

# Fact Sheet

http://www.mesonet.org Revised: May 2007

## Oklahoma Climatological Survey The Oklahoma Mesonet



The Oklahoma Mesonet is a world-class network of environmental monitoring stations. Mesonet data have the capacity to help save lives, save Oklahoma taxpayers and businesses millions of dollars annually, increase energy efficiency, educate the next generation of citizens, and make an incalculable contribution to research projects every year. The Oklahoma Mesonet is a joint partnership between The University of Oklahoma and Oklahoma State University.

### Capabilities

The Oklahoma Mesonet consists of more than 110 automated measurement stations covering all 77 counties of Oklahoma. Each Mesonet station measures the following variables every 5 minutes:

• Air temperature

- · Relative humidity
- Wind speed and direction

- Atmospheric pressure

• Rainfall

- · Solar radiation
- The Mesonet measures the following variables every 15 or 30 minutes:
  - Soil temperature at 5, 10, and 30 cm
  - Soil moisture at 5, 25, 60, and 75 cm

The Mesonet station operates on solar energy and radios data every 15 minutes to local law enforcement offices. Data are sent immediately to the Oklahoma Climatological Survey, where they are quality assured and packaged into products for thousands of customers.

#### **Applications**

Benefits of using data from the Oklahoma Mesonet are diverse. Some of the most common uses for the data are listed here:

- Weather forecasting, including better prediction of excessive rainfall events, the initiation of severe storms, and surface icing.
- Drought management, including enhanced diagnosis of severe drought and improved allocation of resources to the most critical areas.
- Agricultural management, including improved insect and disease advisories, spraying recommendations, irrigation scheduling, frost protection, planting and harvesting recommendations, and prescribed burn advisories.
- Education, including providing unique learning opportunities for Oklahoma's K-12 schools, colleges, and universities through the use of real-time environmental data in classroom activities.
- Climate research, including analysis of historical variability and extremes, and as background for meteorological field campaigns.
- Energy, including improved forecasting of electric load, response to transmission line outages, and production of renewable energy (e.g., wind, solar, and geothermal).

#### Data Access

To obtain real-time data from the Oklahoma Mesonet, visit the Mesonet home page at <u>http://www.mesonet.org</u> or its public data page at <u>http://www.mesonet.org/public.</u> Questions about the data should be addressed to a Mesonet Operator (<u>operator@mesonet.</u> <u>org</u>; 405-325-3231) between 8 AM and 5 PM, Monday through Friday, excluding holidays.





#### For more information, contact:

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