

Sandia National Laboratories and the Global Security Program

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Sandia National Laboratories

Our Business: National Security



- **Core Purpose:** to help our nation secure a peaceful and free world through technology.
- **Highest Goal:** to become the laboratory that the United States turns to first for technology solutions to the most challenging problems that threaten peace and freedom for our nation and the globe.

Sandia National Laboratories

Mission-Driven Laboratory



We serve many agencies of the US Government with:

- Design and development: nonnuclear portions of US nuclear weapons
- Production: advanced components
- Safety, security, use control
- Treaty verification, nonproliferation, counterproliferation
- Advanced military technologies
- Energy and environment
- Homeland security, countering weapons of mass destruction



Global Security Program

Mission

We **reduce the threat** from weapons of mass destruction (WMD) **proliferation and terrorism** through **international cooperation** to create **sustainable, technology-based systems** to meet US national security objectives.

Focus Areas

Nuclear/Radiological Threat Reduction

Biological Threat Reduction

Global Security Engagement



Nuclear/Radiological Threat Reduction

Nuclear Focus

Objective

Prevent acquisition of a nuclear weapon (NW) capability by

- Current non-nuclear weapon possessing states
- Terrorists (sub-national threat)

Approach

- Detecting undeclared state activities and conditions
- Limiting the spread of sensitive technologies, e.g., enrichment and reprocessing technologies
- Reducing inventories/securing weapons and weapons-useable material
- Detecting and interdicting nuclear smuggling
- Enabling defense conversion





Nuclear Proliferation Threat Reduction Programs



- HEU Transparency
- Warhead Safety and Security Exchange
- Export Control
- IAEA Safeguards
- International Physical Protection
- Material Protection Control and Accounting
- Global Initiatives for Proliferation Prevention (GIPP)
 - Russia
 - Iraqi
 - Libya
- DTRA/CTR
- Second Line of Defense – Core and Megaports
- DHS – Operation Safe Commerce





Nuclear/Radiological Threat Reduction

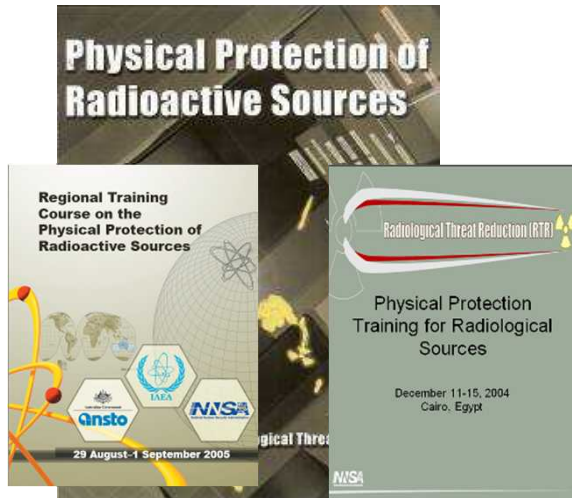
Radiological Focus

Objective

Prevent radiological dispersal events by terrorists

Approach

- Reducing inventories/securing domestic and international radiological materials
- Detecting and interdicting smuggling of radiological materials
- Preventing sabotage of foreign nuclear facilities and materials





Biological Threat Reduction

Objective

Prevent acquisition of a Biological Weapon (BW) capability by

- Terrorists (sub-national threat)
- State proliferators

Approach

- Enhancing the safety and security of high risk pathogens globally
- Detecting and responding to outbreaks of infectious disease that are naturally caused or indicators of BW proliferation
- Evaluating the current and future bioterrorist threat
- Reviewing bio export control issues
- Enabling defense conversion



PRIMARY CONTAINER

CULTURE
ABSORBENT PACKING MATERIAL
CAP

SECONDARY CONTAINER

SPECIMEN RECORD (CDC 3.203)
CAP

SHIPPING CONTAINER

EA LABEL
ADDRESS LABEL





Global Security Engagement

Objective

Engage international partners (states and organizations) in the development and deployment of strategic solutions to reduce current and emerging proliferation and terrorism threats

Approach

- Enabling border and maritime security
- Enabling and participating in Science and Technology collaborations
- Reducing the demand for acquiring or using WMD through technical collaborations



Global Security Program Foundations

Applied S&T

- Technology applications
- Technology test and evaluation
- Technology development

Cooperative Monitoring Centers

- Technology testing and demonstration
- Technology training courses and workshops
- Visiting scholars program, research, and analysis
- Technology integration and operation

International Business Center

- International Programs Building
- International Procurement
- Export Control
- Foreign Interactions
- International Travel Clinic





Summary

- As global proliferation and terrorist threats to US national security have grown, Sandia's Global Security Program has played an increasingly important role in reducing the risk of nuclear and biological weapons proliferation and terrorism
 - Building on systems analyses and engineering, and science and technology foundations
 - Providing the critical link between technology and policy
 - Leveraging established and building new international relationships

Meeting WMD proliferation and terrorist threat challenges
today and tomorrow