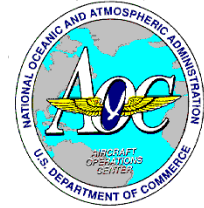




# N49RF ERROR SUMMARY

## *Atmos Rivers #4*

*KSUU > KSUU 12 Feb 2014*



**Flight ID: 20140212N1**

<u>Sensor or system</u>	<u>Number or Name</u>
Static Pressure Probe	PSM.2
Dynamic Pressure Probe	PQM.2
Total Temperature Probe	TTM.4
Dewpoint Temp. Probe	TDM.2
Vertical Accelerometer	AccZI.1
Altimeter	AltGPS.3
INE Selection	1
Differential Attack Pressure Probe	PDALPHA.2
Differential Sideslip Pressure Probe	PDBETA.2
Dynamic Attack Pressure Probe	PQALPHA.2
Dynamic Sideslip Pressure Probe	PQBETA.2
Constants File	49cal102
Flight Directory	acdata/MET/2014/20140212N1

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Notes:

TDM.1 and TDM.2 are both not rated for use under -50 deg C and cannot be considered reliable for dew points colder than -50C. TDM.1 exceeded the ambient temperature for the entire segment at 38K. During the segment from 17K to 20K TDM.2 performed very well. TDM.1 began trending with TDM.2 at 17K after approx 1942z. TDM.2 is used for post processing.

TTM.3 continues to display an oscillation with a magnitude of about 0.6 to 0.8 degrees C and a period of about 120 seconds at high altitude. The magnitude of the TTM.3 oscillation becomes much larger at lower altitudes and warmer conditions. TTM.4 was selected for Total Temperature in post processing. TTM.4 displays a much smaller oscillation (less than 0.1 deg C) with a much shorter period (about 10 to 20 seconds). The TTM.4 oscillation is only seen at high altitude (38K) and was not observed during the 17-20K segment. TTM.1 is about a degree colder than the other total temps at both high altitude and the lower segment.

Vertical Winds (UWZ.d and DPJ\_WSZ (Jorgensen solution)) should show a mean value of near zero for any prolonged period. During the 38K segment, mean values for UWZ.d and DPJ\_WSZ were -0.02 and -0.09 m/s respectively. At 17-20K there was an unacceptably large negative bias of -0.67 and -0.61 m/s. Previous wind calibration flights have not included these lower altitudes resulting in these large biases.

	<b>Takeoff (1712Z)</b>	<b>Landing (2114Z)</b>
Aircraft Static Pressure	1021.2 mb	1019.8 mb
Corrected Tower Pressure	1021.9 mb	1020.8 mb

All 15 dropsondes deployed were good and transmitted.