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BEFORE THE

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21ST CENTURY SEAPOWER VISION OVERVIEW AND MARITIME IMPLICATIONS OF 21ST CENTURY THREATS

Chairwoman Snowe, distinguished members of the subcommittee, we are grateful for the opportunity to speak before you today. This afternoon, Secretary Danzig has provided an overview of our vision of Seapower in the 21st century. We would like to now address the projected threats of the 21st century as well as the Navy force structure required to counter those threats.

First, we would like to talk briefly about the so called "traditional threats". These are the mines, torpedoes, submarines and ships, aircraft and defensive systems we've seen before except they will have been modernized as emerging technology becomes available on the world arms market. Second, we will briefly underscore some of the non-traditional threats like information warfare and weapons of mass destruction (WMD) that are becoming more commonplace in the training, planning and execution of Navy-Marine Corps operations. And finally, we think it important to "put a face" on some of these threats by identifying a few of the nations that continue to import, manufacture, and in many cases widely export advanced weapons, sensors and C4ISR capabilities that will threaten our Navy and Marine Corps in the 21st century.

Traditional Threats

Through a combination of readily available weapons, platforms, and technologies currently for sale on the world's arms market, and as a result of the regional military strategies and recapitalization efforts being undertaken by certain key nations, the threats to naval forces are increasing in lethality and sophistication.

Globally, military forces are getting smaller as obsolete platforms designed for single missions are being replaced by fewer numbers of multi-mission ships, submarines and aircraft. These new platforms incorporate increased endurance, greater survivability, stealth, and sophisticated weapon and sensor suites.

The weapons systems on these platforms share a number of common traits. Anti-ship cruise missiles and surface-to-air missiles are becoming more lethal due to improved guidance and warhead fuzing. Torpedoes and mines are also becoming more capable of target discrimination and are operating over longer effective distances. All weapon systems are incorporating stealth features and are becoming more resistant to countermeasures.

In order to effectively employ these weapons, potential adversaries are investing in command, control, communications and computers, as well as intelligence surveillance and reconnaissance upgrades. This C4ISR technology, as in the case of weapons systems and platforms, is available on the world market.

It is also worth noting that the expertise required to integrate systems procured from different countries, and the insights needed to develop training programs and eventual tactical proficiency is also for sale. As a result, some countries are acquiring weapons, command

and control systems, and the know-how to use them in periods of time that are markedly shorter than it would ordinarily take them to obtain or indigenously develop this capability. This trend will continue to pose a threat to Sailors and marines well into the next century.

Non-traditional Threats

Naval forces will also face difficult challenges in areas we have until recently characterized as “non-traditional.” A good example is the hi-tech end of information warfare and the potential it offers to disrupt computer networks and even introduce elements of deception electronically into networks and even perhaps, weapons, defensive systems, surveillance and reconnaissance sensors—virtually any system that analyzes, processes or displays information electronically.

Weapons of mass destruction also represent a threat to naval forces today and in the foreseeable future. In fact, this threat is likely to increase as more nations seek to acquire these capabilities and the means to deliver them. This threat becomes more significant as we continue to operate in areas that place Navy-Marine Corps units at direct risk of attack--in a foreign port for example--and as naval forces are called upon to protect others from WMD and the ballistic missiles and other platforms that have the potential to deliver them.

The number of states seeking weapons of mass destruction (WMD) has grown alarmingly in the past decade; some already have acquired chemical and/or biological weapons. Some states have also shown strong interest in developing nuclear weapons. Iran, Iraq and North Korea are perhaps the most prominent examples. In addition, Pakistan and India, conducted nuclear tests in May 1998.

The desire for a WMD capability is not limited to sovereign states. Terrorists appear to be especially eager to acquire such capabilities. The highly publicized Usama Bin Ladin, who has threatened to attack U.S. persons and interests worldwide, is thought to be seeking or even to have acquired some WMD capability.

