

OKLAHOMA MESONET/ARS QUALITY ASSURANCE REPORT

April 1997

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As the weather warms up, it seems the Mesonet has also. The technicians have had plenty of things to keep them busy, and many trouble tickets were issued and resolved in April. With the onset of the spring rains, more rain gauges have shown up plugged or stopped. This has proven to be the most problematic instrument during the month of April, but even so, the gauges have been working rather well so far.

There was only one incident of vandalism this month, and it was at WEBB again. Someone decided they needed a 10m wind monitor to add to their collection, so they came back and grabbed one.

One note of weather related interest involves the monthly summary of wind vectors. With a number of surface low pressure systems slowly marching through Texas in April, the 1800 UTC wind vectors were almost due easterly in southern Oklahoma for the month. Rather interesting!

Well, here is the rap sheet...

Mesonet QA Report for Standard Variables	
TAIR	Current: Resolved: #1217 SALL Vandalism replacement
RELH	Current: #1292 HUGO Aspirated intercomparison revealed RH out of spec ~3% W.R.T. test probe Resolved: #1251 PRES Put in nipple top shield taken from APAC Resolved: #1245 BBOW RH +7-8% W.R.T. test probe Resolved: #1196 IDAB Indeed RH was dead / not cabling problem Resolved: #1257 ERIC Probe end covered in spider webs
WDIR	Current: Resolved: #1282 WEBB Made mistake in log - issued new t-kt Resolved: #1283 WEBB Replaced stolen wind monitor
WSPD	Current: Resolved: #1285 WEBB Replaced stolen wind monitor
PRES	Current: Resolved: #1223 Vandalism Replacement
SRAD	Current: Resolved: #1222 SALL Vandalism Replacement Resolved: #1294 WEBB Cleaned off brown coating
RAIN	Current: #1116 BOWL Drip test yield 41 tips (50 typical) Current: #1116 BOWL Drip test yielded 41 tips (50 typical) Current: #1284 BOIS There is a high probability this gauge is plugged/not functioning Current: #1290 RETR High probability gauge is plugged/not functioning Resolved: #1224 SALL Vandalism Replacement

	<p>Resolved: #1259 COPA No problem found - drip test = 51 tips</p> <p>Resolved: #1248 JAYX Found plug in funnel - put in new gauge</p> <p>Resolved: #1198 MEDF Drip test showed gauge o.k.</p> <p>Resolved: #1197 PUTN Bucket seams broken, leaked water</p> <p>Resolved: #1272 HUGO 500ml of water dripped through w/no tips</p> <p>Resolved: #1257 BESS Bucket not tipping due to spider web.</p> <p>Resolved: #1276 PUTN Replaced gauge removed on earlier trip</p>
TA9M	<p>Current:</p> <p>Resolved: #1126 HUGO Side by side field test revealed ~2 degree cool bias - replaced sensor</p>
WS2M	<p>Current:</p> <p>Resolved: #1227 MANG No output from sensor to datalogger</p> <p>Resolved: #1264 PRES Replaced Vandalized sensor.</p> <p>Resolved: #1273 BEAV Replaced wind monitor bearings.</p> <p>Resolved: #1266 SKIA Broken wire caused ground to disconnect</p>
TS10	<p>Current: #1193 STUA QA suggests a ~3 degree warm bias</p> <p>Resolved: #1218 SALL Vandalism Replacement</p>
TB10	<p>Current: #1200 TALI Sensor is nearly 10 degrees warmer than its neighboring sites.</p> <p>Current: #1260 SALL Sensor not reporting for extended periods, then functioning normal</p> <p>Resolved: #1219 SALL Vandalism Replacement.</p> <p>Resolved: #1269 MTHE Installed probe marker</p>
TS05	<p>Current: #1089 MADI QA suggests sensor reading ~5-6 degrees warm</p> <p>Current: #1190 MADI QA suggests sensor reading ~3 degrees warm</p> <p>Current: #1191 CALV QA suggests sensor reading ~3 degrees warm</p> <p>Current: #1192 STUA QA suggests sensor reading ~3 degrees warm</p> <p>Current: #1286 FORA Normal operation with intermittent bad data</p> <p>Current: #1206 LANE Sensor reading ~10+ degrees warmer than neighboring sites</p> <p>Resolved:</p>
TB05	<p>Current: #1076 WALT Began drifting, then failed range test</p> <p>Current: #1169 KING QA suggests a ~4 degree warm bias</p> <p>Current: #1256 SALL Sensor failing range test</p> <p>Current: #1261 PAUL Extended periods of bad data followed by normal operation</p> <p>Resolved: #1220 SALL Vandalism Replacement</p> <p>Resolved: #1127 OKEM Dug up sensor - sensor ok - reinstalled</p>
TS30	<p>Current:</p> <p>Resolved:</p>

ARS QA Report	
TAIR	<p>Current:</p> <p>Resolved:</p>

RELH	Current: Resolved:
SRAD	Current: #1132 A182 QA suggests sensor ~30% high Current: #1296 A125 QA suggests sensor is reading ~50 units too low Resolved:
RAIN	Current: Resolved:
TS05	Current: #1295 A160 QA suggests a ~6 degree warm bias Resolved: #1214 A147 Wires tightened on maintenance visit
TS10	Current: Resolved:
TS15	Current: Resolved: #1136 A182 Confirmed too warm - replaced probe Resolved: #1267 A182 T-kt covered by #1136
TS30	Current: Resolved:

“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