



UPCOMING EVENTS

- January 28-30 – [2020 American Society for Microbiology Biothreats](#), Arlington, VA
- March 31-April 3 – [2020 Preparedness Summit](#), Dallas, TX
- April 7-9 – [2020 Partners in Emergency Preparedness Conference](#), Lynwood, WA
- July 19-23 – [30th Pacific Northwest Economic Region Annual Summit](#), Big Sky, MT

CONTACT

- Want to know more? Visit us on the web at nwrhc.pnnl.gov.
- Contact the NWRHC with questions and comments at nwrhc@pnnl.gov.

AROUND THE REGION IN HOMELAND SECURITY

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

HAPPY NEW YEAR: WELCOME TO 2020!

Just over a decade ago, we established the NWRHC to bridge the need for unbiased technical support at the state and local level with U.S. Department of Homeland Security Science & Technology Directorate (DHS S&T) technology development efforts. That year, former NWRHC Director Steve Stein, the late Major General Tim Lowenberg, and I hosted the summit to convene representatives from 11 western states, senior officials from DHS, the U.S. Department of Energy (DOE), PNNL, and Idaho National Laboratory to discuss this new partnership model.

Over the years, our mission has endured while our focus has evolved through forward-leaning discussions about emerging and disruptive technology. Across all domains—air, land, sea, cyber—from first responder technology to transportation and event security systems, the center continues to serve as a primary resource for working with first responders, emergency management, public safety professionals, academia, and the private sector to define and prioritize technology needs.

We have exciting opportunities on the horizon and I look forward to sharing the emerging science, technologies, and innovations with you in this newsletter and on our website at nwrhc.pnnl.gov. I would also like to thank all of our partners in the Pacific Northwest, across the nation, and around the world who make this center and our collaborations a success.



I look forward to sharing with you as we move forward to explore new challenges and opportunities.

Ann Lesperance
NWRHC Director
Pacific Northwest National Laboratory



PNNL TO LEAD NEW GRID MODERNIZATION PROJECTS

PNNL will lead three new DOE-funded projects to make the nation's power grid more resilient, flexible, and secure. In addition to the three projects it will lead, PNNL will collaborate with other national laboratories and industry partners on eight more grid modernization projects.

Through the Grid Modernization Initiative, DOE announced funding of approximately \$80 million over three years to fund 23 projects across the country in the [2019 Grid Modernization Lab Call](#). The projects PNNL will lead focus on the following:

- Solving scalability and usability challenges for advanced grid-modeling tools capable of comprehensively analyzing the interdependency of critical infrastructures (i.e., transmission, distribution, and data communications) so planners and operators can better understand how the power grid behaves as a system.
- Enabling networked microgrids and their component distributed energy resources to operate in an intelligent manner using collaborative autonomy concepts to improve grid resiliency.
- Strengthening power grid cybersecurity by using machine learning and artificial intelligence to allow the bulk power system to perform intrusion-tolerant operations while improving detection of compromised systems.

See [the PNNL web feature](#) for details.

S&T ASSESSES TECH TO IDENTIFY UNKNOWN CHEMICALS

In 2019, the DHS S&T System Assessment and Validation for Emergency Responders Program (SAVER) and PNNL assessed three portable field gas chromatograph / mass spectrometers (GC/MS) used for analyzing chemical samples.



At the Seattle Joint Training Facility, the SAVER team gathered relevant data from three different GC/MS models and received feedback from first responder evaluators with different backgrounds. A representative from each instrument manufacturer trained the evaluators and provided technical support during the event.

The assessment results will be published in a report to provide practical information for emergency responder organizations seeking an instrument best suited to their needs. See the [DHS S&T Snapshot for details](#).

TOOL INTEGRATES NATIONAL RESPONSE FRAMEWORK

The [Biodefense Policy Analysis Tool](#)—or BPLAT—integrated a new level of detail with tools to navigate the National Response Framework. This new feature allows users to cross-reference responsibilities to the five goals of the 2018 National Biodefense Strategy. Users can investigate the links between the strategy goals, agencies, and responsibilities by moving the mouse over parts of the visualizations.

“This new addition provides incident situational awareness before, during, and after an event for decision makers and accounts for more of the state, local, tribal, and territories roles and responsibilities,” said Rachel Bartholomew, PNNL scientist and co-creator of B-PLAT.

Check out the free interactive B-PLAT tool at
bplat.pnnl.gov

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PNNL-SA-150441