OKLAHOMA MESONET/ARS QUALITY ASSURANCE REPORT
April 2005

Prepared by Peter K. Hall, Jr. and Clayton C. Fain
pkhjr@mesonet.org

- The Mesonet Technicians began Spring Pass in April. Site maintenance and sensor inspections were performed at 59 sites.
- Failed Krypton hygrometers were removed from 3 Mesonet Super Sites.
- HMP-45C Temp/RelH sensors were installed at 20 additional Mesonet stations.
- Additional work included upgrades of 3 logger enclosures and scheduled rotations of 5 prop anemometers and 10 wind sentries.
- Temp/RelH sensors were rotated at 4 ARS Little Washita sites.

Mesonet QA Report for Standard Variables

Variable	Status	Ticket	Site	Remarks
TAIR	N/A			
RELH	Current	11313	PAWN	Sensor reporting negative RH values
	Resolved	11250	CHER	Replaced sensor that had developed a low bias
	Resolved	11266	BUFF	Replaced sensor that had reported extremely low RH values
	Resolved	11309	PAWN	Fixed sensor that had reported negative RH values
	Resolved	11312	WAUR	Fixed sensor that had reported 0% RH
WDIR	N/A			
WSPD	N/A			
PRES	N/A			
SRAD	N/A			
RAIN	Current	11308	ARNE	No tips recorded during a rain event
	Resolved	11211	SEIL	Replaced broken switch on gauge
	Resolved	11311	WAUR	Replaced broken switch on gauge
	Resolved	11320	ACME	Replaced broken switch on gauge

TA9M	**Resolved**	**11269**	**WYNO**	**Replaced failed sensor**
WS2M	**Resolved**	**11239**	**WYNO**	**Replaced sensor that had melted cups due to grass fire**
TS10	**N/A**			
TB10	**Resolved**	**11260**	**EUFA**	**Replaced sensor that had developed a bias**
TS05	**Current**	**11249**	**SLAP**	**Sensor has developed a potential high bias**
TB05	**Resolved**	**11215**	**PAUL**	**Reinstalled partially-heaved sensor**
	Resolved	**11327**	**PAWN**	**Replaced heaved sensor to original depth**
TS30	**Resolved**	**11105**	**GRA2**	**Replaced sensor that had developed a 3 °C cool bias**
	Resolved	**11310**	**APAC**	**Tightened loose wire on sensor that had reported out of range values**
TR05				
TR25				
TR60	**Resolved**	**11267**	**LANE**	**Replaced sensor that was not heating**
TR75	**Current**	**11232**	**FAIR**	**Preferential flow occurring; will decommission sensor**

ARS QA Report for Standard Variables

Variable	Status	Ticket	Site	Remarks
TAIR	**N/A**			
RELH	**N/A**			
SRAD	**Resolved**	**11268**	**A150**	**Replaced sensor that had developed a 50 Wm^{-2} low bias**
	Resolved	**11307**	**A146**	**Rewired sensor to eliminate small-magnitude positive solar radiation values at night**
RAIN	**N/A**			
TS10	**N/A**			

TB10	**N/A**
TS05	**N/A**
TB05	**N/A**
TS30	**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