



# Serving Emergency Managers

**AS SEVEN TORNADOES** touched down Tuesday, May 24, 2011, they shattered glass, destroyed homes and took lives across central Oklahoma. The tornado that traveled from Binger to El Reno to Piedmont and Guthrie caused 10 fatalities. One additional fatality occurred from the Chickasha to Newcastle tornado. Tornadoes and severe storms affected people in 68 Oklahoma counties, leaving 238 people injured and so many more dazed over the destruction and debris. At least 600 homes and businesses were damaged from this outbreak of severe weather.

Emergency managers were hard at work to prepare for and facilitate the local community response to these vicious storms. Long before these storms arrived the Oklahoma Mesonet provided training and tools to help these men and women keep you safe. The Oklahoma Mesonet packages weather and radar information into a special emergency manager website, known as OK-First. Along with this special website, hours of training are provided to prepare emergency managers to make the best use of all the weather and radar available.

The training and OK-First website provide a single gateway to Oklahoma Mesonet weather data and National Weather Service forecasts, advisories and radar. OK-First runs 24-hours a day, every day to help these dedicated public safety officials make order out of chaos.

*“...emergency managers, police and fire officials, hit OK-First 122,585 times for data access between May 22 and May 26.”*

During severe weather, trained operators at the Oklahoma Mesonet are a phone call or email away to quickly resolve computer or data access problems. Cindy Luttrell, Mesonet Lead Operator, notes that during significant weather, the Mesonet Operations group pays special attention to the Mesonet weather stations to ensure they are reporting. “We pay special attention to conditions that may impact the observations recorded, such as wildfires, severe winds, lightning, hail, and tornadoes,” said Luttrell.

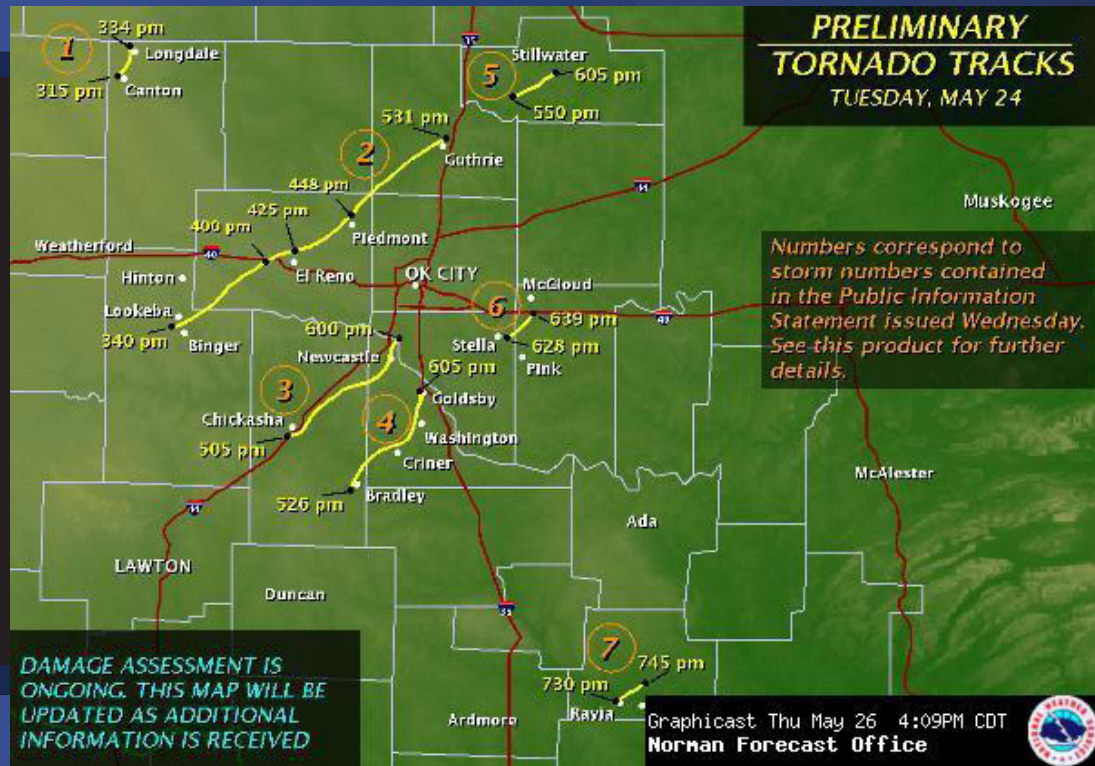
With the May 24th event, emergency managers, police and fire officials, hit OK-First 122,585 times for data access between May 22 and May 26. They represented 149 county or city offices across Oklahoma.

