



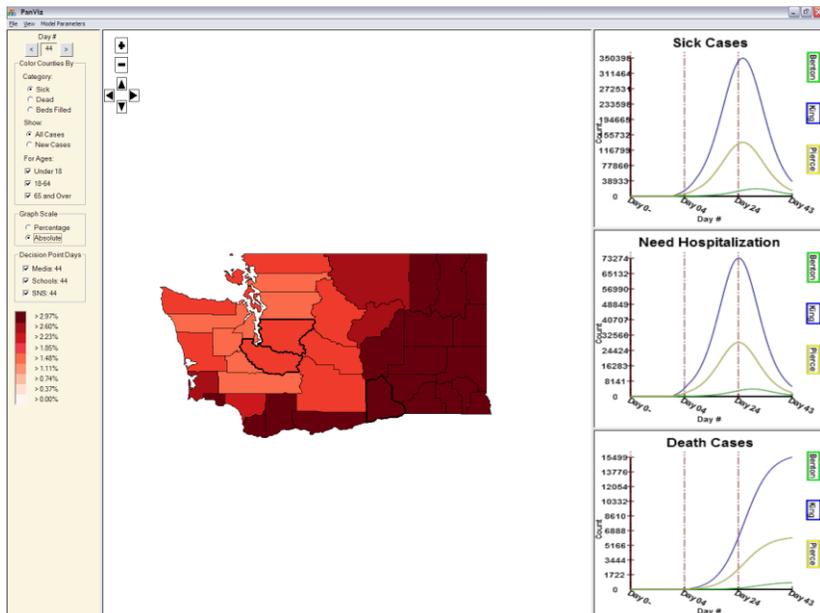
## Around The Region In Homeland Security May 2009

The Northwest Regional Technology Center (NWRTC) is a virtual resource center, operated by the Pacific Northwest National Laboratory (PNNL), to support regional preparedness, response, and recovery. The center enables homeland security solutions for emergency responder communities and federal, state, and local stakeholders in the Northwest. This monthly status report summarizes activities related to Homeland Security in the Pacific Northwest, and this issue highlights

- Prototype pandemic planning and visualization toolkit for states
- FCC certification for multichannel radios being piloted in the Northwest
- New technologies available for piloting
- Upcoming Maritime and Port Security Summit in Seattle.

### Prototype Toolkit Helps States Decide Actions to Slow the Spread of Pandemic Influenza

Collaborators at PNNL and Purdue University have developed a simple-to-use tool to allow agencies to analyze resource limitations and mitigation decisions in responding to potential pandemics. The Pandemic Influenza Planning Tool was designed to model the first wave of a pandemic influenza. The model calculates spread vectors based on the point of origin and distance traveled per day, and takes into account effects on different age groups and population densities as well as potential mitigation measures. All model assumptions and parameters are easily adjustable through an interactive spreadsheet interface. Users can even adjust parameters on a county-by-county basis to display more detailed graphical results on disease impacts over time.



The model, coupled with Purdue University's visualization tool, PanViz, provides a visual analytic toolkit that allows users to analyze the effects of decisions made during a pandemic. These decision measures can be toggled on and off to allow users to better understand their effects on different county populations. For example, the visualization demonstrates how certain actions affect the availability of hospital

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The pandemic planning model is currently being developed for Washington. (Data are notional.)

beds, percentage of ill people, and percentage of deaths. The tool can simulate the impact of using antiviral medications and implementing school closures and personal social distancing, such as proper cough etiquette, not shaking hands, and restricting close interaction with others. Future research may expand the model to see how additional social-distancing actions, such as restricting public gatherings, canceling social events, and quarantines, would influence the spread.

The Pandemic Influenza Planning Tool and PanViz were developed through funding from the Indiana State Department of Health and U.S. Department of Homeland Security (DHS). The current version of the toolkit was delivered to the Indiana State Department of Health for use in planning and preparedness exercises. Researchers are now working to make the tool available for other states such as Washington, as well as updating methodologies to model other diseases, such as the current outbreak of Swine Flu.

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## Multichannel Radios Receive FCC Certification

On April 21, the Liberty™ Multiband Land Mobile Radio became the first multiband radio to receive U.S. Federal Communications Commission (FCC) certification. Since 2008, the DHS Science and Technology Directorate's Command, Control, and Interoperability Division has been working closely with Thales Communications, Inc., to demonstrate its multiband radio. Thales' Liberty radio enables emergency responders to communicate with partner agencies—regardless of the radio band on which they operate.

“This marks a major milestone in our quest to provide a tool for interoperability among all our nation’s emergency responders,” said Dr. David Boyd, Division Director, in a message to partners. “We look forward to working with the emergency response community in testing and evaluating the multiband radio.”

As reported in the previous issue of *Around the Region in Homeland Security*, DHS is planning a number of demonstrations and pilots for the radio, focusing on operation across multiple systems and jurisdictions. The radio was recently demonstrated at Thunder Over Louisville, the official kick-off for the Kentucky Derby Festival celebrations. A limited number of the radios will be available in Alaska, Hawaii, Idaho, Montana, and Washington, as well as Vancouver, British Columbia, for operational testing in the coming months.

