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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GOES-East Spots a Barn Fire in Rural Kentucky

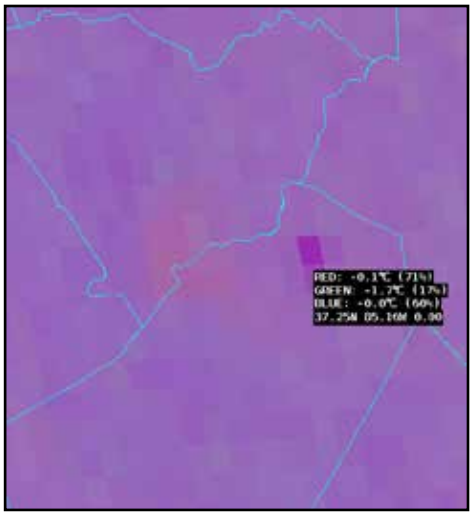
*By **Ryan Sharp**, Lead Forecaster, NWS Louisville, KY*

The new better resolution Geostationary Satellite (GOES)-East data already is helping NWS better forecast severe and winter weather and it has the capacity to do much more to improve public safety.

December 18, 2018, was a quiet night. Lead Forecaster Ryan Sharp at NWS Louisville was in the middle of training. He turned to look at his workstation and noticed a hot spot in the Nighttime Microphysics RGB.

Over the past few months when he noticed these hot spots, he would call county 911 dispatchers and ask if they had had a fire report for the location. In each instance, there had been a fire. This time, he saw the hot spot 9 minutes after it first showed up on satellite. The Adair County dispatcher he spoke with said she had not heard of any issues but would send someone out to investigate. That team found a barn on fire off a rural road.

Ryan emailed Adair County Emergency Manager Mike Keltner to let him know what he had seen and about the phone call to dispatchers. Mike said, "This has just made my night, Awesome! It was a barn fire on Mt. Tussle Rd.!" He later gave us a shout-out on Facebook, saying "This new satellite has already proven itself seeing fires in Kentucky and could have saved Knifley from this isolated barn becoming a large wildland fire."



Zoom in on AWIPS workstation at the time the fire started. Darker purple is fire.

Hurricane Michael: Messaging an Unprecedented Event

*By Meteorologist **Justin Pullin,** NWS Tallahassee, FL*

Hurricane Michael was a low-end Category 1 storm with maximum winds of 75 mph at 1 pm CDT on October 8. The storm rapidly intensified over the span of 48 hours to become the third strongest U.S. landfalling hurricane in Atlantic Basin history based on pressure. Michael was also the strongest hurricane on record to ever make landfall in the Florida Panhandle.

While many models showed Michael becoming a major hurricane before landfall, near Category 5 strength was not explicitly forecast. The threats of such an intense storm, along with its timing on a holiday weekend and its rapid intensification posed a unique communication challenge. Add to that challenge preconceived notions many local residents held based on experiences with the weaker Hurricane Opal and other storms that indirectly impacted the area during the infamous 2004-2005 seasons. These experiences with weaker storms left many unfazed by the forecast of a major hurricane.

As a result, NWS Tallahassee, FL, used many previously untapped resources to capture the public's attention and prompt action ahead of this unprecedented storm. These resources included sending staff to three Emergency Operations Centers to aid core partner decision making and offering the public Facebook Live videos.

Bay County EMA used WEA alerts to prompt last minute evacuations. WEA alerts were also used to notify residents when to shelter in place prior to landfall and where to find resources during the aftermath

Adjustments to standard tropical weather staffing played a key role in the success of the deployments. NWS Tallahassee dedicated a forecaster to coordinate with deployed personnel, using NWSchat and a Google Drive to share information and resources. This coordination helped deployed meteorologists address numerous questions and influence the use of resources, such as Wireless Emergency Alerts, through briefings and intricate product and forecast interpretation.

In addition, the WFO requested regional approval to use Facebook Live during this event, which was granted on the morning before landfall. The office quickly posted its first live video and continued live updates throughout landfall.

These efforts, coupled with intentional messaging through social media and numerous media interviews raised awareness of the rapidly deteriorating situation. These communications also helped convince many local residents to heed evacuations orders, including 210 out of 260 residents that had originally decided to stay at Mexico Beach.

Frankie Lumm, Bay County Emergency Management Specialist, commented, "The presence of the NWS was an incredible asset for us through the event."

Kevin Peters, Leon County EM Director, added, "It is essential for us to have an NWS presence embedded in the EOC for future events and incidents."

