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.

December 2013

News, Updates

National Drought Resilience Partnership

NWS News Staff, Silver Spring, MD

On November 15, NWS and the U.S. Department of Agriculture announced the National Drought Resilience Partnership. The new partnership will align and strengthen efforts across the federal government to help tribal, state and local agencies and communities undertake drought planning and preparedness activities.

Drought is the leading hazard in economic losses each year in the United States, estimated to result in average annual losses to all sectors of the economy of $6-8 billion.

NWS produces seasonal predictions and monthly drought outlooks as well as contributing to weekly drought condition updates via the U.S. Drought Monitor to support informed decision-making and help build a Weather-Ready Nation.

Decision Support

NWS Decision Support for EMs at U.S. Grand Prix

Jon Zeitler, Science and Operations Officer, NWS Austin/San Antonio TX

The world's premier auto racing series, Formula 1, made the annual trip to the Circuit of the Americas (COTA) in Austin, TX, for the U.S. Grand Prix November 15-17, 2013. Weather Forecast office (WFO) Austin-San Antonio, Center Weather Service Unit (CWSU) Houston, and the Southern Region Operations Center (ROC) pilot project joined forces to provide decision support for emergency management partners in charge of spectator safety and security.

In addition, NWS staff members provided enhanced support to the Federal Aviation Administration (FAA) for air traffic control at area airports and helicopter landing sites.

The Austin Area Command was set up at the Austin/Travis County Emergency Operations Center. During the 3-day event, NWS Austin-San Antonio Emergency Response Meteorologists were stationed onsite, where they provided weather briefings for the Formula 1 event in addition to supporting ongoing cleanup after devastating flash floods hit the Austin area on Halloween.

Weather briefings were shown via live video to four other command locations across the city, including COTA and Austin-Bergstrom International Airport.

During the overnight hours, forecasters at the WFO used WebEOC to post forecasts and monitor incidents for the event. The Southern Region ROC set up an F1 Race Google Site and an F1 chat room on NWSChat to coordinate decision support services.

WFO Austin-San Antonio and CWSU Houston coordinated detailed aviation weather guidance and impacts briefings for the expected massive increase in private aircraft and helicopter operations. The combined efforts paid off when low clouds and fog hampered aviation

Some 120,000 spectators watch the United States Grand Prix on November 17, 2013. Photo by Jon Zeitler, NOAA.

operations during the early mornings of the event. On Friday, the race practice session was delayed because medical helicopters could not land at the racetrack.

According to the FAA, the Austin area aircraft traffic count showed a 40 percent increase over normal operations from the weekend before the race through the day after the race. A record number of private aircraft operations occurred on race day, including 1,443 takeoffs and landings in the Austin Terminal Radar Approach Control (TRACON) and 793 in the San Antonio TRACON.

Race day also brought another weather challenge when record heat hit south central Texas. Temperatures were almost 15 degrees above normal. More than 100,000 race day fans sweated through temperatures near 90 degrees and heat index values in the mid-90s.

Texans are used to the heat but tens of thousands of international visitors experienced a change from cool spring Southern Hemisphere readings or fall Northern Hemisphere conditions at home. Total

attendance over the 3 days topped 250,000.

"This event showed the great partnership not only between the NWS and emergency management, but also the partnership between the WFO, Southern Region ROC, and the Houston CWSU," said Paul Yura, Warning Coordination Meteorologist at WFO Austin-San Antonio, TX.

Complex Hazmat Exercise Offers Unique Challenges

By Rick Davis and Mike Gittinger, ERS, NWS Tampa, FL

In October, NWS Tampa Bay Area Emergency Response Specialists (ERS) Rick Davis and Todd Barron helped organize and execute a HAZMAT Drill at the TECO Big Bend Power Station in Apollo Beach, FL.

Todd and Mike worked with Tampa Electric, the Florida Fish and Wildlife Conservation Commission, the U.S. Coast Guard, the Florida Department of Environmental Protection, and Hillsborough County

NWS Tampa, FL, ERS Rick Davis provides a weather scenario briefing at a recent TECO HAZMAT drill.

Environmental Protection Commission for the exercise. This drill was conducted to meet requirements of the Oil Pollution Act of 1990.

The NWS team provided wind, weather and tidal information tailored to the exercise for inputs into the General NOAA Operational Modeling Environment, which the Florida Wildlife Research Institute ran during the drill.

