

NOT FOR PUBLICATION UNTIL  
RELEASED BY THE  
HOUSE ARMED  
SERVICES COMMITTEE

STATEMENT OF  
VICE ADMIRAL JOHN J. DONNELLY  
COMMANDER NAVAL SUBMARINE FORCES  
AND  
REAR ADMIRAL CARL V. MAUNEY  
DIRECTOR OF SUBMARINE WARFARE  
BEFORE THE  
HOUSE ARMED SERVICES COMMITTEE  
SUBCOMMITTEE ON SEAPOWER AND EXPEDITIONARY FORCES  
ON  
FORCE STRUCTURE REQUIREMENTS AND ALTERNATIVE FUNDING STRATEGIES  
FOR THE UNITED STATES SUBMARINE FLEET  
8 MARCH 2007

NOT FOR PUBLICATION UNTIL  
RELEASED BY THE  
HOUSE ARMED  
SERVICES COMMITTEE

Mr. Chairman and distinguished members of the Subcommittee on Seapower and Expeditionary Forces, Rear Admiral Van Mauney and I thank you for the opportunity to represent the men and women of your Navy and your Submarine Force.

We represent submariners that make up a small portion of our Navy – approximately 7% of the personnel operating about 24% of our ships. Our people are the cornerstone of our Force. They are talented, motivated and have chosen to serve their nation on the world's finest submarines, submarine tenders, and support staffs. Operating nuclear submarines is complex and demanding, so our standards have to be high. Submariners feel a sense of purpose because they are fully employed doing important work. They are out front around the globe every day providing for our national security. Even while serving in a capacity outside the Undersea Enterprise, such as on joint staffs, or in Iraq and Afghanistan, these Sailors use their unique talents and Submarine Force experiences to make valuable contributions to joint operations and the nation's defense.

As you have requested, today we will discuss the Navy's required attack submarine force level – how we developed it, and the impacts of altering the Navy's future shipbuilding plan. We will also address the Submarine Force's current operational tempo and Fleet requirements, and relate them to the future force structure. Our remarks will be unclassified; however we are prepared to provide classified details to the committee, if desired.

## **I. The Global Landscape – a backdrop.**

Challenges. America is engaged in what will be a long war. Our current enemy is a complex network of ideologically driven extremists. Just how this war will continue to unfold, and the way the global strategic landscape will evolve, remains uncertain.

This uncertainty creates several alternative “futures.” Your Submarine Force provides capabilities for national defense in each of these futures and we are ready. First, there is a world dominated by the fight against extremists, a long-term campaign fought on a global scale, involving all elements of national power. Secondly, there is the constant potential for Major Combat Operations (MCO) against a near peer competitor. Third is a world in constant crisis, with hot spots flaring around resources, ideology, religion or other issues. Finally, defending the homeland from direct attack will always be a priority and will be addressed within our borders and abroad; preferably forward, away from our borders. The Submarine Force provides capability which can help posture us against any and all of these.

Capabilities. We are taking action to secure our nation’s future. This requires day-in and day-out operations in close proximity to the enemy and other potential adversaries to develop clarity of understanding of their capability and intent. We must work to capture intelligence, not wait for it to come to us. Ensuring maritime security drives the need for a strong, capable, and forward deployed submarine force.

Our capability is the combination of our platform technologies, our crews' abilities, and our Force capacity (which is the number of operational submarines). These are qualities not easily or rapidly reconstituted once lost. The firepower available from a deployed, ready, and clandestinely postured nuclear submarine is an important contribution to our nation's projection of power. Likewise, the sensors, communications and analytical capabilities of a continuously deployed and clandestinely postured submarine contributes to maritime security and provides for our nation's defense.

