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On
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INTRODUCTION

Chairman Wilson, Ranking Member Langevin, and distinguished members of the Subcommittee, I appreciate the opportunity to testify on the United States (U.S.) 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 2017 (FY17) budget request.

I serve as the Principal Deputy Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs, and perform the duties of the Assistant Secretary. Our office provides oversight of the Department's nuclear weapons related programs, chemical and biological defense, chemical demilitarization, and the Defense Threat Reduction Agency (DTRA). We help to ensure that the Department's investments align with the Department's Countering Weapons of Mass Destruction (CWMD) strategy to prevent WMD acquisition, contain and reduce threats, and respond to crises. To perform this mission, the Department coordinates closely with numerous interagency and international partners

The President's FY17 budget request includes resources to reduce threats and protect warfighters in several areas. The Chemical and Biological Defense Program's (CBDP) budget request of $1.19 billion will continue to develop capabilities to protect warfighters and support efforts to deter, prevent, mitigate, respond, and recover from chemical, biological, and radiological threats and their effects. Our Chemical Demilitarization budget request of $551 million will support the safe, complete, and treaty compliant destruction of the U.S. chemical weapons stockpile. Our Nuclear Matters budget request of $45.7 million will continue the development of policies that guide the safety and security of the nation's nuclear deterrent as well as for countering threats of nuclear terrorism and nuclear proliferation. The DTRA budget request of $1.27 billion includes resources to address the full spectrum of WMD-related threats, including Cooperative Threat Reduction (CTR) programs and support to Combatant Commands in their efforts to identify and reduce threats globally. Lastly, our CWMD Systems budget request of $53.8 million will accelerate development of innovative projects to enhance situational awareness of WMD activities globally.

DOMESTIC DEFENSE AGAINST BIOLOGICAL AND CHEMICAL THREATS

Biological Defense

Advancements in biology and chemistry as well as natural evolution can result in new biological agents and threats that the warfighter must be prepared to counter. The CBDP researches and develops capabilities in the areas of medical countermeasures (advanced vaccines and therapeutic drugs), advanced diagnostics, environmental detection, protective equipment, and hazard mitigation. The Department is part of a broad interagency effort known as the Public Health Emergency Medical Countermeasures Enterprise, which leverages our capabilities as well as the Department of Health and Human Services and the Department of Homeland Security to develop and deliver innovative medical countermeasures and effective therapeutics.

To support the development and manufacturing of these medical countermeasures and effective therapeutics, the Department has invested in a new, agile manufacturing capability through the Advanced Development and Manufacturing (ADM) facility in Alachua, Florida. DoD needs the facility to rapidly develop and produce vaccines for our unique population, on a smaller scale than those needed for the public health sector. We are pursuing novel manufacturing capabilities allowing for modular and flexible approaches to meet DoD needs and at the same time reducing sustainment costs. The DoD ADM facility is scheduled for completion in August 2016 and will help strengthen national capabilities to respond to emergencies and address threats to DoD personnel and U.S. citizens.

We continue to take proactive steps to improve the safe and secure handling of biological agents within the DoD. We recently published revised instructions that harmonize security guidance and comply with Executive Order 13546. In response to the inadvertent shipments of live *Bacillus anthracis* spores, as was briefed to this subcommittee on July 28, 2015, the Office of the Secretary of Defense commissioned an independent comprehensive review of DoD procedures for inactivation and viability testing of *Bacillus anthracis* spores. The review found that the protocols used for these operations were not based upon peer-reviewed and quality-assured science. Studies are underway to establish the needed scientific foundations utilizing experts from across the DoD. The DoD will utilize external experts from the CDC, other government agencies and academia as peer review to ensure that future protocols are adequate, appropriate and have a mutually agreed level of risk. Furthermore, DoD has restructured biosafety under an Army Executive Agent, who will facilitate the continued improvement of biosafety at DoD laboratories that handle biological select agents and toxins. In addition, the Army has completed a formal internal accountability investigation and is reviewing recommendations regarding personnel who were involved in the incident. We are confident that these steps will restore our capability to safely and securely perform vital research and development to protect the warfighter and our nation.

