



AROUND THE REGION IN HOMELAND SECURITY

The Northwest Regional Technology Center (NWRTC) is a virtual resource center, operated by the Pacific Northwest National Laboratory (PNNL), to support regional preparedness, resiliency, response, and recovery. The center enables homeland security solutions for emergency responder communities and federal, state, and local stakeholders in the Northwest.

UPCOMING EVENTS

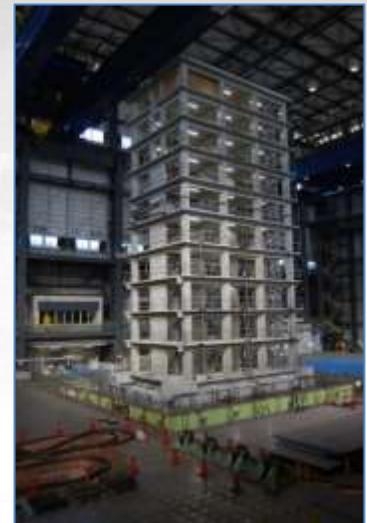
- Feb. 8-11, 2016 – [National Fire Control Symposium](#), Lake Buena Vista, FL
- March 21-23, 2016 – [Power Grid Resilience Summit](#), Philadelphia, PA
- April 19-21, 2016 – [2016 Partners in Emergency Preparedness Conference](#), Tacoma, WA

CONTACT

- Want to know more? Visit us on the web at <http://nwrtec.pnnl.gov>
- Contact the NWRTC with questions and comments at nwrtec@pnnl.gov.

EARTHQUAKE SIMULATOR SHAKES UP DISASTER PREPAREDNESS

On Dec. 11, researchers at Japan's [National Research Institute for Earth Science and Disaster Prevention \(NIED\)](#) conducted the world's largest shake test using the institute's full-scale "E-Defense" earthquake testing facility. The exercise simulated the impact an earthquake could have on a 10-story, reinforced concrete building.



"Most complex housings in urban areas are medium-rise buildings. Full-scale shaking experiments using medium-rise building specimens have never been conducted yet. In order to develop the higher seismic performance technology, it's essential to first verify the seismic performance of medium-rise reinforced concrete building and the collapse process of the buildings," said Yusuke Tosanouchi, Researcher of Hyogo Earthquake Engineering Research Center.

NIED houses the world's largest simulation facilities being used to research ways to lessen the impacts of natural disasters. E-Defense, formally known as the 3D Full-Scale Earthquake Testing Facility, features the world's largest shake table: a 20-by-15-meter structure that replicates the three-dimensional motions of a 7-magnitude earthquake. Researchers can observe and record the movements of structures as the table quakes beneath them. NIED also features a 15-by-14.5-meter [shake table](#), a [rainfall simulator](#), and a [cyrospheric environment simulator](#) to study snow disasters.

NIED is using these facilities and collaborating with researchers around the world to advance research and development to enhance emergency preparedness and response.

FOCUS GROUP EXPLORES HANDHELD TECHNOLOGIES



PNNL recently held a focus group sponsored by the Department of Homeland Security (DHS) System Assessment and Validation for Emergency

Responders (SAVER) Program to discuss portable infrared (IR) spectroscopy detectors. The event was held at the Seattle Fire Training Center in Seattle, WA.

DHS established the SAVER Program to assist emergency responders making procurement decisions. The program conducts objective assessments and validations on commercial equipment and systems and provides these results to the emergency responder community at www.firstresponder.gov/SAVER.

The two-day workshop engaged eight first responders from varying jurisdictions across the United States as well as federal agencies such as the National Guard Civil Support Team and the U.S. Army Institute of Public Health. Participants reviewed the SAVER concepts and identified criteria for portable IR detectors they would use to assess infrared instruments, including usability, deployability, and capability.

First responders use IR instruments to confirm, rule out, or identify suspect material. Applications may include materials in drug labs, spills/residues, material in unlabeled containers/drums, or unknown potential threat material (e.g., suspicious powder). In addition to being portable, they are smaller, easier-to-use, and less costly than their laboratory-sized counterparts.

In April, the team will conduct a week-long assessment of these selected criteria in various scenarios of their design (use with personal protective equipment, low light, etc.). The outcome of this assessment will be published on the SAVER website in 2016.

CASCADIA RISING 2016 EXERCISE PLANNED FOR JUNE

On June 7-10, 2016, the [Cascadia Rising 2016 Exercise](#) will bring together 40

counties, plus major cities, tribal nations, state and federal agencies, private sector businesses, and non-governmental organizations from Washington, Oregon, and Idaho in an emergency response exercise.



The four-day event is more than two years in the making. During the exercise, Emergency Operations Centers at all levels of government and the private sector will activate to coordinate simulated field response operations both within their jurisdictions and also with neighboring communities, the states of Washington, Oregon, and Idaho, as well as the Federal Emergency Management Agency.

Key partners also include the National Guard and U.S. military commands such as U.S. Northern Command and U.S. Transportation Command, which will be conducting simulated strategic airlift and maritime disaster logistics exercises.

ABOUT DHS S&T SAVER PROGRAM

Calling all first responders and responder organizations: Do you purchase equipment for your department or agency? DHS S&T's SAVER program can help! S&T works with first responders and technical agents to look at technology and related trends, in concert with first responder-developed criteria, to provide assessments and reports to help first responders better select, buy, and use equipment within their department's budgetary and mission needs. [Click here](#) to find out how SAVER can help save money and enhance performance capabilities by assisting procurement decisions with information on equipment that has been tried and tested by first responders.

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