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THE SENATE ARMED SERVICES COMMITTEE
STRATEGIC FORCES SUBCOMMITTEE

STATEMENT
OF
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BEFORE THE
SUBCOMMITTEE ON STRATEGIC FORCES
OF THE
SENATE ARMED SERVICES COMMITTEE
ON
FY2015 NUCLEAR FORCES AND POLICIES
05 MARCH 2014

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Introduction

Chairman Udall, Ranking Member Sessions, distinguished Members of the subcommittee, thank you for this opportunity to discuss Navy's strategic programs. It is an honor to testify before you this morning representing the Navy's Strategic Systems Programs (SSP).

SSP's mission is to design, develop, produce, support, and ensure the safety of our Navy's sea-based strategic deterrent, the Trident II (D5) Strategic Weapons System (SWS). The men and women of SSP and our industry partners remain dedicated to supporting the mission of our Sailors on strategic deterrent patrol and our Marines, Sailors, and Coast Guardsmen who are standing the watch, ensuring the security of the weapons we are entrusted with by this nation.

The Navy provides the most survivable leg of the U.S. nuclear triad with our ballistic missile submarines (SSBNs) and the Trident II (D5) SWS. A number of factors have contributed to an increased reliance on the sea-based leg of the triad. The 2010 Nuclear Posture Review reinforced the importance of the SSBNs and the Submarine Launched Ballistic Missiles (SLBMs) they carry. SLBMs will comprise a significant majority of the nation's operationally deployed nuclear warheads, thus increasing the nation's reliance on the sea-based leg. The Chief of Naval Operations has stated the OHIO Replacement Program – along with the propulsion and the SWS – remains one of Navy's highest priorities.

Ensuring the sustainment of the sea-based strategic deterrent capability is a vital national requirement today and into the foreseeable future. Our budget request provides the required funding to support the program of record in fiscal year 2015 for the Trident II (D5) SWS. To sustain this capability, I am focusing on my five priorities: Nuclear Weapons Safety and Security; the Trident II (D5) SWS Life Extension Program; the OHIO Replacement Program; the Solid Rocket Motor (SRM) Industrial Base; and Collaboration with the Air Force.

Nuclear Weapons Safety and Security

The first priority, and the most important, is the safety and security of the Navy's nuclear weapons. Navy leadership has clearly delegated and defined SSP's role as the program manager and technical authority for the Navy's nuclear weapons and nuclear weapons security.

At its most basic level, this priority is the physical security of one of our nation's most valuable assets. Our Marines and Navy Masters at Arms provide an effective and integrated elite security force at our two Strategic Weapons Facilities and Waterfront Restricted Areas in Kings Bay, Georgia and Bangor, Washington. U.S. Coast Guard Maritime Force Protection Units have been commissioned at both facilities to protect our SSBNs as they transit to and from their dive points. These Coast Guardsmen and the vessels they man provide a security umbrella for our OHIO Class submarines. Together, the Navy, Marine Corps, and Coast Guard team form the foundation of our Nuclear Weapons Security Program. My headquarters staff ensures that our nuclear weapons capable activities meet or exceed security, safety, and compliance criteria.

SSP's efforts to sustain the safety and improve the security of these national assets continue at all levels of the organization. The Navy's nuclear weapons enterprise maintains a culture of self-assessment in order to sustain safety and security. This is accomplished through biannual assessments by the SSP headquarters staff, periodic technical evaluations, formal inspections, and continuous on-site monitoring and reporting at the Strategic Weapons Facilities. The technical evaluations, formal inspections, and on-site monitoring at the Strategic Weapons Facilities provide periodic and day-to-day assessment and oversight. The biannual SSP assessments conducted by my staff evaluate the ability of the local organizations to self-assess their execution of the assigned strategic weapons mission and compliance with requirements. The results of these biannual assessments are critically and independently reviewed through the Navy Nuclear Weapons Assessment and provided to the Secretary of the Navy and the Chief of Naval Operations for review. The most recent biannual SSP assessment was signed in

January of 2014 and will inform the Navy's Nuclear Weapons Assessment due later this month.

We also strive to maintain a culture of excellence to achieve the highest standards of performance and integrity for personnel supporting the strategic deterrent mission. We continue to focus on the custody and accountability of the nuclear assets that have been entrusted to the Navy. SSP's number one priority is to maintain a safe, secure, and effective strategic deterrent.

D5 Life Extension Program

The next priority is SSP's life extension effort to ensure the Trident II (D5) SWS remains an effective and reliable sea-based deterrent. The Trident II (D5) SWS continues to demonstrate itself as a credible deterrent and exceeds the operational requirements established for the system almost 30 years ago. The submarine leg of the U.S. strategic deterrent is ready, credible, and effective, thereby assuring our allies and partners and deterring potential adversaries. However, we must watch for and resolve potential age-related issues to ensure a continued high level of reliability.