Chemical Defense

The Department has active programs that provide the capabilities required to respond to chemical threats in a layered approach that includes detection, physical protection, and medical countermeasures. We invest in detection equipment to identify chemical agents and provide situational awareness for response, and we provide protective equipment to shield against exposure. Our programs also support the development of responsive medical countermeasures.

The Department's development of chemical defense capabilities is a key part of an integrated national effort to address traditional and non-traditional threats. In this budget request, we continue to invest in physical science programs, conduct research, and develop technologies for a range of chemical defense capabilities, including detection, medical countermeasures, decontamination, and protection. The potential for proliferation of non-traditional agent (NTA) information, implications of operational use, and asymmetric impacts of employment on the force has motivated the acceleration of efforts to counter NTAs. Enhanced warning, protection, and countermeasures will save lives and enable flexible consequence management.

Concurrently, DoD continues to make significant progress in domestic chemical weapons destruction programs. Our office oversees programs to meet U.S. commitments under the Chemical Weapons Convention and eliminate the U.S. chemical weapons stockpile. In March of last year, the Department initiated agent destruction operations at the Pueblo, Colorado site using a supplemental destruction technology. Since then, almost all of the 560 munitions that were unsuitable for processing in the primary plant have been destroyed, equating to nearly two tons of agent.

While this is a significant milestone for the program, rapid progress will be made as operation of the Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP) begins later this year. Construction of the PCAPP is complete and final activities to ensure the plant's readiness for safe agent destruction operations are underway. The PCAPP will be used to destroy nearly 780,000 mustard agent-filled projectiles and mortars.

Construction of the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) is substantially complete. The BGCAPP is on track to begin destruction operations in April 2020. The BGCAPP will be used to destroy nearly 87,000 nerve agent-filled projectiles and rockets. A supplemental technology, called a Static Detonation Chamber (SDC), will be used to destroy all of the mustard-filled munitions stored at Blue Grass. Destruction operations using the SDC are scheduled to begin in mid-2017.

NUCLEAR THREAT REDUCTION

The President established an interagency Executive Committee that recently identified priorities for detecting nuclear proliferation. The Executive Committee will review and endorse interagency strategies to advance these priorities in detecting nuclear proliferation. DoD is heavily involved in this interagency process as part of the Executive Committee that will review and endorse interagency strategies to advance these priorities in detecting nuclear proliferation.

The fourth Nuclear Security Summit is planned for March of this year in Washington, D.C. Heads of state and international organizations will continue to build on previous actions to enhance measures to combat the threat of nuclear terrorism, protect nuclear materials, and prevent the illicit trafficking of nuclear materials. Our office has collaborated with partner nations to conduct tabletop exercises of all modes of nuclear material transportation, developed practical guides for transport security, and shared best practices with other states and international organizations. We have also partnered with international stakeholders to conduct international workshops for training industry and government personnel in the effective protection of nuclear materials. We will use FY17 resources to meet future Nuclear Security Summit commitments and enable the continued success of this work.

In coordination with the efforts of other U.S. Government (USG) departments and agencies and international partners, the Department’s CTR Global Nuclear Security (GNS) program establishes and maintains nuclear security cooperation with several countries. For FY17, GNS plans to transport vulnerable nuclear or high-threat radiological materials from global partners to more secure locations with the support of the Department’s military airlifts. The GNS program will partner with China in the development of a nuclear security Center of Excellence by

providing nuclear security training. GNS will work with Jordanian counterparts to develop capabilities to secure radiological materials in transit and at Jordan's research reactor, and provide maintenance training and equipment to ensure sustainment of these capabilities. GNS will also provide training and equipment to the Ukrainian National Guard nuclear response force units in order to enhance Ukraine's capability to detect the accidental or intentional loss, theft, or diversion of nuclear and high-threat radiological materials, interdict those materials, and return those materials to regulatory control.

