



Helping Protect and Serve

—by Stephanie Bowen

THE MESONET'S OK-FIRST PROGRAM helps public safety officials make more informed and faster decisions. That is critical during severe weather to save lives, money and resources.

“Mesonet information is of tremendous value during many events, including wildland fires, snow & ice storms, wind events, thunderstorm events, hazardous materials events, floods, and I am sure many others,” said David Barnes, Oklahoma County Emergency Manager. “This is true particularly where longer-term, outdoor activities are necessary or where weather factors have a direct impact on protective measures and planned response efforts.”

Barnes uses the Mesonet during many occasions, like the Luther wildland fire in August 2012. The products from the Mesonet helped identify wind shifts and changes in wind speed during this event.

“This ability directly translates not only to related fire behavior issues, but also has a significant impact on overall incident planning activities and resource needs/utilization decisions,” Barnes said. “All of this supports overall life-

safety issues, not only for the victims or potential victims of various incidents, but for emergency response personnel who are attempting to provide a variety of services in already less-than-desirable conditions.”

For those seeking entry into the program, a week-long course introduces participants to meteorological concepts, radar and the OK-First decision-support system. These Full Certification courses are held twice per year. Fully certified participants may also send their assistants and support staff to a two-day Assistants Course for basic radar interpretation fundamentals. Fully certified participants are required to attend at least one Recertification Course every 18 months.

Paula Cain, Emergency Manager Director for Ponca City, is a long-time OK-First user and appreciates the program being designed to help with emergency manager responsibilities.

“What I really appreciate about OK First is the dedication to training,” Cain said. “With OK-First, the training is ongoing. Between lessons on the website and the required refresher classes, I am learning something new or understanding something better all the time. I want to emphasize that the training is required for participation. It is easy to neglect keeping up with training needs when you have an emergency manager’s workload, but OK-First staff recognize that training is the most critical element they can provide.”

James Hocker, OK-First Program Manager, said since OK-First began in 1996, the mission has been to provide our state’s decision makers with critical weather-related decision-support tools and the associated training on how to best use and interpret them. While much has changed with training, products and how information is received, the core mission remains unchanged.

“The specificity of information available to us from the Mesonet greatly enhances our ability to pinpoint important weather-related factors, trends and developments,” Barnes said. “Your continued support and the provision of these services are some of the greatest response tools we have available to us. I know from personal experience, and from multiple discussions with responders of all disciplines from around the state, that Mesonet resources and information are a contributing factor to our ability to protect and serve our citizens.” ■

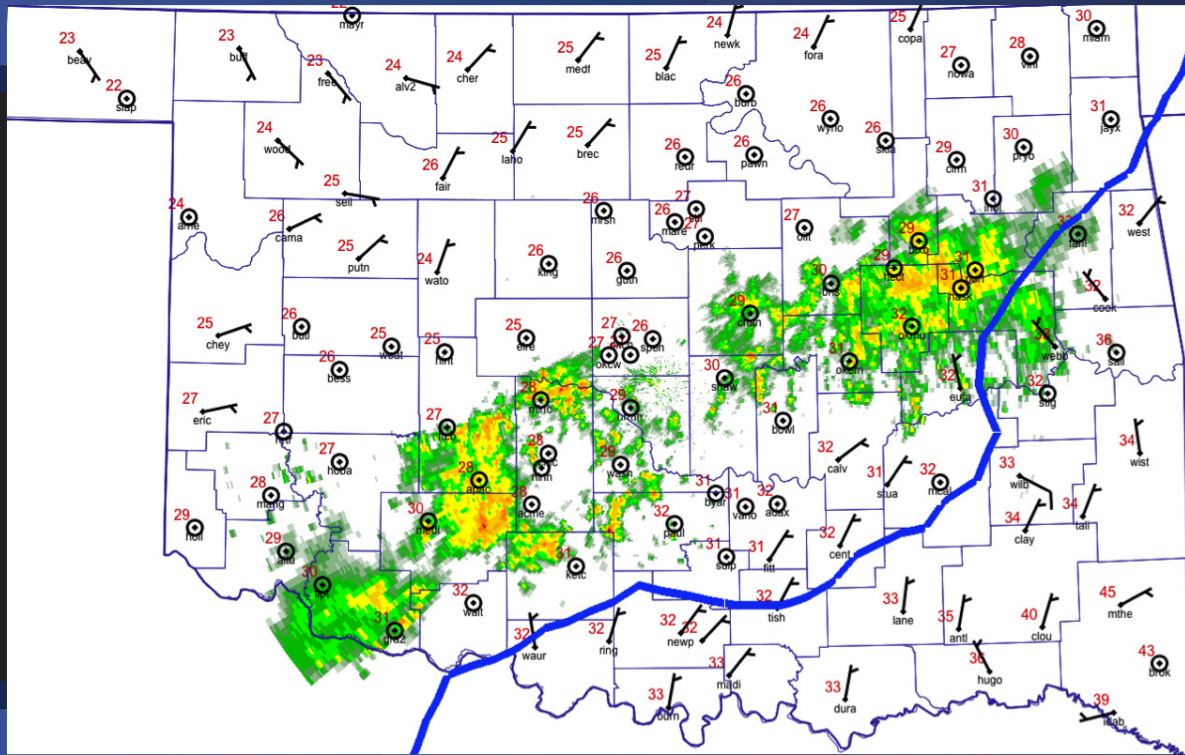
OK-First offers training throughout the year to provide state decision makers with critical weather-related decision-support tools. Pictured left are emergency managers from across Oklahoma who were certified during our August 2012 class.



