

OKLAHOMA MESONET/ARS QUALITY ASSURANCE REPORT

July 2005

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- Just when we thought the Mesonet Technicians couldn't do any more work than the previous month, they resolved an amazing 264 trouble tickets in the month of July! Their work included:
 - Scheduled rotations of 10 FastTherms, 7 wind sentries, and 3 prop anemometers
 - RFModem prom upgrades at 53 Mesonet sites, bases, and repeaters
 - Data logger upgrade to CR23X at the Fittstown site
- At the Fort Cobb Watershed, 6 more micronet sites were installed (F103, F109, F110, and F112). Also, sub-surface sensors (soil temperature and soil moisture) were installed at all 15 sites. These sub-surface sensors will be wired into the multiplexers at each site in the upcoming weeks.
- The Bee Mesonet site (BEEEX) was decommissioned on 13 July 2005.

Mesonet QA Report for Standard Variables

Variable	Status	Ticket	Site	Remarks
TAIR	Resolved	11889	HECT	Replaced sensor that had developed a high bias
	Resolved	11648	PORT	Replaced sensor that had been reporting large temperature dips
RELH	Current	12039	BURN	Sensor is reporting out-of-range values
	Resolved	11838	HASK	Plugged cable back into the sensor body
WDIR	Current	11652	MANG	Sensor reporting wind direction values that are not consistent with neighboring sites
	Resolved	11852	FITT	Replaced sensor that was becoming stuck in specific directions
WSPD	Current	11773	HOOK	Sensor has developed a starting threshold problem
	Current	12037	TISH	Sensor has developed a starting threshold problem
	Resolved	11984	EUFA	Replaced sensor that had stiff bearings
	Resolved	12023	FITT	Replaced sensor that had developed a low bias
PRES	Resolved	11771	MTHE	Replaced sensor that had developed a high bias

SRAD	N/A			
RAIN	Resolved	11745	BURN	Wired rain gauge to logger that had missed 2 rain events
	Resolved	11867	FAIR	Cleaned spider webs from clogged rain gauge
	Resolved	11868	LAHO	Replaced bad switch
TA9M	Resolved	11650	DURA	Replaced damaged sensor
WS2M	Current	12021	OKEM	Sensor has stopped rotating
	Current	12057	HUGO	Sensor has developed a starting threshold problem
	Resolved	11853	CHEY	Replaced sensor that had developed a starting threshold problem
TS10	Current	12022	MIAM	Sensor appears to have developed a high bias
TB10	Resolved	12053	LAHO	Returned heaved sensor to correct depth
TS05	Current	12054	HOBA	Sensor appears to have developed a high bias
	Resolved	11461	HOBA	Covered exposed sensor with soil
TB05	Current	11770	GOOD	Sensor appears to be exposed
	Resolved	11617	PUTN	Tightened wires that had become loose on the sensor
	Resolved	12052	LAHO	Returned heaved sensor to correct depth
TS30	Current	11468	HOLL	Sensor had developed a 3°C low bias
TR05	Current	11644	BESS	Sensor has stopped heating
	Current	11466	MAYR	Noise has developed in soil moisture sensor
	Resolved	11618	PUTN	Tightened wires that had become loose on the sensor
TR25	Current	11681	BESS	Sensor has reported erratic data then stopped heating
	Current	11646	BIXB	Sensor has failed
	Current	12062	ADAX	Sensor has a preferential flow problem
TR60	Current	11645	MIAM	Sensor has stopped heating
TR75	Current	12020	HOBA	Sensor has stopped heating
	Resolved	11732	BLAC	Decommissioned sensor that had stopped heating

ARS Little Washita Watershed QA Report

Variable	Status	Ticket	Site	Remarks
TAIR	Resolved	11772	A144	Replaced sensor has developed a high bias
RELH	N/A			
SRAD	N/A			
RAIN	N/A			
TS10	Resolved	11653	A150	Vegetation was cut near sensor to alleviate a potential bias problem
	Resolved	11759	A146	Replaced sensor that had developed a high bias
TB10	N/A			
TS05	N/A			
TB05	N/A			
TS30	N/A			

ARS Ft. Cobb Watershed QA Report

Variable	Status	Ticket	Site	Remarks
TAIR	N/A			
RELH	N/A			
SRAD	N/A			
RAIN	Resolved	11724	F115	Cleaned spider webs out of bucket
TS05	N/A			
TS10	N/A			

TS15	N/A
TS30	N/A
VW05	N/A
VW25	N/A
VW45	N/A

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
VW05	Soil moisture: Volumetric water content measured at 5 cm under native sod
VW25	Soil moisture: Volumetric water content measured at 25 cm under native sod
VW45	Soil moisture: Volumetric water content measured at 45 cm under native sod