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THE HOUSE ARMED SERVICES COMMITTEE
STRATEGIC FORCES SUBCOMMITTEE

STATEMENT

OF

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BEFORE THE

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OF THE

HOUSE ARMED SERVICES COMMITTEE

ON

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Introduction

Chairman Rogers, Ranking Member Cooper, distinguished Members of the subcommittee, thank you for this opportunity to discuss the sea-based leg of the triad. It is an honor to testify before you this morning representing the Navy's Strategic Systems Programs (SSP).

The nation's nuclear triad of intercontinental ballistic missiles, strategic bombers, and submarine launched ballistic missiles is essential to our ability to deter warfare with major adversaries and assure our allies. The Navy provides the most survivable leg of the triad with our ballistic missile submarines (SSBNs) and the Trident II (D5) strategic weapon system (SWS). Submarine launched ballistic missiles (SLBMs) are responsible for a significant majority of the nation's operationally deployed nuclear warheads. The Chief of Naval Operations (CNO) states that sea-based strategic deterrence is the Navy's number one priority. In order to execute this mission, we must sustain all elements of the undersea leg of the triad including the submarine, the propulsion system, and the SWS.

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) 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 stand watch, ensuring the security of the weapons we are entrusted with by this nation.

Sustaining the sea-based strategic deterrent capability is a vital national requirement today and into the foreseeable future. Our fiscal year 2018 budget request provides the required funding to support the program of record for the Trident II (D5) SWS. To sustain this capability, I am focusing on my top priorities: Safety and Security; the Trident II (D5) SWS Life Extension Program; the COLUMBIA Class Program; the Solid Rocket Motor Industrial Base; the Navy Nuclear Deterrence Mission Oversight responsibility; and collaboration with the Air Force.

Safety and Security

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

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 submarines. Together, the Navy, Marine Corps, and Coast Guard team form the foundation of our security program, while headquarters staff ensures that nuclear weapons-capable activities comply with safety and security standards.

The Navy maintains a culture of self-assessment in order to ensure safety and security. This is accomplished through biennial assessments, periodic technical evaluations, formal inspections, and continuous on-site monitoring and reporting at the Strategic Weapons Facilities. The Department of the Navy completed its most recent biennial self-assessment in 2016. The department's self-assessment efforts have shown a continued focus on compliance and improvement in the oversight of our execution of the Navy Nuclear Deterrence Mission (NNDM). 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 and continue to focus on the custody and accountability of the assets entrusted to the Navy. SSP's number one priority is to maintain a safe and secure 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 has been deployed on our OHIO Class ballistic missile submarines for 27 years and is planned for a service life of more than 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, 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 payload for the COLUMBIA Class SSBN. 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.

The Navy's D5 life extension program remains on track. In February, the first two D5 life-extended missiles were outloaded onto the USS MARYLAND (SSBN 738). This was a significant programmatic achievement and represents the first step to convert the entire Fleet to life extended missiles over the coming years.

We also reached another milestone in our program earlier this year. In February, we conducted the last Follow-On Commander Evaluation Test (FCET) of the legacy Trident II (D5) missile, involving the flight test of four missiles. The FCET program was established to obtain and monitor, under representative tactical conditions, valid operational reliability, accuracy, and other performance planning factors. We started the D5 FCET program nearly 25 years ago and now have young engineers supporting the program who were born after the FCET program began. We will begin the Commander Evaluation Test (CET) program next year to measure the performance and ability of the life-extended missile to meet demonstrated requirements.

Another major step to ensure the continued sustainment of our SWS is the SSP Shipboard Integration (SSI) Program, which manages obsolescence and modernizes SWS shipboard systems through the use of open architecture design and commercial off-the-shelf hardware and software. The SSI Program includes refreshes of shipboard electronics hardware and software upgrades, which will extend service life, enable more

efficient and affordable future maintenance of the SWS, and ensure we continue to provide the highest level of nuclear weapons safety and security for our deployed SSBNs while meeting STRATCOM requirements. Thirty installations were completed in 2016; six have been completed so far this year with an additional fifteen planned.

The Navy also works in partnership with the Department of Energy's National Nuclear Security Administration to sustain our reentry systems. The Trident II (D5) is capable of carrying two types of warheads, the W76 and the W88. Both warheads are being refurbished. The W76 life extension program is approximately 80 percent complete, and the W88 major alteration program remains on track to support a first production unit in calendar year 2019.

The Trident II (D5) SWS continues to demonstrate itself as a credible deterrent and exceeds operational system requirements established more than 30 years ago. Our life extension efforts will sustain a credible strategic weapon system until the 2040s. The Navy is also beginning to evaluate options to maintain a credible and effective strategic weapon system to the end of the COLUMBIA Class SSBN service life in the 2080s. SSP has a history of more than 60 years of developing, producing, and supporting strategic weapon systems to support the undersea leg of the triad. We have optimized our SWS and applied lessons learned from six generations of missiles and will continue to do so until the 2080s.

COLUMBIA Class Program

The Navy's highest priority acquisition program is the COLUMBIA Class 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 COLUMBIA 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 COLUMBIA SSBN will enter service with the life-extended Trident II

(D5) SWS. These D5 LE missiles will be shared with the OHIO Class submarines until their retirement. Maintaining one SWS during the transition to the COLUMBIA Class is beneficial from a cost, performance, and risk reduction standpoint.