Google Hangouts Provides Key Tool for EMs

*By **Felecia Bowser**, WCM, NWS Jackson, MS*

Warning Coordination Meteorologist Felecia Bowser and Meteorologist Daniel Lamb presented at the Mississippi Civil Defense Emergency Management Association (MCDEMA) Conference in Tunica, MS. The conference's purpose is to advance and improve the emergency management profession through education, increased public awareness and professional development courses provided by several organizations such as the NWS. Bowser presented the latest NWS Jackson, MS, product updates in addition to a discussion about which NWS products they find useful.

Warning Coordination Meteorologist Felecia Bowser presenting at the MCDEMA

Bowser also demonstrated how to use Google Hangouts, a communication tool EMs can use to connect with NWS Jackson, MS, staff during high impact weather events. Lamb's discussion on radar interpretation and key radar terminology helped EMs better recognize a potential severe weather threat.

Gaining critical information from EMs during severe weather events such as damage reports, aids in fulfilling the NWS mission of the protection of lives and livelihood; maintaining a strong relationship with EMs is key to our success.

Tabletop Helps NWS Better Connect with Governor's Office

*By **Kevin Deitsch,** WCM, NWS St. Louis, MO*

Tabletop exercise helped NWS better connect with Governor's office.

In December, NWS St. Louis facilitated a tabletop exercise that offered the opportunity to directly interact with the Governor's office. The tabletop meeting, held at the Missouri State Emergency Operations Center, was designed to show members of Missouri Governor Parson's Cabinet how the Missouri State Emergency Management office (SEMA) would activate in response to a hazardous weather event.

NWS St. Louis created the event, simulating a crippling ice storm along the I-44 corridor during which more than an inch of ice accumulation was forecast. Warning Coordination Meteorologist (WCM) Kevin Deitsch helped facilitate the exercise, briefing members of SEMA and the Governor's cabinet on the ice storm forecast and expected impacts. The simulated impacts were extreme, with the ice storm causing widespread power outages, a 30-car pileup along I-44, and a loss of cell phone coverage. The Governor's Deputy Chief of Staff and his Communications Director were in attendance, along with the Director of Public Safety for the state of Missouri.

ICS-300 Level Class with NWS and Partner

*By **Tanja Fransen**, MIC, NWS Glasgow, MT*

NWS Glasgow, MT, collaborated with its partners at the Montana Disaster and Emergency Services and the Northeast Montana STAT Air Ambulance to host an ICS-300 course in Glasgow. Eight staff members from WFO Glasgow took part in the training. As a result, all operational staff members at NWS Glasgow are certified to the ICS-300 level.

WFO Glasgow, MT, staff take ICS certification training.

In addition to NWS participants, an additional 17 Local Emergency Planning Committee partners from five counties in northeast Montana also took part in the training.

Several of these partners were able to tour the NWS Glasgow office, the first time some of them had a chance to do so. The instructors were state of Montana Disaster and Emergency Services Coordinators Charlie Hanson and Jeff Gates.

Scenario-Based Planning for Sea Level Change in the United States

*For more information, contact **Tsvet Ross-Lazarov**, COMET*

The COMET continuing education program just released an online lesson entitled, "Scenario-Based Planning for Sea Level Change in the U.S. Using the USACE Sea Level Change Curve Calculator and Guidance".

The key to wise, long-term planning in relation to sea level rise is to visualize potential future water-level scenarios that may impact a project's function or stability. These scenarios must consider not only rising sea levels, but also tides and storm surge.

This lesson introduces tools and concepts essential for scenario-based planning. The lesson guides users through the use of the U.S. Army Corps of Engineers (USACE) Sea Level Change Calculator to produce site-specific water-level projections. The class also introduces the NOAA Sea Level Rise Viewer and Sea Level Trends website.

The course will be particularly relevant to water resource planners, coastal city planners, and biologists. Please follow the links to the MetEd description page that provides additional information as well as the link to begin the lesson. For best viewing of content on the MetEd website, please ensure that you have a browser updated to its latest version with JavaScript enabled. For technical support, please visit our Registration and Support FAQs.

Hurricane Michael hit the Florida Panhandle with fierce winds and a 15-foot storm surge, closing ports and pulling objects under the wave. Before navigation could safely resume, the Coast Guard looked to a NOAA navigation Response Team to identify and chart dangers. Strategically located, NOAA teams are on call for such emergencies.

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