## **II. Submarine Force Structure.**

In 2006, we deployed 31 of our 52 nuclear powered attack submarines (SSN) throughout the world on lengthy operational deployments. These submarines worked in forward areas, many fully integrated with Carrier Strike Groups, others as part of naval or joint task forces, fulfilling Combatant Commander (COCOM), Fleet, and national tasking. Additionally, the preponderance of our 14 nuclear powered ballistic missile submarine (SSBN) force is underway, submerged, in a secure and survivable posture, able to rapidly respond to national tasking. We have brought the nuclear powered guided missile submarine (SSGN) online with the first one of four deploying later this year. Submarines supported every regional COCOM along with Strategic Command and Special Operations Command. Submarines were sent where they were needed most and transited the Arctic Ocean, the Panama Canal, and the Suez Canal to get there. We are at work every single day, forward deployed around the world.

And we are not alone. As part of Admiral Mullen's Global Maritime Partnership Initiative, we continue working with submarine forces from 27 nations, representing more than 224 submarines. Through operations, exercises, mutual agreements, and staff talks with our allies and partners around the globe, we continue to increase our interoperability and strengthen partnerships in the name of U.S. national security.

The Chief of Naval Operations (CNO) has developed a shipbuilding plan that builds the Navy the nation needs – a Navy that is both affordable and meets with acceptable risk the future national security requirements outlined in the 2006 Quadrennial Defense Review (QDR). Force structure requirements were developed and validated through detailed joint campaign and mission level analysis and optimized through innovative sourcing initiatives (i.e. Fleet Response Plan, optimal basing and forward posturing). The shipbuilding plan and other initiatives increase ship operational availability, and balance and stabilize the shipbuilding industrial base within the Navy's available resources.

Since 1992, SSN force structure has been studied extensively. The 1999 Chairman of the Joint Chiefs of Staff (CJCS) Attack Submarine Study was directed by the Deputy Secretary of Defense to fulfill the language of the 1997 QDR. CJCS, with significant participation of the Fleet and OPNAV, analyzed peacetime forward presence and warfighting requirements in 2015 and 2025 under the prevailing national and maritime strategies and intelligence projections. However, there have been changes in the world situation and our National Security Strategy in the intervening ten years. Force structure has been revisited in the last three years, considering our

current strategies, policies and the updated maintenance profiles and operational capabilities of our new submarines, and has supported the CNO's decisions for force structure and shipbuilding.

The Office of the Secretary of Defense analyzed near term requirements under the 1-4-2-1 force construct and the Fleet's operational plans. This Program Decision Memorandum (PDM) III study concluded between 45 and 50 SSNs would satisfy the nation's needs given reasonable risk assumptions and recommended a 60% Pacific, 40% Atlantic split in basing the force.

In July of 2005, the CNO directed an effort to examine existing force structure studies, including the 1999 CJCS Attack Submarine Study and the PDM III study, as well as a number of other submarine studies, to support his decisions regarding the right SSN force structure mix within the Navy's long-term ship building plan. To maximize return on investment, the focus was for a Navy that was able to fight the Global War on Terror (GWOT), execute Maritime Security Operations, and win in any MCO. The SSN force structure was examined using a capabilities-based assessment (both for our forces and the forces of potential adversaries), and determined the required forward posture for response to any potential MCO in 2020. This analysis examined present and future COCOM demands for SSNs, along with the risks associated with meeting deterrence and wartime requirements against the most stressing MCOs. Based upon this assessment, 48 was the minimum number of SSNs that presented an acceptable risk and still allowed an affordable plan for long-range shipbuilding.

There will be some increased risk during the 2020 to 2034 timeframe when the shipbuilding plan results in a SSN force structure below 48 to a minimum of 40 SSNs, and the Navy is looking at

options to mitigate this risk. During this timeframe, we should be able to meet the COCOMs' critical forward presence requests, and maintain a warfighting surge capability with acceptable risk. The President's budget starts procuring two VIRGINIA Class attack submarines per year in fiscal year 2012, which is a key step in maintaining SSN force structure and providing for an adequate and balanced Navy.

### **III. Submarine Employment.**

Our Submarine Force is built upon a strong legacy of selecting and training the best people, building and maintaining the best ships, and equipping those ships with the latest technology and most advanced equipment. Those people and ships go to sea to practice, they get ready and then deploy. We are busy-- on any given day more than 60% of operational submarines are underway, and of those 38% are deployed forward. Our forward deployed submarines average 79% of their time underway on mission tasking.