The Trident II (D5) SWS has been deployed on our OHIO Class ballistic missile submarines for nearly 25 years and is planned for a service life of 50 years. This is well beyond its original design life of 25 years and more than double the historical service life of any previous sea-based strategic deterrent system. As a result, effort will be required to sustain a credible SWS.

The Navy is proactively taking steps to address aging and technology obsolescence in today's sea-based deterrent or SWS. SSP is extending the life of the Trident II (D5) SWS to match the OHIO Class submarine service life and to serve as the initial baseline mission payload for the OHIO Replacement submarine platform entering operational service in the 2030s. This is being accomplished through an update to all the Trident II (D5) SWS subsystems: launcher, navigation, fire control, guidance, missile, and reentry. Our flight hardware - missile and guidance - life extension efforts are designed to meet the same form, fit, and function of the original system to keep the deployed system as one

homogeneous population, control costs, and sustain the demonstrated performance of the system. We will also remain in continuous production of energetic components such as solid rocket motors. These efforts will provide the Navy with the missiles and guidance systems we need to meet operational requirements through the introduction of the OHIO Replacement SSBNs.

While budgetary pressures and impacts of sequestration have resulted in some deferred or delayed efforts, strategic deterrence remains one of the Navy's highest priorities. As such, the Navy is committed to minimizing, to the maximum extent possible, financial impacts to this program in order to meet strategic requirements.

One impacted effort is the change to our flight test program. In accordance with Strategic Command (STRATCOM) requirements, the Navy must flight test a minimum of four Trident II (D5) missiles per year in a tactically-representative environment. The purpose of flight testing is to detect any changes in reliability or accuracy. The fiscal year 2015 budget request reflects a reduction of two planned flight tests for affordability. The Navy has coordinated with STRATCOM to determine that this temporary reduction is manageable in the short-term, contingent upon our plan to ramp back up to four flight tests per year by fiscal year 2017. A prolonged or further reduction in planned flight tests would impact our ability to detect changes in system reliability and accuracy with the required degree of statistical confidence to meet STRATCOM requirements. I am strongly committed to ensure our flight testing returns to four flight tests per year in fiscal year 2017.

Despite budgetary pressures, the Navy's D5 life extension program is on track. In 2013, the Navy conducted the second flight test of the D5 life-extended (LE) guidance system and the first flight test of the D5 LE command sequencer. The D5 LE command sequencer began its initial fleet introduction earlier this year. The life extension efforts for the remaining electronics packages are on budget and on schedule. The life-extended missiles will be available for initial fleet introduction in FY 2017.

Another major step to ensure the continued sustainment of our SWS is the SSP Shipboard Systems Integration efforts, which utilize open architecture and commercial off-the-shelf hardware and software for shipboard systems. This update will be installed on the final U.S. SSBN in April of this year completing installation on all fourteen U.S. SSBNs, all four U.K. SSBNs, and all U.S. and U.K. land-based facilities. This effort is a technical refresh of shipboard electronics hardware and software upgrades, which will extend the service life of the SWS, enable more efficient and affordable future maintenance of the SWS and ensure we continue to provide the highest nuclear weapons safety and security for our SSBNs.

To sustain the Trident II (D5) SWS, SSP is extending the life of the W76 reentry system through a refurbishment program known as the W76-1. This program is being executed in partnership with the Department of Energy, National Nuclear Security Administration. The W76-1 refurbishment maintains the military capability of the original W76 for an additional 30 years.

The Navy is also in the initial stages of refurbishing the W88 reentry system. The Navy is collaborating with the Air Force to reduce costs through shared technology. In particular, the Air Force and Navy, consistent with Nuclear Weapons Council direction, are conducting studies examining the feasibility of a joint approach for fuzes for the Navy's Mk5/W88, the Air Force's Mk21/W87 and the future W78 and W88 Life Extension Programs. We believe the joint replacement fuze program is feasible and has the potential of several major benefits for the Nation, including the potential to achieve significant cost savings.

OHIO Replacement Program

One of the Navy's highest priority acquisition programs is the OHIO Replacement Program, which replaces the existing OHIO Class submarines. The continued assurance of our sea-based strategic deterrent requires a credible SWS, as well as the development of the next class of ballistic missile submarines. The Navy is taking the necessary steps

to ensure the OHIO Replacement SSBN is designed, built, delivered, and tested on time with the right capabilities at an affordable cost.

To lower development costs and leverage the proven reliability of the Trident II (D5) SWS, the OHIO Replacement SSBN will enter service with the Trident II (D5) SWS and D5 life-extended missiles onboard. These D5 life extended missiles will be shared with the existing OHIO Class submarine until the current OHIO Class retires. Maintaining one SWS during the transition to the OHIO Class Replacement is beneficial from a cost, performance, and risk reduction standpoint. A program to support long-term SWS requirements will have to be developed in the future to support the OHIO Class Replacement SSBN through its entire service life, currently projected into the 2080s.

The Navy continues to leverage from the VIRGINIA Class attack submarine program to implement lessons-learned and ensure the OHIO Replacement Program pursues affordability initiatives across design, construction, and life cycle operations and support. Maintaining this capability is critical to the continued success of our sea-based strategic deterrent.

