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House Armed Services Committee

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INTRODUCTION

Chairman Langevin, Ranking Member Stefanik, 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), and to provide context on the President's Fiscal Year 2020 (FY2020) budget request.

The Office of the Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs ("NCB") is responsible for advising the Secretary of Defense on nuclear weapons, some aspects of nuclear energy, and chemical and biological defense matters. The office provides oversight of the Department's nuclear weapons-related programs, chemical and biological defense, chemical demilitarization, and the Defense Threat Reduction Agency (DTRA). Together, we help to ensure the Department's investments both align with the National Defense Strategy's three lines of effort: to increase lethality, strengthen alliances, and reform how we do business, as well as aligning with the Department's Countering Weapons of Mass Destruction (CWMD) strategy to prevent WMD acquisition, contain and reduce threats, and respond to crises.

Toward these ends, the President's FY2020 budget request includes resources to reduce threats and protect warfighters in several areas. The Chemical and Biological Defense Program's (CBDP) budget request of \$1.4 billion will continue to develop capabilities to increase the resiliency of our warfighters and support efforts to deter, prevent, mitigate, respond to, and recover from chemical, biological, and radiological threats and their effects. Our Chemical Demilitarization budget request of \$985.5 million will support the safe, complete, and treaty-compliant destruction of the U.S. chemical weapons stockpile. Our Nuclear Matters budget request of \$64.6 million will continue the development of policies that guide the safety and security of the nation's nuclear deterrent and counter threats of nuclear terrorism and nuclear proliferation. The DTRA budget request of \$1.9 billion includes resources to address the full spectrum of WMD-related threats, including Cooperative Threat Reduction programs, improvised threat networks and support to Combatant Commands in their efforts to identify and reduce threats globally. Lastly, our Threat Reduction and Arms Control budget request of \$61 million will accelerate the advanced development and delivery capabilities to counter weapons of mass destruction by meeting requirements and closing gaps for key stakeholders such as U.S. Special Operations Command, U.S. Central Command, the Air Force Technical Applications Center, and the Military Services.

ENHANCING LETHALITY AND RESTORING READINESS

The lethality of the Joint Force depends on our warfighters' ability to deter, prevent, protect against, mitigate, respond to, and recover from chemical, biological, radiological, or nuclear (CBRN) weapons and their effects.

CBRN agents pose uniquely destructive threats. They can empower a small group of actors with terribly destructive potential. Thus, countering weapons of mass destruction (WMD) as far from our homeland as possible, is a key mission for the U.S. military we help enable.

Our focus is on ensuring that our nuclear deterrent is safe, secure, effective, and survivable; providing an adequate nuclear force posture to deter aggression and the use of WMD against the United States or our allies; expanding resiliency in our capabilities and

defenses so our forces can fight through new and emerging threats; and strengthening our conventional defenses to optimize warfighter performance against traditional threats.

Ensuring a safe, reliable, and effective nuclear deterrent

A robust and modern nuclear deterrent has been the cornerstone of American security for more than seventy years, and underwrites U.S. security, diplomacy and conventional military operations worldwide. Given the strategic environment, nuclear deterrence is more important now than at any time since the end of the Cold War, and it is the highest priority mission of the Department of Defense. The diverse capabilities of the nuclear triad provides the flexibility and resilience needed for a credible deterrent and our nuclear posture that is critical to preventing both the use and proliferation of WMD. Through our extended deterrence commitments to allies in Europe and the Asia-Pacific region, our nuclear forces have helped address allied concerns with regional threats and, in turn, have also helped prevent the proliferation of nuclear weapons by reducing incentives for U.S. allies to develop their own nuclear weapons. Further, our nuclear deterrent helps ensure competition and conflict with potential adversaries does not escalate to large-scale war and discourages the use of WMD of any kind against the U.S., our allies, and our partners.

