

N43RF ERROR SUMMARY
20230220I1

Flight ID: 20230220I1

Sensor or System -----	Number or Name -----
Static Pressure Probe	PSM.2
Dynamic Pressure Probe	PQM.2
Total Temperature Probe	TTM.1
Dewpoint Temp. Probe	TDM.2
Vertical Accelerometer	AccZfilterI-
GPS.1	
Altimeter	AltGPS.1
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/2023/MET/20230220I1
Local Met Data	Takeoff KLAL (1659Z) Landing KBFI (0000Z)
Dynamic Corrections	Yes
AttackAngleIntercept	0.126754
AttackAngleSlope	5.36078
SlipAngleIntercept	0.2
SlipAngleSlope	6.67769

Notes:

There were no edits made in the measured parameters used to calculate meteorological and navigational parameters.

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

GPS.3 and GPS.4 failures in-flight. PDAlpha.2 failed in-flight. PQBeta.1 unreliable after ~2240, flight level wind derivations should be considered suspect. PQM.1 and PQM.4 failed. 10-20 mb difference between PSM.1 and PSM.2. PTM.1 failed. TTM.3 inoperative. TDM.3 inoperative. Electrical oscillations noted in TDM.1. TRadU.1 inoperative.

Expendable Type -----	# deployed -----	# good -----	# transmitted -----
Dropsondes	0	0	0
Test sondes	0	0	0
AXBTs	0	0	0
AXCPs	0	0	0
AXCTDs	0	0	0
UAS	0	0	0

Flight Director: Carpenter / Zawislak
Phone #: 863-500-3901

ACAT-4 Version = 7.4

U.S. Department of Commerce / NOAA / OMAO / Aircraft Operations Center - N43RF Manifest

FLIGHT INFORMATION				CREW MANIFEST			MISSION INFORMATION				
FLT ID:	2023022011	FLT #:	23-	AC:	Rannenberg	Scientists:	Pressure		Dropsondes		
From:	KLAL	ETD:	1700Z (1200L)	CP(s):	Keith	Chang, Paul	A/C Takeoff	1014.8 mb	Good	Bad	Sent
To:	KBFI	ETA:	0000Z (1600L)		Palmer	Sapp, Joe	ASOS Takeoff	KLAL 1650Z 1015.6 mb	0	0	0
Block Time		Flight Time		NAV:	Miller	Jelenak, Zorana			A/C Land	N/A	BTs
In:	2:07	Land:	2:01	FE(s):	Darby		ASOS Land	KBFI 0153Z 1009.7 mb			Good
Out:	16:52	T/O:	16:59	FD(s):	Tyson				0	0	0
Total:	9.3	Total:	9.0	SSA:	Richards	Visitors:	Storm Number ID:		N/A		
Sponsoring Org:	NESDIS			AVAPS:	Mascaro	Hough (PM)	(ie: AL072012)				
Program:	PED			SEB:	Waggoner		TCPOD/WSPOD Mission		NOAA3 WXWXA TRAIN		
Purpose:	Repo to PANC via KBFI for OWW				Olney (MX)		(ie: NOAA2 2418A SANDY)				
				MX:	Lalonde		OBSERVATIONS				
AS REQUIRED BY ORM			Y	N	REMARKS		Fix Number	Obs Number	Fix Time	SLP	
VOLCANIC ASH							1				
SCIENCE MISSION WITHIN BDRY LAYER							2				
LACK OF PRECIPITATION							3				
RELATIVE HUMIDITY ≥ 80%							4				
LARGE AIR-SEA TEMP GRADIENT											
HIGH SURFACE WINDS											
LONG FETCH / DURATION OF SFC WND											
SEA SALT ACCRETION FORECAST											
SEA SALT ACCRETION OBSERVED							Pennies:	N/A			
						*Highlighted items must be completed before departure.					
Remarks:											

P-3 QC Checklist

Overall Assessment	Major instrument issue(s) - significant mission impact.
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Flight ID:	20230220I1
Flight Director(s):	Carpenter / Zawislak
Mission:	Ferry
UWZ.d mean:	0.00

