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Senate Armed Services Committee

Testimony

Before the
Strategic Forces Subcommittee
Committee on Armed Services
U.S. Senate

Fiscal Year 2017 Budget Request for Nuclear Forces

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February 9, 2016

Chairman Sessions, Ranking Member Donnelly, and distinguished members of the Subcommittee, thank you for the opportunity to testify before you today on the Fiscal Year (FY) 2017 budget request for nuclear forces. I am pleased to join Assistant Secretary Scher, Vice Admiral Benedict, and General Rand to discuss the Department of Defense's (DoD) number one mission: maintaining a safe, secure, and effective nuclear deterrent for as long as nuclear weapons exist.

As the Principal Deputy Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs and the Nuclear Weapons Council (NWC) Staff Director, I work directly for the Under Secretary of Defense for Acquisition, Technology and Logistics (AT&L), and advise the Department's senior leadership on nuclear matters. The Under Secretary has a dual role in overseeing systems acquisition in the nuclear enterprise: leading the Department's efforts to acquire the strategic nuclear weapons delivery and command and control systems required to meet the operational needs of our Armed Forces, and leading the NWC to address life extension programs (LEPs) related to nuclear warhead sustainment and the aging nuclear infrastructure required for component and material production. The NWC is a joint DoD and Department of Energy (DOE)/National Nuclear Security Administration (NNSA) council established to facilitate cooperation and coordination, reach consensus, and institute priorities between the two departments as they fulfill their responsibilities for U.S. nuclear weapons stockpile management.

To ensure the continued credibility and reliability of our nuclear deterrent in an increasingly complicated and challenging world, it is essential that Congress support the President's FY 2017 budget request for nuclear weapons-related activities. This budget request demonstrates the Department's commitment to strengthening and modernizing the nuclear Triad. Today, I will summarize the DoD and NWC perspectives on, and priorities for, warhead life

extension, nuclear weapon delivery systems modernization and replacement, nuclear enterprise infrastructure modernization, stockpile sustainment, and the challenges we face today and tomorrow to ensure a safe, secure, effective, and reliable nuclear stockpile.

Nuclear Enterprise Challenges

The NWC convenes to ensure synchronization of the Departments’ vision, strategies, and schedules of the nuclear enterprise programs. Specifically, the Council focuses its attention on nuclear enterprise challenges in four vital areas. First, we must maintain and strengthen our ability to extend the lives of aging warheads, as the majority of today’s nuclear weapons and

delivery systems have surpassed their initial design life. This is accomplished through comprehensive component reuse, refurbishment, and replacement, while we ensure alignment with existing and future delivery systems (Table 1 summarizes the current and future nuclear weapons stockpile). Second,

Table 1. The Current and Future Triad Composition

	ICBM	SLBM	Air-Leg
Current			
<i>Weapon System</i>	W87 Warhead W78 Warhead	W76 Warhead W88 Warhead	B61 Bomb B83 Bomb W80-1 Warhead
<i>Delivery System</i>	Minuteman III	Trident II D5	B-2A B-52H F15/F16 ALCM ¹
Future			
<i>Weapon System</i>	IW-1 ² IW-2 IW-3	IW-1 IW-2 IW-3	B61-12 Bomb W80-4 Warhead
<i>Delivery System</i>	GBSD ³	D5 Follow-on	B-2A B-52H F-35 LRSB ⁴ LRSO ⁵

we must safeguard our ability to provide the rigorous science and engineering expertise required to assess the aging nuclear weapons stockpile, and certify the safety and effectiveness of that stockpile without underground nuclear testing. Third, we must remain steadfast in our commitment to sustain and modernize our aging infrastructure that provides materials, components, and testing facilities essential to our nuclear deterrent enterprise. And fourth, the

¹ Air-Launched Cruise Missile
² Interoperable Warhead
³ Ground-Based Strategic Deterrent
⁴ Long Range Strike Bomber
⁵ Long Range Standoff

DoD must address the challenges of sustaining and modernizing all parts of our nuclear force structure, and we must ensure that the Nation's nuclear weapons sustainment programs and delivery system modernization programs are funded and aligned.

DoD Stockpile Requirements

The Administration envisions a future stockpile that is flexible and adaptable to technical and geopolitical changes, and to achieve this end has endorsed the 3+2 stockpile strategy. This strategy includes three interoperable nuclear explosive packages for ballistic missiles and two air-delivered warheads. Interoperability will reduce the number of different nuclear weapons systems that must be maintained and serviced, while providing sufficient diversity among deployed systems to guard against potential technical issues in the stockpile. The 3+2 strategy simultaneously addresses stockpile obsolescence and meets policy objectives of sustaining deterrence through a smaller stockpile with fewer weapon types, and a modernized, responsive nuclear infrastructure capable of addressing technological and geopolitical surprise.

