

OKLAHOMA MESONET/ARS QUALITY ASSURANCE REPORT

March 2005

Prepared by [Peter K. Hall, Jr.](mailto:pkhjr@mesonet.org) and [Janet E. Martinez](mailto:gamgr@mesonet.org)
pkhjr@mesonet.org and gamgr@mesonet.org

- Mesonet Technicians resolved over 150 tickets in March including scheduled rotations of 14 FastTherms, 9 prop anemometers, 5 datalogger enclosures, 10 wind sentries, and 2 barometers. In addition, HMP-45C Temp/RelH sensors were installed at 26 Mesonet stations.
- JAYSbase was struck by lightning 22 Mar 2005 which required the replacement of the communications equipment.
- A power upgrade was performed at FORA that resolved the noise problems in the sub-surface sensors' data.
- A new base was commissioned at the Washita County Sheriff's office in Cordell (CORSbase). This base will support a new ARS Micronet in the Ft. Cobb Watershed.
- Temp/RelH sensors were rotated at 7 ARS Little Washita Micronet sites.

Mesonet QA Report for Standard Variables	
TAIR	Current: Resolved: #10948 HUGO Replaced sensor that had reported 5 to 15 °C spikes and dips in data
RELH	Current: Resolved: #11095 HOBA Replaced sensor that had reported extremely low relative humidity values
WDIR	Current: Resolved:
WSPD	Current: Resolved:
PRES	Current: Resolved: #11126 CHIC Rewired sensor that had caused erroneous data Resolved: #11207 FORA Replaced sensor that had reported large dips in pressure
SRAD	Current: #11181 FAIR Sensor reporting out of range values at night Resolved: #11103 KING Cleaned sensor that had a low bias
RAIN	Current: #11211 SEIL Gauge reporting phantom tips on March 24 and 25 Resolved:
TA9M	Current: Resolved:

WS2M	<p>Current: #11239 WYNO Grass fire may have melted the sensor</p> <p>Resolved: #11179 TISH Replaced sensor that had developed a starting threshold problem</p>
TS10	<p>Current:</p> <p>Resolved: #11102 BIXB Replaced sensor that had been reporting erratic data</p> <p>Resolved: #10836 OKMU Replaced sensor that had experienced 1 to 20 °C dips in temperature</p>
TB10	<p>Current: #11260 EUFA Sensor has developed a 2 to 5 °C low bias</p> <p>Resolved: #11139 BREC Reinstalled exposed sensor</p> <p>Resolved: #11156 CLRM Cleared thatch off of bare plot</p> <p>Resolved: #11068 OKEM Reinstalled exposed sensor</p> <p>Resolved: #11137 SHAW Reinstalled exposed sensor</p> <p>Resolved: #11106 VINI Corrected cross-wiring problem with TB05</p>
TS05	<p>Current:</p> <p>Resolved:</p>
TB05	<p>Current: #11215 PAUL Sensor appears to be exposed</p> <p>Resolved: #10887 BREC Reinstalled exposed sensor</p> <p>Resolved: #10746 COPA Reinstalled exposed sensor</p> <p>Resolved: #11110 ELRE Reinstalled exposed sensor</p> <p>Resolved: #10918 KING Replaced sensor that had failed</p> <p>Resolved: #11135 NOWA Reinstalled exposed sensor</p> <p>Resolved: #11069 OKEM Reinstalled exposed sensor</p> <p>Resolved: #11040 SHAW Reinstalled exposed sensor</p>
TS30	<p>Current: #11105 GRA2 Sensor has developed a 3 °C cool bias</p> <p>Resolved: #11138 ADAX Replaced sensor that had developed a high bias</p> <p>Resolved: #11107 HECT Replaced sensor that was reporting erratic data</p> <p>Resolved: #11238 OKEM Fixed cable problem that had affected sensor</p>
TR05	<p>Current:</p> <p>Resolved:</p>
TR25	<p>Current:</p> <p>Resolved:</p>
TR60	<p>Current:</p> <p>Resolved:</p>
TR75	<p>Current: #11232 FAIR Decommissioning sensor due to preferential flow</p> <p>Resolved:</p>

ARS QA Report	
TAIR	Current: Resolved:
RELH	Current: Resolved:
WDIR	Current: Resolved:
SRAD	Current: Resolved: #10872 A163 Replaced sensor that had developed a low bias
RAIN	Current: Resolved:
TS05	Current: #11252 A131 Sensor has developed a 6 °C high bias Resolved:
TS10	Current: Resolved:
TS15	Current: Resolved:
TS30	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.

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