to ensure effective, efficient, interoperable naval Knowledge Superiority capability.
 - Change the organizational structure and culture of the Navy to achieve Knowledge Superiority.

The Navy has created and implemented an aggressive plan to prepare the Service for QDR 2001. It will require the continued dedicated effort of all those involved to ensure that the naval contribution to our nation’s security is properly assessed during this major defense review.

Section V: Long Range Planning Objectives

Introduction

This section contains Operational Concepts and the Long Range Planning Objectives based upon the maritime concept. It is intended to provide the link between strategy and resources by identifying a set of prioritized capabilities for incorporation into the IWAR analysis process to ensure that the Navy is properly trained, equipped and organized to execute the National Security Strategy and the National Military Strategy.

The FY02–07 Defense Planning Guidance (DPG) identifies the following as the overarching resource programming priorities:

- Readiness and sustainability

- Modernization
- Force structure
- Infrastructure.

The Secretary of the Navy's Planning Guidance for POM-02 reiterates these concepts and stresses the need to improve our business practices by building upon the work of the Strategic Sourcing Committee. SECNAV direction is: maintain current operational readiness while sustaining our recapitalization program within fiscal guidance; invest to make the DoN a much better employer for our sailors, marines and civilians; end strength reductions should not be relied upon to produce savings; and, finally, over the long term aim for balanced and affordable sensors/C4/weapon/munitions/platform investments.

The Navy Strategic Planning Guidance ties strategy to capabilities. The “means” and “ways” of the maritime concept map directly to the capability assessments done by each of the IWAR teams as discussed in Section III. With our maritime concept and the defense guidance above as the foundation of the IWAR roadmaps, this section is intended to steer planning efforts for the near term (FYDP) and the mid-to-long term (2008–2025). The objective is not to provide specific programming guidance, but rather to provide strategic planning guidance, which identifies force attributes and capabilities required—and the priorities among them—to provide a fleet trained, organized and equipped in accordance with the concept. The goal, as stated in the maritime concept is to provide the Fleet with the capability and capacity to conduct concurrent battlespace control, battlespace attack and battlespace sustainment as the “ways” to achieve the ends of the concept through the two “means” of Forward Presence and Knowledge Superiority.

The maritime concept will support the objectives of the National Security Strategy and National Military Strategy by two “means”: Forward Presence and Knowledge Superiority. These “means,” therefore, comprise the highest naval strategic priorities. Naval capabilities that contribute to the “ways” in which we will achieve these “means” must be considered a higher priority than those that do not. IWAR efforts should refer to Forward Presence and Knowledge Superiority as the Navy's strategic landmarks.

Fiscal constraints dictate that we maintain a balance between costs and numbers. We therefore must establish concept-based priorities. We must look at every program, platform, organization, concept and technology to systematically judge whether it supports the maritime concept and provides positive progress along the path toward a Navy that is fully “knowledge-centric,” present forward and combat-credible.

NSPG priorities therefore are linked to the “means,” “ways” and “ends” of the maritime concept. They are built upon the historic and enduring role for the Navy in the service

of our maritime nation—forward naval presence; and we must ensure the correct capabilities to remain forward in the future in spite of challenges to do so. Demands imposed by those responsible for promoting U.S. foreign policy, along with the requirements from the combatant commanders responsible for ensuring military preparedness and the protection of U.S. and allied interests, require balancing the Navy in terms of both capabilities and force levels to meet these challenges in the future. To provide a framework for prioritization, the following criteria will be used:

PRIORITY (I): Those capabilities that directly support or enhance the enduring core naval competencies without which severe strategic risk would be incurred.

PRIORITY (II): Those capabilities that directly support or enhance the enduring core naval competencies without which significant strategic risk would be incurred.

PRIORITY (III): Those capabilities that directly support or enhance the enduring core naval competencies without which moderate strategic risk would be incurred.

PRIORITY (IV): Those capabilities that directly support or enhance the enduring core naval competencies without which *marginal* strategic risk would be incurred.

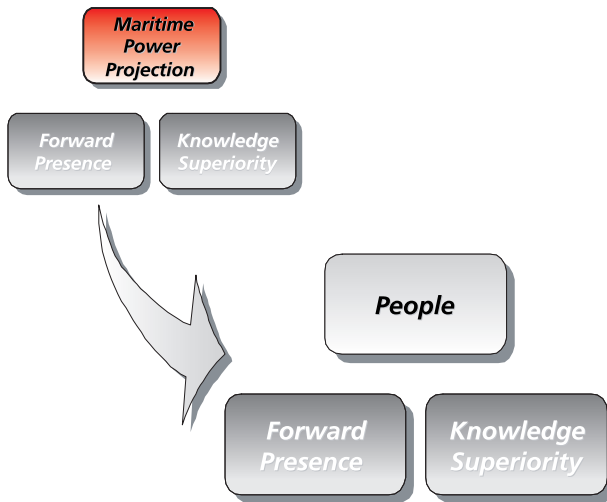
PRIORITY (V): Those capabilities that directly support or enhance the enduring core naval competencies without which *minimal* strategic risk would be incurred.

This priority scheme provides the framework of overarching capabilities necessary to achieve the maritime concept. The IWAR end-to-end capability assessment process reviews the current, mid, and far-term programs and assesses their ability to provide the capabilities necessary to achieve the Long-Range Planning Objectives in the NSPG. Guided by the IWARs, the CPAM then provides a prioritized, fiscally balanced set of programmatic recommendations upon which the resource sponsors base their POMs.

Numbers of assets for presence are no longer a lesser-included case of regional contingencies; there must be enough assets to maintain a forward presence where we want to have influence from the seas. Additionally, through the access of cyberspace we must have the assured capability to directly impact events ashore. Sensors under the tactical control of commanders and networked systems for real-time shared awareness are the priorities for exploiting this access. With sufficient platforms and netted sensors, maritime power will continue to ensure freedom of the seas in order to directly influence events beyond the seas.

Throughout Section V, *italicized text* contains direct extracts from the maritime concept. The frequent references to this maritime concept document emphasize the link between NSPG guidance and strategy, facilitating a clear decision path from strategy to IWAR in order to produce a strong strategic foundation for PPBS resource decisions.

Maritime Power Projection



The maritime concept clearly articulates our overarching strategic imperative as Maritime Power Projection. The paramount objective of the Navy and Marine Corps will remain the global projection of American power and influence—*anytime, anywhere*. But taking the proper ‘lead angle’ on the future demands a balancing of the Naval Service in terms of both capabilities and force levels. It also requires a steadfast commitment to innovation and experimentation. The cornerstone to achieve this goal is our most valued resource: People. As illustrated in the maritime concept discussion, people remain our number one priority. In warfighting terms, while forward presence remains the enduring role of the Navy, it is only by leveraging the brightest and most highly motivated individuals that our nation has to offer that we can accomplish our mission. To prepare the warfighter of the future will require taking full advantage of emerging technologies and new concepts so that we provide them the skills required to employ the highly capable ships, aircraft, weapons and equipment they will be operating. Additionally, we must also identify capabilities that improve the quality of life and quality of service of all our personnel, both military and civilian. These capabilities, when coupled with the unique opportunities of naval service, will provide the incentives required to retain our Sailors and Marines and attract the new generation of warfighters. Our priorities for meeting the challenges and exploiting the opportunities of the future are described below.

Keeping Faith with Our People. People will always be our top priority. The recruiting, training, and retention of quality men and women is key to the Naval Service’s continued success. The consistent lesson of naval operations is that their outcomes often hinge on the actions of even our most junior personnel. To prevail in the complex battlespace of the future, tomorrow’s Sailors and Marines will require the training,

experience, and strength of character to make sound and timely decisions. We must, therefore, ensure that our people are proficient in the use of increasingly sophisticated weapons, sensors, and information systems and have an understanding of the entire battlespace. Regional, joint, combined, and interagency experts must be cultivated. We must also harness the leadership ability and dedication to excellence resident in all our personnel and develop in each Sailor and Marine a lifelong commitment to education and innovation. Our recruiting efforts must extend to all segments of the population to ensure that we represent the nation's rich diversity. Finally, we must act to improve the quality of life of the entire Navy-Marine Corps team—Sailors, Marines, civilians, and their families.

The following readiness capabilities directly support the Long-Range Planning Objectives detailed in the capability-based sections:

1. Manpower and Personnel. . . . Sufficient platforms and personnel are required to maintain a presence wherever we require access and influence. . . . Manpower levels are also critical and must support the demands of both routine deployments and contingency responses.

To attain knowledge superiority in the battlespace of the future, we will need increasing numbers of officer and enlisted that are comfortable with the conduct of warfare in the new realms of space and cyberspace. To ensure correct future manpower requirements planning is achieved and changes to warfighting capability requirements are supported, Manpower and Personnel Capability requirements should be verified/checked against the requirements identified by the IWARs process. There will likely be a vast increase in the battlespace, the limits of which will be determined by the broad dispersion of highly mobile forward forces and the extended reach of their sensors and weapons. Within this battlespace forces will act continuously and seamlessly across sea, air, land, space, and cyberspace. Common shared awareness of the threat within this battlespace and the ability to control the timing of our actions will permit the best possible management of our assets. The following are the priorities for Manpower & Personnel system capabilities:

- PRI (I): The capability to recruit the personnel that support the manning requirements of our current and future force. To ensure our force is manned to the projected requirement levels, emphasis must be placed on providing the right quantity and quality of personnel that will be needed to operate the Navy of the future.
- PRI (I): The capability to meet established retention goals for the correct manning structure to support the Navy's mission. Job satisfaction, career paths, and incentives should all be considered as tools for improving retention. Innovative leadership and management of enlisted and officers alike will be required to meet the retention challenges of the future.

- PRI (II): The capability to synchronize Fleet Manpower and Personnel distribution with the Inter-Deployment Training Cycle. Priority should be given to personnel transfers early in the IDTC in order to stabilize manning and maximize training evolutions prior to deployment.
- PRI (II): The capability to provide our Sailors and Marines career patterns that provide stability and predictability and lead to increased job satisfaction. This capability must include the ability for personnel to manage career milestones with some degree of predictability. The development of standardized career patterns across all ratings will provide an enhancement to the quality of life for our enlisted Sailors and Marines and will lead to increased retention.
- PRI (IV): The capability to assess the impact of increasing joint staffing requirements and emerging “specialist” requirements (e.g., FAO, IT, AP) on the ability to meet warfighter and staff needs. Develop a capability for assessing future afloat and ashore requirements as related to officer and enlisted mix ratios and potential trends to increase officer specialty manning requirements. Assessment capability must include appropriate manning of URL/RL and Staff officers to meet both warfighter and staff needs, and should include required changes in career paths to employ and fully exploit information assets and networked systems. Associated cost analysis is an additional requirement of the assessment process capability (fiscal, manpower and opportunity).
- PRI (V): The capability to assess the impact of changing demographics on our ability to acquire future officers and enlisted that have the ability to function in an environment that requires knowledge superiority. Develop capability for assessing changing demographic effects on finding the right personnel to function in an “information smart” environment.
- PRI (V): The capability to centralize responsibility and authority over all Manpower and Personnel areas. A centralized M&P system will provide for common visions and goals across all warfare and support areas. The capability will maximize inter-system efficiencies by removing counter-productive practices and competition for resources.

2. Training. To prevail in the complex battlespace of the future, tomorrow’s Sailors and Marines will require the training, experience, and strength of character to make sound and timely decisions. We must, therefore, ensure that our people are proficient in the use of increasingly sophisticated weapons, sensors, and information systems and have an understanding of the entire battlespace.

