

# OKLAHOMA MESONET/ARS QUALITY ASSURANCE REPORT

April 1999

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**Forces of Nature:**

SHAW, SALL and CLAY were each struck by lightning during the month of April, causing varying degrees of damage to the instrumentation at those sites. CLAY is no stranger to lightning strikes. This was its third strike since its birth in March of 1994. As a preview to next month's QA report, I'd like to note that CLAY saw its FOURTH strike just last week!

Bulls were reported to have attacked BRIS during April, knocking down a pyranometer stand, destroying the temperature and RH sensor, and causing damage to the rain gauge there.

Mischievous cows also knocked down the pyranometer stand at WASH.

<b>Mesonet QA Report for Standard Variables</b>	
<b>TAIR</b>	Current: Resolved: #2263 BRIS Sensor destroyed by bull Resolved: #2275 SALL Sensor destroyed by lightning Resolved: #2383 CLAY Sensor damaged by lightning
<b>RELH</b>	Current: #2151 RING Sensor sporadically reporting data spikes Current: #2295 PAWN Sensor damaged by storm Current: #2297 CHIC Sensor sticking at 0% RELH Current: #2327 COPA Sensor reached a max RH of only 94.7% during the month of April Current: #2377 MAYR Monthly QA indicates 1.5 C low TDEW bias Current: #2376 KING Monthly QA indicates 2 C high TDEW bias Resolved: #2262 BRIS Sensor destroyed by bull Resolved: #2270 SALL Sensor destroyed by lightning Resolved: #2382 CLAY Sensor damaged by lightning
<b>WDIR</b>	Current: #2276 BBOW Sensor possibly sticking during low winds Resolved: #2277 SHAW Lightning strike damaged wind transzorb Resolved: #2384 CLAY Possible lightning damage; lab tested
<b>WSPD</b>	Current: Resolved: #2385 CLAY Possible lightning damage; lab tested
<b>PRES</b>	Current: Resolved:
<b>SRAD</b>	Current: Resolved: #2212 SPEN Sensor found to have greater than 5% error Resolved: #2264 BRIS Stand knocked over by bull Resolved: #2266 WASH Stand knocked down by cows Resolved: #2268 SALL Sensor destroyed by lightning strike Resolved: #2386 CLAY Sensor damaged by lightning

<b>RAIN</b>	Current: Resolved: #2267 BRIS Gauge repaired after bull attack
<b>TA9M</b>	Current: #2326 CLAY Sensor stuck at -459 C Resolved:
<b>WS2M</b>	Current: Resolved:
<b>TS10</b>	Current: #2188 HINT Long-term QA indicates 1-2 C cool bias Current: #2234 MINC Monthly QA indicates 5 C warm bias Current: #2260 BOWL Sensor reporting data spikes and 5 C warm bias Resolved: #2236 VINI Replaced sensor reporting data spikes Resolved: #2387 CLAY Sensor damaged by lightning
<b>TB10</b>	Current: #2213 GUTH Long-term QA indicates 10 C warm bias Current: #2325 MARE Sensor reporting 5 C warm bias Current: #2329 IDAB Monthly QA indicates 5 C warm bias Resolved: #2324 WYNO Replaced sensor with intermittent data spikes
<b>TS05</b>	Current: #2187 HINT Long-term QA indicates 1-2 C cool bias Resolved: #2388 CLAY Sensor damaged by lightning
<b>TB05</b>	Current: #2328 HOBA Monthly QA indicates 4 C cool bias at night, 4 C warm bias during day Resolved: #2015 ELRE Replaced sensor with warm bias Resolved: #2259 NORM Repaired sensor with loose wire Resolved: #2389 CLAY Sensor damaged by lightning
<b>TS30</b>	Current: #2184 FTCB Long-term QA indicates 1-2 C warm bias Current: #2274 SALL Sensor damaged by lightning Resolved: #2390 CLAY Sensor damaged by lightning

<b>ARS QA Report</b>	
<b>TAIR</b>	Current: Resolved:
<b>RELH</b>	Current: Resolved:
<b>SRAD</b>	Current: Resolved:
<b>RAIN</b>	Current: #2296 A148 Gauge stopped reporting during heavy rain event Resolved:
<b>TS05</b>	Current: Resolved:

<b>TS10</b>	Current: Resolved:
<b>TS15</b>	Current: Resolved:
<b>TS30</b>	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.

<b>Variable</b>	<b>Description</b>
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