

OKLAHOMA MESONET/ARS QUALITY ASSURANCE REPORT

April 1998

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The monthly averaged fields for April were quite smooth. Temperatures across the state are on the rise in a big way. Average afternoon temperatures were some 8 C warmer for April than they were for March. The heaviest rainfall totals for April were observed in a swath stretching from just east of Norman northward to Osage County. These areas received 5-6 inches for the month. This contrasts with the southwest part of the state where most stations received less than 0.50 inches.

The monthly QA detected a number of possible biases in the soil sensors in both the ARS and MESO networks. Those sensors will be investigated in the coming weeks.

Mesonet QA Report for Standard Variables	
TAIR	Current: #1780 MAYR Reporting values out of range Resolved:
RELH	Current: #1669 MADI RH reporting -7999 on multiple occasions 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: #1732 WYNO Sensor replaced due to -7999 reports Resolved: #1771 TULL Sensor replaced due to vandalism Resolved: #1754 NINN Sensor field-tested to be ok
WDIR	Current: Resolved: #1770 TULL Sensor replaced due to vandalism
WSPD	Current: Resolved: #1769 TULL Sensor replaced due to vandalism
PRES	Current: #1751 ALTU Sensor remains stuck at various readings Current: #1809 SEIL Monthly QA shows possible 0.6 - 1.0 low bias Resolved: #1772 TULL Sensor replaced due to vandalism
SRAD	Current: #1761 TULL Waiting for replacement after vandalism Current: #1765 OKMU Failed comparison test by >10% Current: #1781 MAYR Reporting below 0 during the night Current: #1802 WYNO Reporting 0.0 most of the day Resolved:
RAIN	Current: #1799 COPA Gauge reporting 0.0 during heavy rain event Resolved: #1763 TULL Sensor replaced due to vandalism Resolved: #1801 CLAR Under-reporting caused by debris in funnel Resolved: #1796 CHIC Over-reporting corrected with new gauge Resolved: #1791 NINN Distance between switch and magnet causing no tip counts, replaced gauge
TA9M	Current:

	Resolved: #1760 TULL Sensor replaced due to vandalism
WS2M	Current: Resolved:
TS10	Current: #1755 TULL Cable cut when enclosure stolen Current: #1777 MEDI Monthly QA shows 2-3 C warm bias Resolved:
TB10	Current: #1779 WILB Monthly QA indicates 4 C cool bias Current: #1782 MAYR Unnatural steps occurring in data Resolved: #1756 TULL Sensor replaced due to vandalism
TS05	Current: #1811 BRIS Monthly QA shows ~5 C warm bias Resolved:
TB05	Current: #1808 WOOD Monthly QA shows possible 4 C warm bias Resolved:
TS30	Current: #1704 EUFA Sensor reporting -9999 due to lightning Resolved:

ARS QA Report	
TAIR	Current: Resolved:
RELH	Current: Resolved: #1803 A111 Sensor reporting 0%, replaced
SRAD	Current: Resolved: #1797 A121 Wire chewed and broken near stand, replaced
RAIN	Current: Resolved: #1742 A122 CR10T and gauge replaced to fix spurious reports Resolved: #1800 A132 Spider web clogging gauge removed
TS05	Current: #1816 A148 Monthly QA shows possible 2-4 C warm bias Current: #1817 A157 Monthly QA shows possible 2 C cool bias Resolved: #1785 A131 Soil type found to be cause of spatial QA anomaly
TS10	Current: #1815 A166 Monthly QA shows possible 2-3 c cool bias Resolved:
TS15	Current: Resolved:
TS30	Current: Resolved: #1778 A156 Field test confirmed QA warm bias, replaced

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“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