

# OKLAHOMA MESONET/ARS QUALITY ASSURANCE REPORT

May 2004

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Spring Pass 2004 continued in May. Site maintenance was performed at 72 sites and field inter-comparisons of air temperature, relative humidity, and solar radiation sensors were performed.

Mesonet communications upgrades were performed at 17 sites, 2 bases, and 1 repeater. Power upgrades were completed at 10 sites.

OASIS sensors (net radiometer, infrared thermometer, and ground heat flux plates) were decommissioned at Ada, Bristow, Erick, Eufala, McAlester, Watonga, and Weatherford.

Mesonet QA Report for Standard Variables	
<b>TAIR</b>	<b>Current: #9800 PRYO Sensor rapidly developed a 5 to 6 °C low bias Resolved: #9568 KETC Rewired ground wire that had caused high bias in both Fast Therm sensors</b>
<b>RELH</b>	Current: Resolved:
<b>WDIR</b>	Current: Resolved:
<b>WSPD</b>	Current: Resolved:
<b>PRES</b>	<b>Current: #9736 MAYR Raw pressure data stuck at 860 mb Resolved: #9555 MADI Cleaned out vent tube that had caused a 5 mb bias</b>
<b>SRAD</b>	Current: Resolved:
<b>RAIN</b>	<b>Current: #9798 IDAB Gauge not reporting tips Current: #9828 CALV Gauge not reporting tips Resolved:</b>
<b>TA9M</b>	Current: <b>Resolved: #9568 KETC Rewired ground wire that had caused high bias in both Fast Therm sensors</b>
<b>WS2M</b>	Current: Resolved:

<b>TS10</b>	Current: #9801 COOK TS10 temperatures intermittently dropping to -20 to -30 °C Current: #9836 DURA Sensor has developed a 4 to 5 °C low bias Resolved: #9700 WYNO Tightened wire into mux that had caused sensor to report negative values
<b>TB10</b>	Current: #9701 FREE Sensor reporting negative soil temperatures Resolved:
<b>TS05</b>	Current: #9710 ALV2 Sensor has developed a 20 °C low bias compared to TB05 Resolved: #9563 REDR Tightened loose wire that had caused out-of-range data
<b>TB05</b>	Current: #9735 ALV2 Sensor has developed a 20 °C high bias compared to TB10 Resolved: #9695 SLAP Replaced sensor
<b>TS30</b>	Current: #9106 SALL Sensor has developed a 5 °C low bias Resolved:
<b>TR05</b>	Current: #9040 ALV2 Large spikes and dips in 5 cm soil moisture data Current: #9742 GRA2 Reporting out-of-range data Resolved:
<b>TR25</b>	Current: Resolved:
<b>TR60</b>	Current: Resolved: #9316 WIST Replaced sensor that was not heating
<b>TR75</b>	Current: #9064 ELRE Decommissioning sensor at 75 cm due to no heating Resolved:

<b>ARS QA Report</b>	
<b>TAIR</b>	Current: Resolved:
<b>RELH</b>	Current: Resolved:
<b>SRAD</b>	Current: #9430 A181 Pyranometer reporting negative values at night Resolved:
<b>RAIN</b>	Current: Resolved: #9539 A147 Removed spider webs that prevented gauge from tipping Resolved: #9562 A137 Cleaned stuck buckets that prevented gauge from tipping
<b>TS05</b>	Current: Resolved:
<b>TS10</b>	Current:

	Resolved:
<b>TS15</b>	Current: Resolved:
<b>TS30</b>	Current: Resolved:

“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
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