

Not for Public Distribution until released by the
House Armed Services Committee

Statement of Mr. Andrew Weber
Assistant to the Secretary of Defense for
Nuclear and Chemical and Biological
Defense Programs

On

Fiscal Year 2011 National Defense
Authorization Budget Request for the Defense
Threat Reduction Agency, Chemical Biological
Defense Program, and Counterproliferation
Initiatives

Before

Terrorism, Unconventional Threats and
Capabilities Subcommittee
Committee on Armed Services
U.S. House of Representatives

14 April 2010

Not for Public Distribution until released by the
House Armed Services Committee

Introduction

Madame Chairwoman, Ranking Member Miller, and members of the Subcommittee, it is an honor for me to be here today to address the Department of Defense (DoD) counterproliferation efforts. I will summarize my remarks and ask that my complete statement be made part of the record.

I serve as the principal advisor to the Secretary of Defense, Deputy Secretary of Defense, and the Under Secretary of Defense for Acquisition, Technology, and Logistics on nuclear weapons, and chemical and biological defense. My primary responsibilities are to develop acquisition guidance in support of DoD policy, provide programmatic advice, and make related recommendations on nuclear weapons; chemical, biological, radiological, and nuclear (CBRN) medical and non-medical defense; safety, security, and the safe destruction of the current U.S. chemical weapons stockpile; the Countering-Weapons of Mass Destruction (WMD) mission; nuclear, biological, and chemical (NBC) arms control activities; and related plans and programs. I also serve as the Executive Secretary of the Counterproliferation Program Review Committee (CPRC), and my statement therefore updates the DoD CP accomplishments previously provided to Congress in the July 2009 Report on Activities and Programs for Countering Proliferation and NBC Terrorism. This report was developed by the interagency membership of the CPRC and provided to Congress.

Our office oversees the implementation of the Department's Cooperative Threat Reduction (CTR) program and manages the Department's treaty implementation activities to ensure compliance

with nuclear agreements, the Chemical Weapons Convention, and the Biological Toxins and Weapons Convention. It is also responsible for oversight, integration, and coordination of the department's Chemical and Biological Defense Program (CBDP). This effort brings together requirements, Science and Technology (S&T) execution, and acquisition. It delivers equipment for the detection and identification of CBRN agents, provides for personnel and equipment protection against chemical, biological, and radiological agents, and enables the decontamination of personnel and equipment.

In addition, the Director of the Defense Threat Reduction Agency (DTRA) reports through me to the Under Secretary of Defense for Acquisition, Technology, and Logistics. That agency's director, Mr. Ken Myers is also testifying before you today. The DTRA mission is to safeguard the U.S. and its allies from weapons of mass destruction (chemical, biological, radiological, and nuclear) and high yield explosives by providing capabilities to reduce, eliminate, and counter the threat and mitigate its effects. The agency is the Department of Defense's Combat Support Agency for the Countering-WMD mission that includes nonproliferation, counterproliferation, and consequence management and develops improved Countering-WMD capabilities for the warfighter. Mr. Myers is also the Director for the U.S. Strategic Command's Center for Combating WMD (SCC-WMD). This center assists the Commander, U.S. Strategic Command with the synchronization of Countering-WMD planning and coordination of related activities across the Combatant Commands; the identification of Countering-WMD capability needs; and the advocacy for Countering-WMD capabilities. The SCC-WMD also assists the

Combatant Commanders with their Countering-WMD effort planning and activities.

Also appearing before you is Brigadier General Jess Scarbrough, the Joint Program Executive Officer for Chemical and Biological Defense (JPEO CBD). General Scarbrough is responsible for the advanced development and acquisition of CBD equipment and capabilities and their delivery to the warfighter.

The three of us appearing before you today are responsible for executing much of the DoD Countering-WMD effort in partnership with others across the Department, with our U.S. Government (USG) interagency partners, and our allies and friends overseas.

My testimony will focus on DoD counterproliferation activities executed in support of the Administration's Countering-WMD approach; initiatives for counterproliferation capability enhancements; and recent program and capability achievements.