Rick and Todd took part in the Incident and Unified command discussions and meetings, providing input about communications, tactics, planning, and safety concerns as well as weather thresholds.

The two ERS also worked with the logistics, planning, operations and finance sections to provide real-time onsite weather forecasts. The event was a great team-building exercise in addition to meeting federal requirements.

Dissemination News

NWS and WEA Save Lives During November Midwest Tornadoes

By Mike Gerber, NWS Emerging Dissemination Services Meteorologist and Jim Sieveking, Meteorologist, NWS St. Louis, MO

NWS activation of Wireless Emergency Alerts (WEA) was credited with saving lives during the tornadoes that devastated parts of Illinois, Indiana and Ohio on November 17.

Residents, emergency managers, and the media told NWS that timely NWS tornado warnings and WEA activation got them to safe places in time. Two of the dramatic stories captured by the media follow.

An EF-4 tornado struck a farmstead several miles west of New Minden, IL, completely destroying the 100-year old farmhouse and a nearby mobile home several hundred yards away. Sadly, an elderly couple in the farmhouse was killed, but a mother and her two children in the mobile home survived with no injuries.

The woman told the NWS survey team that she received the warning "on my phone," almost certainly a WEA alert.

She and her two children ran out of the mobile home into a creek bed about 300 yards away. They huddled in waist deep water as the tornado passed by.

A farm house is completely destroyed and swept from its foundation southwest of New Minden, IL on November 17, 2013.

From Washington, IL, NWS got the following report: "[Pastor] Daniel Bennett was officiating Sunday services before 600 to 700 people when… 'two dozen phones started going off in the service'…many townspeople said those messages helped minimize deaths and injuries," from an article entitled "Forecasts, warnings spared lives from tornadoes," Associated Press, November 18, 2013.

Illinois U.S. Congressman Aaron Schock said, "My phone was alerting . . . that's why, despite the disaster you see, there was minimal loss of life," from an article entitled "Illinois tornadoes: Pavement 'only thing left,'" Politico, Nov. 18, 2013.

Outreach Insights

National Severe Weather Preparedness Week, March 2-8, 2014

John Ferree, NWS Severe Storms Services Leader

As part of its Weather-Ready Nation initiative, the NWS is partnering with FEMA on National Severe Weather Preparedness Week, March 2-8, 2014.

During the week, we will highlight the importance of individuals, businesses and families preparing emergency plans and the importance of knowing what to do when a tornado or severe thunderstorm warning is issued.

As emergency managers well know, being prepared to act quickly can be a matter of survival. In May, tornadoes devastated part of central Oklahoma. This outbreak included the deadliest tornado of the year on May 19 in Moore, when 24 people perished from an EF-5 tornado (winds in excess of 200 mph). The Moore tornado was estimated to have caused about $2 billion in property damage.

Severe weather can happen at any time, anywhere. Residents of seven Midwestern states were reminded of that fact on November 17 when a late season tornado outbreak became the most active tornado day of 2013. At least 70 tornadoes spanned seven Midwestern states, claiming the lives of seven people in Illinois. Two of the tornadoes were rated EF-4 (winds over 165 mph).

Even though the May and November tornado outbreaks were forecast days well in advance and warning lead times averaged nearly 20 minutes, there were still many people in the damaged areas that said they were unprepared.

Being weather ready is a collective effort. It takes a whole community to effectively prepare for, protect against, respond to, recover from, and mitigate damages caused by tornadoes and severe thunderstorms. The NWS and emergency managers play a key role in this effort.

During National Severe Weather Preparedness Week, join NOAA and FEMA to unify our severe weather preparedness messaging to maximize its effectiveness.

In February, we will update our National Severe Weather Preparedness Week webpage with new tools to help you reach your constituents:

- Information on activities slated for that week
- Ideas on ways you can get involved
- A messaging toolkit that includes talking points, social media, graphics, blog posts and more; these materials should also be used to supplement your local severe weather preparedness weeks

The National Severe Weather Preparedness Week toolkit will be available in February on NOAA and FEMA's websites and at Ready.gov.

NWS Hosts Weather Enterprise Open House

NWS News Staff, Silver Spring, MD

The NWS Des Moines, IA, forecast office opened its doors to the public on September 21 to about 600 eager attendees. The visitors saw something new this year—a themed open house that focused on the weather enterprise and local partners.

