

OKLAHOMA MESONET / ARS QUALITY ASSURANCE REPORT

August 2010

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- Mesonet technicians performed scheduled rotations of 17 Aspirator Fans, 5 Barometers (PRES), 8 temperature and relative humidity sensors (RELH), 1 pyranometer (SRAD) and 1 Windsentries (WS2M).
- The Aspirator Fan at the Red Rock (REDR) site affected air temperature data from 11 September - 14 September 2010, appropriate data were flagged as errant.
- The Aspirator Fan at the Fort Cobb (FTCB) site affected air temperature data from 10 August - 12 August 2010, appropriate data were flagged as errant.
- The Aspirator Fan at the Fairview (FAIR) site affected air temperature data from 17 August - 19 August 2010, appropriate data were flagged as errant.
- The Aspirator Fan at the Waurika (WAUR) site affected air temperature data from 16 August 2010 - 25 August 2010, appropriate data were flagged as errant.
- The Aspirator Fan at the Okemah (OKEM) site affected air temperature data from 20 August - 25 August 2010, appropriate data were flagged as errant.
- The Aspirator Fan at the Bixby (BIXB) site affected air temperature data from 26 August - 9 September 2010, appropriate data were flagged as errant.
- The Multiplexer at the Wister (WIST) site caused all soil moisture and soil temperature sensors to report errant data from 17 July - 5 August 2010, appropriate data were flagged as errant.
- The Multiplexer at the Oklahoma City North (OKCN) site caused all soil moisture and soil temperature sensors to report errant data from 25 July - 9 August 2010, appropriate data were flagged as errant.
- The Multiplexer at the Sallisaw (SALL) site caused all soil moisture and soil temperature sensors to report errant data from 7 August - 16 August 2010, appropriate data were flagged as errant.
- ARS Watershed Site A153 remains down due to stolen solar panel.

Mesonet QA Report for Standard Variables

Variable	Status	Ticket	Site	Remarks
TAIR	Resolved	20066	COPA	TAIR and TA9M 1.7 deg C high, wiring adjusted
RELH	Resolved	19988	NOWA	RELH reported errant data due to wiring problem
WSPD	Current	20112	WOOD	Sensor has a starting threshold problem
WDIR				
PRES				
SRAD	Resolved	20019	BUTL	Sensor had a low bias compared to neighbors

RAIN	Resolved	19853	COOK	Drip test 3-4 tips high during season pass
TA9M	Current	20088	ALV2	TA9M 10deg F less than TAIR
WS2M	Current	20106	HUGO	Sensor has a starting threshold problem
	Resolved	20008	WASH	Sensor had a starting threshold problem
	Resolved	19964	MANG	Sensor had a starting threshold problem
	Resolved	20020	FITT	Sensor had a starting threshold problem
	Resolved	20029	TALI	Sensor had a starting threshold problem
TS10	Resolved	19981	PAUL	Sensor had a low bias
	Resolved	20016	SHAW	Sensor had a low bias
	Resolved	19979	HUGO	Sensor had a low bias
	Resolved	20040	CLOU	Sensor had a low bias
TB10	Current	20021	ERIC	Diurnal variation in bare plot is muted
	Current	20096	MTHE	Sensor has a high bias after rainfall
	Current	20107	ACME	Sensor has a low bias
	Current	20110	ARD2	Sensor has a high bias after rainfall
	Resolved	19959	MCAL	Sensor had animal damage
	Resolved	19978	HOLD	Sensor had a low bias
TS05	Current	19976	CHEY	Sensor has a low bias
	Current	20067	BESS	Sensor has a high bias after rainfall
	Current	20109	FOR A	Sensor has a low bias
	Current	20111	HASK	Sensor has a low bias
	Resolved	19934	SHAW	Sensor had a low bias
	Resolved	19940	CLOU	Sensor had a low bias
	Resolved	19893	TISH	Sensor had a low bias
	Resolved	20023	NEWK	Sensor had a low bias
	Resolved	19938	BYAR	Sensor had a low bias

TB05	Current	20069	SKIA	Sensor has a high bias after rainfall
	Current	20087	NRMN	Sensor has a high bias after rainfall
	Current	20113	SHAW	Sensor has a 2 deg C low bias
	Resolved	19958	MCAL	Sensor reported large negative values
	Resolved	20026	VINI	Sensor had a low bias
TS30	Current	20024	HOLL	Sensor has a low bias
	Resolved	19925	ALV2	Sensor had a high bias after rainfall
	Resolved	20041	CLOU	Sensor had a low bias
	Resolved	20068	BYAR	Sensor had a low bias
TR05				
TR25	Current	20061	JAYX	Sensor does not saturate after rainfall
TR60				
TR75				

ARS Little Washita Watershed QA Report

Variable	Status	Ticket	Site	Remarks
RAIN	Current	19140	A162	Rain gauge missed rain event
VW05	Current	20078	A182	Voltages reporting large negative values
VW25				
VW45	Current	20089	A144	Reporting errant spikes in soil moisture
V05T				
V25T				
V45T				

ARS Ft. Cobb Watershed QA Report

Variable	Status	Ticket	Site	Remarks
RAIN	Resolved	19924	F109	Rain gauge stopped recording rainfall
VW05	Resolved	20028	F112	Soil Moisture exceeding sensor thresholds
VW25				
VW45	Resolved	19850	F103	Soil moisture reporting errant spikes in data
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
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