

Joint Testimony

for

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**Before the House Committee on Homeland Security
Subcommittee on Counterterrorism and Intelligence**

Counterterrorism Efforts to Combat a CBRN Attack on the Homeland

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Good morning Chairman King, Ranking Member Higgins, and distinguished Members of the Subcommittee. We are pleased to testify today about the efforts of the U.S. Department of Homeland Security (DHS) Office of Intelligence and Analysis (I&A) and the Domestic Nuclear Detection Office (DNDO) to enhance information sharing efforts with our state and local partners and protect against radiological and nuclear threats to the homeland.

Our testimony today focuses on DHS' work and the ways we have sought to strengthen our collaboration with our state and local partners who are on the front lines protecting our communities. In the ten years since DHS was created, we have significantly improved our information sharing and operational collaboration as we work together to confront an evolving range of threats.

DHS Capacity Building with State and Local Partners

DHS I&A and DNDO, along with our federal interagency partners at the Federal Bureau of Investigation (FBI) and the National Counterterrorism Center (NCTC), all ensure that state and local partners have the information and tools necessary to address evolving threats. To accomplish this mission, DHS has focused on four key priorities in working with our state and local partners:

- Improve production and dissemination of classified and unclassified information regarding threats to the Homeland;
- Continue to improve grassroots analytic capabilities through the development of a national network of state and major urban area fusion centers so that national intelligence can be incorporated into a local context;
- Standardize how we train state, local, tribal and territorial (SLTT) law enforcement to recognize indicators of terrorism-related criminal activity and report these suspicious activities to Joint Terrorism Task Forces for investigation and to fusion centers for analysis; and
- Increase community awareness and encourage the public to report suspicious activity to local authorities.

Fusion centers represent the cornerstone of the distributed homeland security and counterterrorism architecture through their presence as a grassroots analytic and information sharing capability at the local or state level. As part of the Implementing Recommendations of the 9/11 Commission Act of 2007 (P.L. 110-53), DHS was charged with leading the effort to coordinate with and support a network of state or local-led information sharing and analytic centers in states and major cities throughout the country.

Through I&A's State and Local Program Office, DHS has included these fusion centers in the intelligence cycle by assisting fusion centers to build their capabilities to receive, analyze, and disseminate and gather information at the local level. I&A facilitates coordinated federal support

to fusion centers that results in a dynamic flow of information between federal, state and local partners, as well as the development of joint intelligence products and the rapid reporting of information with intelligence value.

DHS has made considerable progress in assisting fusion centers to build necessary information sharing capabilities by:

- Deploying over 90 I&A intelligence personnel to fusion centers throughout the country to coordinate with DHS Component intelligence and law enforcement personnel;
- Deploying 70 Homeland Secure Data Network systems across the country to provide access to Secret information and intelligence at the local level;
- Training state and local analysts at fusion centers to ensure they have the necessary skills and expertise to analyze and fuse intelligence and information from the Intelligence Community with local/regional context and produce relevant and timely products for their stakeholders; and
- Developing tailored product lines to meet the needs of state and local partners, and expanding the distribution of products to ensure all relevant and appropriate information is shared with state and local partners.
 - For example, I&A partnered with DNDO to ensure threat products are available to fusion center analysts via the Homeland Security Information Network (HSIN). These resources include radiological and nuclear awareness reports, as well as open source information, detection tips and Nuclear Regulatory Commission (NRC) lost and stolen source reporting (as appropriate).

While America is stronger and more resilient as a result of these efforts to strengthen the Homeland Security Enterprise, threats from terrorism persist and continue to evolve. The Federal government realizes that SLTT law enforcement, as well as citizens, businesses and communities, are on the frontline of detection and prevention efforts. Protecting the nation is a shared responsibility in which the Federal government benefits from a robust information sharing infrastructure with state and local partners. These partners similarly benefit from the collaborative environment established within the fusion centers through their analysis of the national threat picture and the provision of products that are developed and tailored using local context to support the implementation of information-driven community-based solutions by local officials.

