

OKLAHOMA MESONET / ARS QUALITY ASSURANCE REPORT

October 2012

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- Mesonet technicians performed scheduled rotations of 4 barometers (PRES), 1 aspirator fan (FANS), 5 fasttherms (TAIR), 9 pyranometers (SRAD), 1 rain gauge (RAIN), 5 temperature and relative humidity sensors (RELH), 17 batteries (BATV), 7 wind monitors (WDIR), 5 wind monitor nose cones (WSPD) and 19 windsentries (WS2M).
- A lightning strike at Sallisaw (SALL) site affected all data at the site from 12 October 2012 to 15 October 2012.
- The datalogger at Little Washita ARS site A262 was causing errant spikes in soil temperature data from 29 July 2012 to 4 October 2012, appropriate data flagged as erroneous.
- The datalogger at Fort Cobb ARS site F101 was causing errant spikes in soil temperature and soil moisture from 12 October 2012 to 29 October 2012, appropriate data flagged as erroneous.
- Multiplexer at Burneyville (BURN) site is causing errant spikes in soil temperature data beginning 13 September 2012, appropriate data flagged as erroneous.

Mesonet QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
TAIR				
RELH	Resolved	BUTL	23905	Sensor had a low bias during high humidity
	Resolved	TALI	23908	Sensor had a low bias during high humidity
	Resolved	MTHE	23934	Sensor had a low bias during high humidity
	Resolved	ERIC	23530	Sensor had a low bias during high humidity
	Current	SPEN	23513	Sensor has a low bias during high humidity
WSPD	Resolved	MEDF	23939	Sensor damaged by hail
WDIR	Resolved	APAC	23910	Wind direction stuck at one value
PRES				
SRAD				

RAIN				
TA9M	Resolved	NEWK	23935	Sensor reporting large negative values
WS2M				
TS10	Current	WYNO	24193	Sensor has a low bias
TB10	Current	MAYR	23787	Bare plot sensors have large diurnal cycle
TS05	Resolved	SALL	23869	Sensor had a low bias
	Current	SALL	23933	Sensor has a low bias
	Current	MADI	24192	Sensor has a low bias
TB05	Current	WOOD	23912	Sensor has a low bias
	Current	FOR A	23913	Sensor has a low bias
	Current	TALI	24189	Sensor has a low bias
	Current	TAHL	24191	Sensor has a low bias
TS30	Resolved	OKMU	23831	Sensor had a low bias
	Resolved	SALL	23923	Lightning strike
	Current	OKMU	23914	Sensor has a low bias
TR05	Resolved	SALL	23921	Lightning strike
	Current	BRIS	24120	Reporting errant values
	Current	CENT	23941	Reporting errant values
TR25				
TR60	Resolved	HOLL	23854	Sensor was not heating
	Resolved	SALL	23922	Lightning strike
	Resolved	BOIS	23752	Sensor reporting errant values

ARS Little Washita Watershed QA Report

Variable	Status	Site	Ticket	Remarks
RAIN				
VW05	Resolved	A152	23902	Volumetric water stepped to 0 after rainfall
	Resolved	A253	23907	Errant spikes in soil moisture data
VW25				
VW45				
V05T				
V25T				
V45T				

ARS Ft. Cobb Watershed QA Report

Variable	Status	Site	Ticket	Remarks
RAIN				
VW05	Resolved	F101	23867	Soil moisture reporting spikes and dropping to 0
	Resolved	F115	23720	Soil moisture stuck at 0.40 volumetric water
	Resolved	F112	23756	Errant increase and decreases in data
VW25	Resolved	F107	23834	Reporting errant spikes in data
	Resolved	F108	23740	Reporting errant spikes in data
VW45				
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
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