

NOT FOR PUBLICATION UNTIL  
RELEASED BY THE SENATE  
ARMED SERVICES COMMITTEE

STATEMENT OF  
ADMIRAL VERNON CLARK, USN  
CHIEF OF NAVAL OPERATIONS  
BEFORE THE  
SENATE ARMED SERVICES COMMITTEE  
10 FEBRUARY 2005

NOT FOR PUBLICATION UNTIL  
RELEASED BY THE  
SENATE ARMED SERVICES COMMITTEE



# Chief of Naval Operations Admiral Vern Clark, USN

## Biography

Born in Sioux City, Iowa, and raised in the midwestern states of Nebraska, Missouri and Illinois, Admiral Clark graduated from Evangel College and earned a Master's Degree of Business Administration (MBA) from the University of Arkansas. He attended Officer Candidate School and received his commission in August 1968.

Admiral Clark served aboard the destroyers *USS John W. Weeks* (DD 701) and *USS Gearing* (DD 710). As a Lieutenant, he commanded *USS Grand Rapids* (PG 98). He subsequently commanded *USS McCloy* (FF 1038), *USS Spruance* (DD 963), the Atlantic Fleet's Anti-Submarine Warfare Training Center, Destroyer Squadron Seventeen, and Destroyer Squadron Five. After being selected for flag rank, Admiral Clark commanded the *Carl Vinson* Battle Group/Cruiser Destroyer Group Three, the Second Fleet, and the United States Atlantic Fleet.



Ashore, Admiral Clark first served as Special Assistant to the Director of the Systems Analysis Division in the Office of the Chief of Naval Operations. He later completed assignments as the Administrative Assistant to the Deputy Chief of Naval Operations (Surface Warfare) and as the Administrative Aide to the Vice Chief of Naval Operations. He served as Head of the Cruiser-Destroyer Combat Systems Requirements Section and Force Anti-Submarine Warfare Officer for the Commander, Naval Surface Force, U.S. Atlantic Fleet, and he directed the Joint Staff's Crisis Action Team for *Desert Shield* and *Desert Storm*.

Admiral Clark's first flag assignment was at the U.S. Transportation Command where he was Director of both Plans and Policy (J5) and Financial Management and Analysis (J8). While commanding the *Carl Vinson* Battle Group, he deployed to the Arabian Gulf and later served as the Deputy Commander, Joint Task Force Southwest Asia. Admiral Clark has also served as the Deputy and Chief of Staff, United States Atlantic Fleet; the Director of Operations (J3) and subsequently Director, of the Joint Staff.

Admiral Clark became the 27th Chief of Naval Operations on July 21, 2000.

Admiral Clark's personal decorations include the Defense Distinguished Service Medal (three awards), the Distinguished Service Medal (two awards), the Legion of Merit (three awards), the Defense Meritorious Service Medal, the Meritorious Service Medal (four awards), the Navy Commendation Medal, and various service and campaign awards.

Mr. Chairman and members of the Committee, this will be my fifth opportunity to talk with you about the investments that you've made in America's Navy and about our budget request for the coming year. I want you to know that it has been an honor for me to come to this "house of the people" and work with all of you in the service of our great nation. Your dedication to the public good has been an inspiration, and I am personally grateful for having had the privilege to speak with you on so many occasions.

I also want to express my gratitude on behalf of the men and women of your Navy. Your exceptional and continuous support has made possible their remarkable achievements of the last five years in manpower, readiness levels, and our ability to generate capabilities the joint force will need to fight and win in the dangerous decades ahead.

These marvelous Americans -- active and reserve, uniformed and civilian -- will continue to make this nation proud as they take the fight to today's enemy, while steadily transforming our institution to meet tomorrow's challenges. It is they who make ours the greatest Navy ever to sail the world's oceans; our ability to attract, train, and retain them is a testament to the health of our service and an indicator of our proper heading as we chart our course into the twenty-first century.

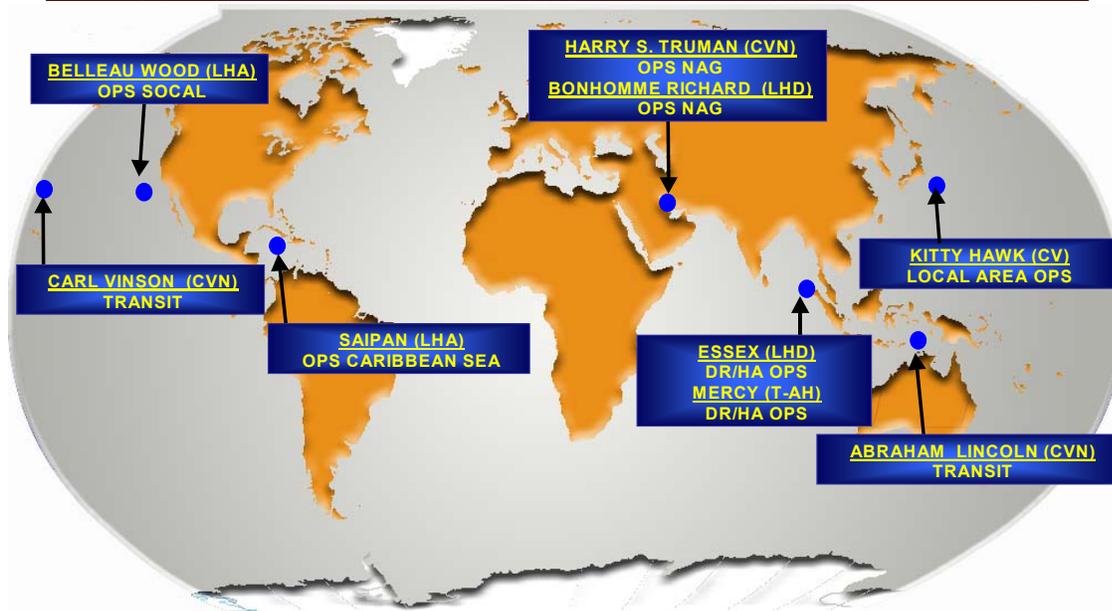
### **I: Your Navy Today -- Focused on Winning the Fight**

We are engaged in a war that I believe will be a generational challenge. Your Navy has been at the forefront of this war at sea and on land, and Sailors have represented themselves with great distinction. In this fight, your Navy is making history as we contribute unprecedented reach, precision, persistence, and awareness to the joint force. In this time of great consequence for our future, our men and women operating in the air, on and under the sea, and on the ground are at the leading edge of the Global War on Terrorism.

Today, there are 94 ships on deployment (33 percent of the Fleet); this includes four aircraft carriers, and two big deck amphibious ships (LHA/LHD). They are deployed in support of the nation's interests in the Persian Gulf, the Mediterranean, the Indian Ocean and the Western Pacific (see Figure 1). And because of the changes we've made in how we maintain our ships and train our crews, still others are ready to surge forward on short notice or are continuing operations like strategic deterrence; intelligence, surveillance and reconnaissance

missions; and counter-drug patrols in support of other national imperatives.

## YOUR NAVY TODAY



**Figure 1**

There are now approximately 19,000 Sailors deployed to the Central Command area of responsibility (AOR) in support of Operations ENDURING FREEDOM (OEF) and IRAQI FREEDOM (OIF). In addition to the more than 8,000 thousand men and women of the HARRY S. TRUMAN Carrier Strike Group (CSG) and the BONHOMME RICHARD Expeditionary Strike Group (ESG), that number includes some 7,000 Navy personnel on the ground throughout the theater. Among them are more than 2,500 medical personnel in direct support of ground combat missions, and more than 1,000 Seabees managing construction projects for new Iraqi schools, bridges, roads and facilities. They are also teaching construction skills as part of the Iraqi Construction Apprentice Program.

- **OIF:** In the past year, Navy aircraft have provided the reach, precision, persistence, and awareness needed by Soldiers and Marines engaged in OIF ground combat operations. Navy sea-based tactical aircraft flew more than 3,000 sorties and dropped more than 100,000 pounds of ordnance in close support missions. Less visible, but no less valuable, have been the nearly 5,000 hours of dedicated surveillance and reconnaissance flown by both sea-based and shore-based Navy aircraft, providing the eyes and ears of our people on the ground in Iraq. At sea, Naval Coastal Warfare forces protect Iraq's oil terminals in the Persian Gulf.

- **GWOT:** In multiple theaters in the war on terror, your Navy is conducting Maritime Interdiction Operations (MIO) and Extended MIO. EMIO is the maritime component of the GWOT and its purpose is to deter, delay and disrupt the movement of terrorists and terrorist-related materials at sea. With our extensive MIO experience in the Persian Gulf and elsewhere, we are well trained to monitor, query and board merchant vessels, and we have done so 2,200 times in the last year alone.

We are actively participating in an ongoing series of Proliferation Security Initiative (PSI) exercises as well as working groups composed of operational experts from PSI partner nations in an effort to prevent the flow of WMD, their delivery systems, and related materials. This initiative is led by the State Department and envisions partnerships of states working in concert to develop a broad range of legal, diplomatic, economic, military, and other tools to interdict shipment of such items.

We have also been working closely with the U.S. Coast Guard to better defend the homeland, including developing a new operational concept called Maritime Domain Awareness (MDA). MDA will enable identification of threats as early and as distant from our borders as possible to determine the optimal course of action. Armed with this better awareness and visibility, we will provide an active, layered system of defense that incorporates not only the maritime domain, but space and cyberspace as well. The success of these operations can be credited to the synergy developed between our Navy, the Coast Guard and other agencies.

I would like to point out here, as I have testified in prior hearings, that to fully develop our concept of Sea Basing and to realize the fruits of MDA for the defense of our homeland, we must take maximum advantage of the widely accepted rights codified by the Law of the Sea Convention.

From transit passage, to reaffirming the sovereign immunity of our warships, providing a framework for countering excessive claims of other states, preserving the unfettered right to conduct military activities in the exclusive economic zones, the Convention provides the stable and predictable legal regime with which to conduct our operations today and in the future. Joining the Convention will support ongoing U.S. military operations, including continued prosecution of the Global War on Terrorism, and will enhance our leadership role in maritime matters. I strongly support United States' accession to the Law of the Sea Convention because joining the Convention will strengthen our nation's defenses.

- **Operation UNIFIED ASSISTANCE:** By sea-basing our relief efforts for South Asian tsunami victims in Operation UNIFIED ASSISTANCE, for example, the ABRAHAM LINCOLN CSG and the BONHOMME RICHARD ESG (including Marines from the 15<sup>th</sup> Marine Expeditionary Unit) delivered more than 6,000,000 pounds of relief supplies and equipment quickly and with more political acceptance than may have been possible with land-based relief efforts.