Readiness will remain the highest Navy programming priority for our Active and Reserve Component forces. We must be ready to effectively execute the full range of

assigned peacetime and wartime missions upon arrival in theater—for routine or contingency deployments. Force Protection must be an integral part of naval strategic planning efforts; however, future capabilities must balance the need for adequate defense with a risk analysis of current and potential threat so as to properly manage investment in this area. As we move toward a network centric Navy, information operations become an increasingly critical element to the successful execution of assigned missions. Therefore, policies, procedures and technology must be developed to protect and defend information and information systems. Naval strategic planning efforts must incorporate offensive and defensive information operation capabilities across Integrated Warfare Architectures. The following priorities apply to Readiness and Training capabilities:

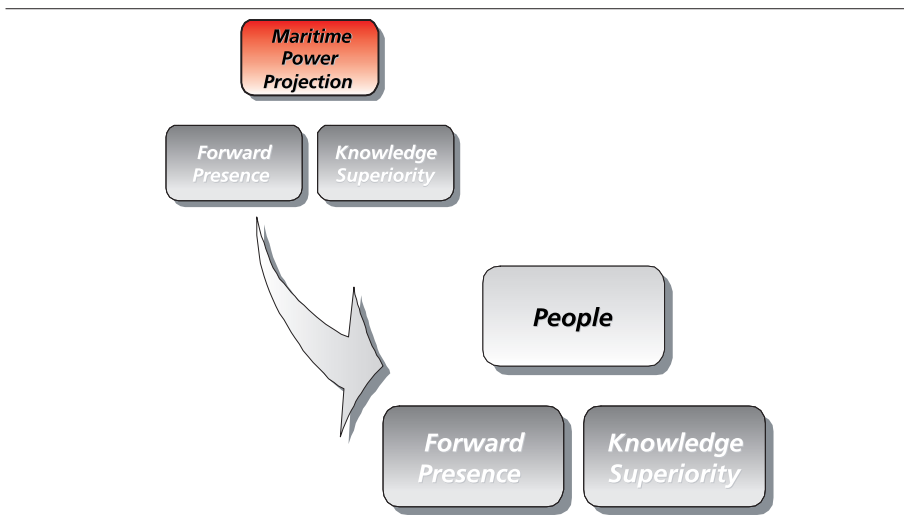
- PRI (II): Technology should be utilized, where appropriate, to support the most efficient training and education system possible. The throughput of students should be maximized, and training pipeline delays and inefficiencies should be eliminated.
- PRI (II): The capability to achieve the highest level of warfighting mission proficiency while sustaining a high level of non-deployed Quality of Life. This will allow for a balanced fleet training program that sustains readiness at levels to support OPLAN and contingency requirements while simultaneously reducing IDTC workload and retaining the ability to incorporate new missions.
- PRI (II): The capability to conduct realistic and stressful training at the unit, battle group and joint levels based on specific objectives correlated to joint mission and tasks. The capability must reflect emerging threats and include both information saturation and total interruption of information flow.
- PRI (III): The capability to use technology to move training to people. Reduce in-class specialized skill training in favor of progressive individual training. For example, computer-based training (CBT), web-based training, and afloat degree programs (PACE).
- PRI (III): The capability to provide officer corps with educational opportunities necessary to develop competence, leadership and character to succeed and employ technological advances. Expanded educational opportunities are needed for our officer corps to ensure the Navy of the future is equipped with the best cadre of leaders possible. Technological advances and future concepts of operation demand that our officers continue to develop and learn and as an added benefit will lead to greater recruitment and retention.
- PRI (III): The organic capability to provide interactive training, including the capability to incorporate direct “red team” interaction. Realistic training requires distributed interactive tools. Appropriate Battle Group and JTF level simulation

should also be provided. Training should be based on the common consistent tactical picture and provide for rapid scenario development for enroute training. It is important to reduce the number of observer/controller personnel involved in the training evolutions.

3. Metrics.

- PRI (I): The capability to provide improved metrics that will accurately measure key readiness factors. The development and application of these metrics for the measurement of personnel, training, equipment and maintenance requirements (spares, flying hours, steaming days and depot maintenance) will provide an accurate prediction of readiness gains/losses during the programming and execution phase of the budget cycle.

Forward Presence



The “means,” “ways” and “ends” of our maritime concept for the next century are all built upon the historic role of the Navy in the service of our maritime nation, *forward naval presence*. This is the enduring role of the Navy in those areas of the world where our most vital interests are concentrated. In cooperation with our friends and allies, deployed forces deter the emergence of dangers to shared interests. In the most serious situations, when deterrence fails, combat-ready forward deployed forces will provide the “means” for timely initial crisis response. We must ensure that we develop the capabilities that permit us to remain forward in spite of challenges to do so.

Combat-credible forward presence is an enduring contribution of naval expeditionary forces. But structuring the Naval Service to continue this contribution in the future means exploiting new opportunities made

possible by technology and addressing the anti-access strategies and asymmetric approaches that adversaries may seek to counter U.S. access and influence. Sea control will remain the cardinal prerequisite that guarantees access forward for naval forces as well as for our sister Services that increasingly rely both on movement of assets by the sea and their pre-positioning on the sea.

I. Operational Concepts for Forward Presence. Forward naval forces are the key to regional stability. They shape the peace by becoming a tangible part of the local security calculus that any would-be aggressor must take into consideration. Naval forces are the visible guarantee that the United States can and will react to provocation and will support its friends in time of need. The operational application of the forward positioning of naval assets and personnel to operating theaters around the world is based on the needs of the Unified CINCs as apportioned through the guidelines of the Global Naval Force Presence Policy (GNFPP).

The core of the forward-deployed surface naval force will be the Carrier Battle Group (CVBG). The CVBG contains the combined deterrence capabilities of surface, subsurface and air power to present the most combat credible presence forward.

- The CVBG is composed of an aircraft carrier and its air wing, surface combatants, submarines, and combat logistics ships.
- The CVBG capabilities consist of theater ballistic missile defense (TBMD), air warfare, long-range strike, undersea warfare, surface warfare, naval surface fire support C4ISR and mine counter measures.
- The Carrier Battle Group normally operates as a contained, self-sustaining force, with little dependence on shore based support able to maintain a stable base of operations for long periods of time in international waters and airspace, unfettered by sovereignty concerns.
- In certain circumstances, two or more CVBGs may join forces to operate as a Carrier Battle Force (CVBF).

The *Amphibious Ready Group (ARG)* is a naval force that is capable of providing forward presence and power projection. The ARG with its Marine Expeditionary Unit (MEU), Special Operations Capable (SOC) will be able to perform missions ranging from humanitarian assistance and disaster relief to crisis response and full-scale combat operations. By virtue of its forward-presence and self-contained capability, the ARG/MEU can be one of the initial forces to react to a crisis or potential area of concern.

- The ARG will normally be composed of a mix of amphibious/landing assault ships with Air Combat Element (ACE), amphibious transport (dock) ships, and associated landing craft.

- The ARG/MEU (SOC) will have the capability to conduct amphibious operations as well as a wide range of MOOTW actions such as non-combatant evacuation operations (NEO), security operations, and reinforcement operations. It will be capable of acting as an enabling force for follow-on forces.
- The ARG/MEU (SOC) may operate in concert with one or more CVBGs to operate as part of a Carrier Battle Force.
- Multiple/expanded ARGs can be created as necessary to accommodate larger Marine Air Ground Task Forces (MAGTF), including the Marine Expeditionary Brigade (MEB) and Marine Expeditionary Force (MEF). These larger expeditionary forces are more capable and adaptable than the ARG/MEU and are classified Amphibious Task Forces (ATF).

Maritime Patrol and Reconnaissance (MPR) forces are land based, forward deployed forces consisting of squadrons of variants of the P-3 Orion (VP/VQ). The MPR squadrons are a highly visible forward presence since their dependence on forward basing presents their operations over the land, in the littorals and far out to sea for host and neighboring nations to observe.

- MPR squadrons will be forward deployed to each fleet AOR on a continuous basis.
- Mission capabilities include undersea warfare, over the horizon targeting/surface warfare, ISR, C2, land attack, strike support (targeting, BDA) and mine warfare.
- MPR forces are capable of operating independently or in conjunction with all naval forces in a supporting role and act as a force multiplier in all mission areas.

II. Long Range Planning Objectives for Forward Presence. Numbers Count. *The conspicuous forward presence of combat-credible naval forces is a visible and compelling deterrent, and a symbol of American power and influence. As we build the future force, we must remember that numbers for presence are not a lesser-included case of regional contingencies; sufficient platforms and personnel are required to maintain a presence wherever we require access and influence. Sufficient numbers of platforms permit naval forces to shape regions of U.S. interest and ensure they can be positioned for timely crisis response. Manpower levels are also critical and must support the demands of both routine deployments and contingency responses.*

Force Posture:

Insufficient numbers entail strategic risk as well as excessive personnel and operational tempos. Clearly, numbers of platforms and naval forces matter.

Force posture changes, by definition, directly impact naval forward presence. Force posture alternatives must meet Unified CINC requirements as well as current Navy

policies on OPTEMPO, PERSTEMPO, and maintenance training. IWAR roadmaps must utilize a methodology in the determination of overseas presence requirements. Forces for presence—shaped for combat—provide the framework of security without which the instruments of U.S. policy would be unable to be engaged to help favorably shape the regional environment for U.S. interests. Naval forces shape the peacetime strategic environment through their continued forward presence regardless of whether direct foreign interaction is involved. Therefore, a methodology to determine the specific requirements for naval forces to support strategic interests—and the military objectives and tasks, which underpin those interests, must be used. Additionally, an assessment is needed of the manner in which naval forces for presence contribute to our military's overall "shaping" effort. The methodology must translate regional strategic interests into military objectives and tasks, doing so with sufficient precision to enable the Navy to train, equip, and organize forces to accomplish those military objectives. The defining linkage between the regional interests and the forces required to perform those strategic interests in terms of military objectives, supporting tasks and capabilities then permits one to identify the resources needed to accomplish those interests and objectives. The analytical rigor in such a strategy-based approach must determine both the capability and force levels needed to accomplish those regional objectives and associated tasks. The methodology will, therefore, also provide a means to assess which regional strategic interests are at risk if the forces and capabilities required to support the identified military tasks and military objectives are not present in the region.

... A force of 305 ships—fully manned, properly trained, and adequately resourced—would be sufficient for today's requirements—within acceptable levels of risk. But the mounting evidence leads me to believe that 305 ships is not likely to be enough in the future.

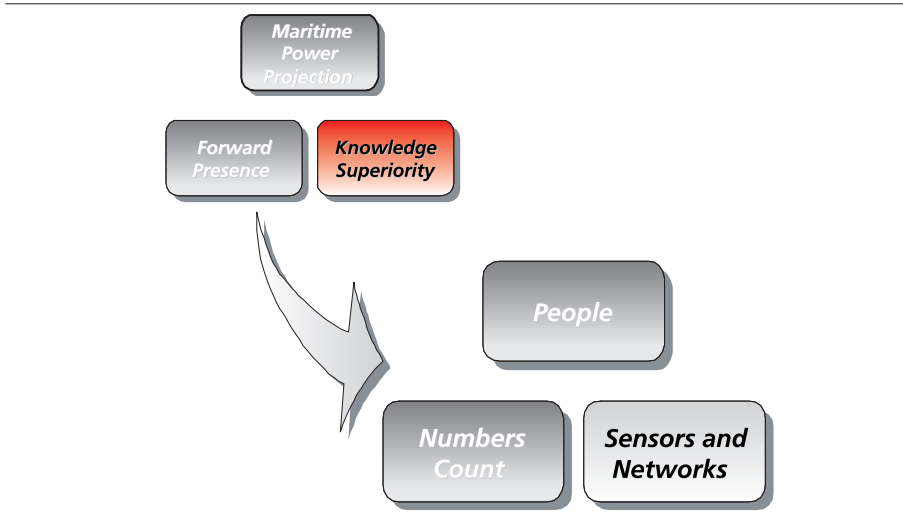
CNO QUOTE BEFORE THE SASC, SEPT 99

We must analyze our experience in the years since the last QDR; specifically, in terms of how the force has been and will be used, to arrive at a credible, confident and coherent plan to make sure we have the force sized and shaped correctly for the future. These then are the priorities for Force Posture capabilities:

- PRI (I): The capability to deploy the CVBG and ARG fully combat ready as the core naval combat force package, directly augmented and supported by other maritime, air and logistics forces. Force planning should account for other missions supported by dispersed combatant forces.
- PRI (I): The capability for forward deployed forces to maintain survivability must be a design characteristic of all future platforms. Survivability in the 21st century will integrate a combination of reduced detectability (consider stealth and signature reduction), improved defensive systems and sensors, and improved recoverability

(damage control, CBR protection) that will allow platforms to fight while hurt or exposed to chemical or biological contamination.

Knowledge Superiority



Just as we have historically capitalized on the freedom of the international seas, we must now exploit our access to cyberspace to leverage our ability to directly and decisively impact events ashore. U.S. combat credibility in this era of globalization will depend upon our ability to gather all the information that is needed, and then present the information to every operator who requires it. Access to data must ultimately result in real-time awareness of the battlespace by the commander so he has the knowledge to make timely and informed decisions inside the decision timeline of a potential adversary.

