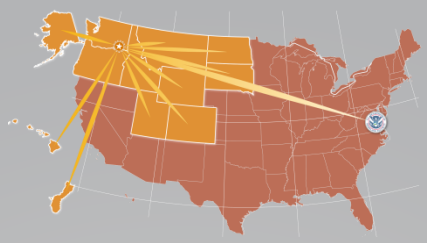


UPCOMING EVENTS

- Nov. 5-7, 2017 – Pacific NorthWest Economic Region Economic Leadership Forum, Victoria, BC
- Nov. 14, 2017 – DHS Active Shooter Preparedness Workshop, Flagstaff, AZ
- Dec. 5-7, 2017 – Critical Infrastructure Protection and Resilience America, Orlando, FL

CONTACT

- Want to know more? Visit us on the web at http://nwrtc.pnnl.gov
- 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 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.

NATIONAL CRITICAL INFRASTRUCTURE SECURITY AND RESILIENCE MONTH

Just in time for National Critical Infrastructure Security and Resilience Month, PNNL was recently selected for several projects focused on critical infrastructure resilience.

In September, the U.S. Department of Energy (DOE) announced that up to $32 million dollars will go to seven projects — including five involving PNNL — aimed at creating more resilient distribution systems as part of the Department's Grid Modernization Initiative. PNNL will lead two projects to advance resilient distribution systems, focusing on the integration of clean distributed energy resources. PNNL will also partner with other laboratories on three additional demonstrations aimed at validating new approaches and technologies to make the aging grid more resilient and secure.

Additionally, PNNL will lead six projects aimed at early-stage cyber security research focused on energy infrastructure. The projects are funded by DOE's Cybersecurity for Energy Delivery Program. The Department announced these awards as part of 20 projects led by the national laboratories to receive more than $20 million over three years.

November is recognized as Critical Infrastructure Security and Resilience Month to build awareness and appreciation of the importance of critical infrastructure and reaffirm the nationwide commitment to keep critical infrastructure and communities safe and secure. To learn more and find out how to get involved, visit the Critical Infrastructure Security and Resilience Month web site.

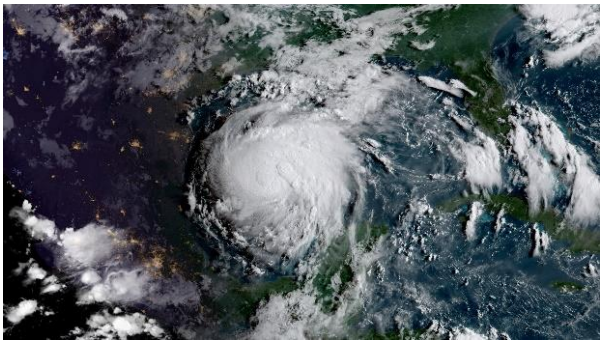
FLOOD MODELING AIDS HURRICANE SEASON

This fall, flood modeling analysis by researchers at PNNL helped inform federal infrastructure planning and emergency response efforts during the hurricane season. Models helped evaluate the impacts of Hurricane Harvey on the Gulf Coast in late August and also supported similar efforts related to Hurricane Irma.

PNNL staff developed and ran twice-daily flood simulations over the course of eight days through the lab's involvement in the Department of Homeland Security's National Infrastructure Simulation and Analysis Center, also known as NISAC. About 20 PNNL staff contribute to the center's mission each year, five of whom specifically worked on the Hurricane Harvey response.

The simulations, based on National Oceanic and Atmospheric Administration weather forecasts, were used by DHS, DOE, Department of Transportation, and others to improve understanding of the storm and its potential flood impacts on critical infrastructure such as roads and the power grid. The simulations were created with PNNL's Rapid Inundation Flood Tool, a two-dimensional hydrodynamic computer model.

NISAC analysis supports DHS' mission in understanding how critical infrastructure can be impacted by incidents of national concern such as hurricanes, flooding, and manmade events.



A satellite image of Hurricane Harvey forming over the Gulf of Mexico. Credit: NOAA/NASA GOES Project / Flickr

ARTICLE HIGHLIGHTS SYNTHETIC BIOLOGY SUPPLY CHAIN

The PNNL Center for Global Security, led by Gretchen Hund and Sarah Frazar, recently led the publication of a paper, "Defining the Synthetic Biology Supply Chain," in *Health Security*, a peer-reviewed journal that provides research and essential guidance for the protection of people's health. The work engaged a team of experts in biology, data analytics, nuclear science, and national security policy to identify key components of the synthetic biology supply chain, including potential security threats. The article provides recommendations on how to mitigate the security risks and vulnerabilities in the synthetic biology supply chain.

EXIS OFFERS TOOLS FOR TRANSPORTATION EXERCISES

The Exercise Information System (EXIS) is the Transportation Security Administration's (TSA) premier online exercise tool that guides government and industry users step by step through the exercise planning process. The robust web-based platform provides resources to design, document, and evaluate exercises for all transportation modes, including:

- 120+ objectives
- 100+ scenario elements
- 20+ customized documents
- 900+ transportation security best practices and lessons learned

EXIS enables security professionals to collaborate and communicate through discussions, shared information, and critical lessons learned. EXIS is offered at no-cost by TSA as an integral part of the Intermodal Security Training and Exercise Program, or I-STEP, and it is the only exercise tool specifically tailored to the transportation industry. To learn more or become an EXIS user, visit https://exis.tsa.dhs.gov.

For more information, contact NWRTC Director Ann Lesperance at ann.lesperance@pnnl.gov or (206) 528-3223, or Deputy Directors Ryan Eddy at ryan.eddy@pnnl.gov or 509-372-6622, and Rob Jasper at robert.jasper@pnnl.gov or (509) 371-6430 or visit us online at http://nwrtc.pnnl.gov.
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