



# NORTHWEST REGIONAL TECHNOLOGY CENTER FOR HOMELAND SECURITY

Partnerships enabling solutions for emergency management and public safety

The Northwest Regional Technology Center (NWRTC) is a virtual resource, operated by the Pacific Northwest National Laboratory (PNNL), to support local and regional preparedness, resiliency, response, and recovery.

## OVERVIEW

The center was established at the request of the Department of Homeland Security (DHS) Science and Technology Directorate to bridge the gap for unbiased technical support between technology development efforts and the communities who use them.

## MISSION

Our center is a one-of-a-kind resource that serves the nation's preparedness and response communities by:

- ▶ Connecting with first responder, emergency management, and public safety professionals to translate their technology needs into solutions
- ▶ Accelerating the development, testing and evaluation, and transfer of homeland security solutions to the national user community
- ▶ Serving as a conduit between DHS and the broader technology development community to foster a collaborative spirit across agencies, jurisdictions, industry, and academia.

“We have a real opportunity to bring forward to the community the types of modeling and predictive threat analytics being done at PNNL and the center and turn them into tools that can be used by state and local emergency managers.”

**Dan Cotter**

EXECUTIVE DIRECTOR, OFFICE  
OF SCIENCE AND ENGINEERING,  
DHS SCIENCE AND TECHNOLOGY  
DIRECTORATE



“ Being able to collaborate with PNNL and the highly talented scientific expertise of a national laboratory has been an unparalleled benefit to our state. ”

**Maj. Gen. Bret D. Daugherty**

ADJUTANT GENERAL FOR WASHINGTON STATE (2021)

## IMPACT

In 15-plus years of operation, NWRTC has connected PNNL researchers and capabilities with private and public stakeholders through in-person and virtual forums and diverse projects, pilots, and partnerships, such as:

- ▶ **Workshops and tech talks exploring next-generation challenges in cybersecurity, artificial intelligence, climate resilience, soft target protection, and autonomous systems**
- ▶ **Regional recovery and resilience planning for urban areas, military installations, and the private sector from weapons of mass destruction attacks, biological outbreaks, and cyber incidents**
- ▶ **Radiological/nuclear material detection training for small vessels in Puget Sound waterways**
- ▶ **Operational field assessments evaluating developing technology in the field**
- ▶ **Technology pilots and demonstrations**
  - Immersive imaging and video analytics for event and venue security
  - Risk and resource allocation modeling for transportation systems
  - Information analytic technology for emergency management and law enforcement
  - All-hazards detection system combining artificial intelligence, cloud computing, and damage assessment to predict the path of wildfires and evaluate the effect of natural disasters
  - Predictive flood modeling to develop simulations for rapid situational awareness and risk analysis
  - Augmented reality and virtual reality for high-hazard, active shooter, and scenario-based training
  - Cyber incident response planning for critical infrastructure.

## OPPORTUNITIES

NWRTC is the gateway to PNNL subject matter experts who can help answer technology questions and make connections with the appropriate federal or state agency. As technology evolves and new tools and challenges emerge, our center will continue to connect the first responder and emergency preparedness community with national laboratory research and development, enabling new homeland security solutions.

### Are you ready to connect?

Visit <http://www.pnnl.gov/projects/nwrtc> or contact [nwrtc@pnnl.gov](mailto:nwrtc@pnnl.gov).

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