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Testimony

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Fiscal Year 2018 Budget Request for Nuclear Forces

Witness Statement of Mr. James MacStravic,
Performing the duties of the Under Secretary of
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Chairman Fischer, Ranking Member Donnelly, and distinguished members of the Subcommittee, thank you for the opportunity to testify today on the Fiscal Year (FY) 2018 budget request for nuclear forces. I am pleased to join General Rand, DASD Soofer, and Vice Admiral Benedict to discuss the Department of Defense's (DoD's) number one mission: maintaining and modernizing a safe, secure, and effective nuclear deterrent.

In my current role, I am responsible for advising the Secretary of Defense and the Deputy Secretary of Defense on all matters concerning acquisition, technology and logistics, including the acquisition and sustainment of our nation's nuclear forces. I oversee systems acquisition for the nuclear enterprise, lead 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 serve as Chairman of the Nuclear Weapons Council (NWC). 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.

In January, the President directed the DoD to conduct a comprehensive review of the roles of nuclear weapons in our national security, our strategy to fulfill those roles and the capability requirements to implement that strategy. The Office of the Secretary of Defense and the Joint Staff are currently leading the Nuclear Posture Review (NPR), and my office is fully engaged. The NPR will look at all elements of U.S. nuclear forces, policy, and posture to ensure that our nuclear deterrent is modern, robust, flexible, resilient, ready, and appropriately tailored to deter 21st century threats.

The Department appreciates Congress' support in ensuring the credibility and

reliability of our nuclear deterrent in an increasingly complicated and challenging world, and it is essential that Congress continue this support for the President's FY 2018 budget request for nuclear deterrence forces. This budget request demonstrates DoD's commitment to strengthening and modernizing an aging Nuclear Triad. Today, I will summarize the DoD and NWC perspectives on, and priorities for, nuclear weapon delivery systems modernization and replacement, warhead life-extension, stockpile sustainment, nuclear command, control and communication (NC3), and the challenges we face today and tomorrow to ensure a safe, secure, and effective nuclear enterprise.

It is very much appreciated that Congress recognizes and supports the challenges facing our nuclear enterprise. Our systems are well past their intended service lives and we risk losing operational capability, reliability and effectiveness. Delaying modernization and warhead life-extension efforts would degrade the effectiveness of these systems and would put at risk the fundamental objective of these systems – nuclear deterrence. As our delivery systems and warheads reach their limits for sustainability, our choice is not between keeping or updating the current forces. Rather, our choice is between modernizing those forces or watching a slow and unacceptable degradation in our ability to deter adversaries who present existential threats to our nation. Because all of our systems require modernization at the same time, we need continued support from Congress to ensure adequate, consistent funding for these programs. As the DoD moves forward with re-capitalization of all three legs of the nuclear Triad and investment in the resilience of the NC3 architecture, the total cost to sustain the existing force and field a modernized replacement is projected to range from approximately 3 percent to 6 percent of total defense spending annually. This projection includes the total cost of the strategic delivery systems that have a nuclear-only mission, a portion of the cost of the B-21 bomber, which will

have both conventional and nuclear roles, but no longer includes nuclear warhead life extension efforts that are funded by DOE/NNSA. Again, we appreciate that Congress has recognized the severity of this problem and is taking steps to ensure adequate resources are made available for continuing these critical modernization efforts.

Nuclear Systems Sustainment and Modernization

It is imperative that system modernization and sustainment efforts continue, or we run the risk of creating critical capability gaps as legacy systems reach the end of sustainability – negatively affecting the credibility of the Nation’s strategic deterrent. Almost all of the platforms and delivery systems that comprise the nuclear Triad have already been extended decades beyond their original expected service lives. With the current replacement schedule, there is no remaining margin between legacy system age-out and the planned fielding of modern replacements.

The DoD FY2018 budget request is consistent with these plans. Enacting it will ensure that current nuclear delivery systems can be sustained and that modernization and replacement programs preclude gaps in capability. However, these programs will require increased investment over current levels for much of the next 20 years.