To support the 3+2 strategy and revitalize the enterprise, in 2012 the NWC baselined a 25-year integrated schedule for the nuclear weapons stockpile – known as the NWC Strategic Plan. It aligns warhead life extension plans and infrastructure needs with delivery system modernization and replacement efforts. The NWC Strategic Plan integrates NNSA nuclear security enterprise requirements and plans with military requirements.

Budget realities have forced changes to the Strategic Plan since 2012. Specifically, the NWC endorsed deferrals to key warhead LEPs and infrastructure modernization milestones, delaying overall implementation of the 3+2 strategy. The Council delayed the Interoperable Warhead 1 (IW1) and initially the Long Range Standoff (LRSO) warhead schedules. For the B83-1 bomb, it adjusted the deployment requirement. For the B61-12 bomb LEP, the NWC accepted a schedule delay due to the sequestration-related cuts in the FY 2014 budget.

Plutonium pit production schedules and supporting plutonium infrastructure investments experienced significant delays due to shortfalls in the FY 2013 and FY 2015 congressional appropriations. The current Strategic Plan includes these and other adjustments. Changes include adding high explosive material replacement in the W88 submarine-launched ballistic missile (SLBM) warhead Alteration (ALT) 370; aligning the W80-4 LRSO missile warhead development schedule with the requirement for a FY 2025 First Production Unit (FPU); and adding tritium production capability to the NWC Strategic Plan. The Council remains fully committed to ensuring the viability of each of the three legs of the nuclear Triad and revitalizing the nuclear enterprise.

DoD and NNSA are moving forward with several weapon systems LEPs to support the Nation's long-term deterrent capabilities. The SLBM-based W76-1 warhead and the B61-12 bomb for the air-delivery systems are the most urgent warhead life-extension needs in our stockpile, and the FY 2017 President's budget request fully funds these LEPs. The W76-1 LEP is beyond the halfway mark and is on-schedule to complete production in FY 2019. The B61-12 LEP, which includes the Air Force-provided Tailkit Assembly, is undergoing development engineering and remains on schedule and within budget to meet its March 2020 FPU. The Air Force has funded the tailkit development and production to synchronize with NNSA bomb assembly work. The B61-12 LEP consolidates four variants of the B61 bomb and improves the safety and security of the oldest nuclear weapon system in the U.S. arsenal. The B61-12 LEP will: 1) result in a nearly 50 percent reduction in the number of nuclear gravity bombs in the stockpile, 2) facilitate the removal from the stockpile of the last megaton-class weapon—the B83-1, 3) achieve an 80 percent reduction in the amount of special nuclear material in these bombs, and 4) implement the first step of the 3+2 strategy. These missions support both our deterrent and nonproliferation objectives as outlined in the 2010 Nuclear Posture Review.

The FY 2017 budget also funds expanded work on sustaining our SLBM-based W88 warhead, which is undergoing development engineering to replace the aging arming, fuzing, and firing system, and refresh the conventional high explosive. That program is on schedule to achieve a December 2019 FPU. The IW1 will be the first of three ballistic missile warheads under the 3+2 strategy. A full feasibility study is planned for completion in the early 2020s.

The NWC also evaluated and selected the existing W80-1 warhead as the basis for the follow-on warhead for the Air-Launched Cruise Missile (ALCM) replacement, the LRSO cruise missile. The warhead LEP, designated as the W80-4, is now in the feasibility study and design options development phase. To synchronize the warhead and delivery system schedules, the W80-4 LEP and LRSO cruise missile acquisition communities continue to collaborate and align their concurrent development efforts. To that end, the W80-4 FPU is planned for 2025 with the first LRSO cruise missile to be delivered in 2026.

The greatest challenge for the NWC is to achieve and maintain the necessary resources for three critical areas. To allow continued certification and ensure our nuclear weapons remain safe, secure, and effective, we must be vigilant in sustaining and life-extending our stockpile and delivery systems; sustaining and modernizing our aging nuclear enterprise infrastructure; and preserving stockpile science and engineering. It is imperative that Congress support the full nuclear-related budget requests to ensure national security requirements continue to be met.

Revitalizing the Nuclear Infrastructure

The 2010 Nuclear Posture Review stressed the importance of an NNSA infrastructure that can respond to technical challenges or geopolitical surprises and enable the consideration of stockpile reductions. The NWC focuses specifically on the plutonium, uranium, and tritium capabilities needed to support the current and future nuclear weapons stockpile as documented in the NWC's Strategic Plan. Our nuclear enterprise infrastructure challenges are two-fold:

addressing aged, end-of-life facilities maintenance, recapitalization, and replacement, and working to achieve a more responsive infrastructure. The Department reinforces NNSA's need to develop responsive and productive plutonium and uranium capabilities, as well as the ability to produce tritium to meet planned stockpile needs.