In addition, nine of our versatile P-3C reconnaissance and surveillance aircraft supported search and rescue operations, while the High Speed Vessel (HSV) SWIFT, an aluminum-hulled catamaran, deployed from Naval Station Ingleside, Texas, in January to provide high-speed connectivity to the shore with its ability to transit shallow water. The hospital ship USNS MERCY is now on scene to provide a base of operations for joint U.S. military medical organizations and recognized international nongovernmental and private relief organizations. And, more than 400 Seabees assisted in disaster recovery efforts such as clearing roads, removing debris and assessing damage.

- **Our most precious resource:** At the heart of everything good that is happening in our Navy today is the vital fact that **we are winning the battle for people**. We are attracting, developing, and retaining a talented cadre of professionals who have chosen a life of service. Our ability to challenge them with meaningful, satisfying work that lets them make a difference is fundamental to our covenant with them as leaders.

To better fulfill this promise, we are in the process of developing a Human Capital Strategy that fits the twenty-first century -- a strategy that delivers the right skills, at the right time, *for the right work*. We would not be in a position to do that today had we not first tackled the fundamentals: recruiting the right people, increasing retention, and attacking attrition.

We have consistently met or exceeded our **recruiting** goals since 2000. This has allowed more selectivity and a consequent increase in the quality of recruits. Nearly 15 percent of our current recruits, for example, now have college experience, up by more than 300 percent since 2000. More than 95 percent of new recruits now have high school diplomas. And minority officer applications have increased by 27 percent.

We have experienced extraordinary **retention** in our Navy fostered by a new culture of choice and a focus on professional development for our Sailors. This new culture has led to the highest retention in our history. Therefore we are able to be more selective in recruiting and establish the kind of

competitive environment for reenlistment and detailing. This, in turn, allows us to more effectively shape of the force, developing a more educated and experienced group of professionals to lead and manage our high-tech Navy. Sailors in many ratings have been given new opportunities to compete and grow in our institution through adjusted NEC-targeted Selective Reenlistment Bonuses and the Perform-To-Serve program. We have also piloted choice in assignments with a new Assignment Incentive Pay pilot program. Sailors are now able to compete for select jobs in duty stations across the globe.

Since 2000, we have also reduced **attrition** by nearly 33 percent. This past year alone, leaders throughout our Navy attacked the number one cause for attrition: illegal drug use. Despite an increase in testing of nine percent Navy-wide, the number of positive samples was down by 20 percent since 2003. In short, we now have the highest quality workforce the Navy has ever seen.

- **Readiness to fight:** We have a responsibility to you in the Congress and to the taxpayers to ensure that the Navy the nation has already bought is properly equipped. We have invested billions of dollars in training, maintenance, spare parts, ordnance, flying hours and steaming days so that the current force is prepared on a day-to-day basis to deliver combat power whenever and wherever it is needed. Today we have the **best readiness performance I've seen in my career.**

To enhance our Navy's ability to respond to crises whenever and wherever needed, we implemented a Global Concept of Operations that increases both the number and capabilities of naval assets that are forward deployed throughout the world. This new operating concept delivers a sustainable global reach to influence current events through the sovereign presence of our naval forces.

This past year, we maintained Fleet Response Plan's (FRP's) "6+2" readiness to consistently deliver six forward-deployed or ready-to-surge CSGs almost immediately, plus two additional CSGs in 90 days or less. The FRP allows us to surge 50 percent more combat power on short notice to deal with future global contingencies than in the past. For example, we were able to maintain the JOHN C STENNIS CSG in a "ready for war" state for 418 of the 509 days of its most recent readiness cycle that included deployed operations.

## Three Months, Five Theaters, Seven CSGs

---



As part of the FRP, we demonstrated "presence with a purpose" in a multi-CSG surge exercise, SUMMER PULSE '04 (see Figure 2), as well as the four-month deployments of USS RAMAGE and ROSS. We also surged USS BATAAN, BOXER, and KEARSARGE to enable Marine Corps deployments to ongoing operations in Iraq, and we maintain this surge capability across the Fleet 365 days per year. To support this level of operational availability, we have been improving our maintenance processes and organizations. Innovative programs like SHIPMAIN and the Naval Aviation Readiness Integrated Improvement Program (NAVRIIP) helped develop and share best practices, streamline maintenance planning and improved performance goals in shipyards, depots and other maintenance facilities.

- **Transforming for the Future:** At the Naval War College in June 2002, I introduced our vision of tomorrow's Navy, *Sea Power 21*

(see Figure 3).

# SEA POWER 21

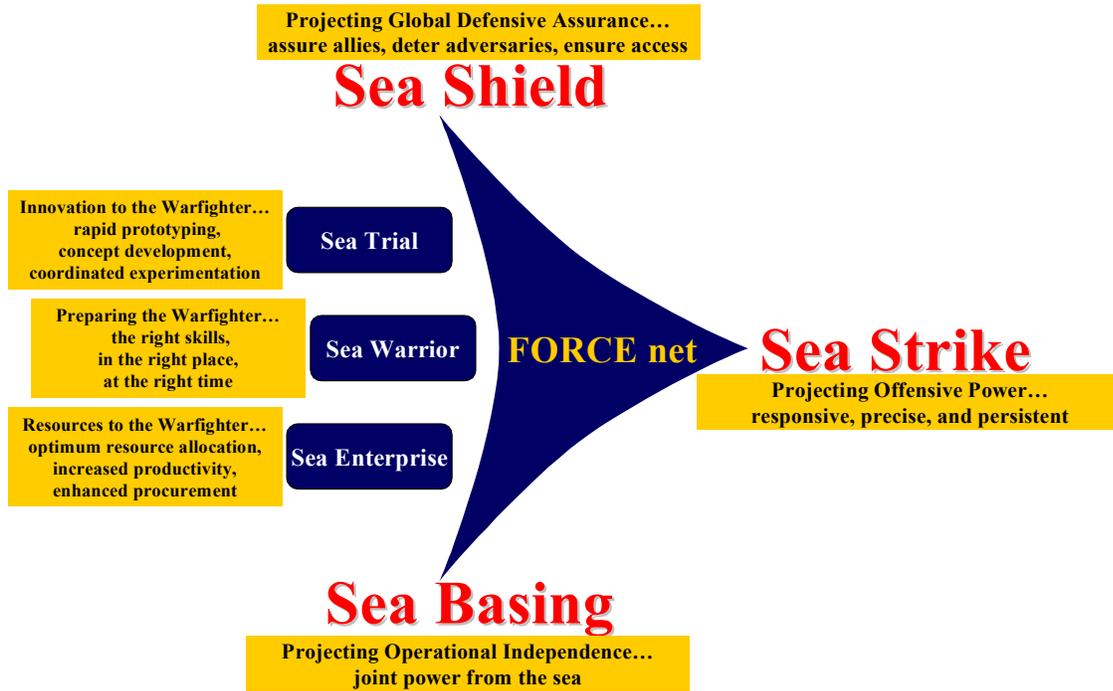


Figure 3

Sea Power 21 began the process of translating theory into practice for a wide range of advanced concepts and technologies -- ranging from the stand up of the Fleet ASW Command to the initiation of ballistic missile defense -- that will increase the combat effectiveness of the joint force. We are moving forward with the main concepts of that vision to transform the way we fight.

We have introduced **Sea Strike** capabilities that extended our reach and precision, providing joint force commanders with a potent mix of weapons. In OIF, we deployed F/A-18E/F Super Hornet squadrons, providing greatly enhanced range, payload, and refueling capability. Tactical Tomahawk has entered service, allowing in-flight target re-programming and increasing our time sensitive strike capabilities. The Shared Reconnaissance Pod (SHARP), the Advanced Targeting Forward-Looking Infrared (AT-FLIR), the Joint Helmet Mounted Cueing System and the Multi-Functional Information Distribution System (MIDS) arrived in the Fleet and showed us the power of these new knowledge dominance technologies. The Advanced SEAL Delivery System made its first deployment with USS GREENEVILLE this year, and we started conversion of the third of four SSBNs for conventional strike and SOF insertion.

Our **Sea Shield** capabilities also improved, extending the defensive umbrella over joint forces ashore during OIF. USS CURTIS WILBUR conducted the nation's first ballistic missile defense patrol. Within four years, 18 warships will be fitted with a transformational ballistic missile surveillance, tracking, and engagement capability. We also published an Anti-Submarine Warfare Concept of Operations (ASW CONOPs), describing ASW force attributes, warfighting principles, and development priorities.

Recent results from at-sea experiments have yielded significant insights into revolutionary distributed ASW sensor technologies and communications that demonstrate the potential of this new CONOPs. Additionally, we refined our Mine Warfare Roadmap to expedite the fielding of new technologies and capabilities into the Fleet, demonstrated the defensive capabilities of Anti-Torpedo Torpedoes, and awarded a contract to design and develop the Multi-Mission Maritime Aircraft for maritime surveillance to replace the aging P-3.

With our number one joint partner, the Marine Corps, we continue to explore options to best realize Sea Basing, studying the optimal ship mix for future ESGs and Maritime Pre-positioning Force (Future) squadrons. We commissioned USS VIRGINIA (SSN 774), our first submarine designed for littoral missions, and accepted delivery of USS JIMMY CARTER (SSN 23) with significantly improved payload capability. We also approved baseline designs for the Littoral Combat Ship (LCS) and begin construction on our first LCS in June of this year.

Among our **FORCEnet** initiatives to integrate the power of a networked combat force, we established an enterprise-wide architecture that puts in place standards for both infrastructure management and the networking of combat systems. We have also developed a plan for increased use of unmanned systems in tactical ISR and collaborated with the Air Force to develop an Airborne Networking strategy for tactical as well as command and control aircraft. In that vein, we have begun to align the C4ISR concepts of all the Services: FORCEnet (Navy and Marine Corps), C2 Constellation (Air Force) and LandWarNet (Army). We have also enhanced joint and coalition interoperability in our deploying ships through installation of CENTRIX and COWAN nets.