By serving Oklahoma’s emergency manager and public safety professionals, the Oklahoma Mesonet serves every Oklahoma citizen. Mesonet starts with training, provides access to a suite of weather tools, and makes sure data are constantly updated when severe weather moves across our state. ■

# WHERE TO FIND

## May 24th Tornadoes

- A map of preliminary tornado tracks of the May 24, 2011 tornadoes from the Norman Forecast Office of the National Weather Service.
- This map was posted at 4:09 p.m. May 26, 2011.



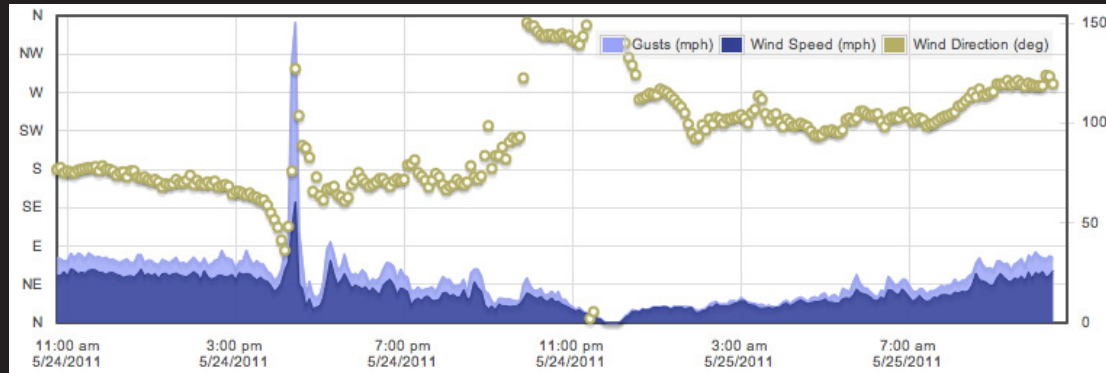
## Mesonet OK-First

- This is the home page for the Mesonet OK-First website.

