

OKLAHOMA MESONET/ARS QUALITY ASSURANCE REPORT

July 1999

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Many trouble tickets were resolved during the month of July by the Mesonet Technicians. The lightning-damaged sites of CLAY, BURB, OKEM, and A182 were all brought back to full-performance.

In addition, the T/RH sensors were replaced at ELRE, MAYR, PAWN, RING, KING, GRA2, BREC, A135, A151, and A167 to eliminate suspicious or problematic sensors from the field.

One final note- Ken Meyers discovered vandalism to the rain gauge at A134 and replaced it.

Mesonet QA Report for Standard Variables	
TAIR	Current: Resolved: #2561 CLAY Sensor installed after original damaged by lightning Resolved: #2679 BURB Sensor replaced due to lightning damage Resolved: #2788 ELRE Sensor replaced after 0.5 C cool bias found during meso-comp Resolved: #2617 MAYR Replaced sensor stuck at -7999.0
RELH	Current: #2669 WALT Open RH switch Current: #2394 BRIS Data sporadically drops to less than 10% RH Resolved: #2151 RING Replaced sensor reporting erratic data dips Resolved: #2295 PAWN Replaced sensor possibly damaged by storm Resolved: #2376 KING Replaced sensor with suspected 2 C warm TDEW bias Resolved: #2562 CLAY Replaced lightning-damaged sensor Resolved: #2678 BURB Replaced lightning-damaged sensor Resolved: #2683 GRA2 Replaced sensor reporting erratic data dips Resolved: #2377 MAYR Replaced faulty sensor Resolved: #2639 BREC Replaced sensor stuck at -7999
WDIR	Current: #2718 DURA Sensor stuck at 0 degrees for extended periods Current: #2711 HOOK Sensor reporting E-NE'ly during southerly flow Resolved: #2276 BBOW Replaced sensor sticking during low winds Resolved: #2533 ACME Replaced sensor damaged by vandalism Resolved: #2672 CHER Replaced datalogger to correct incorrect WDIR observations
WSPD	Current: #2632 WEST Sensor sticking frequently at 0 m/s Current: #2670 DURA Sensor stuck at 0 m/s Current: #2736 BBOW Sensor suspected of under-reporting during strong winds/severe weather Resolved: #2437 ACME Replaced sensor damaged by vandalism
PRES	Current: Resolved: #2620 SULP Replaced tube clogged with bugs and mud Resolved: #2720 STIL Replaced barometer reporting spikes and dips Resolved: #2722 CALV Removed bug from barometer tube
SRAD	Current: #2669 WALT Sensor reporting -1 at night due to open RH switch Resolved: #2534 OKEM Replaced lightning-damaged sensor Resolved: #2560 CLAY Replaced lightning-damaged sensor

	Resolved: #2688 BURB Replaced lightning-damaged sensor Resolved: #2618 MAYR Corrected SRAD observations below 0 by replacing T/RH sensor
RAIN	Current: #2640 ANTL Gauge appears to be double-tipping Current: #2681 BURB Switch found to be sticking Resolved: #2655 OILT Replaced gauge suspect of under-reporting
TA9M	Current: #2792 MIAM Awaiting installation when sensor becomes available Resolved:
WS2M	Current: #2536 STIG Sensor stuck at 0 m/s Current: #2671 DURA Sensor sticking at 0 m/s for extended periods Resolved:
TS10	Current: #2260 BOWL Sensor reporting data spikes and 5 C warm bias Current: #2656 WALT Sensor biased 10 C cool Current: #2673 BURB Sensor appears to be biased 5 C warm since lightning strike Resolved: #2637 CHER Replaced datalogger to correct bad TS10 observations Resolved: #2633 COPA Replaced sensor with 10 C warm bias
TB10	Current: #2735 STUA Sensor spiked, then rose steadily to over 53 C Resolved: #2636 CHER Replaced datalogger to correct bad TB10 observations
TS05	Current: #2604 HOBA Sensor stuck at -273.1 C Resolved:
TB05	Current: #2538 CATO Sensor biased 5-10 C warm Current: #2719 LAHO Sensor reports erratically every afternoon Current: #2734 SKIA Reporting data spikes in the afternoon and as much as a 10 C warm bias Current: #2789 STIG Sensor reporting out of range (over 55 C) Resolved: #2619 ACME Replaced sensor with warm bias
TS30	Current: #2274 SALL Sensor damaged by lightning Current: #2391 HOLL Reporting 15 C warm bias Current: #2730 BURB Sensor biased 12 C cool since lightning strike Resolved:

	ARS QA Report
TAIR	Current: Resolved:
RELH	Current: #2539 A149 Monthly QA indicates 1.0 C low TDEW bias Resolved: #2715 A135 Replaced sensor with 7% high RH bias Resolved: #2710 A131 Repaired broken control line Resolved: #2716 A167 Replaced sensor with 7% high RH bias Resolved: #2717 A151 Replaced sensor with 5% high RH bias

SRAD	Current: Resolved: #2714 A182 Replaced lightning-damaged sensor
RAIN	Current: Resolved: #2721 A153 Replaced bad switch Resolved: #2801 A134 Replaced gauge damaged by vandals
TS05	Current: Resolved: #2606 A154 Replaced failed sensor Resolved: #2682 A144 Suspicious sensor checked and no problems found
TS10	Current: Resolved: #2634 A164 Replaced sensor found to be 8 C warm
TS15	Current: Resolved:
TS30	Current: Resolved: #2603 A121 Replaced sensor reporting erratic jumps

“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