What are climatologists trying to learn?

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The Missouri Mesonet is made up of 34 weather observation sites around the state. Pat Guinan, along with his colleague and mentor the late Dr. Wayne Decker, established the network in the early 1990s. John Travlos, with the Agricultural Electronic Bulletin Board (AgEBB), and his staff co-manage the network. This database provides information and evidence about Missouri weather that can help define trends and assist in management decisions related to planting, harvesting and irrigation; water and energy consumption and supply; and even public safety and emergency preparedness needs for storms and floods.

During the eclipse, several stations in the path of totality — including those in Buchanan, Carroll, Boone and Callaway counties — will record data every three seconds. This will help capture even small changes that occur as the moon’s shadow passes over Missouri.

These observations also will be compared with data from stations north and south of the eclipse.

Missouri Mesonet
See a map of real-time conditions here: http://mesonet.missouri.edu

Click on listing of environmental variables for details about your area’s weather updated every five minutes.

The main real-time conditions observed are:
- Air temperature
- Rainfall
- Relative humidity
- Dew point temperature
- Soil temperature at 2-inch and 4-inch depths
- Solar radiation

Real-time conditions for wind speed and direction will be added to the list soon.
Aug. 21: Clear or cloudy?

Climatology is on our side. Here’s what the last 19 years of Aug. 21 Missouri satellite images taken just after 1 p.m. by NOAA (the National Oceanic and Atmospheric Administration) and compiled by the Missouri Climate Center show:

• Clear — 10 times
• Partly cloudy — 5 times
• Cloudy — 4 times

Though the observations are subjective in defining clear, partly cloudy and cloudy conditions for Missouri, they provide a good perspective of the general conditions over the years. Using climatology, the numbers slightly tilt in our favor that we’re going to see the eclipse without interference from clouds. Of course, we all know how Missouri weather can be. Monitor forecasts very closely starting about a week before the eclipse for a more accurate forecast. The National Weather Service eclipse website will provide current information:

St. Louis, Missouri: https://www.weather.gov/source/crh/eclipse.html?sid=lsx