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.

September 2015

One Stop NWS State Briefing Option Make EM Job Easier

By Steve Drillette, MIC, NWS Little Rock, AR

When a major event is approaching a state, the last thing an emergency manager (EM) wants is five briefings from five NWS offices, each with potentially conflicting information the EM has to sort through during a high impact event. NWS Little Rock Meteorologist in Charge Steve Drillette outlined a new and improved process for EMs at the 2105 Arkansas Emergency Management Association meeting in August.

Drillette unveiled plans to begin statewide EM weather webinar briefings in Arkansas for large scale significant weather events. These statewide briefing would include information from the five NWS offices that serve portions of Arkansas: Little Rock, AR; Memphis, TN; Tulsa, OK; Shreveport, LA; and Jackson, MS.

Until now, the Arkansas Department of Emergency Management (ADEM) received piecemeal information from these five NWS offices. With this agreement, the NWS office in Little Rock will coordinate with those NWS offices before scheduled briefings and provide the state and local EMs a one-stop brief. The surrounding NWS offices will join these calls to answer questions specific to their area.

NWS Little Rock, AR, Meteorologist in Charge presents new webinar concept at Arkansas EMA meeting.

The agreement was reached in July 2015 during a meeting between Drillette and ADEM Director David Maxwell and will start with the next statewide significant weather event in Arkansas. The briefings will be scheduled at the request of ADEM in coordination with NWS Little Rock.

In addition to the statewide weather briefings, NWS Little Rock is working to implement a statewide Decision Support webpage, which the office plans to make operational later this fall.

NWS Improves SKYWARN® by Better Understanding Volunteers

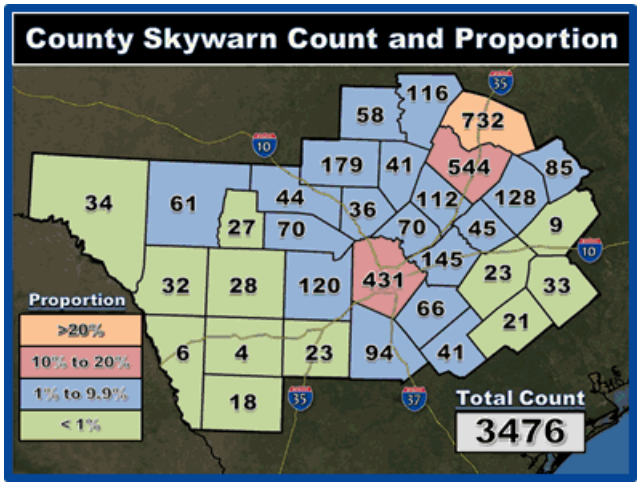
By Aaron Treadway, Met Intern, NWS Austin/San Antonio, TX

The SKYWARN® spotter program has added tens of thousands of eyes in the field for NWS severe weather operations since the 1970s. To improve the program, NWS Austin-San Antonio, TX, included a sign-in/registration sheet for SkyWarn® training attendees from 2009 to 2013 which included an optional series of questions. The responses were analyzed to gain a better understanding of attendees weather and preparedness knowledge and to identify how NWS can improve SkyWarn® training.

This optional sign-in/registration sheet asked about an attendee's affiliation, whether they are an amateur radio operator, and if they had previously attended SkyWarn® training. Additional questions asked if the attendee owned a weather radio, was a CoCoRaHS rainfall observer, and what other types of weather equipment they owned. The study also looked at the number of attendees per county and the distribution of the dates of sessions.

The majority of the San Antonio area training sessions (over 70 percent) are offered in the late winter and early spring, just before the peak of severe weather season in south central Texas.

The highest proportion of attendees came from Bexar, Travis and Williamson counties. Williamson County is the third largest county by population in the San Antonio area but had the largest number and proportion of attendees. One reason for this anomaly could be Williamson County receives more severe weather than the other counties.



Number of SkyWarn® attendees in the San Antonio, TX, area by county and proportion of total attendees

Figure 1 shows the total number of attendees in NWS San Antonio 33 counties, with the shading representing the proportion of attendees of the overall SkyWarn® program.

