

# OKLAHOMA MESONET / ARS QUALITY ASSURANCE REPORT

August 2013

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- Mesonet technicians performed scheduled rotations of 7 barometers (PRES), 12 batteries (BVAS), 8 Current Excitations, 7 fasttherms (TAIR), 12 pyranometers (SRAD), 7 raingauges (RAIN), 13 temperature and relative humidity sensors (RELH), 3 wind monitor nose cones (WSPD) and 4 windsentries (WS2M).
- Alva (ALV2) site was struck by lightning on 17 August 2013, all data was lost from 17 August 2013 to 21 August 2013.
- Multiplexer at Erick (ERIC) site caused errant spikes in all soil temperature measurements, appropriate data flagged as erroneous from 5 July 2013 to 12 August 2013.
- Multiplexer at Goodwell (GOOD) site is causing errant spikes in soil temperature data beginning 4 August 2013, appropriate data flagged as erroneous.

## Mesonet QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
TAIR	Resolved	BLAC	25535	Sensor reported large negative values
	Current	WAUR	25544	Sensor reporting -220 degrees Celsius
RELH	Resolved	MEDI	25545	Sensor had a low bias during high humidity
WSPD	Resolved	TULN	25463	Erroneous spikes in data at onset of rainfall
WDIR	Resolved	TULN	25538	WDIR causing spikes in WSPD
PRES	Resolved	ALTU	25440	Small spikes observed in pressure data
SRAD	Resolved	CHER	25493	Sensor had a low bias during clear sky days
RAIN	Resolved	CHIC	25507	Rain gauge missed rainfall during rain event
	Resolved	FTCB	25510	Spider web caused sensor to miss rain event
	Resolved	OKCW	25541	Rain gauge corroding after recent flooding

<b>TA9M</b>				
<b>WS2M</b>	Resolved	BIXB	25485	Sensor had a starting threshold problem
	Resolved	IDAB	25015	Sensor had a starting threshold problem
<b>TS10</b>	Resolved	FREE	25527	Sensor reported large negative values
	Resolved	DURA	25530	Sensor damaged during sensor removal
	Current	COOK	25438	Sensor has a low bias
	Current	WEST	24770	Sensor reporting errant spikes in data
<b>TB10</b>	Resolved	FREE	25158	Sensor had a low bias
	Resolved	KIN2	25160	Sensor had a low bias
	Resolved	BLAC	25494	Sensor had bias
	Resolved	BIXB	24808	Bare plot was overgrown in vegetation
	Current	FOR A	24772	Sensor has a low bias
	Current	PYRO	24773	Sensor has a low bias
<b>TS05</b>	Resolved	LANE	25148	Sensor reported large negative values
	Resolved	DURA	25492	Sensor had a low bias
	Current	COOK	25157	Sensor has a low bias
	Current	JAYX	25519	Sensor has a low bias
	Current	CHAN	24789	Sensor has a low bias
<b>TB05</b>	Resolved	LANE	25128	Sensor was reporting large negative values
	Resolved	ALV2	25526	Sensor damaged by lightning strike
<b>TS30</b>	Resolved	DURA	25531	Sensor damaged during sensor removal
	Current	WATO	25562	Sensor has a low bias
	Current	HASK	24797	Sensor was a low bias
<b>TR05</b>	Resolved	WIST	25156	Reported erroneous spikes in data

<b>TR25</b>	Resolved	ALV2	25524	Sensor damaged by lightning strike
<b>TR60</b>	Resolved	SHAW	25490	Sensor reported errant increase and decreases
	Current	MANG	25537	Sensor reporting -7999
	Current	ANT2	25540	Sensor reported erroneous decrease in data

### ARS Fort Cobb Watershed QA Report

Variable	Status	Site	Ticket	Remarks
<b>RAIN</b>	Resolved	F110	25462	Rain gauge was clogged
<b>VW05</b>				
<b>VW25</b>	Resolved	F101	25496	Sensor reported errant spikes in data
<b>VW45</b>				
<b>V05T</b>	Current	F105	25543	Sensor reporting erroneous spikes in data
<b>V25T</b>				
<b>V45T</b>				

## ARS Little Washita Watershed QA Report

Variable	Status	Site	Ticket	Remarks
<b>RAIN</b>	Resolved	A154	25548	Rain gauge clogged
<b>VW05</b>	Current	A131	25549	Sensor reporting erroneous decreases
	Resolved	A159	25439	Erroneous spikes in soil moisture
	Resolved	A154	25528	Erroneous spikes in soil moisture
<b>VW25</b>	Current	A244	25517	Erroneous decreases in soil moisture
<b>VW45</b>	Current	A235	25564	Erroneous decreases in soil moisture
<b>V05T</b>				
<b>V25T</b>	Resolved	A234	25536	Sensor has a low bias
<b>V45T</b>	Current	A249	25568	Sensor has a high bias

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