

OKLAHOMA MESONET/ARS QUALITY ASSURANCE REPORT

August 1998

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The NINN site was moved approximately 7 feet from its original location on August 18 due to a water main break underneath the site.

It really WAS that dry... The technicians checked a number of rain gauges during the month that were suspected of under-reporting. HOLL was high on the list, since the site had observed only .03 inches of rainfall over the past 90 days. The gauge checked out fine, and Bill Wyatt reported that "the general appearance of the area indicated that children as old as 4 or 5 may not have seen rain in their lifetime."

We also had a handful of soil temperatures flagged as 'suspect' because they have been repeatedly failing the spatial test during the hot afternoons. The recent rainfall across the state will hopefully help us better evaluate which sensor is biased, and which sensors are simply reporting the conditions of the dry cracked ground.

And now, on to the report...

Mesonet QA Report for Standard Variables	
TAIR	Current: Resolved: #1974 SPEN Horse broke the instrument; repaired
RELH	Current: Resolved: #1814 MARS Spider webs cleaned on probe cap Resolved: #2005 GUTH Replaced sensor after failing mesocomp Resolved: #2001 SPEN Faulty sensor replaced
WDIR	Current: Resolved: #2019 NINN Tower moved; reset wind direction
WSPD	Current: Resolved: #1913 SPEN Nose cone, nut, and prop replaced
PRES	Current: #2048 FTCB Sensor sticking and producing barometer errors Current: #2049 Sulp Sensor reporting continuous spikes and dips Current: #2016 KENT Sensor sticking and reporting barometer errors since installation Resolved: #2017 APAC Barometer brought to lab for test
SRAD	Current: #1839 HOOK Reporting -1 for extended periods at night Resolved: #1987 OKMU Sensor checked out OK; bird probably responsible for suspicious afternoon readings
RAIN	Current: #2030 WOOD Sensor report 0.00" during numerous rain events Resolved: #1986 HOLL Field drip test showed gauge to be fine Resolved: #1972 CHEY Field drip test showed gauge to be fine Resolved: #1973 BUTL Field drip test showed gauge to be fine Resolved: #1984 MIAM Gauge cleaned and no problems found

TA9M	Current: #1989 HUGO Monthly QA suggests 2 C cool bias Resolved:
WS2M	Current: Resolved: #1952 CLAY New CR10T corrected continuous 0.0 WS2M reports
TS10	Current: #2021 SEIL Sensor reporting erroneous dips Resolved:
TB10	Current: #1779 WILB Monthly QA suggests 4 C cool bias Current: #2003 WOOD Sensor reporting 8 C cooler than neighbors Current: #2020 SEIL Sensor reporting erroneous dips Current: #2052 BYAR Sensor reporting long-duration offsets of 5-10 C and numerous spikes Resolved: #1970 NINN Water main burst required sensor to be moved
TS05	Current: #1847 SHAW Data suggests 3-6 C cool bias Resolved:
TB05	Current: #1808 WOOD Monthly QA suggests possible 4 C warm bias Current: #1878 PAUL Sensor reporting values below 0 C Current: #1899 IDAB Sensor reporting over 50 C Current: #1988 EUFA Sensor reporting cooler than TB10 at all times of day Current: #2015 ELRE Sensor reporting 8 C warmer than neighbors Current: #2036 BOIS Sensor has diurnal swing from 11 C - 56 C Resolved: #1971 NINN Water main burst required sensor to be moved
TS30	Current: #1956 SHAW Data suggests TS05 and TS30 wires are crossed Resolved:

ARS QA Report	
TAIR	Current: Resolved:
RELH	Current: Resolved: #2031 A166 Failed mesocomp and replaced
SRAD	Current: Resolved:
RAIN	Current: Resolved: #2032 A132 Spider webs removed from gauge
TS05	Current: #1924 A157 Awaiting new sensor after site move Resolved:
TS10	Current: #1927 A157 Awaiting new sensor after site move

	Resolved: #2000 A161 Sensor found to be 20 C too high; replaced
TS15	Current: #1926 A157 Awaiting new sensor after site move Current: #2029 A146 Sensor reporting below -100 C Resolved: #1985 A154 Sensor found to be 9.5 C too warm; replaced
TS30	Current: #1925 A157 Awaiting new sensor after site move Resolved: #2002 A167 Gopher-damaged 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