

OKLAHOMA MESONET/ARS QUALITY ASSURANCE REPORT

June 2008

Prepared by [Cindy Morgan](#) & [Alex Gartside](#)
gamgr@mesonet.org

- Mesonet technicians performed scheduled rotations of 2 pyranometers, 5 rain gauges, 9 wind vanes, 1 wind monitor nose cone, and 1 wind sentry.
- Power upgrades were completed at 23 sites.
- A lightning strike at the Pryor Mesonet site caused all data to be lost from 6 – 11 June 2008. Lightning damaged the 5 and 25 cm soil moisture sensors, pyranometer, bare soil temperature sensors, multiplexer, radio, and datalogger.
- A lightning strike at the Hobart Mesonet site caused all data to be lost from 9 – 11 June 2008. The lightning strike damaged all soil moisture sensors, the barometer, 10 cm bare soil temperature sensor, datalogger, and radio.
- A datalogger problem at the Kenton Mesonet site caused errant 1.5 and 9 m air temperature data from 27 April 2008 – 17 June 2008.
- A multiplexer problem at the Fort Cobb Mesonet site caused errant soil temperature and soil moisture data from 3 – 20 June 2008.
- A wind direction problem at INOL caused errant data from 21 April – 12 June 2008.
- Spring pass was completed in June.

Mesonet QA Report for Standard Variables

Variable	Status	Ticket	Site	Remarks
TAIR	Current	16625	FAIR	Sensor has a high bias.
	Current	16751	INOL	Sensor has a low bias.
	Resolved	16560	CLAY	Replaced sensor with high bias.
RELH	Current	16749	WAUR	Sensor reports out-of-range values.
	Resolved	16623	GUTH	Replaced sensor with loose connection.
	Resolved	16412	CHEY	Replaced sensor that failed.
WSPD	NA			
WDIR	NA			
PRES	Current	16745	HASK	Reports same value for long periods of time.

SRAD	Current	16680	MTHE	Sensor has a low bias.
	Resolved	16618	PRYO	Replaced sensor damaged by lightning strike.
	Resolved	16578	HECT	Replaced sensor that failed.
	Resolved	16466	SLAP	Replaced sensor with low bias.
RAIN	Current	16760	GUTH	Missed rain event.
TA9M	Resolved	16465	PERK	Replaced sensor with low bias.
WS2M	NA			
TS10	Current	16656	MINC	Sensor reports errant spikes in data.
	Resolved	16653	HOLL	Sensor damaged by rodent.
TB10	Resolved	16626	BIXB	Replaced sensor that failed.
TS05	NA			
TB05	NA			
TS30	Current	16750	ALTU	Sensor reports errant spikes in data.
TR05	NA			
TR25	Resolved	16167	FREE	Replaced sensor that failed.
TR60	Current	16752	FREE	Sensor no longer heats.
TR75	NA			

ARS Little Washita Watershed QA Report

Variable	Status	Ticket	Site	Remarks
TAIR	NA			
RELH	NA			
SRAD	Resolved	16657	A144	Replaced sensor damaged by rodents.
RAIN	NA			
TS05	NA			
TS10	Current	16744	A134	Sensor has a low bias.
TS15	Resolved	16467	A159	Replaced sensor with low bias.
TS30	NA			
VW05	NA			
VW25	NA			
VW45	Resolved	16401	A135	Replaced sensor that failed.
	Resolved	16469	A132	Tightened loose wires.

ARS Ft. Cobb Watershed QA Report

Variable	Status	Ticket	Site	Remarks
TAIR	Resolved	16561	F101	Replaced sensor that failed.
RELH	NA			
SRAD	NA			

RAIN	NA
TS05	NA
TS10	NA
TS15	NA
TS30	NA
VW05	NA
VW25	NA
VW45	NA

“Current” tickets are the unresolved tickets as of the last day of the month OR those tickets added based on the Monthly QA analysis.

“Resolved” tickets are the sensor problems that were fixed during the entire month.

Variable	Description
TAIR	Air temperature measured at 1.5 meters
RELH	Relative humidity measured at 1.5 meters
WDIR	Wind direction measured at 10 meters
WSPD	Wind speed measured at 10 meters
PRES	Pressure
SRAD	Incident solar radiation
RAIN	Rainfall
TA9M	Air temperature measured at 9 meters
WS2M	Wind speed measured at 2 meters
TS10	Soil temperature measured at 10 cm under native sod
TB10	Soil temperature measured at 10 cm under bare soil
TS05	Soil temperature measured at 5 cm under native sod
TB05	Soil temperature measured at 5 cm under bare soil
TS15	Soil temperature measured at 15 cm under native sod
TS30	Soil temperature measured at 30 cm under native sod
TR05	Soil moisture: Calibrated DeltaT measured at 5 cm under native sod
TR25	Soil moisture: Calibrated DeltaT measured at 25 cm under native sod
TR60	Soil moisture: Calibrated DeltaT measured at 60 cm under native sod
TR75	Soil moisture: Calibrated DeltaT measured at 75 cm under native sod
VW05	Soil moisture: Volumetric water content measured at 5 cm under native sod
VW25	Soil moisture: Volumetric water content measured at 25 cm under native sod
VW45	Soil moisture: Volumetric water content measured at 45 cm under native sod