



Around The Region In Homeland Security November 2012

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

- Handheld Biodetection: Needs, Testing, and National Guidance
- CONOPS Development for Real-time Airborne Management System
- Situation Assessment Mapper

Handheld Biodetection: Needs, Testing, and National Guidance

The U.S. Department of Homeland Security’s Science and Technology Directorate (DHS S&T) directs programs to enable First Responders to effectively counter a potential threat to our Nation. PNNL, in collaboration with DHS S&T, is working to identify the technology needs and optimal Concept of Operations (CONOPS) critical to First Responders addressing a biological event, and evaluating currently available biodetection technologies.

To better determine the requirements and needs of First Responders in a daily operational context, PNNL held working meetings with the Seattle Fire Department, Bellevue Fire Department, Navy Region Northwest, National Guard Civil Support Team, and several other supporting agencies. Key findings from the meetings include the need for high confidence, hand-portable biodetection equipment, and for independent third-party testing of existing equipment. These findings were discussed with stakeholders to obtain consensus on the most important issues relative to technology, CONOPS development, and to determine a path forward and recommendations for DHS S&T.

Findings and recommendations discussed at the working meeting are now available in the report *First Responder Biodetection Capabilities and Needs: Working Meeting Final Report*. To obtain a copy, contact [Richard Ozanich](#) at (509) 375-4586.



Lieutenant Jonathan Kimball (left, Seattle Fire Department) and Captain Greg Weber (right, Vancouver Fire Department) listen to questions posed by PNNL’s Ann Lesperance.

CONOPS Development for Real-time Airborne Management System

Researchers at PNNL have been working with Los Angeles County Fire and Emergency Management to develop a regional concept of operations (CONOPS) for utilizing the Real-Time Airborne Management System (RAMS). Developed by DHS S&T, RAMS is an airborne platform that provides near-real-time imagery for use in disaster situations. Working with LA County, PNNL has determined that RAMS could be utilized to:

- Prioritize and improve routing of resources to areas of highest impact
- Triage search and rescue tasking
- Improve situational awareness with imagery detailing impact to critical infrastructure and high occupancy structures
- Accelerate data collection for damage assessment
- Act as a briefing tool where RAMS imagery combined with GIS tools makes understanding the situation at both macro and micro levels quicker and more effective.

The PNNL team is also discussing the utilization of RAMS in the Pacific Northwest by FEMA Region X, providing capability to support both FEMA activities and state/local needs.

Situation Assessment Mapper

In collaboration with DHS S&T, the NWRTC has developed a tool which enables law enforcement gang units to track regional gang movement by digitally capturing and tracking graffiti. A modification of this capability, called the Situational Assessment Mapper

(SA Mapper) was recently developed and tested for potential applications in emergency management.

The SA Mapper is an application for Android smart phones that allows the user to take a picture, which is automatically geo-coded. In addition to the picture, symbology and text can be captured and inputted to identify the type of incident, infrastructure, operational condition and/or provide comments. This information is instantly displayed on a map available through a web link in any operational center. In an incident, responders in the field can use the tool to provide operational centers a real-time view of what the first responders are seeing.

Earlier this year, the NWRTC enlisted about 100 people to test the value and utility of the tool. Users expressed interest in the capability and found it relatively easy to use but applications for Apple products and BlackBerrys would be beneficial. Results are being evaluated and recommendations for additional development will be provided to DHS S&T.

Upcoming Events

November 13-14, 2012

[Help Bring Order Out of Chaos](#). ICS-400: Advanced ICS Command and General Staff – Complex Incidents
Tacoma, Washington

April 2-4, 2013

[2013 Partners in Emergency Preparedness Conference](#)
Tacoma, Washington

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@pnl.gov or 206-528-3340, Deputy Director Ryan Eddy at ryan.eddy@pnl.gov or 509-372-6622, or Deputy Director Regional Programs Ann Lesperance at ann.lesperance@pnl.gov or 206-528-3223, or see the website at <http://nwrtec.pnl.gov>. PNNL-SA-91857



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