Testimony of

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Statement of
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Introduction

Mr. Chairman, it is an honor to be here today to address the Defense Threat Reduction Agency's (DTRA) Radiation Detection program. I'm Dr. Pete Nanos, Associate Director for Research and Development (R&D) at the DTRA. As such, I am responsible for combating Weapons of Mass Destruction (WMD) by providing R&D capabilities to reduce, eliminate, counter, and defeat the threat of WMD and mitigate its effects.

DTRA is a combat support agency which means that the warfighter in the field is our customer and primary focus. Since its establishment in 1998, DTRA has been providing capabilities for the Department of Defense's (DoD) nonproliferation, counterproliferation, and consequence management programs; the three pillars of the President's National Strategy To Combat WMD. The agency's mission covers the complete WMD threat spectrum - chemical, biological, radiological, nuclear, and high yield explosives.

The President stated in the March 2006 National Security Strategy of the United States of America, "There are few greater threats than a terrorist attack with WMD." Radical terrorist groups have repeatedly stated their intention to seek and use weapons of mass destruction. The evidence indicates that they are aggressively pursuing chemical, biological, radiological, and nuclear materials to make good on those threats. We also face potential proliferation and direct military threats from WMD possessed by nations hostile to the United States.

The National Security Strategy provides the overarching guidance for combating WMD. This strategy states that countering the proliferation of WMD requires a comprehensive strategy involving strengthened nonproliferation efforts to deny these weapons and related expertise to those seeking them; proactive counterproliferation efforts to defend against, defeat and eliminate

WMD and their means of delivery before they are unleashed; and effective consequence management to respond to the effects of WMD use, either by terrorists or nation-states.

The combating WMD strategy is developed in more detail by the National Defense Strategy, the National Military Strategy, and the National Strategy to Combat WMD, all reflecting the framework of the National Security Strategy.

Further, the Report of the 2006 Quadrennial Defense Review (QDR) provides additional emphasis on transforming capabilities to combat WMD. The QDR and other national guidance state the need for the following types of capabilities:
1) "Capabilities to locate, tag and track WMD, their delivery systems and related materials, including the means to move such items";
2) "Capabilities to detect fissile materials such as nuclear devices at stand-off ranges";
3) "Interdiction capabilities to stop air, maritime, and ground shipments of WMD, their delivery systems and related materials";
4) "Persistent surveillance over wide areas to locate WMD capabilities or hostile forces".

The Department of Homeland Security Domestic Nuclear Detection Office (DHS/DNDO), with personnel from several Federal departments and agencies, has drafted an enhanced global nuclear detection architecture in which the Secretary of Defense retains responsibility for implementing DoD requirements within and outside the United States in accordance with the Domestic Nuclear Detection NSPD-43/HSPD-14. DoD is working with the other Federal departments specifically mentioned in NSPD-43/HSPD-14 to draft a Memorandum of Agreement to promote an integrated national research and development effort in nuclear and radiological detection. The DTRA Radiation Detection program will support implementation of the DoD components of the global nuclear detection architecture and will complement the radiation detection programs of the Domestic Nuclear Detection Office (DNDO) and the Department of Energy's National Nuclear Security Agency (DOE/NNSA). Our DoD-specific missions require mobile and transportable detection systems, some mounted on military vehicles, operated by Soldiers, Sailors, Airmen and Marines, and employed in fluid, potentially hostile situations. In contrast, a large portion of the DHS/DNDO mission is keyed to supporting the mission of Customs and Border Protection (CBP) aimed at border security, ports, portals, and cargo. Long dwell detection in transit, cargo inspection during border crossings, and vehicular monitoring at ports and borders are high priority DHS/DNDO missions. Unlike DoD missions, these tend towards fixed or controllable site installations in a relatively controlled environment. DOE conducts long term research to provide advance capabilities for nuclear detection and monitoring for the national and homeland security communities. It also supports near term applications for cooperative international efforts in safeguards and international security, in conjunction with its policy program. Many of the resulting technologies can be leveraged to support both DoD and DHS/DNDO missions. Military conflict (hostile environments) is not a part of DHS/DNDO or DOE/NNSA mission areas but is a key consideration for developing advanced capabilities for DoD. The ability to maintain operational tempo, the requirement to continue and complete the mission, and the need to operate at greater distances and shorter times are key DoD drivers. A key to the successful detection of threat materials is characterizing the radiation background in any operational theater. DoD must have the capability for rapid detection, identification, tracking, and interdiction of radiological items transiting that theater and the subsequent real time

characterization of the theater following a nuclear or radiological incident, thus altering plans and movements as necessary to complete the mission. DoD must be able to find, fix, and finish potential adversaries, denying or taking away their potential threat to the United States.

All the respective Federal departments and agencies must work together to achieve a multi-layered defense strategy to protect the U.S. from a nuclear or radiological attack. I did not intend to imply no overlap between the missions of DTRA, DHS/DNDO, and DOE/NNSA in my earlier comments on contrasting DoD mission space with that of other Federal departments. DHS/DNDO is interested in mounting detectors onto vehicles for border monitoring activities geared more toward the continental United States (CONUS) and the domestic layers of the nuclear detection architecture including ports of entry; air, ground, and maritime pathways at unattended borders and coastlines; and regional, state, and local countermeasures. DNDO is also oriented towards cooperative international efforts and efforts at foreign ports in partnership with DOE/NNSA and CBP. Similarly, DoD needs to consider military installation protection globally, to include CONUS locations, and everyone is interested in larger standoff detection. We have frequent formal, informal, and semi-formal discussions with our interagency partners to de-conflict program activities, actively cooperate in testing or development of key technologies, and review each other's proposals, programs, and activities to ensure that we do not duplicate efforts. The goal is a coherent, coordinated national program to ensure that all national mission areas are met.

Conclusion

The Department has focused on the WMD challenge for many years now and we have been making steady progress in expanding our capabilities to combat WMD, and in building interagency partnerships. The QDR continues this momentum by providing specific near-term direction and longer-term guidance on capabilities and the required investments.

Mr. Chairman, this concludes my remarks. I would be pleased to respond to your questions.