Confronting the Radiological/Nuclear Threat

Prevent, detect, and ***respond*** to the use of ***radiological nuclear weapons*** and ***dispersion devices***.

Planning

- Understand the threat
- Assess vulnerabilities
- Develop detection architecture/strategies
- Implement standard operating procedures
- Develop response plans
- Training and exercise support for preparing

Rad/Nuc Detection

- Develop and deploy rad/nuc detectors
- Train
- Conduct exercises

Event Response

- Crisis management
- Consequence management
- Recovery
- Forensics

Capabilities

- Modeling
- System architectures
- Radiation detection materials
- Advanced radiation detector development and testing
- Ultra-low background radiation detection
- Radiation dose reconstruction and dosimetry
- Training first responders
- Data analysis
- Development and engineering of integrated detection systems
- Border and interdiction technology
- Forensics
- Radiological Assistance Program response teams
- National Guard Civil Support Team training and technical reachback

National Laboratory Contributions

- Extensive successful history and leading expertise in radiation detection and health physics
- Full knowledge of the rad/nuc threat and how to address it
- Testing and evaluation expertise and highly specialized facilities
- Deployment of detectors in complex operational environments

Collaborations

- DOE National Laboratories
- Industry (e.g., General Electric, ATK)
- Universities (e.g., University of Michigan)
- Government agencies (e.g., DOE/NNSA, DTRA)

Science-Based Solutions for Homeland Security