Ballistic missiles can be used to deliver chemical, biological, and nuclear weapons as well as conventional payloads. The list of countries seeking to acquire or to expand their ballistic missile capability is at least as lengthy as the WMD list. Iraq still retains a small inventory of SCUD-type missiles from before DESERT STORM and hopes to rebuild this capability once United Nations sanctions are lifted. Iran continues to work on its ballistic missiles with Russian assistance while Pakistan's missile programs have had significant help from China and North Korea. China, for its own part, sent a none-too-subtle message to Taiwan during Exercise 961 in 1996 when it launched six M-9 SRBMs into areas close to Taiwan's two most important ports. More recently, North Korea shocked the world with its TAEPO DONG-1 satellite launch attempt last August.

Future ballistic missile improvements will concentrate on extended range and improved guidance systems. Technology required is readily available. In the not-too-distant future, improved guidance systems could make even the antiquated SCUD much more accurate.

We would like to turn now to some key forecasts for specific countries and regions where naval forces will continue to operate.

IRAQ will remain one of the two most powerful states in the Persian Gulf region, but at this moment, the next few years (or even months) for that country are a question mark.

However, what is clear is that there are numerous vendors ready, willing, and able to sell Iraq virtually anything it wants. The military priorities of the leadership are to rebuild the nuclear and ballistic missile programs, the air defense forces, ground forces, air forces, and lastly, the naval forces. Cost is no problem. Iraq can buy what it wants due to its large petroleum reserves.

In **IRAN,** the worsening economic picture has not affected its leadership's overall determination to improve military forces and to equip them with newer and better equipment to meet perceived threats. This emphasis on the military, including acquiring ballistic missiles and weapons of mass destruction will continue at the expense of other needs.

Iran will continue to view itself as the major power in the Persian Gulf region. The U.S. is seen as the major foreign intruder in the region whose presence prevents Tehran from exercising its will with respect to the smaller gulf states.

Accordingly, and especially in view of the lessons learned during and since DESERT STORM, Iran has rethought its area denial strategy carefully. Its most important military purchases have been directed toward prevention of hostile forces from operating effectively in the Gulf.

Equipment that has been purchased and deployed over the past decade includes diesel submarines, new patrol boats equipped with anti-ship cruise missiles (ASCM), new coastal defense ASCMs, air-launched ASCMs, a variety of advanced mines, and a plethora of small boats manned by the Iranian Revolutionary Guard Corps Navy.

Over the next 5 years Iran's capabilities across all warfare areas will improve due to a continued evolution in training and tactics by Iran's naval forces. ASUW capabilities will increase primarily due to proficiency increases in ASCM targeting and delivery. Iran's AAW capability will increase due to progressive upgrades and acquisitions across the board. ASW capabilities will increase slightly due to Iran's gaining proficiency in submarine operations as well as continued training with air and surface forces. Iran's C4ISR

capabilities will also improve.

NORTH KOREA remains an enigma. The economy of this closed communist-military regime has continued to contract for the past decade and over the next five years North Korea's conventional warfare capabilities will continue to degrade due to a lack of resources and new equipment.

However, North Korea's ballistic missile program, and probably its nuclear weapon interests will continue. North Korea has been a major supplier of ballistic missile technology, and will continue to sell it to a number of states in the Middle East and South Asia.

CHINA's military modernization program--focused on naval, air, and strategic forces--continues, despite slowing economic growth. China has apparently placed a priority on increasing the size and survivability of its nuclear capability, as well as investment in warfighting capabilities designed to improve their ability to deter the U.S. from involvement in any Taiwan Strait crisis. Their modernization program is also aimed at extending China's warfighting capability beyond its own coastline.

Over the next five years China's ASUW and ASW warfare capabilities will improve. China will acquire or construct modern ASW platforms with improved weapons and sensors, and ASW training is estimated to increase in priority for all platforms. China will also receive limited numbers of sophisticated weapons and sensors from exporters. China has a very large Air Order of Battle but the aircraft are predominantly second generation and the high proportion of older aircraft will limit advances in AAW, until they are replaced over the longer term.

RUSSIA continues to be beset by political, economic and military problems eight years after the disintegration of the Soviet Union. Russia's continuing challenge is to maintain an affordable military that can defend state sovereignty and support its perceived world status.