The Department remains committed to sustaining current nuclear Triad capabilities and will ensure they continue to meet warfighter requirements throughout the transition to modernized delivery systems. The Air Force maintains a detailed plan to execute sustainment activities for the Minuteman III (MMIII) weapon system until the recently initiated Ground-Based Strategic Deterrent (GBSD) system is fielded and operational. Meanwhile, the Air Force is executing a series of four planned life extension programs (LEPs) for the Air-launched Cruise Missile (ALCM) to ensure the system remains operational and effective until replaced by the Long Range Standoff (LRSO) cruise missile in 2030. Further, Air Force continues to maintain

the viability of the U.S. strategic bomber force through a series of upgrades to the B-2A and B-52H that will ensure continued survivability and compatibility with modern weaponry. It is imperative that these and other legacy systems remain safe, secure and effective until replaced by modernized deterrent systems.

Beyond sustaining current systems, DoD is implementing a robust plan to recapitalize our strategic nuclear deterrent including ballistic missile submarines, ICBMs, submarine-launched ballistic missiles (SLBMs), ALCMs, nuclear-capable heavy bombers, dual-capable aircraft (DCA), and our NC3 system. Specifically, the FY 2018 budget request continues to fund: the COLUMBIA-class submarine program and Trident II (D5) missile Life-Extension; the GBSD; development of the B-21 Bomber; development of LRSO; the B61-12 gravity bomb LEP tail kit; and comprehensive upgrades to NC3.

- I approved initiation of detailed design and construction of the COLUMBIA-class ballistic missile submarine program with a Milestone B decision in January 2017. The program requires adequate resources and a stable, predictable funding profile to ensure that construction starts in FY 2021. There is no margin left in the replacement schedule if the Department is to meet the first patrol need date in FY 2031. Any resource or funding shortfalls could delay the delivery of the COLUMBIA-class submarines and place the most survivable leg of the Nation's nuclear Triad at risk. FY 2018 investment funding: \$1,870M.
- GBSD will be fielded as the MMIII ICBM reaches its end of life. The program achieved Milestone A in August 2016 and entered into the Technology Maturation and Risk Reduction (TMRR) Phase. The Air Force is conducting

source selection and anticipates awarding contracts to two vendors in the 4th quarter of FY 2017. The FY 2018 President's Budget fully funds the GBSD: that funding must also remain stable if the program is to remain on schedule. Delays to the GBSD schedule will result in capability gaps as the Minuteman III ages. FY 2018 investment funding: \$216M.

- The Air Force's FY 2018 budget request includes funding for the B-21 bomber and will continue the development of a long-range, highly survivable platform that will provide a visible and flexible nuclear deterrent capability. Nuclear enterprise-related funding is only a small portion of the overall B-21 bomber program. The total FY 2018 investment budget request for the entire B21 program is \$2,004M.
- The LRSO cruise missile will replace the aging ALCM and will improve the flexibility and survivability of the air leg of the Triad. It will have improved penetration capabilities against advanced Integrated Air Defense Systems and in GPS-denied environments from significant standoff ranges. The program successfully achieved Milestone A in July 2016, is currently in TMRR, and anticipates awarding contracts to up to two vendors in the 4th quarter of FY 2017. The first LRSO missile will be delivered in 2026 and the program will meet Initial Operational Capability by 2030. FY 2018 investment funding: \$451M.
- The B61-12 LEP tail kit program is part of the overall B61 LEP. The B61 LEP will provide the strategic weapons for the airborne leg of the nuclear triad that are carried on the B-2 and will be carried on the B-21. The B61 LEP will also

provide the nuclear gravity bomb for North Atlantic Treaty Organization (NATO) dual-capable aircraft. DOE/NNSA and the Air Force are jointly executing the effort to refurbish the B61 with the First Production Unit (FPU) scheduled in 2020. The Air Force portion of the LEP will provide the development, acquisition and delivery of a guided tail kit assembly and all up round technical integration, system qualification and fielding. FY 2018 investment funding (B61-12 LEP Tail kit only): \$180M.

- The FY 2018 budget continues funding the F-35 program, which includes integration of a nuclear delivery capability for the F-35A. The F-35A 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, especially to our Allies. FY 2018 investment funding (F-35A DCA funding only): \$35M.

DoD Stockpile Activities

The Department is ensuring that the U.S. nuclear stockpile is modern, robust, flexible, resilient, ready, and appropriately tailored to deter 21st century threats. We continue to follow the NWC's stockpile strategy, which currently includes development of three interoperable nuclear explosive packages for ballistic missiles and two air-delivered warheads. The Interoperable Warhead 1 will be the first of three ballistic missile warheads under this strategy, and a full feasibility study is planned for completion in the early 2020s.

