

OKLAHOMA MESONET/ARS QUALITY ASSURANCE REPORT

June 2004

Prepared by Janet Martinez

gamgr@mesonet.org

Spring Pass 2004 at the Mesonet was completed in June along with communication upgrades at 17 sites, 2 bases, and 6 repeaters. Power upgrades were completed at 8 sites.

Scheduled rotations of 5 prop anemometers and 2 cup anemometers were performed.

All sensors from Micronet site A137 were removed from the station in June due to repeated vandalism.

Mesonet QA Report for Standard Variables	
TAIR	<p>Current: #10032 BURB Abnormal drop in temperature compared to TSLO</p> <p>Current: #10077 JAYX Sensor has developed a 1 to 2 °C high bias</p> <p>Resolved: #9800 PRYO Cleaned mud dauber nest off sensor that had caused large drops in temperature data</p> <p>Resolved: #9834 BEEEX Replaced FastTherm that was reporting out-of-range data</p>
RELH	<p>Current:</p> <p>Resolved:</p>
WDIR	<p>Current:</p> <p>Resolved:</p>
WSPD	<p>Current:</p> <p>Resolved:</p>
PRES	<p>Current: #9977 HOBA Barometer errors occurring each day</p> <p>Current: #10033 VINI Sudden 6 °C drop in temperature compared to TSLO</p> <p>Resolved: #9736 MAYR Replaced sensor that was stuck at 860.88 mb</p>
SRAD	<p>Current:</p> <p>Resolved:</p>
RAIN	<p>Current:</p> <p>Resolved: #9828 CALV Removed spider webs from buckets that prevented tipping</p> <p>Resolved: #9798 IDAB Replaced reed switch after gauge reported only 1 tip during heavy rain event</p> <p>Resolved: #9986 CLRM Cleaned out blocked funnel tube after underreporting during heavy rain event</p> <p>Resolved: #9968 WEAT Evicted spider from gauge that had reported no rain</p> <p>Resolved: #10061 SALL Replaced failed reed switch</p> <p>Resolved: #9851 Sulp Replaced failed reed switch</p>
TA9M	<p>Current:</p> <p>Resolved:</p>

WS2M	Current: #9965 LAHO Starting threshold problems Resolved: #9957 BLAC Replaced sensor that had starting threshold problems
TS10	Current: #9836 DURA TS10 temperatures are 4-5 °F less than TS30 temperatures Current: #10049 WILB Sensor reporting large negative temperatures Resolved: #9801 COOK Tightened loose wires that had caused temps to drop intermittently to -20 to -30 °C
TB10	Current: #10069 WYNO TB10 temps 7-10 °C higher than all other soil temps Resolved: #9701 FREE Replaced sensor that had gopher damage
TS05	Current: #10068 PAWN Large increase in temperature during rainfall. High bias remains Resolved: #9681 BUTL Re-installed sensor that was exposed due to burrowing animal
TB05	Current: #9976 ANTL Temperature data dipping 10 °C during rains Current: #10070 CLAY TB05 consistently 2 to 10 °C cooler than TB10 Current: #10075 VANO Sensor has developed a 5 °C bias Current: #10076 WASH TB05 showed a dramatic jump to 115 °F during rain event Resolved: #9735 ALV2 Reinstalled sensor that was exposed to air due to severe Resolved: #9270 MAYR Corrected depth of sensor that was exposed to air
TS30	Current: #10071 MINC TS30 has developed a 5 to 10 °C low bias Resolved: #9106 SALL Replaced sensor that had developed a 5 °C bias
TR05	Current: #10034 CHER No heating at 5 cm Current: #9742 GRA2 Reported out-of-range data for several hours Current: #9939 BLAC 5 cm soil moisture sensor reporting out-of-range data Current: #10078 RING Sensor reporting out-of-range data Resolved: #9040 ALV2 Replaced sensor exposed to air due to crack in ground
TR25	Current: Resolved:
TR60	Current: Resolved:
TR75	Current: #9064 ELRE Decommissioning sensor at 75 cm due to no heating Resolved:

ARS QA Report	
TAIR	Current: Resolved:
RELH	Current: Resolved:

SRAD	Current: #9430 A181 Pyranometer reporting negative values at night Resolved:
RAIN	Current: Resolved:
TS05	Current: #10072 A152 Monthly QA shows that TS05 sensor has developed a 3 °C high bias compared to all other sod temps Resolved:
TS10	Current: Resolved:
TS15	Current: #10073 A153 Monthly QA indicates TS15 data has become very erratic with rapid 2 to 3 °C spikes and dips 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