

OKLAHOMA MESONET / ARS / OKCnet QUALITY ASSURANCE REPORT

August 2009

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- Mesonet technicians performed scheduled rotations of 2 barometers (PRES), 2 fasttherms (TA9M), 8 pyranometers (SRAD), 1 raingauge (RAIN), 3 temperature and relative humidity sensors (RELH), and 3 wind monitors (WSPD).
- The Haskell (HASK) Mesonet Site was struck by lightning on 11 August 2009, causing all data to be lost from 11 August 2009 – 12 August 2009.
- The datalogger at Stillwater (STIL) Mesonet Site caused air temperature at 1.5m, 9m and all soil temperature data to have a high bias from 23 June 2009 – 11 August 2009. No data were flagged since data was within sensor specifications.
- The datalogger at Camargo (CAMA) Mesonet Site caused air temperature at 1.5m and 9m to report errant data; the appropriate data were flagged from 5 August 2009 – 19 August 2009.
- Incorrect settings at KNE101 and KNE103 OKCnet stations caused all variables to report errant data, appropriate data flagged for problem.
- 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				
RELH				
WSPD				
WDIR				
PRES				
SRAD	Resolved	19000	REDR	SRAD reported 2700W/m ² during daytime
RAIN				
TA9M	Resolved	18981	WAUR	Sensor had a moisture problem
WS2M	Current	19134	VINI	Sensor has a starting threshold problem

	Resolved	18977	BURN	Sensor had a starting threshold problem
	Resolved	18953	WYNO	Sensor had a starting threshold problem
	Resolved	18994	TIPT	Sensor had a starting threshold problem
TS10				
	Current	18985	HUGO	Sensor has a low bias
	Current	18995	MAYR	Sensor has a low bias
	Current	19060	ALV2	Sensor has a 3deg C low bias
	Resolved	18947	CAMA	Sensor had a low bias
	Resolved	19110	WIST	Sensor had a 1.7 deg C low bias
	Resolved	19105	NRMN	Errant data due to lose wires
	Resolved	19077	MINC	Sensor had a low bias
TB10				
	Current	19059	ALV2	Sensor has a 40C high bias
	Current	19133	HINT	Sensor has a low bias
	Resolved	19028	SALL	Sensor had a loose wire
TS05				
	Current	18993	BESS	Sensor has a low bias
	Current	19103	FREE	Sensor has a low bias
	Resolved	18937	HOLD	Reinstalled removed sensor
	Resolved	19043	CAMA	Sensor damaged during bath test
	Resolved	19056	CAMA	Sod plot 5cm too deep during pass
	Resolved	18948	WILB	Sensor had a low bias
	Resolved	19109	WIST	Sensor had a 1.5deg C low bias
TB05				
	Current	19031	SEIL	Bare plot much warmer than neighbors
	Current	19106	WEAT	Bare plot insulated by vegetation
	Current	19107	ARD2	Bare plot insulated by vegetation
	Current	19132	FTCB	Sensor has a high bias
TS30				
	Current	19119	FREE	Sensor ~28deg C cooler than other levels
	Resolved	18963	CENT	Sensor had a low bias
	Resolved	19066	HASK	Sensor had a low bias

TR05	Current	19058	ALV2	Sensor not heating
	Current	19131	FORA	Reports large negative values
TR25	Current	18966	ERIC	Sensor reports -7999
	Current	19057	ALV2	Sensor not heating
	Current	19126	HOLD	Reports large negative values
TR60	Resolved	18982	WASH	Reported large negative values
TR75	Current	18863	CHEY	Sensor reports large negative values

ARS Little Washita Watershed QA Report

Variable	Status	Ticket	Site	Remarks
RAIN				
VW05	Resolved	18882	A121	Voltages dropped causing spike in soil moisture
VW25	Resolved	18983	A124	Errant spikes in data
VW45	Resolved	19054	A121	Sensor cable damaged
	Resolved	18974	A154	Errant spikes in data to near 0
V05T				
V25T				
V45T				

ARS Ft. Cobb Watershed QA Report

Variable	Status	Ticket	Site	Remarks
RAIN				
VW05				
VW25				
VW45				
V05T	Current	19135	F109	Low bias compared to other levels
V25T	Resolved	19061	F109	High bias compared to other levels
V45T				

Oklahoma City Micronet QA Report

Variable	Status	Ticket	Site	Remarks
TAIR				
RELH				
PRES				
RAIN	Resolved	19063	KCB105	Low bias compared to neighbors
WSPD	Current	19120	KSW112	Reports 0 mph at all times
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