

OKLAHOMA MESONETWORK QUALITY ASSURANCE REPORT  
for the month of March 1996.

Based upon observations taken at 1800 each day

Prepared by Derek Arndt (derek@mesnet.mesonet.uoknor.edu)  
and Curtis Marshall (curtis@mesnet.mesonet.uoknor.edu)

Notes:

The event of the month was undoubtedly the March 10 grassfire which caused major damage at WATO. Every near-ground instrument was damaged or destroyed, and all of the soil probes lost their cables in the blaze. Apparently, the fire may have been initiated by some downed electrical lines. The site is now fully operational.

The first significant rains in a long, long time failed to wake up two of our rain gauges (TISH and WILB). And the NORM rain gauge was awakened so quickly that its bucket jumped right out of the carriage. WILB and TISH were replaced and TISH was cleaned out.

With spring at the doorstep, many new obstacles greet the techs. Lightning season is upon us, and the jungles of the southeast should be at full bloom in a month or so.

Driving around Kay county this weekend, I noticed many small drifts of sand, and some large ones. I'm afraid this winter's sand-filled gauges of the southwest weren't a one-time occurrence.

Overall, Mesonet data looks better to the naked eye than it has since my arrival in May 1994. The technicians and QA personnel have reduced the response time to problems greatly.

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TAIR (Air Temperature at 1.5 meters):

This field looks very good, with the exception of MTHE, which still looks to be biased cool by about one degree Celsius.

Current t-tkts: #829     MTHE     Slight cool bias.  
Added:                 None.

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

This field looks very good now. Many stations did not make it to 97% relative humidity, but I have dismissed this, recalling that humidities were around 80% during \*rainfall\* in late March. It was DRY, folks.

Instruments were routinely rotated at CHEY, MEDF, and STIL.

Current t-tkts: #790     ADAX     Max RH concern (low priority).  
Added:                 None.

Resolved:             #792     MARE     Replaced.  
                       #793     PERK     Replaced.

#791 ALTU Replaced.  
#835 WATO Replaced.

WDIR (Wind Direction at 10 meters):

No apparent problems here. Oklahoma's spring winds are quite bi-modal this time of year, and it shows.

Current t-tkts: None.  
Added: None.

WSPD (Wind Speed at 10 meters):

Looks very good. WEAT and HINT share Wind Title for the month.

Current t-tkts: None.  
Added: None.

PRES/PALT (Sea level Pressure):

Low pressure in the northwest, higher in the southeast. That's just what one would expect. Looks very good.

Instruments were routinely rotated at ALVA, KING, MARS, MEDF, SULP, and TALI.

Current t-tkts: None.  
Added: None.

SRAD (Incident Solar Radiation):

Generally, very good. I will issue a trouble ticket at CLAR. It's midday values are good, but morning and afternoon values are quite a bit (33%) lower than they should have been.

Current t-tkts: #804 MIAM Tech concern: wire (data good)

Added: CLAR Monthly total SRAD ~25% low.

Resolved: #830 MARS On-Site Repair.  
#839 WATO Replaced.

RAIN:

Tough month on rain gauges. Of course, three months of dormancy will do that. Some spring showers will work them back into shape. As far as I can tell, there are no remaining problems. However, the northwest hasn't been worked very hard yet, so I'll keep a close eye on rain totals up there. And those guys in the wheat belt need it badly. Some of the fields I saw Easter weekend were hard to look at.

The gauges at MARE and PERK were routinely replaced.

Current t-tkts: None.  
Added: None.

Resolved: #795 PAUL On-Site Repair.  
#840 WILB Replaced (April).

#841 TISH On-Site Repair (April).  
#842 NORM Replaced.

TA9M (Air Temperature at 9 meters):

The instrument at STIL acted up a bit in early March. This is always the most aesthetically pleasing field to look at. (Did I spell that correctly?)

Maybe, just maybe, HUGO has a slight cool bias.

Current t-tkts: None.  
Added: None.

Resolved: #828 STIL On-Site Repair.

WS2M (Wind Run at 2 meters):

The map looks very good.

Current t-tkts: #825 MARE Noisy bearings.  
Added: None.

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

Will issue ticket on worsening warm bias at CHER. In retrospect, I should have done this last month. I guess I figured it was just more SONNY at CHER (an all time low, huh?). Rest of field is acceptable.

Current t-tkts: None.  
Added: CHER Warm bias worsens to about 3-4 C.

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

Tough month for TB10. Several bullseyes stand out - some old, some new. WAUR cool bias was known. Emerging problems at REDR and OKMU warrant technician attention. I am very close to issuing a ticket at ANTL.

Current t-tkts: #801 WAUR Slight cool bias.  
Added: REDR Warm bias (~3C)  
OKMU Warm bias (~3C)  
ANTL Warm bias (~2C-3C)

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

Sterility problem at ALTU persists. Other than that, no new problems.

Current t-tkts: None.  
Added: None.

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

Looks good, for TB05, anyway. Will issue ticket for warm bias at KING. Also beginning to notice things at HASK and MEDI.

Current t-tkts: #802 WAUR Companion to #801  
Added: KING Warm bias (~3C-4C).

TS30 (Soil temperature at 30 cm under native sod):  
Looks very good.

Current t-tkts: None.  
Added: None.

Happy April,  
Derek Arndt