Submarines are cost effective. These nuclear powered ships are launched with a "full tank of gas" that lasts for the life of the ship. This negates the need for costly logistics force ships and replenishment ships staged around the globe. We continue to invest in upgraded technology, optimizing the capability of even our oldest submarine hulls.

The effects we deliver can also extend far inland. Timely, reliable delivery of accurate and lethal Tomahawk missiles is vital to most war plans. Our OHIO Class SSBNs, carrying ballistic missiles, remain our Nation's most survivable strategic asset. Insertion of Special Operations

Force (SOF) personnel from SSNs or nuclear powered guided missile submarines (SSGN) can create precision effects across the spectrum of conflict. The emerging capability in the area of Information Operations (IO) allows us to clandestinely shape the environment and reduce risk to our forces.

Our employers are the Combatant Commanders. We provide about 10 SSN-years of deployed presence per year which is sufficient to accomplish all of the COCOMs' highest priority missions. With continued maintenance process improvements in our LOS ANGELES, SEAWOLF, and VIRGINIA Class submarines, we will be able to maintain this annual deployment rate even as the SSN force structure is reduced from 52 today to 48 SSNs over the next 13 years. This force structure provides a sufficient number of SSNs to influence near-peer competitors and contributes to stability operations. The Navy is studying measures that would mitigate the risk when the SSN force structure is below 48. For example, by fully implementing cost-reduction measures for VIRGINIA Class SSN construction, it is anticipated the shipbuilders will reduce construction time for each ship from 72 to 60 months. This would add two additional SSNs to the force before 2020. For those SSNs not in a maintenance period, OPTEMPO is 46%. This indicates that our SSN force is fully employed, but with room for short-term surge.

Enabled by nuclear power, submarines stealthily and persistently operate where others cannot. We operate clandestinely in shallow water, under ice, in congested areas, and in extreme weather conditions. We have the ability to stealthily and rapidly reposition over great distances to respond to emergent crises. We contain sufficient power density to carry out multiple power intensive missions simultaneously. We provide our own self-defense and are self-contained. We



can stay on station a long time. We operate with joint, interagency, and coalition forces when needed - other times we work alone.

From a global perspective, the concentration of our operations has shifted over the past few decades from an Atlantic- focus to a Pacific- focus. SSN distribution needs are being adjusted accordingly. During the height of the Cold War, about 60% of our SSNs were based in the Atlantic. When the Cold War ended and Pacific operations increased, we shifted the balance to 50%/50%. With the transfer of USS HAMPTON from Norfolk, Virginia, to San Diego, California, we have begun implementation of the 2006 QDR intent to shift 10% of the submarine forces from Atlantic to Pacific homeports. When complete in 2010, the new distribution will be 60% Pacific and 40% Atlantic.

The five key attributes, which enable submarines to deliver unique value are:

Stealth

Endurance

Agility

Mobility

Payload

We use these attributes to our advantage - day-in and day-out.

The Submarine Force provides value across the spectrum of conflict. On one end we build maritime security. These are operations to evaluate and shape the environment, and if shaping fails, to make preparations in the pre-hostilities phase for military action. These activities occur

everyday throughout the year. It is important to emphasize that if shaping the will of a nation or extremist group through actions projected from the sea is conducted effectively, then hostilities may never occur. At the other end of the spectrum is combat that could occur during a crisis or Major Combat Operation. Your Submarine Force is capable and ready for either mission.

#### **IV. Needed Future Capabilities.**

Overall, the number of submarines in the Navy's 30-year shipbuilding plan provides adequate force structure to meet the nation's needs with acceptable risk. Our SSBNs provide the only survivable nuclear deterrent capability and will remain a viable force until the end of their service life.

The first SSGN, USS OHIO, will deploy in November 2007. The second and third SSGNs, USS FLORIDA and USS MICHIGAN, were delivered in April and December 2006, respectively.

When all four SSGNs are operational, with two crews each, we will be able to keep two forward deployed at all times. These platforms provide a transformational capability for our nation.