Key elements of Russia's military planning with particular significance to U.S. naval forces include:

- maintaining the viability of the sea-based leg of its strategic triad; and
- continuing R&D and adequate new construction to retain the requisite industrial base

Submarines and submarine launched weapons continue to be the core element of the Russian Navy's combat capabilities in open ocean areas.

Despite its current problems, Russia will still remain one of the few world centers of first-class and often leading-edge naval technology. Its defense industries, in pursuit of hard cash flow, will continue

aggressive efforts to export various naval equipment, including near state-of-the-art systems.

The **Balkans** are and will remain a focus area of U.S. interests. In the overall military equation, the Yugoslav Navy poses only a small threat to forces in the Adriatic, although we are keeping a close eye on its one operational submarine, its missile boats and coastal cruise missile capability.

In more pressing terms, the robust FRY air defense capability currently poses a considerable threat to U.S. air power operating at low-to-medium altitudes.

Finally we would like to mention the situation in **Indonesia,** which represents a different, but very real, and potentially dangerous challenge to naval forces. The continued potential for instability in the world's largest island state, which sits athwart critically important sea lines of communication, is of particular concern for U.S. naval forces, who would likely be called upon for massive humanitarian and evacuation operations should efforts to maintain internal stability fail.

In conclusion, the world situation will continue to generate circumstances calling for the deployment and intervention of naval forces. Because of generally increasing foreign capabilities due to proliferation, these threats to naval forces are both more lethal and more sophisticated.

A MARITIME STRATEGY AND FORCE STRUCTURE TO COUNTER THE THREAT

America’s victory in the Cold War allowed the United States Navy to begin a fundamental paradigm shift in its strategic vision. Without discarding the core competencies required to retain command of the global oceans, we have set a course towards building a Navy that can directly and decisively influence events on land *anywhere, anytime*.

Direct and decisive influence on war and peace on land has always been the *ultimate* goal of naval operations. However, it is the current combination of historical circumstances, rapid technological change and foresighted vision that has provided this rare opportunity to craft a Navy that can expand its reach in distance, time and effectiveness . . . from the sea into the littoral regions and beyond.

From the Sea, published in 1992, set the strategic direction for the Navy-Marine Corps Team as it prepared to enter the 21st Century. It articulated a shift in focus from checkmating a global maritime threat to projecting power and influence from the sea into the littoral regions. *Forward . . . From the Sea* further refined our

course, applying set and drift for a strategic landscape in flux. Published in 1994*, Forward . . . From the Sea* described the Navy-Marine Corps focus in terms of its contribution to our national security strategy in shaping the peace, responding to crises, and dominating the potential battlespace.

As we begin the new millennium, the Navy will structure itself to remain the premier transoceanic power in the world while providing the forces and capabilities to protect national interests and carry out the national military strategy.

The U.S. Navy will provide a ready, combat-capable, and cost-effective instrument of foreign policy in support of U.S. national interests. This requires naval forces capable of providing forward presence in the regions of potential crises. To be effective, forward presence requires credible combat forces—poised for action--that contribute decisively to America's *joint* warfighting capabilities in areas where joint capabilities exist, or, can initiate and sustain a response in regions where no other U.S. forces are present. Additionally, forward presence forces must contribute in shaping the peace by carrying out exercises, military-to-military and public contacts with our friends, allies, and potential rivals.

The United States Navy will provide for an effective homeland defense for America by providing secure and credible nuclear and conventional deterrent forces. Through undersea operations, naval forces provide our nation's most secure strategic nuclear deterrent. Through forward presence operations, naval forces provide a visible, highly mobile, and cost-effective conventional deterrent that can be tailored to region and situation without requiring substantial shore-based infrastructure.

The United States Navy will command the seas and the littorals by providing robust sea and area control capabilities. To counter regional proliferation of area-denial weapons systems in the hands of potential aggressors, the Navy will harness the ongoing military-technological revolution by developing a network-centric warfighting force.

