



# *Students Play Important Role on the Mesonet Team*

–by Stephanie Bowen



*Michael Haueter, a junior meteorology student, has been a Mesonet Operator for two and a half years. The student operators work long hours, including during storms, weekends and holidays. They are vital to the operations of the Oklahoma Mesonet.*

**Weather is occurring 24/7**, and that means someone is working long hours at the Oklahoma Mesonet. Undergraduate students from the University of Oklahoma's Meteorology School are hired by the Mesonet to work in the Mesonet Operations Center on the third floor of the National Weather Center.

“The Mesonet Operations group is responsible for monitoring communications with Mesonet stations,” said Cindy Luttrell, Lead Operator at the Oklahoma Mesonet. “Undergraduate students are hired as Mesonet Operators and assist with many monitoring tasks. This is not a study-at-work job! Mesonet Operators troubleshoot communication problems with Mesonet sites, ensure all collectable data are retrieved from the sites, provide remote assistance to Mesonet field technicians, assist Mesonet data users with technical

problems, and verify that all Mesonet web sites and software work properly.”

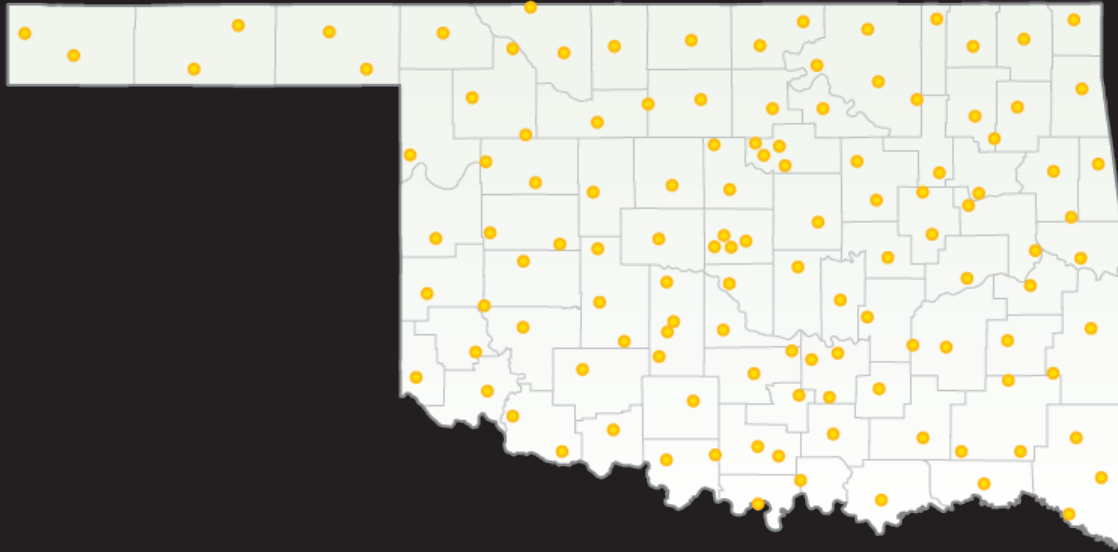
Since collecting weather data is a 24/7 job, Mesonet Operators work through finals and holiday breaks. From 8 am to 7 pm on weekdays, they are on duty, and they work holidays and weekends from 9 am to 12 pm.

“This means our student operators stay in Norman over school breaks rather than heading home like their fellow classmates,” Luttrell said. “Although rare, problems sometimes occur after hours and the Mesonet Operator will come in to help resolve the issue. During significant weather events, Operators stay after hours to ensure data are available for emergency managers, NWS forecasters, and the public.” ■

