

OKLAHOMA MESONET/ARS QUALITY ASSURANCE REPORT
November 2004

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OASIS sensors were decommissioned at the following sites: Kingfisher, Skiatook and Nowata.

Due to extended periods of cloud cover in November, station batteries were replaced at 4 sites. At Webbers Falls, the battery was stolen and had to be replaced.

Power upgrades were performed at 4 sites with the replacement of solar panels, batteries, and/or voltage regulators.

Initial installations of 60 cm soil moisture sensors were performed at the Copan and Hooker sites.

Mesonet QA Report for Standard Variables	
TAIR	Current: #10497 WAUR Temperature data are still erratic after replacement on 10/14 Resolved:
RELH	Current: #10518 NINN RELH reporting erratic data down to 0% Current: #10582 OKMU One day after HMP-45C installed, both RELH and TSLO reported -7999 for 2 hours Current: #10589 OKEM Data are very erratic with long periods of 1% relative humidity Resolved: #10593 ALTU Replaced sensor that had reported erratic humidity data
WDIR	Current: #10580 BIXB Wind direction out of north for 24 hrs while nearby sites' direction out of south Resolved: #10476 SALL Disconnected wind monitor that appeared to be causing problems with solar radiation data
WSPD	Current: Resolved:
PRES	Current: Resolved:
SRAD	Current: #10651 BURB Pyranometer has developed a 20 W/m ² low bias in the afternoons Resolved: #10624 SALL Replaced wiring panel with bad port that caused problems with both wind direction data and solar radiation data
RAIN	Current: #10653 OILT Gauge reporting phantom tips Resolved: #10577 VANO Replaced reed switch on gauge that had reported no tips during November 15 th rain event

TA9M	Current: #10591 MANG Sensor suddenly began reporting unreasonable temperatures; at times up to -10 °C lower than 1.5 m temperature Resolved:
WS2M	Current: Resolved:
TS10	Current: Resolved:
TB10	Current: #10500 MANG Sensor is reporting temperatures down to -68 °C Current: #10519 BYAR Has developed a 3 °C low bias compared to nearby sites and to TB05 Current: #10581 FAIR Has developed a 3 to 5 °C low bias compared to nearby sites and to TS10 Current: #10611 BLAC Sensor exhibiting a 1 to 2 °C low bias compared to nearby sites Current: #10612 CHAN Sensor showing increasing high bias compared to surrounding sites Resolved: #10520 MARE Replaced sensor that had developed a 3 °C low bias
TS05	Current: #10531 INOL Sharp drop of 18 °C occurred during rain event Resolved: #10366 MINC Replaced sensor that had reported unreasonable data
TB05	Current: #10578 BIXB Sensor reporting erratic temperature data down to -150 °C Current: #10590 PAWN Sensor reporting out of range data; temperatures between -150 and -200 °C Resolved:
TS30	Current: #10473 TISH TS30 data is spiking and dipping each day Resolved:
TR05	Current: #10592 PAWN Soil moisture data at all 4 depths is erratic Resolved: #10438 SLAP Repaired broken wire on sensor that had reported -7999
TR25	Current: #10584 BRIS Sensor reporting -7999 Resolved:
TR60	Current: Resolved:
TR75	Current: #10585 MANG Decommissioning sensor due to sensor failure Resolved:

ARS QA Report	
TAIR	Current: Resolved:
RELH	Current: Resolved:
WDIR	Current: Resolved:
SRAD	Current: #10608 A163 Pyranometer continues to report 1 W/m² at night Resolved: #10551 A150 Replaced wiring panel that was causing problems with solar radiation data
RAIN	Current: Resolved: #10576 A162 Removed spiders webs blocking funnel that prevented rain from reaching buckets Resolved: #10586 A138 Replaced failed reed switch that had caused phantom tipping
TS05	Current: Resolved: #10575 A154 Replaced sensor that had developed a 3 °C low bias at night Resolved: #10583 A163 Replaced sensor that had been damaged by gophers
TS10	Current: Resolved:
TS15	Current: Resolved:
TS30	Current: #10587 A161 Sensor reporting temperatures down to -80 °C 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.

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