The characteristics of this network-centric force will include a high-speed information interconnection within a geographically dispersed force armed with precision weaponry. This interconnection is intended to significantly enhance overall theater awareness and speed of command and response, matching sensors, shooters and value-adding command and control in a method that ensures optimal, precise fires on target. These *fires* may consist of projectile ordnance, air strikes, amphibious assaults, special operations, or information operations—or any variety or combination. Network-centric systems will also be designed to provide information to joint forces and interagency operations.

An additional element of sea and area control will be development of cooperative protection systems that can defend naval, joint, interagency forces and littoral areas from air, surface, subsurface, and theater ballistic missile threats.

The United States Navy will develop and maintain naval forces that provide direct support of land operations and project decisive force inland from the sea. Decisive power projection is the ultimate objective of naval forces when deterrence fails and hostilities commence. To project power requires a balanced combination of the four operational capabilities of precise naval fires, rapid naval maneuver, tight cooperative protection, and robust sustainment. The Navy will capitalize on technological advances and network-centrism to increase the reach and precision of fires, expand the maneuver space of naval forces, extend cooperative protection to littoral areas and joint and allied forces, and increase our sustainment capabilities via sea basing.

Direct support of land operations requires naval forces to spearhead the attainment of information superiority in crisis regions. Naval forces must be able to provide the command and control capabilities necessary for the joint task force commander as he/she operates in theater.

Projecting decisive force inland from the sea requires systems capable of integrating information from sensors and systems on sea, land, in the air and in space into a composite, comprehensive display. This, too, is a focus of the network centric approach.

Overall, the strategic vision for the next millennium is based on the maintenance of the Navy's traditional core competencies while we increase the ability of naval forces to directly and decisively affect events on land. The five enduring functions of providing an instrument of foreign policy, defending the homeland, commanding the sea and littorals, directly supporting land operations and projecting decisive force inland from the sea will be carried out by naval forces built around four strategic concepts that define our missions as a Service: forward presence, deterrence, power projection, and sea and area control. Development of specific programs will be guided by a network-centric approach to increasing our abilities to carry out four key operational-level concepts: naval fires, naval maneuver, cooperative protection and sustainment.

We would like to stress the unique attributes Naval forces have in dealing with the potential threats of the 21st century. Naval forces naturally operate in realms that are internationally unconstrained and in which the United States has freedom of action. These realms are the sea, air above the sea, space and cyberspace. In these realms, the United States Navy can take action against potential threats in ways that can prevent conflict from occurring in the realms wars “naturally” occur: the land and air over the land. No other nation can strike with precision at targets in a landlocked

country from forces positioned at sea—as we have done recently against terrorist threats. Our Navy-Marine Corps team gives the United States a set of military capabilities that are completely asymmetric in the eyes of other nations. We are the “asymmetric threat” to all the potential aggressors of the world.

We currently possess -- and will continue to possess for the immediate future -- the capability of penetrating virtually any crisis region of the world by using forces “from the sea.” Clearly, there are dangers we will have to contend with: diesel submarines located at potential choke points, satellite reconnaissance that might be used to cue anti-ship or ballistic missiles, and maritime minefields. But all of these threats are ultimately surmountable – with the degree of risk that is inherent in any military operations – by our naval forces using such techniques as cover and deception and electronic warfare. Our Navy-Marine Corps capabilities are robust and our sustainability at sea gives us nearly 70% of the world as a forward base of operations. We do need, however, to keep abreast of emerging “anti-access” or “area denial” threats and, with your help, our ongoing programs, such as Navy Area Theater Missile Defense and Organic Mine Warfare, will do just that.

In looking at the countries that are potential opponents, we can assure you that your Navy-Marine Corps team can indeed “kick in the door” for follow-on forces. We are not sanguine about this –- we will not tell you it will be easy -– but our potential opponents do not currently possess the resources required to conduct sustained, precise operations against our forces maneuvering in the maritime battlespace. To hit forces at sea –- in a militarily significant manner, not just modest success in an individual attack –- requires capabilities that our potential opponents cannot currently, nor for the foreseeable future, sustain in a conflict. Again, we can’t predict the future, and we worry about potential foes’ access to commercial space and information systems. With your help, though, we can keep ahead of the threat. Our naval forces remain unique in that we do not have the regional land basing requirements that would be America’s Achilles heel in any regional “anti-access” attack scenario.