This acceleration of the decision-making process places us inside an adversary's sensor and engagement timeline where speed of command matters as much if not more than weapon or platform. Knowledge superiority places the strategic priority on sensor over weapon and network over platform. As a result, a regional adversary's anti-access strategy supported by superior weapons reach will not preclude our presence with a netted system that provides the knowledge to act within the adversary's engagement timeline. This improved battlespace awareness and ability to rapidly transfer information when and where needed also provides a decisive advantage to naval forces conducting operations other than war or peacetime engagement. The ability to apply timely and decisive effects at a critical point will prevent—or pre-empt—the adversary's use of weapons and systems, thereby "locking out" his options. Because of the assured knowledge

provided by networked operations, less effort is required for unit self-protection; consequently, the focus on applying our offensive and defensive power ashore can be orders of magnitude greater than before. Whether responding to a crisis or conducting presence operations in support of CINC objectives, forward naval forces will enhance the fidelity of the knowledge network by using their mobility and forward positions to leverage their information advantage and further increase the options for achieving military objectives. The control of the adversary's timeline by the subsequent increase in speed of command is how knowledge superiority will ensure operational primacy. We must keep in mind however, that the analyses of potential measures of effectiveness remain challenging and require continued study.

Through our access to cyberspace, naval forces will achieve an unprecedented awareness of the battlespace. Information, however, will not improve understanding unless it provides commanders the real-time knowledge required to make timely and informed decisions. And improvements in networking and communications technology, matched by agile and adaptive organizations, will dramatically accelerate the operations of dispersed and maneuvering naval forces.

I. Operational Concepts for Knowledge Superiority. The Navy of the future will conduct all operations based on the concept of Network Centric Operations (NCO). NCO derives its power from the robust, rapid networking of well-informed, geographically dispersed warfighters to create a precise, agile style of maneuver warfare and overpowering tempo. It focuses on operational and tactical warfare, but impacts all levels of military activity from tactical to strategic operations. A multi-sensor information grid will provide all commanders access to essential data, sensors, command and control systems, and weapons. The concept pairs networking and information technology with effects-based operations.

- NCO will include implementation of Information Technology for the 21st Century (IT-21), improved and integrated data links, combined with an all-weather, dense, and tiered sensor grid.
- Reachback to ashore expertise and information will be provided via Teleport connectivity with the Navy/Marine Corps Intranet.
- Knowledge Superiority gained through Network Centric Operations will facilitate the penetration, disruption, denial and deception of the adversary's information processes, while providing friendly forces a superior understanding of complex operations.
- IT-21 will provide wide-band information exchange; ensure voice, video, data, and imagery availability to shipboard Local Area Networks (LANs); enable ship-shore tactical data exchange; and enhance Over-the Horizon (OTH) and line-of-sight (LOS) capabilities. It will also provide Low Probability of Intercept/Low Probability of Detection (LPI/LPD) low/medium/high data rate satellite communications,

satellite broadcast services, video and telephonic satellite transmission, and nearly jam-proof communication and connectivity.

Sophisticated land attack operations will require a shift to an intelligence cycle that enables on-line, on-demand digital targeting. The goal will be total integration of information at all command levels to produce a single, *merged operations and intelligence picture* of the battlespace that is tailored by the commander for his warfighting needs.

- The new approach to intelligence will have four building blocks: understanding the enemy better; organizing to counter key adversary capabilities; targeting smarter, and building a precision targeting system.

A *tiered system of sensors* will be used to provide continuous surveillance to detect and track all-important activities and objects over the entire battlefield. It will incorporate satellites, manned and unmanned aircraft, ground-based sensors, and troops.

- The fusion of sensors and intelligence data received near real-time will be distributed throughout the NCO network to allow commanders to gain the needed knowledge superiority to launch attacks against multiple targets simultaneously and accurately.

Information Operations (IO) are those actions we will take to affect adversary information and information systems while defending our own information and information systems.

- Defensive IO includes Information Assurance (IA), Physical Security, Operations Security, Counter-Deception, Counter-psychological Operations, Counterintelligence, Electronic Warfare, and Special Information Operations.

Information Assurance will use Firewalls, Intrusion Detection Systems, Qualified Systems Administrators, Multilevel System Security, and Encryption to protect and defend our information systems.

II. Long Range Planning Objectives for Knowledge Superiority. *Sensors and Networks.* Today's naval forces have impressive striking power, but it must be enhanced by improvements in information technology and agile, adaptive command organizations in order to operate within an adversary's sensor and engagement timeline. Network-centric operations will link shooters, sensors, and commanders and will permit effects-based planning in order to provide the knowledge required to attack rapidly an adversary's critical vulnerabilities, avoid strengths, and destroy centers of gravity. Sensors under the tactical control of commanders and networked systems for real-time shared awareness are priorities for improving our exploitation of cyberspace, synchronization, and overall combat-effectiveness.

Establishing capability priorities within the domain of Knowledge Superiority is challenging due to the difficulty of quantifying risk and the lack of established metrics to

analyze warfighting return on Information Superiority and Sensor investment. That notwithstanding, sensors, information transfer/management systems and advanced data display remain the key enablers for a transition to network-centric, knowledge-based operations. Operational maneuver, precision effects and speed of command rely upon exploiting the U.S. C4ISR and data network capabilities. Navy investments must be synchronized with emerging technological developments and the implementation of the new operational concepts identified in the maritime concept.

Therefore, the following are the priorities for Knowledge Superiority capabilities:

1. COMMAND AND CONTROL

Network-centric operations will link shooters, sensors, and commanders and will permit effects-based planning in order to provide the knowledge required to attack rapidly an adversary's critical vulnerabilities, avoid strengths, and destroy centers of gravity.

- PRI (I): The capability to direct Naval, Joint and Combined Task Force operations afloat. Leverage collaborative planning systems and improved C4I capabilities to better support the command and control of distributed naval, joint, and combined task force operations from sea-based platforms. Emerging C2 concepts, procedures and technology should be assessed using advanced C2 wargames, the Fleet Battle Experiment and the Joint Experimentation processes.
- PRI (I): The capability to link shooters, sensors and command nodes with an open-architecture integrated information grid that leverages Commercial Off-the Shelf (COTS) technology wherever possible. A grid of interoperable Data Links, Combat Systems and networks is required to support joint and combined operations. These systems must be compatible with the communications and computing backplane provided by IT-21 and the Navy/Marine Corps Intranet, which provide the critical path to connectivity across the force, both afloat and ashore.
- PRI (II): The capability to dynamically manage information to produce maximum awareness of the battlespace for the maximum number of decision-makers. Embedded equipment, software applications dedicated personnel and new procedures are required to manage the increasing information flow to achieve best actionable knowledge at all levels and nodes.
- PRI (II): The capability to effectively detect and report chemical and biological warfare agent detections via networks. This capability is needed to ensure that chemical and biological warfare agents are detected quickly, but more importantly, rapidly and efficiently reported to the force. Through the early countering of these agents their effects will be minimized, thereby assuring our forces will be able to continue to fight and win.

2. COMMON OPERATIONAL/TACTICAL PICTURE

Knowledge superiority will allow us to know what is occurring and to act quickly; it is the second means that underpins the projection of maritime power. Through our access to cyberspace, naval forces will achieve an unprecedented awareness of the battlespace.

- PRI (II): The capability to fuse and display sensor data into an integrated, near realtime common operational picture. The distributed operations, speed of command and decentralized command structures dictated by the maritime concept demand a common operational picture (COP) focused on the operational theater which is timely, accurate and interoperable with joint and combined forces.
- PRI (II): The capability to rapidly process data into useful knowledge by userfriendly displays and decision aids. In addition to rapid access to raw sensor, intelligence and logistics data, advanced information systems must automate processing and include evaluation aids for decision-makers and supporting commanders, providing translation of raw data into adaptive information and knowledge. These systems must employ push-pull architectures, with data transfer priorities determined by operational commanders.
- PRI (II): The capability to fuse and display weapons-quality sensor data into a realtime, common/coherent tactical picture. System architectures and tactical procedures must support a common/coherent tactical picture (CTP) focused on the battlespace. It must also support inter-agency and combined force operations.

3. COMMUNICATIONS/DATA LINK

And improvements in networking and communications technology, matched by agile and adaptive organizations, will dramatically accelerate the operations of dispersed and maneuvering naval forces . . . it will provide naval forces the speed of command to operate faster than those adversaries—inside their decision timelines. Ultimately, networked operations will improve our operational tempo and provide the knowledge to maneuver or produce effects that “lock out” an opponent’s intended actions and defeat his overall strategy.

- PRI (I): The capability for all combatants and tactical aviation platforms to operate a common tactical data link system. This will provide the capability to achieve responsive, accurate fires and effective battlespace control. Priority should be placed on joint integration and achieving a common baseline across the force. Satellite connectivity is required to integrate distributed naval forces and land-based forces.
- PRI (I): The capability to produce and sustain a Single Integrated Air Picture (SIAP), where all assets share one near real-time joint/fused picture, identifying friendly, adversary and neutral air contacts. This capability is necessary to reduce fratricide, and increase the confidence of units’ ability to engage designated hostile targets.
- PRI (II): The capability to positively identify enemy, friendly and neutral ships, aircraft and ground forces at extended ranges in all weather conditions. This will

allow battlefield commanders to manage and control the entire battlespace, and to minimize fratricide.

- PRI (II): The capability to receive, translate, and forward multiple data links (TADIL-A, TADIL-B, TADIL-J, PADL, ATDL, etc.) to Joint and Coalition forces over-the-horizon. Near real-time data fusion is needed to correlate tracks in overlapping sensor coverage areas, particularly air tracks reported on different links. Reliable combat identification sharing among Joint and Coalition tactical forces is also required. Data link capability must provide the picture to Joint forces in a tactically useful time period (example: the air picture must be updated every few seconds), and visualization tools in tactical displays which ensure that on-scene commanders can quickly grasp mission-critical information. All elements (primary collection, fusion and dissemination architecture, deconfliction, classification, broadcast, and display technologies) are critical.

4. SURVEILLANCE/RECONNAISSANCE

To ensure America's continued maritime dominance, the Navy and Marine Corps must remain forward in peacetime—both overtly and covertly—routinely collecting intelligence and gaining valuable knowledge of the operating areas where they will most likely be called to respond during crisis or conflict.

- PRI (I): The capability to conduct covert surveillance in the littoral battlespace. Real-time awareness of the battlespace is required to support an accurate common tactical picture. The relatively long dwell time capabilities resident in manned and unmanned aerial and sub-surface naval vehicles provide a means to surveil surface/shore targets of interest and detect the presence of mines in shallow or congested littoral waters with minimal risk to naval forces.
- PRI (I): The capability to conduct armed maritime and littoral ISR. Operation in the littoral environment requires an armed maritime and littoral ISR capability for U.S. Naval forces in traditional, joint and combined roles to counter changing and emerging threats. Improve capabilities for armed surveillance and reconnaissance in maritime and littoral areas; collection, processing and dissemination of environmental data and acoustic, signals, imagery, communications, and electronic intelligence; and evolution into a network-centric warfare environment.
- PRI (I): The capability to identify and provide near real-time targeting data to shooters against mobile and re-locatable targets ashore. The potential adversaries we face in the future will have a growing number of mobile re-locatable threats such as TELs that can be broken down and moved in a matter of minutes after use. It is essential to be able to neutralize these threats to be able to dominate the littoral battlespace and protect our forces at sea and ashore.

- PRI (III): The capability to operate organic remote sensors (e.g., Vertical Take Off and Landing UAV) from all air-capable platforms. Distributed operations in the littoral place a premium on organic, tactical sensors, which extend the horizons of our ships and allow us to search/surveil a greater volume of the battlespace. An organic unmanned tactical aerial reconnaissance capability is needed. This asset must: be organic to naval forces afloat and ashore; be deployable from all aviation-capable ships and from shore; be survivable in multiple threat environments; provide the range, speed, and endurance to support tactical missions; have accuracy capable of supporting precision guided munitions; quickly and accurately acquire, recognize, and designate targets (all weather, night and day); be integrated with attack/re-attack planning aids; and perform BDA, with real-time data communications for battle management.
- PRI (II): The capability for stand-off detection of chemical and biological warfare agents. Networked chemical and biological sensors will improve the common tactical picture and when combined with stand-off agent detection capability, improve operational response.

5. SENSORS

Network-centric operations will link shooters, sensors, and commanders and will permit effects-based planning in order to provide the knowledge required to attack rapidly an adversary's critical vulnerabilities, avoid strengths, and destroy centers of gravity. Sensors under the tactical control of commanders and networked systems for real-time shared awareness are priorities for improving our exploitation of cyberspace, synchronization, and overall combat effectiveness..