Threat Alert/Notification Process

In the event of a credible threat to the Homeland, I&A, as part of a broader, coordinated Department effort including DNDO and other subject matter experts depending on the type of threat, utilizes its previously tested threat notification process to assist our customers. In order to effectively reach our stakeholders, the threat notification process is accomplished in several ways.

- Depending on the classification and nature of the threat, I&A may work with DNDO, National Protection Programs Directorate (NPPD), the FBI, as well as other Intelligence

Community partners to produce a “tearline,” which is a lower classification version of the report describing the threat.

- The jointly prepared tearline would be used to notify the Department’s stakeholders of the threat through a Joint Intelligence Bulletin, produced in conjunction with the FBI, to describe the threat or incident.
- Additional outreach would take place following the initial notification of the threat via Secure Video Teleconference (SVTC) or classified and unclassified teleconference, depending on the nature of the threat. As the threat evolves or as we receive more information, additional communication would be initiated.
- DHS may also use the National Terrorism Advisory System (NTAS) to message the threat to a wider external audience. NTAS Alerts are designed to appropriately notify the public and/or institutions of specific and credible terrorist threats of a limited duration. The alerts describe either “Elevated” or “Imminent” threats, and may recommend certain protective measures or suggest looking for specific suspicious behavior. A specific and credible threat is based on intelligence reporting from a reliable source or multiple sources, including enough detail with respect to the attacker, target, method, capability, or timing to permit countermeasures or pre-emptive protective actions.
 - Elevated Alerts warn of a credible terrorist threat against the United States and its territories that is general in both timing and target, or details significant trends and developments in terrorism such that it is reasonable to recommend implementation of protective measures to thwart or mitigate against an attack.
 - Imminent Alerts warn of a credible, specific and impending terrorist threat or on-going attack against the U.S. and its territories that is sufficiently specific and credible to recommend implementation of protective measures to thwart or mitigate against an attack.

DNDO’s Efforts to Prevent Radiological and Nuclear Terrorism

Among the many threat we face as a Nation, nuclear terrorism poses one of the greatest threats to not only our security, but global security. Ensuring a coordinated response to credible intelligence of a nuclear threat is a whole-of-government challenge. DNDO works with federal, SLTT, international and private sector partners to develop radiological and nuclear detection capability in support of this mission. Working with partners from across the U.S. Government (USG), including the Departments of Energy (DOE), State, Defense, Justice, the Intelligence Community and the NRC, DNDO develops the Global Nuclear Domestic Architecture (GNDA) and implements its domestic component. Specifically, DNDO coordinates with interagency partners and leads programs to develop technical nuclear detection capabilities, measure detector system performance, ensure effective response to detection alarms and conduct transformational research and development for advanced detection technologies. Additionally, DNDO coordinates and improves nuclear forensics capabilities across the USG.

SLTT contributions are vital to the GNDA and we continue to work with these critical partners to build a flexible, multi-layered, domestic nuclear detection architecture based on capabilities that can be utilized by the Radiological Nuclear Strategic Group, led by the FBI, to integrate all

assets and capabilities into a unified response when intelligence or information indicates a credible nuclear threat.

While DHS focuses on threats of all types, DNDO's singular focus is the prevention of a nuclear terrorism threat. The United States' ability to counter the nuclear threat is based on the critical triad of intelligence, law enforcement and technology. To maximize our ability to detect and interdict nuclear threats, we apply detection technologies in operations driven by intelligence indicators and place them in the hands of well-trained law enforcement and public safety personnel. In the event of a radiological or nuclear event, the FBI would lead the CT/WMD Operational Response.

DNDO programs specific to the development of radiological and nuclear detection capability by SLTT entities include:

Planning Support

DNDO provides planning guidance to GNDAs on developing, managing, evaluating and sustaining their radiological and nuclear detection programs. Through Program Assistance, DNDO helps multi-jurisdictional policy makers, program managers and operational administrators work together to design and implement radiological and nuclear detection programs that build and enhance detection capabilities in support of the GNDAs. Generally, detection programs are integrated into and leverage existing operational assets which decreases overall costs and increases operational impact.