The robustness and scope of our naval forces provide a unique capability that Secretary Danzig refers to as “dissuasion.” With your continued support our capabilities at sea will continue to be so vast that potential opponents will be dissuaded from trying to challenge us on the oceans of the world, and will concede, as we mentioned before, the 70% or so of the world in which we are able to maneuver our globally dispersed but netted force. This gives us a great advantage in “breaking” any potential opponents' anti-access strategy.

Throughout America’s history, a modern and capable fleet has been the linchpin for protecting important U.S. interests wherever and whenever they might be in jeopardy. Since the end of the Cold War,

several comprehensive analyses and assessments have addressed the force structures needed to ensure that U.S. naval forces can carry out the operations and tasking that underwrite American's security and military strategies. Today, the stated requirement is for a Navy of at least 300 ships, including as core assets:

- 12 Aircraft Carriers
- 10 active and one reserve Carrier Air Wings
- 12 Amphibious Ready Groups
- 50 Nuclear–powered Attack Submarines
- 14 Strategic Ballistic Missile Submarines
- 116 Surface Combatants (108 active and eight Naval Reserve Force Ships)

The force described above is sized and designed to provide an optimal balance of capabilities required to operate in the complex environment of the 21st Century.

Consider our surface combatants. The multi-year buy of the Arleigh Burke Class Aegis destroyers, DDG 89-101 will result in platforms with a significantly different focus than the thirty-eight ships that preceded them. From the ability to provide long range surface fire support and precision land attack, through area and theater ballistic missile defense systems, to a fully integrated remote mine hunting system and commercial-off-the-shelf based sonar, the Navy's most successful shipbuilding program ever will continue to build the world's most capable destroyer suited to meet the requirements for sea-based combat capability in the 21st Century.

The Cruiser Conversion Plan will preserve the relevancy of the Aegis cruiser force into the 21st Century. It will address both the continuing development of theater ballistic missiles by potential adversaries and the Marine Corps's requirement for "responsive, precise naval surface fire support" by installing Theater Ballistic Missile Defense and Land Attack capabilities in the VLS-configured units of this class. Plans call for 12 cruisers to be upgraded over the fiscal year 2002-2007 period. To ensure a joint integrated air defense command capability resides at sea, Area Air Defense Commander capabilities will be provided in 12 cruisers. The plan also provides "Smart Ship" core control systems technology improving mission capability, reducing crew size and life cycle costs. In addition, the Cruiser Conversion Plan lays the foundation for the advanced computing architecture needed for the Navy Theater Wide upper tier ballistic missile defense system.

Each of these significantly enhanced capabilities represents a fundamental departure from the kinds of missions that were envisioned for the Aegis force of cruisers and destroyers when USS TICONDEROGA put to sea in 1982. The Cruiser Conversion Plan will permit the Navy to leverage on the Aegis success story and defer the need for a

successor cruiser building program until the full rate production of the 21st Century Land Attack Destroyer, a revolutionary platform, is completed.

Essential to our ability to conduct Operational Maneuver from the Sea and to meet forward presence, contingency and warfighting requirements is the capability resident in our 12 Amphibious Ready Groups. While the number of Groups will remain constant, the evolution of their composition and capabilities will ensure our ability to fight and win on future littoral battlefields. 21st Century Amphibious Ready Groups will be comprised of one "big deck" General Purpose Amphibious Assault Ship (a Tarawa Class LHA) or Multipurpose Amphibious Assault Ship (a Wasp Class LHD), a dock landing ship (LSD), and one San Antonio Class Amphibious Transport Dock (LPD).

The San Antonio Class LPD, with its triad of embarked Navy and Marine Corps mobility vehicles, the MV-22 Osprey aircraft, the Landing Craft (Air Cushion) and the Advanced Amphibious Assault Vehicle, will provide a modern, over-the-horizon launch and recovery platform necessary to the execution of both Operational Maneuver from the Sea and Ship-to-Objective Maneuver. Built from the keel up to accommodate this 21st Century mobility triad, the San Antonio Class will incorporate a complex surface combatant command and control suite, including Cooperative Engagement Capability and the Naval Fires Management System, and be part of the Navy's 21st Century Network Centric Warfare construct with connectivity equal to those afforded our aircraft carriers and Aegis cruisers.