# MESONET IN PICTURES

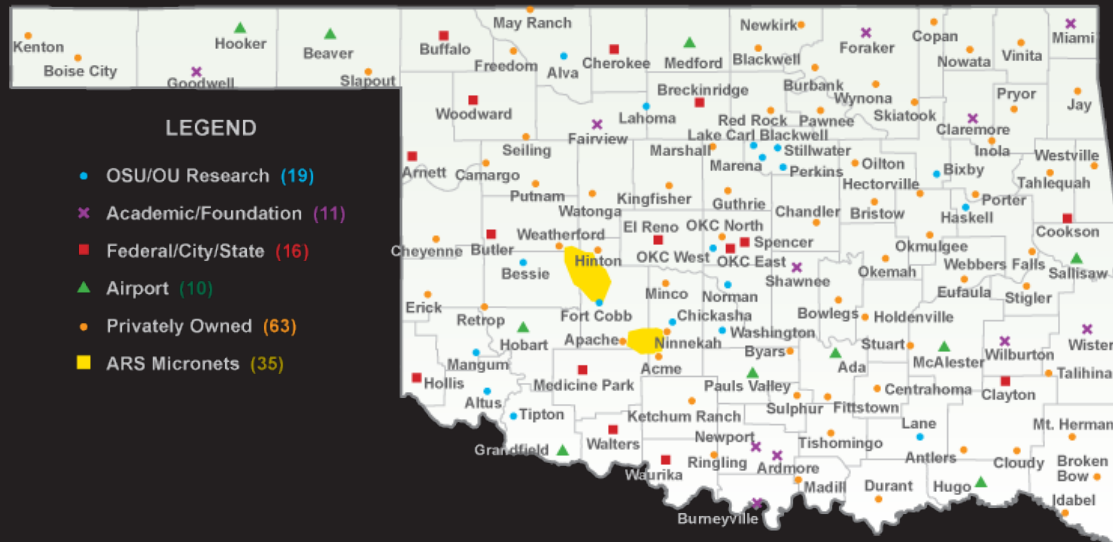
## Station Sites Map

- The Oklahoma Mesonet's Station Sites Map displays the 120 Mesonet stations using a yellow dot to represent each site. There is at least one Mesonet station in every county in Oklahoma. You can view this map by going to [www.mesonet.org](http://www.mesonet.org) and clicking the site name in the small blue bar on the upper left side of the page. This map is used for Mesonet site selection.



## Station Names Map

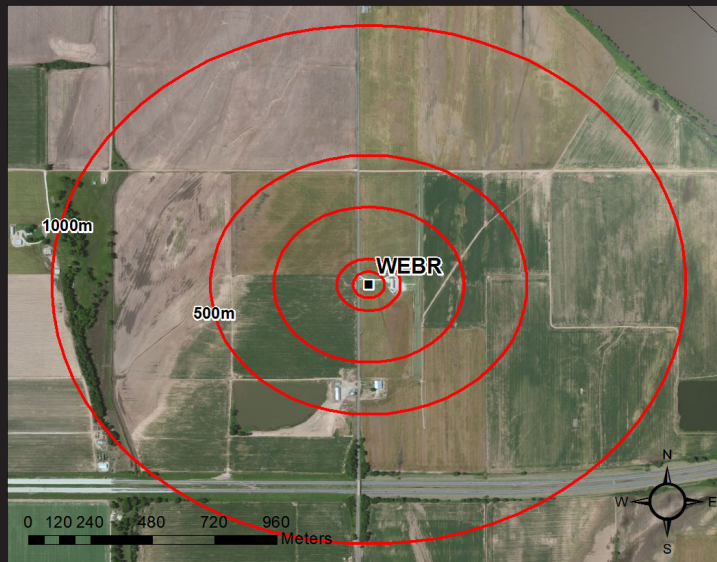
- Oklahoma Mesonet's Station Names Map gives more detail for each Mesonet site, including the site name and land ownership. To view this map, visit [www.mesonet.org](http://www.mesonet.org), click on "About" in the top right corner, then select "Station Names Map" in the left menu.



# MESONET IN PICTURES

## Station Information

- A more detailed description of each Mesonet site is provided on the Mesonet website. Go to the "Station Names Map", then click on the site to get more information. Information provided includes where the location is, weather variables being measured, a panorama of the site, a topographic map, and aerial photos at the site.