DNDO has established formal working relationships with over 30 states and territories and works with SLTT partners to mature and advance radiological and nuclear detection and reporting capabilities. DNDO has developed a framework of scalable processes and products including concepts of operation, standard operating procedures, lessons learned and best practices that can be tailored to the needs of the SLTT partner. Specific products include:

- The Preventive Radiological and Nuclear Detection (PRND) Program Management Handbook, with modules for specific operational environments such as Commercial Vehicle Inspection, Small Maritime Vessel Operations and Special Events, provides guidance for the administration of a domestic radiological and nuclear detection program at both the senior policy making and operational levels.
- The National Incident Management System (NIMS) PRND Resource Type Definitions categorize equipment, teams and personnel consistent with other NIMS resource types to facilitate identification, inventory and tracking. With direct state and local participation, DNDO developed the NIMS PRND Resource Types in 2011 to assist SLTT stakeholders with defining and building radiological and nuclear detection capability and to enable jurisdictions to categorize and deploy resources through Emergency Management Assistance Compacts or other interstate mutual aid agreements.

- The West Coast Maritime Pilot was implemented in the Puget Sound and San Diego to facilitate development of radiological and nuclear detection capabilities in maritime regions throughout the U.S. Based on lessons learned, DNDO works with regional Area Maritime Security Committees to provide assistance in developing operational procedures, training and exercises to develop radiological and nuclear detection capabilities that support the region's Area Maritime Security Plans.

Training

DNDO provides training products and support to develop, enhance and expand radiological and nuclear detection capabilities in support of the GNDA. In partnership with the Federal Emergency Management Agency (FEMA), DOE and the Federal Law Enforcement Training Center, DNDO develops and implements protocols and training standards for the effective use of radiation detection equipment and associated alarm reporting and resolution processes. DNDO also develops training curricula in support of emerging detection technologies and operational profiles. Since inception, over 24,000 law enforcement and public safety personnel from 35 states have participated in DNDO-supported radiological and nuclear detection training.

Exercises

DNDO provides assistance in developing, designing and conducting exercises that are compliant with the Homeland Security Exercise and Evaluation Program methodology. The exercises provide valuable hands-on experience for personnel performing radiological and nuclear detection operations and assist decision makers in integrating the detection mission into their daily operations. To date, DNDO has conducted exercises with 20 states and annually supports up to 12 exercises. DNDO continues to develop and apply standardized and tailorable exercise templates and guidelines evaluating the implementation and performance of federal and SLTT radiological and nuclear detection programs.

Engagement

DNDO sponsors strategic engagements with state and local leaders via an Executive Steering Council (ESC) and a State and Local Stakeholder Working Group (SLSWG). The ESC and the SLSWG forums are part of DNDO's ongoing outreach to and collaboration with SLTT agencies involved in radiological and nuclear detection. They are specifically designed to obtain feedback on DNDO's initiatives, learn about advances in SLTT and facilitate communication, coordination and collaboration within the radiological and nuclear detection community.

Joint Analysis Center

DNDO's Joint Analysis Center (JAC), which is supported by detailees from DOE, USCG and the FBI, provides awareness of the GNDA as well as technical support and informational products to federal, state and local entities. I&A and the JAC regularly collaborate on the development of these products.

Utilizing the Joint Analysis Center Collaborative Information System (JACCIS), the JAC facilitates nuclear and radiological alarm adjudication and consolidates and shares information and databases. JACCIS provides a process for federal and SLTT agencies to share radiological and nuclear detection information. The JACCIS Dashboard provides a secure web interface to collaborate with mission partners and uses a geographic information system to show detection information, detectors, situational awareness reports and other overlays in a geospatial viewer. Web service interfaces to other mission partners' systems and content routers provide linkages to detection assets in real-time. This same technology is employed to connect JACCIS to the TRIAGE system, maintained by the Department of Energy, National Nuclear Security Administration, to adjudicate alarms. This connection allows a seamless transition of alarm adjudication in JACCIS to be elevated to TRIAGE for national-level adjudication assistance.

