

OKLAHOMA MESONET / ARS QUALITY ASSURANCE REPORT

May 2017

Prepared by Cindy Luttrell and Amanda Ilk
qamgr@mesonet.org

- Mesonet technicians completed scheduled rotations of 11 batteries (BATV), 7 dataloggers (LOGG), 5 barometers (PRES), 7 humidity sensors (RELH), 6 pyranometers (SRAD), 3 thermometers (TAIR), 5 rain gauges (RAIN), 3 wind sentries (WS2M), 12 wind directions (WDIR), and 7 wind monitor noses (WSPD).
- A lightning strike at the Miami Mesonet Site (MIAM) caused the site to lose data.

Mesonet QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
TAIR				
RELH	Resolved	WEST	31698	Sensor reports 10-50% higher than expected. Replaced.
WSPD	Resolved	WAL2	31744	Sensor reports less than 2m. Replaced propeller.
WDIR	Resolved	WASH	31506	Sensor had a 1.5-degree bias.
PRES				
SRAD				
RAIN	Resolved	EVAX	31759	Primary gauge under reported during rain event.
	Resolved	LANE	31501	Primary gauge miss tips at beginning of light rain events.
	Resolved	LANE	31749	Primary gauge misses tips during rain event. Replaced.

	Resolved	ALV2	31687	Secondary gauge misses tips at beginning of rain events. Replaced.
	Current	FTCB	31854	Primary gauge misses tips at beginning of rain event.
TA9M				
WS2M	Current	HOOK	31802	2m reports 0 when 10m reports 4 m/s.
TB10	Resolved	BEAV	31707	Old sensor has a large diurnal variation. Replaced.
	Current	PAWN	31716	Sensor has little diurnal variation.
TS05	Resolved	ACME	31572	Sensor has little diurnal variation. Reburied.
	Resolved	GRA2	31709	Sensor has little diurnal variation. Reburied.
	Resolved	PORT	31577	Sensor has similar variation to TS10. Reburied
	Current	TULN	31702	Sensor has similar variation to TS10.
TS10				
TS25				
TS60				
TR05	Resolved	NEWP	31611	Sensor responds slow to moisture. Replaced.
	Current	NINN	31138	Final temperature increased from 15C to 28C.
TRB10	Resolved	MAYR	31583	Final temperature is over 100C or -7999. Replaced.
	Current	HECT	31796	Errant spikes in data.

TRS10	Resolved	ACME	31544	Sensor does not heat. Replaced.
	Resolved	STIG	31636	Saturated values are drifting. Replaced.
TR25	Resolved	STUA	31493	Sensor reports -7999. Replaced.
	Current	FAIR	31734	Saturate values exceeds allowed maximum.
TR60				

ARS Little Washita Watershed QA Report

Variable	Status	Site	Ticket	Remarks
RAIN				
VW05	Resolved	A124	31604	Sensor reports values lower than expected. Replaced.
VW25				
VW45	Resolved	A148	31723	Sensor is having small, short spikes. Replaced.
V05T				
V25T				
V45T				

ARS Fort Cobb Watershed QA Report

Variable	Status	Site	Ticket	Remarks
RAIN	Current	F110	31761	Rain gauge reports less than neighbors.
VW05				
VW25				
VW45				
V05T				
V25T				
V45T				

“Current” tickets are unresolved tickets as of the last day of the month OR tickets added after Monthly QA analysis.
 “Resolved” tickets are the sensor problems 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
TB10	Soil temperature measured at 10 cm under bare sod
TS05	Soil temperature measured at 5 cm under native soil
TS10	Soil temperature measured at 10 cm under native sod
TS25	Soil temperature measured at 25 cm under native soil
TS60	Soil temperature measured at 60 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
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
V05T	Soil Temperature measured at 5cm under native sod

V25T	Soil Temperature measured at 25cm under native sod
V45T	Soil Temperature measured at 45cm under native sod