

**Opening Statement**

**of**

**Mr. Vayl Oxford  
Acting Director  
Domestic Nuclear Detection Office  
Department of Homeland Security**

**Before House Homeland Security Committee  
Subcommittee on Prevention of Nuclear and Biological Attack**

**April 20, 2005**

## **Introduction**

Good afternoon, Chairman Linder, Ranking Member Langevin and distinguished members of the subcommittee. It is my pleasure to come before you today to share our progress in establishing the Domestic Nuclear Detection Office (DNDO) within the Department of Homeland Security.

Protecting the United States from nuclear threats is a job that the Department of Homeland Security cannot succeed at working in isolation, and I first want to thank our partners in the Department of Defense, the Department of Energy, the Department of State, and the Federal Bureau of Investigation for their tireless dedication to establishing the DNDO and their commitment to supporting the Office to ensure its success.

## **DNDO Mission and Objectives**

President Bush has made strengthening the Nation's capability to detect and interdict nuclear weapons or illicit nuclear materials a critical national priority. Few will argue with the view that the threat posed by terrorists possessing nuclear or radiological weapons is one of the gravest that confronts the Nation. To defend against this threat, we must develop a robust layered defense, each layer of which must reduce a terrorist's ability to use such threats against us. The Nation must move toward strengthening this defense by developing and deploying an integrated and robust detection, reporting, and response infrastructure, and continue to develop improvements to this infrastructure over time.

In recognition of the magnitude of the danger posed by the nuclear threat, multiple organizations within the Department of Homeland Security and across other Departments have initiated programs to prevent these weapons from being used against the Nation and its interests. While these efforts are each individually important components to defend against the threat, it is now necessary to integrate our Nation's nuclear detection capability that guarantees a coordinated response. To optimize and advance these efforts,

on April 15, 2005, the President directed that the Domestic Nuclear Detection Office (DNDO) be established within DHS, under the authority, direction, and control of the Secretary of Homeland Security.

The DNDO is a jointly-staffed, national office created to consolidate efforts within DHS and establish strong linkages across the agencies for the deployment of a national nuclear detection system. The mission of the DNDO is to serve as the primary entity to ensure that the Federal Government develops, acquires, and supports the deployment of a domestic system to detect and report attempts to import or transport a nuclear device or fissile or radiological material intended for illicit use. In its creation, it not only will facilitate collaboration among members of the interagency and components of DHS, but, more importantly, among the developers, operators, and information providers to produce a single entity focused on this threat.

The DNDO has the following strategic objectives:

- Conduct an aggressive evolutionary and transformational research and development program to improve probability of detection by integrating and deploying current technologies and improving those capabilities over time;
- Develop the global detection architecture and ensure linkages across Federal, State, and local agencies;
- Enhance the effective sharing and use of nuclear detection-related information and intelligence in conjunction with other Federal Government information sharing activities;
- Maintain continuous awareness by analyzing information from all mission-related detection systems;
- Enhance the nuclear detection efforts of Federal, State, and local governments and the private sector to ensure a coordinated response; and
- Establish standards, response protocols, and training across the Federal, State, and local levels to ensure that detection leads to timely response actions.

**Key Challenges:**

The mission space of the DNDO provides a unique opportunity within DHS across the Federal Government to more fully integrate the counterterrorism community's approach to a serious threat. DHS will work holistically to combine research and development, acquisition, and operational support into a single office. By bringing together all of these efforts as well as the joint activities within our interagency partners, the DNDO will be able to ensure that the technology requirements of operational entities are efficiently prioritized and addressed. Moreover, DNDO will ensure that technologies under development are quickly transitioned to the field. Further, all technologies being deployed will have the necessary accompanying training materials, and response protocols will be established and adopted prior to deployment. This will ensure that deployed equipment is properly used and alarm information is reported to response agencies when appropriate. More importantly, this office is charged with the responsibility of working with our partners to establish effective information and intelligence sharing mechanisms for nuclear detection information that span the intelligence community, law enforcement agencies, and other government agencies. Coupled with this responsibility is the focus on establishing and maintaining continuous awareness by analyzing information from all DNDO mission-related detection systems both domestically and internationally.

