

OKLAHOMA MESONET/ARS QUALITY ASSURANCE REPORT

July 2003

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Regarding July rainfall, it was feast or famine across the state. The Mesonet winner was Nowata with 109 mm during the month. The Mesonet losers were numerous with only 1 to 3 mm. The ARS "winners" were A121 and A166 each with a whopping 16 mm.

In spite of the above stats, the Sallisaw site managed to be struck by lightning on the 27th. The T&RELH sensor, datalogger, and wiring panel had to be replaced.

The testing of a new MesoComp kit continued in July. The Technicians use the kit during site visits to compare observations from our sensors in the field to observations from reference sensors.

Scheduled rotations of several sensors (8 pyranometers, 5 wind sentries, 2 barometers, and 2 T&RELH instruments) were completed in July.

Janet

Mesonet QA Report for Standard Variables	
TAIR	Current: #8012 DURA Sensor had developed a 6 degree C high bias Resolved: #7914 WYNO Cleaned wasps and nest out of radiation shield on sensor that had reported erratic temperatures Resolved: #7921 BROK Sensor with 1 to 2 degree C bias was replaced
RELH	Current: Resolved: #7908 CLRM Replaced sensor that had developed a low bias at humidity values above 90%
WDIR	Current: Resolved:
WSPD	Current: Resolved:
PRES	Current: Resolved:
SRAD	Current: Resolved: #7925 REDR Replaced pyranometer that had reported negative values day and night Resolved: #7990 WASH Replaced pyranometer that had reported negative values day and night
RAIN	Current: Resolved: #8040 ERIC Tips recorded for several hours on July 18 while radar indicated no rain

TA9M	Current: Resolved:
WS2M	Current: Resolved:
TS10	Current: #8012 CHER TS10 sensor developed a 2° to 3° C high bias Resolved:
TB10	Current: Resolved: #7911 BOWL Sensor with a 7° to 10° C low bias was replaced
TS05	Current: Resolved:
TB05	Current: #7852 DURA TB05 temperature data are erratic Resolved:
TS30	Current: #7916 BRIS TS30 sensor has developed a 3 to 6°C high bias Current: #8001 ACME TS30 data are out-of-range Resolved:
TR05	Current: Resolved:
TR25	Current: Resolved:
TR60	Current: Resolved:
TR75	Current: #8029 EUFA Sensor reporting 5.5°C heating (maximum heating is 4°C) Resolved: #7890 BOWL Replaced soil moisture sensor that had been damaged by lightning

	ARS QA Report
TAIR	Current: Resolved:
RELH	Current: Resolved:
WDIR	Current:

	Resolved:
SRAD	Current: Resolved: #7915 A121 Replaced pyranometer that had developed 10% low bias
RAIN	Current: Resolved:
TS05	Current: Resolved:
TS10	Current: Resolved: #7893 A121 Replaced sensor that had reported erratic temperature data Resolved: #7910 A137 Replaced sensor that had reported out-of-range temperatures Resolved: #7943 A147 Sensor with 6°C high bias was replaced
TS15	Current: Resolved:
TS30	Current: Resolved: #7917 A155 Sensor with 4 to 12°C high bias was replaced

“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
TR05	Soil moisture: Calibrated DeltaT measured at 5 cm under native sod
TR25	Soil moisture: Calibrated DeltaT measured at 25 cm under native sod
TR60	Soil moisture: Calibrated DeltaT measured at 60 cm under native sod
TR75	Soil moisture: Calibrated DeltaT measured at 75 cm under native sod