



N49RF ERROR SUMMARY

TS Oho

5 October 2015



Flight ID: 20151005N1

<u>Sensor or system</u>	<u>Number or Name</u>
Static Pressure Probe	PSM.2
Dynamic Pressure Probe	PQM.2
Total Temperature Probe	TTM.4X
Dewpoint Temp. Probe	TDM.1
Vertical Accelerometer	AccZfilterI.1
Altimeter	AltGPS.3
INE Selection	1
Differential Attack Pressure Probe	PDALPHA.1
Differential Sideslip Pressure Probe	PDBETA.1 (See note below)*
Dynamic Attack Pressure Probe	PQALPHA.1
Dynamic Sideslip Pressure Probe	PQBETA.1 (See note below)*
Flight Directory	acdata/2015/MET/20151005N1

Local Met Data:	<u>Takeoff - PHNL (1706Z)</u>	<u>Landing – PHNL (0057Z)</u>
Aircraft Static Pressure	1004.1 mb	1003.5 mb
Tower Pressure (corrected)	1006.2 mb	1005.6 mb

Notes:

* The nose radome on N49 was stuck by lightning on 1 Oct and subsequently replaced on 2 Oct. The replacement radome was not equipped to connect the Dynamic Sideslip Pressure Probes (PQBeta.1 and PQBeta.2) and the Differential Sideslip Pressure probes (PDBeta.1 and PDBeta.2). As a consequence, these data are not available in this dataset. Moreover, because these data are not available, flight level wind speed measurements should be considered suspect throughout this dataset.

The Edgetech dewpoint sensor (TDM.1) was the most representative dewpoint sensor throughout and was therefore used as the source. AltRA.1 recorded ~35 instances of “NAN’s” between 17:22:45Z and 02:32:56Z.

TTM.4 (total temperature sensor) was largely the most representative total temperature sensor throughout the mission, but did require one edit. Specifically, TTM.1 was substituted in place of TTM.4 between 19:13:18Z and 19:39:01Z to mitigate a period of less representative temperature measurements.

All other sensors performed nominally.

Takeoff/Landing data: Data during landing and takeoff are potentially suspect. It is recommended that ground data not be used for scientific analysis.

SPECIAL NOTE!!! The variable names dpj_wgs, dpj_was, and dpj_wz in the netCDF file represent vertical ground, vertical air, and vertical wind speeds respectively, computed using Dave Jorgensen’s vertical wind algorithm. It is recommended that these values be used for vertical wind analysis.

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 nearly the entire mission during cruise above 41,000 feet. TDM.2 was used for post processing.

Flight Director:
Phone #:

Mike Holmes
(813) 828-4621



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Expendable Type	Number deployed	Number good	Number of messages transmitted
GPS dropwindsonde	36	35	35
Test Sondes	0	0	0

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