Some 92 percent of attendees were first time SkyWarn® students; 8 percent had attended two or more sessions; 70 people had attended SkyWarn® training provided by another NWS Weather Forecast Office. Of those who had attended a previous class, 43 did so in Texas, while the rest attended sessions across the Plains, Southeast and Midwest. About 11 percent of attendees were amateur radio operators, 3 percent were CoCoRaHS observers, 24 percent were police/fire/EMS first responders or safety personnel and 40 percent were members of the public.

About half of the attendees own thermometers and rain gauges. About 40 percent have a NOAA Weather Radio, while smaller percentages of attendees own barometers and anemometers. There was also an "other" option in which attendees listed scanners, electronic weather stations, phone and computer weather applications, and a few humorous responses like "Weather Rock" and "Eyes."

Based on the results of the sign-in/registration sheet, NWS San Antonio plans to increase SkyWarn® sessions in rural counties. We also plan to add questions asking whether the attendee uses social media and follows web pages. Social media, such as Facebook, increasingly serves as a major asset during severe weather operations. Other changes to the form will include better wording to identify an attendee's affiliation and duties.

Before the Age of the Internet, How to Make History Come Alive

By Ernie Ostuno, Lead Forecaster, NWS Grand Rapids, MI

How do you create a website for a major event that occurred before the "Age of the Internet?" The NWS Grand Rapids, MI, ran into this challenge as it approached the 50th anniversary of the 1965 Palm Sunday tornado outbreak.

The answer—go low tech, talk to eyewitnesses and yes, read archival material from local libraries—the paper stuff. The team also approached historical societies to create a web page with details of the 1965 tornadoes.

The office then hosted a special event featuring Storm Prediction Center Director Dr. Russell Schneider, who served as the keynote speaker for the ceremony commemorating the anniversary. Schneider described the history of tornado forecasting over the past 50 years in the Great Lakes region.

Top floor of a two story motel destroyed except for a section of one interior wall, which would equal EF-3 damage on the Enhanced Fujita scale.

The event was a joint collaboration between the Grand Rapids NWS office and the Alpine Township Historical Commission, which also produced a book and video with interviews of the tornado survivors.

Technology became a focus for the event. With newer tools, the NWS website includes a revised tornado path for the F-4 tornado that killed six people northwest of Grand Rapids. The original path length of 24 miles was increased to 34 miles and EF-3 damage was estimated from photos of a damaged motel (see graphic). This reanalysis project will continue until all known tornadoes in the Grand Rapids County Warning Area on April 11, 1965, are mapped and their damage estimated.

Generating Interest in Emergency Preparedness

By Scotty Johnson, Coordinator, Coffee County CERT

To get the public to take emergency preparedness seriously, the Coffee County, AL, Emergency Management Agency (EMA) and Coffee County Community Emergency Response Team (CERT) made it fun.

The county's 4th Annual Emergency Preparedness Fair and Safety Saturday were part of National Preparedness Month, a whole community approach to disaster response. The fun-filled, family day event was designed to raise awareness about home safety and individual emergency preparedness.

The preparedness and safety event featured several awareness displays and demonstrations to help citizens see how a few simple steps can increase safety and emergency preparedness in homes, businesses and communities.

Emergency response vehicles and resources, such as the Arrive Alive Tour by Unite (texting and driving virtual vehicle simulator) kept public interest high.

The event drew visitors with Emergency response vehicles and resources, such as the Arrive Alive Tour by Unite (texting and driving virtual vehicle simulator), a mobile command post, bomb squad, hazardous materials vehicles, Sheriff Posse, Search and Rescue Helicopters, Bloodmobile, and booths by the Red Cross, United Way, and other groups. "Fire Safety House" and many other outstanding preparedness and safety organizations were on site to attract visitors and teach about preparedness with an entertaining approach.

Volunteers distributed free safety preparedness literature, such as how to build an emergency supply kit and develop a family emergency communications plan. Also available was information on fire safety and prevention and how to prepare for natural disasters such as floods and tornadoes. Volunteers also offered training in first aid and CPR and an introduction to 211.

