

OKLAHOMA MESONET / ARS QUALITY ASSURANCE REPORT

August 2011

Prepared by [Alex McCombs](#)
gamgr@mesonet.org

- Mesonet technicians performed scheduled rotations of 3 data loggers (LOGG), 2 relative humidity and temperature sensors (RELH), 1 barometer (PRES), 2 pyranometers (SRAD) and 1 wind sentry (WS2M).

Mesonet QA Report for Standard Variables

Variable	Status	Ticket	Site	Remarks
TAIR	Resolved	21705	LAHO	Sensor had a high bias
RELH	Current	21773	BUFF	Sensor has a low bias during high humidity
	Current	21772	MTHE	Sensor has a low bias during high humidity
WSPD				
WDIR	Resolved	21766	PERK	Wind direction reported zero for extended periods
PRES	Resolved	21768	MIAM	Erroneous spikes in pressure
SRAD	Resolved	21713	BOWL	Sensor had a low bias
	Resolved	21712	HOLL	Sensor had a low bias
RAIN	Resolved	21715	STIL	Raingauge cover blew out of site
	Resolved	21708	BEAV	Raingauge missed rainfall event
TA9M	Resolved	21657	WIST	Sensor had a high bias after rainfall
	Resolved	21707	LAHO	Sensor reported large negative numbers
WS2M	Resolved	21679	INOL	Sensor had a starting threshold problem

TS10	Resolved	21742	RING	Sensor had a low bias
	Resolved	21606	FTCB	Sensor had a low bias
	Resolved	21718	PAWN	Sensor had a bias
TB10	Resolved	21743	RING	Sensor had a low bias
	Resolved	21595	HOBA	Sensor had a low bias
	Resolved	21753	FTCB	Lightning strike damaged sensor
	Resolved	21740	HOLD	Sensor had a bias
	Resolved	21593	WEAT	Bare plot has muted diurnal cycle due to vegetation
	Resolved	21732	REDR	Sensor damaged by lightning strike
	Resolved	21594	KIN2	Bare plot was 3cm too shallow
	Resolved	21663	OILT	Sensor has a low bias
	Current	21733	ELRE	Bare plot has a large diurnal cycle
TS05	Resolved	21735	RING	Sensor had a low bias
	Resolved	21763	BLAC	Sensor had a low bias
	Resolved	21752	FTCB	Sensor damaged by lightning strike
	Resolved	21716	SEIL	Sensor had a low bias
	Current	21765	WILB	Sensor has a low bias
	Current	21620	ALV2	Sensor has a low bias
TB05	Resolved	21776	RING	Sensor had a bias
	Resolved	21667	WYNO	Sensor had a high bias after rainfall
	Resolved	21754	FTCB	Sensor damaged by lightning strike
	Resolved	21666	HOLD	Sensor had a high bias after rainfall
	Resolved	21734	INOL	Sensor had a low bias
	Resolved	21728	REDR	Sensor damaged by lightning strike
	Resolved	21658	FREE	Sensor had a low bias
	Resolved	21674	WATO	Bare plot sensors 4cm too shallow
	Current	21764	CHER	Sensor has a low bias
	Current	21704	CHAN	Bare plot data has a large diurnal cycle

TS30	Resolved	21751	FTCB	Sensor damaged by lightning strike
	Resolved	21665	SALL	Sensor had a low bias
	Resolved	21661	BEAV	Sensor had a low bias
	Current	21780	ELRE	Sensor reporting erroneous spikes in data
TR05	Resolved	21724	REDR	Sensor damaged by lightning strike
	Resolved	21755	FTCB	Sensor damaged by lightning strike
	Resolved	21730	REDR	Sensor damaged by lightning strike
	Current	21770	BESS	Sensor reporting erroneous data
	Current	21717	BEAV	Diurnal cycle in soil moisture data
TR25	Resolved	21756	FTCB	Sensor damaged by lightning strike
	Resolved	21626	CHER	Soil Moisture not moistening after rainfall
	Resolved	21659	ELRE	Soil moisture reporting errant values
	Resolved	21726	REDR	Sensor damaged by lightning strike
TR60	Resolved	21757	FTCB	Sensor damaged by lightning strike
	Resolved	21727	REDR	Sensor damaged by lightning strike
	Current	21607	DURA	Sensor reporting erroneous data values
	Current	21725	REDR	Sensor reporting errant values

ARS Little Washita Watershed QA Report

Variable	Status	Ticket	Site	Remarks
RAIN				
VW05	Resolved	21710	A131	Soil moisture reporting errant spikes in data
	Resolved	21714	A249	Soil moisture stuck at 0.00
VW25	Current	21762	A152	Soil moisture moistens with no rainfall
VW45				
V05T				
V25T				
V45T				

ARS Ft. Cobb Watershed QA Report

Variable	Status	Ticket	Site	Remarks
RAIN	Resolved	21719	F109	Rain gauge missed rain event
VW05	Resolved	21675	F103	Errant spikes in soil moisture
	Resolved	21677	F104	Soil temperature has a large diurnal cycle
VW25	Resolved	21671	F106	Sensor moistening with no rainfall
	Resolved	21676	F113	Sensor reporting low voltages
	Resolved	21706	F109	Sensor reporting values near 0
	Current	21761	F105	Errant spikes in volumetric water
VW45	Current	21672	F114	Erroneous spikes in soil moisture and soil temperature
V05T				
V25T				
V45T				

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