**Sea Trial**, our initiative to streamline and formalize our experimentation process, is up and running with the Fleet in charge. This past year, we conducted 43 different experiments, ranging from LCS concept of operations development to Missile Defense Surface Action Groups. We tested SSGN effectiveness in

a joint scenario with networked forces at sea, in the air, and on land. We conducted a highly complex and challenging ASW experiment in UNDERSEA DOMINANCE 04, while we tested dynamic bandwidth management and reach-back in TRIDENT WARRIOR 04. We sponsored leading edge technologies for future naval warfare including: X-Craft, an innovative ship to be used as a test platform for the Littoral Combat Ship; an operational-scale electromagnetic rail gun; new concepts for persistent littoral undersea warfare; programs to enhance the joint tactical use of space; and Sea Basing enablers. We also focused the Future Naval Capability program to close warfighting gaps and overcome technical barriers.

We are also transforming the business of running the world's greatest Navy. Our **Sea Enterprise** Board of Directors employs a disciplined review process that helped ensure maximum effectiveness of every dollar we spend. In addition, we established a Corporate Business Council to aid business process transformation, and to foster a culture of productivity and continuous improvement. This forum of senior Navy leaders is chartered to:

- Develop and advocate high potential, cross-functional initiatives and ensure enhanced performance and organizational efficiencies.
- Ensure savings are harvested and returned to the leadership for reallocation against other Navy priorities.
- Track and integrate Echelon II business initiatives, and facilitate barrier removal and organizational impediments to change.
- Ensure Sea Enterprise and CNO Echelon II Execution Review lessons-learned are leveraged across all commands.

Initiatives such as AirSpeed, Task Force Lean, SHIPMAIN, and NAVRIIP are also improving ship and aircraft support processes while sustaining readiness.

- **Service that makes a Difference:** Sailors are the core resource of the Navy and we compete with industry to retain them. Congressional commitment to competitive pay has made this possible including base-pay raises and elimination of out-of-pocket expenses for housing. Additionally, we have funded achievement of Homeport Ashore, aimed at moving single sea-duty Sailors to Bachelor Quarters by FY08.

Quality of service has also been enhanced for the families of our Sailors. We have improved family housing and remain on

track to eliminate inadequate family housing units by FY07. Family medical care benefits have been enhanced through the initiation of TRICARE for Life, ensuring superb medical care for qualified families after their military service. We have also joined partnerships with private industry to provide mobile career opportunities and enhance the Spouse Employment Assistance Program.

Training and education for our Sailors are a critical component of their quality of service. We have created a system to accelerate the implementation of training and education improvements that has become a model for DoD. These programs seek to create the workforce for the twenty-first century and to ensure the right skills, in the right place, at the right time. Education opportunities have also been enhanced through the Navy College Program, including partnerships with civilian colleges, to provide rating-related associate and bachelor degrees via distance learning.

In July of last year, the Navy established a Professional Military Education (PME) Continuum. This continuum of learning will provide career-long educational opportunities for the professional and personal growth of Sailors. It incorporates Joint PME and Navy PME with advanced education and leadership training, and will be a key factor in job assignment and career progression.

- **The Power of Alignment:** Over the last five years, we launched numerous initiatives aimed at increasing the alignment of our organization. Alignment within our Navy is about two fundamental things. First, it ensures that organizations, systems, and processes are constructed to effectively and efficiently produce a combat-ready Fleet. It also ensures we share a common understanding of our missions and objectives.

As part of that effort, we created the Commander, Fleet Forces Command (CFFC) to integrate policies and requirements for manning, equipping, and training all Fleet units. This year, we put in place a Fleet requirements generation process with CFFC as the lead Fleet integrator, to review and approve all Navy requirements documents, and provide formal Fleet input at all requirements generation levels. We also aligned the Navy Warfare Development Command and warfare centers of excellence under CFFC, to stimulate concept development and technology insertion to the Fleet.

We created Fleet Type Commanders to lead their communities from the waterfront. That effort is now helping us to better design a twenty-first century Human Capital Strategy, and to refine our training and maintenance processes.

The Human Performance Center (HPC) was established in September 2003 to apply Human Performance and Human System Integration principles in the research, development, and acquisition processes. HPC will help us understand the science of learning and ensure training is driven by Fleet requirements. This is helping to provide better growth and development opportunities, eliminate performance and training deficiencies, save money, and improve readiness.

We established the Commander, Navy Installations Command (CNI) to guide the operations, administration, and support for Navy installations world-wide while reducing infrastructure management layers. CNI improved our capability to manage dispersed facility operations, conserve valuable resources, establish enterprise-wide standards, and improve our facility infrastructure.

We established the Assistant CNO for Information Technology (ACNO-IT) to promote Navy-wide alignment between warfighting and business information technologies, and to ensure IT investments and resources are targeted for highest value efforts and return on investment.

We also established the Commander, Navy Education and Training Command to serve as the Chief Learning Officer for the Navy and to be the single authority for individual training (officer and enlisted) strategy and policy.

We improved the integration of our Total Force, streamlining Reserve headquarters and increasing Reserve access to Active platforms and equipment. On any given day during 2004, more than 20,000 Reservists were on active duty engaged in Fleet and joint operations as part of the "total force."

## **II: Your Navy Tomorrow - Bridging to the Future**

Previously, our force structure was built to fight two major theater wars. However, the strategic landscape is vastly different today, and this new strategic landscape requires additional capabilities to accommodate a wide array of missions. We are therefore adjusting the scope and scale of our warfighting capabilities to support small-scale contingencies, such as peacekeeping and stability operations in addition to traditional warfighting requirements. We are also diversifying our capabilities in order to mitigate greater risk against irregular, catastrophic, and disruptive challenges that we face today and for the foreseeable future. (See Figure 4).

# Strategic Environment

---

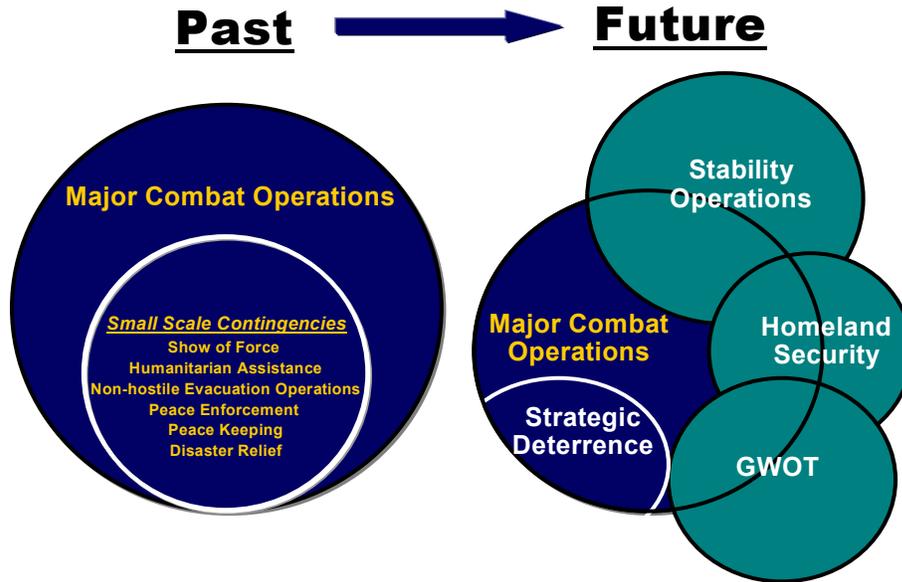


Figure 4

In meeting today's challenges, we must improve the strategic speed necessary to move significant, joint combat power anywhere around the globe. U.S. military force must be immediately employable *and* rapidly deployable, seizing and maintaining the initiative in any fight, anywhere.

Second, we must continue to develop "precision." As precision weaponry becomes commonplace throughout the joint force, we must develop concepts of operation and doctrine to maximize these powerful capabilities.

Third, we must establish an "unblinking eye" above and throughout the battlespace. Technological leaps in miniaturization have begun to make possible an increasing array of unmanned sensors along with the communications networks and command and control (C<sup>2</sup>) capacity to yield pervasive awareness of the battlespace.

We must also continue to develop to the fullest measure of joint interdependence. We are more effective as a fighting force and more efficient with taxpayer dollars when service missions and doctrine are designed from the start to be fully integrated.

**Attributes of Tomorrow's Success:** In short, speed and agility are the attributes that will define our operational success. But, the importance of these qualities extends beyond operations

to the very foundations of our institution. This is true regardless of whether we're talking about our personnel system, the size and adaptability of our technological and industrial bases, the design and function of our supporting infrastructure, or the financial planning necessary to put combat power to sea. Speed and agility define our operational response but also need to characterize our acquisition process. We must continue to find new and better ways to develop and field our emerging technologies, and the cycle in which this occurs needs to be measured in months not years.

The drive to increase our speed and agility means increasing the operational availability of our forces. We will do so by continuing to refine and test the Fleet Response Plan and its associated training and maintenance processes. It means studying our base structure to ensure that we are in a position to win. And it means that we have to do what we can to lighten the load of joint forces going ashore and reduce our ground footprint. To that end, we must more fully develop the operational concepts and tools required for the delivery of precision, sea-based fires and logistics to support forces ashore.

**The Maritime Domain:** The increasing dependence of our world on the seas, coupled with growing uncertainty of any nation's ability to ensure access in a future conflict will continue to drive the need for naval forces and decisive joint capability. Additionally, increased emphasis on the littorals and the global nature of the terrorist threat will demand the ability to strike where and when required and the maritime domain will serve as a key enabler for U.S. military force.

We will continue to refine our operational concepts and appropriate technology investments to deliver the kind of dominant military power from the sea envisioned in *Sea Power 21*. We will also continue to pursue the operational concepts for sea basing persistent combat power. As part of that effort, we will work to expand our combat logistics force capacity, and we will build a Maritime Pre-positioning Force (MPF) with higher-capability alternatives to support sea basing a greater proportion of USMC tactical aviation, other supporting fires and logistics.

We will invest in technology and systems to enable a moderate number of naval vessels to fight above their weight, delivering decisive, effects-based combat power in every tactical and operational dimension. We will pursue network-based, cross-platform systems for fusing sensor information and for supporting multi-static processing of sensor signals delivered in large part by sea-based, unmanned tactical surveillance

systems. Our network-based command and decision systems will permit tactical commanders to view an integrated battlespace picture that supports time-critical, precise, accurate tactical actions. We will also pursue an offensive information operations capability on naval ships, aircraft, and weapons.