MESONET IN PICTURES

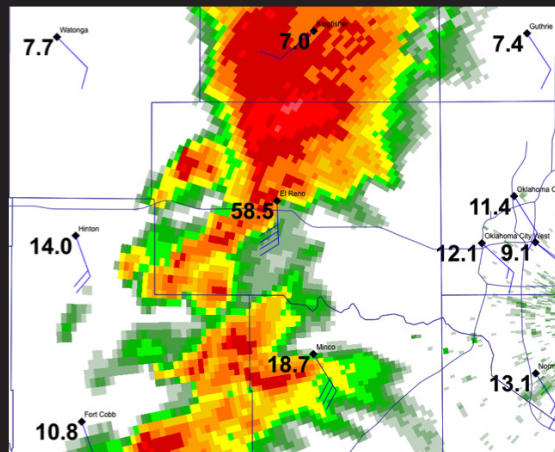
Radar with Mesonet Winds and Temperatures

- This map depicts radar and Mesonet data from December 10, 2007. Such products allow emergency managers to identify locations impacted by freezing rain. By monitoring the freezing line (in blue), the emergency manager can anticipate hazardous conditions for their area.

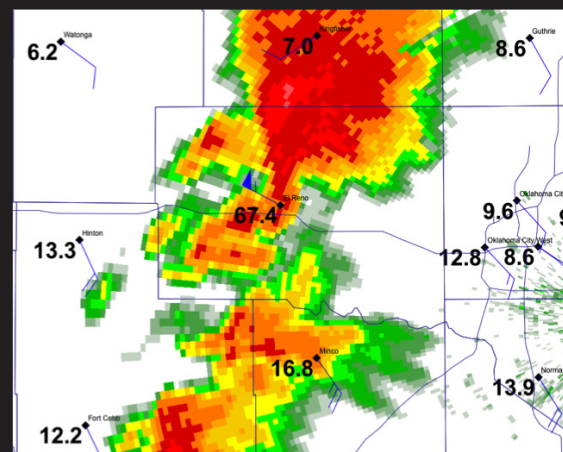


Radar with Mesonet Winds

- During the El Reno tornado on May 24, 2011, emergency managers were able to use Mesonet products to track tornadic supercells. The maps at right show conditions centered at El Reno as the EF5 tornado passed north of our Mesonet station. Winds at 4:20 pm gusted to 58.5 m/s (130.9 mph) from the south, then, five minutes later, shifted to 67.4 m/s (150.8 mph) from the north.



