

OKLAHOMA MESONET / ARS / OKCnet QUALITY ASSURANCE REPORT

September 2009

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- Mesonet technicians performed scheduled rotations of 2 barometers (PRES), 10 fasttherms (TA9M), 8 pyranometers (SRAD), 6 raingauge (RAIN), 4 temperature and relative humidity sensors (RELH), and 6 wind monitors (WSPD).
- Current Excitation at the Nowata Mesonet Site (NOWA) causing DT60 to fail beginning 21 September 2009, appropriate data flagged for problem.
- A datalogger wiring problem at the Seiling Mesonet Site (SEIL) caused air temperature at 1.5m (TAIR) and 9m (TA9M) to have a 3 degree Celsius high bias from 28 September 2009 – 1 October 2009, appropriate data were flagged.
- Aspirator fan at the Byars Mesonet Site (BYAR) affected air temperature data from 11 September 2009 – 24 September 2009, appropriate data were flagged.
- Aspirator fan at the Copan Mesonet Site (COPA) affected air temperature data from 20 September 2009 – 28 September 2009, appropriate data were flagged.
- Aspirator fan at the Nowata Mesonet Site (NOWA) affected air temperature data from 21 September 2009 – 29 September 2009, appropriate data were flagged.
- The solar panel at ARS Watershed Site A153 was stolen causing power problems beginning 14 April 2009.

Mesonet QA Report for Standard Variables

Variable	Status	Ticket	Site	Remarks
TAIR	Current	19177	SHAW	Sensor has high bias during extended moisture
	Current	19178	EUFA	Sensor has high bias during extended moisture
	Resolved	19179	BYAR	Sensor moisture problems due to Aspirator Fan
RELH	Current	19220	RETR	Sensor has a low bias during high humidity
	Current	19221	CLOU	Sensor has a low bias during high humidity
WSPD				
WDIR				
PRES				
SRAD	Current	19188	VINI	Sensor reporting up to -7W/m ² overnight

RAIN	Resolved	19138	KENT	Sensor missed rain event, bucket stuck
TA9M				
WS2M	Current	19208	SHAW	Sensor has a starting threshold problem
	Current	19222	PUTN	Sensor has a starting threshold problem
	Resolved	19134	VINI	Sensor had a starting threshold problem
TS10	Current	18985	HUGO	Sensor has a low bias
TB10	Resolved	19133	HINT	Sensor had a low bias
	Resolved	19132	FTCB	Sensor had a low bias
TS05	Resolved	18993	BESS	Sensor had a low bias
	Resolved	19139	PAWN	Sensor had a low bias
TB05	Current	19185	HOLD	TB05 warmer than neighbors and TB10
	Resolved	19107	ARD2	Bare plot was covered in vegetation
	Resolved	19031	SEIL	Bare plot 2-3cm too shallow
	Resolved	19106	WEAT	Sensor had a 1.15 deg C low bias
	Resolved	19183	APAC	Sensor had a low bias
TS30	Resolved	19119	FREE	Sensor had cut wire
TR05	Resolved	19131	FOR A	Sensor failed
TR25	Current	19126	HOLD	Sensor reports -7999
	Resolved	18966	ERIC	Sensor Failed
TR60	Resolved	19182	NOWA	Sensor dried out during rain
TR75	Current	19209	DURA	Variable Fractional Water between 1.25 and 1.65
	Resolved	18863	CHEY	Sensor failed, sensor decommissioned

ARS Little Washita Watershed QA Report

Variable	Status	Ticket	Site	Remarks
RAIN				
VW05				
VW25				
VW45	Resolved	19062	A159	Soil moisture quickly decreased after rainfall
V05T				
V25T				
V45T				

ARS Ft. Cobb Watershed QA Report

Variable	Status	Ticket	Site	Remarks
RAIN	Current	19140	A162	Site reported ~1 inch less than neighbors
VW05				
VW25				
VW45	Current	19224	A124	Soil moisture decreases following rain events
V05T	Resolved	19135	F109	TS05 had a low bias
V25T				
V45T				

Oklahoma City Micronet QA Report

Variable	Status	Ticket	Site	Remarks
TAIR				
RELH				
PRES				
RAIN				
WSPD	Resolved	19120	KSW112	Reported 0 mph and WDIR of 0 deg
WDIR				

“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
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