Oklahoma Mesonet / ARS
Quality Assurance Report

March 2020

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- Mesonet technicians completed scheduled rotations of 7 batteries, 4 rain gauges (RAIN/TIP2), 8 aspirator fans, 3 barometers (PRES), 6 relative humidity sensors (RELH/TSLO), 5 pyranometers (SRAD), 2 wind sentries (WS2M), 1 wind monitor nose cone (WSPD), and 1 current excitation module.
- A blown fuse at A262 caused data loss during the month. The sensor that was causing the issue has been replaced.

Mesonet QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
TAIR				
RELH				
WSPD				
WDIR				
PRES				
SRAD	**Resolved**	**BEAV**	**41862**	**SRAD reports values lower than expected. Suspect dirty sensor. Replaced due to heat damage.**
RAIN	**Resolved**	**KIN2**	**41834**	**Cattle dislodged the alter shield causing damage to gauge. Please replace gauge. Replaced.**
	Resolved	**KIN2**	**41838**	**Cattle dislodged the alter shield causing damage to gauge. Please replace gauge. Replaced.**
	Current	**BEAV**	**41904**	**Primary rain gauge does not record tips during rainfall. Suspect problem is related to wildfire damage.**
	Current	**BEAV**	**41909**	**Secondary rain gauge does not record tips during rainfall. Suspect problem is related to wildfire damage.**
	Current	**TAHL**	**41914**	**Primary gauge sometimes misses tips during start of**

				rainfall.
	Current	EUFA	41924	TIP2 sometimes misses tips during rainfall.
TA9M				
WS2M	Resolved	BEAV	41856	WS2M dropped to zero when 10m-wind speed exceeded 30 mph after wildfire passed through station. Replaced.
	Resolved	PRYO	41851	WS2M data often lower than expected. Occasionally reports 0 for winds ~3 m/s. Replaced.
	Current	GOOD	41853	WS2M sometimes reports 0 when winds are > 3.5 m/s. Suspect starting threshold problem.
TB10	Current	KENT	41715	More diurnal variation than neighbors. Suspect sensor too shallow.
TS05	Resolved	PUTN	41710	TS05 has more diurnal variation than expected. Suspect sensor too shallow. Sensor reburied.
TS10				
TS25				
TS60				
TR05				
TRB10	Resolved	KIN2	41706	10cm bare soil temperature and starting/final soil moisture temperature report errant values. Replaced.
	Current	PRYO	41921	10 cm bare soil temperature and starting/final soil moisture consistently reporting errant values.
TRS10	Resolved	KIN2	41703	10cm sod soil temperature and starting/final soil moisture temperature report errant values. Replaced.
	Current	BEAV	41867	10-cm sod sensor stopped heating. Suspect damage to sensor cable.
TR25				

TR60	Resolved	WIST	41733	60 cm final temperature is slightly less than expected, resulting in bad data. Replaced.

ARS QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
RAIN				
VW05	Resolved	A262	41898	Lost comms to station again. Suspect 5-cm soil sensor is the cause of another blown fuse. Replaced.
VW25	Current	A250	41917	25-cm soil sensor errantly reports values near 0 for all readings. Rewire sensor before replacing.
VW45				
V05T				
V25T				
V45T				

FCARS QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
RAIN	Resolved	F111	41892	Gauge records much less precip than expected. Please inspect RG cable if no obvious problem found. Replaced cable.
VW05				
VW25				
VW45	Current	F101	41753	45-cm sensor reports errant data.

V05T	
V25T	
V45T	

'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 at 1.5 meters**
RELH	**Relative humidity at 1.5 meters**
WDIR	**Wind direction at 10 meters**
WSPD	**Wind speed at 10 meters**
PRES	**Air pressure**
SRAD	**Incident solar radiation**
RAIN	**Rainfall**
TA9M	**Air temperature at 9 meters**
WS2M	**Wind speed at 2 meters**
TB10	**Soil temperature at 10 cm under bare soil**
TS05	**Soil temperature at 5 cm under native sod**
TS10	**Soil temperature at 10 cm under native sod**
TS25	**Soil temperature at 25 cm under native sod**
TS60	**Soil temperature at 60 cm under native sod**
TR05	**Soil moisture: Calibrated DeltaT at 5 cm under native sod**
TRB10	**Soil moisture: Calibrated DeltaT at 10 cm under bare soil**
TRS10	**Soil moisture: Calibrated DeltaT at 10 cm under native sod**
TR25	**Soil moisture: Calibrated DeltaT at 25 cm under native sod**
TR60	**Soil moisture: Calibrated DeltaT at 60 cm under native sod**
VW05	**Soil moisture: Volumetric water content at 5 cm under native sod**
VW25	**Soil moisture: Volumetric water content at 25 cm under native sod**
VW45	**Soil moisture: Volumetric water content at 45 cm under native sod**
V05T	**Soil temperature at 5 cm under native sod**
V25T	**Soil temperature at 25 cm under native sod**
V45T	**Soil temperature at 45 cm under native sod**