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. This monthly newsletter summarizes activities related to homeland security in the region, and this issue highlights

- GridEx-II Gages Readiness
- A Global Commitment to Making Cities More Resilient
- Remote Sensing for Energy Resilience
- Upcoming Events

**GridEx-II Gages Readiness**

To test, validate and improve the resilience of our nation’s grid, the North American Electric Reliability Corporation (NERC) conducts a biannual, sector-wide grid security exercise, called GridEx. The exercise gauges the readiness of the Electricity Sub-sector to respond to a cyber-incident in the bulk power system, strengthens utilities’ crisis response functions, and provides input for internal security program improvements.

Due to PNNL’s leadership in improving cyber security and developing solutions that protect our nation’s power system, the Laboratory played an essential part in planning GridEx-II, which was held November 13-14, 2013. More than 1,700 individuals participated in the exercise, representing 205 utility, government, industry and academic organizations including the Department of Energy, Department of Defense, Department of Homeland Security, Federal Bureau of Investigations, National Nuclear Security Administration, and the military. PNNL was the sole national laboratory participant.

Through PNNL’s participation in GridEx II, the Lab is helping ensure power companies and the U.S. government can effectively collaborate and quickly and effectively respond to a cyber or physical attack to the power grid.

For more information, contact PNNL Senior Cyber Research Scientist Paul Skare.

**A Global Commitment to Making Cities More Resilient**

The United Nations Office for Disaster Risk Reduction (UNISDR) launched the Making Cities Resilient campaign in May 2010 to address disaster preparedness issues related to urban risk and local governance.

The main objectives of the campaign are threefold:

- **Know more**: Raise awareness of citizens and governments at all levels of the benefits of reducing urban risks.
- **Invest wisely**: Identify budget allocations within local government funding plans to invest in disaster risk reduction activities.
- **Build more safely**: Include disaster risk reduction in participatory urban development planning processes and protect critical infrastructure.
Nearly 1,630 cities around the globe are participating in the campaign, including four in the U.S. (San Francisco, CA; North Little Rock, AR; Normandy, MO; Hoboken, NJ). A list – 10 Essentials for Making Cities Resilient – developed in line with the five priorities of the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters, serves as a guide for local governments in what actions can be undertaken in building resilience to disasters at the local level. The Campaign offers additional tools and mechanisms for local governments including a Handbook for local government leaders, case studies, city-to-city exchanges and best practices from cities around the globe. Additionally the Local Government Self-Assessment Tool aids local governments in identifying gaps, measuring achievements and progress, and contains comparable data with other cities across the globe.

The Campaign relies on the expertise and dynamism of a network of partners, advocates and champions who have an abiding commitment to make their cities safer.

The Chief of Advocacy and Outreach for UNISDR, Mr. Jerry Velasquez, said: “Most, if not all, of the solutions to the challenges of the 21st century, such as climate change and increased disaster risk, are to be found at the local level. The beauty of the Making Cities Resilient Campaign is that it works with and through city mayors and community leaders, the very people who understand how to make positive change happen in their locales, for the good of their municipalities as well as partner cities across the world.”

To find out more, visit the Making Cities Resilient: My City is Getting Ready website, or on Twitter, follow UNISDR @unisdr and join the conversation at #resilientcities.

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**Remote Sensing for Energy Resilience**

PNNL is working with the Department of Homeland Security (DHS) Science and Technology Office to help electrical utilities incorporate remote sensing into their operations. Remote sensing products can be used to improve situational awareness when preparing for and responding to natural disasters, from big events like Hurricane Sandy to smaller events like the recent winter storms in the Midwest. This project is part of a larger DHS initiative for Energy Resilience.

Over the course of this pilot project, PNNL will develop automated processing for remote sensing imagery such as synthetic aperture radar, thermal infrared, and high-resolution optical. The processing will extract information relevant to electrical infrastructure using change detection techniques, image segmentation and other algorithms. The results will be fused with information from other sources like utility asset locations, call logs and social media to present a comprehensive picture of current conditions.

PNNL will be conducting a DHS-organized webinar for the electrical utility industry in January to present an overview of remote sensing technology and to solicit input regarding information priorities.

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**Upcoming Events**

- **January 13 – 17, 2014**
  - NIMS ICS All-Hazards for Public Information Officers
  - Sequim, WA

- **January 14-16, 2014**
  - 2nd Annual Utility Cyber Security Conference
  - Atlanta, GA

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*Around the Region in Homeland Security* is a monthly report from PNNL’s Northwest Regional Technology Center for Homeland Security. For more information, contact Director Steve Stein at steve.stein@pnnl.gov or 206-528-3340, Deputy Director Ryan Eddy at ryan.eddy@pnnl.gov or 509-372-6622, or Deputy Director Regional Programs Ann Lesperance at ann.lesperance@pnnl.gov or 206-528-3223, or see the website at http://nwrtc.pnnl.gov. PNNL-SA-99974