



NWRTC

Northwest Regional
Technology Center
@PNNL



Pacific Northwest
NATIONAL LABORATORY

OPPORTUNITIES

Events current at time of publication. Have a virtual resource or event to share? Email us!

- November 1–30 – [Critical Infrastructure and Resilience Month](#)
- November 12–14 – [Pacific NorthWest Economic Region Economic Leadership Forum](#)
- November 15–21 – [International Association of Emergency Managers Annual Conference 2024](#)
- March 18–20 – [2025 Arctic Emergency Management Conference](#)
- April 15–17 – [Partners in Emergency Preparedness](#)

CONTACT

Want to know more? Visit us at pnnl.gov/projects/nwrtc.

Contact the NWRTC with questions and comments at nwrtc@pnnl.gov.

AROUND THE REGION IN HOMELAND SECURITY

The Northwest Regional Technology Center (NWRTC) 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.

PARTNERSHIPS LINKING OPERATIONS TO RESEARCH

In honor of National Preparedness Month in September, NWRTC Director [Ann Lesperance](#) and [Ryan Eddy](#), director of homeland security programs at PNNL, [authored a piece in the *Domestic Preparedness Journal*](#) highlighting the role national laboratories play in delivering research and technology for preparedness.



For more than a decade, teams at PNNL have been connecting with first responders and emergency managers across the nation to elicit feedback about technology needs in the field. Through the [NWRTC](#) and various other [projects and programs](#) with national security sponsors, PNNL teams have conducted workshops, interviews, focus groups, and roundtables to hear directly from fire, law enforcement, emergency medical services, public safety communications, critical infrastructure owners and operators, and more.

“We take this feedback and connect operations to research. We find ways to use operational input—understanding of what first responders, emergency managers, and public safety practitioners face in the field—and turn it into solutions. Sometimes that’s building a new tool, sometimes it’s piloting or evaluating a tool that already exists. Our partnerships help build these opportunities,” said Lesperance.

Check out the article ["National Laboratory Partnerships: Linking Operations and Research"](#) to learn more.



PNNL TECH WINS R&D 100 AWARDS

Three technologies developed at PNNL were named 2024 R&D 100 award winners:

- The [Electrical Grid Resilience and Assessment System \(EGRASS\)](#) has advanced the ability of emergency managers and power planners to anticipate and prepare for storm impacts.
- The Real-Time Advanced Imaging Technology leverages PNNL's [millimeter-wave technology](#) to deliver next-generation security screening, improving detection while reducing wait times.
- The [Autonomous Electron Microscope \(AutoEM\)](#) platform combines the power of machine learning with advanced automation to probe the building blocks of matter with speed, clarity, and precision.



Read the [PNNL press release](#) to learn more.

EXPLORING AVIATION SECURITY

How can science and technology improve the traveler experience while reducing risk? This was the focus of the 2024 Aviation Futures Workshop, where researchers from PNNL



joined other subject matter experts and representatives from the stakeholder community in reimagining the passenger experience. The PNNL team led participants through a series of exercises to understand what future states might exist in a 10-to-15-year time frame and what steps need to be taken now to achieve that vision. [Read more.](#)

MANAGING TODAY, PLANNING FOR TOMORROW

In the wake of what seems like back-to-back emergencies—cyberattacks, hurricanes, wildfires—what is being done to



leverage the latest research and development (R&D) for the future? An article from Dan Cotter, Executive Director of the Department of Homeland Security (DHS) Science and Technology Directorate (S&T) Office of Science and Engineering, highlights how the [Emergency Management of Tomorrow Research \(EMOTR\) Program](#) with PNNL is exploring the research and technology landscape to inform the future of emergency operation centers and emergency management (EM). The EMOTR team conducted a [landscape assessment](#) of five years (2018–2023) and more than 36,000 peer-reviewed and open-source publications on EM R&D from academic institutions, national laboratories, and other relevant research institutes to create an initial baseline of existing R&D efforts. [Read more.](#)

WEBPAGE HIGHLIGHTS EM RESEARCH

Want to learn more about the latest news and resources in EM? A new web page brings together EM projects and resources from DHS S&T, including highlights from EMOTR as well as research and resources from recent efforts in extreme weather, hazards, and innovations. Check it out at dhs.gov/science-and-technology/em.

For more information, contact Director Ann Lesperance (ann.lesperance@pnnl.gov | (206) 528-3223) or Deputy Director Rachel Bartholomew (rachel.bartholomew@pnnl.gov | (509) 371-6906) or visit pnnl.gov/projects/nwrtc.

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