A critical component of the COLUMBIA Class program is the development of a Common Missile Compartment (CMC). The U.S. and the UK, one of our closest allies, have maintained a shared commitment to nuclear deterrence through the Polaris Sales Agreement since April 1963. Today, the Trident II (D5) SWS is shared with the UK. Like the U.S. Navy, the UK is recapitalizing her four Vanguard Class submarines with the Dreadnought Class. We developed a CMC that will support production in both U.S. and UK build yards. The CMC will allow the life extended Trident II (D5) missile to be deployed on the COLUMBIA and the UK Dreadnought Class SSBNs.

In 2015, we began construction of missile tubes to support building the U.S. prototype Quad-pack module, the Strategic Weapons System – Ashore (SWS Ashore) test site, and the UK's first SSBN. The joint CMC effort is shifting from design to construction. Any delay to the CMC effort has the potential to impact the UK's ability to maintain a continuous at sea deterrent posture.

To manage and mitigate technical risk to both the U.S. and UK programs, SSP is leading the development of the SWS Ashore integration test site at Cape Canaveral, Florida. This is a joint effort with the Navy and the State of Florida investing in the redevelopment of a Polaris site to conduct integration testing and verification for COLUMBIA and UK Dreadnought programs. We reached a programmatic milestone in April when test bay one reached initial operating capability.

To mitigate the risk in the restart of launcher system production, SSP developed a surface launch test facility at the Naval Air Warfare Center Weapons Division, China Lake, California. This facility will prove that the launcher industrial base can replicate the performance of the OHIO Class Trident II (D5) launcher system. To do so, we will launch the refurbished Trident II (D5) test shapes originally used in the 1980s starting later in June.

The OHIO Class will start to decommission in the late 2020s and the COLUMBIA Class must be ready to start patrol in fiscal year 2031 to maintain a minimum operational force of 10 SSBNs. The Navy has already extended the OHIO Class service life from 30 years to 42 years and there is no engineering margin left. Recapitalizing our ballistic missile submarines is a significant investment and something that happens every other generation, making it critically important that we do it right. Any delay has the potential to impact not only our ability to meet our operational requirements but also the UK's ability to maintain a continuous at sea deterrent posture.

Solid Rocket Motor Industrial Base

The defense and aerospace industrial base – in particular the solid rocket motor industry and its sub-tier supplier base – is another important priority. I remain concerned with the state of the solid rocket motor manufacturers as well as their suppliers of critical constituents. While the Navy is maintaining a continuous production capability of rocket motors, the demand from both NASA and the Air Force has precipitously declined. This decline has resulted in higher costs for the Navy and has put an entire specialized industry at risk of extinction. To allow this puts our national security at risk. Though future Air Force modernization will provide some relief beginning in the mid-2020s, the Navy cannot shoulder these costs in the interim, nor can our nation afford to lose this capability. 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, including its sub-tier supplier base, and maintenance of critical skills remains an issue that must be addressed. 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 security industry asset is preserved.

Navy Nuclear Deterrence Oversight Responsibility

As a result of the Nuclear Enterprise Review, the Navy implemented a centralized oversight authority for nuclear force readiness. As the Director of Strategic Systems Programs, I have accountability, responsibility, and authority to serve as the single Flag

Officer to monitor performance and conduct end-to-end assessments of the Navy Nuclear Deterrence Mission (NNDM) elements and report issues to the Navy Nuclear Deterrence Mission Oversight Council and the CNO. As the NNDM regulatory lead, I am tasked with developing, coordinating, and implementing policies approved by the CNO; and conducting end-to-end assessments of the Navy's nuclear weapons and nuclear weapons systems and personnel, including Nuclear Command, Control, and Communications (NC3), for safe, reliable, and effective execution of the NNDM. In October 2016, I submitted the first annual end-to-end assessment report to the CNO, and I assessed that the NNDM execution was effective and sustainable with some areas for improvement.

Collaboration with the Air Force

The final priority is strategic collaboration between the Services. The Navy and the Air Force are both addressing the challenges of sustaining aging strategic weapon systems and are collaboratively working to ensure these capabilities are retained in the long-term to meet mission requirements. Many of the industries and required engineering skills sets are unique to strategic systems.

In March 2016, a joint Air Force/Navy team assessed opportunities for commonality between the Ground Based Strategic Deterrent (GBSD) and the Trident II (D5) program. The team identified commonality candidate areas for GBSD. The use of these candidates offers significant potential benefits in terms of reducing costs and technical and schedule risks to the GBSD and SLBM programs. Commonality will provide the Navy and Air Force opportunities to eliminate redundant efforts, leverage economies of scale, and sustain shared critical skills and capabilities needed by securing the industrial base. We anticipate industry will incorporate commonality into their GBSD proposals. Navy also will collaborate to leverage GBSD investments for future SLBM recapitalization.

Each leg of the triad provides unique attributes. Furthermore, a sustained and ready triad provides an effective hedge, allowing the nation to shift to another leg, if necessary, due to unforeseen technical problems or vulnerabilities. For this reason, the

Department is focused on cooperative efforts that maintain affordability and reduce risk to both services, while retaining essential diversity where needed to ensure a credible and reliable deterrent.

Conclusion

SSP ensures a safe, secure, and effective strategic deterrent and focuses on the custody and accountability of the nuclear assets entrusted to the Navy. Our nation's sea-based deterrent has been a critical component of our national security since the 1950s and must 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. I thank the committee for the opportunity to speak with you about the sea-based leg of the triad and the vital role it plays in our national security.