

# OKLAHOMA MESONET/ARS QUALITY ASSURANCE REPORT

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Three more ice storms hit the state during February. The first storm lasted from the 8th through the 11th and affected much of northwest Oklahoma. The second event lasted from the 15th through the 18th and affected 27 stations in south-central and east-central Oklahoma. The third event affected over 40 stations in central and northeastern Oklahoma on the 28th of the month. Wind data from these events was flagged appropriately in the QAdatabase.

HUGO became the first site to get struck by lightning during 2001. On the 24th, the site suffered major damage to the logger, battery, rain gauge, temperature and RH, and soil temperatures sensors.

| <b>Mesonet QA Report for Standard Variables</b> |   |
|---|---|
| <b>TAIR</b>                                     | <b>Current: # 5442 GRA2 Sensor reporting 3.5 C warm bias</b><br>Resolved:   |
| <b>RELH</b>                                     | <b>Current: # 5505 HUGO Lightning damage</b><br><b>Resolved: # 5355 ERIC Replaced erratic sensor</b><br><b>Resolved: # 5441 HECT Repaired lose wire</b>   |
| <b>WDIR</b>                                     | Current:<br>Resolved:   |
| <b>WSPD</b>                                     | <b>Current: # 5490 RING Bad bearings suspected due to low bias</b><br>Resolved:   |
| <b>PRES</b>                                     | Current:<br>Resolved:   |
| <b>SRAD</b>                                     | <b>Current: # 5072 KETC Monthly QA indicates 5-10% high bias</b><br><b>Current: # 5159 FAIR Sensor stuck at 0</b><br><b>Current: # 5394 SEIL Sensor reporting 80% low</b><br><b>Current: # 5519 MEDF Monthly QA indicates 10% low bias</b><br>Resolved: |
| <b>RAIN</b>                                     | <b>Current: # 5397 MEDF Gauge stuck at 0 during precip event</b><br><b>Current: # 5511 HUGO Gauge occasionally double-tips</b><br><b>Current: # 5466 PUTN Gauge under-reported rainfall by over 1 inch</b><br>Resolved:                                 |
| <b>TA9M</b>                                     | <b>Current: # 5492 JAYX Reporting 7-8 erratic obs per day</b><br>Resolved:  |
| <b>WS2M</b>                                     | Current:<br><b>Resolved: # 5445 WAUR Replaced dirty bearings</b>  |

|             |  |
|-------------|--|
| <b>TS10</b> | Current: # 5507 HUGO Lightning damage<br>Resolved: # 5410 SKIA Tightened lose wire   |
| <b>TB10</b> | Current: # 5402 MAYR 3 C cool bias<br>Current: # 5468 STUA Sensor has 10 C warm bias<br>Current: # 5518 MEDF Monthly QA indicates 3 C warm bias<br>Resolved: # 5433 SHAW Reset sensor found heaved upward<br>Resolved: # 5479 HASK Reset sensor found heaved upward  |
| <b>TS05</b> | Current: # 5194 FAIR 5 C cool bias<br>Current: # 5508 HUGO Lightning damage<br>Resolved:   |
| <b>TB05</b> | Current: # 5419 MARS Possible erosion causing TB05 to drop well below freezing<br>Current: # 5454 BLAC Possible erosion<br>Current: # 5455 KING Possible erosion<br>Current: # 5456 OKMU Possible erosion<br>Current: # 5457 PRYO Possible erosion<br>Current: # 5458 FORA Possible erosion<br>Current: # 5459 TAHL Possible erosion<br>Resolved: # 5416 REDR Reset sensor found heaved upward<br>Resolved: # 5417 SHAW Reset sensor found heaved upward<br>Resolved: # 5480 HASK Reset sensor found heaved upward |
| <b>TS30</b> | Current: # 5509 HUGO Lightning damage<br>Current: # 5517 EUFA Monthly QA indicates 3 C cool bias<br>Resolved:  |

| <b>ARS QA Report</b> |   |
|----------------------|---|
| <b>TAIR</b>          | Current:<br>Resolved:   |
| <b>RELH</b>          | Current: # 5516 A149 Monthly QA indicates high bias<br>Resolved:                        |
| <b>WDIR</b>          | Current:<br>Resolved:   |
| <b>SRAD</b>          | Current:<br>Resolved:   |
| <b>RAIN</b>          | Current: # 5467 A121 Gauge under-reporting<br>Resolved: # 5452 A122 Replaced bad switch |
| <b>TS05</b>          | Current: # 5453 A165 Possible erosion<br>Resolved:                                      |

|             |                       |
|-------------|-----------------------|
|             |                       |
| <b>TS10</b> | Current:<br>Resolved: |
|             |                       |
| <b>TS15</b> | Current:<br>Resolved: |
|             |                       |
| <b>TS30</b> | Current:<br>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 |