NWS Education: New Features and Pages on Owlie Education Webpage

By Mary Fairbanks, Meteorologist, NWS Communications, Silver Spring, MD

NWS has upgraded its Owlie weather education resources for adults and children. Check out the new and improved webpage at http://weather.gov/owlie/. New this year:

- **Target Audiences**: The "Learn Science" and "Learn Safety" resources are now broken down by target audience with materials for a variety of ages.
- **Partner resources:** NWS now includes links to partner resources within the Science and Safety sections. If there are other national level resources, you think NWS should include, please let us know.
- **Publications and Brochures:** Looking for more resources and materials you can print and give out? This updated page lists NWS publications and other resources by hazard type, such as lightning, wildfire or rip currents.

In addition, the site offers some great interactive education opportunities:

- **Weather-Ready Activity:** Try these activities to learn about various weather hazards, the science behind the hazard, how to be safe during a weather event, and most importantly, how to keep your family and friends safe.

- **Owlie's Journal:** Owlie, the weather owl, posts science experiments, articles explaining meteorological phenomena, safety stories, and more is not just for kids. We encourage teachers and students to follow Owlie's journal.
- **Flat Owlie:** Children can print Owlie to take along as they learn about science and safety. Any pictures that are sent to owlie.skywarn@noaa.gov along with a photo release will be featured on Owlie's journal and Facebook page!
- **Young Meteorologist Game:** There is a direct link on Owlie's page to the Young Meteorologist Program, an interactive, animated game in which children can learn about the science of various weather hazards and how to be safe.

NWS Education is continually creating new ways to reach all types of formal and informal educators and youth. Look for more content over time. Don't forget to follow Owlie daily on Facebook and Twitter @NWSOwlieSkywarn. If you have any questions or feedback regarding the page, please contact Mary Fairbanks.

National Tsunami Hazard Mitigation Program Educates about Meteotsunamis

*By **Christa Rabenold**, Mitigation Specialist, NWS Tsunami Program*

This weather system generated a meteotsunami in June 2013 (photo by Buddy Denham).

The Mitigation and Education Subcommittee of the National Tsunami Hazard Mitigation Program (NTHMP) has produced a fact sheet about meteotsunamis to better inform emergency managers and the public about the phenomena and how they could impact U.S. coasts. Meteotsunamis are caused by air pressure disturbances often associated with fast moving weather systems rather than earthquakes but can also have devastating coastal impacts.

Administered by the NOAA/National Weather Service Tsunami Program, the NTHMP is a partnership that includes NOAA, the Federal Emergency Management Agency, the U.S. Geological Survey and 28 U.S. states and territories. These partners work together to protect lives and reduce economic losses from tsunamis, regardless of their source.

Interest in, and knowledge about, meteotsunamis in the United States has increased in recent years in the wake of confirmed meteotsunamis off the coasts of New Jersey, Massachusetts and Maine. Research shows that meteotsunamis are more common than previously thought and suggests that some past events may have been mistaken for other types of coastal floods, such as storm surges or wind-driven seiches. Although most meteotsunamis are too small to notice, large meteotsunamis can have devastating coastal impacts, but not to the extreme level of the 2004 Indian Ocean and 2011 Japan tsunamis.

The new fact sheet describes meteotsunamis and the NWS's efforts to develop a meteotsunami forecast and warning system. These efforts, which are still in the early stages, include developing a process that outlines when, where and how NWS should issue meteotsunami warnings based on high-resolution air pressure measurements combined with meteotsunami forecast models.

The NTHMP recognizes the risk that meteotsunamis pose and supports the NWS's work in this regard. In the meantime, the public should heed warnings issued by local NWS Offices, which can identify a potential coastal threat based on weather conditions. The NTHMP also encourages program partners to raise public awareness about meteotsunamis. This new fact sheet, which is available on the NTHMP website, can help them do just that.

Aware

NOAA's National Weather Service, Analyze, Forecast and Support Office
Managing Editor: ***Melody Magnus,*** Editors: ***Donna Franklin, Nancy Lee***
Aware online: **www.weather.gov/os/Aware/** ISSN 1936-8178
Subscribe/Unsubscribe **www.weather.gov/os/Aware/awarelist.shtml**