Private sector partners staffed booths describing their relationship with the NWS, their role in weather safety, and the significance of decision support. This addition was part of the Des Moines office's effort to build a Weather-Ready Nation.

Participating partners included the U.S. Geological Survey, U.S. Army Corps of Engineers, Iowa Homeland Security and Emergency Management, Polk County Emergency Management, Iowa Environmental Mesonet, Mid-Iowa Skywarn, Safeguard Iowa, ABC5 (WOI) Weather, KCCI Weather, and WHO Weather.

Iowa State climatologist Harry Hillaker, representatives from local chapters of the National Weather Association and American Meteorological Society, and meteorology students from Iowa State University also took part in this well-attended event.

Enterprise Open House booth.

NWS Des Moines staffed four main stations during the open house:

- A Weather Event Simulator, which provided an opportunity to create warning polygons and define impact-based warnings for actual past storms affecting the local area.
- Booth explaining the multiple features in the Advanced Weather Interactive Processing System and the forecast process
- Table illustrating NWS specific electronics
- Parking lot booth with handouts, temporary tattoos for children, word searches and posters

Visitors also had the chance to play the "Timmy the Twister" and "Rate the Tornado" games.

"Everyone that came by our booth asked good questions and were genuinely interested in what we do and how it relates to the NWS," said Jon Nania of the U.S. Geological Survey. "Thanks for inviting us. We look forward to the next open house."

In addition to the open house, the NWS Des Moines staff hosted a food drive for the Food Pantries of Central Iowa.

Webinar Expands Reach of EM Workshop

Ted Buehner, WCM, NWS Seattle, WA

NWS Seattle hosted its annual media and emergency management workshop on November 8, a makeup event for the workshops cancelled by the government shutdown in October. Given the short lead time, for the first time, the WFO also offered the workshop as a live webinar.

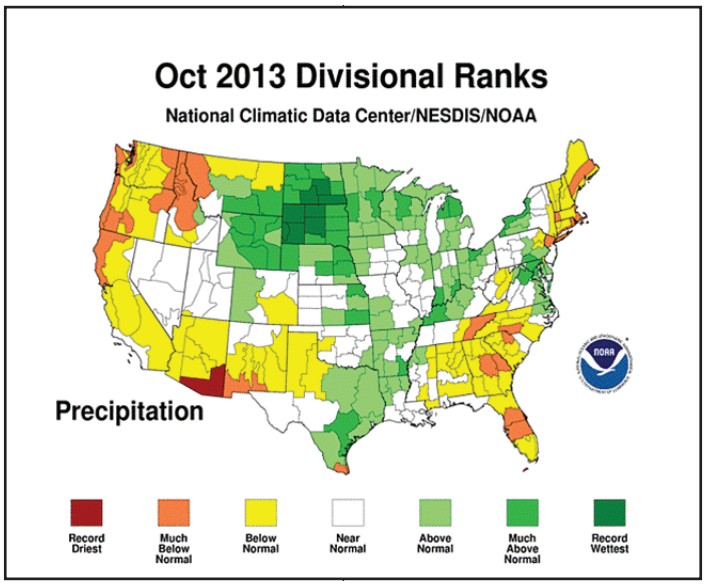
About 120 partners took part in person or via live webinar. Attendees represented TV and radio stations; health and hospital centers; public, private and tribal emergency management offices; schools; utilities; and the Red Cross.

Information shared at the workshop included:

- The latest Pacific Northwest winter weather outlook presentation from Climate Prediction Center Meteorologist Jon Gottschlak
- What is a Pacific Northwest Neutral Winter Season?
- "Take Winter By Storm" preparedness campaign information, complete with an appearance by the campaign mascot, the Wheedle on the Needle
- Updates from the Northwest Weather and Avalanche Center
- The latest decision support services (DSS) and flood warning system information

The workshop finished with a panel discussion on NWS decision support. Panelists included representatives from a power utility, a city emergency manager, a school district, and a transit agency.

Participants gave the workshop high ratings and NWS received numerous positive comments about the winter weather outlook material and its decision support.



The U.S. marked subnormal to above normal precipitation in 2013

Preparing for Spring Floods in November?

