

OKLAHOMA MESONET/ARS QUALITY ASSURANCE REPORT

May 1998

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A number of pressure problems were corrected during the month of May. Malfunctioning barometers at ALTU and SEIL were replaced, and the barometer tubes at ANTL and STUA were 'de-wormed' (to quote Gary) to correct problems there.

The SRAD field was also improved by replacing malfunctioning sensors at TULL, OKMU, and WYNO during the month of May.

Some of the soil temperature sensors at BRIS and FAIR fell victim to gopher damage last month. Those sensors were replaced.

The monthly QA detected a handful of possible biases in the soil sensors in both the ARS and MESO networks. Those stations included KETC, SHAW, A148, and A157. Those sensors will be investigated in the coming weeks.

Mesonet QA Report for Standard Variables	
TAIR	Current: Resolved: #1780 MAYR Instrument replaced
RELH	Current: #1814 MARS Sensor reporting as high as 110% Current: #1731 CLAY RH reports of -7999 on numerous occasions Current: #1810 KING Monthly QA shows 1.5 - 2.0 C TDEW warm bias Resolved: #1824 HOBA Sensor replaced
WDIR	Current: Resolved: #1770 TULL Sensor replaced due to vandalism
WSPD	Current: Resolved: #1826 FORA Noisy bearings replaced
PRES	Current: Resolved: #1751 ALTU Sensor replaced Resolved: #1809 SEIL Sensor replaced Resolved: #1820 ANTL Replaced worm-clogged barometer tube Resolved: #1836 STUA Replaced worm-clogged barometer tube
SRAD	Current: #1839 HOOK Reporting -1 for extended periods at night Current: #1843 GRAN Reporting values ~70% too low Resolved: #1761 TULL Sensor replaced after vandalism Resolved: #1765 OKMU Sensor replaced to correct 10% bias Resolved: #1781 MAYR Sensor reporting <0 due to bad TAIR switch Resolved: #1802 WYNO Sensor replaced
RAIN	Current: Resolved: #1818 PRES New switch installed to fix under-reporting Resolved: #1829 CAMA Gauge with bucket off bearings replaced

	Resolved: #1799 COPA New switch installed to fix under-reporting
TA9M	Current: Resolved:
WS2M	Current: Resolved:
TS10	Current: Resolved: #1790 BRIS Gopher damage; sensor replaced Resolved: #1777 MEDI Sensor replaced to correct warm bias Resolved: #1833 FAIR Replaced gopher-damaged sensor
TB10	Current: #1779 WILB Monthly QA suggests 4 C cool bias Resolved: #1782 MAYR Sensor replaced
TS05	Current: #1846 KETC Monthly QA suggests 2-3 C cool bias Current: #1847 SHAW Monthly QA suggests 3-6 C cool bias Resolved: #1811 BRIS Gopher damage; sensor replaced
TB05	Current: #1808 WOOD Monthly QA suggests possible 4 C warm bias Current: #1845 KETC Monthly QA suggests 2-3 C warm bias Resolved:
TS30	Current: #1704 EUFA Sensor reporting -9999 due to lightning Resolved:

ARS QA Report	
TAIR	Current: Resolved:
RELH	Current: Resolved: #1813 A182 Sensor replaced
SRAD	Current: #1848 A131 Obs too low after sunrise and before sunset Resolved:
RAIN	Current: Resolved: #1830 A111 Reed switch changed
TS05	Current: #1816 A148 Monthly QA suggests possible 2-4 C warm bias Current: #1817 A157 Monthly QA suggests possible 2 C cool bias Current: #1849 A123 PM readings are ~10 C cooler than neighbors Resolved:
TS10	Current: #1831 A157 Spatial QA shows a possible 8 C cool bias Resolved: #1815 A166 2 C cool bias found; sensor replaced

TS15	Current: Resolved:
TS30	Current: #1825 A147 Sensor reporting ~5 C too warm Resolved: #1834 A166 Sensor replaced

“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