**Webbers Falls**  
**Oklahoma**  
**Mesonet Station**

### Legend

- Mesonet Station
- Range Rings
- Oklahoma Counties

*Imagery Courtesy of Bing Maps and ESRI, 2012.*

## Quality Assurance

- The Oklahoma Mesonet's quality-assurance (QA) consists of four principal components: 1) laboratory calibration, 2) on-site intercomparison, 3) automated QA, and 4) manual QA. To view monthly QA reports, go to [www.mesonet.org](http://www.mesonet.org), scroll to the bottom of the page, and click "Quality Assurance" in the bottom black bar under Site Links.

### OKLAHOMA MESONET / ARS QUALITY ASSURANCE REPORT

September 2012

Prepared by **Alexandria McCombs**  
[gamgr@mesonet.org](mailto:gamgr@mesonet.org)

- Mesonet technicians performed scheduled rotations of 8 temperature and relative humidity sensors (RELH), 3 barometers (PRES), 3 aspirator fans (FANS), 8 fasttherms (TAIR), 2 rain gauges (RAIN), 9 pyranometers (SRAD), 2 soil temperature sensors, 2 wind monitor nose cones (WSPD) and 14 windsentries (WS2M).
- Multiplexer at Stillwater (STIL) site is causing errant spikes in soil temperature data from 8 September 2012 to 11 September 2012, appropriate data flagged as erroneous.
- Multiplexer at Burneyville (BURN) site is causing errant spikes in soil temperature data beginning 13 September 2012, appropriate data flagged as erroneous.

#### Mesonet QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
<b>TAIR</b>				
<b>RELH</b>	Current	BUTL	23905	Sensor has a low bias during high humidity
	Current	TALI	23908	Sensor has a low bias during high humidity
	Current	ERIC	23530	Sensor has a low bias during high humidity

# The Mesonet Prepares Students for the Future

—by Stephanie Bowen

**Working as a Mesonet Operator**, students gain hands-on experience working in the real world. Not only do they play an important role in the Mesonet, but the Mesonet plays a vital role in preparing them for their futures.

“Mesonet Operators gain real life experience by working in an operational environment,” said Cindy Luttrell, Lead Operator at the Oklahoma Mesonet. “Unlike class, where they may have days to find the answers to theoretical problems presented to them, at work they learn to quickly resolve real world problems as they are thrown at them.”

Just ask Christy Wall, a Mesonet Operator from 2004 to 2006 and a current Ph.D. candidate at the University of Utah.

“Working as a Mesonet Operator, I learned how to monitor the stations, troubleshoot problems, and communicate with other professionals on the phone and through email,” Wall

said. “Lately, I have participated in a number of field programs, and those skills have been invaluable. Communicating is a very important skill, especially for a research scientist. Results aren’t any good if you can’t explain them. Working

as an operator really helped me develop those skills.”