We will also invest in technology and systems to enhance the survivability of the joint force against anti-access threats and threats in the densely packed littoral environment. These include hard-kill defense systems (including directed energy weapons) that are effective against anti-ship missiles, small high-speed surface craft, and torpedoes. They also include disabling ("non-lethal") systems that can neutralize close-in ambiguous threats; radars and sonars that achieve higher performance without higher power; precise, retargetable, sea-based strike weapons with significant "loiter on station" capability for close fire support; over-the-horizon surface-to-air missiles and the sensor network to target them; and higher-performance organic mine countermeasure systems, including systems for very shallow water.

**Total Force Endstrength:** Changes in our operational concepts and our investments in technology will require us to recruit, train and retain a warrior force that is more educated and technically savvy. Smart ship technologies embedded in future-design ship classes, capital-for-labor substitutions for performing manpower-intensive tasks, and condition-based maintenance with systems that identify when maintenance is required will all fundamentally change the nature of the work that we do. And because the nature of the work will change, we will need to reassess and modify the fundamental elements of our personnel structure to maximize the benefits of that change.

Technology, innovation, and outsourcing are changing the endstrength requirements for our Navy. Technology continues to change the nature of work and allows us to optimize the number of personnel that once performed more manpower intensive tasks. Innovative manning methods such as Optimal Manning and Sea Swap also offer enormous potential and we will continue our experimentation. Outsourcing non-warfighting functions and civilian conversions also reduce endstrength requirements.

We therefore seek to reduce our Navy endstrength to 352,700 active Sailors by the end of FY 06 as seen in Figure 5.

## Active Duty Glideslope

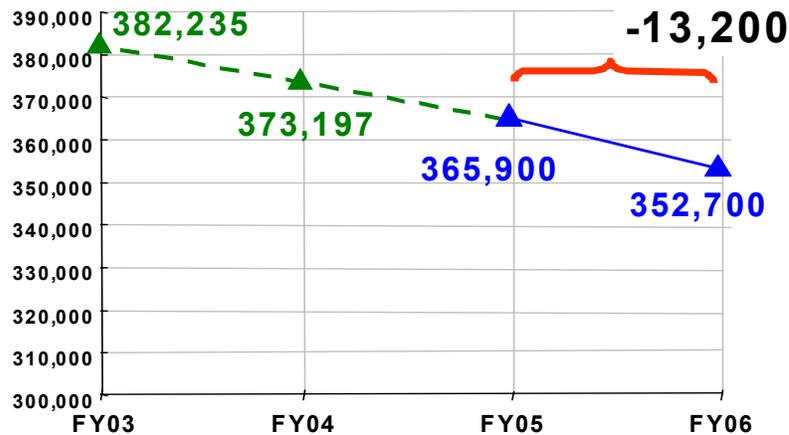


Figure 5

We have already used existing authorities and our Perform-to-Serve program to preserve the specialties, skill sets and expertise needed to continue the proper shaping of the force. To date, more than 4,000 Sailors have been steered to undermanned ratings, and more than 42,000 have been approved for in-rate reenlistment since the program began. Our Perform-to-Serve and early release programs are part of a deliberate, controlled, and responsible strategy to become a more experienced, better trained, but smaller force.

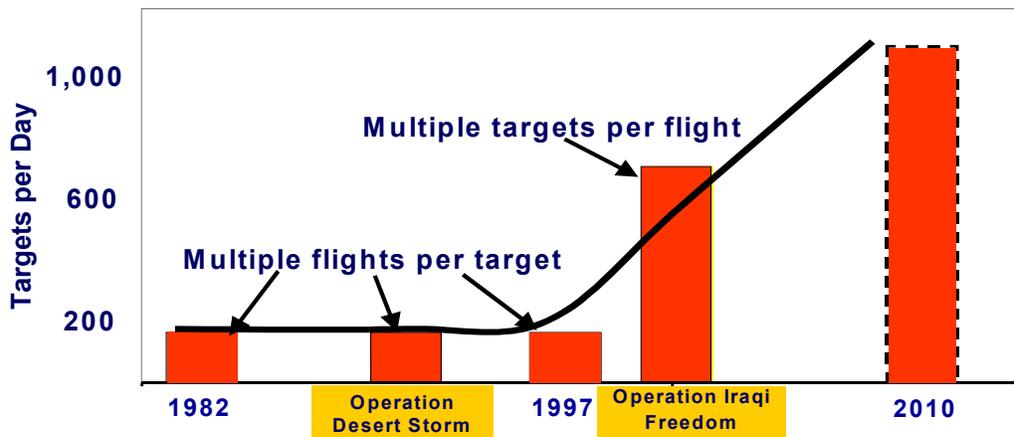
The National Security Personnel System (NSPS) provides an additional opportunity to increase our organizational speed and agility by improving the way we hire, assign and compensate our civilian employees. NSPS will make us more effective, while preserving employee protections and benefits as well as the core values of the civil service.

**Force Capabilities:** As we evolve advanced concepts for employment of forces, we will also refine analyses and requirements, to include the appropriate number of ships, aircraft, and submarines. As discussed above, I believe that the wave of transformation now washing over our armed forces is essentially about developing the means for pervasive awareness of the battlespace, and for exploiting that knowledge with rapid and precise firepower to achieve desired strategic effects. We're going to carry that revolution forward into all mission areas, from supporting Marines ashore in Distributed Operations, to Anti-Submarine Warfare and Missile Defense.

In a sensor-rich construct, the numbers of platforms are no longer a meaningful measure of combat capability. And just as the number of people is no longer the primary yardstick by which

we measure the strength or productivity of an organization in an age of increasing capital-for-labor substitutions, the number of ships is no longer adequate to gauge the health or combat capability of the Navy. The capabilities posture of the Fleet is what is most important. In fact, your Navy can deliver much more combat power, more quickly now than we could twenty years ago when we had twice as many ships and half again as many people. See Figure 6, for example, on the effects of technology and new operational concepts on the capabilities of the Fleet.

## CARRIER AIRWING AIMPOINTS PER DAY



### Improved Technology and its Effect on Operations: Multiplying Firepower

**Figure 6**  
**Shipbuilding and Design:** In addition to new concepts of operation and the technology that supports them, we are thinking anew about shipbuilding and design. For the first time in decades, we are building entirely new types of ships in FY06 and beyond; the modular nature of these ships will give us flexibility and adaptability to fight in diverse environments against a variety of possible enemies. It also allows us to dramatically expand their growth potential with less technical and fiscal risk.

What all of this means is that we are investing in the right *capabilities* for the future, not just the platforms that carry them. Further, I believe that the current low rate of ship construction and the resultant escalation of platform cost will constrain the future size of the Fleet. As I have previously testified, I don't believe that it's all about numbers; numbers have a quality all their own, there's no question about that. But, it is more important that we buy the right kinds of capabilities in the ships that we're procuring in the future,

and that we properly posture our force to provide the speed and agility for seizing and retaining the initiative in any fight.

The ultimate requirement for shipbuilding, however, will be shaped by the potential of emerging technologies, the amount of forward basing, and innovative manning concepts such as Sea Swap. Additional variables range from operational availability and force posture to survivability and war plan timelines.

The notional diagram below (Figure 7) illustrates how manning concepts and anticipated technological adaptation will modify the number of ships required. The blue and yellow lines represent levels of combat capability and the ships required to achieve that capability. For example, the left side of the diagram shows our current number of ships (290) and the current *projection* of ships required to fully meet Global War on Terror requirements (375) in the future. The right side of the diagram shows a projection that provides the same combat capability but fully leverages technological advances with maximum use of Sea Swap. It is a range of numbers because the degree of technological adaptation is a variable, as is the degree to which we can implement Sea Swap. The middle portion of the curve (in the red ellipse) shows a projected range that assumes a less extensive projection of technological adaptation and use of Sea swap. Although simplified, this diagram shows how the application of transformational new technologies coupled with new manning concepts will enable us to attain the desired future combat capability with a force posture between **260 and 325 ships**.

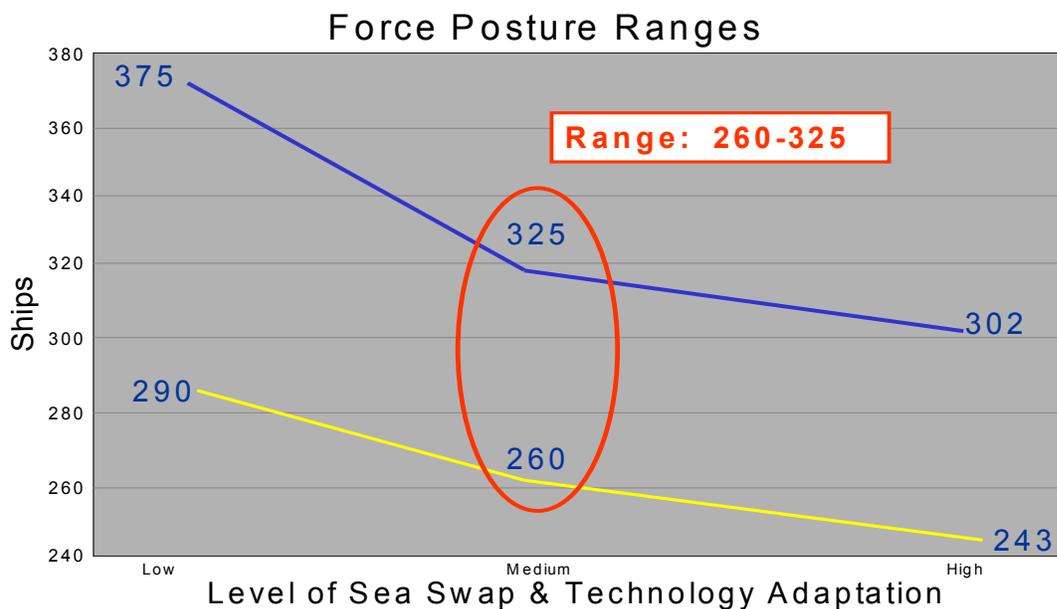


Figure 7

**Shipbuilding Priorities:** Our shipbuilding priorities and my testimony to Congress on that subject over the last five years have been consistent. My themes have been and remain:

- The ship procurement rate -- dating back to the procurement holiday of the 1990s -- was insufficient to sustain long-term needs;
- We seek a level-loaded shipbuilding investment stream;
- We need to partner with you and with industry to regain our buying power. Acquisition and budgeting reforms, such as multi-year procurement, Economic Order Quantity, and other approaches help to stabilize the production path, and in our view, reduce per unit cost of ships and increase the shipbuilding rate.

