



# 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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## Collaborating to Improve State Air Quality

By [Dave Tucek](#), WCM, NWS Indianapolis, IN

On January 24, NWS Indianapolis staff hosted the Indiana Department of Environmental Management (IDEM) Air Quality Group at the Weather Forecast Office. The IDEM Group presented material on its air quality forecasting operations, helping NWS forecasters better tie together committed Air Quality Alerts with IDEM forecasts of unhealthy ozone or particulate matter conditions. NWS staff learned how humidity levels impact air quality and why accurate humidity forecasts benefit IDEM air quality forecasts.

The NWS forecasters shared tools and techniques they use that may help IDEM staff prepare more accurate air quality forecasts. NWS staff also discussed our Weather-Ready Nation vision and Ambassador initiative. The visit was so productive, NWS staff plan to visit IDEM and expand collaboration to IDEM's Water Quality Group.



*Pictured above are NWS and IDEM Air Quality Group forecasters.*

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## "Building Resilient Communities" Facebook Live Event

By [NWS Insider Staff](#), Silver Spring, MD

On February 14, NWS Storm Prediction Center Forecaster Dr. Ashton Robinson Cook participated in a Facebook Live! event discussing severe storms preparedness and resiliency. The social media event was held in conjunction with the National Tornado Summit in Oklahoma City and was organized by Alpa Swinger of the Portland Cement Association (PCA), was to more effectively provide disaster preparedness and resiliency to community leaders, homeowners and the general public. Using the Facebook Live interactive option allowed listeners to ask questions, helping ensure they are better prepared and more engaged for high-impact disasters.

During the discussion, Cook encouraged listeners to be weather aware and have multiple ways to get weather information, including using NOAA Weather Radio and [weather.gov](http://weather.gov). He also gave a brief overview of tornado events that have occurred this year, including high-impact events that struck the Albany, GA, and New Orleans, LA, areas.

Roxie Beall of the Oklahoma Office of Homeland Security discussed training programs offered by the state and reflected on lessons learned from recent major tornado disasters, including the Moore, OK, tornado of May 2013. Glenn Overcash from FEMA Building Science described benefits of certified safe rooms for protection from high winds within tornadoes, and Jamie Farny of the Portland Cement Association discussed the advantages of having

concrete structures to shelter in and building homes beyond existing codes for withstanding severe storms.

After a short presentation, the speakers answered listener questions, which ranged from promoting community preparedness in building resilient structures, offering assistance to areas impacted by major disasters in the immediate aftermath of the storms, and ideas for projects that can be done in advance of disasters that can help make existing structures more resilient to severe storms. Cook also discussed additional types of severe storms beyond tornadoes that can impact single-family structures, such as derechos, squall lines, and “pulse severe” thunderstorms common in the Southeast.

For a recording of the Facebook Live event and additional information, go to: <https://www.facebook.com/PCACement/>



*“Building Resilient Communities Facebook Live participants from left, Jamie Farny and Alpa Swinger, Portland Cement; Roxie Beall, Oklahoma Homeland Security; Glenn Overcash, FEMA Building Science/AECOM; Dr. Ashton Robinson Cook, NOAA Storm Prediction Center; and Christina Nguyen, Oklahoma City Emergency Management.*

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## How Wireless Emergency Alerts Are Saving Lives

By [NWS News Staff](#), Silver Spring, MD

On the night of February 19, tornadic thunderstorms tore through northern sections of San Antonio, TX. Small business owners Audrey Gagné and her husband were heading into the storm. Although the couple knew thunderstorms were in the forecast, they were not expecting tornadoes.

They continued to drive on as rain beat down on their vehicle. Suddenly, the Wireless Emergency Alert (WEA) sounded from Gagné’s stowed away smart phone. NWS Austin/San Antonio had issued a Tornado Warning, urging listeners to seek shelter immediately. Although they were only 20 minutes from their home, the Gagnés pulled into the nearest convenience store parking lot and waited for the storm to pass.

When they arrived home later, they discovered damage to their store building and surroundings, including “structural metal beams, signs and traffic lights scattered everywhere. If we had kept driving, no telling what could have happened to our panel van full of everything we had in inventory as well as our precious lives,” said Gagné.

These stories about people taking shelter after hearing a WEA are not uncommon. After tornadoes broke out along the Gulf Coast and East Coast on February 23-25, 2016, Barbara Watson, Meteorologist-in-Charge at NWS State College, PA, said “I have been doing storm surveys for over 25 years...never heard it all come together as well as this one as told by the people in the path...with WEA, they got the warning and they immediately took action.”

Spring is just around the corner for much of the country, but parts of the southeastern and southcentral United States have already had a taste of severe weather. These events serve as a powerful reminder that storm systems can have major impacts, regardless of the date on the calendar or the time of day.

The NWS is currently working to add alert notifications for high-end Severe Thunderstorm Warnings, marked by very large hail and/or dangerously high wind speeds. These alerts would provide greater specificity to already existing severe weather products, like Tornado and Flash Flood Warnings.

Additionally, the Federal Communications Commission now requires participating wireless carriers to support an increase in WEA message length from 90 to 360 characters on 4G LTE and future networks by the middle of 2019. According to NWS WEA Program Lead Mike Gerber, the wireless industry is starting to work out the details. Users may need new cell phones to receive the longer 360 character messages.

