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Statement of
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INTRODUCTION

Chairwoman Stefanik, Ranking Member Langevin, and distinguished members of the Subcommittee, I appreciate the opportunity to testify on the United States Department of Defense's (DoD) efforts to counter threats posed by weapons of mass destruction (WMD).

As the Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs (NCB), in accordance with Section 138 of Title 10, United States Code (U.S.C.), I am responsible for advising the Secretary of Defense on nuclear weapons, nuclear energy, and chemical and biological defense matters, as well as serving as the Staff Director of the Nuclear Weapons Council. Further, per Section 133b of Title 10, U.S.C., on behalf of the Under Secretary of Defense for Acquisition and Sustainment, our office also oversees the modernization of our nuclear forces and the development of the Department's capabilities to counter weapons of mass destruction (CWMD) threats.

NCB is comprised of a workforce spanning three components, including the Office of Nuclear Matters (NM); the Office of Chemical and Biological Defense Programs (CBDP); and the Office of Threat Reduction and Arms Control (TRAC). Additionally, on behalf of the USD(A&S), NCB exercises authority, direction, and control of the Director of the Defense Threat Reduction Agency (DTRA). Together, we ensure the safety, security, and reliability of our nuclear deterrent; develop CWMD capabilities to prevent the proliferation of, protect against, and respond to WMD threats; and ensure DoD compliance with nuclear, chemical, and biological treaties and agreements.

Ultimately, NCB's role is to ensure that our nuclear deterrent is safe, secure, and effective; reduce and eliminate known WMD threats; and develop a spectrum of capabilities to protect the lethality of our forces against the myriad of WMD threats should they encounter them in battle.

WMD THREAT LANDSCAPE

As noted in our National Defense Strategy, the central challenge to U.S. prosperity and security is the reemergence of long-term, strategic competition by revisionist powers. It is increasingly clear that China and Russia want to reduce U. S. influence and shape a world consistent with their authoritarian model to gain veto authority over other nations' economic, diplomatic, and security decisions.

Russia's use of nuclear posturing, rhetoric, and doctrine; occupation and purported its annexation of Crimea, aggressive actions in Ukraine, and its use of a chemical weapons agent in an assassination attempt in the UK, as well as its violation of the Intermediate-Range Nuclear Forces (INF) treaty, reflect, among other things, its strategic intentions to undermine the North Atlantic Treaty Organization (NATO), and change European and Middle East security and economic structures to their favor. Similarly, China is leveraging military modernization, influence operations, and predatory economics to coerce neighboring countries in order to reorder the Indo-Pacific region to their advantage. These actions pose immeasurable security implications for our security interests and those of our allies and partners.

Further, rogue regimes, such as North Korea and Iran, continue to seek out or develop WMD as well as long-range missile capabilities. Pyongyang is committed to developing a long-range, nuclear-armed missile that is capable of posing a direct threat to the United States. Further,

North Korea has a longstanding biological weapons (BW) capability and biotechnology infrastructure that could support a BW program. The intelligence community also assesses that North Korea has a chemical weapons program and the capability to employ these agents by modifying conventional munitions or with unconventional, targeted methods. Iran's ballistic missile programs give it the potential ability to hold targets at risk across the region.

Terrorists likewise continue to pursue WMD, while the spread of nuclear weapon technology and advancements in manufacturing and bioengineering technology continue to lower the barriers for entry.

Today, America faces the most complex, demanding international security situation since the end of the Cold War. To address these challenges, the Secretary has prioritized rebuilding military readiness to build a more lethal Joint Force; strengthening alliances to attract new partners; and reforming the Department's business practices for greater performance and affordability. The willingness of rivals to abandon aggression will largely depend on their perception of U.S. strength and the vitality of our alliances and partnerships.

NCB PRIORITIES

NCB's top objective, in alignment with the National Defense Strategy, is to dissuade, prevent, or deter state adversaries and Violent Extremist Organizations from acquiring, proliferating, or using WMD.

Our nuclear forces make essential contributions to the deterrence of nuclear and non-nuclear aggression, as well as nonproliferation and counterproliferation. While the highest U.S. nuclear policy and strategy priority is to deter potential adversaries from nuclear attack of any scale, our extended deterrence posture enables our allies to avoid the need to develop their own nuclear arsenals. As such, it is vital that our nuclear deterrent remains safe, secure, effective, ready, and flexible. In addition to supporting our nuclear forces, preventing WMD proliferation and denying terrorists access to finished weapons, material, or expertise, and ultimately reducing their effectiveness in the event of use, are also key priorities driving our investments.