In no other area of our Armed Forces do we make such large capital investments that, in turn, impact important technological and industrial sectors of our economy. In making these investments, we would appreciate legislative relief with more flexible funding mechanisms to support shipbuilding -- such as funding CVN21 and LHA(R) over two years -- as we fight a global war while transforming to meet the demands of the changed strategic landscape. Our investments are influenced by:

**Cost of War.** The shift in the strategic landscape occurs as we cope with the fiscal realities of funding current operations. Of note, the Navy absorbed \$1.5B in corporate bills for Cost of War items not funded by FY04 GWOT Supplemental. To meet this obligation, \$200M was charged to my Working Capital Fund, \$600M was charged to O&M funds (including \$135M from CNI infrastructure), and \$687M was charged to our investment funds to fund force protection, equipment and personnel costs.

**Shipbuilding cost growth.** Among the greatest risks we face is the spiraling cost of procurement for modern military systems, and shipbuilding is no exception. When adjusted for inflation, for example, the real cost increase in every class of ship that we have bought since I was an Ensign, United States Navy, has been truly incredible.

# Shipbuilding Cost Growth

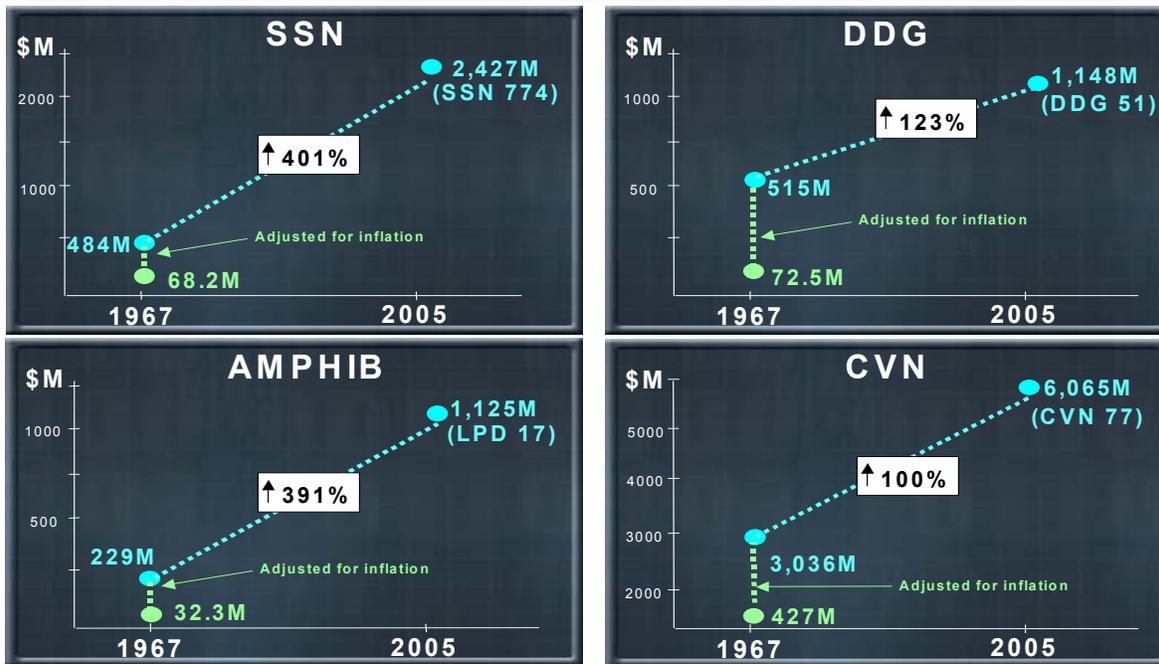


Figure 8

It becomes more so when taken in comparison to other capital goods like automobiles, where the inflation-adjusted cost growth has been relatively flat over the same period of time. Shipbuilding cost increases have grown beyond our ability to control as compared to decades prior. As we seek greater combat capability and greater operational efficiencies through upgraded power, propulsion, and computing technologies, we find a ratio of cost growth beyond our seeming control, which may not be fully explainable solely by reduced economies of scale. See Figure 8.

**The total costs of manpower have increased significantly** since I have been CNO. Those costs are having an impact, not only on our ability to maximize the talents of our people, but also on the investments needed to transform our combat capability for the future. We have kept faith with those who serve by advocating better pay and benefits, and we have also kept faith with the taxpayers who expect that the Navy they have bought and paid for is ready when you call upon us. Having said that, the combat power of your Navy is not defined by the number of Sailors in the ranks. We are therefore taking steps to redefine our approach to human capital and to our operational concepts. Once again, I ask you to approve a force with reductions in personnel endstrength.

### III: Our FY06 Budget Request

This past year our Navy's budget request continued our effort to sustain our current readiness gains, shape the twenty-first century workforce, and invest in our transformational Sea Power 21 vision while harvesting the efficiencies needed to fund and support these three critical priorities. The current strategic environment demands balanced funding between current operations and future investments, and the FY06 budget meets this balance in funding.

This year we intend to:

- **Continue to deliver the right readiness at the right cost to fight the Global War on Terrorism** and support the nation's war fighting needs;
- **Accelerate development of our Human Capital Strategy** that delivers the right skills, at the right time, for the right work, unleashing the power of our people;
- **Maximize our investment in Sea Power 21 capabilities to transform** our force and the joint warfighting team.
- At the same time, we will continue to **pursue the Sea Enterprise improvements that make us a more effective Navy in both FY06 and beyond.**

As our budget is finalized in the coming months, there will be a number of fiscal issues and processes that will have an impact, specifically: the cost of war in Iraq, Base Realignment and Closure decisions, and the findings of the Quadrennial Defense Review. With that in mind, our Navy budget request for FY06 and the future includes:

- Four (4) new construction ships in FY06:
  - o One (1) SSN 774
  - o One (1) Littoral Combat Ship
  - o One (1) T-AKE
  - o One (1) LPD-17

The investment plan across the future year's defense program (FYDP) calls for 49 new construction ships, including DD(X), LHA(R) Flight 0, MPF(F), CVN-21, and SSN 774s. While our build rate dips to four ships in this budget year, this is a reflection of a shift in focus to the next generation surface combatants and sea basing capabilities.

- Procurement of 138 new aircraft in FY06, including the first four EA-18G aircraft and three Firescout unmanned aerial vehicles (UAVs). The budget continues to maximize return on procurement dollars, primarily through the use of multi-year procurement (MYP) for the F/A-18E/F and EA-18G, the E-2C, the MH-60S and the KC-130J programs. We have also made research and development investments in the Joint Strike Fighter (JSF) and the broad area anti-submarine, anti-surface, maritime and littoral intelligence, surveillance and reconnaissance (ISR) capable Multi-mission Maritime Aircraft (MMA).
- Investment in transformational unmanned underwater vehicles (UUV) like the Mission Reconfigurable UUV System, and unmanned aviation vehicles (UAV) such as the Broad Area Maritime Surveillance UAV and the Joint Unmanned Combat Air System. The budget also requests funding for experimental hull forms like the X-Craft, and other advanced technologies including the Joint Aerial Common Sensor (JACS).
- A 3.1 percent basic pay raise for our Sailors, a 2.3 percent pay raise for our civilian workforce, and investment in housing and Public-Private Ventures that will help eliminate inadequate barracks and family housing by FY07 and enable us to house shipboard Sailors ashore when their vessel is in homeport by FY08;
- Readiness investment that supports the Fleet Response Plan, including sustained funding for ship and aircraft operations, aviation depot maintenance, and precision guided munitions. This includes improvements in ship maintenance and training scheduling to maximize surge capabilities.

**A. Continuing to deliver the right readiness at the right cost to fight the Global War on Terrorism**

Getting to the fight faster to seize and retain the initiative means that a key word in our future is "surge." If a resource doesn't have surge capability, we are not going to own it. Every part of the Fleet will be organized around this surge operational concept and its associated training, maintenance, and logistics processes. We must understand and adapt our warfare doctrine, supporting procedures, training, and schedules to take best advantage of FRP and other emerging operational constructs. And we must also determine, accurately articulate, and continuously validate our readiness requirements. Taking prudent risks and attacking cost will permit us to fund essential requirements, optimizing the operational impact of today's Navy while creating a future Navy that capitalizes upon and can rapidly field new technology.

- **Ship Operations and Flying Hours** requests funds for ship operations OPTEMPO of 51 days per quarter for our deployed forces and 24 days per quarter for our non-deployed forces. We have properly funded the flying hour account to support the appropriate levels of readiness and longer employability requirements of the FRP. This level of steaming and flying hours will enable our ships and air wings to achieve the required readiness over the longer periods defined by the Fleet Response Plan, and as a result, it will improve our ability to surge in crisis and sustain readiness during deployment.

- **Ship and Aviation Maintenance.** We have made significant improvements these last few years by reducing major ship depot maintenance backlogs and aircraft depot-level repair back orders; improving aircraft engine spares; adding ship depot availabilities; ramping up ordnance and spare parts production; maintaining steady "mission capable" rates in deployed aircraft; fully funding aviation initial outfitting; and investing in reliability improvements. Our FY06 request continues the improved availability of non-deployed aircraft and meets our 100 percent deployed airframe goals. Our ship maintenance request continues to "buy-down" the annual deferred maintenance backlog and sustains our overall ship maintenance requirement. We are making great strides in improving the visibility and cost-effectiveness of our ship depot maintenance program, reducing the number of changes in work package planning and using our continuous maintenance practices when changes must be made.

- **Shore Installations.** Our Facilities Sustainment, Restoration and Modernization (SRM) program remains focused on improving readiness and quality of service for our Sailors. Our FY06 Military Construction and Sustainment program reflects difficult but necessary tradeoffs between shore infrastructure and fleet recapitalization. Facilities sustainment is 95 percent in FY06, the same as in FY05. Our budget request keeps us on a course to achieve the DoN goals to eliminate inadequate family and bachelor housing by FY07 and provide Homeport Ashore Bachelor Housing by FY08. We are exploring innovative solutions to provide safe, efficient installations for our service members, including design-build improvements, and BRAC land sales via the GSA Internet. Additionally, with the establishment of Navy Installations Command, we have improved our capability to manage our dispersed facility operations, conserve valuable resources, establish enterprise-wide standards and continue to improve our facility infrastructure.

- **Precision Guided Munitions** receive continued investment in our FY06 request with emphasis on the Joint

Stand-Off Weapon (JSOW), Joint Direct Attack Munition (JDAM), Tactical Tomahawk (TACTOM), and Laser-Guided Bomb (LGB) inventory levels. Joint partnerships with the Air Force and Army in several of our munitions programs continue to help us optimize both our inventories and precious research and development investments and will remain a focus for us in the future.