Test and Evaluation Assistance

Federal, state, local and tribal partners require reliable information on the technical performance, operational effectiveness and suitability and limitations of currently available radiological and nuclear detection equipment to develop effective detection programs. DNDO has established a robust test and evaluation capability to rigorously test commercially available radiological and nuclear detection systems against national and international standards and in operational scenarios faced by federal and SLTT end-users. DNDO involves operational partners in the planning and execution of test events ensuring equipment is tested in the manner in which it is used and provides operators with valuable hands-on experience with detection equipment and special nuclear material sources. Such tests independently assess systems to confirm vendor performance claims and provide operational data to develop effective concepts of operation. Since inception, DNDO has conducted over 80 tests and evaluations that involve all classes of radiological and nuclear detection systems, including personal radiation detectors, handheld, backpack and mobile detection systems, radiation portal monitors and radiation detection systems suitable for maritime environments and aerial platforms. The results of these efforts are shared with operational partners.

Red Team

DNDO fields a unique Red Team to objectively assess the operational effectiveness and performance of DNDO programs and deployed radiological and nuclear detection capabilities at the federal and SLTT levels. This capability evaluates deployed systems and operations and their associated tactics, techniques and procedures, in as-close-to-realistic-environments as possible. As covert and overt assessments are generally the only opportunity for operators of radiological and nuclear detection systems to gain experience detecting uncommon nuclear sources, these operations provide them with valuable feedback on the performance of their tactics, techniques and procedures. This feedback enables operators to improve their concepts of operation and readiness. In the past year, DNDO conducted 30 overt and covert assessments.

New Technologies for Nuclear Detection

DNDO continues to develop breakthrough technologies with significant operational impacts on our national capability to detect radiological and nuclear threats. For example, DNDO led the development of next-generation Radioisotope Identification Devices which are used by law enforcement officers and technical experts during routine operations. DNDO worked closely with U.S. Customs and Border Protection (CBP), U.S. Coast Guard (USCG), the Transportation Security Administration (TSA) and state and local operators to identify key operational requirements that drove the design of the new system. Based on an enhanced detection material, lanthanum bromide, and improved algorithms, this new handheld technology is easy-to-use, lightweight, and more reliable, and because it has built-in calibration and diagnostics, has a much lower annual maintenance cost. DNDO proactively engages industry to procure commercial off-the-shelf devices to field other new technologies for nuclear detection. DNDO procures these devices to be used by CBP, USCG and TSA.

Additionally, DNDO has funded the development of radiation sensing materials such as Strontium Iodide (SrI₂) and CLYC (Cs₂LiYCl₆). In October 2012 a major milestone was reached as SrI₂ and CLYC became commercially available for use in radiation detection equipment. This new generation of detectors will greatly benefit federal, state and local law enforcement and public safety personnel, because the devices are relatively inexpensive and provide significantly improved performance.

Securing the Cities Program

Since 2007, DNDO has supported the Securing the Cities (STC) Program to develop state and local capabilities to detect and prevent illicitly trafficked nuclear materials that may be used as a weapon within high-threat/high-density urban or metropolitan areas. The program assists regions, selected through a competitive application process, to enhance regional capabilities to detect, identify and prevent nuclear materials that are out of regulatory control; guide the coordination of federal and SLTT entities in their roles defined by the GNDA; and encourage participants to sustain the nuclear detection program over time.

There are three phases to the program. In Phase I, DNDO assists state and local partners to develop a region-wide initial operating capability that is mutually supported through cooperative agreements, regional concepts of operations, interoperable equipment, collective training and progressive exercise planning. In Phase II, DNDO provides additional resources to build upon the initial capabilities to enhance detection, analysis, communication and coordination to better integrate state and local assets into federal operations. In Phase III, STC works with regional partners to maintain connectivity with the established local architecture through alarm adjudication and subject matter expertise and provides advice on long-term training, exercise and program support.