The NWC remains fully committed to ensuring the viability of each of the three legs of the nuclear Triad and revitalizing the nuclear enterprise. Under the guidance of DOE/NNSA, several weapon systems LEPs are underway 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 2018 President's budget request fully funds these LEPs. The W76-1 LEP is on schedule to complete production in FY 2019. The FY 2018 budget also funds sustainment of the SLBM-based W88 warhead through the W88 Alt 370, which was authorized to begin production engineering in February 2017 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 LRSO warhead LEP, designated as the W80-4, is in the Feasibility Study and Design Options development phase. The W80-4 warhead LEP and LRSO cruise missile acquisition communities continue to collaborate and align their concurrent development efforts, with the W80-4 FPU planned for 2025 to support a first missile delivery in 2026.

The greatest challenge facing the NWC is to secure the necessary resources for three critical areas to allow continued certification and ensure our nuclear weapons remain safe, secure, and effective: (1) sustaining and life-extending our stockpile in concert with the modernization of associated delivery systems; (2) sustaining and modernizing our aging nuclear stockpile enterprise infrastructure; and (3) preserving stockpile science and engineering expertise and capabilities. Our nuclear enterprise infrastructure challenges include addressing aged, end-of-life facilities maintenance, recapitalization, and replacement. The NWC focuses specifically on the plutonium, uranium, and tritium capabilities needed to support the current and future nuclear weapons stockpile. The Department reinforces DOE/NNSA's need for responsive and productive plutonium and uranium capabilities, as well as the ability to produce tritium to meet planned stockpile needs. It is imperative that Congress support the full nuclear-related budget requests of both Departments to ensure national security requirements continue to be met.

NC3

Our nuclear deterrent must be appropriately tailored to deter 21st century threats, and the NC3 system must have similar attributes. The nuclear security environment has changed markedly in the decades since the Cold War. The risk is increasing that non-nuclear states and terrorists, especially those at odds with the United States and its allies and partners, will acquire nuclear weapons and the means to deliver them. Potential adversaries are pursuing both traditional and asymmetric means to threaten U.S. nuclear capabilities and U.S. interests. Aggressive behavior by states like Iran and North Korea threatens regional stability and challenges U.S. ability to assure allies and partners through extended deterrence.

We will continue to modernize our NC3 systems to take advantage of our areas of technological superiority. The NC3 system must remain strong and resilient to convince adversaries that any attempt to disrupt the President's ability to command our nuclear forces would be futile. Data supporting the NC3 mission must be accessible through all attack phases. Flexible information services will help meet the communications demands of a geographically dispersed infrastructure to ensure data remains accessible. This allows a relatively smooth transition of duties should the crisis force the devolution of operations to alternate locations. Persistent analysis and adaptation will assure links between surviving command centers, networks, and forces even during and after a large-scale nuclear attack on the homeland.

The NC3 system must be ready, tailored, and flexible to enable deterrence and nuclear response across a wide range of conditions and scenarios, calibrated against specific actors, and adaptable to meet evolving threats and sudden upsets. Deterrence and nuclear response operations may occur in a wide range of scenarios that vary in likelihood and consequence of occurrence. The NC3 system must function to deter nuclear threats ranging from limited use against our allies

to existential threats to our homeland. Components may also adapt to support U.S. policy regarding non-nuclear strategic challenges.

The cost to modernize the NC3 system is included in the DoD nuclear recapitalization costs. FY 2018 investment funding: \$447M.

Conclusion

Nuclear deterrence remains DoD's highest priority, and the President's budget request for FY 2018 reflects the Administration's emphasis on the maintaining a viable and effective nuclear enterprise. Across the FYDP we are making investments in modernization and sustainment across the nuclear enterprise, investments which 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. The President's FY 2018 budget request supports the Nation's nuclear deterrent strategy. It includes \$14 billion for nuclear force sustainment and operations and \$5 billion for associated recapitalization programs. As the bedrock of our national security, our nation must remain committed to fully funding the recapitalization of our nuclear forces. The President's FY 2018 budget request demonstrates the Administration's commitment to the sustainment of our deployed legacy nuclear forces and development of modern replacements. These efforts will ensure our nuclear deterrence forces remain an effective foundational element of our strategy for deterring strategic attacks against the U.S, and our Allies and for reducing the risk of large-scale war. I want to take this opportunity to thank the committee for its support of the budget in FY 2017. I look forward to your continuing support in FY 2018. I am happy to answer any questions you may have.