

OKLAHOMA MESONET/ARS QUALITY ASSURANCE REPORT
September 2006

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- Mesonet Technicians resolved over 200 trouble tickets in September! Along with trouble tickets, Technicians conducted routine maintenance at sites and completed other tasks, including:
 - Scheduled rotations of 20 pyranometers, 2 temperature and relative humidity sensors, 2 wind sentries, and a barometer
 - Enclosure upgrades at 17 Mesonet sites
 - SDM-SIO4s were installed at an additional 26 Mesonet sites
 - 1 PROM upgrade for a repeater
- A lightning strike occurred at the Wilburton Mesonet site (WILB) on 22 September 2006. The strike damaged the datalogger, pyranometer, RF modem, and current excitation, as well as the soil moisture sensors. All observations were lost from 01:35 on the 22nd through 18:25 UTC. The soil moisture sensors that were affected are noted below.
- The datalogger at Hectorville (HECT) was upgraded from a CR10X to a CR23X
- Summer Pass ended in September; Fall pass began in October

Mesonet QA Report for Standard Variables

Variable	Status	Ticket	Site	Remarks
TAIR	N/A			
RELH	Current	14071	HECT	Sensor reporting errant drops in RH
WDIR	Resolved	13968	TAHL	Fixed sensor that reported the same value
WSPD	N/A			
PRES	N/A			
SRAD	Resolved	13909	KING	Cleaned dirty sensor
	Resolved	13993	WILB	Replaced sensor damaged by lightning
RAIN	Resolved	13963	SLAP	Fixed sensor that was not reporting rain
	Resolved	13964	STUA	Removed spider webs from gauge

TA9M	N/A			
WS2M	Resolved	13930	IDAB	Replaced damaged sensor
TS10	Current	14024	KING	Sensor reporting out-of-range values
	Resolved	13773	RING	No sensor problem found by tech
TB10	N/A			
TS05	Resolved	13992	MINC	Tightened wires to fix sensor
TB05	Resolved	13744	WEST	Replaced sensor that had developed a high bias
	Resolved	13611	ACME	Replaced sensor that had developed a low bias
TS30	N/A			
TR05	Current	13846	FREE	Sensor reporting out-of-range values
	Current	13976	WILB	Sensor damaged by lightning
	Current	14002	TISH	Sensor not responding to rain
	Current	14022	OKMU	Sensor has stopped heating
TR25	Current	13835	LANE	Sensor has failed
	Current	13975	WILB	Sensor damaged by lightning
	Current	13828	BUTL	Replaced sensor that had failed
	Resolved	13703	GRA2	Fixed sensor that had failed
	Resolved	13707	PAWN	Replaced sensor that had failed
	Resolved	13772	STIL	Replaced sensor that had failed
TR60	Current	13978	PORT	Sensor reporting erratic data
	Current	13977	WILB	Sensor damaged by lightning
	Current	13836	LANE	Sensor has failed

TR75	N/A

ARS Little Washita Watershed QA Report

Variable	Status	Ticket	Site	Remarks
TAIR	N/A			
RELH	Resolved	13881	A159	Replaced sensor that had failed
SRAD	N/A			
RAIN	N/A			
TS05	N/A			
TS10	N/A			
TS15	Current	14026	A146	Sensor has developed a low bias
TS30	Current	14025	A148	Sensor has developed a high bias
VW05	N/A			
VW25	Resolved	13841	A135	Replaced sensor that had failed
	Resolved	13904	A121	Tightened wires on sensor
VW45	Current	14023	A159	Sensor reporting out-of-range values

ARS Ft. Cobb Watershed QA Report

Variable	Status	Ticket	Site	Remarks
TAIR	N/A			
RELH	N/A			

SRAD	Current	14011	F105	Over night sensor fails
RAIN	N/A			
TS05	Resolved	13830	F105	Replaced sensor that had developed a bias
	Resolved	13969	F109	Tightened wires on sensor
TS10	N/A			
TS15	Resolved	13970	F109	Tightened wires on sensor
TS30	N/A			
VW05	N/A			
VW25	N/A			
VW45	Resolved	13708	F115	Repaired broken sensor

“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