- PRI (I): The capability to operate in an environment in which the Global Positioning System (GPS) is jammed or degraded. To achieve the rapid, precise effects integral to our concept, we must ensure GPS does not become a single point failure in future warfighting capability. We must therefore reduce the risk of current mission-critical reliance upon GPS navigation data across the spectrum of operations and platforms. Total reliance places network-centric operations at risk. Near-term analysis is required to assess aggregate GPS vulnerability across warfare areas, prioritize mission-critical systems, assess the costs of technology options to improve current systems (such as jamresistant antennas, high gain receivers and INS/GPS coupled navigation) and assess risks of not providing back-up for mission critical systems.
- PRI (II): The capability to generate and disseminate precise time and time-interval signals to appropriate nodes on the network. These signals are critical to the calibration and operation of space-based systems for fleet precise geolocation, and navigation systems as well as for targeting, BDA, and communications.

- PRI (III): The capability to organically measure and evaluate atmospheric, oceanic, and terrestrial environmental characteristics in real-time. Real-time characterization of the battlespace environment is essential for the operational decision-making and is a required input for sensor/weapons systems performance prediction and optimization as part of the common operational picture.
- PRI (IV): The capability of deployed radars and sensor systems to evolve rapidly with simple component replacement. Capabilities not available when the system is originally deployed should be easily added as emerging technologies mature. Jamming improvements must be designed for deployment as rapidly and easily as the upgrades to the threat systems they are designed to counter. A method to anticipate, produce, and field “just in time” counter tactics and system upgrades is required.

6. SATELLITES

Naval forces must therefore control the entire battlespace—sea, air, land, space, and cyberspace—in order to defend against, defeat, deny or negate (an adversary’s) capabilities.

- PRI (I): The capability to dynamically manage and assign bandwidth for maximum efficiency. As inherently mobile subscribers, Navy platforms are and will continue to be bandwidth limited relative to the other Services. The Navy should maintain a leading role in satellite communication support to the mobile user. Bandwidth usage needs to be made more efficient and effective. The combined bandwidth requirements of the transmission of national imagery, tactical imagery, common/consistent tactical picture, tactical data networks, command voice networks, video, etc., need to be addressed. The IT-21/Navy-wide intranet core capability should be developed to efficiently accommodate the full spectrum of requirements.
- PRI (IV): The capability to deny our adversaries accurate positioning, navigation and timing signals from space-based systems. Allowing adversaries access to precise position and time information will allow them to target and re-target U.S./allied forces faster and with greater accuracy.

7. INFORMATION OPERATIONS

No foe, present or future, will match our knowledge—or our ability to apply it.

- PRI (II): The capability to conduct offensive and defensive information operations across the spectrum of warfare. Information operations, particularly computer networks at sea and ashore, will become increasingly important as the Navy moves toward network-centric operations. Specific priorities include: Naval Security Group activities, Operational Security (OPSEC), Operational Deception (OPDEC), Psychological Operations (PSYOPS), Physical Destruction, Civil Affairs (CA) and Electronic Warfare (EW) to include denial of adversary C4ISR systems, as well as denial/exploitation of adversary access to friendly information and networks (CNA/CND).

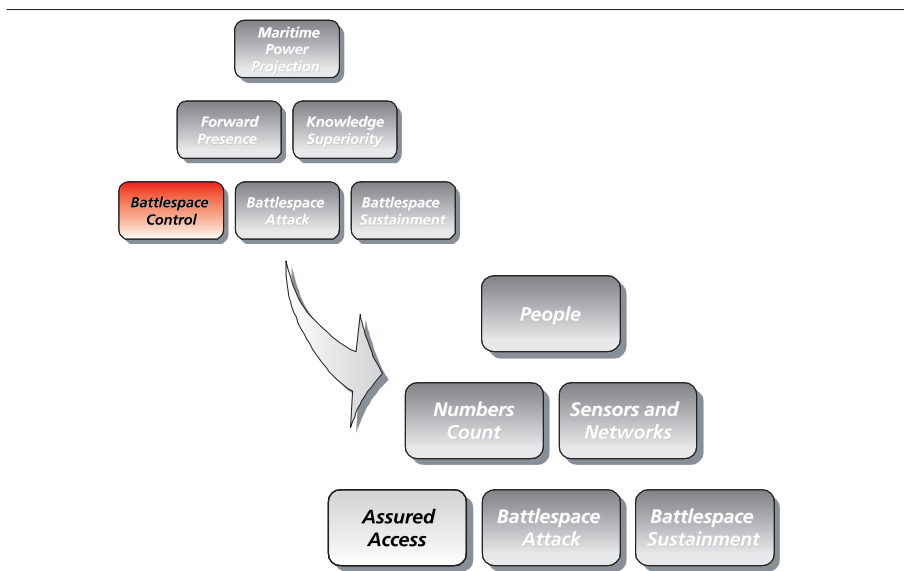
- PRI (II): The capability to develop sufficient numbers of linguists fluent in specific languages to use for information operations and intelligence gathering. Accurate and timely information from foreign sources can only be assured if we have a sufficient group of linguists available for rapid translation. These linguists must be fluent in their particular language specialty, and available to be dispersed throughout the fleet and positioned forward as well as at the central analysis nodes for optimum effectiveness. A worldwide language capability should be pursued to ensure that all contingencies can be covered.

8. INTEROPERABILITY

... Interoperable communications networks will allow all elements of U.S. foreign policy to “plug-and-play” in this regional knowledge base upon their arrival in theater.

- PRI (III): The capability to provide automated, timely access and exchange of national source data to tactical forces (Joint and Coalition). Automated exchange protocols should be developed to allow timely sharing of information between all Joint and Coalition forces. It is only through the judicious sharing of this information that true Knowledge Superiority and dominance of the battlespace can be achieved by Joint and Coalition forces.
- PRI (III): The capability to share with allies the full range of digital communications that is releasable. In order to be truly interoperable with allies, the maximum use of shared digital communications must be a priority. Current and future systems should be upgraded to allow appropriate communications flow with allies.

Battlespace Control



Forward naval forces will project defensive as well as offensive power over land in order to shape the future battlespace. Theater missile defense, cruise missile defense, air defense for the protection of U.S. and allied forces, and their homelands, will be possible. Battlespace control is more than efforts to ensure naval survivability in order to subsequently place power ashore; our access through forward presence and knowledge superiority will now permit the cumulative effects of our protections, fires and maneuvers to simultaneously impact events offensively on land. Naval forces must remain capable of operating regardless of a future adversary's area denial strategy. This may mean overcoming varying levels of space-based, non-acoustic and acoustic sensors, layered defenses of undersea platforms and cruise missiles, information warfare, intelligent mines or weapons of mass destruction.

Battlespace control encompasses the range of actions required to assure our access and shape the battlespace for naval, joint, and combined forces. Sea control remains both a cardinal prerequisite for, and a unique naval contribution to, joint warfighting; it is essential to assuring the flow of follow-on forces into a theater.

I. Operational Concepts for Battlespace Control. Battlespace control for forward forces will require a combination of strategic, surface, subsurface and air superiority.

- Ballistic missile submarines (SSBNs) provide the Navy's contribution to nuclear deterrence at the strategic level. Continuously forward deployed to classified locations, the SSBNs represent a secure and reliable counter to any potential adversary's attempt to obtain a nuclear advantage over the United States.
- Although the mission requires stealth and invisibility on station, the knowledge that a certain portion of our ballistic missiles are always at sea in safe locations and able to launch against any adversary with a very short lead time will continue to be a credible deterrent.

The primary force enabler for air superiority is the *carrier air wing*. The air wing will be capable of projecting air power over the littoral and far inland, attacking enemy aircraft, and suppressing or destroying enemy land-based surface to air and surface to surface threats.

- The carrier airwing will consist of strike/fighter, early warning, and CSAR/SUW aircraft. The airwing assets will contain all required capabilities to gain and maintain air superiority.
- These aircraft will be able to accomplish all the required missions including fighter, attack, aerial refueling, C2, ISR, CAS and SEAD.
- MPR and HSL aircraft will act as force multipliers and provide mid to long range attack, C2, ISR, ASUW and USW.

- Submarines can approach the littoral covertly and provide a defensible asset that can launch special operations forces and stand off land attack munitions.
- Aegis cruisers and destroyers use precision stand off land attack munitions to prepare the battlespace. Cruise missiles attack enemy command and control, and communications nodes. Missile attacks will also be aimed at the anti-aircraft installations/TELS to soften up enemy defenses. Marine Corps assets ashore will be supported with Naval Surface Fire.

Force Protection consists of a layered defense concept of shipboard, aircraft and submarine systems. Central to ship defense is the ability to defend against surface and subsurface, theater ballistic, and anti-ship cruise missile attack.

- The Theater Ballistic Missile Defense (TBMD) system fielded on Aegis capable platforms will be the Navy's primary theater defense asset to counter the ballistic missile threat. Multiple TBMD ships will combine forces to provide a defense in depth against long/short range theater ballistic missiles.
- All platforms will use a system of integrated self-defense capabilities including advanced radars for detecting threats and directing fires, anti-ship cruise missile defenses, decoys, and close-in weapons systems.
- An example of Network Centric Operations applied to force protection is encapsulated in the Navy's revolutionary "Ring of Fire" concept for naval fire support. Aircraft, surface ships, and submarines are linked into a single battle group LAN. The Ring of Fire automatically matches requests for fire with available assets, saving both manpower and time, while ensuring the correct ordnance is on target when and where needed.
- Surface combatants, submarines, MPR aircraft, helicopters and IUSS assets combine forces to counter the undersea warfare threat.
- Protection against mines will be accomplished through the use of organic and dedicated mine countermeasures to include detection, avoidance, marking and neutralization.

II. Long Range Planning Objectives for Battlespace Control. *Battlespace control encompasses the range of actions required to assure our access and shape the battlespace for naval, joint, and combined forces. Our enduring mission of sea control remains both a cardinal prerequisite for, and a unique naval contribution to, joint warfighting; it is essential to assuring the flow of follow-on forces into a theater.*

1. STRATEGIC DETERRENCE

Naval forces also provide the most cost-effective and survivable component of America's strategic nuclear deterrence triad.

- PRI (I): The capability to maintain current sea-based strategic nuclear deterrence. The SSBN force will be sized as directed by Defense Planning Guidance and constrained by treaty limitations.

2. ANTI-SHIP CRUISE MISSILE DEFENSE

In order to assure U.S. access forward, naval forces will be required to counter . . . cruise missiles.

The ONI capabilities based assessments indicate significant advances in cruise missile technology and its widespread proliferation. Missile speed and ability to discriminate countermeasures are projected to increase. At the same time, missile detectability will likely decrease due to the spread of stealth technologies. In view of this increased threat, the following capabilities are required with respect to Theater Air and Missile Defense with a near-term priority placed on the deployment of improved close-in and point defense systems.

- PRI (I): The Fleet-wide, point defense capability to achieve high-probability hardkill against sub- and super-sonic cruise missiles. Future dispersed operations as envisioned in the maritime concept, and a robust multi-axis threat as projected by ONI require improved self-defense capabilities for all combatants against advanced ASCMs.
- PRI (I): The capability to develop and deploy advanced active countermeasure systems and expendable decoys to facilitate deception operations and self-defense against ASCMs. Ships must have the capability to defeat advanced weapons with multi-spectral seekers.
- PRI (I): The capability to integrate self-defense stand-alone sensors and hard/softkill systems. Engagement timelines imposed by advanced adversary capabilities and the compressed littoral battlespace dictate further automation of detection and decision-making processes to maximize system and operator responsiveness against low observable sea-skimming threats.

3. AREA AIR DEFENSE

Forward naval forces will also project defensive power over land to protect U.S. and allied forces and their homelands with sea-based theater air and missile defense. . . . Battlespace control is therefore more than efforts to assure access in order to place follow-on forces and power ashore; it permits naval forces to simultaneously produce decisive effects—both offensively and defensively.

Priorities for area air defense (AAD) are as follows:

- PRI (I): The capability for naval air forces to maintain air superiority over potential adversaries with technologically advanced and tactically superior aircraft possessing enhanced lethality and survivability, and capable of seamless interoperability. This requires modernization of current aircraft as well as development and procurement of follow-on aircraft capable of air dominance over potential adversaries.

- PRI (I): The capability to provide area air and missile defense against emerging threats, including advanced cruise missiles. Development of a multi-sensor capability to complement radar systems should be considered. Improve capabilities to plan and execute joint air defense operations afloat. Modernization efforts must focus on collaborative planning systems, middleware for systems integration and supporting C4I/bandwidth to facilitate afloat planning and real-time battle management/operational decision making.
- PRI (II): The capability to project the maritime air and missile defense umbrella inland over critical port facilities, ground forces and allied/coalition infrastructure. Overland air and missile defense should leverage off improvement of current shipboard and carrier air wing sensor and weapons system capabilities.

4. UNDERSEA WARFARE

In the future, naval forces will be challenged by anti-access strategies built upon varied asymmetric and conventional threats and weapons. In order to assure U.S. access forward, naval forces will be required to counter a host of threats. . . .

