

OKLAHOMA MESONET / ARS / OKCnet QUALITY ASSURANCE REPORT

July 2009

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- Mesonet technicians performed scheduled rotations of 10 barometers (PRES), 12 pyranometers (SRAD), 3 raingauges (RAIN), 5 temperature and relative humidity sensors (RELH), 5 wind monitors (WSPD), 4 fasttherms (TA9M) and 1 soil temperature sensor.
- The datalogger at Camargo (CAMA) Mesonet Site caused air temperature at 1.5m and 9m to report errant data beginning 5 August 2009.
- The Idabel (IDAB) Mesonet Site was struck by lightning on 21 July 2009, causing all data to be lost from 21 July 2009 – 22 July 2009.
- The datalogger at the Inola (INOL) Mesonet Site caused air temperature at 1.5m (TAIR) and all soil temperatures to have a high bias from 29 May 2009 – 1 July 2009.
- The datalogger at Tahlequah (TAHL) Mesonet Site caused air temperature at 1.5m (TAIR), air temperature at 9m (TA9M) and all soil temperatures to have a high bias from 26 October 2008 – 1 July 2009.
- The datalogger at the Fairview (FAIR) Mesonet Site caused air temperature at 1.5m (TAIR) and all soil temperatures to have a high bias from 12 June 2009 – 14 July 2009.
- The datalogger at Buffalo (BUFF) Mesonet Site caused air temperature at 1.5m (TAIR) and all soil temperatures to have a high bias from 16 June 2009 – 16 July 2009.
- OKCnet stations KNE101 and KNE103 report errant data for all variables beginning 31 July 2009
- The solar panel at ARS Watershed Site A153 was stolen causing power problems beginning 14 April 2009.
- Summer Pass 2009 began on 1 July 2009
- Spring Pass 2009 results are available under the 'Site Passes' section of the Oklahoma Mesonet website (www.mesonet.org).

Mesonet QA Report for Standard Variables

Variable	Status	Ticket	Site	Remarks
TAIR				
RELH	Resolved	18964	BUTL	Site had a low bias during high humidity
WSPD	Resolved	18884	MCAL	WSPD < WS2M due to gap in bearings
	Resolved	18885	WYNO	WSPD < WS2M due to gap in bearings
WDIR				

PRES				
SRAD	Current	19000	REDR	Solar radiation will spike to 2700 W/m ²
	Resolved	18984	OKCN	Solar radiation reports 1500 W/m ² overnight
RAIN				
TA9M	Current	18981	WAUR	Developed a significant low bias
WS2M	Current	18994	TIPT	Sensor has a starting threshold problem
	Resolved	18949	MANG	Sensor had a starting threshold problem
	Resolved	18978	FAIR	Sensor had a starting threshold problem
	Resolved	18977	BURN	Sensor had a starting threshold problem
	Resolved	18953	WYNO	Sensor had a starting threshold problem
TS10	Current	18947	CAMA	Sensor has a low bias
	Current	18985	HUGO	Sensor has a low bias
	Current	18995	MAYR	Sensor has a low bias
	Resolved	18870	HOLD	TS10 and TS30 were cross wired
TB10	Current	19028	SALL	Data spikes to negative numbers
	Resolved	18992	BLAC	Bare plot 1cm too shallow
	Resolved	18960	GUTH	Sensor had a low bias
	Resolved	18938	HOOK	Bare plot covered in tumble weeds
	Resolved	18991	MARE	Bare plot 1 cm too shallow
TS05	Current	18948	WILB	Sensor has a low bias
	Current	18993	BESS	Sensor has a low bias
	Resolved	18936	HOLD	Sensor was damaged, sensor removed
	Resolved	18843	NEWK	Bath test showed sensor had a low bias
	Resolved	18965	BYAR	Sensor had a low bias
	Resolved	18935	SALL	Sensor had a low bias
	Resolved	18937	HOLD	Re-installed sensor after being damaged

TB05	Current	19031	SEIL	Suspect bare plot is shallow in depth
	Resolved	18886	GUTH	Bare plot was 2cm too shallow
TS30	Current	18994	TIPT	Sensor has a high bias
	Resolved	18963	CENT	Sensor had a low bias
TR05	Current	18966	ERIC	Sensor reporting -7999
TR25				
TR60	Current	18982	WASH	Sensor reporting -7999
TR75	Current	18863	CHEY	Sensor reporting large negative number

ARS Little Washita Watershed QA Report

Variable	Status	Ticket	Site	Remarks
RAIN				
VW05	Current	18882	A121	Volumetric water spikes to 0
VW25	Current	18983	A124	Volumetric water spikes to 0
VW45	Current	18974	A154	Volumetric water spikes to 0
V05T				
V25T				
V45T				

ARS Ft. Cobb Watershed QA Report

Variable	Status	Ticket	Site	Remarks
RAIN				
VW05				
VW25				
VW45	Resolved	18943	F102	Fluctuations in voltages 1 and 2
V05T				
V25T				
V45T				

Oklahoma City Micronet QA Report

Variable	Status	Ticket	Site	Remarks
TAIR				
RELH				
PRES				
RAIN				
WSPD	Resolved	18972	KNE103	Sensor reported large wind gusts
	Resolved	18973	KNE101	Sensor damaged due to large hail in vicinity
WDIR	Resolved	18926	KSE101	Wind direction variable in all directions

“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