



OPPORTUNITIES

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

- December 1, 8, and 15 – [2021 Chemical Security Seminars](#)
- February 1-3 – [Critical Infrastructure Protection and Resilience North America](#)
- February 7-9 – [14th Annual Nuclear Deterrence Summit](#)
- March 21-24 – [International Wireless Communications Expo](#)

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

NOTES FROM THE FIELD

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.

RESTORING POWER WHEN DISASTERS STRIKE

As Hurricane Ida was barreling toward the Louisiana coast and cities were being evacuated, PNNL's Russ Haffner was packing his bag and preparing to head into the heart of the hurricane's path.

Haffner is a Department of Energy (DOE) [Emergency Support Function #12 \(ESF#12\)](#) emergency responder and serves as one of two DOE ESF#12 regional coordinators for Federal Emergency Management Agency (FEMA) Region 10, which covers Washington, Oregon, Idaho, and Alaska. In addition to the regional coordinators for the 10 FEMA regions, a cadre of additional ESF#12 responders is trained and ready to respond. The ESF#12 team is activated [after a national disaster occurs](#) and when a coordinated federal response is required to assist in the efforts to help victims and communities return to normal after these devastating events.



ESF#12 responder Russ Haffner assessed damage in Louisiana after Hurricane Ida.

Throughout its path of destruction in Louisiana, Hurricane Ida left more than a million people with no electrical power. And that's when the response efforts of ESF#12 were activated. DOE had ESF#12 leadership in Washington, D.C., and regional response coordination in Texas, while Haffner and a team of ESF#12 responders were deployed to the State Emergency Operations Center and FEMA's Joint Field Office in Baton Rouge, Louisiana, to help repair and restore power to the region.

In its path, Ida knocked out eight major electrical transmission lines into New Orleans, which meant that there was no way to get power into the city.



These images show an area before Hurricane Ida (top) and the same area (from Google Earth) overlain with images of damage taken by Haffner (bottom).

“In situations like this, our team does two main things,” said Haffner. “One is to provide subject matter expertise to the energy sector stakeholders like utilities, state emergency organizations, FEMA, and other federal agencies.”

The second role is to provide timely and accurate information flow to relevant stakeholders. Haffner is responsible for gathering and moving information in a timely manner to the correct people to get the proper resources to resolve power issues.

One of Haffner’s major roles within the response organization is assisting damage assessments of the affected areas. He gathers this information by traveling throughout the different communities and taking photos of the damage—lots and lots of photos.

“When you perform damage assessments, you can take hundreds or thousands of photos in the field,” said Haffner. “With this process you mark where each photo was taken and then categorize it. But one of the challenges is you take so many photos and then you look at them after, and even with the best notes, still ask yourself ‘wait, where was the exact location of that one taken?’ I knew there had to be a better way.”

Combining his on-the-ground experiences with those at PNNL, Haffner developed a solution that involved

taking the time and location data from the photos he took and overlaying them on Google Earth.

This allowed him to apply additional layers to the map, such as the path of the hurricane, track where the utilities are located, and break the area down by parishes.

“All these data are critical when assessing the damage, and now we can see them all in one location,” said Haffner. “Also, using the street view the team is able to view what the area looked like before the hurricane and then using the overlaid photos, you’re able to see what it looks like now.”

DOE, other response agencies, and utility partners can use these data to strategically determine the next assessment focus areas, help validate impacts to electrical infrastructure and restoration prioritization, enable the identification of potential resilience opportunities, and improve damage assessment analysis and reporting products.

To learn more, read the [PNNL web story](#).

NATIONAL RESPONSE FRAMEWORK

When a disaster strikes, FEMA’s [National Response Framework](#) provides a standardized and scalable approach for managing incidents regardless of size and complexity. Using the framework, FEMA developed 15 ESFs that provide support, resources, program implementation, and services needed to save lives, protect property, and restore essential services and critical infrastructures. ESF#12’s role is to help bring power back after a disaster. The group comprises trained responders with energy system expertise, strong networking capabilities, and excellent information management skills.

To learn more about and explore the framework and other ESFs, check out PNNL’s [National Response Framework Policy Analysis Tool](#).