

## OKLAHOMA MESONET/ARS QUALITY ASSURANCE REPORT August 2007

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- Mesonet technicians resolved trouble tickets, conducted routine maintenance at sites, and performed scheduled rotations of 2 barometers, 7 temperature and relative humidity sensors, 5 pyranometers, and 6 wind sentries.
- A lightning strike at ARS Little Washita Site A162 damaged the datalogger, multiplexer, and several soil temperature and soil moisture sensors. Data were lost from 19 to 30 August 2007 due to the damaged datalogger and sensors.
- The solar panel at ARS Little Washita Site A150 was stolen, allowing the battery to die. Data were lost from 29 to 30 August 2007.
- The multiplexer at the Fittstown Mesonet site (FITT) failed and caused errant soil moisture and soil temperature data from 9 to 21 August 2007.
- The May Ranch Mesonet site (MAYR) multiplexer caused errant data reports and was replaced. Data were flagged from 1-29 August 2007.

### Mesonet QA Report for Standard Variables

Variable	Status	Ticket	Site	Remarks
<b>TAIR</b>	Resolved	15342	LANE	Replaced sensor that had a high bias.
	Resolved	15349	OKEM	Replaced sensor that had a high bias.
	Resolved	15328	STIG	Replaced sensor that had a high bias.
<b>RELH</b>	Resolved	15346	BURB	Replaced sensor that stopped saturating.
<b>WSPD</b>	Resolved	15348	MADI	Replaced sensor that stopped working.
<b>WDIR</b>	Resolved	15356	BURB	Fixed wiring problem.
<b>PRES</b>				
<b>SRAD</b>	Current	15396	VINI	Sensor reports errant data at night.

	Current	15399	MIAM	Sensor has a low bias.
	Resolved	15361	EUFA	Sensor was obstructed by tall vegetation.
<b>RAIN</b>	Current	15364	HINT	Sensor stopped working.
	Resolved	15386	KENT	Sensor stopped working
	Resolved	15365	SPEN	Sensor stopped working.
<b>TA9M</b>				
<b>WS2M</b>	Resolved	15343	HASK	Replaced sensor with starting threshold problem
<b>TS10</b>				
<b>TB10</b>	Current	15421	COPA	Sensor has a wiring problem.
	Resolved	15368	OKMU	Replaced sensor with low bias.
<b>TS05</b>				
<b>TB05</b>	Resolved	15296	TALI	Replaced sensor with low bias.
<b>TS30</b>	Current	15422	ERIC	Sensor has a low bias.
	Current	15424	HOLL	Sensor has a low bias.
	Resolved	15341	BYAR	Replaced sensor with low bias.
<b>TR05</b>				
<b>TR25</b>	Resolved	15362	MINC	Replaced that stopped working.
<b>TR60</b>				
<b>TR75</b>	Current	15279	NRMN	Sensor not responding to changes in moisture.
	Current	15366	WATO	Sensor stopped working.

## ARS Little Washita Watershed QA Report

Variable	Status	Ticket	Site	Remarks
TAIR				
RELH				
SRAD	Resolved	15387	A162	Replaced sensor damaged by lightning.
RAIN				
TS05				
TS10	Resolved	15410	A162	Replaced sensor damaged by lightning.
TS15				
TS30	Resolved	15411	A162	Replaced sensor damaged by lightning.
VW05	Resolved	15329	A121	Fixed wiring problem.
	Resolved	15334	A146	Reburied sensor exposed by animal hole.
	Resolved	15412	A162	Replaced sensor damaged by lightning.
VW25	Resolved	15413	A162	Replaced sensor damaged by lightning.
VW45	Resolved	15414	A162	Replaced sensor damaged by lightning.

## ARS Ft. Cobb Watershed QA Report

Variable	Status	Ticket	Site	Remarks
TAIR				
RELH				
SRAD				
RAIN	Current	15372	F110	Rain gauge reported errant data.
TS05				
TS10				
TS15				
TS30				
VW05				
VW25				
VW45				

“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