Nuclear Physical Security and Nuclear Forensics

To sustain effective deterrence against dynamic and uncertain future threats, we are not only modernizing our triad, we are also improving nuclear security exercises and technologies and investing in enhanced nuclear forensics and attribution capabilities.

Ensuring the safety and security of U.S. nuclear weapons is a top priority. NCB is currently rewriting physical security guidance regarding protection of nuclear weapons and nuclear command and control facilities, as well as special nuclear material under our auspices. 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 as determined by the Defense Intelligence Agency. This exercise accounts for foreign and domestic threats, including those posed by evolving technologies, such as unmanned systems. We are expanding the scope of the MIGHTY GUARDIAN program to include evaluating security of our critical nuclear command and control platforms, and in the future, we will seek to include cyber threats as part of the evaluation.

Further, through the Physical Security Enterprise and Analysis Group, our office works with the Military Departments and other U.S. government departments and agencies to solve gaps in our ability to detect, delay, deny, defeat, and ultimately deter threats to our nuclear and non-nuclear assets, both at home and abroad. Examples of the projects we manage include identifying “best-of-breed” countermeasures to defeat select unmanned system threats and developing, with the Department of Energy’s National Nuclear Security Administration, a portable intrusion detection system to protect nuclear weapons and special nuclear material.

Deterring, attributing, and responding to nuclear terrorism remains among the highest priorities of the United States and our allies and partners. The U.S. government maintains advanced nuclear forensics capabilities to attribute the source of any nuclear or radiological material intended for or

used in a terror attack. DoD maintains National Technical Nuclear Forensics capabilities and works with our interagency partners to support an effective national forensics capability. Further, we actively engage with our international partners to counter nuclear terrorism and nuclear proliferation threats using our collective forensics capabilities.

Expanding resiliency and strengthening defenses of our forces facing Chemical, Biological, Radiological and Nuclear threats

Through our Chemical and Biological Defense Program, we supply material solutions to enable our service members to operate in a CBRN environment, whether they are conducting combat operations abroad or supporting first responders in a domestic incident. The Department's CBRN defense capabilities are 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 our Service partners to ensure our products are responsive to operational priorities and requirements. Currently, we are focused on improving personal and collective protection, advanced medical countermeasures, detection and identification of next generation threat agents, diagnostics for clinical samples, and the capability to disable tactical-level WMD threats. Delivering these capabilities protects service members and improves decision making, which sustains the lethality of the Joint Force to operate in a CBRN threat environment.

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 countermeasures work is coordinated with the Office of the Secretary of Defense for Health Affairs. Examples of this ongoing cooperation include coordination to manage stockpiles of medical countermeasures, and especially in the case of the HHS, coordinating medical countermeasures development and implementing incentives that maximize value while mitigating risk.

These investments and interagency engagements have incentivized industry engagement, and we anticipate they will continue into the future. For example, 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 on a smaller scale than needed for the public health sector overall. 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 CBDDP has established a platform capability at the ADM to build medical countermeasures more efficiently, rapidly, and at a lower cost. Our office will continue to augment this capability, which stabilizes the industrial base for medical countermeasures by allowing the Department to mitigate risks for industry early in the development process, and to have more control over the process overall.

Chemical and Biological Weapons Elimination

Drawing from our experiences assisting in the elimination of declared Libyan and Syrian chemical weapons in 2014, we know it is important for DoD to maintain the material readiness to eliminate other nation's 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, propose 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. To achieve the necessary readiness, we must improve our operational flexibility by identifying and rapidly developing novel solutions through collaboration with industry, academia, and our international partners. Recently, we executed a first-of-a-kind joint industry competition with the United Kingdom to engage international industry and academia partners in advancing solutions to disable and destroy chemical and biological weapons in non-permissive and austere environments. Retaining flexible authorities and resources to ensure we are best postured to address these needs is vital.

