



N42RF ERROR SUMMARY TS KAREN MISSION #2



Flight ID: 20131004H1

<u>Sensor or system</u>	<u>Number or Name</u>
INE (for wind derivation)	INE1
Accelerometer	AccZfilterI-GPS.1
Temperature Probe	TTM.1
Dew Point Probe	TDM.1X
Static Pressure	PSM.2
Dynamic Pressure	PQM.2
Vert. Wind	ALTGPS.3 (NOVATEL)
Project Directory	/acdata/2013/MET/20131004H1

Notes:

There were no data gaps.

During the time periods 201316Z – 201336Z, 212909Z – 213041Z, 224313Z – 224324Z, 224950Z – 225031Z, 225339Z – 225454Z, 231114Z – 231233Z, 235737Z – 001124Z and 001419Z – 001440Z the measured Buck (TDM.1) dewpoint temperature displayed erroneous values that were removed and replaced with TDM.2 (EdgeTech) output by direct substitution.

$$\text{TDM.1} = \text{TDM.2}$$

Also during the time frames 201426Z – 201434Z, 222242Z – 222250Z and 015540Z - 020320Z the measured Buck (TDM.1) dewpoint temperature displayed erroneous values that were manually removed and replaced with TDM.2 (EdgeTEch) dewpoint values using statistical techniques with a patch values of 0.10, 0.50 and 0.53, respectively .

During the flight there were instances where dewpoint temperature values exceeded derived ambient temperature values resulting in humidity values above 100%. These situations occurred during precipitation events.

The Novatel GPS (AltGPS.3) altimeter output had a 1-second dropout at 211723Z causing vertical wind and extrapolated sea level pressure outputs to be missing.

All other instrumentation worked optimally.

SPECIAL NOTE!!! The variable names DPJ_GSZ, DPJ_ASZ and DPJ_WSZ in the netCDF file represent vertical ground speeds , vertical air speeds 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.

Dropsondes deployed: 20; 20 good; 20 Tempdrop messages sent
AXBTs deployed: 9; 8 good; 8 WMO messages sent

	Takeoff(1809Z)	Landing(0211Z)
Aircraft Static Pressure	1016.9mb	1016.7mb
Corrected Tower Pressure	1016.7mb	1017.1mb
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