Pressure Comparison		
	T/O	Land
Aircraft	1014.8	N/A
Tower	KLAL 1650Z 1015.6 mb	KBFI 0153Z 1009.7 mb

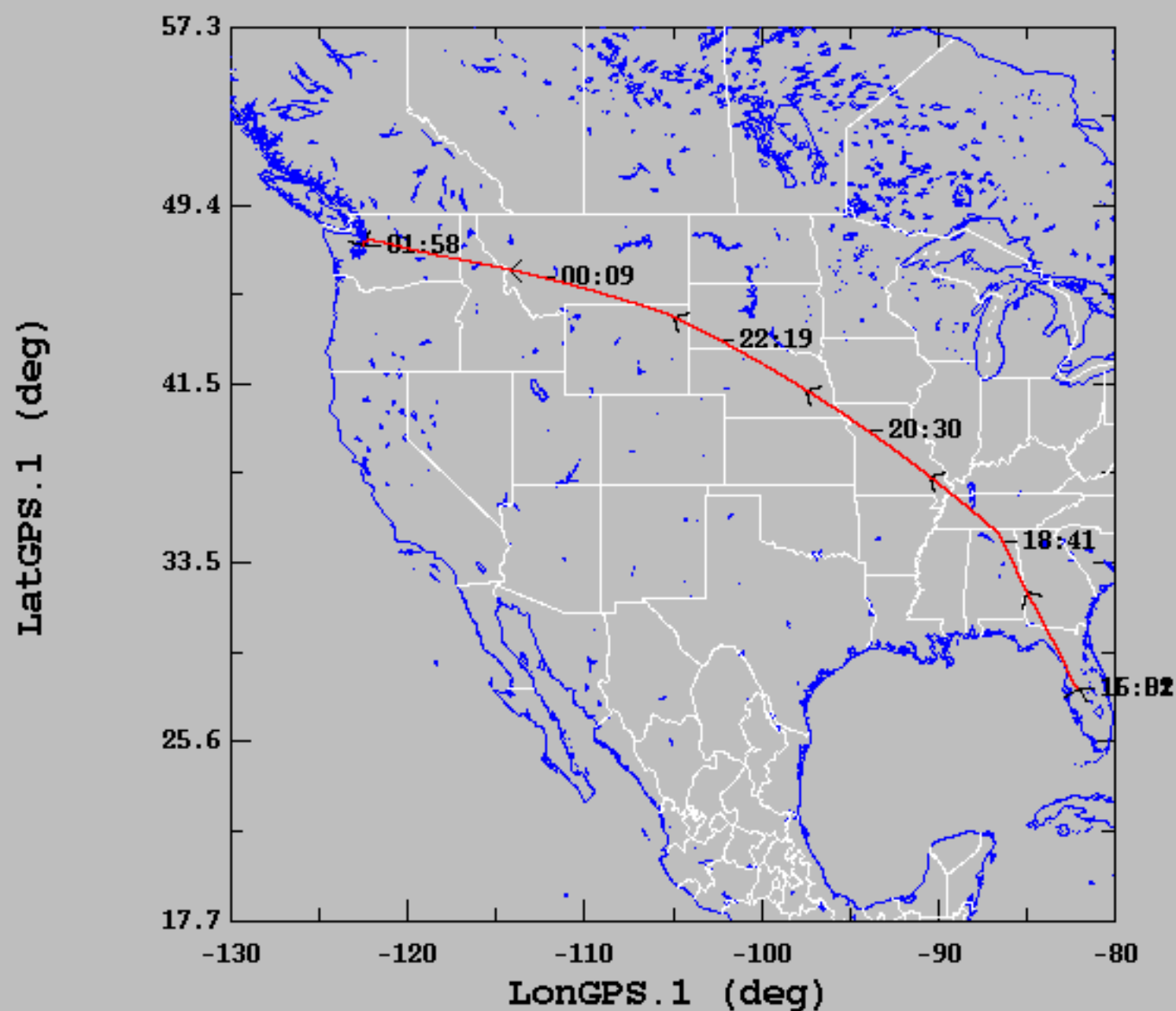
	Raw 1Hz Mean File Parameters				C File Parameters	
✓ Accelerometer	✓ AccAXI.1 ✓ AccAXI.2 ✓ AccAXI-GPS.1 ✓ AccAXI-GPS.2	✓ AccAYI.1 ✓ AccAYI.2 ✓ AccAYI-GPS.1 ✓ AccAYI-GPS.2	✓ AccAZI.1 ✓ AccAZI.2 ✓ AccAZI-GPS.1 ✓ AccAZI-GPS.2	✓ AccZfilter-GPS.1 ✓ AccZfilter-GPS.2	✓ AccZref	
✓ Altitude	✓ AltGPS.1 ✓ AltGPS.2 ✗ AltGPS.3 ✗ AltGPS.4	✓ AltI-GPS.1 ✓ AltI-GPS.2	✓ AltPaADDU.1 ✓ AltBCADDU.1	✓ AltRA.1 ✓ AltRA.2	✓ ALTref ✓ ALTPA.d ✓ ALTGA.d	✓ AltRA1.c ✓ AltRA2.c
✓ Ground Speed	✓ GsXI-GPS.1 ✓ GsXI-GPS.2	✓ GsYI-GPS.1 ✓ GsYI-GPS.2	✓ GsZI-GPS.1 ✓ GsZI-GPS.2		✓ GSXref ✓ GSYref ✓ GSZref	
✓ Lat / Lon	✓ LatGPS.1 ✓ LatGPS.2 ✗ LatGPS.3 ✗ LatGPS.4	✓ LatI-GPS.1 ✓ LatI-GPS.2	✓ LonGPS.1 ✓ LonGPS.2 ✗ LonGPS.3 ✗ LonGPS.4	✓ LonI-GPS.1 ✓ LonI-GPS.2	✓ LATref ✓ LONref	
✓ Pressure	✓ PDALPHA.1 ✗ PDALPHA.2 ✓ PDBETA.1 ✓ PDBETA.2	✓ PQALPHA.1 ✗ PQBETA.1	✗ PQM.1 ✓ PQM.2 ✓ PQM.3 ✗ PQM.4	✓ PSM.1 ✓ PSM.2 ✗ PTM.1	✓ PDLAPHAref ✓ PDBETAref ✓ PQALPHAref ✓ PQBETAref	✓ PQMref ✓ PQ.c ✓ PSMref ✓ PS.c