Using the Small Combatant Joint Command Center (SCJCC), the 66 SOF personnel embarked can plan and execute missions to find, fix and finish targets, or SSGNs can attack targets with up to 154 Tomahawk cruise missiles.

The VIRGINIA Class submarine is the epitome of capability, agility and flexibility. Designed after the end of the Cold War, she is built from the keel up with flexibility in mind. VIRGINIA's open architecture electronics allows us to rapidly improve capability at lower cost; and the

modular torpedo room is designed to accomplish multiple missions. With a nine-man lock out chamber, and SOF mission configurable torpedo room, VIRGINIA will provide enhanced SOF capability and mobility in the War on Terrorism. VIRGINIA, more than previous submarine classes, is essential for the future.

In the late 1990's we embarked on an effort to replace our legacy sonar systems with a more capable and affordable system based on an open architecture business model that employs Commercial-Off-The-Shelf (COTS) capabilities. COTS has enabled us to maintain our software and hardware at a fraction of the cost required to replace and upgrade our former legacy systems. This effort has been so successful, we have expanded the concept to our tactical fire control, radio room, electronic surveillance equipment, navigation, periscopes, and torpedoes. The VIRGINIA Class was delivered with an entirely open architecture posture. Recognizing the power and cost effectiveness of the open architecture approach, the Navy, as a whole, is adopting this model in other systems. The bottom line is this process allows us to stay modernized and relevant relatively inexpensively on even our oldest ships.

These programs are providing relevant, cost-effective capability to the joint force today. But there are some challenges. In order to maintain our required force structure, we need to start building two VIRGINIA Class submarines per year in fiscal year 2012. And to do that, we must reduce the per unit cost to \$2 billion (in fiscal year 2005 dollars). The Navy has a good plan to achieve this and the Undersea Enterprise will continue to monitor its progress. Achieving this cost goal is an essential part of the Navy's 30-year shipbuilding plan, which is the roadmap for re-capitalizing the fleet. The Navy is also looking at the state of the submarine design industrial

base and any potential action required to preserve it. Ms. Stiller will address these issues in more detail.

We believe that the capability this Nation needs is defined by a sufficient number of submarines, each with attributes described previously and with some increased capability for:

Enhanced connectivity and

Utilization of distributed sensors and weapons

We are already moving toward a greater interdependence between our joint and coalition forces of which our Submarine Force is a current and valued component. While we communicate easily and frequently today with the joint force, we cannot do so from all relevant postures.

We continue to develop new technologies that would provide submarines with communications at higher speeds and increased depth.

We also need stealthily delivered sensors and weapons in quantity. First, we already have the SSGNs, and the SEAWOLF and VIRGINIA Classes coming online with large payload volumes and ocean interfaces. These ships will enable us to define and develop future payloads that will deliver unique capability in the face of future threats.

We envision one of the payload sets in these packages to be knowledge and shaping tools. These will include networks of distributed sensors and weapons, which allow us to better understand and affect a larger area. Whether they are sensors, unmanned or manned vehicles, or non-kinetic

or kinetic weapons, they will inherit the submarine's unique attributes of: stealth, persistence, agility, and mobility. And they will reap the same benefits we have discussed today.

And finally, we must continue to improve the sensors installed on our submarines. We have refined the twin thin-line towed array systems on our SURTASS ships and have plans to transfer this enhanced capability to our submarines.

These capabilities will enable us to assist the Joint Commander through persistent monitoring every day in areas where others can't go.

## **V. Summary**

Our submarines will continue to be in demand, deployed forward, as scouts "walking the field." Day-in and day-out, they will be building maritime security, seeking out ground truth, shaping the environment to avert the next conflict, and ready to engage quickly and decisively. A Submarine Force of 48 SSNs, 14 SSBNs and 4 SSGNs is the right size and shape for our Navy and nation, and to sustain that we need an effective and stable shipbuilding program, a program that builds two VIRGINIA Class submarines per year starting in 2012.

Thank you very much for your time today. We will be happy to respond to any questions.