The following are the priorities for USW capabilities:

- PRI (I): The capability to conduct undersea surveillance in littoral waters. This capability will support sustained littoral campaigns against coordinated submarine and mine strategies in coastal waters and geographic choke points. Emphasis must be placed on improvement of sensors and processors required for ASW and MIW. Non-acoustic technologies should be given emphasis given the environmental conditions in most littoral waters.
- PRI (II): The capability to simultaneously detect targets, process, fuse and display near real-time multi-sensor data for USW tactical decision making. Defense against the undersea threat will require the combined efforts of numerous platforms and sensors operating simultaneously in different locations in the battlespace. Fusion of the information from these sensors will enable the battle force to be able to apply the appropriate neutralization techniques in a timely manner.

5. ANTI-SUBMARINE WARFARE

In order to assure U.S. access forward, naval forces will be required to counter . . . submarines.

The complexity of the littoral battlespace requires that undersea warfare adopt an integrated approach utilizing a variety of sensors including non-acoustic, multi-static active and passive technologies. These capabilities will support sustained littoral campaigns against coordinated submarine and mine strategies in coastal waters and geographic choke points. The following are the priorities for anti-submarine warfare:

- PRI (I): The capability to deploy undersea sensor networks that can detect nuclear and conventional submarines in a littoral environment. Processed data must be capable of integration into the common operational picture.
- PRI (II): The capability to ensure adequate inventories of expendable USW sensors are available to achieve combat readiness prior to forward deployment and able to sustain combat/contingency operations in 2 MTW. The inventory of active and passive expendable sensors must be maintained at a level that will support the requirement to sustain combat in a 2 MTW scenario. Additionally, training and readiness events must be accounted for to ensure that combat-ready forces are always deployed.
- PRI (II): The capability to engage low doppler, near bottom threat submarines operating in shallow, high ambient noise water. Anti-submarine warfare in the littoral involves some of the most difficult acoustic environments in the oceans. In order to ensure a capability against slow, quiet submarines in this environment, improved acoustic and non-acoustic sensors must be developed.
- PRI (II): The capability to conduct extended range passive acoustic target classification, and threat weapon alertment. The latest generation submarine weapon threats require early alertment in order to achieve survivability. High speed, multi-mode torpedoes and missiles are a growing threat to the battle force.
- PRI (III): The capability to exploit non-acoustic submarine signatures such as periscope/mast exposure and wake phenomena. Submarine quieting technology has proliferated worldwide in recent years, making the detection and tracking of submarines through passive acoustics alone very difficult. All detection methods must be exploited to ensure a probability of success in ASW.
- PRI (III): The capability to operate active, multi-static acoustic systems with improved performance and reduced false alarm rates. Multi-static acoustic systems will provide the ability to track quiet, elusive submarines, particularly diesels in the littorals. Continue improvement of current capabilities including reducing false alarm rates.
- PRI (IV): The capability to conduct enhanced ASW modeling and simulation. New generation submarines have presented a challenge to ASW forces. Training must be realistic and include accurate threat modeling and simulations in all environments that will be encountered.

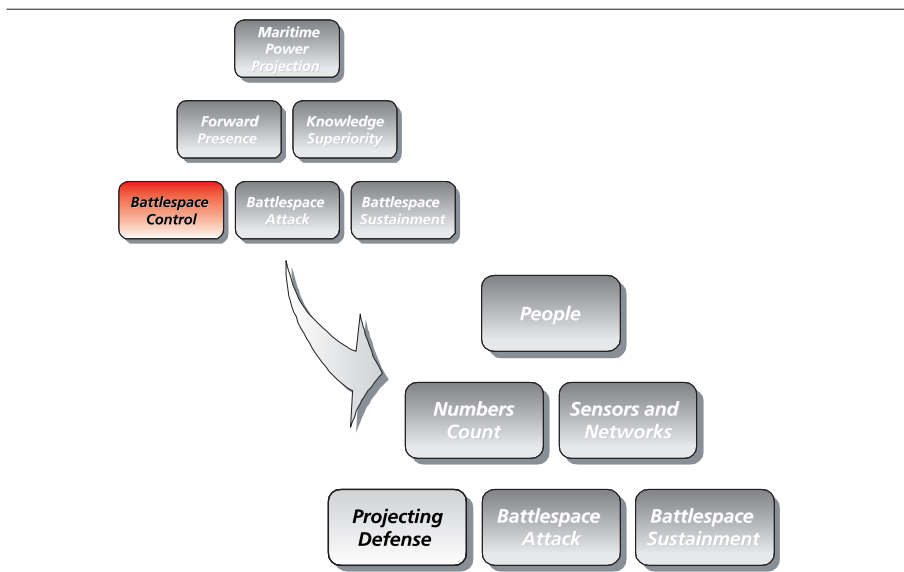
6. MINE WARFARE

... Effective counter-mine capabilities, and the ability to locate and negate or destroy key enemy weapon systems are also fundamental to our efforts to achieve full-dimensional protection.

While it is preferable to avoid mined areas (using our knowledge superiority), military objectives may require operations in close proximity to mined waters. The Navy will continue to aggressively research and prepare mine countermeasure systems to ensure effective operational capability in littoral waters in support of land campaigns. Countermeasure technology must keep pace with the increased sophistication in mine fusing and stealth technology. The following are therefore the priorities for mine warfare:

- PRI (I): The organic capability of surface forces to detect, avoid and/or neutralize mines within operationally acceptable timelines and with acceptable levels of operational risk. Navy capabilities must include airborne, shipboard and submarinebased sensors and vehicles, using acoustic and non-acoustic sensors (e.g., sonar, electrooptics, and lasers). As organic capabilities are brought on-line, stand-alone Mine Counter Measures (MCM) will be balanced with organic systems to meet warfighting requirements.
- PRI (II): The capability to transit mined areas in very shallow water and surf zones in order to land troops and supplies ashore in support of combat operations and/or operations other than war. The threat assessment of potential adversaries indicates mined landing zones will be a probable obstacle to amphibious forces. In order to project our power ashore through ground forces, while protecting those forces and transport craft, this threat must be neutralized.

7. THEATER MISSILE DEFENSE (TMD)



Control of the multi-dimensional battlespace will hinge on our ability to project a defensive umbrella landward. This umbrella will be built largely on our emerging air and missile defense capabilities. Projecting defense ashore will enable Operational Maneuver from the Sea, and it will be critical for setting the conditions necessary to protect the flow of follow-on forces into a theater.

To achieve useful Theater Missile Defense capability, naval forces require the ability to detect and plan destruction of threat missiles prior to launch; detect, track, identify and kill all in-flight threats; conduct reactive in-flight planning for strike/counter-strike assets; conduct cooperative engagement operations; distribute threat missile tracks, situational awareness and warning information to concerned areas, personnel and facilities; and launch prompt counter-strikes against missile launch and infrastructure sites. The following are priorities for TMD capabilities:

- PRI (I): The capability for command and control in a theater ballistic missile environment. Continue development and implementation of a Joint Composite Tracking Network (JCTN) and Joint Data Network (JDN) to achieve a multi-node integrated ship and aircraft sensor data for real-time fire control quality composite track picture.
- PRI (II): The capability to integrate Navy (Aegis) and USMC/Army (Avenger/Patriot) air defense systems to provide direct support to USMC/USA ground elements. Communications are currently the limiting factor.
- PRI (III): The capability to rapidly coordinate remote infrared detection with tactical radar, and a theater-wide communications link to enable early destruction of threat missiles. Fusion of remote sensors, radars and command and control nodes will enable early detection and destruction of missiles.
- PRI (III): The capability for Aegis ships to quickly shift between tactical and Theater Ballistic Missile mode. The utility of naval ships is in their multi-function/multi-mission capabilities. The numerous tactical capabilities of the Aegis ships must be made quickly available to the battle group when needed, yet be responsive to area defense in the Theater Ballistic Missile mode.
- PRI (IV): The capability to positively identify targets detected by national sensors, with an overall reduction in false alarm rate and a reduced need for operator intervention. Owing to the short travel times for missile threats, the latency of launch point and impact point predictions must be reduced, tactical information must be rapidly passed theater-wide, and cooperative engagement initiatives must be extended to all potential fixed and mobile defense assets. Improvements are also required to defend against an attack by multiple simultaneous lower tier weapons.
- PRI (V): The capability to access and to exploit foreign sensors, links, and networks in order to determine best own-force asset deployment. Theater missile defense will

require fusion of an all-source sensor network including organic, national, and Allied/Coalition assets.

8. CHEM-BIO

Enhancing our capabilities to counter terrorism, to respond to chemical or biological attack and operate in a chemical or biological environment, and to treat and process mass casualties is essential.

To enable naval forces to operate effectively in a chemical/biological threat environment, the following capabilities and associated priorities are required:

- PRI (III): The capability for small units and individual warfighters to sense low, sublethal concentrations of chemical/biological agents. Capabilities include sensors/notification architecture, vulnerability assessment, planning TDA's, and tactically responsive modeling and simulation.
- PRI (III): The capability to continue full tactical operations while wearing protective gear. Capabilities include operations in extreme climates including rapidly donned, lightweight and long duration individual protection as well as rapidly established and highly sustainable collective protection.
- PRI (III): The capability to conduct a large-scale decontamination including the use of a waterless chemical decontamination process. Capabilities also include faster, more effective, and less toxic means for decontaminating individual personnel, small units, large surfaces, aircraft and other vehicles, and electronic equipment.
- PRI (III): The capability to administer chemical and/or biological weapon antidotes that are effective against new threats. Protection of our forces requires defense against all chem/bio threats including any new developments. They must be made widely and readily available to all forces, with priority for those forward deployed.

9. SURFACE WARFARE

The vast majority of America's global trade will continue to move by sea, and freedom of the seas remains the enduring responsibility of the Naval Service.

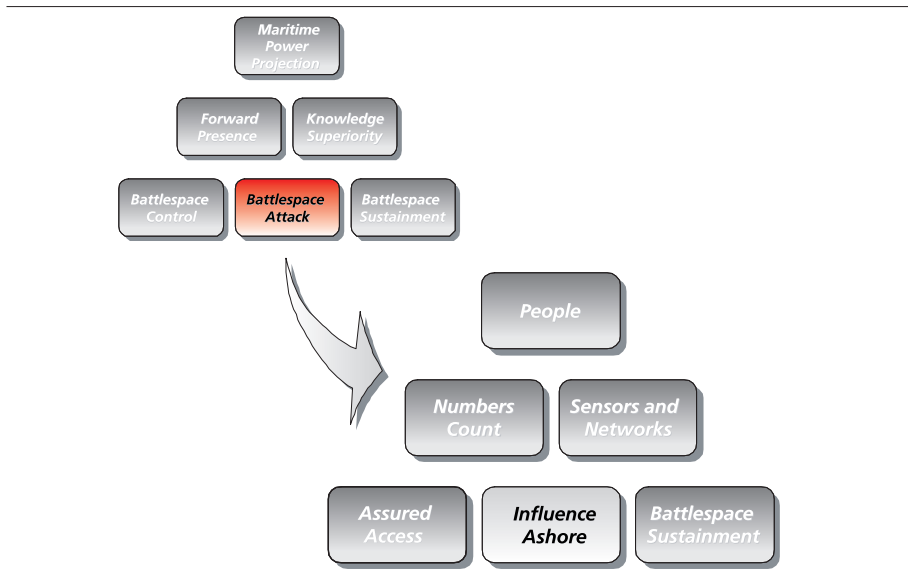
Surface warfare (SUW) remains a core naval mission. In order to meet the advances in surface combatant technology and to provide flexibility to deal with current and projected contingency operations in support of interagency tasking, the following sea control capabilities are needed:

- PRI (I): The capability to detect, identify, track and destroy high numbers of small craft in the littorals. A combination of airborne and surface weapons systems is required to achieve adequate standoff ranges and provide force defense in depth against small boat raids.
- PRI (II): The capability to conduct long-range, high-endurance maritime and electronic surveillance. Improvements to current systems should focus on

enhancing C4I and integrating sensors to facilitate the detection of reduced signature surface and subsurface targets.

- PRI (III): The capability to intercept small boats in support of maritime interdiction, counter narcotics and migrant interdiction operations. High speed, maneuverable aircraft and ships will be needed to be able to intercept go-fast boats used in smuggling operations.