CWMD Systems

NCB sponsors research, development, and integration of CWMD capabilities. We focus on accelerating the development of technologies that can transition to fielded capabilities in response to warfighter needs. For example, we are organized to leverage science and technology investments (for example, those produced by DTRA) to enable advanced technology development and its transition to Special Operations Forces (SOF) and other military units. We employ acquisition strategies that allow us to provide innovative capabilities cost-effectively and quickly.

We further focus on CWMD situational awareness capabilities, which include analytical fusion cells, information systems, and software applications. Since FY 2018, we increasingly have invested in equipment to detect, disable or defeat WMD systems and the proliferation networks that sustain them. We base these investments on needs identified and prioritized by U.S. Special Operations Command and its subcommands, U.S. Central Command, the Military Departments, and other DoD Components. For example, through a partnership with the Joint Program Executive Office for Chemical, Biological, Radiological, and Nuclear Defense, we are developing and fielding technologies that will enhance SOF capabilities to operate in WMD environments. We are enhancing the Air Force Technical Applications Center's (AFTAC) mission to monitor nuclear treaty compliance and detect nuclear events. Further, the CWMD Systems Program aligns with the CWMD Unity of Effort Council the Department established last year. As capability needs are identified, we have the means to close those gaps, if appropriate.

STRENGTHENING ALLIANCES AND ATTRACTING NEW PARTNERS

Countering WMD best succeeds as a global effort. Thus, we focus on empowering our allies and partners, and enhancing the capacity of regional and international organizations and initiatives to stop WMD threats close to the source.

Collaborating with Allies

The United States can dramatically improve its preparedness for and response to WMD threats through effective collaboration with its allies. This collaboration yields insights derived from a variety of perspectives, opportunities to share the cost of research and development, and the chance to improve the interoperability of systems and processes.

As an example, NCB maintains a bilateral relationship with the United Kingdom to improve our collective readiness to eliminate foreign chemical and biological weapons. This cooperation has resulted in intelligence and information sharing, identification of mutual gaps in capabilities, and shared investment to develop solutions to address them.

Building Partner Capacity

Through efforts executed by DTRA, such as the DoD Cooperative Threat Reduction Program, the Proliferation Security Initiative, and the 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. Our office provides the acquisition policy, governance, and portfolio management of these CWMD and building partner capability and capacity programs. We manage risk, demonstrate the impact of CWMD threat reduction to broader U.S. security objectives, and provide accountability to ensure programs are executed efficiently and in line with the Department's policies and CWMD priorities.

Treaty Management

As the lead for DoD, we manage the DoD's implementation of and compliance with existing and prospective nuclear, biological, chemical, and conventional arms control agreements. We also manage DoD's compliance with U.S. policies, as well as chemical and biological defense and destruction activities, in accordance 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.

Our office presents the U.S. Chemical Demilitarization briefing to the Organization for the Prohibition of Chemical Weapons (OPCW) Executive Council three times per year. In November 2019, we will brief the annual Conference of the States Parties. This past year, we successfully facilitated six inspections of DoD sites by the OPCW Technical Secretariat, further demonstrating the U.S. commitment to compliance with the CWC.

We also review the DoD Chemical and Biological Defense programs and activities for treaty compliance, and ensure all treaty-related requirements are met. In addition, we report DoD's portion of the annual U.S. Confidence Building Measures under the BWC.

The Department's Nuclear Arms Control Technology (NACT) Program, executed by DTRA with DoD oversight from our office, is considered to be one of six "safeguard" assurances that would be required if the United States chose to ratify the Comprehensive Nuclear-Test-Ban Treaty (CTBT) and the treaty entered into force. Regardless of whether this occurs, the U.S. government has made a policy commitment to support the International Monitoring System

(IMS), and the NACT program is instrumental in the fielding and maintaining of the US IMS stations.

We are working several efforts to ensure we continue to move forward in the U.S. participation in the Open Skies Treaty. Two of our efforts include replacing wet-film cameras with digital ones, and recapitalizing our current aircraft fleet. Efforts to develop and certify the new digital sensor are underway, and the aircraft recapitalization plan would replace the existing aircraft with a smaller, airliner-class aircraft. These endeavors will maximize U.S. benefits from the Treaty and continue to support allies and partners through shared observation missions.

