

OKLAHOMA MESONETWORK QUALITY ASSURANCE REPORT
for the month of September, 1996

Based upon observations taken at 1800 UTC each day

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Notes:

As expected, there have been no major tragedies with Mesonet instruments and maintenance this month (knock on wood). As a matter of fact, I think I had to do the least amount of backtracking to produce this report than I've had to since becoming the QA Manager. And after all, less work for me simply means everyone else is working harder than ever (and loving every minute of it I'm sure).

Heavy rains once again top the list of exciting things in this month's data. Parts of northeastern Oklahoma reported nearly 10 inches during September. Last week, Westville reported a one day total of in excess of 7 inches. The Arkansas River Valley East Wind Anomonly shows up well in the monthly averaged 1800 UTC wind vector plots. A nice fetch of southeasterly winds flows right up the Arkansas Valley with due southerly winds elsewhere.

Soil temperature probes are presenting a few problems here and there. These little boogers tend to perform just fine, then all the sudden began reporting as if someone threw them in hot water. Even though battery voltage isn't normally discussed in this report, I will mention briefly that a few batteries here and there are starting to fail. This is usually marked by a sudden drop in the voltage. Even the sunshine can't keep them going after so many years, I suppose.

One final note. I myself have noticed (and numerous persons have pointed out to me) anomolous things going on at Webber's Falls. Particularly, on calm days with intense heating, the dewpoint can be as much as 5-6 degrees higher than surrounding stations. At one time in August, this resulted in a report of a dewpoint of 83 F. Not impossible but not likely. Also, the 2 m wind speeds are anomolously low. This is all in large part due to a 6' to 10' high fetch of Johnson Grass at the site. Options are being explored on how to best solve this problem (the obvious being to mow the grass, but there has been talk of relocating the site).

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TAIR (Air Temperature at 1.5 meters):

Current t-tkts: None.
Added: None.
Resolved: None.

TDEW/RELH (RH is measured at 1.5 meters):

Current t-tkts: #1003 WOOD Periodically fails range test. Values to 114% have been observed.

#1081 PUTN Periodically fails range test.
#1086 CLAR Reporting values to 110% at times.
Added: None.
Resolved: #1050 BESS Was reporting erratic values.
#974 RING RH max previously slightly low in QA.
Ticket dismissed due to continued evidence.
#1079 EUFA QA low bias previously. Ticket dismissed
due to lack of continued evidence.

WDIR (Wind Direction at 10 meters):

Current t-tkts: None.
Added: None.
Resolved: None.

WSPD (Wind Speed at 10 meters):

Current t-tkts: None.
Added: None.
Resolved: None.

PRES/PALT (Sea level Pressure):

Current t-tkts: None.
Added: None.
Resolved: #1074 ARNE Tech found wiring incorrect.
#1075 CHAN Tech found broken wire.

SRAD (Incident Solar Radiation):

Current t-tkts: None.
Added: #1087 BREC Both midday obs and total daily received
suggest sensor reading ~20% high.
Resolved: #996 HUGO Low bias noted in previous QA dismissed
due to lack of continued evidence.
#1039 BREC Sensor replaced. Was reading low, possible
lightning strike. Note #1087 above.

RAIN:

Current t-tkts: None.
Added: None.
Resolved: #1083 WIST Failed to report during heavy rain event
in area. No switch closure during bucket
tip, thus no rain reported.
#1051 BREC Replaced. Broken mercury switch.

TA9M (Air Temperature at 9 meters):

Current t-tkts: None.
Added: None.
Resolved: None.

WS2M (Wind Run at 2 meters):

Current t-tkts: #1044 PRES Vandals broke and left hanging. Tech did
temporary fix. Will replace next visit.
Added: None.
Resolved: #1078 WEBB Ticket dismissed. Bias due to vegetation
growth at site (see notes above).

TS10 (Soil temperature at 10 cm under native sod):

Current t-tkts: #963 NORM QA shows ~2 deg warm bias.

#1082 MARS 8-9 deg warm bias.
Added: None.
Resolved: None.

TB10 (Soil temperature at 10 cm under bare soil):

Current t-tkts: #1076 WALT Warm Bias >20 C (obviously bad).
#1080 BIXB Reading fell to -23.4. Sensor out.

Added: None.

Resolved: #925 HASK Ticket dismissed. Previously noted small
small bias inside of new criteria.

TS05 (Soil temperature at 5 cm under native sod):

Current t-tkts: #967 NORM QA suggests ~4 deg warm bias.

Added: #1089 MADI QA suggests ~5-6 deg warm bias.

Resolved: None.

TB05 (Soil temperature at 5 cm under bare soil):

Current t-tkts: #1084 BUFF Failing to report. Possible wiring problem.

Added: #1088 BESS QA suggests ~6 deg warm bias.

Resolved: #924 HASK Ticket dismissed. Small bias noted in
previous QA inside new criteria.

TS30 (Soil temperature at 30 cm under native sod):

Current t-tkts: #1077 ALVA QA continues to indicate bias >10 deg warm.

Added: None.

Resolved: None.

Curtis H. Marshall, Jr.

3 October 1996