Battlespace Attack



Battlespace attack will disrupt an adversary's decision making process by an early exploitation of the access provided by both forward presence and preemptive knowledge superiority. The speed of employment and tactical surprise afforded by forward naval forces permit achieving battlespace control through simultaneous battlespace attack. Whether conducting long range strike or naval fires for dominant effect, inserting Marine Corps or Special Operations Forces, or conducting a noncombatant evacuation, the capability to apply a precise effect on target when needed is paramount to control of the situation. Therefore, the impact of events on land by battlespace attack concurrently results in battlespace control. The result is that sequential operations for both on-scene and follow-on, CONUS-based forces can be conducted as required. These joint, follow-on forces can, to a larger degree, then join the ongoing battlespace attack posture and be immediately available for offensive operations.

The ability to apply these effects inside an adversary's decision timeline, with a knowledge and understanding of their impacts, permits effects-based planning to disrupt his operational design

I. Operational Concepts for Battlespace Attack. Battlespace attack will rely on the massed firepower of the carrier battle group, its air wing, associated amphibious landing forces, and MPR, all using precision aiming and network centric operations. *Power Projection* will be the overarching operational concept for battlespace attack, providing massed effects across the littoral and far inland. The Navy's forward presence and assured access means that naval forces will usually be the first ones on scene and available to confront a developing crisis.

- Ships, submarines and aircraft will achieve strategic effect and shape the battlespace with massed, precision guided munitions launched from numerous platforms aimed at the enemy's centers of gravity and critical nodes.
- Carrier air wings are launched to provide tactical air power, achieve air dominance and strike at critical targets while providing support to ground forces ashore.
- Submarines provide covert intelligence, surveillance, and indications and warning in addition to landing and recovering special operations forces.
- Marine Expeditionary Forces project power ashore, enabling follow-on entry of heavy land-based air and ground forces. The operational concept for amphibious operations is defined as the uninterrupted movement of forces from ships located in the littorals as well as from platforms located over the horizon, rapidly and directly to decisive objectives. OMFTS is the capstone concept for the 21st Century and is applicable across a range of military operations from small-scale contingencies to major theater war.
- MPR aircraft augment the air wing from forward bases by bringing the capability to conduct C2, ISR, SUW, USW, and land attack missions to the operation.
- Unmanned Aerial Vehicles will be launched and recovered from ships to gain critical ISR and provide additional SEAD capability for force protection.

Future battlespace attack concepts will build on the concept of land attack and expand its capabilities further to achieve direct and decisive impact ashore. The theme selected by the CNO for the focus of the Strategic Studies Group XVIII was "Sea Strike . . . Attacking Land Targets From the Sea Base."

- *Sea Strike* is a future capability of forward deployed naval forces firing thousands of munitions per hour, with extended range, using fully integrated and simultaneous fires from distributed netted forces, with precision targeting.
- This type of attack would produce overwhelming physical destruction and psychological shock to enemy forces.

- This capability could be used as a substantial conventional deterrent thereby contributing to the shaping of a region.
- Network Centric Operations with a vastly improved ISR sensor network will provide the ability for precision effects-based targeting required for Sea Strike to be successfully conducted.

Information Operations (IO) will be conducted against an adversary to affect his information systems while defending our own systems.

- IO operations will include attacks on adversary computer networks and operations security, military deception, psychological operations, electronic warfare, and special information operations.
- Naval forces will be able to perform all the necessary *Command and Control* functions to execute their operations, and at the same time be prepared to assume the responsibility for those same functions in conjunction with joint forces.
- As soon as the battle force is joined by other U.S. military, coalition, or civilian forces, the Naval Commander will be designated the Joint Force Commander (JFC) and naval forces will exercise command and control for the Joint Task Force (JTF).
- Network Centric Operations will enable naval forces to execute the roles of Joint Force Maritime Component Commander (JFMCC), Joint Force Air Component Commander (JFACC), Area Air Defense Commander (AADC), and Airspace Control Authority (ACA).

II. Long Range Planning Objectives for Battlespace Attack. *Concurrent with battlespace control, attack operations such as precision strike and ship-to-objective maneuver exploit the advantages of maneuver and firepower from the sea. The speed of employment afforded by networked forces forward is invaluable when speed of deployment from the United States—and the loss of surprise—is a disadvantage.*

1. LONG RANGE STRIKE AND INTERDICTION

... The unprecedented reach, volume, and precision of our weapons and sensors ... allow us to project power deep inland. Improving and connecting our sensor, information, and targeting systems—including focusing on the real-time location of an adversary's mobile and time-critical targets—will accelerate the operational tempo at which attacks can be delivered for decisive effects.

Naval forces must be able to project power far inland to effectively shape the battlespace and achieve the desired strategic effect. Navy surface combatants, aircraft, and submarines will use long range strike and interdiction to hold an adversary's critical nodes at risk from the littoral to deep inland. These capabilities will improve the Navy's ability to apply long range strike and interdiction to achieve the desired result. The following priorities apply to long range strike and interdiction. These capabilities

will hold an adversary's critical nodes at risk throughout the battlespace from the littoral to deep inland:

- PRI (I): The capability for aircraft carriers to conduct all-weather precision strike operations. Advanced strike fighter programs should focus on survivability, detectability, and full integration of the next generation of joint precision guided munitions to include all-weather precision strike munitions.
- PRI (I): The capability to direct responsive, precision lethal naval fire against a wide range of tactical and strategic targets from surface combatants and submarines. Investigate in-flight re-targeting and organic BDA options to improve Tomahawk Land Attack Missile (TLAM) responsiveness and operational flexibility. Due to recent combat expenditures, TLAM programs must remain on course to restore inventory stability and avoid a gap in attack capabilities. Increase the capability of surface combatants to provide high volumes of precision fires capable of interdicting enemy ground maneuver forces, and relocatable targets such as TBM systems.
- PRI (I): The capability to provide sea-based Suppression of Enemy Air Defenses (SEAD). SEAD capabilities must keep pace with the proliferation of mobile, advanced, and integrated air defense systems (IADS) in support of joint operations and retain the ability to affect adversary EW and communication systems.
- PRI (I): The capability to conduct non-cooperative target identification equally well in the active or passive mode. Identification needs include air, ground, surface, and subsurface assets. Additionally, improved identification friend or foe (IFF) capabilities are required. This should include the ability to discriminate between friends, foes, and neutrals.
- PRI (II): The capability to conduct flexible, rapid mission planning for use of precision guided munitions. TLAM mission planning time must be significantly reduced, to allow re-targeting minutes prior to launch and/or while airborne. The strike planning process must be compressed by applying technology to conduct battle damage assessment more rapidly, to update target databases and target lists, and to communicate strike plans. Planning systems must also support re-targeting after strike packages are airborne, by rapidly de-conflicting an evolving tactical scene and communicating new targeting data to the aircraft. New strike planning capabilities must be capable of managing more targets with the same number of strike platforms. Revolutionary battle damage assessment and target identification tools, including new sensors and unmanned platforms, are desired to optimize strike planning and updating as operations unfold. The capability to use high-speed communications networks and protocols to pass weapon assignments and time-critical targeting information in both text and graphical formats is desired.

- PRI (II): The capability for naval guns to provide sustained volumes of long-range, precise effects fire to support operations from the sea and ashore. The ability to project power ashore will depend on an integration of sea-based air power, amphibious landing forces and naval fire support. This naval fire must be long range and accurate to be able to extend our influence deep into the littorals and provide decisive effects.
- PRI (III): The capability to perform BDA with rapid response time and video/data communications. BDA plays an essential role in knowledge of the battlespace and is only effective if obtained rapidly and accurately. The need for follow-on attacks with costly precision munitions must be determined quickly to ensure that weapons are not wasted to ensure their availability to be placed when and where needed. An unmanned capability is desired.
- PRI (IV): The capability to attack Hard, Deeply Buried Targets (HDBT). Navy capability to hold HDBTs at risk is extremely limited. To provide an effective deterrent against and flexible response to projected adversary area denial strategies, forward deployed naval forces require the ability to neutralize selected HDBTs (such as leadership/C2 centers and weapons of mass destruction facilities).
- PRI (IV): The capability to employ scalable munitions with selectable yield (for both minimizing collateral damage or for increasing suppressive power).

2. AMPHIBIOUS OPERATIONS AND CLOSE AIR SUPPORT

Operational Maneuver from the Sea underwrites the conduct of naval expeditionary operations in the littorals by combining the proven principles of maneuver warfare and maritime power projection . . . capitalizing on technology and improvements in mobility, weaponry, sustainment, and command and control, as well as doctrine and organization . . . to seamlessly project power ashore to attain critical campaign objectives.

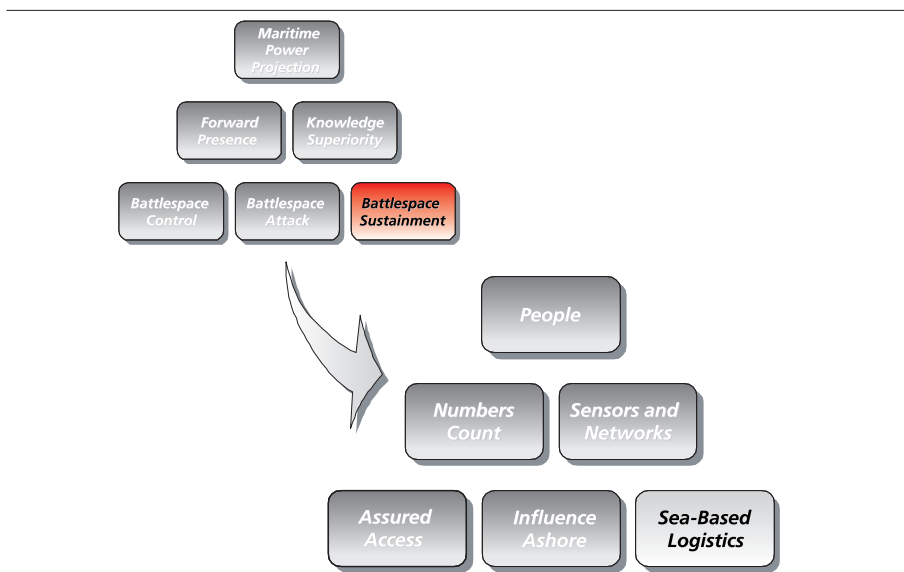
We must continue to evolve the capability to conduct sea-based, expeditionary operations across the spectrum of conflict from peacetime engagement to major theater war. The following are the priorities for Battlespace Attack amphibious operations capabilities and Close Air Support (CAS):

- PRI (I): The capability for improved day, night and all-weather close air support for amphibious operations ashore. Ensure the mix and balance of Navy targeting sensors and munitions to support the capability to conduct day, night and all-weather close air support missions.
- PRI (II): The capability to provide sufficient lift to support and sustain naval expeditionary maneuver operations from the sea. Prepositioned assets, maritime sealift and combat logistic forces must be able to support the full range of amphibious

operations. Forces must be capable of sustaining this support for extended periods of forward deployment.

- PRI (III): The capability for upgraded C4I on amphibious ships. Sufficient C4I is required on all amphibious ships to support the baseline demands of decentralized, network-centric naval and joint operations.
- PRI (IV): The capability to employ expanded munitions, to include non-lethal weapons that minimize collateral damage in a densely populated environment. Urban warfare, anti-terrorist actions and certain special operations require the capability to neutralize a threat with precision while minimizing damage to the surrounding area and populace.
- PRI (V): The capability to detect human-portable munitions. Security operations require the ability to detect hidden human-portable munitions to minimize the risk to US forces.
- PRI (V): The capability for enhanced personal communication systems that allow hands-free voice communications with unit commanders. Examine the possibility for future forces to be able to be connected through personal communications units that allow hands-free contact at all times.

Battlespace Sustainment



Our mobile, dispersed forces will require an equally agile and tailored logistics system for support within their dynamic tempo of operations. Configured to the mission,

ship-based logistics and joint command and control ships will provide the required support to sustain operations and maneuver across the extended battlespace. Maneuvering sea-based forces permit commanders to conduct fully integrated joint command and control, surveillance, targeting, logistics and re-supply. This sea-based sustainment of military forces also enhances other operational concepts such as *Operational Maneuver from the Sea* and *Ship to Objective Maneuver*.

Configured to the mission, sea-based logistics and joint command and control will support maneuver forces across the battlespace—from replenishing and refueling forces at sea to delivering tailored seaborne logistics that sustain operations on land. In the future, both conventional and asymmetric threats will require ground forces to become less dependent on vulnerable fixed bases or stockpiles ashore. Force sustainment through sea-based logistics will reduce the threat of an attack on key logistics nodes and the requirement for dedicated forces to protect shore-based logistics concentrations.

