



N43RF ERROR SUMMARY

Hurricane Patricia

23 October 2015



Flight ID: 20151023I1

<u>Sensor or system</u>	<u>Number or Name</u>
Static Pressure Probe	PSM.2
Dynamic Pressure Probe	PQM.2
Total Temperature Probe	TTM.1
Dewpoint Temp. Probe	TDM.2X
Vertical Accelerometer	AccZfilterI-GPS.1
Altimeter	AltGPS.3
INE Selection	1
Differential Attack Pressure Probe	PDALPHA.1
Differential Sideslip Pressure Probe	PDBETA.1
Dynamic Attack Pressure Probe	PQALPHA.1
Dynamic Sideslip Pressure Probe	PQBETA.1
Flight Directory	acdata/2015/MET/20151023I1

Local Met Data:	<u>Takeoff - KHRL (1447Z)</u>	<u>Landing - KMCF (0121Z)</u>
Aircraft Static Pressure	1010.6 mb	1017.6 mb
Tower Pressure (corrected)	1010.7 mb	1018.0 mb

Notes:

Following the operational portion of the mission into Hurricane Patricia and during the transit back to MacDill AFB the aircraft data system needed to be restarted (~23:06:53Z). To that end, the flight level data for the entire mission is broken up into two NetCDF files. Customers exclusively interested in the flight level data gathered in and around Hurricane Patricia should use the following QC'd flight level data NetCDF file: 20151023I1_AXC.nc. For those interested in the latter part of N43's mission (i.e., the transit back to MacDill AFB) they should use the following QC'd flight level data NetCDF file: 20151023I1_BC.nc.

TTM.2 (total temperature sensor #2) became unresponsive at 21:50Z. TTM.1 was available and representative throughout the mission and was therefore used as the source total temperature sensor for the entire mission. TDM.2 (Edgetech dewpoint sensor) was used as the source dewpoint sensor for this mission, but did require two edits to eliminate some unrepresentative spikes. Specifically, TDM.1 (Buck dewpoint sensor) was used in place of TDM.2 19:29:14Z - 19:30:45Z and 21:31:45Z - 21:32:54Z.

PQM.4 (Radome dynamic pressure transducer) and PDBeta.2 (Radome differential pressure transducer) began to generate unrealistic values as N43 ascended to its transit altitude enroute to MacDill AFB. PQM.2 (Fuselage dynamic pressure transducer) and PDBeta.1 (Sideslip differential pressure transducer) were consistent and reliable throughout the mission and were therefore used as the source instruments.

All other instruments 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.

Flight Director:
Phone #:

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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.

Expendable Type	Number deployed	Number good	Number of messages transmitted
GPS dropwindsonde	12	10	2
AXBT	0	0	0
Test Sondes	0	0	0

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