- **Training Readiness.** We continue to make significant strides in this critical area. In FY04, the Congress supported two important programs to advance our training readiness. First, you endorsed the Training Resource Strategy (TRS), to provide more complex threat scenarios and to improve the overall realism and value of our training. Additionally, you funded the Tactical Training Theater Assessment and Planning Program to provide for a comprehensive training range sustainment plan. Our FY06 budget continues this work. We are working to make the Joint National Training Capability a reality. We have established a single office to direct policy and management oversight for all Navy ranges as well as serve as the resource sponsor for all training ranges, target development and procurement, and the Navy portion of the Major Range Test Facility Base (MRTFB).

- **Environmental Readiness.** I would like to highlight our gratitude to you in the Congress for the amendments to the Endangered Species Act (ESA), the Marine Mammal Protection Act (MMPA) and the Migratory Bird Treaty Act (MBTA) enacted in the 2003 and 2004 NDAA. These amendments made favorable changes that have improved our Navy's performance in both environmental stewardship and Fleet training operations. Clarifying our current and future responsibilities and providing assurances that these standards will remain constant is helping us to plan and resource for stable, long-term programs that will benefit both fleet readiness and the land and life that abounds on and around our ranges.

## **B. Accelerating Development of our Human Capital Strategy**

When I testified before your committee last year, I said that we would take the opportunity afforded by success in recruiting, retention and attrition to begin the hard work of fundamentally restructuring our personnel system to compete for talent in the twenty-first century marketplace. Your support has been instrumental in getting to this point. The improvements and pilots that Congress has supported -- including bonuses, pay table adjustments, retirement reforms, better medical benefits,

and our Sea Warrior initiatives -- are having the desired impact.

We also continue to challenge all assumptions when it comes to determining manning strategies. The Fleet is implementing best practices from last year's Optimal Manning experiments to find the right mix of talent for pilot programs in USS NIMITZ and Carrier Air Wing ELEVEN. We've begun a new pilot program in USS DECATUR designed to allow Chief Petty Officers to fill the majority of Division Officer billets. And we are continuing our Sea Swap experiments with USS GONZALEZ, LABOON, and STOUT crews, even as we examine results from previous DD/DDG experiments to determine this concept's applicability to other ship classes.

Inherent to our new Human Capital Strategy will be the pursuit of new technologies and competitive personnel policies that will streamline combat and non-combat personnel positions, improve the integration of active and reserve missions, and reduce the Navy's total manpower structure. We will change our processes to eliminate "make-work," and use available technology to do away with work that is unfulfilling. We're going to change policies and organizational structures -- like non-rated billets -- that inhibit the growth and development of our people. And we're going to build future ships and aircraft to maximize human performance while inspiring great leaps in human possibilities.

Our FY06 budget request includes the following tools we need to enhance mission accomplishment and professional growth:

- ***Selective Reenlistment Bonus (SRB)***. Targeted bonuses such as SRB are critical to our ability to compete for our highly trained and talented workforce both within the Navy and with employers across the nation as well. Proper funding, adequate room for growth and the flexible authorities needed to target the right skills against the right market forces are important to the shape of the workforce. This program specifically targets retention bonuses against the most critical skills we need for our future. We ask for your continued support and full funding of this program.
- ***Perform to Serve (PTS)***. Two years ago, we introduced PTS to align our Navy personnel inventory and skill sets through a centrally managed reenlistment program and instill competition in the retention process. The pilot program has proven so successful in steering Sailors in overmanned ratings into skill areas where they are most needed that the program has been expanded. More than 46,000 Sailors have been steered to undermanned ratings and approved for in-rate reenlistment since the program began in 2003 and we will continue this effort in 2006.

- **Assignment Incentive Pay (AIP)** is a financial incentive designed to attract qualified Sailors to a select group of difficult to fill duty stations. AIP allows Sailors to bid for additional monetary compensation in return for service in these locations. An integral part of our *Sea Warrior* effort, AIP will **enhance combat readiness by permitting market forces to efficiently distribute Sailors** where they are most needed. Since the pilot program began in 2003, more than 9,000 AIP bids have been processed resulting in nearly 3,000 Sailors receiving bonuses for duty in these demanding billets. We ask for continued support of this initiative.

## SEA WARRIOR

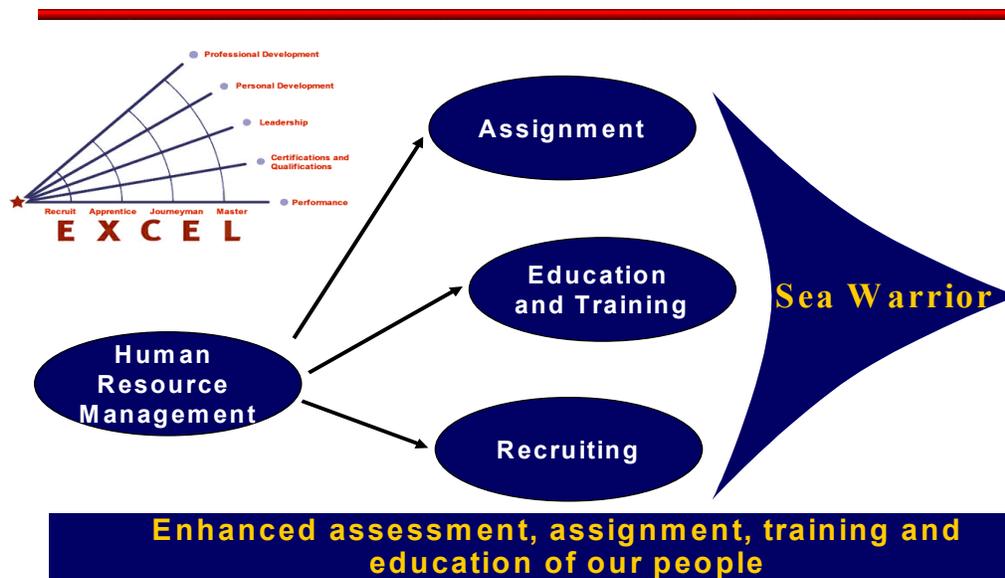


Figure 9

- **Professional Military Education (PME)**. Full implementation of the relevant provisions of the FY05 National Defense Authorization Act (NDAA) is a significant step forward for Joint PME, and has my full support. This year, we plan to take several actions that can ensure that our professional military education programs continue to foster and build upon the confidence we currently experience in our joint warfighting capabilities.

First, JPME should focus more sharply on the interagency aspect of military operations. Given the necessity of interagency planning and decision-making in the execution of the Global War on Terrorism, we should examine this area closely for possible introduction to the JPME requirement.

Additionally, we need to prepare more officers to be joint operational planners. These officers must be ready to plan and execute new joint operational concepts in both headquarters staffs and joint task forces. We also need to better identify the knowledge and skill sets required for specific joint duty assignments, and then provide learning opportunities that target these requirements via multiple delivery methods. This effort should capitalize on reusable content and joint standards at all of our service colleges as well as training within the Combatant Commands.

In view of the foregoing, JPME is clearly relevant to the Navy's development of a Human Capital Strategy. In fact, JPME must be a central element of that strategy if we are to be successful in creating a better trained, better educated and better compensated, but smaller workforce in the future. In this regard, we are moving forward with efforts to exploit the Naval War College's web-enabled, non-resident program to create new delivery mechanisms for PME across the total force. That includes not just active and reserve forces, but our civilian workforce as well. The Defense Leadership and Management Program (DLAMP) is an important tool that complements DoN efforts in this area, and I support DLAMP initiatives to better incorporate senior civilians from DoD and other federal agencies in PME programs. Lastly, I believe we can improve the trust and confidence of officers in coalition forces by focusing on the issue of participation by international officers in our JPME programs and by U.S. students at foreign war colleges.

- The ***Integrated Learning Environment (ILE)*** is the heart of our Revolution in Training. ILE is a family of systems that, when linked, will provide our Sailors with the ability to develop their own learning plans, diagnose their strengths and weaknesses, and tailor their education to support both personal and professional growth. They will manage their career requirements, training and education records. It will match content to career requirements so training is delivered at the right time. Most importantly, these services will be provided anytime, anywhere via the Internet and the Navy-Marine Corps Intranet (NMCI).

### **C. Maximizing Our Investment in Sea Power 21**

As I have previously testified, *Sea Power 21* defines the capabilities and processes that the twenty-first century Navy will deliver. Bridging to the future described in that vision requires innovation, experimentation, and rapid technology insertion resulting in mid- and long-term war fighting

improvements. Speed, agility and a commitment to joint and coalition interoperability are core attributes of this evolving Navy. Further analyzing, understanding, and applying prudent risk to capability and program decisions are essential to achieving future war fighting wholeness.

This year, we will further maximize our investment in Sea Power 21 capabilities, pursuing distributed and networked solutions, focusing on the power of Sea Basing and our complementary capability and alignment with our number one joint partner, the U.S. Marine Corps.

**Sea Basing** is the projection of operational independence. Our future investments will exploit the largest maneuver areas on the face of the earth: the sea. Sea Basing serves as the foundation from which offensive and defensive fires are projected -- making Sea Strike and Sea Shield a reality. Sea Basing capabilities include: Joint Command and Control, Afloat Power Projection and Integrated Joint Logistics. Our intent is to maximize our sea basing capability and minimize as much as possible our reliance on shore-based support nodes. To do this, we will make doctrinal, organizational and operational changes mandated by this concept and by the underlying technology that makes it possible. We have an opportunity here, along with the U.S. Marine Corps and the U.S. Army, to reexamine some of the fundamentals of not only how we move and stage ground forces, but how we fight ashore as well.

## SEA BASING



Figure 10

Our highest priority Sea Basing investments include:

- Surface Combatant Family of Ships. As I've already testified, the power of joint forces in OIF was in the synergy of individual service strengths. The same concept holds true within the Navy itself. We seek the synergy of networks, sensors, weapons and platforms that will make the joint force greater in combat power than the sum of the individual parts. Development of the next generation of surface combatants as "sea frames" -- analogous to "air frames" -- that are part of a modular system is just such an endeavor.