In naval aviation the air wing is evolving today as we upgrade F-14 fighters to a potent precision strike-fighter with the incorporation of the Low-Altitude Navigation and Targeting Infrared for Night system. Complementing the Navy's current F/A-18 Hornet aircraft, the evolution of the F-14 into a strike-fighter, including addition of new defensive countermeasure systems and night vision capability, will enable the Navy to maintain an increasingly lethal strike-fighter force on each carrier deck until arrival of the F/A-18 Super Hornet.

The F/A-18 Hornet remains naval aviation's principal strike-fighter, and improvements to the original Hornets include warfighting enhancements in the near term to improve weapons, communications, navigation and defensive countermeasures systems. The introduction of the F/A-18E/F Super Hornet to the fleet in 2001 will provide range and payload improvements, survivability enhancements, weapon bring-back improvements, and critical growth capacity. The evolution of the Hornet into the Super Hornet will keep the Navy's strike-fighter force lethal and viable well into the 21st Century. Ultimately, the F/A-18E will replace older F/A-18s while the two-seat F/A-18F will replace the F-14. As development of the Joint Strike Fighter continues, the lethality, flexibility, reliability and survivability of the F/A-18E/F will make it the right aircraft to fulfill the

majority of missions associated with operations in the littoral well into the 21st Century.

The evolution of high performance aircraft has been complemented by the reshaping of the carrier air wing. Each of our ten active carrier air wings and one Reserve air wing is comprised of increasingly lethal multi-mission capable strike-fighter aircraft able to deliver our nation's newest families of precision weapons. The tactical support provided by the electronic warfare capabilities of the EA-6B Prowler, the multi-purpose, multi-sensor over the horizon capabilities of the E-2C Hawkeye, and the expanded tanking, surveillance and reconnaissance role of the S-3B Viking make the air wing uniquely capable of conducting sustained operations in the littorals. Our strike capability aboard each carrier has actually increased, despite air wings having become smaller, due to the evolution of the F-14 and the addition of new standoff and precision strike weapons and a higher sortie generation rate of the F/A-18. System enhancements that will significantly improve warfighting capabilities in the littoral environment are also planned for maritime patrol and helicopter forces not organic to the air wing.

While the aircraft carrier has been, and will remain the centerpiece of our naval global forward presence and striking power, this singular manifestation of our Navy's unparalleled combat capability is also evolving. We are modernizing our newer carriers and replacing our older carriers through a plan that maintains essential capabilities and force structure. USS NIMITZ begins her refueling and complex overhaul this spring, during which she will not only be refueled, but also modernized to serve more than two additional decades. All Nimitz class carriers will undergo a similar evolution as they reach the of their anticipated service.

USS HARRY S. TRUMAN was commissioned last July to replace USS INDEPENDENCE this year, and the tenth and final Nimitz Class carrier, the USS RONALD REAGAN, will enter the fleet in 2008, replacing USS KITTY HAWK. CVN 77 is being designed as a transition carrier to the new design CVX, incorporating new technologies resulting from research and development efforts.

Tiltrotor technology will enable the Marine Corps to project power from over-the-horizon to the full reach inland specified in Operational Maneuver from the Sea. The MV-22 Osprey will allow the Marine Air-Ground Task Force to fully exploit its combat power, triple the depth of its present day battlespace, and significantly complicate an aggressor's defensive requirements, inhibiting his ability to concentrate forces. The superior combat radius of the MV-22 will also facilitate greater stand-off ranges for Navy and Joint Force assets if required by the tactical situation.

As in the surface and aviation communities, our submarine force is evolving from a blue water force to one particularly suited for a wide range of covert and overt littoral warfare missions including

strike, anti-submarine, anti-surface, covert intelligence, surveillance and reconnaissance, special warfare, mine warfare and battle group operations. Currently, submarines provide the only truly covert Special Operations Force insertion capability and operations in the littoral at periscope depth, closely linked with, and in mutual support of, surface and air battle group operations are the norm.