Stockpile Stewardship

Science is paramount to the ability to sustain a safe, secure, reliable, and effective deterrent. The Stockpile Stewardship Program has ensured confidence in the reliability and effectiveness of the nuclear stockpile without nuclear weapons testing. NNSA's Stockpile Stewardship Program, composed of research, development, testing, and evaluation (RDT&E) facilities and personnel, enables the surveillance and assessment of the stockpile condition by identifying anomalies, evaluating impacts of anomalies on warhead performance, and implementing solutions to anomalies. In general, RDT&E supports broader national security objectives by providing capabilities to avoid technological surprise and to have confidence in system performance. The NWC Strategic Plan relies on continued investments in research, development, design, and production capabilities.

DoD Delivery System Requirements

In accordance with the Nuclear Posture Review's guidance to maintain a Triad within the central limits of the New START Treaty with the Russian Federation, DoD has a robust plan for recapitalizing the ballistic missile submarines, intercontinental ballistic missiles (ICBMs), SLBMs, air-launched cruise missiles, and nuclear-capable heavy bombers that comprise our strategic nuclear deterrent. Our budget request is consistent with our plans to ensure that current nuclear delivery systems will be sustained, and that the modernization and replacement programs are executable and on schedule to avoid capability gaps. The FY 2017 Request continues to fund: the OHIO class Replacement submarine and Trident II (D5) missile life extension; a

follow-on capability to the Minuteman III ICBM—the Ground-Based Strategic Deterrent (GBSD); upgrades to the B-2A and B-52H heavy bombers as well as development of a new long range, penetrating bomber; and development of an LRSO cruise missile to replace the current ALCM.

The OHIO Replacement Program requires adequate resources and a stable, predictable funding profile to ensure on-time construction starts in FY 2021 in order to meet the patrol need date of FY 2031. There is no margin left in the OHIO Replacement schedule. Delays would put at risk the most survivable leg of the Nation’s nuclear Triad. The OHIO Replacement Program submarines will have a service life that enables patrols into the 2080s.

The Air Force has completed a GBSD Analysis of Alternatives to study the full range of options to recapitalize the land-based leg of the Triad beyond the extended service life of the Minuteman III ICBM. The FY 2017 budget funds initial development work for the GBSD. The Air Force’s FY 2017 budget request also includes funding to continue the development of an affordable, long range, penetrating aircraft that incorporates proven technologies—the Long Range Strike Bomber. Additionally, the FY 2017 budget contains funding for Block 4 of the F-35 program, which provides funds for follow-on capabilities for the F-35, including integration of a nuclear delivery capability for the F-35A. The F-35A Dual Capable Aircraft (DCA) will maintain a critical capability that is needed for non-strategic nuclear missions in support of the Nation’s extended deterrence and assurance commitments.

The Department’s budget request is consistent with plans to ensure that current nuclear delivery systems can be sustained and that the modernization and replacement programs are executable and on schedule to avoid capability gaps. The modernization and replacement programs will require increased investment over current levels for much of the next 15 years. The Department is taking steps to control the costs of these efforts. However, even with success

in this regard, we face budget decisions entering the 2020s to fund the necessary OHIO-Class Replacement and the Air Force strategic deterrent recapitalization programs. The FY 2014 Secretary of Defense-directed Nuclear Enterprise and Strategic Portfolio Reviews and the Department's FY 2017 budget formulation focused significant attention on recapitalization, sustainment, and modernization of our nuclear deterrent systems and infrastructure. The nuclear enterprise remains the Defense Department's highest priority, and the President's budget request for FY 2017 reflects the Administration's emphasis on the nuclear enterprise.

In the near-term, we are making focused and sustained investments in modernization and manning across the nuclear enterprise. These investments are critical to ensure the continued safety, security, and effectiveness of our nuclear deterrent, as well as the long-term health of the force that supports our nuclear Triad. To help fund improvements across the nuclear enterprise, the DoD has requested an increase of approximately \$200 million in FY 2017 from FY 2016 and approximately \$10 billion more in the FY 2017 Future Years Defense Program (FYDP) relative to the President's Budget in 2016 to ensure the continued health of this essential enterprise.

Conclusion

Budget constraints have forced the DoD to annually adjust its stockpile maintenance and infrastructure plans to fit within appropriated resources, and have caused the NWC to reevaluate priorities. These adjustments cause delays, reduce work scope, and extend development and production periods. We have reached a point where we have removed all flexibility from the nuclear weapons life extension and delivery system modernization programs. We must continue to field a strong nuclear deterrent that is supported by an agile and responsive infrastructure and valued workforce. The President's FY 2017 Budget Request supports our nuclear posture strategy. It includes funding for sustaining and modernizing our nuclear forces to ensure a safe, secure, and effective deterrent for as long as nuclear weapons exist. The Department of Defense

remains committed to maintaining its close and vital partnership with DOE and Congress in meeting the Nation's most fundamental security needs. In closing, I respectfully ask that you support the President's FY 2017 nuclear forces' budget request.