# WHERE TO FIND

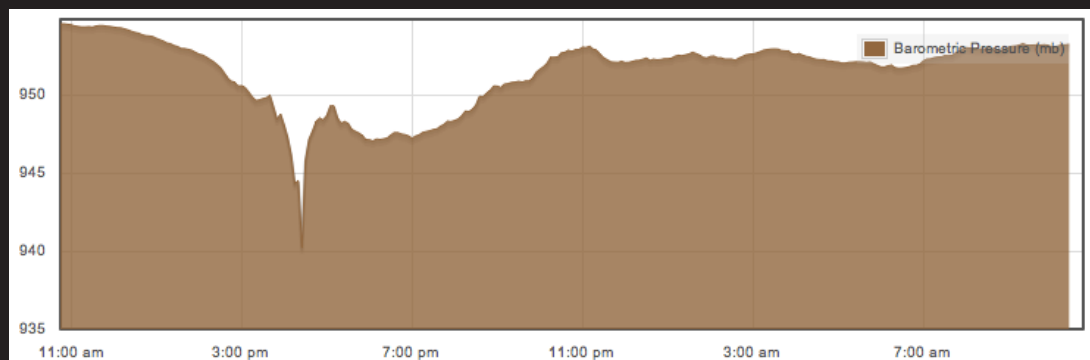
## El Reno Wind

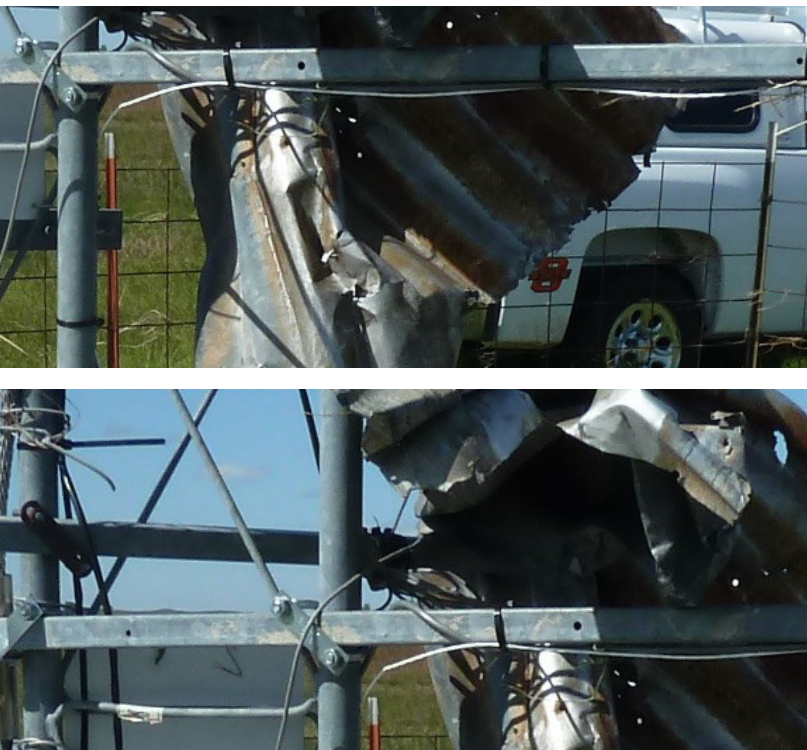
- This 24-hour wind graph shows average wind speed, maximum wind gust and wind direction for the El Reno Mesonet tower from 11:00 a.m. May 24 to 11:00 a.m. May 25, 2011.



## El Reno Pressure

- This 24-hour barometric pressure graph shows average barometric pressure in millibars for the El Reno Mesonet tower from 11:00 a.m. May 24 to 11:00 a.m. May 25, 2011.





# EL RENO TORNADO ENCOUNTER

**THE OKLAHOMA MESONET SITE** located northwest of El Reno had a very close encounter with one of the violent and deadly tornadoes that struck the state on May 24, 2011. During that encounter, just minutes after the tornado killed five on and north of Interstate 40, the El Reno Mesonet site recorded a maximum wind gust of 151 mph and a one-minute average wind speed of 115 mph. In addition to the wind measurements, the site also recorded a large and sudden drop in pressure consistent with atmospheric conditions surrounding a tornado. The 151 mph wind gust tops the previous Mesonet record gust of 113 mph, recorded at the Lahoma site on August 17, 1994.

Oklahoma Mesonet technician, Phil Browder visited the site the next morning, May 25, to inspect for damage. "It looks like the damage path was approximately one-quarter to one-half of a mile wide and the tornado passed directly between the Mesonet site to the south and Fort Reno to the north," Browder said. Browder confirmed that the Mesonet site was within the outer edge of the damage path and noted that the site itself sustained some minor damage, but most instruments were still operational.

One-minute wind and pressure measurements indicated that the tornado passed the El Reno Mesonet tower around 4:21 p.m. The winds peaked at their highest level, 151 mph, and the pressure dropped to its lowest level, 929.1 millibars, at this time.

The five-minute El Reno wind graph for May 24-25, on page 3 shows how quickly the wind speed rocketed up and then dropped back to speeds below 20 mph. The small gold circles on this graph indicate wind direction, read from the left graph scale. The graph shows rapid changes in direction as the wind speeds increased dramatically.

The El Reno pressure graph on page 3 illustrates how rapidly the pressure dropped and rebounded.