I. Operational Concepts for Battlespace Sustainment. Battlespace sustainment depends upon the delivery of tailored and focused support and logistics from the sea across the spectrum of peacetime presence, crisis response and conflict. Force sustainment encompasses the comprehensive and responsive logistic support system that includes air and sealift, replenishment ships, mobile repair facilities, and advanced logistics support hubs. Battlespace sustainment is the backbone of any operation and is critical to its success. This capability underpins the Navy's future ability to operate worldwide.

Combat Logistics Forces (CLF) are integral to the operation of forward positioned and rapidly deployable forces surged from out of theater. The ability to replenish forces underway and to respond rapidly to changing operational requirements is essential to the effective employment of these forces.

- Ships of the CLF provide the organic support that will allow U.S. naval forces to maintain a forward presence in any location worldwide with little or no dependence on shore based facilities. These ships will incorporate anti-terrorism/force protection capabilities during operations in areas where there is a threat of terrorist or pirate activities.
- Improvements in warfighting ability will require a commensurate revolution in the way CLF ships are operated, maintained and protected. In order to be successful in the future, Network Centric Operations must be applied to all units in the battle force including the CLF ships.
- Protected, hardened communications and command and control will be used to distribute necessary supplies. At-sea replenishment of weapons will be accomplished quickly and safely with increasingly sophisticated systems. Rapid turn-around times will enable the speed of command necessary for such advanced concepts as Sea Strike and Ring of Fire.

The *Maritime Prepositioning Squadron (MPS)* is the key element of the Marine Corps expeditionary sustainment capability. It permits the rapid deployment of expeditionary forces anywhere in the world through the linkup of personnel from the operating forces with prepositioned, sea-based equipment and supplies.

- When the MPS and its combat forces are joined it becomes a Maritime Prepositioning Force (MPF). This operation will be protected from asymmetric threats.
- The equipment, supplies, facilities, and security afforded by an MPS provide a unique capability in response to a wide variety of operations from natural disasters, peace operations, and humanitarian missions to the full range of warfare.

Ships of the *Military Sealift Command (MSC)* provide the Navy with the capability to move and sustain U.S. forces overseas by strategic sealift. Equipment, ordnance, and supplies needed to conduct any sizable projection of joint military power must move by sea. Future conflicts will depend on the MSC and commercial assets to sustain forward forces for any period of time.

- MSC ships will incorporate anti-terrorism/force protection capabilities during operations in areas where there is a threat of terrorist or pirate activities.

II. Long Range Planning Objectives for Battlespace Sustainment. Sea-based Logistics. Efficient sea-based command, control, and logistics will be crucial to naval and joint warfighting as well as the realization of emerging operational concepts. Robust Maritime Prepositioning Forces and strategic lift capabilities will be key to the projection and sustainment of combat power. Advanced work practices, borrowed from the ongoing revolution in business affairs, will also improve the overall efficiency of sustainment operations and permit the development of near-real-time, in-transit supply and underway replenishment tracking.

The development of efficient sea-based command, control, and logistics will be crucial to naval and joint warfighting as well as the realization of emerging operational concepts and capabilities. It is imperative that the Navy balance the size and cost of its infrastructure relative to its operating forces. The vision for Infrastructure is that it is the foundation of the Navy/Marine Corps fighting enterprise bringing together the right mix of people, knowledge, technology, structure and culture to provide effective and focused support to the warfighter.

Infrastructure as defined by the RBA chartered Strategic Infrastructure Plan working group encompasses the people, processes, and properties that support Navy and Marine Corps forces and includes:

- Installations
- Logistics (Ordnance, Supply, Maintenance and Mobilization)

- Military and Civilian Personnel Management
- Recruiting/Retention
- Individual Training/Development
- Medical and Dental
- Communications and Information Technology (data/voice/video)
- Management Headquarters
- Quality of Service (live, work, learn and play)
- Acquisition—including RDT&E.

Battlespace sustainment prioritization is difficult due to the corporate decision to historically mortgage recapitalization to fund readiness and modernization. It is imperative that we develop innovative investment strategies that will ensure naval forces are properly sustained to fight and win in the 21st Century. The following are priorities for battlespace sustainment:

1. REPLENISHMENT

Configured to the mission, sea-based logistics and joint command and control will support maneuver forces across the battlespace—from replenishing and refueling forces at sea to delivering tailored seaborne logistics that sustain operations on land.

- PRI (I): The capability for day and night connected and vertical replenishment and transfer of personnel and cargo at sea. The Navy must retain an afloat, organic capability for tactical logistics and combat support missions (i.e., SAR, MEDEVAC).
- PRI (III): The capability to conduct ship-to-shore resupply in sea states up to 3. The ability to provide logistics and re-supply for naval forces ashore is presently limited to sea state 1 or 2.

2. OPERATIONAL LOGISTICS

Mobile, dispersed forces require an equally agile and tailored logistics system to support their dynamic operations. Logistics from the sea that are focused to arrive where and when needed, without a large footprint requiring significant protection, will support sustained maneuver in an expanded battlespace.

- PRI (III): The capability to provide in-transit tracking of logistics spares. Integrate Focused Logistics and Total Asset Visibility concepts throughout shore and afloat logistics infrastructure to reduce redundancy in shipboard logistics loadouts and improve efficiency and responsiveness of re-supply.
- PRI (IV): The capability to fully integrate logistics information into the Common Tactical Picture. Naval force commanders lack a means of obtaining, displaying, and analyzing the status of equipment and resources necessary for operational/tactical planning. Current logistics reporting systems are not focused on providing

information to the warfighter, but to logisticians. Logistics information should be part of the Common Operational Picture.

3. WEAPONS HANDLING AND LOADING

... Maneuvering sea-based forces will permit commanders to conduct fully integrated joint command and control, surveillance, targeting, logistics and resupply.

- PRI (I): The capability to sustain forward deployed precision guided munitions levels in support of rotational deployment requirements, contingency operations, and DPG directed two MTW requirement. While cross-decking may be necessary to provide desired levels of certain special purpose ordnance, we should not be dependent upon this process for fundamental combat capabilities—we must deploy combat-ready.
- PRI (II): The capability to conduct underway reload and cross-deck of land attack munitions. Retain the capability for theater reload of Tomahawk and follow-on land attack missiles. This capability should be met through an optimum mix of organic naval forces, host nation and contractor support.
- PRI (II): The capability to provide required support equipment, training shapes, and mission essential tactical equipment to all deploying and follow-on forces. The requirement to maintain combat readiness while deployed necessitates access to appropriate below the line support equipment.

4. FORCES SUPPORT

Netted logistics that include pre-positioning, strategic sealift, and airlift are key to sustaining future joint and coalition forces. ... Force sustainment through seabased logistics will reduce the threat of an attack on key logistics nodes and the requirement for dedicated forces to protect shore-based logistics concentrations.

- PRI (I): The capability to support MAGTF contingency deployments from maritime preposition force assets. The maritime pre-positioning force must support Marine Corps expeditionary operations at Defense Planning Guidance (DPG) directed levels of readiness.
- PRI (III): The capability to conduct expeditionary naval construction support, naval expeditionary operations, Marine Corps operations ashore, humanitarian assistance/disaster relief operations, and naval construction/installation support. In addition to contingency employment, construction capabilities provide unique opportunities for engagement with Allies and emerging partners when the employment or exercise of combat forces may be inappropriate or ineffective due to political sensitivities or significant differences in military capabilities/security interests.

5. MAINTENANCE

Advanced work practices, borrowed from the ongoing revolution in business affairs, will also improve the overall efficiency of sustainment operations.

Corrosion/deterioration reduction and control and condition-based maintenance are needed to ensure that our equipment is maintained to our best ability. More austere budgets have dictated reduced acquisition of new equipment—it is therefore imperative that our extant equipment be maintained efficiently and properly. The following priorities apply to Infrastructure Maintenance capabilities:

- PRI (I): The capability to determine the physical condition of ship, amphibious vehicle, ground vehicle and aircraft systems (especially electro-mechanical systems) that signal when maintenance is required. Sensors, neural networks, vibration monitors, analyzers and fluid quality test equipment or monitors are examples of technologies that may be applied. The goal is to increase asset availability and to reduce total ownership costs.
- PRI (IV): The capability to incorporate new or alternate materials that are more resistant to corrosion and fouling into new and replacement systems and platforms. New, faster and less expensive stripping and surface preparation techniques for large and irregular surfaces are required. New coating materials must be long lasting, weather and damage resistant, anti-fouling, environmentally safe, and applied using equipment and techniques that are not hazardous to personnel or to the environment. Better and longerlasting deck coverings (interior and exterior) are required. In each instance (coatings, surface preparations, and deck coverings), affordability and easy application and use by operational personnel is essential. New technologies for anti-corrosion and corrosion control for USMC vehicles and systems are needed.
- PRI (V): The capability to use composite material repair equipment and tools, techniques and environmentally safe materials to allow quick and affordable repair at lower and intermediate maintenance levels. These new capabilities are required to repair the composite to original specifications with simple equipment, and be safe for the user and the environment.

6. INFRASTRUCTURE

Finally, we must act to improve the quality of life of the entire Navy–Marine Corps team—Sailors, Marines, civilians, and their families.

- PRI (I): The capability to provide base, port, airstation, and installation infrastructure that supports the current and planned Navy force structure. The Navy must maintain and operate shore installations in the most efficient, effective manner to provide operational support to the warfighter.

Operational Capabilities Priority

- *Priority (I): Those capabilities that directly support or enhance the enduring core naval competencies without which SEVERE strategic risk would be incurred.*
- The capability to recruit the personnel that support the manning requirements of our current and future force.
- The capability to meet established retention goals for the correct manning structure to support the Navy's mission.
- The capability to provide improved metrics that will accurately measure key readiness factors.
- The capability to deploy the CVBG and ARG fully combat ready as the core naval combat force package, directly augmented and supported by other maritime, air and logistics forces.
- The capability for forward deployed forces to maintain survivability must be a design characteristic of all future platforms.
- The capability to direct naval, Joint and Combined Task Force operations afloat.
- The capability to link shooters, sensors and command nodes with an open-architecture integrated information grid that leverages Commercial Off-the Shelf (COTS) technology wherever possible.
- The capability for all combatants and tactical aviation platforms to operate a common data link system.
- The capability to produce and sustain a Single Integrated Air Picture (SIAP), where all assets share one near real-time joint/fused picture, identifying friendly, adversary and neutral air contacts.
- The capability to conduct covert surveillance in the littoral battlespace.
- The capability to conduct armed maritime and littoral ISR.
- The capability to identify and provide near-real time targeting data to shooters against mobile and re-locatable targets ashore.
- The capability to operate in an environment in which the Global Positioning System (GPS) is jammed or degraded.
- The capability to dynamically manage and assign bandwidth for maximum efficiency.
- The capability to maintain current sea-based strategic nuclear deterrence.

- The Fleet-wide, point defense capability to achieve high-probability hardkill against suband super-sonic cruise missiles.
- The capability to develop and deploy advanced active countermeasure systems and expendable decoys to facilitate deception operations and self-defense against ASCMs.
- The capability to integrate self-defense stand-alone sensors and hard/soft-kill systems.
- The capability for naval air forces to maintain air superiority over potential adversaries with technologically advanced and tactically superior aircraft possessing enhanced lethality and survivability, and capable of seamless interoperability.
- The capability to provide area air and missile defense against emerging threats, including advanced cruise missiles.
- The capability to conduct undersea surveillance in littoral waters.
- The capability to deploy undersea networks that can detect nuclear and conventional submarines in a littoral environment.
- The organic capability of surface combatants to detect, avoid and/or neutralize mines within operationally acceptable timelines and with acceptable levels of operational risk.
- The capability for command and control in a theater ballistic missile environment.
- The capability to detect, identify, track and destroy high numbers of small craft in the littorals.
- The capability for aircraft carriers to conduct all-weather precision strike operations.
- The capability to direct responsive, precision lethal naval fire against a wide range of tactical and strategic targets from surface combatants and submarines.
- The capability to provide sea-based Suppression of Enemy Air Defenses (SEAD).
- The capability to conduct non-cooperative target identification equally well in the active or passive mode.
- The capability for improved day, night and all-weather close air support for amphibious operations ashore.
- The capability for day and night connected and vertical replenishment and transfer of personnel and cargo at sea.
- The capability to sustain forward deployed precision guided munitions levels in support of rotational deployment requirements, contingency operations, and DPG directed two MTW requirement.

