

# Aware

*Aware is published by NOAA's National Weather Service to enhance communications between NWS and the Emergency Management Community and other government and Private Sector Partners.*

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## NWS Celebrates 150th Birthday in February

*From Dr. Louis Uccellini, NWS Director*

On February 9, 1870, President Ulysses S. Grant signed a Joint Resolution of Congress directing the Secretary of War to “provide for taking meteorological observations at the military stations in the interior of the continent and at other points in the States and Territories...and for giving notice on the northern lakes and on the seacoast, by magnetic telegraph and marine signals, of the approach and force of storms.”

The service would pass to civilian control in 1891, become the Weather Bureau under the Department of Agriculture and then moved under the Department of Commerce in 1940.

When NOAA was formed in 1970, the Weather Bureau was renamed the National Weather Service. NOAA also celebrates its 50<sup>th</sup> Birthday in 2020. To put this anniversary into perspective:

Our agency has been in existence for nearly two-thirds of our nation's history. Few federal agencies have been in existence as long; even fewer with the one enduring mission of saving lives and property. No other agency, in my opinion, touches every community, every day, as we do.

The NWS of today was built on a 150-year-old foundation of science and service. Over time, advances in science, technology, and engineering have accelerated our understanding of the natural world, continually allowing us to better predict weather, water and climate events. As the needs of society have changed, so has the NWS.

The fundamental mission has not changed: save lives, protect property, and enhance the nation's economy. Furthermore, while the NWS jobs of today are vastly different from those 150 years ago, the singular dedication to the mission and commitment to public service continues to be one of our greatest strengths.

Our agency was built on the vision and determination of those who came before us. But as we look back, we also look forward. Just as our heritage provides the context for where we are today, it also provides inspiration for sustaining the NWS well into the future. **THANK YOU** for everything you do to make a difference in the lives of those we serve. To learn more about our history and how you can contribute to our legacy, please visit the NWS Heritage website at [www.weather.gov/heritage](http://www.weather.gov/heritage).



*NWS Director Louis Uccellini and Deputy Assistant Administrator Mary Erickson celebrate with staff.*

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## NWS Reaches Out to Special Needs Populations

By [Todd Barron](#), MIC, NWS Huntsville, AL

As part of the NWS's ongoing efforts to improve resiliency for vulnerable communities, NWS Huntsville, AL, has targeted three vulnerable groups in northern Alabama and southern middle Tennessee it hopes to better serve:

- ◆ Communities with poor refuge areas
- ◆ Residents for whom English is a second language
- ◆ People with disabilities

The drive to better serve people with disabilities, specifically the deaf/hard of hearing community (D/HH), brought NWS Huntsville Meteorologist Jennifer Saari and Meteorologist-In-Charge Todd Barron to NOAA/NWS Headquarters this winter.

Jennifer has been a key figure in developing outreach for the D/HH community for several years. Working with a motivated team of NWS staff members across the country, Jennifer and Todd helped establish the new lightning safety slogan for the D/HH community: “See a Flash, Dash Inside!” They also collaborated with Midland Weather Radio to develop strobe lights and bed shakers, and have produced SKYWARN and weather safety training geared toward this community.

In addition to the briefings in Silver Spring, Jennifer and Todd visited Gallaudet University with NOAA Acting Under Secretary of Commerce for Oceans & Atmosphere Admiral Tim Gallaudet, the great, great, great grandson of the University’s founder. Gallaudet University was founded in 1864 in Washington, DC. It was the first school in the world for advanced education for the D/HH. The group met with several key professors to discuss Jennifer’s unique outreach and how Gallaudet University could help streamline Jennifer’s future efforts. Additionally, this meeting fortified a conduit of collaboration: Gallaudet University wants to strengthen partnerships for disaster relief efforts and help guide students interested in the earth and environmental science fields.



