

OKLAHOMA MESONET/ARS QUALITY ASSURANCE REPORT

January 1999

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After a fairly long dry spell, the last weekend of January brought 1 to 2 inch rainfall totals to most sites in the Mesonet. This event brought to our attention an under-reporting gauge at NOWA.

Along with the rainfall, the Panhandle stations got quite a bit of freezing rain and snow. The 10-m wind sensors were most affected this time around. GOOD, BEAV, HOOK, and SLAP all had their anemometers freeze solid as the ice accumulated.

Mesonet QA Report for Standard Variables	
TAIR	Current: #2189 SLAP Long-term QA indicates possible 1.5 C warm bias Resolved: #2181 ALV2 Sensor reporting frequent -7999 replaced
RELH	Current: #2151 RING Sensor sporadically reporting ~30% too low Resolved: #2144 MANG Sensor reporting low Max RH replaced Resolved: #2173 SEIL Replaced erratically reporting sensor Resolved: #2190 PRYO Replaced sensor with 1 C warm TDEW bias Resolved: #2206 PRES Sensor replaced after vandalism
WDIR	Current: Resolved: #2205 PRES Sensor replaced after vandalism
WSPD	Current: Resolved: #2178 BREC Sensor with lose bearings replaced Resolved: #2180 ALV2 Repaired lose wire and corrosion which was causing frequent 0.0 m/s reports Resolved: #2204 PRES Sensor replaced after vandalism Resolved: #2209 CHAN Replaced sensor shot with rifle
PRES	Current: #2186 SLAP Long-term QA indicates possible low bias Resolved:
SRAD	Current: #2212 SPEN Sensor consistently reports lower than neighboring sites Resolved:
RAIN	Current: #2211 NOWA Gauge reported 0.00" during heavy rainfall event Resolved:
TA9M	Current: Resolved:
WS2M	Current: Resolved: #2203 PRES Sensor replaced after vandalism

TS10	Current: #2161 FAIR Sensor reporting constant -219.3 C Current: #2188 HINT Monthly QA indicates 2-3 C cool bias Resolved:
TB10	Current: #2213 GUTH Monthly QA indicates 2-3 C warm bias Resolved: #2183 WYNO Replaced sensor with sporadic low bias Resolved: #2200 BREC Added soil removed by erosion Resolved: #2208 PRES Sensor replaced after vandalism
TS05	Current: #2160 FAIR Sensor reporting constant -57.3 C Current: #2187 HINT Long-term QA indicates 2 C cool bias Resolved:
TB05	Current: #2015 ELRE Sensor reporting 2 C warmer than neighboring sites Resolved: #2185 BRIS Replaced sensor with 5.5 C warm bias Resolved: #2199 BREC Added soil removed by erosion Resolved: #2205 PRES Sensor replaced after vandalism
TS30	Current: #2157 TIPT Sensor reporting constant -56.0 C Current: #2184 FTCB Long-term QA indicates 1-2 C cool bias Resolved:

ARS QA Report	
TAIR	Current: Resolved:
RELH	Current: #2179 A155 Sensor reports as high as 105% during conditions of high relative humidity Resolved: #2196 A124 Replaced sensor with 1.8 C high TDEW bias Resolved: #2202 A164 Replaced sensor with 1.5 C high TDEW bias
SRAD	Current: Resolved:
RAIN	Current: Resolved:
TS05	Current: Resolved: #2194 A164 Replaced sensor with 4 C warm bias
TS10	Current: #2214 A110 Monthly QA indicates 4 C warm bias Resolved:
TS15	Current: Resolved: #2201 A164 Replaced sensor with slight warm bias and biting in insulation
TS30	Current: Resolved:

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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