5/24/2011 4:20 PM

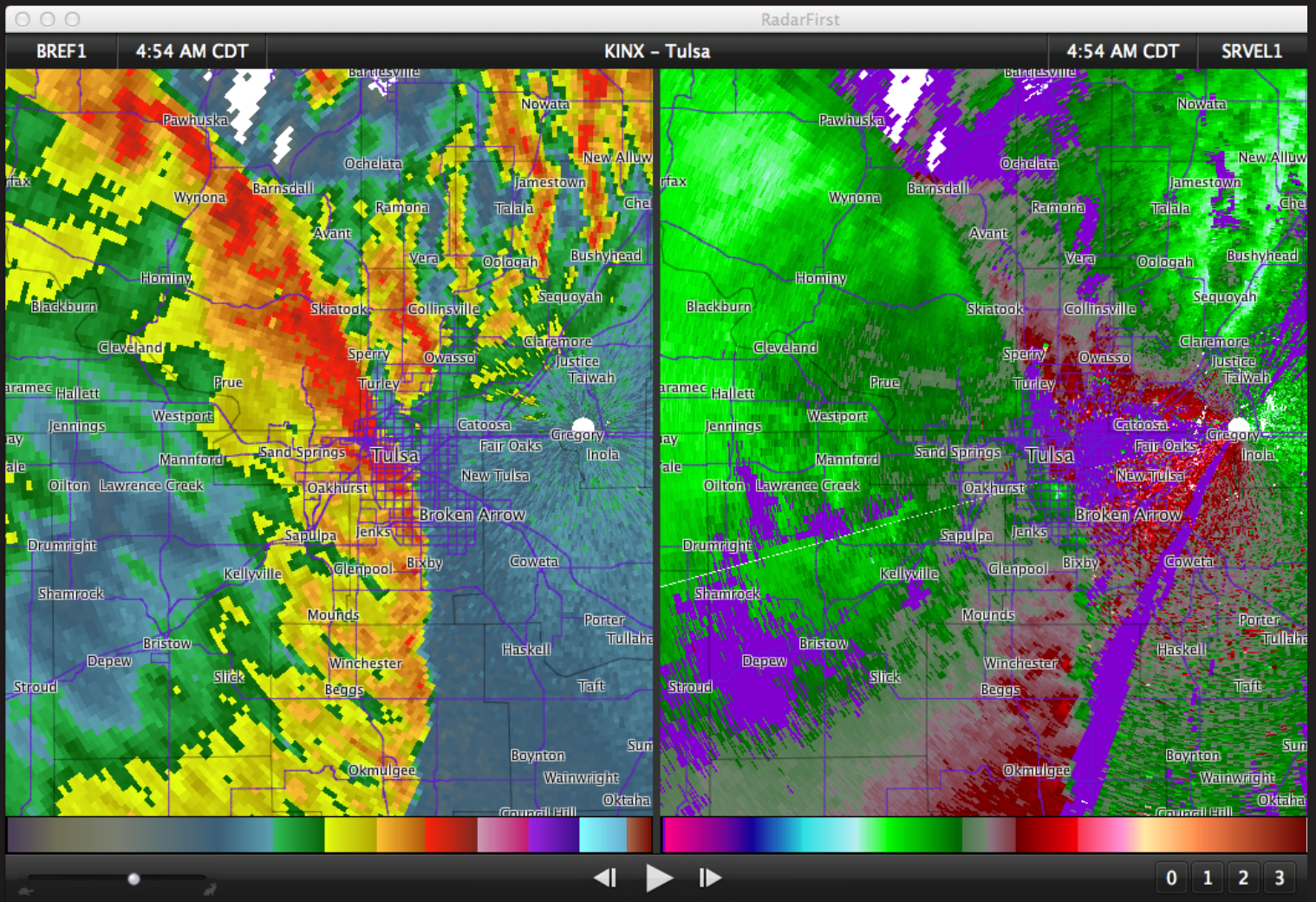


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MESONET IN PICTURES

RadarFirst Software

- This is a two-panel view of a squall line thunderstorm on May 13, 2010. The left window is a product called base reflectivity, which displays where the precipitation is heaviest. The right window is a product called storm relative velocity, which shows possible areas of rotation. These products with the RadarFirst software are available exclusively to emergency managers through OK-First.





February Brings Winter Storms, Drought Relief

By Gary McManus, Associate State Climatologist

FEBRUARY WRAP-UP

Winter roared back into Oklahoma during February, providing significant drought relief to much of the state while dumping as much as three feet of snow in the northwest. According to preliminary data from the Oklahoma Mesonet, the statewide average precipitation total for February was 3.03 inches, 1.27 inches above normal. That would rank the month as the 13th wettest February since records began in 1895, although melting snow in the northwest could push that mark higher. Radar estimates indicate 2-6 inches of liquid equivalent precipitation fell across the state during the month. February was the wettest month in Oklahoma since April 2012, which had a statewide average of 3.81 inches. A statewide average deficit of more than 12 inches still exists since the beginning of last May, the beginning point of this second round of drought that has persisted since October 2010. The deficit since that point is nearly 25 inches. Not only was the month wetter than normal, it was also cooler than normal. According to the Mesonet, the statewide average temperature finished at 40.7 degrees, 1 degree below normal – only the seventh month out of the last 35 to accomplish that feat. The winter period of December 2012-February 2013 ranked as the 30th warmest at 1.9 degrees above normal and 35th wettest at 0.6 inches above normal.

