

The top of the page features a blue-tinted image of the American flag on the left and a bald eagle in flight on the right, set against a dark blue background.

U.S. DEPARTMENT OF HOMELAND SECURITY

*Preparedness Directorate
Office of Grants and Training*

FY 2007 Homeland Security Grant Program

*Supplemental Resource:
Domestic Nuclear Detection Office Overview*

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Domestic Nuclear Detection Office Overview

A. Mission and Vision

As part of the national effort to protect the Nation from radiological and nuclear threats, the Domestic Nuclear Detection Office (DNDO) was established by Presidential Directive on April 15, 2005. DNDO plays an essential role in creating and implementing a defensive strategy, with domestic and international programs, to protect the Nation from a terrorist nuclear or radiological attack. Because no single layer within the strategy will be capable of providing one hundred percent effectiveness in detecting and interdicting nuclear materials for illicit use, DNDO is using a multi-layered strategy.

The DNDO is now the primary interagency within the U.S. Government responsible for developing the global nuclear detection architecture, and acquiring and supporting the deployment of the domestic detection system to detect and report attempts to import or transport a nuclear device or fissile or radiological material, intended for illicit use.

Among these program initiatives, DNDO is conducting both evolutionary (near-term, requirements-driven) and transformational (long-term, high pay-off) research, development, test, and evaluation (RDT&E) programs to improve the Nation's capabilities for detection, identification, and reporting of radiological and nuclear (rad/nuc) materials. By integrating RDT&E programs with operational support responsibilities, DNDO will ensure that all technologies will be appropriately deployed, with training materials and well-developed operational response protocols. Working with the Office of Grants and Training (G&T) and other Federal, State, and local partners, DNDO has piloted initial training programs and developed detection alarm protocols that can be customized for specific operational missions. Additionally, complementary systems comprising the global architecture will be positioned utilizing resources and components with maximum effectiveness.

B. Federal, State, Local, and Tribal Partnerships

DHS values the importance that effective sharing and use of nuclear detection-related information, intelligence, and systems play in strengthening our Nation's security. DNDO will integrate crucial overseas detection programs with domestic nuclear detection systems and other nuclear detection efforts undertaken by Federal, State, local, and Tribal governments and the private sector. To facilitate an effective engagement with State and local entities that are involved in preventive rad/nuc detection activities, DNDO will continue to pursue a coordinated delivery of DNDO products, programs, and services to expand State and local capabilities.

C. Building Capabilities

DNDO encourages States and regions to implement a comprehensive nuclear detection program capable of detecting nuclear and radiological materials and weapons in support of and in concert with the domestic portion of the global nuclear detection architecture. DNDO believes that implementation of a comprehensive program will take

several years, and require substantial interstate and Federal coordination. As such, DNDO strives to partner with State, local, and Tribal agencies choosing to develop, enhance, and implement nuclear detection systems with regard to architecture design, subsystem configuration, upgrades and coordinated operations, communications, and interoperability.

DNDO believes that an initial layer of detection may include fixed and mobile radiation portal monitors, Polyvinyl Toluene (PVT) and spectroscopic, handheld and other human-portable nuclear detection devices, other mobile nuclear detection devices, as well as radiography systems.

Funding from the SHSP, UASI, LETPP, BZPP, Transit Security Program, PSG, and IBSG Programs can be used to enhance existing or establish new preventive rad/nuc detection programs. However, grantees must contact DNDO prior to initiating program activities and provide a point of contact for each detection program to whom DNDO can provide program guidance and updates. Please contact DNDO with this information at DNDO.SLA@dhs.gov.

D. Allowable Costs and Available Resources

DNDO is working in close coordination with G&T and other Federal, State, and local entities to develop technical assistance (TA) programs for the enhancement and development of preventive rad/nuc detection programs that support the planning, organization, equipment, training, exercises activities, and operational support systems (POETEOps framework) as explained in Table 1. This POETEOps framework matches to the National Preparedness Goal, State Homeland Security Strategies, and all reporting requirements for G&T grant programs.

Table 1 – TA for RAD/NUC Preventive Detection Programs

Planning	DNDO will provide assistance with planning and development of protocols and programs.
Organization	DNDO will provide guidance for organizational structures to support successful preventive rad/nuc detection programs.
Equipment	DNDO will identify equipment and integrated layers of equipment to meet detection and response mission priorities.
Training	DNDO will help States develop and implement training guidelines and programs.
Exercises	DNDO will provide assistance with enhancing and developing exercise guidelines and support.
Operational Support	DNDO is establishing technical reachback support systems and other 24/7 information sharing systems.

State and local grantees are encouraged to work closely with DNDO as they develop preventive rad/nuc detection programs in order to ensure consistency with DNDO program guidance and to ensure that national operational support systems are effectively coordinated with their programs.

During FY 2006, DNDO strengthened the breadth and effectiveness of its programs and TA offerings in cooperation with the Department of Energy, the Department of Defense, the State Department, the Federal Bureau of Investigation (FBI), State, territorial, tribal,

and local governments, related national associations, and the private sector. The resulting products and TA are currently available to State and local grantees that wish to develop or enhance preventive rad/nuc detection programs—

- **Protocols**—DNDO partnered with a national stakeholder group of state, local, and national association representatives to establish alarm resolution and response protocols. For additional information, please email DNDO.SLA@dhs.gov.
- **Regional Reachback Centers**— DNDO is partnering with national laboratories that offer appropriate subject matter expertise for implementing Regional Reachback Centers. Regional Reachback Centers will support detector deployments in State and local jurisdictions and help resolve rad/nuc detection alarms with highly experienced technical experts available 24/7.
- **Training**—DNDO has piloted several initial training program offerings that can be tailored from awareness to operations level needs for a variety of public safety disciplines. The training offerings will be available, in limited numbers, to the State and local community in FY 2007. Additional training programs will be developed and piloted in FY 2007.
- **Preventive Rad/Nuc Detection Program Management Handbook with Commercial Vehicle Inspection Rad/Nuc Module** —DNDO is developing a Preventive Rad/Nuc Detection Program Management Handbook with a Commercial Vehicle Inspection (CVI) Rad/Nuc Module in concert with State and local stakeholders. The Handbook will assist State and local officials seeking to develop or enhance CVI rad/nuc programs. This Handbook will provide comprehensive guidance (POETEOps framework) for administration of a domestic preventive rad/nuc program and is intended to assist program development and implementation at both senior policy making and operational levels.
- **Equipment Test Results**—DNDO has made available an initial round of equipment test results to evaluate the effectiveness of detection systems in multiple performance areas (Anole Test Campaign Report, which included handheld, backpack, and mobile systems) and inform State and local agencies' making procurement decisions. The Anole Test Campaign Report is available on the Responder Knowledge Base (RKB) and DNDO's State and local Portal. The second round of test results (Bobcat Test Campaign, which included Commercial-off-the-Shelf (COTS) and prototype Personal Radiation Detectors (PRDs) will be available in FY 2007). The Bobcat Test Campaign will also be posted on the RKB and DNDO's State and local portal when available. For access to DNDO's State and local Portal, please contact DNDO at DNDO.SLA@dhs.gov.

During FY 2007, DNDO will continue to refine and expand program offerings and TA, as well as expand its State and local stakeholder partnerships to coordinate the delivery of DNDO products, programs and services to enhance the global nuclear detection architecture and enhance nationwide preventive rad/nuc