REFORMING DoD BUSINESS PRACTICES

As the lead for the development of capabilities to counter WMD, our focus is on ensuring the Department delivers CWMD capabilities that are tailored to the threat and managed efficiently, to ensure the best use of taxpayer money.

Accelerating the 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 stockpiles located in Colorado and Kentucky. This investment highlights the U.S. commitment to, and importance of, strengthening international norms against the proliferation and use of chemical weapons. We are confident that complete destruction of the remaining chemical weapons will occur by the congressional deadline of December 31, 2023.

In Colorado, the team at the Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP) has started destruction operations and is projected to destroy approximately 780,000 mustard agent-filled projectiles and mortars at completion. To date, PCAPP has destroyed more than 105,000 munitions containing approximately 619 tons of mustard agent. While PCAPP initially experienced technical challenges causing delays in the destruction schedule, under new leadership the plant recently recorded its highest monthly throughput rates since the start of chemical weapons destruction operations. The addition of Static Detonation Chambers in 4th quarter FY 2020 will supplement the main facility for the destruction of problematic munitions. Use of the Static Detonation Chambers, combined with improvements to the main facility, will increase worker safety while improving schedule performance.

I am pleased to relay that the construction and systemization of our Blue Grass, Kentucky, Chemical Agent-Destruction Pilot Plant (BGCAPP) is substantially complete. Currently, staff is conducting the initial planning for the notifications on the start of destruction operations at Richmond, Kentucky, with the Static Detonation Chamber scheduled to begin destroying mustard-filled munitions in Summer 2019. The BGCAPP main facility is currently projected to begin destroying nerve agent-filled projectiles in Fall 2019. The team at BGCAPP is projected to destroy a little over 101,000 munitions containing either mustard or nerve agent. The program and plant leadership has also been working closely with Kentucky's Chemical Demilitarization Citizens' Advisory Commission, ensuring local citizens are frequently informed on matters leading up to the start of operations.

Establishment of the Geophysical Detection of Nuclear Proliferation (GDNP) University

Affiliated Research Center (UARC)

NCB has established the Geophysical Detection of Nuclear Proliferation (GDNP) University Affiliated Research Center (UARC) at the University of Alaska Fairbanks. The GDNP is the Department's 14th UARC, specializing in research, operations, and STEM (science, technology, engineering, and mathematics) activities for detecting indications of nuclear proliferation through seismic, infrasound, hydro-acoustic, or radionuclide technologies. The UARC will expedite the acquisition process for organizations such as DTRA and AFTAC to get GDNP task orders quickly approved and on contract.

Organization of the Office of the Secretary of Defense

As we implement the statutorily directed reorganization of the Under Secretary of Defense (USD) for Acquisition, Technology, and Logistics, the NCB Defense Program's organization and responsibilities have remained unchanged under the USD for Acquisition and Sustainment, maintaining continuity in the development of CWMD capabilities. We continue to work closely with the Office of the USD for Research and Engineering through expert-level engagements and formal bodies to ensure we effectively transition basic research and prototypes into useful warfighter capabilities.

In addition, the Department is improving integration across the DoD CWMD Enterprise to ensure effective oversight of the mission, such as through the establishment of the CWMD Unity of Effort Council. NCB works in close collaboration with other elements of the Office of the Secretary of Defense, the Combatant Commands, and the Services to align efforts and deliver effective capabilities to the warfighters.

CONCLUSION

Our highest priorities lie in ensuring our warfighters are postured to counter CBRN threats and the Department safeguards our nuclear deterrent. We will continue to collaborate and coordinate with key stakeholders in the Department, other U.S. government departments and agencies, and our international allies and partners to maximize our effectiveness and efficiency 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 population, and our nation. We must not, and will not, fail.

Thank you for this opportunity to testify.