A critical component of the OHIO Replacement Program is the development of a common missile compartment that will support Trident II (D5) deployment on both the OHIO Class Replacement and the successor to the U.K. VANGUARD Class. While lead U.S. ship construction has shifted from 2019 to 2021 as a result of the Budget Control Act of 2011, the Navy is maintaining the original program of record for the design, prototyping, and testing of the common missile compartment and SWS deliverables in order to meet our commitments to the U.K. Any further delay to the common missile compartment will impact the U.K.'s ability to maintain a continuous at sea deterrent posture.

The U.S. and the U.K. have maintained a shared commitment to nuclear deterrence through the Polaris Sales Agreement since April 1963. As the Director of SSP, I am the U.S. Project Officer for the Polaris Sales Agreement. Our programs are tightly coupled both programmatically and technically to ensure we are providing the most cost effective,

technically capable nuclear strategic deterrent for both nations. Last year, marked the 50th anniversary of this agreement, and I am pleased to report that our longstanding partnership with the U.K. remains strong. The United States will continue to maintain its strong strategic relationship with the U.K. as we execute our Trident II (D5) Life Extension Program and develop the common missile compartment. Our continued stewardship of the Trident II (D5) SWS is necessary to ensure a credible and reliable SWS is deployed today on our OHIO Class submarines, the U.K. VANGUARD Class, as well as in the future on our respective follow-on platforms. This is of particular importance as the sea-based leg of the Triad provides our assured second-strike capability thereby enhancing strategic stability. The OHIO Replacement will be a strategic, national asset whose endurance and stealth will enable the Navy to provide a continuous, uninterrupted strategic deterrent.

Solid Rocket Motor (SRM) Industrial Base

The fourth priority is the importance of the defense and aerospace industrial base, in particular, the solid rocket motor industry. I remained concerned with the decline in demand for the solid rocket motor. While the Navy is maintaining a continuous production capability at a minimum sustaining rate of 12 rocket motor sets per year, the demand from both NASA and Air Force has declined. Not only did this decline result in higher costs for the Navy, as practically a sole customer, but it also put an entire specialized industry at risk for extinction – or at least putting it on the “endangered species list.” That is not something we should risk. The Navy cannot afford to solely carry this cost, nor can this nation afford to lose this capability over the long-term. While the efforts of our industry partners and others have created short-term cost relief, the long-term support of the solid rocket motor industry remains an issue that must be addressed at the national level. At SSP, we will continue to work with our industry partners, DoD, senior NASA leadership, Air Force, and Congress to do everything we can to ensure this vital national industry asset is preserved.

Collaboration with the Air Force

The final topic is strategic collaboration between the Services. The Navy and the Air Force are both addressing the challenges of sustaining aging strategic weapon systems and have begun to work collaboratively to ensure these capabilities are retained in the long-term to meet our requirements. To do so, we are seeking opportunities to leverage technologies and make the best use of scarce resources.

As I testified last year, the Navy and the Air Force established an Executive Steering Group to identify and investigate potential collaboration opportunities and oversee collaborative investments for sustainment of our strategic systems. As a part of this effort, technology area working groups are studying collaboration opportunities in the areas of Reentry, Guidance, Propulsion, Launcher, Radiation Hardened Electronics, Ground Test and Flight Test systems, and Nuclear Weapons Surety.

Navy is also supporting an examination of the advantages of collaboration and commonality within the Air Force's Ground Based Strategic Deterrent (GBSD) Analysis of Alternatives (AoA). Members of my staff are participating with their Air Force counterparts to analyze the potential for commonality presented by each of the alternatives being examined. Additionally, an evaluation of the benefits, along with any potential risks, is being conducted as part of the overall effort.

The entire spectrum of potential commonality must be analyzed with the goal of using commonality where appropriate while ensuring essential diversity where needed, and being good stewards of taxpayer funds. The timing is now to address collaboration opportunities to maintain our ballistic missile capability in the long-term.

Many of the industries and required engineering skills sets are unique to strategic systems. Key to SSP's historical success has been our technical applications programs, which have provided a research and development foundation. As we evaluate maintaining this strategic capability to match the full service life of OHIO Replacement submarine, we will need to resume these critical efforts. Navy is developing a plan to reinvest in these technical applications programs.

Conclusion

SSP continues to maintain a safe, secure, and effective strategic deterrent and focus on the custody and accountability of the nuclear assets entrusted to the Navy. Our budget request provides the necessary funds to sustain this capability in fiscal year 2015.

However, we must continue to be vigilant about unforeseen age-related issues to ensure the high reliability required of our SWS. SSP must maintain the engineering support and critical skills of our industry and government team to address any future challenges with the current system as well as prepare for the future of the program. Our nation's sea-based deterrent has been a critical component of our national security since the 1950s and will continue to assure our allies and deter potential adversaries well into the future. I am privileged to represent this unique organization as we work to serve the best interests of our great Nation.