*NWS staff meet with Gallaudet University staff to discuss ways to better serve the deaf and hard of hearing community.*

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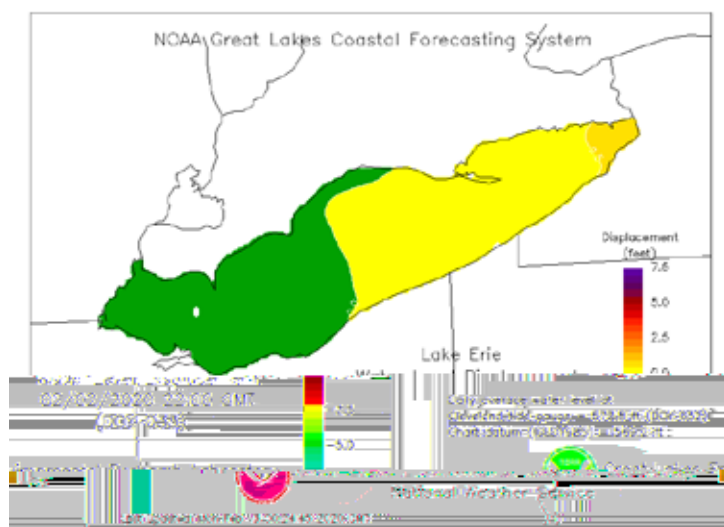
## NWS Great Lakes Offices Warn of High Water Damage in Wind Events

By [Rich Pollman](#), WCM, NWS Detroit, MI

In the past year, the Great Lakes have measured record high water levels. High wind events intensify the high water issues by pushing water onshore and creating damaging high waves. In response, NWS offices in the Great Lakes region have been working with government partners to keep the public safe and to mitigate the damage from these events. And the problem isn’t going away. Record or near-record Great Lakes water levels are expected through 2020.

The gale and storm force onshore winds create high waves that erode the shoreline, bluffs and dunes. The erosion further damages shoreline property, homes, roads and other infrastructure. For areas of relatively flat shoreline, the winds will push the water onto land, commonly referred to as a seiche, and flood roads and homes. Shoreline inundation around Saginaw Bay, Lake St. Clair and Lake Erie can occur with onshore winds as light as 15 mph.

The NWS has partnered with other NOAA agencies in the Great Lakes such as Sea Grant, the Great Lakes Environmental Research Lab (GLERL)



and National Ocean Service (NOS) as well as federal, state and local government agencies to hold informational meetings about preparedness for lakeshore communities.

When a lakeshore erosion and flood event threatens due to increasing onshore winds, the NWS issues a suite of Lakeshore flood watches, warnings and advisories. All these alerts can be viewed on [weather.gov/GreatLakes](https://www.weather.gov/GreatLakes).

Forecasting for a flood elevation for locations affected by water inundation requires strong partnerships. Wind driven water level forecasting uses the NWS forecast winds over the Great Lakes in the GLERL and NOS water circulation models. The NWS then uses those models to determine if it needs to issue a Lakeshore Flood Watch, Warning or Advisory. The NWS also works with local government agencies to determine flood elevations. A lot of mitigation and flood prevention work was completed after Great Lakes reached high water levels in the mid to late 1980s and remaining unchanged until 2019.

Finally, NWS Great Lakes offices worked again with local partners to conduct damage assessments. The data in these assessments are used to improve the Lakeshore Flood Warning program for more accurate and timely warnings and also provide the basis of Lakeshore Flood events in the NWS StormData publication.

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## Strengthening Partnerships Through On-Site Decision Support

By [Tim Axford](#), Warning Coordination Meteorologist, NWS Pocatello, ID

NWS Pocatello and Idaho State University (ISU) have always held a close and fruitful relationship when it comes to ensuring the safety of ISU's students, faculty, and staff from hazardous weather. ISU has been a StormReady site since 2009, and a Weather Ready Nation Ambassador since 2016.