Our efforts align with the Department's CWMD Strategy, which outlines three end states: no new WMD possession, no WMD use, and minimization of WMD effects. We achieve these end states through four priority objectives: reducing incentives to pursue, possess, and employ WMD; increasing barriers to the acquisition, proliferation, and use of WMD; managing WMD risks emanating from hostile, fragile, or failed states and safe havens; and denying the effects of current and emerging WMD threats through layered, integrated defenses.

These objectives shape a comprehensive response to the WMD challenge and focus on shaping the environment, cooperating with partners, and prioritizing early action.

NCB EFFORTS TO REDUCE INCENTIVES, INCREASE BARRIERS, AND DENY EFFECTS OF WMD

In close collaboration and coordination with Assistant Secretary of Defense for Homeland Defense and Global Security, Mr. Ken Rapuano, NCB supports the Department's CWMD strategy through the following efforts:

Reducing incentives to pursue, possess, and employ WMD

These activities include sustaining formal security guarantees underwritten by U.S. nuclear capabilities and providing direct security assistance in building partner capacity to counter WMD.

Foundational Security Guarantee: Safe, Secure, and Effective Nuclear Deterrent

Our nuclear deterrent contributes to U.S. efforts to reduce incentives for other countries to pursue, possess, or employ WMD. The United States extends deterrence to over 30 countries with different views about the threat environment and the credibility of U.S. security commitments. An effective deterrent is the foundation for effective assurance. Accordingly, it is essential that the United States maintain the capabilities necessary to deter effectively and, if necessary, respond effectively and decisively across the spectrum of potential nuclear and non-nuclear scenarios. NCB is responsible for planning and implementing the modernization of the nuclear stockpile, and creating adaptive policy and governance for physical security of nuclear weapons, critical nuclear command and control facilities, and the personnel reliability program.

CWMD Building Partner Capacity

Trafficking networks that span the globe and an expanding set of state and non-state actors interested in acquiring, developing, or using WMD, leave potentially vulnerable stockpiles of chemical, biological, nuclear and other radioactive materials at risk. Through efforts such as the DoD Cooperative Threat Reduction Program, Proliferation Security Initiative, and training and equipping our partners' national security forces, the Department builds the capacity of partners to secure WMD materials, detect and interdict proliferation, and respond to CBRN events, stopping WMD threats closer to the source. Activities range from detecting and preventing WMD proliferation in the Middle East, Southeast Asia, and North Africa, to enhancing nuclear security and counter nuclear smuggling capabilities in Europe and Eurasia, to consolidating and securing collections of dangerous pathogens in Sub-Saharan Africa, to strengthening partners' capabilities to detect and mitigate biological threats and disease outbreaks.

Our office provides acquisition policy, governance, and portfolio management of CWMD security cooperation and building partner capability and capacity programs. We manage risk, demonstrate the impact of CWMD threat reduction to broader U.S. security objectives, conduct data-driven analysis to enable innovation, and lead business reform of the CWMD community.

Strengthening Nonproliferation Regimes: Treaty Management

As the lead for the DoD, we govern the implementation of and compliance with existing and prospective nuclear, biological, and chemical arms control agreements. We manage the DoD's compliance with U.S. policies and agreements, as well as chemical and biological defense and destruction activities compliance with the Chemical Weapons Convention (CWC) and the Biological Weapons Convention (BWC). Through reporting of implementation activities in annual reports, initial and systematic inspections, onsite monitoring, and verification activities at U.S. sites, we ensure compliance.

Just last week, I presented the U.S. Chemical Demilitarization briefing to the Organization for the Prohibition of Chemical Weapons (OPCW) Executive Council, which occurs three times a year, and this November, I will brief the Conference of the States Parties, which occurs annually. Immediately following that conference, our office will support the 4th CWC Review Conference in The Hague.

This past year, we successfully facilitated six inspections of DoD sites by the OPCW's Technical Secretariat and completed our review of the DoD Chemical and Biological Defense programs and activities for treaty compliance, and have ensured all treaty-related requirements were met, including reporting DoD's portion of the Confidence Building Measures under the BWC and various reports under the CWC.

