



N49RF ERROR SUMMARY CALWATER2Q MISSION #10 ATMOSPHERIC RIVER NORTH OF HONOLULU



Flight ID: 20150214N1

Sensor or system	Number or Name
INE (for wind derivation)	INE1
Accelerometer	ACCZI.1X
Temperature Probe	TTM.4
Dew Point Probe	TDM.2X (EdgeTech)
Altitude (for vertical wind)	GPS.3 (Novatel)
Static Pressure	PSM.2
Dynamic Pressure	PQM.2
Attack Angle	AA.1
Slip Angle	SA.1
Project Directory	/acdata/2015/MET/20150214N1

Notes:

There were no data gaps.

It was noted that for the corrected radar altimeter (AltRa1.c) output, there were data dropouts at approximately every 90 seconds. This was a very consistent pattern throughout the flight.

At 225855Z the pilots turned IRS#2 off due to its erroneous output that was interfering with aircraft's FMS.

Accelerometer #1 output (ACCZI.1) and erroneous data during the following time periods: 163355Z – 163429Z and 163951Z – 164038Z. The erroneous values were removed and replaced with ACCZI.2 output via direct substitution,

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

Dewpoint sensor #2 (EdgeTech) had erroneous output between 144457Z – 163850Z and was removed manually. The data was replaced using statistical techniques with a patch value of 0.12.

Dynamic slip pressure #1 (PQBETA.1) had erroneous data from 180300Z – 234116Z. The erroneous data was removed and replaced with dynamic slip

pressure #2 (PQBETA.2) with an offset,

$$\text{PQBETA.1} = \text{PQBETA.2} - 3.0$$

All other sensors worked optimally.

Forty-one (41) dropsondes were deployed; 40 were good; 1 was bad;
40 WMO Tempdrop messages were transmitted.

Two (2) test dropsondes were deployed.

SPECIAL NOTE!!! The variable names DPJ_GSZ, DPJ_ASZ and DPJ_WSZ in the netCDF file represent vertical ground speed, vertical air speed and vertical wind speed, respectively, computed using Dave Jorgensen's vertical wind algorithm. It is recommended that these values be used for vertical wind analysis.

	Takeoff (1619Z) PHNL	Landing (2344Z) PHNL
Aircraft Static Pressure	1002.8mb	1002.9mb
Corrected Tower Pressure	1003.5mb	1004.2mb
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