Countering-WMD Approach and Guidance

President Barack Obama has set a clear direction for us. In his Prague speech of April 2009, the President committed the United States to accelerate programs for threat reduction, nonproliferation, and countering WMD; reduce the roles and numbers of nuclear weapons globally; take "concrete steps towards a world without nuclear weapons;" and ensure a safe, secure and effective arsenal for as long as such weapons are needed.

In his National Strategy for Countering Biological Threats, the President warned that "...fanatics have expressed interest in developing and using biological weapons against us and our allies. Addressing these unique challenges requires a comprehensive approach that recognizes the importance of reducing threats from outbreaks of infectious disease whether natural, accidental, or deliberate in nature..."

Secretary Gates restated this strategic direction and broadened the challenge to encompass the full set of CBRN threats. In the 2010 Quadrennial Defense Review (QDR), the Secretary directed the Department to rebalance its policy, doctrine, and capabilities to better support the key missions identified by the QDR. Among these six key missions is "prevent proliferation and counter weapons of mass destruction." Furthermore, Countering-WMD contributes to three of the remaining five key missions identified by the QDR including: defend the United States and support civil authorities at home; succeed in counterinsurgency, stability, and counterterrorism operations; and build the security capacity of partner states. Thus, Countering-WMD is a contributor to success in four of the six key DoD mission areas.

As the ability to create and employ WMD spreads globally, so must our efforts to detect, interdict, and contain the effects of these weapons. Deterrence of such threats and defense against them can be enhanced through measures aimed at better understanding potential threats, securing and reducing dangerous materials wherever possible, monitoring and tracking lethal agents, materials and devices, as well

as their means of delivery, and defeating the agents and devices themselves.

The DoD Countering-WMD Effort

We are striving to prevent the emergence of new WMD threats by strengthening programs to prevent, deter, and defend against adversaries armed with WMD.

To reduce the risk of emerging nuclear-armed adversaries, the Department is working with the Departments of Energy and State in implementing the President's initiative to secure vulnerable fissile materials worldwide. Cooperative biological threat reduction activities are also being planned and conducted in close coordination with other USG organizations including the Departments of State, Health and Human Services, and Agriculture, as well as the Centers for Disease Control and Prevention. The Armed Services' overseas infectious disease labs make an essential contribution to these efforts by building and strengthening foreign partnerships and contributing to global biosurveillance.

In addition, the Department's FY 2011 funding request also calls for restarting investments in arms control monitoring and verification technology in response to the President's initiative to revitalize arms control as an effective Countering-WMD tool. The focus of this effort is to improve monitoring and verification of lower nuclear weapon levels and a nuclear test ban, as well as to set the foundation for possible future arms control initiatives in the areas of fissile material production and detection, accounting of non-strategic (tactical) weapons, and differentiating among various warhead contents. This new program

supports the Department of State Verification, Compliance, and Implementation Bureau and the OSD Acquisition, Technology, and Logistics Treaty Managers. The initial areas of focus for this new effort include technology development in support of the New (and future) START treaties and supporting the President's call for a verifiable Comprehensive Test Ban Treaty (CTBT). The National Nuclear Security Administration is a key partner in improving our ability to detect and verify underground nuclear testing.

Increased investments in such nonproliferation programs will reduce the size and scope of the potential WMD threats we may face, thereby reducing the challenge for our counterproliferation and consequence management efforts.

While we strive to prevent or deter a WMD attack, our efforts may not always be successful. We must be prepared to defeat or defend against the threat or use of WMD, and respond to its use.

