

DHS Science and Technology Directorate

National Urban Security Technology Laboratory



Locations: New York City and Chicago

Core Competencies: Test and Evaluation, Research and Development in Radiological/Nuclear Response and Recovery, and Technical Advisors to First Responders

Accreditations: ISO 14001 (compliant), ANSI/AIHA Z-10-2005 (compliant) and ISO 9001: 2015 (in process)

Key Customers: Federal, state and local first responders

National Urban Security Technology Laboratory

The National Urban Security Technology Laboratory (NUSTL) is a federal laboratory organized within the U.S. Department of Homeland Security Science and Technology Directorate's First Responders Group. Building upon its proud history since 1947, the laboratory provides products and services to help first responders prepare, protect and respond to homeland security threats.

Test and Evaluation

NUSTL conducts tests, evaluations and assessments of first responder technologies through a full spectrum of laboratory and field testing services.

- Tests radiation detection equipment to ensure operational readiness. More than 16,000 units have been tested for first responder use.
- Conducts focus groups and operational field assessments of emerging and commercial technologies.
- Facilitates urban operational experimentations to conduct scenario based tests of emerging technologies with first responders and developers.
- Designed, developed, tested and transitioned the Radiological Emergency Management System (REMS), a radiation sensor network for cities. NUSTL continues to support the national deployment of REMS.

Radiological/Nuclear Response and Recovery Research and Development

NUSTL's actionable guidance and technology solutions enhance response capabilities during a radiological or nuclear emergency.

- Examines game-based and training formats to hone first responder decision making skills during a radiological emergency.
- Developed web-based waste management and decontamination tools to improve incident stabilization methods, radiological clean-up and recovery.
- Authored the science-based response planning guidance for the critical first 100 minutes following a radiological dispersal device detonation.
- Developed the Radiological Operations Support Specialist (ROSS) position, a nationally recognized emergency response position to ensure incident commanders have access to subject matter experts with verified skills, knowledge and abilities during a radiological event. The ROSS was developed with the assistance of federal agencies with radiological, nuclear and emergency management expertise.

Technical Advisors to First Responders

NUSTL relays first responder issues and needs to developers, while advising first responders on innovative solutions from the technology development community.

- Publishes knowledge products and technical reports that inform first responders in better selecting, using and maintaining equipment and technology. Reports can be found on <https://www.dhs.gov/science-and-technology/saver>.
- Hosts the New York Area Science and Technology (NYAST) Forum to highlight development in science and technology relevant to the homeland security community. NYAST has more than 450 members from 110 different organizations, including federal, state and local government first responders and agencies, academia and private sector institutions.
- Supported radiation detection training and exercises for thousands of federal, state and local first responders by providing licensed radioactive sources, equipment and technical staff.



Homeland Security

Science and Technology

To learn more about the National Urban Security Technology Laboratory please contact NUSTL@hq.dhs.gov.