

OKLAHOMA MESONET/ARS QUALITY ASSURANCE REPORT

September 2004

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Summer Pass 2004 was completed in September.

The expansion of our soil moisture network continued with the installation of 5, 25 and 60 cm sensors at the Sallisaw site.

New HMP-45C Temp/RelH sensors were installed at 3 sites: Durant, Norman and Hugo. 20 solar panels were replaced for power system upgrades and scheduled rotations of 6 wind sentries were performed during September.

At the ARS Micronet, 27 pyranometers were replaced.

Mesonet QA Report for Standard Variables	
TAIR	Current: Resolved: #10419 WOOD Replaced sensor that had developed a 5°C high bias Resolved: #10420 TAHL Replaced sensor damaged by rodent that had been reporting out-of-range temperatures
RELH	Current: #10369 SULP Maximum relative humidity values are topping out at 95% Current: #10400 CLOU Maximum humidity values are topping out over 103%. Resolved:
WDIR	Current: Resolved:
WSPD	Current: Resolved:
PRES	Current: Resolved:
SRAD	Current: #10439 SALL Minimum values at night are 5-6 Wm ⁻² Resolved: #10337 WASH Cleaned bird droppings (industrial strength) off of sensor Resolved: #10367 SEIL Cleaned bird droppings off of sensor Resolved: #10370 GOOD Cleaned sensor that was found covered with fine dust from plowed fields and road
RAIN	Current: #10463 BYAR Gauge reported no rain on Oct. 1 while radar and nearby sites indicated 0.5 to 1.00" Resolved:
TA9M	Current: Resolved:

WS2M	Current: Resolved:
TS10	Current: Resolved: #9836 DURA Rewired sensors that were found to be cross-wired
TB10	Current: #10474 ACME No heat flow between 5 cm and 10 cm sensors Resolved: #10362 MEDF Repaired broken wires going to sensor that had caused negative temperatures to be reported
TS05	Current: #10366 MINC Sod temperature sensors appear to be cross-wired Current: #10475 REDR Sensor has developed a 3 to 4°C low bias Resolved: #10432 TAHL Replaced sensor that had been damaged by rodent
TB05	Current: Resolved: #10365 CHER Evicted ants that had built a home around sensor and reinstalled sensor
TS30	Current: #10473 TISH Data is spiking and dipping Resolved:
TR05	Current: #9742 GRA2 Reporting out-of-range values at 5 and 10 cm Current: #10160 ARNE Soil moisture data at all 4 depths has been erratic Current: #10438 SLAP Soil moisture sensor at 5 cm reporting out-of-range values Current: #10440 ELRE At all 3 depths, soil moisture sensors are sporadically reporting starting and final temps between 35 and 130°C Resolved:
TR25	Current: Resolved:
TR60	Current: Resolved:
TR75	Current: Resolved:

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

SRAD	Current: Resolved:
RAIN	Current: Resolved: #10363 A133 Cleaned vegetation and mud out of funnel that had prevented tipping
TS05	Current: #10480 A152 No heat flow between 5 cm and 10 cm sensors Current: #10481 A151 Temperature rapidly increased to unreasonable value Resolved: #10358 A150 Replaced sensor that had been damaged by gopher
TS10	Current: Resolved:
TS15	Current: Resolved:
TS30	Current: #10477 A162 Soil temperature data shows continual noise Resolved: #10372 A147 Replaced sensor that had developed a 2°C low bias

“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