The Department's counterproliferation activities and programs provide the warfighter with capabilities to defeat, deter, defend, respond to and to attribute WMD related threats and attacks. Key elements of DoD's approach include maintaining a strong deterrence capability; developing capabilities to identify, characterize, destroy, and interdict the production, transfer, storage, and weaponization of WMD; continuing work on active defenses to intercept delivery means; developing passive defenses to provide detection, medical countermeasures, decontamination, and individual and collective protection as part of the CBDP; training and equipping U.S. forces to operate effectively in a WMD-contaminated environment; and building

capabilities to support the National Technical Nuclear Forensics Program to assist with the identification of the source of the attack, provide information that may help deter or prevent follow-on attacks, and provide options for retribution. Robust capabilities in each of these areas are essential for an effective defense that will contribute to the deterrence of WMD attacks globally and on the homeland. DoD's contribution of Countering-WMD expertise and technology is also critical for building international partner capabilities and promoting coordinated Countering-WMD planning. The President's budget request for the CBDP includes \$370 million for procurement, \$812 million for advanced development, and \$396 million for science and technology efforts, for a total of \$1.578 billion.

WMD in Transit

Nunn-Lugar CTR activities have increased the maritime interdiction capabilities of Ukraine in adjacent Black Sea waters and Azerbaijan in the Caspian Sea.

WMD Offensive Operations

Following its completion of developmental responsibilities for the Massive Ordnance Penetrator (MOP), DTRA is transitioning this effort to the U.S. Air Force for final testing and fielding and continues to support the Air Force's MOP testing. The MOP is the largest conventional (non-nuclear), earth-penetrating weapon that can be delivered by B-2 bombers against underground targets. DTRA also improved our non-nuclear capability to destroy WMD inside hardened and underground facilities by developing a thermobaric (high-pressure and high temperature) agent defeat Joint Direct Attack Munition (JDAM) variant for Countering-WMD missions. In addition, DTRA

improved capabilities for modeling WMD effects and for determining the effectiveness of conventional weapons against hard and buried targets.

CBRN Passive Defense

I would like to highlight the important Countering-WMD contributions that the Chemical and Biological Defense Program is making in force protection and strengthening deterrence by reducing the motivation for an adversary to attack with chemical, biological, and radiological agents. The primary goal of the CBDP is to ensure protection for U.S. Service members and civilians at home and abroad from the threat of biological weapons and emerging infectious diseases. The United States has a critical national security interest in preserving the health of its population and livestock against these threats. Biosurveillance is the important first step in addressing the array of biological threats to our national security from natural, accidental, and intentional origins.

Effective defense against such attacks depends heavily on effective medical and non-medical countermeasures. The President directed in his recent State of the Union address that the nation must greatly enhance the nimbleness of its ability to develop, license, and procure countermeasures against both man-made biological attacks and naturally-occurring infectious disease. The Department is deeply involved in this effort and we have made notable successes with the Transformational Medical Technology Initiative (TMTI), work conducted by the Defense Advanced Research Projects Agency, and elsewhere in the USG, private biomedical sector, and academia.

Since 2006, TMTI has been working to establish the technical capability required for medical response to genetically engineered biological threats and emerging infectious diseases. TMTI has invested in the development of broad spectrum anti-bacterials and anti-virals that can be used in the event of an emergent infection, and in multiple technologies contributing to a response capability. The different components of this response capability are being tested to define the process and improve response times. Two of the technologies being evaluated for incorporation into the response capability are stable anti-sense chemistries and a DNA vaccine platform targeting the emerging infectious diseases and pandemic influenza. The intent is to demonstrate the flexibility and robustness of platform capabilities offered by anti-sense therapeutics and DNA based vaccines to produce multiple therapeutic candidates against unconventional threats and test their efficacy in different models of infection.

The issue of emerging threat agents presents complex challenges to safely detect hazards, to provide physical protection and medical treatments for the warfighter, and to effectively decontaminate after an attack. The CBDP is addressing the technical challenges as it conducts research and development to meet our needs and provide these capabilities against emerging threat agents. In fiscal year 2010-2011 alone we are allocating nearly \$300 million to establish interim detection, physical protection, diagnostics, and decontamination capabilities for emerging and future threat agents.