NWS News Staff, Silver Spring, MD

Staying ahead of the possibility of spring 2014 floods on the Missouri River, the NWS Missouri Basin River Forecast Center, (MBRFC), in Pleasant Hill, MO, and the U.S. Army Corps of Engineers hosted a multi-agency webinar on November 15 to discuss current soil and basin conditions.

"Although it is much too early to prepare spring snowmelt runoff projections, the wetter-than-normal soil condition across the upper Great Plains suggests the potential for increased hydrologic activity in spring 2014," said **Kevin Low**, Hydrologist-in-Charge at the MBRFC.

Information shared during the webinar helped representatives of the numerous federal and state agencies involved prepare for what may come next spring.

Intense rainfall and major flooding on the Missouri this past summer meant much of the Missouri drainage basin will likely enter the winter with saturated soils, which could lead to a heavy snow pack and high stream flow conditions.

"Nobody is ready to start preparing forecasts," Low said, "but we wanted to be sure we were all on the same page as far as current conditions on the Missouri and possibilities for next spring."

Northern areas of the drainage basin will be going into winter freeze with saturated soils and other conditions that bear watching. The MBRFC identified those areas and shared information on current conditions. Current conditions can have a big impact on future conditions.

WHNT-19 (CBS affiliate) Meteorologist, Jennifer Watson studies the Huntsville CWFA map with WCM, Dave Nadler during Jen's shadow forecaster visit in late October

Numerous federal agencies took part in the webinar including the Natural Resources Conservation Service, Bureau of Reclamation, U.S. Geological Survey, Bureau of Indian Affairs, National Drought Mitigation Center, and the High Plains Regional Climate Center. The South Dakota state climatologist and several agencies from states in the Missouri drainage basin also took part.

"All participating agencies feel better knowing exactly what the conditions on the Missouri are and the impacts we might expect in the spring thaw," said Low.

The MBRFC PowerPoint presentation from the webinar is available online.

Media Shadowing Program Big Success

Dave Nadler, WCM, NWS Huntsville, AL

To increase interaction and enhance the relationship with our local media, NWS Huntsville initiated a new shadow forecaster program that offers on-camera broadcast meteorologists (OCMs) the opportunity to work alongside NWS forecasters for up to 8 hours.

NWS Huntsville WCM David Nadler elaborated, "we hope the program will increase trust, build rapport and enhance the comfort level between our media partners and local NWS forecasters, while also creating a foundation to better understand local WFO non-routine weather operations."

The program supports NWS's primary goal to protect life and property and improve the general public's awareness of significant weather threats, impacts and hazards.

The initial attempt at this program was a success. During a 5-week period that overlapped October and November, four OCMs, including a chief meteorologist, from two television stations shadowed NWS Huntsville staff.

The response was overwhelmingly positive. One of the on-camera meteorologists said, "Honestly, this is one of the better ideas I've seen in quite a while. I'm very excited about this [program]." While another said, "This was a golden opportunity that I will truly cherish forever. Personally, I gained valuable knowledge on the information/warning dissemination process and how [person] each has his/her role during severe weather."

Next year, NWS Huntsville plans to expand this initiative to other local media partners, including various radio and newspaper broadcast groups.

NWS Huntsville would like to thank NWS Melbourne, particularly Scott Spratt, for providing guidance and valuable knowledge from their experiences instituting a similar program.

Balloons Help NASA Return from Final Frontier

NWS News Staff, Silver Spring, MD

The NWS Spaceflight Meteorology Group (SMG) recently tested a rawinsonde system for possible use in spaceflight operations at NASA Johnson Space Center in Houston. SMG Meteorologist Tim Garner and NWS Houston Incident Meteorologists Kent Prochazka and Chris McKinney performed the initial system checkout on November 7. SMG is testing the Intermet Systems-3150 rawinsonde system for possible use at sea to support the NASA Orion Exploration Flight Test 1, scheduled for fall 2014.

After its flight, the unmanned Orion vehicle will splash down with parachutes in the eastern Pacific Ocean, west of Baja California. A U.S. Navy ship will retrieve the capsule from the ocean. Weather balloon observations are vital to assess upper winds for positioning recovery forces, estimating vehicle trajectory, predicting debris impact locations, and post-mission aerodynamic analysis.

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ISSN 1936-8178