*Nuclear Detection Research, Development, Test, and Evaluation:*

The DNDO will place a large emphasis on accelerating the research and development of nuclear detection technology. To accomplish this, the DNDO will manage two separate RDT&E programs, each with a unique and complimentary mission. The first of these efforts provides near-term (five years or less) improvements in deployed capabilities, directly meeting requirements of operational users.

The DNDO has established a Joint Requirements Board with membership including each of the operational users within DHS and across the interagency to formalize the process of collecting and prioritizing technology requirements. These requirements directly drive the goals of this evolutionary RDT&E program, focusing on providing spiral development of current capabilities. These programs will focus on improving and rapidly

transitioning capabilities that address threat materials of greatest concern. A major element in the DNDO development process is the focus on high-fidelity test and evaluation as well as user in the loop operational testing. One of the office's major goals is to fully validate systems performance of legacy and newly developed systems so that we have a complete understanding of the effectiveness of the detection architecture. When coupled with red teaming efforts, we will be able to effectively assess the health of our national nuclear detection system.

Meanwhile, the DNDO will manage a large transformational research and development program intended to provide high-payoff advances in capabilities. This transformational R&D will not be driven directly by operational requirements. Rather, these improvements are intended to provide new capabilities that could potentially be so great as to provide new operational concepts for current system components. As these transformational technologies mature, they would likely be transitioned into an evolutionary systems development program.

*Global Detection Architecture:*

A second objective of the DNDO will be to develop the global nuclear detection architecture that will be highly effective against the threat and still avoid impeding the legitimate flow of commerce and people. This development will be done with active input and consultation with interagency partners responsible for deployments of detection equipment overseas and around the Nation's military installations. This detection architecture must be a multi-layered in nature. It must start with an understanding of the international programs and agreements that help secure all weapons-usable materials overseas, and continue with layers of nuclear detection capabilities at international borders and ports-of-departure overseas, domestic ports-of-entry and the Nation's borders, and, finally, within the Nation and around high-risk or high-value locations. The DNDO recognizes the great strides that have already been made, including the Department of Energy's Materials Protection, Control and Accountability, Second Line of Defense, and MegaPorts programs, the Department of Defense's Cooperative Threat Reduction Program, the Department of State's Export Control and Border Security

Program and Nonproliferation and Disarmament Fund, and multiple DHS efforts to develop capabilities for detection, interdiction, search, and response domestically, such as the DHS Radiation Portal Monitor program and pilot programs in New York and Charleston. While this is by no means intended to be a comprehensive list of the government's efforts, it underscores the importance that the Nation has placed on defending against this threat. The DNDO is now responsible for developing an overall global architecture that assesses and links these programs in an effort to ensure that the Nation proceeds with a single, comprehensive prevention and detection strategy.

*Information Analysis:*

An equally important goal of the DNDO is to enhance the effective sharing and use of nuclear detection-related information and intelligence, and to integrate this information with information from all mission-related detection systems to provide a greater overall awareness. By fusing the international and domestic information streams and intelligence information, the DNDO will be able to provide a better-informed decision-making environment, enabling more effective alarm resolution, trend analysis, and threat awareness. This information analysis capability will be integrated with a detailed understanding of the systems performance of existing and to be deployed systems to increase our awareness and confidence in the global detection capability and effectiveness. Additionally, it is the vision of this office to have an aggressive red teaming system assessment activity that fully assesses the operational and technical performance of the deployed architecture in order to enhance our awareness of the adequacy of our screening process and to provide insights that lead to more effective systems and operational procedures.