That relationship was taken to the next level this past fall when NWS Pocatello began onsite support to ISU Emergency Management during outdoor events, such as home football games. Meteorologists Alex DeSmet and Kevin Smith were the first to deploy.

*"ISU passed along key weather thresholds which we will now include in future briefings for large events," says DeSmet. "This deployment afforded me the opportunity to provide personalized decision support services with the primary goal of reducing potential weather impacts on thousands of event participants."*

Increasing deployments has been a goal of Pocatello's Warning Coordination Meteorologist Tim Axford. *"This synced perfectly with the arrival of ISU's newly hired Emergency Manager Chris Boyce, who shares the same forward-leaning approach to weather support as our WFO does", says Axford. "The program has not only strengthened our joint efforts to fulfill the NWS' mission, it's also allowed our meteorologists to broaden their partner interactions and build confidence in on-site deployment."*

As ISU's new Director of Emergency Management, Boyce brings a lot to the table. His qualifications include an MPA and MBA, and designations as a Certified Emergency Manager (CEM) by the International Association of Emergency Managers and Certified Homeland Protection Professional by the National Sheriff's Association.

*"Partnership with the NWS is key to effective emergency preparedness, response, and recovery operations," says Boyce. "We are proud to be a StormReady University. Having a deployed NWS meteorologist with us during events ensures we have the most up to date forecast and potential impacts available for our incident managers. We look forward to helping shape this through training and exercises with our staff in partnership with the NWS."*



NWS Pocatello Meteorologist Alex DeSmet talks with ISU dispatchers.

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## New Training Resource: “Weather, Water, and Climate Enterprise: Enhancing Science, Service and Partnerships for a Weather-Ready Nation”

By [Peyton Robertson](#), NWS Office of Organizational Excellence, Silver Spring, MD

An education and training resource is now available which focuses on partnerships among government, academia and the private sector in the weather, water, and climate enterprise. Led by the University Corporation for Atmospheric Research (UCAR)-COMET, leaders from across the enterprise collaboratively designed this module to appeal to a broad audience that depends on accurate, timely forecasts. Leaders from NWS, UCAR, Accuweather, the American Meteorological Society, the National Weather Association, ClimaData Corporation, and NBC6 South Florida came together to offer their perspectives on:

- ◆ Defining the weather, water, and climate enterprise
- ◆ Identifying recent changes across each sector of the enterprise
- ◆ Collaborating with partners to advance the enterprise
- ◆ Forecasting the future of the enterprise



Viewers can explore a spectrum of scenarios--from a local water sporting event to an outdoor concert—in which NWS forecasters and members of America’s Weather and Climate Industry interact to provide critical weather, water and climate intelligence. [This module is available at no charge on the COMET website.](#)

Please explore and share with your colleagues and communities across academia, government and the weather, water and climate industry. The COMET program, publisher of this module, also welcomes any comments or questions you may have regarding the content, instructional approach, or use of this lesson. Please e-mail your comments or questions to [Alan Bol](#), UCAR-COMET.

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## NWS Releases Service Assessment for Northern California Camp Fire

For more info, [Patricia Brown](#), Service Assessment Program Leader

The [Camp Fire](#) began around 6:30 AM PST on Thursday, November 8, 2018, in northern California when a live electrical line owned by Pacific Gas and Electric was knocked offline. Despite the fact that the fire was quickly reported by multiple entities, it spread fast. The fire was fueled by low relative humidities, historically dry fuels on par with or exceeding dryness levels that are typically seen during the summer dry season, and strong gusty winds, all of which contributed to the fire’s quick spread. The Camp Fire, which was not 100 percent contained until November 25, 2018, ultimately became the deadliest and most destructive fire in California history.



The Service Assessment Team found numerous best practices and success stories. Most of these stories centered on proactive communication, both internal and external, effective training practices, leverage of additional resources, and NWS employee commitment to service. The team also developed suggestions which may improve services for future events.

**Aware**

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