In the first STC implementation, DNDO partnered with state and local agencies in the New York City, Jersey City and Newark areas. Over the past six years, more than 13,000 personnel have been trained in radiological and nuclear detection operations in the region and over 8,500 pieces

of radiological and nuclear detection equipment have been procured and deployed. In addition to frequent exercises, STC partners conduct daily operations and routinely surge to enhanced operational postures based on information cues received in fusion centers.

Seeking to leverage the lessons learned from the first STC implementation and improve the radiological and nuclear detection capability of additional high-threat/high-density urban areas, in 2012, DNDO selected the Los Angeles/Long Beach area as the next metropolitan area for STC implementation.

Surge Capability

The ability to surge resources for use during special events, times of increased threat, or in response to information or events that indicate the need for enhanced detection capabilities, is critical. DNDO's Mobile Detection Deployment Program maintains trailer-based units outfitted with an extensive suite of radiological and nuclear detection equipment and communications capabilities. These Mobile Detection Deployment Units (MDDUs) are deployed regionally across the United States and offer a national radiological and nuclear detection surge package that can be deployed as needed to assist stakeholders augment their capabilities. Each MDDU is configured to outfit numerous personnel and contains a number of mobile units, backpacks, high-resolution handheld devices, personal radiation detection devices, communications and tracking equipment. When deployed, the MDDU is accompanied by technical support staff to train personnel on the use of equipment and to help integrate these surge capabilities into other protective operations. Since 2009, DNDO has deployed MDDUs for radiological and nuclear detection surge operations in support of federal and SLTT law enforcement and public safety personnel during more than 60 special security events and exercises.

National Rad/Nuc Challenge

To share best practices within the operational community, stimulate interest and facilitate improvements in detection equipment so as to strengthen national radiological and nuclear detection capabilities, DNDO initiated the National Rad/Nuc Challenge. Through head-to-head competition, the Challenge will highlight excellence in detection efforts and encourage participants to enhance skills.

Responding to the National Crisis for Helium-3

Helium-3 (^3He) is an important element used in many national security, homeland defense and medical applications. For decades, ^3He has been used as a neutron detection component for radiation detection devices. In 2008, a critical ^3He shortage was identified as demand outpaced the supply. Fortunately, DNDO was already exploring options for better, more cost effective, alternatives for neutron detection. Once the shortage was identified, DNDO accelerated the process and led an interagency working group to address the development and use of alternative neutron detection technologies. DNDO also created a competitive application process through which SLTT agencies developing or enhancing radiation and nuclear detection capabilities

would be eligible to receive an allotment of ^3He . This effort has resulted in the distribution of over 500 liters of ^3He to SLTT agencies since 2010.

Conclusion

In just a few short years, we have transformed how we work together – to share information, build our capabilities, combat threats in our communities, and address our shared challenges. As a result, today we are better at understanding risks, leveraging intelligence and information, and making sure that information is incorporated into law enforcement efforts across the United States. Through robust partnerships with state and locally owned and operated fusion centers, as well as an integrated approach to implementing programs such as the GNDA, we continue to strengthen the nation’s capabilities to detect all types of threats, including nuclear terrorism. Our efforts are not only advancing the capabilities and operational readiness of our partners, but are also enhancing national deterrence against a serious threat to our homeland.

We appreciate your continued support as we work with our partners to develop, evaluate, deploy and support the necessary systems and resources to effectively share threat information and implement a nuclear detection architecture that can effectively protect the Homeland, in response to credible, timely intelligence about radiological and nuclear threats.

Chairman King, Ranking Member Higgins, we thank you for the opportunity to discuss the ongoing efforts of I&A and DNDO to prevent and protect against this threat.

We are happy to answer any questions the Subcommittee may have.