Aware

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NOAA Weather Radio All Hazards (NWR) Transformational Change Project

By Tyra L. Brown, Ph.D., Project Manager, NWS Office of Dissemination

Since the mid-1950s, NOAA Weather Radio (NWR) has served as a multi-mission program broadcasting official warnings, watches, forecasts and other hazard information 24/7. Over the decades, user needs and technology have undergone huge changes. In response, the NWS is working to transform NWR into an integrated weather information system based on user requirements and advanced technology. The NWS is engaging with core partners across the weather enterprise to transform the current NWR broadcast network. The transformation will create an integrated weather information dissemination system based on the needs of the users and advanced technology.

In Phase 1, NWS conducted surveys, in-person interviews and focus groups of 200+ key stakeholders to identify user needs. Social scientists engaged representatives from broadcasting, emergency management (EM), consumer manufacturing, the mobile technology industry and government. The follow-up needs analyses report highlighted key recommendations from stakeholders:

- Retain NWR in some form.
- Improve NWR with warning information that is storm-based and geo-located.
- Resolve NWR transmitter location and maintenance issues.
- Develop an NWS mobile app.
- Research and develop new functionality requirements for NWR and focus on assistive, language, cultural and generational needs.
- Resist owning the entire process; work in concert with partners and vendors to support the needs of the various modalities identified as critical in the weather warning dissemination process.
- Ensure all modality improvements are more detailed, simpler and include potential impacts, location, and timing, along with calls to action.
- Recognize NWR is probably the most viable modality for nighttime warnings.
- Recognize that mobile alert notification systems provide much of the same functionality as NWR but are subject to bandwidth problems that can delay the alerting process, making NWR the better option for fast moving weather events. Character limitations also limit the content that can be disseminated. (Efforts are currently underway to fix the character limitation problem.)
- Recognize that though NWR is most heavily used by older adults, those users often relay alerts and warnings to younger adults.

In Phase 2, NWS will work with stakeholders to develop a new system that can support multiple dissemination platforms. The goal is to create a Weather Information Mass Dissemination (WIMD) system that fulfills the Weather-Ready Nation mission: build a society that is prepared for and responds properly to weather-dependent events and risks. Stayed tuned for information about Phase 3. NWS will provide an opportunity for comment/review on any specific proposed changes to our dissemination services before a final decision on implementation. Learn more by listening to the Weather Hype Podcast.

Media Intensive Partner Meeting Expands Vision

By Amos Dodson, Forecaster, DSS Team Leader, NWS Northern Indiana

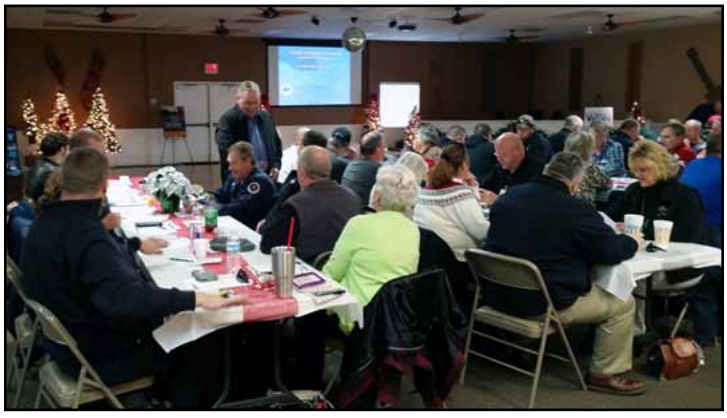
NWS Northern Indiana received overwhelmingly positive response from the media workshop it recently held to get strengthen ties with our media partners. Nine TV meteorologists attended in person and four via webinar.

The workshop focused on the upcoming winter and changes taking place locally and regionally. Climate also was a major topic, with tips on finding online climate data and what to expect this winter. NWS staff also discussed changes NWS is considering to simplify our suite of winter products and best practices for communication over NWSChat. The last session focused on the evolving role of the local forecast office, expanding decision support services, and how the media fits in. The workshop concluded with an hour of open discussion on the needs and timelines of our media partners and ways to improve communication of weather information.

Media reps from the Fort Wayne and South Bend media markets. On the phone we had Fort Wayne and Toledo media markets represented. Photo credit, Margaret Taylor ASA, NWS Northern Indiana.

The workshop provided media partners plenty of time for feedback on how NWS can improve services. Specifically addressing the NWSChat services, Rob Lydick from WANE TV commented "I have been in several areas around the country, and your office's use of NWSChat is outstanding." When asked specifically about the use of the Area Forecast Discussion (AFD), Holly Beemer from 21 Alive in Fort Wayne said that she reads the AFD all the time, but said that the abbreviations were difficult to understand.

"It's interesting to see how we work in completely different sectors of meteorology, but deal with the same junk as each other. A long road ahead as technology continues to advance," stated Matt Rudkin from WSBT TV. The NWS plans to incorporate feedback from the workshop into future practices, including annual workshops.