To complement the broadened role of submarines in our operational concepts, improved capabilities in specific mission areas are being evolved from current systems. The Unmanned Underwater Vehicle based Near Term Mine Reconnaissance System which will IOC in 1999, will be deployed by SSN 688 class submarines, complemented by a long term mine reconnaissance and avoidance system which will be introduced into the fleet in 2003. Additionally, Integrated Undersea Surveillance improvements, including twin line towed arrays for SURTASS ships will use common towed array technology and new deployable distributed acoustic arrays for large area surveillance and tripwire indication and warning in key strategic locations.

Today we are at a cross-road in the development of submarines. The 688 class has been completed and two of three Seawolf class ships are now in commission. Also, 1998 marked the start of construction for the new Virginia class attack submarine. Utilizing a first of its kind construction teaming arrangement, the first four NSSNs are under contract to be built by two participating shipyards.

The NSSN is the first U.S. submarine optimized for littoral operations. Building on the success of the Seawolf program, its enhancements will include unprecedented stealth both acoustic and non-acoustic, a reconfigurable torpedo room which can be optimized for a variety of missions including: Anti-Submarine Warfare, Strike Warfare with Tomahawk missiles, or Special Forces Delivery. NSSN will carry an advanced mine detection system and a reduced electromagnetic signature for mine avoidance, a nine man SOF lockout trunk and the ability to carry both the Dry Deck Shelter and the Advanced SEAL Delivery Systems. Sophisticated surveillance enhancements will include improved periscope imagery capability using a digital electro-optical photonic mast and improved acoustic sensors including towed arrays and a light weight wide aperture hull mounted array. The inclusion of advanced technologies and increased automation will result in a 26 percent reduction in the number of watch standers required to operate the ship at sea. Additionally, the NSSN has been specifically designed to readily accommodate the insertion of advanced technologies in each new ship. A major part of NSSN's technology insertion program involves the use of Large Scale Vehicles. These one quarter scale, operational models allow new technologies to be rapidly and affordably prototyped at sea and proven before insertion into the NSSN program.

Moving beyond near-term considerations, joint warfighting capabilities will increasingly shift from platform-centric to

network-centric architectures as the potential of offensive distributed firepower are further realized. Within the surface navy, during the 21st Century the Land Attack Destroyer, DD 21, will be introduced, and the fleet will gain a theater-wide ballistic missile defense capability aboard our existing Aegis cruisers and destroyers.

The second element of our dual-track strategy for procuring aircraft carriers for the next century will become reality, as the most technologically advanced aircraft carrier the Navy has ever developed, CVX, will be commissioned in 2013. Because the service life of our aircraft carriers far exceeds that of any of our other ships, they must be designed and built with the flexibility to meet any unknown threats of the future. This includes the ability to operate future aircraft, the main warfighting capability of the carrier.

Using CVN 77 as a "springboard," CVX will feature improved characteristics in selected areas, including aircraft launch and recovery systems, flight deck layout, an open architecture command and control system, information networks and technological innovations leading to significantly reduced manning and life cycle cost reductions.

The continuing development of the Joint Strike Fighter throughout the decade will ensure we have complementary revolutionary aircraft to enhance our air wings in the 2008-2010 time-frame.

In all communities, our joint command, control and targeting capabilities will migrate toward realization of direct sensor-to-shooter connectivity. Seamless coverage of the joint battlefield will be achieved by overhead sensors and information superiority will be gained, and maintained, by increased use of space-based sensors and connectivity. Long range sensor suites, joint connectivity with theater and national systems, and long range precision munitions will give our air, surface and subsurface platforms, operating independently or with carrier, amphibious or surface battle groups the ability to attack throughout the battlespace.

