

OKLAHOMA MESONET / ARS / OKCnet QUALITY ASSURANCE REPORT

June 2009

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- Mesonet technicians performed scheduled rotations of 1 barometer (PRES), 9 pyranometers (SRAD), 11 raingauges (RAIN), 8 temperature and relative humidity sensors (RELH), 5 wind monitors (WSPD) and 2 soil temperature sensors.
- The solar panel at ARS Watershed Site A153 was stolen causing power problems beginning 14 April 2009.
- The datalogger at the Inola (INOL) Mesonet Site caused air temperature at 1.5m (TAIR) and all soil temperatures to have a low bias beginning 29 May 2009.
- The datalogger at the Tahlequah (TAHL) Mesonet Site caused air temperature at 1.5m (TAIR) and all soil temperatures to have a high bias beginning 26 October 2008.
- The datalogger at the Ketchum Ranch (KETC) Mesonet Site caused air temperature at 1.5m (TAIR), air temperature at 9m (TA9M) and all soil temperatures to have a high bias from 14 June 2007 – 12 June 2009.
- Aspirator fan at Burneyville (BURN) Mesonet Site affected air temperature data from 15 June 2009 – 18 June 2009.
- Aspirator fan at Haskell (HASK) Mesonet Site affected air temperature data from 17 June 2009 – 23 June 2009.
- A power problem at the Weatherford (WEAT) Mesonet site affected data during the evening hours from 24 May 2009 – 5 June 2009.
- Lightning strike at McAlister (MCAL) Mesonet Site affected all variables from 3 June 2009 – 4 June 2009.
- OKCnet stations KNE101 and KSW106 were moved to KNE201 and KNE105.
- The datalogger at KSE101 caused heater temperature to be stuck at 21.7 deg C. from 14 May 2009 – 18-Jun 2009.
- The enclosure door was open at KCB105 from 4 June 2009 – 18 June 2009.

Mesonet QA Report for Standard Variables

Variable	Status	Ticket	Site	Remarks
TAIR	Resolved	18735	INOL	Sensor had a low bias, replaced sensor
	Resolved	18795	KETC	High bias introduced by datalogger
RELH	Resolved	18796	COPA	Sensor has a low bias during high humidity
WSPD	Current	18885	WYNO	WSPD<WS2M during calm sunny days

WDIR	Resolved	18742	FAIR	Loose wire, WDIR stuck at 359 degrees
PRES				
SRAD				
RAIN	Resolved	18852	BESS	Raingauge missed rain event due to spider
	Resolved	18817	MTHE	Raingauge missed rain event
TA9M	Resolved	18701	EUFA	Sensor developed a low bias
WS2M	Current	18949	MANG	Sensor has a starting threshold problem
	Resolved	18722	ANTL	Sensor has a starting threshold problem
	Resolved	18847	TALI	Grass around cups caused WS2M to report 0m/s
	Resolved	18865	HASK	Sensor had a starting threshold problem
	Resolved	18864	PORT	Sensor had a starting threshold problem
TS10	Current	18947	CAMA	Sensor has developed a low bias
	Resolved	18823	NINN	Sensor had a high bias
	Resolved	18846	FTCB	Sensor was 10C higher than like other levels
TB10	Current	18938	HOOK	Bare plot may be covered in tumble weeds
	Resolved	18723	PRYO	Sensors not shallow and did not have bias
	Resolved	18871	FOR A	Bare plot 2cm too shallow during spring pass
	Resolved	18883	ARD2	Bare and sod plots were too deep
TS05	Current	18843	NEWK	Bath test showed that sensor had a low bias
	Current	18948	WILB	Sensor has developed a low bias
	Resolved	18842	ANTL	Cable damaged by animals
	Resolved	18873	ANTL	Cable damaged by animals, no QA flags
TB05	Current	18886	GUTH	Bare plot may be shallow
	Current	18935	SALL	Sensor has a low bias
	Current	18937	HOLD	Sensor removed to replace TS10

	Resolved	18710	PAUL	Sensors shallow
	Resolved	18714	BOIS	Sensors shallow
TS30	Resolved	18696	NEWK	Sensor had a low bias
	Resolved	18706	WYNO	Sensor had a low bias
	Resolved	18726	BEAV	Sensor had a low bias
	Resolved	18804	CHAN	Sensor had a low bias
	Resolved	18872	ANTL	Cable damaged by animals, no QA flags
TR05	Resolved	18821	FITT	Armadillo dug up sensor
TR25				
TR60				
TR75	Current	18863	CHEY	Reporting negative fractional water

ARS Little Washita Watershed QA Report

Variable	Status	Ticket	Site	Remarks
RAIN				
VW05	Current	18882	A121	Drops in voltages causing spikes in VW05
VW25				
VW45				
V05T				
V25T				
V45T				

ARS Ft. Cobb Watershed QA Report

Variable	Status	Ticket	Site	Remarks
RAIN				
VW05	Resolved	18853	F114	Voltages larger than allowed causing spikes
VW25				
VW45	Current	18943	F102	Fluctuations in voltages causing large changes
V05T	Resolved	18725	F114	Site over-run with Johnson grass
V25T				
V45T				

Oklahoma City Micronet QA Report

Variable	Status	Ticket	Site	Remarks
TAIR				
RELH				
PRES				
RAIN	Resolved	18736	KSE101	Sensor had a low bias
WSPD				
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