

OKLAHOMA MESONET/ARS QUALITY ASSURANCE REPORT

April 2004

Prepared by Janet Martinez
gamgr@mesonet.org

Spring Pass 2004 began in April. Site maintenance was performed at 40 sites and field inter-comparisons of air temperature, relative humidity, and solar radiation sensors were performed.

Mesonet communications upgrades were performed at 30 sites, 8 bases, and 3 repeaters. The communications upgrade at the ARS Micronet was completed in April.

OASIS sensors (net radiometer, infrared thermometer, and ground heat flux plates) were decommissioned at the Slapout site.

Mesonet QA Report for Standard Variables	
TAIR	Current: Resolved:
RELH	Current: Resolved: #9175 WILB Replaced sensor that had reported erratic data Resolved: #9074 SKIA Replaced sensor that had reported data spikes up to 40% Resolved: #9102 PAWN Replaced sensor that had reported erratic data during and after each rain event Resolved: #9419 PERK Replaced sensor that had reported erratic data during and after each rain event
WDIR	Current: Resolved:
WSPD	Current: Resolved:
PRES	Current: Resolved: #9107 PUTN Replaced low voltage battery that caused spikes and dips in pressure before and after periods of missing data
SRAD	Current: Resolved: #9382 BURN Cleaned dust off pyranometer lens that affected radiation data
RAIN	Current: Resolved: #9235 SHAW Repaired funnel that one of our Mesonet Cows had knocked over and a human visitor to the site had placed back on the gauge upside down Resolved: #9236 BUTL Replaced failed switch on gauge Resolved: #9464 ARNE Replaced switch on gauge; evidence that large hail had struck site Resolved: #9234 APAC Replaced failed switch on gauge Resolved: #9418 PERK Replaced failed switch on gauge Resolved: #9218 SPEN Loosened buckets that were stuck and prevented tipping

TA9M	Current: #9568 KETC Sensor has 5 degree high bias Resolved:
WS2M	Current: Resolved:
TS10	Current: #9700 WYNO Sensor is reporting negative soil temperatures Resolved:
TB10	Current: #9701 FREE Sensor is reporting negative soil temperatures Resolved: #9109 DURA Replaced sensor that had reported erroneous data
TS05	Current: #9681 BUTL Sensor has developed a 6 to 9 °C high bias Resolved:
TB05	Current: #9270 MAYR Sensor has developed a 6 °C high bias Current: #9695 SLAP Sensor has developed a 5 °C high bias Resolved: #9297 CALV Re-installed sensor to correct depth to eliminate 7 °C high bias
TS30	Current: #9106 SALL Sensor has developed a 5 °C low bias Resolved:
TR05	Current: #9040 ALV2 Large spikes and dips in 5 cm soil moisture data Resolved:
TR25	Current: Resolved:
TR60	Current: Resolved:
TR75	Current: #9064 ELRE Decommissioning sensor at 75 cm due to no heating Resolved: #9071 BURN Decommissioned 75 cm sensor that is not heating

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: Resolved:
TS10	Current: Resolved: #9071 A164 Replaced sensor that had reported out-of-range temperatures
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