

Oklahoma Mesonet / ARS Quality Assurance Report

March 2019

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- Mesonet technicians completed scheduled rotations of 1 Radio, 12 batteries (BATV/BVAS), 5 barometers (PRES), 5 rain gauges (RAIN/TIP2), 5 relative humidity sensors (RELH/TSLO), 5 pyranometers (SRAD), 2 PRT thermometers (TAIR/TA9M), 4 wind direction sensors (WDIR), 6 wind sentries (WS2M), 2 wind monitor nose cones (WSPD), and 6 current exciters.
- An issue with the aspirated radiation shield at Hooker caused a bias in TAIR data. The issue was resolved and data returned to normal.

Mesonet QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
TAIR	Resolved	HOOK	39009	TAIR experiences a bias. Suspect damaged radiation shield. Resolved.
RELH				
WSPD				
WDIR				
PRES	Resolved	WAUR	39067	PRES reports constant value. Resolved. Cables Reseated.
SRAD				
RAIN	Resolved	SALL	39000	Primary gauge sometimes misses tips during rainfall. Check all connections for damage. Resolved.
	Resolved	SEMI	39004	Primary gauge sometimes misses tips during rainfall. Check all connections for damage. Resolved.
	Current	PAWN	39008	TIP2 sometimes records less rain than expected. Check

				cables and connections for damage.
TA9M				
WS2M	Resolved	BUFF	38953	2m wind speed reports 0 during light wind. Replaced.
	Resolved	FORA	38968	2m wind reports 0 during light wind. Replaced.
	Resolved	HASK	38990	2m wind speed reports 0 during light wind. Replaced.
TB10				
TS05	Current	TIPT	39062	5cm sod sensor has less diurnal variation than neighbors and is very similar to 10cm sod. Suspect sensor too deep. Please rebury sensor.
TS10				
TS25				
TS60				
TR05	Current	OKCE	38994	5 cm under sod reports errant values.
TRB10	Resolved	BURN	39013	10-cm under bare soil reports errant values. Replaced.
	Current	FITT	39044	10 cm bare reports errant values.
TRS10				
TR25				
TR60				

ARS QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
RAIN	Current	A132	39071	Rain gauge reported 0. Neighbors reported at least 15 tips and radar indicated moderate rain moved over site.
VW05				
VW25				
VW45				
V05T				
V25T				
V45T				

FCARS QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
RAIN				
VW05				
VW25				
VW45				
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