The *surface combatant family of ships* allows us to dramatically expand the growth potential of our surface combatants with less technical and fiscal risk. To bring these concepts to life and to take them -- and the fight -- to the enemy, we have decided upon three entirely new ship classes. The first to premier will be the Littoral Combat Ship (LCS) in 2007. The advanced guided missile and strike destroyer (DD(X)) will follow in about 2011. And just a few years after the first DD(X), the keel will be laid on the first CG(X), the next class of cruiser designed from the keel up for theater air and ballistic missile defense.

Our research and development efforts and experimentation with high speed and theater support vessels like HSV SWIFT and the X-Craft are helping us reduce our technical risk and apply important lessons in hull design and mission modularity to the development of the surface combatant family of ships. DD(X) is the heart of the family and will spiral promising technologies to both CG(X) and LCS in the future. I will discuss each one of these ships in more detail below.

- CVN 21 is the centerpiece of the Navy Carrier Strike Group of the future. It will bring transformational capabilities to the fleet, including a new electrical generation and distribution system, the electro-magnetic aircraft launching system (EMALS), a new/enlarged flight deck, weapons and material handling improvements, and a crew reduction of at least 800 personnel. It will be able to generate higher daily and sustained sortie rates than our NIMITZ-class aircraft carriers. Our FY06 request of \$873M in SCN and R&D funding continues the development of CVN 21 and several critical technologies in the lead ship, including the EMALS prototype and testing already ongoing in Lakehurst, New Jersey. Construction of the CVN 21 will start in FY08 with delivery in FY15.

- MPF(F). These future Maritime Pre-positioning Ships will serve a broader operational function than current pre-positioned ships, creating greatly expanded operational flexibility and

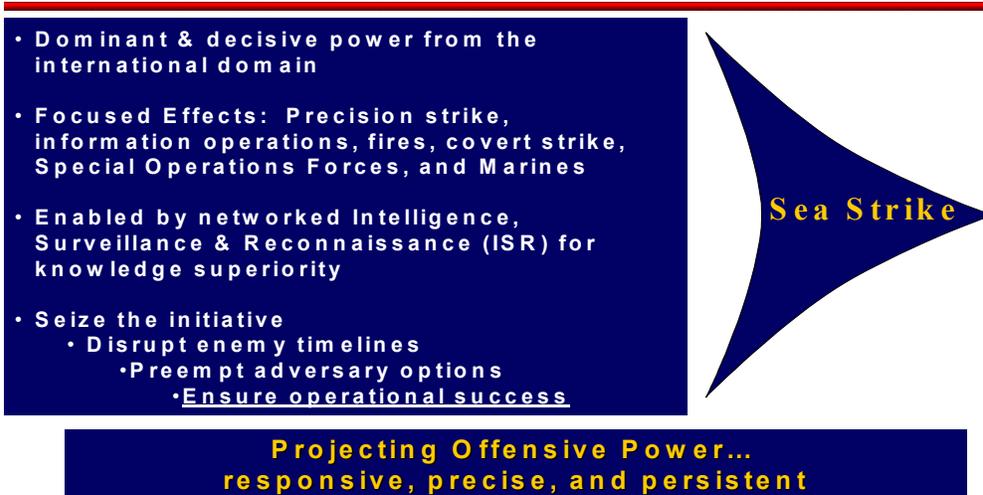
effectiveness. We envision a force that will enhance the responsiveness of the joint team by the at-sea assembly of a Marine Expeditionary Brigade that arrives by high-speed airlift or sealift from the United States or forward operating locations or bases. These ships will off-load forces, weapons and supplies selectively while remaining far over the horizon, and they will reconstitute ground maneuver forces aboard ship after completing assaults deep inland. They will sustain in-theater logistics, communications and medical capabilities for the joint force for extended periods as well. Our FY06 request of \$66M in research and development reflects our emphasis on Sea Basing capabilities.

- CG Modernization. The CG Modernization program was restructured in FY06 in accordance with congressional direction. Under the restructured plan, the older Baseline 2 and 3 ships will be modernized first. The Cruiser Modernization Program is a mid-life upgrade for our existing AEGIS cruisers that will ensure modern, relevant combat capability well into this century and against evolving threats. These warships will provide enhanced area air defense to the joint force commander. These modifications include installations of the Cooperative Engagement Capability, which enhances and leverages the air defense capability of these ships, and an ASW improvement package. These converted cruisers could also be available for integration into ballistic missile defense missions when that capability matures. Our first cruiser modernization begins in FY08.

- DDG-51 Modernization. The DDG-51 class guided missile destroyer program has been an unqualified success. We believe these ships will continue to be a "workhorse" of the Fleet for the foreseeable future, with 62 hulls eventually planned. But the first ships of this class are already approaching mid-life. Keeping these ships in fighting shape will mean making the appropriate investment in their engineering plants and updating their combat system to pace new threats in the next two decades. It is also important that we continue to apply new technologies to the ARLEIGH BURKES that will permit reductions in crew size, so that the Navy's manpower footprint continues to decrease. Funding for DDG modernization begins in FY06, and the program will commence with the completion of the last new construction DDGs of the ARLEIGH BURKE class in FY10.

**Sea Strike** is the projection of precise and persistent offensive power.

# SEA STRIKE



**Figure 11**

The core capabilities include Sensitive Strike; Intelligence, Surveillance and Reconnaissance; Ship to Objective Maneuver; and Electronic Warfare and Information Operations. We are already investing in impressive programs that will provide the capabilities necessary to support Sea Strike; these include the following FY06 priorities:

- DD(X). The technology engine for the Fleet and the bridge to CG(X), DD(X) is the centerpiece of a surface combatant family of ships and will deliver a broad range of capabilities. This advanced multi-mission destroyer will bring revolutionary improvements to precise, time-critical strike and joint fires and our Expeditionary and Carrier Strike Groups of the future.

Transformational and leap ahead technologies include an electric drive and integrated power system; an Advanced Gun System with the high rate of fire and precision to reach almost eight times farther and command more than 110 times the area of our current five inch capability; the new Multi-Function Radar/Volume Search Radar suite; optimal manning through advanced system automation, stealth through reduced acoustic, magnetic, IR, and radar cross-section signature; and enhanced survivability through automated damage control and fire protection systems. DD(X) is an enabler both technically and operationally. This seaframe will also reduce our seagoing manpower requirements and will lower total ownership costs.

This program will provide a baseline for spiral development of technology and engineering to support a range of future seaframes such as CG(X), LHA(R) and CVN-21; the new Multi-Function Radar/Volume Search Radar suite is currently operational at our Wallops Island site and is delivering

impressive results. It will also enable the transformation of our operations ashore as on-demand, persistent, time-critical strike revolutionizes our joint fire support and ground maneuver concepts of operation and frees our strike fighter aircraft for more difficult targets at greater ranges. DD(X)'s all-electric drive, called the Integrated Power System (IPS), will not only drive the ship through the water, but will also generate the kind of power capacity that will enable eventual replacement of the Advanced Gun System (AGS). When combined with the physical capacity and volume of the hull form, DD(X) could lead us to revolutionary technologies from the naval research enterprise like the electromagnetic rail gun and directed energy weapons. The fact that rail guns do not require any explosives will free up magazine space for other mission areas and enhance survivability. DD(X) will be in service for decades after that; having the kind of growth potential to install those kinds of technologies dramatically lowers our future development costs.

The funding profile for DD(X) supports the 14,000-ton design and the S-Band Volume Search Radar (VSR). Lead ship construction starts in FY07.

- JSF. The Joint Strike Fighter will enhance our Navy precision with unprecedented stealth and range as part of the family of tri-service, next-generation strike aircraft. It will maximize commonality and technological superiority while minimizing life cycle cost. The JSF remains vital to our future. It will give us the range, persistence and survivability needed to keep our strike fighters viable for years to come.
- VIRGINIA-class submarine (SSN-774). The first ship of this class was commissioned this year. This class will replace LOS ANGELES-class (SSN-688) attack submarines and will incorporate new capabilities, including unmanned vehicles, and the ability to support Special Warfare forces. It will be an integral part of the joint, networked, dispersed twenty-first century Fleet. Our FY04 budget funded the first of five submarines under the multi-year procurement (MYP) contract authorized by Congress. The second submarine of the MYP contract was funded in FY05. Approximately \$100M in economic order quantity advance procurement is funded in FY06 in support of this contract.
- SSGN. Funding is included in FY06 to continue the SSGN conversion program. Our future SSGN capability will provide covert conventional strike platforms capable of carrying 154 Tomahawk missiles. The SSGN will also have the capacity and capability to support Special Operations Forces for an extended period, providing clandestine insertion and retrieval by lockout chamber, dry deck shelters or the Advanced Seal Delivery System,

and they will be arrayed with a variety of unmanned vehicles to enhance the joint force commander's knowledge of the battlespace. The inherently large capacity of these hulls will enable us to leverage future payloads and sensors for years to come. We still expect our first SSGN to be operational in 2007.

- EA-18G. Using the demonstrated growth capacity of the F/A-18E/F, the EA-18G will quickly recapitalize our Electronic Attack capability at lower procurement cost, with significant savings in operating and support costs; all while providing the growth potential for future electronic warfare (EW) system improvements. It will use the Improved Capability Three (ICAP III) receiver suite and provide selective reactive jamming capability to the war fighter. This will both improve the lethality of the air wing and enhance the commonality of aircraft on the carrier deck. We begin purchasing airframes in FY06 and will achieve initial operating capability in 2009.

**Sea Shield** is the projection of layered, global defensive power. Sea Shield will enhance deterrence and war fighting power by way of real-time integration with joint and coalition forces, high speed littoral attack platforms setting and exploiting widely distributed sensors, and the direct projection of defensive power in the littoral and deep inland.

## SEA SHIELD



Figure 12

Sea Shield capabilities include: Homeland Defense, Sea and Littoral Control, and Theater Air and Missile Defense. Our highest priority Sea Shield programs this year include:

Mine Warfare Programs. We intend to field a set of unmanned, modular Mine Counter-Measure (MCM) systems employable from a variety of host platforms to minimize our risk from mines and

sustain our national economic and military access to every corner of the globe. Our future MCM capability will be faster, more precise and organic to both Expeditionary and Carrier Strike Groups and will ultimately remove both the man and our mammals from the minefield. Within the FYDP, we expect to reduce the time that it takes to render sea mining ineffective by at least half of the time that it takes us today. Our FY06 budget request includes \$943M in funding to maintain and upgrade our existing forces (MCM-1 class ships, MH-53E helicopters) as well as funding to field advanced technologies necessary to transform MCM capability. We have also requested \$6.78B across the FYDP for mine warfare programs, to include unmanned vehicles such as the Mission Reconfigurable Unmanned Underwater Vehicle (MRUUV) which, when fielded, will provide a clandestine mine reconnaissance capability from our LOS ANGELES-class submarines, and the Remote Minehunting System on ARLEIGH BURKE-class destroyers. Both of these programs will reach Initial Operating Capability (IOC) within the FYDP. Future introduction of the Littoral Combat Ship (LCS) with mine warfare mission modules will improve the ability of Strike Groups to neutralize mine threats in parallel with -- not in sequence before -- other operations.