Participants of the NWS Winter Weather Workshop in Grand Rivers, KY

Winter Weather Workshops Expand in Scope and Size

By Rick Shanklin, WCM, NWS Paducah, KY

This fall, NWS Paducah, KY, held workshops in each of the four states it serves (Missouri, Illinois, Indiana and Kentucky) to provide targeted information and facilitate interaction with partners.

The workshop addressed winter weather concerns as well as climatological trends of heavy

rainfall events and the cool season severe thunderstorm threat. The agenda also covered testing and provision of new services and technologies, such as GOES-16 satellite services and NWS Decision Support Services.

The workshops featured several innovations such as a team exercise that developed call-to-action statements for flooding. Another centerpiece of the four workshops was a presentation from each of the chief TV meteorologists in the NWS Paducah county warning area. The new format increased interaction and drew more than 200 participants from EM, media, transportation, utilities and a host of other sectors.

Roundtable Spotlights GOES-R Innovations

*By **Charlie Paxton**, Ph.D., Science and Operations Officer, NWS Tampa Bay Area, FL*

From left, NWS Tampa Bay SOO Charlie Paxton and ABC 7's Chief Meteorologist Bob Harrigan join Gulf Coast Journalist Ray Collins for a session on the GOES-R satellite.

It's not enough to develop new technology, you also need to ensure the public understands and uses it. Just weeks after witnessing the GOES-R launch on November 17, NWS Tampa, FL, SOO Charlie Paxton office took part in a roundtable that focused on the many ground-breaking improvements the satellite will offer.

Charlie appeared on WWSB TV in Sarasota, FL, with Ray Collins, award-winning Gulf Coast journalist, and Bob Harrigan, ABC 7's Chief Meteorologist. Both Ray and Bob have forecasted Suncoast weather for more than 30 years. They compared the new satellite data—scheduled to start transmitting data in the spring of 2017, to the improvements Doppler radar brought to warning operations during the 1990s. The discussion focused on the increased speed, resolution, and number of imager channels and the multitude of resulting products.

The interview elaborated on the improvements that the new satellite will bring to hurricane forecasting. Charlie described how the new lightning mapper will improve predictability of cloud-to-ground flashes and tornado development. Data from the new GOES satellite will improve fog detection, reducing fog impacts for commuters, the aviation industry and shipping concerns. The session closed with a discussion of the satellite's ability to monitor solar and space weather.

To learn more about the new GOES satellite, take the free NWS SHyMet SatFC-G course. Register for the course by sending an email containing your name to nws.oaa.clo.shymet@noaa.gov or go to https://www.climate.gov/tags/goes-r.

Water Takes Lead in Integrated Warning Team Workshop

*By **NWS Insider Staff**, Silver Spring, MD*

In early November, NWS Tallahassee hosted a hydrology focused Integrated Warning Team Workshop (IWT) for partners across north Florida, southwest Georgia and southeast Alabama. Among the 50 participants were employees from the NWS Southeast River Forecast Center, state and local EMs, broadcast meteorologists, social scientists and representatives from the United States Air Force and the U.S. Geological Survey (USGS).

The full-day workshop included an look at flood product definitions and a mini-exercise to practice using these definitions, the flow of hydrology information between the Weather Prediction Center, River Forecast Centers and Weather Forecast Offices and discussion on messaging and decision support services. In addition, the workshop include a panel discussion with partners from the USGS; Georgia Power; WALB Albany, GA; and Leon County, FL,

Public Works Department to learn more about their responsibilities before, during and after a flood event. The panelists reminded participants it's not just wind that affects powerlines; flooding can have a major impact on underground lines. Action items from the workshop include:

Panel discussion at the Hydrology Integrated Warning Team Workshop

- Providing remote hydrology training on topics such as the use of the Advanced Hydrologic Prediction Service website, Meteorological Model-based Ensemble Forecasting System and inundation mapping
- Creating a single webpage linking county and state EM offices in the NWS county warning area
- Providing testimonial videos and additional training on the use of NWSChat

Based on the feedback from participants and valuable engagement with partners, the NWS Tallahassee plans to continue similar workshops in the future.

What Makes an Exemplary Weather-Ready Nation Ambassador?

From left, John Dwyer, Director of Champaign County, IL, Emergency Management Agency and Ernest Goetsch, Meteorologist-in-Charge, NWS Lincoln, IL.

*By **NWS Insider Staff**, Silver Spring, MD*

NWS Central Illinois named the Champaign County, IL, Emergency Management Agency (CCEMA) an "Exemplary" Weather-Ready Nation (WRN) Ambassador. CCEMA won the award for:

- Partnering with NWS Central Illinois to alert county residents about high impact weather events through extensive use of social and traditional media
- Alerting residents to locations of warming/cooling centers in advance of extreme cold/heat
- Collaborating with partners such as NWS to activate weather safety plans during highly attended, major outdoor events at the University of Illinois

NWS Central Illinois Meteorologist-in-Charge Ernest Goetsch presented the recognition to CCEMA Director John Dwyer during a meeting of elected officials and other Champaign County departments on November 15. CCEMA is one of only about two dozen organizations recognized as Exemplary Weather-Ready Nation Ambassadors across the country as part of National Preparedness Month in September 2016.

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