Working with data users on the phone and through email, as well as working with

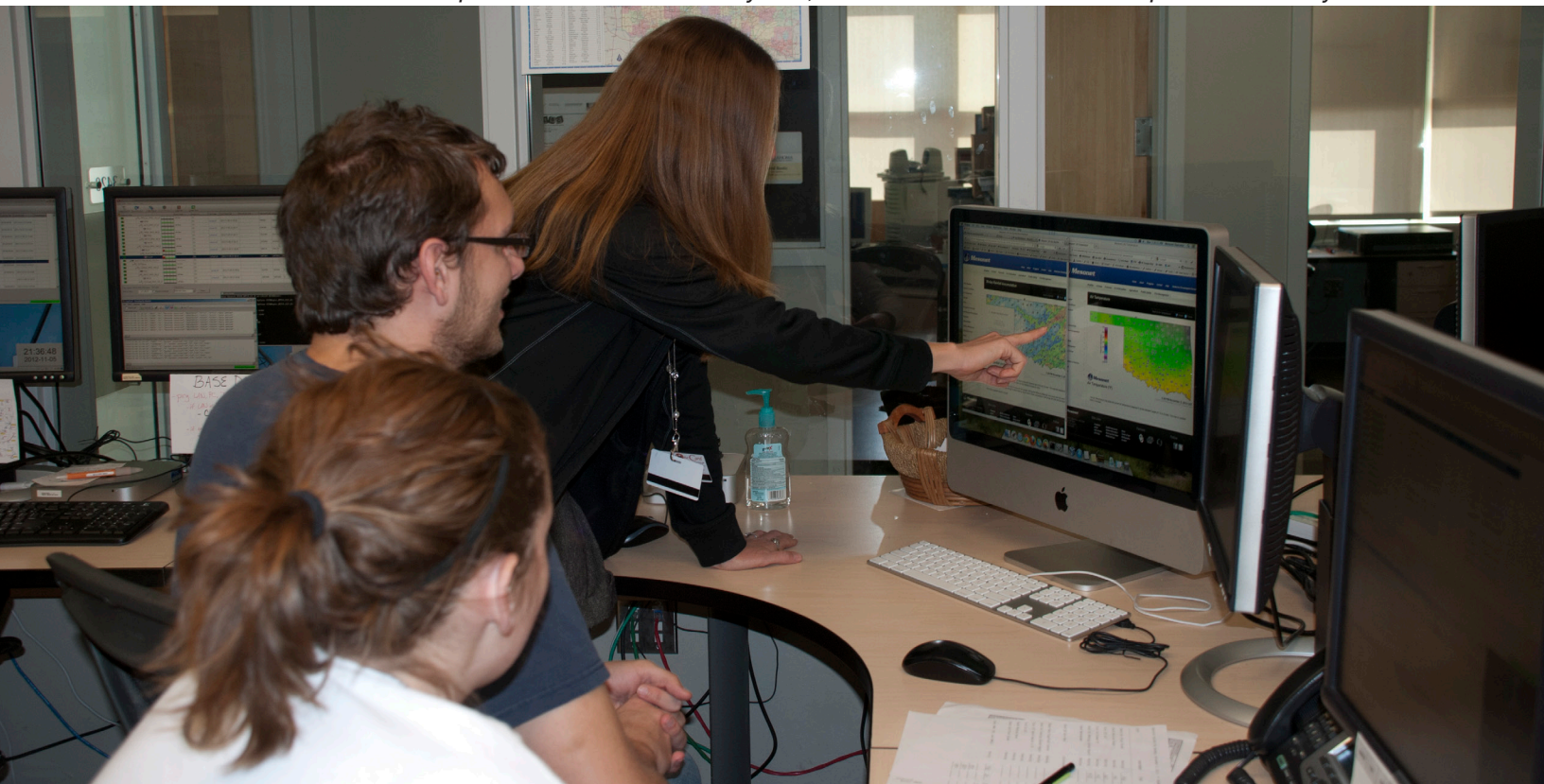
Mesonet field technicians, Mesonet operators develop communication skills essential for their future careers.

“They get to see first-hand how observations are collected and used, gaining a deeper understanding of weather data,” Luttrell said. “Upon graduation, Mesonet Operators are well equipped for many meteorological or technical careers such as meteorological software development, operational forecasting, meteorological research, information technology, or data analysis.” ■

**“Working as a Mesonet Operator, I learned how to monitor the stations, troubleshoot problems, and communicate with other professionals on the phone and through email.”**

**Christy Wall, Mesonet Operator 2004-2006**

*Cindy Luttrell, Lead Operator at the Oklahoma Mesonet, instructs Michael Haueter and Megan McClellan, junior meteorology students. Haueter has been an operator for two and a half years, and McClellan has been an operator for one year.*





# October Ends Warm Streak, Not Drought

By Gary McManus, Associate State Climatologist

## OCTOBER WRAP-UP

It's been awhile since Oklahoma has seen a month like October. Eleven months, to be exact. Not since September 2011 had Oklahoma seen a month where the statewide average temperature finished on the cold side of normal. In fact, 25 of the 30 months prior to October were warmer than normal, starting with April 2010. According to data from the Oklahoma Mesonet, October became the 26th coolest on record with a statewide average of 59.7 degrees, 1.6 degrees below normal. Statewide records date back to 1895. Oklahoma seemed to be racing towards its warmest calendar year on record, a mark currently held by 1954 at 62.8 degrees. The cool October dealt that effort a major blow, however, bringing the two years into a virtual dead heat with two months remaining. The January-October statewide average temperature came in at 66.2 degrees, a mere tenth of a degree ahead of 1954. These values remain unofficial until the National Climatic Data Center releases its final numbers in a few months as data continue to trickle in.