In the long-term much of what will evolve is still to be determined. Successful strategic thought is highly pragmatic, and such is our approach toward conducting future operations. To be successful, we will evolve in stages, taking into account both changes in technology and the reality of the Nation's near-term security requirements. As the National Defense Panel correctly observed in December 1997:

"The central challenge to our defense structure is to move forward in a manner that enables us to respond effectively to whatever occurs. This strongly suggests a hedging approach to preparing for the future. We must maintain adequate current capability as we adapt. As we learn more about new ways to apply military power, we can shift the emphasis of our forces while curtailing outdated or less useful

forces and operational concepts."

Today we are at a threshold. From 1988 to 1998 the DoN's total obligation authority decreased by 40% in constant 1998 dollars. Coincident with this decrease, we have experienced a marked increase in forward presence and contingency operations. In fact, owing to the unique capabilities naval forces bring to a turbulent post-Cold War world, the peacetime Navy has never been busier. As a consequence of the constrained fiscal environment along with a demanding operational tempo, we have not been able to maintain both readiness and still modernize/recapitalize the Fleet. Deployed readiness has, of necessity, been our priority. Non-deployed readiness and modernization/recapitalization for future readiness has consequently declined. We have "made do", but are at the point where we can no longer safely mortgage our future readiness by further deferring recapitalization and modernization.

In order to sustain required force levels beyond the FYDP, we must achieve a building rate of eight to ten ships per year and an aircraft procurement rate of 150-210 per year. Due to severely constrained finances for the past several years, we have not been able to recapitalize at a rate sufficient to maintain the required force levels for a 300 ship Navy over the long term -- and we have viewed this with increasing alarm.

The severity of the situation is apparent in the Chairman of the Joint Chiefs of Staff recent decision to change his overall risk assessment for a future two MTW scenario from moderate to high. As the CNO has testified, the Navy needs an increase of $6B/yr. across the FYDP to restore non-deployed readiness and to recapitalize and modernization to meet future warfighting requirements.

We believe the higher level of funding requested in the President’s FY 2000 budget, along with savings realized by efficiencies in the way the Department of the Navy operates, will allow us to <u>begin</u> to increase our procurement rates across the FYDP. The chart below depicts the SCN Plan in the FY 2000 President's Budget, and shows the increase in procurement over PB 1999. This is an important step in the right direction. We look forward to working closely with this Committee to address our needs so that the Navy continues to be ready and capable as we sail into the next millennium.

SCN Plan

Quantity	FY00	FY01	FY02	FY03	FY04	FY05
CVN-77/CVX	AP	1	AP	AP	AP	AP
NSSN	AP	1	1	~~0~~ 1	1	1
DDG-51	3	3	3	3	0	0
DD-21	0	0	0	AP	1	~~2~~ 3
LPD-17	2	2	2	2	2	0
LHD	0	0	0	0	~~0~~ AP	~~0~~ 1
JCC	0	0	0	0	~~0~~ 1	~~0~~ 1
T-ADC(X)	~~0~~ 1	~~0~~ 1	~~1~~ 2	2	3	3
Total New Con	~~5~~ 6	~~7~~ 8	~~7~~ 8	~~7~~ 8	~~7~~ 8	~~6~~ 9
CVN RCOH	AP	1	AP	AP	AP	1
LCAC SLEP	2	1	2	3	3	4
LCU REPLACEMENT	0	0	0	0	~~0~~ 5	~~0~~ 5
LHA SLEP	0	0	0	0	0	AP

1 NSSN, 1 DD-21, 1 LHD, 2 JCC, 3 T-ADC(X), 10 LCUs ADDED

CONCLUSION

The past few years unquestionably demonstrate that the Navy and Marine Corps team continues to play a pivotal role in the protection and advancement of U.S. interests worldwide. Our assessment of the emerging threats indicates that the Nation's reliance on a Maritime force will not diminish as we enter the 21st century. In order to deter aggression, foster peaceful resolution of dangerous conflicts, underpin stable foreign markets, encourage democracy and inspire nations to join together to resolve global problems, the U.S. needs a multi-dimensional naval force ready to exert influence and extend national power anywhere on the globe. Today, as a result of the much appreciated support from this committee, we are the finest naval force in the world. With your continued help, we can and will remain so.