With so much destruction from the El Reno tornado, it was fortunate that the tornado was just far enough away from the Mesonet tower so damage was slight, yet close enough that some of this tornado's intensity was recorded. ■



# Tornadoes Top Weather Story During May

By Gary McManus, Associate State Climatologist

## MAY WRAP-UP

Even though severe weather only struck on a few days during May, those instances gave the month more than its money's worth. The most violent weather occurred on May 24 when several long-track violent tornadoes tore their way through Oklahoma from west to east. While the exact details of the twisters are still being discovered, their 10 confirmed fatalities are unfortunately all too certain. Those casualties make the month the deadliest due to tornadoes in Oklahoma since May 1999. Preliminary reports from the National Weather Service indicate at least 27 tornadoes touched down during May along with dozens of reports of golf ball- to softball-size hail. A National Weather Service research team from Topeka measured a 6-inch diameter hailstone near Gotebo on May 23, one of the largest stones ever reported in Oklahoma.

The other big weather story during May was the continuing drought in far western Oklahoma versus the excessively wet weather in the east. Much of the northwestern one-quarter of the state saw less than a half-inch of rain while the eastern one-third received 6-10 inches. Oklahoma City experienced its 13th wettest May since 1890 with 9.21 inches, a surplus of 3.77 inches. The extremes evened out for a statewide average of 4.37 inches, the 51st driest May since records began in 1895 at less than an inch below normal. The statewide average temperature was near normal at 67.8 degrees, the 55th coolest May on record.

The contrast in moisture from west to east is exemplified by comparing the weather fortunes of the northwest and southeast corners of the state. The Panhandle received an average of 0.33 inches during May, more than 3 inches below normal with a rank of fourth driest on record. Meanwhile, the southeast enjoyed a surplus of more than an inch at 7.71 inches, the 29th wettest May in that area. The Mesonet site at Vinita led the state's rainfall totals with 12.52 inches. Boise City and Buffalo ended up at the other end of the gauge with totals of 0.19 inches. Grandfield was the warmest site in the state with an average temperature of 73.7 degrees and Boise City came in an unsurprising last with 60.6 degrees. The highest temperature of the month was 108 degrees at Altus on the 27th. The lowest temperature of 26 degrees was recorded at Boise City on the second.

**27**  
**TORNADOES**  
touched down in May

**10**  
**FATALITIES**  
from May tornadoes

**12.52"**  
**HIGHEST**  
May rainfall  
recorded at Vinita

**0.19"**  
**LOWEST**  
May rainfall recorded  
at Boise City and Buffalo

## CALENDAR

### JUNE

- ▶ 2nd: Speaker Service for Trinity Lutheran Senior Group, Norman, OK
- ▶ 3rd: Master Gardener's State Conference, Enid, OK
- ▶ 5th-10th: Mesonet Summer Camp, Norman, OK
- ▶ 28th: Speaker Service, Moore Library, Moore, OK
- ▶ 28-29th: Advisory Committee Meeting for the Southern Climate Impacts Planning Program, Austin, TX

### JULY

- ▶ 5th: Speaker Service at Purcell Library, Shawnee Library
- ▶ 6th: Speaker Service at Blanchard Library, Newcastle Library
- ▶ 7th: Speaker Service at McLoud Library, Tecumseh Library
- ▶ 9th: Speaker Service at Norman Library
- ▶ 13th: Speaker Service at Noble Library
- ▶ 14th: Speaker Service at Earlywine YMCA Library
- ▶ 19-22th: EarthStorm Teacher Workshop, Norman, OK
- ▶ 22-23th: Oklahoma No-till 2011 Conference, Norman, OK
- ▶ 28-30th: Oklahoma Cattlemen's Convention, Midwest City, OK

### AUGUST

- ▶ 22th: First day of University of Oklahoma and Oklahoma State University classes

## CONTACTS

Accessing recent (within the past 7 days)  
Mesonet data

Contact: [Mesonet Operator](#)

Instrumentation, telecommunications, or  
other technical specifications

Contact: [Chris Fiebrich](#)

Mesonet agricultural data and products

Contact: [Al Sutherland](#)

Mesonet meteorological data

Contact: [OCS Data Requests](#)

K-12 educational outreach

Contact: [Andrea Melvin](#)

OK-First

Contact: [OK-First Staff](#)

OK-FIRE

Contact: [J.D. Carlson](#)

Not sure?

Contact: 405-325-2541 or [Chris Fiebrich](#).

## FORECAST FOR JUNE

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