On the night of February 19, the message the Gagnés received was enough to persuade them to take shelter, a decision that has her saying, "Thank you for saving our lives."



Damage caused by an [EF2 tornado which struck near White Horse, PA,](#) on February 24, 2016

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## NWS Plays Key Role in Avalanche Center

By [Kerry Jones](#), Warning Coordination Meteorologist, NWS Albuquerque, NM

Meteorologists from the NWS Albuquerque, NM, relayed their first Avalanche Warning (AVW) from this local NWS office in December 2016. The new Taos Avalanche Center (TAC) issued the alert for portions of mountainous northern New Mexico. Not only was this the first official avalanche warning issued in the state, but the TAC is the first avalanche center in New Mexico to partner with the U.S. Forest Service (USFS) and NWS. The TAC, which operates as a not-for-profit organization, is focused on educational and safety programs to support winter recreation. The TAC and USFS work together under of a formal Memorandum of Understanding.

In addition to relaying Avalanche Watches and Warnings, the NWS Albuquerque staff participates in joint outreach and educational efforts with local USFS personnel. Avalanches kill more people in National Forests than any other natural hazard. Each winter, approximately 30 people die in avalanches in the United States. Nearly all

Avalanche Forecaster Graham Turnage, Taos Avalanche Center Executive Director Andy Bond, WFO Albuquerque Warning Coordination Meteorologist Kerry Jones, and USFS



Avalanche Forecaster Graham Turnage, Taos Avalanche Center Executive Director Andy Bond, NWS Albuquerque WCM Kerry Jones, and USFS Carson National Forest Assistant Recreation Staff Officer/Snow Ranger Kevin Lehto

Carson National Forest Assistant Recreation Staff Officer/Snow Ranger Kevin Lehto of these deaths involve people taking part in recreation such as skiing in National Forests.

“This is a great example of how grassroots partnerships and working toward a Weather-Ready Nation benefits everyone,” said Meteorologist in Charge Shawn Bennett, NWS Albuquerque. Andy Bond, Executive Director Taos Avalanche Center, added “Having NWS Albuquerque involved at the beginning was critical to the initial success of our first avalanche warning that heightened awareness with considerable lead time during a particularly dangerous avalanche situation. We look forward to future coordination and collaboration to bring increased avalanche awareness and improved backcountry safety to northern New Mexico. ”

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## Aviation Weather Workshop Better Prepares Pilot

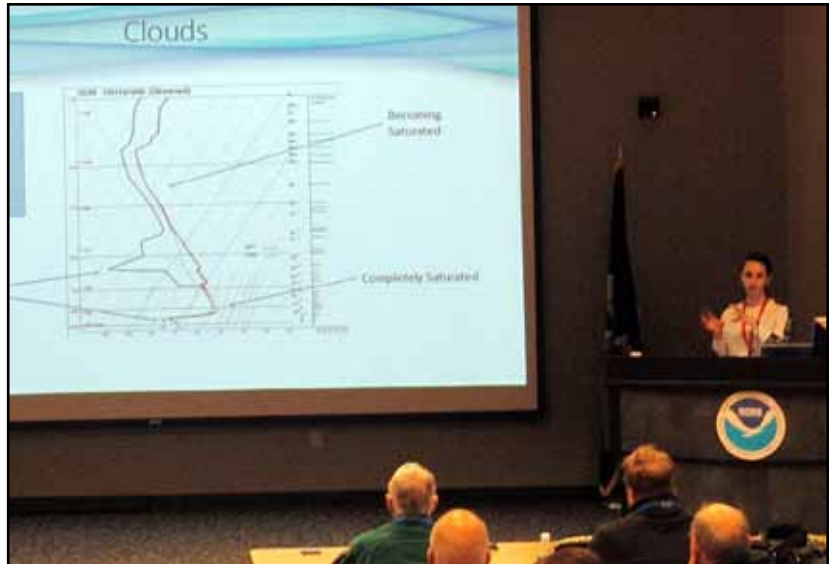
By [NWS News Staff](#), Silver Spring, MD

One year ago, Center Weather Service Unit Kansas City (CWSU ZKC) hosted an Aviation Weather Workshop. Feedback was overwhelmingly positive so the CWSU staff decided to do it again.

On January 28, CWSU ZKC presented the second annual Kansas City Aviation Weather Workshop at the NWS Training Center; 95 pilots attended this year’s workshop, up from about 65 pilots last year. Our goal was to make pilots “weather ready” by improving their situational awareness and hazardous weather avoidance procedures.

After a morning of aviation weather and safety presentations, pilots returned for a hands-on Skew-T workshop. Here pilots learned how to use soundings to determine cloud layers, icing potential and wind shear.

Presenters included speakers from the CWSU, Aviation Weather Center WFO Kansas City/Pleasant Hill, Aerovie LLC, Garmin Aviation Support, and KMBC-TV. With a significant increase in attendance over last year and many positive comments from attendees, thoughts now turn toward 2018 and a third annual Kansas City Aviation Weather Workshop. Contact the Aviation Weather Center for more information about next year’s event.



*Amanda Martin, NWS Aviation Weather Center Forecaster “Sounding-off” to pilots on how to use Skew-T diagrams to improve situational awareness. Photo by CWSU MIC Rich Webber.*

**Aware**

NOAA’s National Weather Service Analyze, Forecast and Support Office  
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