The cool month was due in large part to a couple of intrusions of frosty air. A strong arctic cold front plowed through the state during the month's first week, bringing one of the earliest fall freezes on record at some locations. The thermometer hit 31 degrees at Will Rogers World Airport on Oct. 8, the earliest freeze ever for the official Oklahoma City observing station. Another cold plunge of air from the Arctic provided a widespread freeze during October's final week, an early occurrence for southern parts of the state.

Although the heat may have faded during October, the dry weather did not. The Mesonet's statewide average rainfall total of 1.1 inches fell more than 2 inches below normal and ranked the month as the 15th driest October on record. Eighteen of the Mesonet's 120 stations recorded less than a tenth of an inch of rain for the month and 66 measured less than an inch. The Cheyenne and Retrop stations recorded no precipitation during October. By October 31, it had been up to 34 days since parts of northern and western Oklahoma had seen a tenth of an inch of rainfall in a single day, and as many as 48 days without at least a quarter of an inch. On the bright side, twelve stations recorded at least 3 inches of rain during the month with Oilton leading the way at 4.7 inches.

Although parts of the state have been in continual drought for more than two years, most of the state's current drought woes can be traced back to deficits beginning in May 2012. The May-October statewide average of 12.72 inches fell more than 9 inches below normal and ranked as the fourth driest such period on record. For the important wheat producing area of north central Oklahoma, the statistics are even more dismal with deficits of more than 13 inches. The May-October rainfall total of 8.1 inches in that part of the state is the second lowest on record for that span.

The latest U.S. Drought Monitor report, released on Nov. 1, showed that extreme-to-exceptional drought still covered more than two-thirds of the state. Virtually all of Oklahoma was covered by severe-to-exceptional drought.

# 59.7°F

average statewide temperature  
for October

# 1.1"

## RAINFALL

statewide average for October

# 15th

driest October on record

# 4.7"

## RAINFALL

recorded at the Oilton Mesonet site  
in October

## CALENDAR

### NOVEMBER

- ▶ 3rd: National Weather Festival, NWC, Norman
- ▶ 8th: Ok-First Advisory Committee Meeting, NWC
- ▶ 9th-10th: Oklahoma Farm Bureau State Convention, OKC
- ▶ 10th: OK Science Teachers Association Conference, UCO
- ▶ 13th/14th: OK-FIRE evening/full-day workshops, Bartlesville
- ▶ 14th: Field Trip for Altus Area Homeschool Group
- ▶ 15th/16th: OK-FIRE evening/full-day workshops, Afton
- ▶ 27th/28th: OK-FIRE evening/full-day workshops, Poteau
- ▶ 29th: Field Trip for Byng High School
- ▶ 29th/30th: OK-FIRE evening/full-day workshops, Idabel

### DECEMBER

- ▶ 11th/12th: OK-FIRE evening/full-day workshops, Ardmore
- ▶ 14th: OK-FIRE full-day workshop, Antlers
- ▶ 17th/18th: OK-FIRE evening/full-day workshops, Stillwater

### *Thank you for 20 years of partnership!*

- ▶ Fairview - Installed November 5, 1992
- ▶ Lahoma - Installed November 5, 1992
- ▶ Woodward - Installed November 10, 1992
- ▶ Camargo - Installed November 17, 1992
- ▶ Seiling - Installed November 17, 2012
- ▶ Buffalo - Installed November 19, 1992
- ▶ Freedom - Installed November 19, 1992

## 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 public safety outreach

Contact: [James Hocker](#)

OK-FIRE fire decision support outreach

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

Not sure?

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

## FORECAST FOR November

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

