

**OKLAHOMA MESONET/ARS QUALITY ASSURANCE REPORT**  
 March 1998

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March was a busy month for the Mesonet technicians. Lightning caused damage to the stations at Fairview and Eufaula. The T/RH and SRAD sensors were hardest hit at Fairview, while the damage at Eufaula was mainly confined to the soil moisture sensors.

Vandalism at the Tullahassee site caused even greater problems. All in all, some 10 instruments were damaged or stolen.

Other than that, a number of new T/RH sensors were replaced to correct minor problems.

The monthly averaged fields for March were quite smooth. However, biases were detected in the soil temperature data at Medicine Park, Wilburton, and A156. Those sensors will be investigated in the coming weeks.

<b>Mesonet QA Report for Standard Variables</b>	
<b>TAIR</b>	Current: Resolved: #1736 SALL Spikes in data found to be caused by logger Resolved: #1735 FAIR Sensor reporting -9999; possible lightning Resolved: #1694 ALVA Cattle broke T/RH sensor housing in half
<b>RELH</b>	Current: #1669 MADI RH sensor reporting -7999 on 3 occasions Current: #1731 CLAY RH reports of -7999 on numerous occasions Current: #1754 NINN RH reports ranging from 108% to 4% Current: #1771 TULL Sensor stolen from station Resolved: #1745 STIG Sensor 8.5% high with respect to test probe Resolved: #1717 FORA RH values exceeding 103%; sensor replaced Resolved: #1712 SEIL Sensor replaced to correct low RH bias Resolved: #1734 FAIR Sensor reporting -9999; possible lightning Resolved: #1711 NINN RH reports of over 103%; sensor replaced Resolved: #1732 WYNO RH reports of -7999 occurring; replaced
<b>WDIR</b>	Current: #1770 TULL Sensor stolen from station Resolved: #1753 OKMU Wind direction suspect; sensor replaced
<b>WSPD</b>	Current: #1769 TULL Sensor stolen from station Resolved:
<b>PRES</b>	Current: #1751 ALTU Pressure reading stuck at 954.80 mb Current: #1772 TULL Sensor stolen from station Resolved: #1713 BUTL Pressure port clogged by spider web & eggs Resolved: #1702 WEBB Comparison confirmed bias; sensor replaced Resolved: #1743 REDR Sensor stuck at 970.55 mb; sensor replaced
<b>SRAD</b>	Current: #1761 TULL Cable cut when enclosure stolen Current: #1765 OKMU Failed comparison test by >10%

	Resolved: #1733 FAIR Possible lightning damage Resolved: #1747 STIG Comparison test indicated 14% high; replaced Resolved: #1695 ALVA Cattle knocked over SRAD tripod
<b>RAIN</b>	Current: #1763 TULL Removed from site when other sensors stolen Resolved: #1700 FORA Under-reporting rainfall; Gauge found faulty
<b>TA9M</b>	Current: #1760 TULL Cable cut when enclosure stolen Resolved:
<b>WS2M</b>	Current: Resolved:
<b>TS10</b>	Current: #1755 TULL Cable cut when enclosure stolen Current: #1777 MEDI Monthly QA shows 2-3 C warm bias Resolved:
<b>TB10</b>	Current: #1756 TULL Cable cut when enclosure stolen Current: #1779 WILB Monthly QA indicates 2.5 C cool bias Resolved:
<b>TS05</b>	Current: Resolved:
<b>TB05</b>	Current: Resolved:
<b>TS30</b>	Current: #1704 EUFA Sensor reporting -9999 due to lightning Resolved:

ARS QA Report	
<b>TAIR</b>	Current: Resolved:
<b>RELH</b>	Current: Resolved: #1710 A134 Unnatural RELH spikes observed; replaced Resolved: #1709 A111 RELH reports of 0%; sensor replaced
<b>SRAD</b>	Current: Resolved: #1606 A123 Tree causing shadow on site was trimmed
<b>RAIN</b>	Current: #1742 A122 Mysterious rainfall events being observed; Gauge seems ok, datalogger is a suspect Resolved:
<b>TS05</b>	Current: Resolved:

<b>TS10</b>	Current: Resolved:
<b>TS15</b>	Current: Resolved:
<b>TS30</b>	<b>Current: #1778 A156 Monthly QA shows 2-3 C warm bias Resolved: #1701 A181 Warm bias confirmed; sensor replaced</b>

“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.

<b>Variable</b>	<b>Description</b>
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