The month's last storm system was also its most powerful. Severe thunderstorms, hail, freezing rain and snow pounded the state on Feb. 24-26. Strong winds of over 50 mph whipped the snow, often accompanied by thunder, into drifts as high as 10 feet that paralyzed much of northwestern Oklahoma. More than 36,000 electrical customers were left without power thanks to ice-coated power lines and trees, and nearly all highways across extreme northwestern Oklahoma were shut down as roads drifted shut. The heavy, wet snow crumpled awnings and in some cases, roofs. One fatality was attributed to a roof collapse at a private residence in Woodward. The snow totals were extreme, and in some cases, possibly record-breaking. The preliminary February snowfall total of 42.5 inches from the small Ellis County town of Arnett would break the state's all-time snowfall record for any month if it verifies. That mark currently stands at 39.5 inches from Buffalo, set in February 1971. Alva, to the northeast in Woods County, recorded a preliminary total of 35.6 inches.

The month began with 92 percent of the state depicted in at least extreme drought by the U.S. Drought Monitor, and 40 percent considered to be in exceptional drought. The latest report released on Feb. 28 portrays remarkable improvement with only 12 percent of the state in exceptional drought. The amount in at least extreme drought dropped to 62 percent. The state had not seen a lower percentage of exceptional drought since the end of last July when the level was at five percent. Only the Panhandle and far southwestern Oklahoma remain in exceptional drought. Most of eastern Oklahoma dropped from extreme to severe drought thanks to improving drought impacts. Soil moisture data from the Oklahoma Mesonet show saturated soils down to 24 inches across the eastern half of the state, with similar conditions in the topsoils across all of Oklahoma.

42.5"
SNOWFALL
reported at Arnett in February

3.03"
PRECIPITATION
statewide average for February

13th
WETTEST
February since records began in 1895

40.7°F
average statewide temperature
for February

CALENDAR

MARCH

- ▶ 4th: Field Trip, Rosary School, OKC
- ▶ 5-6th: OK-First Assistants Class, Durant
- ▶ 7th: Evening OK-FIRE Workshop, Sulphur
- ▶ 7th: Mesonet Talk, Sunrise Rotary Club, OKC
- ▶ 8th: Adair County Agriculture Fair, Lincoln, AR
- ▶ 8th: Payne County Master Gardener and OBGA Ambassador Training, Stillwater
- ▶ 8th: Afternoon OK-FIRE Workshop, Sulphur
- ▶ 10-12th: National Tornado Summit, OKC
- ▶ 11-14th: OK-First Certification Class, Norman
- ▶ 15th: Full-day OK-FIRE workshop, Norman
- ▶ 15th: OK Peanut Expo, Quartz Mt. Lodge
- ▶ 18-19th: OK-First Assistants Class, Norman
- ▶ 19th: Water Day at the Capitol, OKC
- ▶ 26th: OK-First Re-certification Class, Bartlesville
- ▶ 28th: OK-First Re-certification Class, Ponca City

CONTACTS

Accessing recent (within the past 7 days) Mesonet data
Contact: [Mesonet Operator](#)

Instrumentation, telecommunications, or other technical specifications
Contact: [Chris Fiebrich](#)

Not sure?
Contact: 405-325-2541 or [Chris Fiebrich](#).

Thank you for 20 years of partnership!

- ▶ Centrahoma - Installed March 3, 1993
- ▶ Stuart - Installed March 3, 1993
- ▶ Clayton - Installed March 4, 1993
- ▶ McAlester - Installed March 4, 1993
- ▶ Erick - Installed March 10, 1993
- ▶ Hollis - Installed March 10, 1993
- ▶ Altus - Installed March 11, 1993
- ▶ Mangum - Installed March 11, 1993
- ▶ Tipton - Installed March 11, 1993
- ▶ Jay - Installed March 16, 1993
- ▶ Nowata - Installed March 16, 1993
- ▶ Tahlequah - Installed March 17, 1993
- ▶ Westville - Installed March 17, 1993
- ▶ Okemah - Installed March 23, 1993
- ▶ Okmulgee - Installed March 23, 1993
- ▶ Haskell - Installed March 24, 1993
- ▶ Bixby - Installed March 25, 1993
- ▶ Bristow - Installed March 25, 1993
- ▶ Medicine Park - Installed March 31, 1993
- ▶ Weatherford - Installed March 31, 1993

FORECAST FOR MARCH

[Click here to view the original maps from the Climate Prediction Center.](#)

DISCUSSION: Equal chances for normal, above average or below average temperatures across Oklahoma. Increased chance for below average precipitation in southwest Oklahoma.

Equal chances for normal, above average or below average temperatures across the state.

Chance for below average precipitation.