**DNDO FY 2006 Budget and Key Initiatives**

As a new office, the DNDO-related budget for Fiscal Year 2005 includes approximately \$100 million through the Directorate of Science and Technology appropriated funding for radiological and nuclear countermeasures and will oversee \$80 million appropriated to Customs and Border Protection for the Radiological Portal Monitor Program. The

President's FY 2006 Budget includes requests for DNDO-related activities through the Directorate of Science and Technology (\$227 million), and will oversee resources requested for Customs and Border Protection (\$125 million), and the U.S. Coast Guard (\$7 million) – for a total of \$359 million. Additionally, the Office of State and Local Government Coordination and Preparedness request includes \$600 million for Targeted Infrastructure Protection grants, some of which may be allocated to DNDO-related State and local equipment acquisition based on the results of the architecture development activity.

The budget request includes \$5 million to supplement the joint development of a global nuclear detection architecture that will support the acquisition and deployment of the domestic nuclear detection system.

The request includes approximately \$12 million to establish systems engineering efforts to integrate research, development, testing, and acquisition across the program. This includes the development of a comprehensive systems engineering master plan.

A total of \$80 million will be directed toward ongoing evolutionary research and development efforts for improved passive and active detection technologies and support systems, and an additional \$82 million will allow for the initiation of a major program on transformational research and development to potentially lead to revolutionary changes in detection capabilities.

Approximately \$26 million of the request is for technical and operational testing and systems effectiveness assessments. This includes construction and operation of the Radiological and Nuclear Countermeasures Test and Evaluation Complex (Rad/NucCTEC), the capacity for additional operational test and evaluation, exercises, and demonstrations, and the formation of a red teaming and net assessments program.

Nearly \$23 million in funding is to be directed for technical support to operations in the areas of expert analysis and support for alarm resolution; collection and coordination of

intelligence and detection information for technical analysis, threat assessment, decision support, and archiving; and development of technical standards, draft protocols, procedures, and concepts of operation.

Finally, the \$125 million included as part of the CBP request and the \$7 million requested by the U.S. Coast Guard will be devoted to acquisition of equipment to be deployed by the respective agencies, consistent with the overall strategy developed by the DNDO.

### **DNDO Organization**

To meet this expanded mission and address the key challenges I have outlined, the DNDO will consolidate functions within DHS and establish strong linkages across the interagency. Multiple agencies share the resources and expertise necessary for the success of the office, and, while DNDO will be located within DHS, it will be jointly staffed with detailees from several Departments.

### **Relationship with DHS and Interagency Partners**

The vision for DNDO is to set the global strategy and architecture for nuclear detection and reporting and to be fully aware of the efforts of the U.S. Government across the spectrum of nuclear defense. However, DNDO will not execute all of the programs in this area. For example, DNDO will lead the development of the overall technology roadmap for nuclear detection technologies but will not execute Department of Energy or Department of Defense research, development, and testing and evaluation programs. Likewise, it will not be responsible for implementing DOE (e.g. MegaPorts), DOS, or DOD portions of the global nuclear detection architecture but will be instrumental in setting the strategy for that implementation, for conducting test and evaluation as available of systems that may be deployed through those initiatives, and, to the extent possible, assess the effectiveness of the deployed architecture through red teaming and other means. DNDO will develop response protocols and facilitate the alarm to response timeline but will not actually respond to alarms. DNDO will not conduct field operations



or award or administer Federal grants to State and local governments or emergency responders. The Office will not take over any of the functions that the Homeland Security Operations Center (HSOC) currently performs. However, DNDO will remain informed of those efforts as well as other efforts to counter the threat of nuclear terrorism in order to more effectively carry out its responsibilities.

### **Conclusion**

The effort to counter the threat of a nuclear attack against the Nation is one of the Department's most critical missions. The establishment of the DNDO will greatly increase our ability to address this mission through a consolidation of National efforts, establishment of the global architecture and deployment strategy, and by providing assurance of appropriate alarm resolution and response capabilities. I am proud to have shared with you today how the Department and its interagency partners will realign themselves to counter the threat posed by nuclear devices and materials.

I look forward to working with you on this subcommittee in a continuing effort to confront the threat posed by this threat to the Nation.

This concludes my prepared statement. With the committee's permission, I request my formal statement be submitted for the record. Mr. Chairman, Congressman Langevin, and Members of the Subcommittee, I thank you for your attention and will be happy to answer any questions you may have.