The Department's Nuclear Arms Control Technology Program, executed by DTRA, is considered to be one of six "safeguard" assurances which would be required should the United States choose to ratify its signing of the Comprehensive Nuclear Test Ban Treaty. Regardless of its being ratified or entered in to force, the United States has made a policy commitment to field the International Monitoring System, which my office supervises and manages.

Increasing barriers to the acquisition, proliferation, and use of WMD

We increase barriers by, among other things, assisting our allies and partners in securing and reducing WMD programs, stockpiles and materials, enhancing our abilities to collaborate with our partners in countering WMD, and strengthening international norms against proliferation and use.

Securing and Reducing WMD Programs, Stockpiles, and Materials

Nuclear Physical Security: To gain insight into the effectiveness of our policies and capabilities for protecting our nuclear weapons, NCB provides oversight of the MIGHTY GUARDIAN program, which is a realistic, force-on-force exercise executed by DTRA against threats outlined in the Nuclear Security Threat Capabilities Assessment. This exercise accounts for foreign and domestic threats, including those posed by evolving technologies, such as unmanned systems.

Further, through the Physical Security Enterprise Analysis Group (PSEAG), our office works with the Military Departments and the interagency, to solve gaps in our ability to detect, delay, deny, defeat and ultimately deter threats to our nuclear assets, both at home and within NATO. Examples of the projects we manage include determining the best way to systematically develop and deploy countermeasures to defeat selected Unmanned Aircraft System threats and by conducting a cybersecurity assessment for nuclear electronic security systems to identify whether vulnerabilities exists and determine potential solutions.

Countering Nuclear, Chemical and Biological Threats: Nuclear terrorism remains among the most significant threats to the security of the United States and its allies and partners. The United States maintains National Technical Nuclear Forensics capabilities, and works with our interagency partners, to attribute the source of any nuclear or other radioactive material intended for or used in a terror attack. Leveraging our capabilities, we actively engage with our international partners on countering nuclear terrorism and nuclear proliferation threats.

Drawing from our experiences in the international effort to eliminate Syrian and Libyan chemical weapons, it is important that DoD maintain materiel readiness to eliminate other nations' chemical and biological weapons (CBW), should the Department be called upon to do so. We have implemented a continuous process to evaluate threats, assess materiel readiness, identify gaps in capability, identify and evaluate potential solutions, and recommend investments to improve overall DoD readiness to assist in reducing the serious threat posed by existing, and

future variations of CBW. Retaining flexible authorities and resources to ensure we are best postured to address these needs is vital.

Enhancing our Collaboration in Countering WMD: In accordance with our responsibilities to oversee development of CWMD capabilities for the Department, we are working with multiple DoD Components to develop requirements and solutions that ensure our military forces are ready for a variety of WMD contingencies. Through our investments, we are focused on how we can accelerate development of technologies that can transition to fielded capabilities in response to warfighter needs.

For example, in response to a 2017 Combatant Command request for development of a DoD CWMD "User Defined Operational Picture" that can access and share relevant WMD information with DoD mission partners, we sponsored the development and deployment of a CWMD dashboard that is now being leveraged to more effectively share information with mission partners. We also sponsor other projects to close CWMD situational awareness gaps by leveraging mature technologies, modifying existing systems, and utilizing small analytical cells. For example, we support several Combatant Commands and interagency partners to develop tools that will enhance counterproliferation analysis. This approach enables us to provide innovative capabilities cost-effectively and quickly.

Strengthening International Norms: Destruction of U.S. Chemical Weapons Stockpile

Consistent with U.S. commitments under the CWC, we diligently continue our work of safely eliminating the remaining U.S. chemical weapons stockpile located in Colorado and Kentucky. This investment highlights the importance the United States places on honoring its treaty obligations as well as the U.S. commitment to, and the importance of, strengthening international norms against the proliferation and use of chemical weapons.

