

# OKLAHOMA MESONET / ARS QUALITY ASSURANCE REPORT

June 2017

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

- Mesonet technicians completed scheduled rotations of 1 battery (BATV), 16 dataloggers (LOGG), 1 barometer (PRES), 16 humidity sensors (RELH), 1 pyranometer (SRAD), 15 thermometers (TAIR), and 1 rain gauge (RAIN).
- Logger problem at the Fittstown Mesonet Site (FITT) caused the wind data to frequently report the wind speed as NAN at 10m and 2m along with 0 for wind direction. Data were flagged.
- A lightning strike at the Idabel Mesonet Site (IDAB) caused the site to lose data.

## Mesonet QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
TAIR				
RELH				
WSPD				
WDIR	Resolved	GRA2	31964	Sensor reports 0 or 360 degrees when wind speed is greater than 2m/s.
PRES				
SRAD				
RAIN	Resolved	COOK	32661	Primary gauge measured only a couple of tips during heavy rain event.
	Resolved	COOK	32680	Secondary gauge did not report precipitation as storms moved over site.

	Current	WAUR	32659	Primary gauge reports 0 during rain events.
	Current	ACME	32655	Secondary gauge missed rain event.
	Current	HASK	32670	Secondary gauge has a 8% low bias.
TA9M				
WS2M	Resolved	HOOK	31802	2m reports 0 when 10m reports 4 m/s. Replaced.
TB10	Current	PAWN	31716	Sensor has little diurnal variation.
TS05	Current	OKEM	32666	Sensor reports between -7999 and 500.
	Current	PERK	32734	Sensor reports around 400C.
	Current	TULN	31702	Sensor has similar variation to TS10.
TS10				
TS25				
TS60				
TR05	Current	BURB	31888	Sensor reports -7999.
	Current	CARL	32019	Sensor has a slow response to moisture.
	Current	NINN	31138	Final temperature increased from 15C to 28C.
	Current	WIST	32693	Sensor has small errant spikes.
TRB10	Current	BUFF	32003	Sensor stopped heating.
	Current	HECT	31796	Errant spikes in data.

	Current	IDAB	32737	Sensor reports -7999 after lightning strike.
	Current	NEWK	31997	Sensor sometimes reports -7999.
	Current	TALI	31943	Sensor reports -7999.
TRS10	Current	IDAB	32742	Sensor does not heat after a lightning strike.
TR25	Current	FAIR	31734	Saturate values exceeds allowed maximum.
	Current	IDAB	32743	Sensor does not heat after a lightning strike.
TR60				

#### ARS Little Washita Watershed QA Report

Variable	Status	Site	Ticket	Remarks
RAIN				
VW05	Current	A262	31987	Soil temperature has a 7-8C low bias.
VW25	Resolved	A262	31933	Sensor reports a voltage close to zero. Replaced.
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