- Littoral Combat Ship (LCS). The role of LCS is to provide access to joint forces in the littorals; a capability gap we identified as a result of the 2001 Quadrennial Defense Review. During the past few years, considerable campaign analysis and fleet battle experiments have demonstrated that naval forces need better ways to fight mines; small, fast, highly armed boats; and quiet diesel and advanced air-independent propulsion submarines operating in shallow waters. The performance of U.S. Navy Patrol Craft and the experimental HSV-X1 JOINT VENTURE in the Iraqi littoral was critical to the early detection and destruction of the Iraqi mine threat. The same kind of capability needs to be delivered in a fast, maneuverable, shallow-draft platform that has the survivability to operate independently. LCS will have these characteristics, along with self-defense, navigation, command-and-control systems, and reduced requirements for manpower relative to current warship design. The ship will have a top speed of 56 knots, and a crew requirement of only 76 people.

LCS will be built from the keel up to be a part of a netted and distributed force, and will be the first ship designed with FORCEnet as a requirement. The main battery of LCS will be its off-board systems: manned helicopters and unmanned aerial, surface and underwater vehicles. It is the off-board vehicles -- with both sensors and weapons -- that will enter the highest threat areas. Its modular design, built to open-systems architecture standards, provides flexibility and a means to

rapidly reconfigure mission modules and payloads. In fact, 40 percent of LCS's payload volume will be reconfigurable. As technology matures, the Navy will not have to buy a new LCS platform, but will upgrade the mission modules or the unmanned systems.

LCS also will have an advanced hull design and be significantly different from any warship that has been built for the U.S. Navy. We searched the world over for the very best systems, balancing risk with affordability and speed of construction. LCS will share a common three-dimensional radar with U.S. Coast Guard cutters. In addition, there are three other nations interested in purchasing the seaframe, while 22 more are interested in the mission modules.

Detail design and construction of the first LCS Flight 0 ship will begin in June of this year. The LCS requirements process is tailored to support the rapid delivery of two flights (Flight 0 and 1) of ships, using an evolutionary, "spiral" acquisition approach. The spiral development process allows time-phased capability improvement for ship and mission systems. The first ship of the class will be 80 percent complete when construction on the second ship begins. This incremental development and delivery strategy supports the ship's accelerated acquisition schedule, diverse threat and capability requirements, and dynamic levels of technology push/pull. The ship's modular, open design will also enable lifecycle adaptability and affordability.

- Missile Defense. Our Navy is poised to contribute significantly in fielding sea-based missile defense capabilities to meet the near-term ballistic missile threat to our homeland, our deployed forces, and our friends and allies. We are working closely under the authority of the Missile Defense Agency (MDA) to deliver this much-needed capability to the nation's Combatant Commanders. Our sea-based missile defense programs experienced an important milestone this year with the first ever deployment of an Initial Defensive Operations capability, providing long-range surveillance and tracking. Within four years, 18 warships will be fitted with this transformational ballistic missile surveillance, tracking, and engagement capability, extending the defensive reach of naval forces deep over land.

- Multi-mission Maritime Aircraft (MMA) - Broad Area Maritime Surveillance (BAMS). This year we awarded a contract to design and develop the Multi-Mission Aircraft to recapitalize our 1950's-era Lockheed "Electra"-based P-3 force. Our acquisition plan includes the integration of the Broad Area Maritime Surveillance-Unmanned Aerial Vehicle (BAMS-UAV) program into the overarching Maritime Patrol and Armed Reconnaissance

requirement. This lethal combination of manned and unmanned reconnaissance aircraft will recapitalize our maritime patrol anti-submarine warfare, anti-surface warfare and armed intelligence, surveillance and reconnaissance capability. We expect to reach Initial Operating Capability (IOC) of the MMA and BAMS UAV in 2013.

**FORCEnet** is the operational construct and architectural framework for naval warfare in the joint, information age.

## FORCEnet

---



**Persistent integration of warriors, sensors, platforms and weapons into a networked combat system**

It will allow systems, ~~Figure 13~~ and missions to be aligned in a way that will transform our situational awareness, accelerate speed of decisions and allow naval forces to greatly distribute its combat power in a unified, joint battlespace. FORCEnet provides *the standards of interoperability* for the world-class IT tools that we need to continue to be the world-class Navy.

Programs that will enable the future force to be more networked, highly adaptive, human-centric, integrated, and enhance speed of command include:

- Navy Marine Corps Intranet (NMCI). NMCI provides commercial IT services for more than 380,000 DoN employees. This initiative, as part of our FORCEnet strategy, is providing a single, secure shore-based network and will link with our tactical networks to provide end-to-end collaboration within the DoN and across the joint community. FY06 funding of \$1.6B provides for NMCI operations and, at the same time, continues transition of the remaining legacy IT networks to NMCI enterprise network services.

- Mobile User Objective System (MUOS). The MUOS Satellite Communications (SATCOM) program will increase DoD Narrowband UHF SATCOM capacity by roughly 1300 percent over current capabilities. MUOS is a \$6B joint interest program, and it supports a particularly important "Comms-on-the-Move" capability for handheld terminals, aircraft, missiles, and UAVs in urban and heavily wooded terrain. We plan to reach the Initial Operating Capability milestone in 2010, with Full Operational Capability in 2014.
- Joint Aerial Common Sensor (JACS). We have partnered with the Army in the Joint Aerial Common Sensor development program in our pursuit of a replacement for the aging EP-3 airborne information warfare and tactical signals intelligence (SIGINT) aircraft. JACS will provide multi-intelligence strike targeting data and Signals Intelligence capabilities, and will include a Synthetic Aperture Radar, Ground Moving Target Indicator, Electro-Optical and Infrared Sights, and Measurements and Signature capabilities. These will be coupled with automatic/manual data fusion. Our FY06 request includes \$134M for this program.
- Joint Tactical Radio System (JTRS). JTRS will be the wireless "last tactical mile" component of the Global Information Grid (GIG) and will transform Navy's tactical communications systems by incorporating Internet Protocol (IP) communications over multi-spectral radio frequency (RF) media. JTRS is a software programmable, multi-band, multi-mode family of net-workable radios, capable of simultaneous voice, data, video communications and mobile ad hoc networking. Our FY06 request includes \$251M for JTRS.
- Fire Scout. Our FY06 request includes \$77.6M to continue the development of the Fire Scout UAV. The Fire Scout is a Vertical Takeoff and Landing Tactical UAV (VTUAV) designed to operate from all air-capable ships, carry modular mission payloads, and operate using the Tactical Control System and Tactical Common Data Link. The Fire Scout UAV will provide day/night real time ISR and targeting as well as communication-relay and battlefield management capabilities for ASW, MIW and ASUW.
- E-2 Advanced Hawkeye. The E-2 Advanced Hawkeye (AHE) program will modernize the E-2 weapons system by replacing the current radar and other aircraft system components to improve nearly every facet of tactical air operations. The modernized weapons system will be designed to maintain open ocean capability while adding transformational littoral ocean surveillance and Theater Air Defense and Missile Defense capabilities against emerging threats in the high-clutter environment. The AHE program plans

to build 75 new aircraft with the modernized weapons system with pilot production in FY07.

**D. Continuing our efforts to become more effective and efficient in the use of taxpayer resources.**

We are well underway in our **Sea Enterprise** journey to be more effective and efficient, yet more needs to be done to generate the resources necessary to implement our *Sea Power 21* vision. We must provide incentives for innovation in the workplace, and implement tools and techniques that enable the workforce to challenge existing assumptions, eliminate unnecessary costs, and increase efficiency and effectiveness. Sharing best practices, and leveraging core competencies and continuous process improvement are essential ingredients to our success. The promise of increased effectiveness, productivity, and alignment can only be realized by extending both the extent and depth of collaboration across the enterprise.

The DoN Enterprise Resource Planning (ERP) initiative has created the framework that will enable the transformation of key acquisition, logistics, and financial business activities into an integrated network of decision-making processes. This past August the Joint Requirements Oversight Council approved the Navy ERP Operational Requirements Document (ORD) and cleared the way for the Navy to purchase ERP software and hire an integration contractor. With the FY06 budget, the Navy will continue to capitalize on demonstrated ERP technology advances in creating and disseminating decision-making information. The ERP program is expected to continue to improve integration, leverage economy-of-scale, consolidate legacy systems and software using the best business and commercial practices available and align the President's Management Agenda (PMA) within the Department. We are pursuing an acquisition strategy that will support operational test and evaluation by FY06.

Sea Enterprise efficiency/mitigation initiatives valued in excess of \$50B across the FYDP. More importantly, however, Sea Enterprise offers a genuine understanding of program costs that empowers our Research and Development, enables our program execution, and enhances the overall management of our Navy. Accordingly there is increased relevance of our cost data and no built-in cost margins built into our budget. Put simply, our budget has the most granularity and cost refinement than in any time in my tenure as CNO. This sometimes translates into savings for our government but also means that unforeseen budget cuts *directly* affect the heart of our programs and not just marginal costs.

#### **IV. Conclusion**

Our mission remains bringing the fight to our enemies. We will execute the Global War on Terror while continuing our transformation for the future. We have set in motion forces of change, beginning the journey that I believe we must undertake if we are to maintain the greatness that our 229 years of naval history has bestowed upon us. But change is demanding, difficult, and uncertain in its effects. It requires extraordinary effort, especially for a large, public institution. And it is precisely for these reasons that change must be harnessed as a positive force in our Navy.

Positive change is the bridge to our future. To get there we must also think anew about the opportunities that we have now to make our Navy even better. Tomorrow's Navy will, in many ways, be strikingly dissimilar to our Navy today. But one thing is clear: the business of the Navy will always be combat, and victory is both our mission and our heritage. None of this would be possible without the constant support of the Congress and the people of the United States of America. I would therefore like to thank you once again, on behalf of the dedicated men and women prepared to go in harm's way for our great nation, for all that you do to make the United States Navy ready today and prepared for the future.