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## Northwest Agencies May Pilot New Homeland Security Technologies

Northwest emergency response organizations have the opportunity to pilot two new technologies being sponsored by DHS.

### TrapWire®

TrapWire is a surveillance software developed by Abraxas Applications. Abraxas designs, builds, and deploys counterterrorism technologies and services to protect critical infrastructure and personnel. TrapWire was specifically designed to enable security personnel and law enforcement officials to detect patterns of behavior and anomalies that might indicate pre-attack surveillance and to issue threat warnings in sufficient time to prevent an attack. Through the systematic identification of suspicious events and the correlation of those events with activities recorded by public and private facilities over time and across multiple locations, terrorist or criminal surveillance operations can be identified, appropriate law enforcement counter measures employed, and steps taken to apprehend the would-be perpetrators.

Under the pilot, the DHS Science and Technology Directorate's Infrastructure and Geophysical Division would pay for the software license for each participating agency, a site survey to ensure the software can be properly configured at the agency, training of key agency staff, and installation of the software. The agency could use the system for at least one year at no cost to it. After the initial pilot, if the agency chose to continue using the software, it would be responsible for the annual maintenance fee on the license and any additional training.

## Avalanche



Avalanche ST is an exercise and simulation tool developed by Australian company Avalias, an international provider of technologies for organizational preparedness. The system delivers training and exercise functions in an efficient and timely manner. Avalanche can

- Design scenarios that are specific to the agency or across agencies
- Run both real and simulated exercises with participants from multiple locations to evaluate how people, processes, and technology interact
- Track actions of each participant for subsequent analysis.

The DHS Science and Technology Directorate's Infrastructure and Geophysical Division would pay for

Avalias to build a specific scenario or condition for Avalanche for the Northwest. DHS would also pay the license fee, allowing the region to use the software in the future. One possibility is to simulate a traffic disruption, which is a critical challenge for the region for issues ranging from floods and ice storms to earthquakes and terrorist attacks.

Avalanche ST was demonstrated to regional agencies on April 20 at the Seattle Office of Emergency Management. Based on the demonstration, the technology received support from several counties and cities. The next steps will be to develop a work plan to create a scenario and pilot test the system.

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## Ports, Industry, and Academia Team for Maritime and Port Security Summit

On May 28 and 29, 2009, industry, government, and academia will come together for the 2009 Maritime and Port Security Summit: Resiliency Planning in a Difficult Economy. The summit is being held in conjunction with the second annual University of Washington Conference on Safety and Security Education and Research (SASER). Presented by *Pacific Maritime Magazine*, the summit is also hosted by the ports of Seattle and Tacoma, the Pacific Rim Visualization and Analytics Center (PARVAC), the Institute for National Security Research and Education at the University of Washington, Securitas, and the Washington State Department of Transportation.

The conference is aimed at those who work in and around ports and the connecting rail and highway infrastructure. Participants are expected from private sector companies like marine cargo terminal operators, the trucking and rail industry, and growers and shippers; and government agencies such as the U.S. Coast Guard, Federal Bureau of Investigation, and Washington State Patrol. Peter Philips, publisher of *Pacific Maritime Magazine*, will open the event.

Disruptive events at the ports affect cargo movement throughout the region on navigable waterways, intra- and interstate road systems, and the rail system. This year's conference program will focus on the land/sea interface, the maritime cargo port, and the impact events at ports have on highway and rail infrastructure. Panels will address a wide range of issues including a conceptual framework for maritime security and regional resilience, resiliency in the face of natural disasters, strategic integration of jurisdictions for effective threat response and economic resiliency, and operational security and resiliency. The U.S. Coast Guard will also lead a discussion of a case study of an incident, its reaction, and the resiliency necessary to recover.

The summit and conference will be held at the Bell Harbor Conference Center in Seattle. For more information see the website at [http://www.rhppublishing.com/mps09\\_agenda.html](http://www.rhppublishing.com/mps09_agenda.html).

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## Upcoming Events

June 18

Annual Exercise on Response to a Radiological Event

Hanford Site, Richland, Washington

*Around the Region in Homeland Security* is a monthly report from the Northwest Regional Technology Center, operated by the Pacific Northwest National Laboratory. The goal of the NWRTC is to bring together major stakeholders from across the region that have a vested interest in homeland security issues and provide a collaborative environment that addresses Northwest regional homeland security requirements, needs, and challenges. **For more information**, contact Director Steve Stein at [steve.stein@pnl.gov](mailto:steve.stein@pnl.gov) or 206-528-3340, Deputy Director Mary Peterson at [mary.peterson@pnl.gov](mailto:mary.peterson@pnl.gov) or 509-372-4655, or Deputy Director Regional Programs Ann Lesperance at [ann.lesperance@pnl.gov](mailto:ann.lesperance@pnl.gov) or 206-528-3223, or see the website at <http://nwrtec.pnl.gov>.



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