Even with these increased investments, the best medical countermeasures work only when embedded in a structure that provides timely warning, characterization of the agent, and responsive

decision-making. Each of these steps in the structure of medical countermeasures use must be strengthened and integrated: warning of attack; providing medical pre-treatments; providing barrier protection; making post-attack characterization (including diagnostics) and decisions; and providing post-exposure prophylaxis. Improved capabilities in all these areas will better protect the warfighter and our citizens at home.

In the area of medical countermeasures, the CBDP implemented steps to assess and mitigate risks associated with emerging WMD threats, including analysis of NTAs and expanding the TMTI. In support of the QDR, we are developing a range of NTA defense initiatives that will address detection, medical countermeasures, decontamination and protection needs. These efforts are being coordinated with interagency and international partners.

As proof-of-capability, from May to December 2009, TMTI's platform biodefense capability was tested for responsiveness against the recent Swine Origin Influenza A (H1N1) outbreak, demonstrating a better than 99% reduction in viral titer levels as tested in a ferret animal model.

The Department has also participated in the Administration's interagency initiative aimed at transforming how investments are made in the countermeasure enterprise and enhancing performance through highly engaged end-to-end support and management. The goal is to markedly increase the return on the USG's investment in medical countermeasures against biological threats. Achieving this breakthrough will yield a new template for government support of

private sector drug development in areas where progress has been impeded by apparent market failures.

The CBDP also improved and augmented program management methodologies to foster continuous improvement and bring proven and innovative technologies to the warfighters; upgraded the CBDP capability development process to ensure our nation's competitive advantage in WMD contaminated environments; coordinated with interagency and international partners to facilitate operational collaboration between U.S. allies and to maximize CBDP capabilities; updated the Test and Evaluation (T&E) Infrastructure Investment Strategy, which ensures infrastructure is aligned with national priorities, to accurately reflect future investment needs; and completed the DoD CBRN Defense Doctrine, Training, Leadership, and Education Strategic Plan to enhance and streamline CBRN training and oversight, significantly advancing warfighter training structure and effectiveness.

The JPEO CBD fielded advanced detection and protective systems and more than one million pieces of equipment to our armed forces.

DTRA's contributions to passive WMD defense include the rapid development and fielding of the Occluding Six-Crystal Array Radiological (OSCAR) detection system that permits localization and tracking of radiological threats in near real time at the Pentagon.

DTRA also sponsored a successful demonstration of an Idaho National Laboratory Bremsstrahlung x-ray radiation active interrogation system

to stimulate detectable emissions from nuclear material that could ultimately provide a long-range standoff detection capability.

Additionally, DTRA performed 96 vulnerability and survivability assessments including 12 Balanced Survivability Assessments of critical installations and 84 Joint Staff Integrated Vulnerability Assessments focused on mission continuity and force protection, respectively, in 2009.

WMD Consequence Management

In 2009, DTRA responded to over 1,000 Technical Reachback requests for WMD related expertise and information, including hazard agent dispersal prediction, from the Combatant Commanders, other DoD organizations, interagency partners and customers, and the WMD Civil Support Teams.

DTRA also hosted a Nuclear Weapons Accident, Incident, Recapture, and Recovery Exercise involving recapture/recovery and consequence management activities with interagency and local participation in June 2009 at F.E. Warren Air Force Base. In March 2010, I attended the agency's MIGHTY GUARDIAN force-on-force exercise with interagency participation at Minot Air Force Base to evaluate DoD policy regarding the detection, combat, and defeat of threats against nuclear weapon storage sites. MIGHTY GUARDIAN assessments enable the development and sharing of procedures to improve the security and safety of U.S. nuclear weapons.

Conclusion

The WMD threat poses an immense challenge. Our warfighters and our fellow citizens are vulnerable to WMD attack. We must shape our defense programs to more effectively prevent, deter, or defeat this threat. Should a WMD attack occur, we must move swiftly and effectively to minimize the loss of lives and restore operations. President Obama and Secretary Gates have directed the development and implementation of a comprehensive approach to strengthen these capabilities. I ask for your support of our FY 2011 budget request. I appreciate the opportunity to testify today and would be pleased to answer your questions.