Our FY17 budget request also includes resources to procure the Harvester Particulate Airborne Collection System, a modular pod system designed for use on multiple airborne platforms for post-detonation nuclear debris sampling. This system will augment the current United States Air Force nuclear collection capability and will help to inform attribution of an event or an attack.

With respect to the Nation's nuclear deterrent forces, the domestic Nuclear Weapons Accident Incident Exercise (NUWAIX) program serves as the premier interagency training event to enhance the whole-of-government ability to protect, preserve, and secure U.S. nuclear weapons. Annually, this full-scale, national-level exercise program provides realistic conditions for Federal, State, Local, and Tribal entities to work together to address crisis situations and mitigate consequences from a U.S. nuclear weapon accident or incident. DTRA's FY17 budget will support the execution of NUWAIX at Naval Submarine Base Kings Bay in April.

GLOBAL THREAT REDUCTION

Through DTRA, the Department's CTR and capacity building efforts help to identify potential threats and enable effective, early actions to prevent or mitigate them. The CTR Program strengthens biosecurity and pathogen consolidation efforts to ensure that pathogens of security concern, which are endemic or stored in laboratories around the world for research and diagnostic purposes, remain safe from potential adversaries, and terrorist organizations. The CTR Program's effectiveness was most recently highlighted by its timely confirmation of the first resurgent case of Ebola since the World Health Organization declared Liberia Ebola free in spring of last year. This CBEP supported engagement was instrumental in triggering the appropriate response needed to prevent a resurgence of the disease.

The Ebola outbreak highlights the potential for naturally occurring pathogens to cause enormous damage in terms of lives lost, economic impact, and societal stability abroad and in the United States. Countering biological threats is important to both global security and public health. Success in this arena depends on the close coordination among all stakeholders including health, defense, law enforcement, private, international, and non-governmental counterparts. To respond to these complex and evolving threats, the Department has established programs to protect our Nation and enhance our allies' capabilities to detect and respond to man-made or natural outbreaks of diseases of security concern. The FY17 budget, we will continue to support these programs and their important work.

Our office maintains strong partnerships with allied international defense departments with the intent of accelerating technology development, achieving system interoperability, and filling

knowledge gaps for priority threat agents. This is reflected in a number of productive technology cooperative agreements for detectors, diagnostics, biosurveillance tools, and medical and physical countermeasures. Further, the Department and our international partners cooperatively develop and test processes and procedures for potential collaborative biological research events through a series of tabletop exercises. The Department is actively identifying opportunities to maximize the capability and capacity of our infrastructure through sharing agreements with foreign partners.

CWMD SITUATIONAL AWARENESS

The CWMD systems portfolio leads the development of a situational awareness capability for DoD, with the goal of strengthening our ability to forecast WMD threats by accessing and analyzing large amounts of diverse information and providing unprecedented situational awareness of global WMD-related activities. A new information system, Constellation will include information on WMD threats as well as USG and international activities to counter those threats. Developed by DTRA, with support from the Defense Intelligence Agency, Constellation will support analysis, planning, and decision-making by the Combatant Commands and their interagency and international partners. When deployed, it will provide a common information environment that will facilitate secure information sharing and cross-organizational collaboration.

Our FY17 budget request includes resources to transition the Constellation system from a developmental to an operational prototype. Resources will be used to add new data sources and applications, and expand support to more DoD and interagency users. In 2017, the Department will also prepare for transition to an acquisition program of record.

CONCLUSION

WMD threats are real and increasing globally. The Department’s top priorities are to prevent attacks, protect warfighters and citizens, and manage the consequences in the event of attack. The Department's activities address the full spectrum of CWMD activities, from preventing acquisition to containing and reducing threats, to responding to crises. We act in collaboration and coordination with numerous interagency and international partners to ensure efficiencies are gained. The President's FY17 budget request will enable us to strengthen our capabilities and continue to perform our mission effectively.

Thank you for this opportunity to testify.