- The capability to support MAGTF contingency deployments from maritime preposition force assets.
- The capability to determine the physical condition of ship, amphibious vehicle, ground vehicle and aircraft systems (especially electro-mechanical systems) that signal when maintenance is required.
- The capability to provide base, port, airstation, and installation infrastructure that supports the current and planned Navy force structure.
- *Priority (II): Those capabilities that directly support or enhance the enduring core naval competencies without which SIGNIFICANT strategic risk would be incurred.*
- The capability to synchronize Fleet Manpower and Personnel distribution with the Inter-Deployment Training Cycle.
- The capability to provide our Sailors and Marines career patterns that provide stability and predictability and lead to increased job satisfaction.
- Technology should be utilized, where appropriate, to support the most efficient training and education system possible.
- The capability to achieve the highest level of warfighting mission proficiency while sustaining a high level of non-deployed Quality of Life.
- The capability to conduct realistic and stressful training at the unit, battle group and joint levels based on specific objectives correlated to joint mission and tasks.
- The capability to dynamically manage information to produce maximum awareness of the battlespace for the maximum number of decision-makers.
- The capability to effectively detect and report chemical and biological warfare agent detections via networks.
- The capability to fuse and display sensor data into an integrated, near real-time common operational picture.
- The capability to rapidly process data into useful knowledge by user-friendly displays and decision aids.
- The capability to fuse and display weapons-quality sensor data into a real-time, common/coherent tactical picture.
- The capability to positively identify enemy, friendly and neutral ships, aircraft and ground forces at extended ranges in all weather conditions.
- The capability to receive, translate, and forward multiple data links (TADIL-A, TADILB, TADIL-J, PADL, ATDL, etc.) to Joint and Coalition forces over-the-horizon.

- The capability for stand-off detection of chemical and biological warfare agents.
- The capability to generate and disseminate precise time and time-interval signals to appropriate nodes on the network.
- The capability to conduct offensive and defensive information operations across the spectrum of warfare.
- The capability to develop sufficient numbers of linguists fluent in specific languages to use for information operations and intelligence gathering.
- The capability to project the maritime air and missile defense umbrella inland over critical port facilities, ground forces and allied/coalition infrastructure.
- The capability to simultaneously detect targets, process, fuse and display near real-time multi-sensor data for USW tactical decision making.
- The capability to ensure adequate inventories of expendable USW sensors are available to achieve combat readiness prior to forward deployment and able to sustain combat/contingency operations in 2 MTW.
- The capability to engage low doppler, near bottom threat submarines operating in shallow, high ambient noise water.
- The capability to conduct extended range passive acoustic target classification, and threat weapon alertment.
- The capability to transit mined areas in very shallow water and surf zones in order to land troops and supplies ashore in support of combat operations and/or operations other than war.
- The capability to integrate Navy (Aegis) and USMC/Army (Avenger/Patriot) air defense systems to provide direct support to USMC/USA ground elements.
- The capability to conduct long-range, high endurance maritime and electronic surveillance.
- The capability to conduct flexible, rapid mission planning for use of precision guided munitions.
- The capability for naval guns to provide sustained volumes of long-range, precise effects fire to support operations from the sea and ashore.
- The capability to provide sufficient lift to support and sustain naval expeditionary maneuver operations from the sea.
- The capability to conduct underway reload and cross-deck of land attack munitions.

- The capability to provide required support equipment, training shapes, and mission essential tactical equipment to all deploying and follow-on forces.
- *Priority (III): Those capabilities that directly support or enhance the enduring core naval competencies without which MODERATE strategic risk would be incurred.*
- The capability to use technology to move training to people.
- The capability to provide officer corps with educational opportunities necessary to develop competence, leadership and character to succeed and employ technological advances.
- The organic capability to provide interactive training, including the capability to incorporate direct “red team” interaction.
- The capability to operate organic remote sensors (e.g., Vertical Take Off and Landing UAV) from all air-capable platforms.
- The capability to organically measure and evaluate atmospheric, oceanic, and terrestrial environmental characteristics in real-time.
- The capability to provide automated, timely access and exchange of national source data to tactical forces (Joint and Coalition).
- The capability to share with allies the full range of digital communications that is releasable.
- The capability to minimize the effectiveness of enemy targeting efforts against maritime forces.
- The capability to exploit non-acoustic submarine signatures such as periscope/mast exposure and wake phenomena.
- The capability to operate active, multi-static acoustic systems with improved performance and reduced false alarm rates.
- The capability to rapidly coordinate remote infrared detection with tactical radar, and a theater-wide communications link to enable early destruction of threat missiles.
- The capability for Aegis ships to quickly shift between tactical and Theater Ballistic Missile mode.
- The capability for small units and individual warfighters to sense low, sub-lethal concentrations of chemical/biological agents.
- The capability to continue full tactical operations while wearing protective gear.

- The capability to conduct a large-scale decontamination including the use of a waterless chemical decontamination process.
- The capability to administer chemical and/or biological weapon antidotes that are effective against new threats.
- The capability to intercept small boats in support of maritime interdiction, counter narcotics and migrant interdiction operations.
- The capability to perform BDA with rapid response time and video/data communications.
- The capability for upgraded C4I on amphibious ships.
- The capability to conduct ship-to-shore resupply in sea states up to 3.
- The capability to provide in-transit tracking of logistics spares.
- The capability to conduct expeditionary naval construction support, naval expeditionary operations, Marine Corps operations ashore, humanitarian assistance/disaster relief operations, and naval construction/installation support.
- *Priority (IV): Those capabilities that directly support or enhance the enduring core naval competencies without which MARGINAL strategic risk would be incurred.*
- The capability to assess the impact of increasing joint staffing requirements and emerging “specialist” requirements (e.g., FAO, IT, AP) on the ability to meet warfighter and staff needs.
- The capability of deployed radars and sensor systems to evolve rapidly with simple component replacement.
- The capability to deny our adversaries accurate positioning, navigation and timing signals from space-based systems.
- The capability to conduct enhanced ASW modeling and simulation.
- The capability to positively identify targets detected by national sensors, with an overall reduction in false alarm rate and a reduced need for operator intervention.
- The capability to attack Hard, Deeply Buried Targets (HDBT).
- The capability to employ expanded munitions, to include non-lethal weapons that minimize collateral damage in a densely populated environment.
- The capability to fully integrate logistics information into the Common Tactical Picture.
- The capability to incorporate new or alternate materials that are more resistant to corrosion and fouling into new and replacement systems and platforms.

- *Priority (V): Those capabilities that directly support or enhance the enduring core naval competencies without which MINIMAL strategic risk would be incurred.*
- The capability to assess the impact of changing demographics on our ability to acquire future officers and enlisted that have the ability to function in an environment that requires knowledge superiority.
- The capability to centralize responsibility and authority over all Manpower and Personnel areas.
- The capability to access and to exploit foreign sensors, links, and networks in order to determine best own-force asset deployment.
- The capability to employ scalable munitions with selectable yield.
- The capability to detect human-portable munitions.
- The capability for enhanced personal communication systems that allow hands-free voice communications with unit commanders.
- The capability to use composite material repair equipment and tools, techniques and environmentally safe materials to allow quick and affordable repair at lower and intermediate maintenance levels.

Section VI: Directed Studies

To support forward presence in the next century, the Navy must investigate and study the capabilities and programs that will allow us to retain our uncontested access to the high seas. N81 and N51 will jointly identify lead responsibilities and supporting roles within the framework of the current IWARs and QDR processes to accomplish the following studies during FY01. Lead organizations will be selected from OPNAV, Fleets, NWDC, and SYSCOMs in addition to the ongoing efforts of N81 IWAR teams and N51 QDR teams. Directed studies should be integrated with already approved studies where practical, and the results of these studies should be available to support QDR 2001 analyses.

- Develop an assessment tool in order to identify the level of forward presence required—in terms of both numbers and capability—to support our national interest. Forward Presence Workshops provide a means to determine the specific requirements for naval forces to support strategic interests—and the military objectives and tasks which underpin those interests—but an assessment is needed of the manner in which naval forces contribute to our military’s overall “shaping” effort. (N51)
- Examine the long-term impact of a strategy to procure greater numbers of mission-focused ships (with robust survivability features and point defense systems) to allow for increased forward presence/numbers of operational nodes. (N86/NAVSEA)

- Develop Naval doctrine for the counter-proliferation of weapons of mass destruction. This doctrine will be used as a foundation for a Navy/Marine Corps Counter Proliferation Master Plan designed to enhance our ability to participate in a wide spectrum of counter proliferation operations. (NWDC)
- Examine the implications of Navy force structure requirements and the associated programmatic impact of resourcing emerging Marine Corps *Operational Maneuver from the Sea* and *Ship-to-Objective Maneuver* concepts. (N81)
- Assess the Navy implications of supporting Military Operations in Urban Terrain (MOUT). (N85)
- Analyze the impact of emerging mission areas and system capabilities on VLS weapons loadouts and rotational inventory requirements for current and planned missile systems. Examine alternatives for nominal loadouts as well as tailored loadouts for land attack, TMD, and TBMD missions. (N41)
- Balance the affordability of hard kill systems versus significantly improved countermeasures (e.g., missile countermeasures, anti-torpedo systems, and countermine system development) for surface and subsurface platforms. (N86/N87)
- Due to the increasing importance of unmanned sensors and platforms to network-centric forces, examine future roles and missions for tactical and combat UAVs, including intelligence surveillance and reconnaissance, interdiction, SEAD/JSEAD, airborne early warning, and CBR detection. (N85/N88)
- Examine the need for a Navy contingency plan in case space assets (e.g., GPS) are denied. (N6)
- Conduct a study on naval access for presence, crisis response and warfighting requirements in accordance with the access issues identified in Strategic Concepts Wargame X. (CNA)

In addition to capability assessments, current programs require supporting Concepts of Operation (CONOPS). NWDC in conjunction with the OPNAV, SYSCOM and Fleet staffs should examine the following issues:

- Assess the Navy role in OCMD. Include in the study proposed CONOPs and Operational Architectures development. (NWDC)
- Assess Blue in support of Green requirements in the development of CONOPs and supporting Operational Architectures for OMFTS. Include the examination of MCM, COP/CTP, naval fires requirements (range, volume, C2 and precision targeting) and Tactical IW in support of OMFTS and JV2010. (NWDC)

- Re-examine Chem-Bio TTP for integration of carrier air wings and embarked Marines in CBW, CB recon and decon of landing craft, aircraft, UAVs. (NWDC)

The following studies from the 1999 NSPG Directed Studies section have been undertaken by various organizations and their progress will be monitored until conclusion pending potential incorporation of the results into future Navy planning documents:

- Assess the impact on current and planned personnel recruitment, training and utilization in light of potential manpower requirements for information operations, jointness, pipeline training, and staff positions. (CINCPACFLT)
- Assess the Navy's contribution to Ballistic Missile Defense and the role TBMD contributes to Joint warfighting. Include in the study proposed CONOPs and Operational Architectures development. (N865)
- Examine and assess the envisioned CONOPs and Operational Architectures being developed for organic MCM. (N85/CNA)
- Examine the scope of OTH-T/SUW engagement CONOPs and the impact of platform multi-tasking, potential time delay in positioning firing units and magazine limitations. (CNA)
- Examine and assess the CONOPs and Operational Architecture for SEAD/JSEAD. (CNA)

Conclusion

POM-02 marked a significant opportunity to establish a program that will field naval forces capable of operating in challenging new 21st Century realms. The IWAR/CPAM process provides a mechanism that promises to capture the end-to-end capabilities required for meaningful transformation. The success of capturing this integrated process of strategic force planning will depend upon a firm organizational commitment throughout POM-02 IWAR and CPAM production efforts. The capabilities outlined herein provide the strategic foundation to guide the PR-03 planning and subsequent programming process. As we commence these critical efforts, it is imperative that we continue to build upon the unmatched capabilities of U.S. naval forces—trimmed for peace, rigged for war—into the next century.

List of Abbreviations

A	ASW	antisubmarine warfare
	ATDL	Advanced Tactical Data Link
C	CHAMPUS	Civilian Health and Medical Program for the Uniformed Services
	CINC	commander in chief
	CNO	Chief of Naval Operations
D	DDP	Dependent Dental Plan
	DON	Department of the Navy
E	EFM	Exceptional Family Member [Program]
I	I&W	indications and warning
M	MAGTF	Marine air-ground task forces
	MEB	Marine expeditionary brigade
	MEF	Marine expeditionary force
	MEU	Marine expeditionary unit
	MTW	major theater war
	MWR	Morale, Welfare, and Recreation
N	NATO	North Atlantic Treaty Organization
P	PERSTEMPO	personnel tempo of operations
R	R&D	research and development
S	SEAL	Sea-Air-Land [Unit]

	SGLI	Servicemen's Group Life Insurance
T	TADIL-J	Tactical Digital Information Link—Joint Service
	TQL	Total Quality Leadership
	TQM	Total Quality Management
U	UPS	United Parcel Service [Company]

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