In Colorado, the team at the Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP) has started destruction operations to destroy nearly 780,000 mustard agent-filled projectiles and mortars at completion. To date, PCAPP has destroyed more than 42,000 munitions containing approximately 251 tons of mustard agent. Being a pilot plant, PCAPP has experienced technological challenges, which have caused delays and affected the throughput rate of destruction operations. We continue to make progress to resolve these challenges by improving the reliability, availability, and maintainability of the first-of-its-kind systems and equipment, while ensuring operations are conducted in an environmentally safe manner. I appreciate your continued patience in these efforts as we assure you that we are doing everything possible to meet established deadlines.

I am pleased to relay that the construction of our Blue Grass, Kentucky, Chemical Agent-Destruction Pilot Plant (BGCAPP) is substantially complete. Systemization of BGCAPP, through the preparation and testing of the personnel, procedures, equipment, and systems, is about 59 percent done. BGCAPP should begin destruction operations on or about April 2020, destroy nearly 87,000 nerve agent-filled projectiles and rockets. We have also identified a supplemental technology, called a Static Detonation Chamber, which will be used to destroy all 15,492 mustard-filled munitions stored at the Blue Grass Army Depot.

Denying the effects of current and emerging WMD threats through layered, integrated defenses

The lethality of the Joint Force depends on our warfighters' ability to deter, prevent, protect against, mitigate, respond to, and recover from CBRN weapons use and effects. Further, an effective defense helps deny adversaries the expected gains of WMD use, pursuit, and possession.

Through CBDP, we supply materiel solutions to enable our service members to operate in a CBRN environment, whether they are conducting combat operations abroad, or supporting first responders in domestic incident prevention and response. The Department's development of CBRN defense capabilities is a key component of an integrated national effort to address traditional and emerging CBRN threats and maintain DoD's CBRN defense readiness.

As part of a layered defense, we deny the effects of WMD threats by developing and fielding a wide range of defensive equipment (e.g., suits and masks). We engage early and often with the Services to ensure our products are responsive to operational priorities and requirements. Currently, we are focused on improving personal and collective protection, advanced medical countermeasures, next generation detection and identification, diagnostics for clinical samples, and the capability to disable tactical-level WMD threats. Delivering capabilities such as improved protective masks, next generation protective clothing, advance detection and diagnostics, and medical countermeasures protect service members and improve decision making which sustains the lethality of the Joint Force against CBRN threats.

Our success depends on strategic engagements with our interagency and international partners. We leverage the expertise and complementary missions of the Department of Health and Human Services (HHS), the Department of Homeland Security, and our global counterparts. Internally, all of our medical countermeasure work is coordinated with Office of the Secretary of Defense for Health Affairs. On-going cooperation includes coordination to manage stockpiles of medical countermeasures, and especially in the case of the HHS, coordinating medical countermeasure development and implementing incentives or transactional authorities that maximize value while mitigating risk. These investments and interagency engagements have, and continue to, incentivize industry engagement.

To support the development and manufacturing of medical countermeasures, the Department has invested in a new, agile manufacturing capability through the Advanced Development and Manufacturing (ADM) facility in Alachua, Florida. This facility provides the capability to rapidly develop and produce medical countermeasures for a subset of people, on a smaller scale than those needed for the public health sector. We are pursuing innovative manufacturing capabilities that allow for a more modular and flexible approach to meet the Department's needs in a rapid and cost-effective manner. From a product development perspective, the CBDP is establishing a platform capability at the ADM to produce medical countermeasures more efficiently, rapidly, and at a lower cost. My office will continue to augment this capability, which stabilizes the industrial base for medical countermeasures by allowing the Department to mitigate risk early in the development for industry and have more control over the development process.

CONCLUSION

The pursuit of WMD and the risk of employment by actors of concern pose a persistent threat to

peace and stability worldwide and to the national security objectives of the United States. Ensuring our warfighters are postured to counter nuclear, radiological, chemical, and biological threats and that the Department safeguards our nuclear deterrent are my highest priorities. To address the full WMD threat spectrum, our nuclear, radiological, chemical, and biological defense programs and CWMD threat reduction programs must retain flexible authorities and resources to promote our warfighters' ability to carry out their mission to deter our enemies. We continue to act in collaboration and coordination within the Department and the interagency and with our international partners to maximize our effectiveness and efficiencies in confronting, deterring, and if required, defeating those who would threaten the use of WMD. Failure to do so risks the safety and security of our forces, our populations, and our nation. We must not, and will not, fail.

Thank you for this opportunity to testify.