✓ Air Speed	✓ CasADDU.1	✓ TasADDU.1	✓ IasADDU.1		✓ IAS.d	✓ TAS.d
✓ Pitch / Roll	✓ PitchI.1 ✓ PitchI.2 ✗ PitchI.3	✓ PitchRateI.1 ✓ PitchRateI.2 ✗ PitchRateI.3	✓ RollI.1 ✓ RollI.2 ✗ RollI.3	✓ RollRateI.1 ✓ RollRateI.2 ✗ RollRateI.3	✓ PITCHref ✓ ROLLref	
✓ Temp / Dewpt	✓ TTM.1 ✓ TTM.2 ✗ TTM.3	✗ TDM.1 ✓ TDM.2 ✗ TDM.3	✓ TRadD.1 ✓ TRadS.1 ✗ TRadU.1		✓ TD.c ✓ TDMref	✓ TTMref ✓ TA.d
✓ Misc. (Must check)					✓ UWZ.d ✓ DPJ_WSZ ✓ HUM	✓ WS.d ✓ WD.d

FLID_Mission_Documents.pdf:
✓ Error Summary
✓ Crew Manifest
✓ QC Checklist
✗ Dropwindsonde Log(s) - AVAPS and FD if completed
✓ Flight Track
✗ Miscellaneous FD Notes

QC Key	
Not checked	☐
Valid	☒
Errors (note)	☒

NOTES:
GPS.3 and GPS.4 failures in-flight. PDAlpha.2 failed in-flight. PQBeta.1 unreliable after ~2240Z. PQM.1 and PQM.4 failed. 10-20 mb difference between PSM.1 and PSM.2 at higher altitudes. PTM.1 failed. TTM.3 inoperative. TDM.3 inoperative. Electrical oscillations noted in TDM.1. TRadU.1 inoperative.

02/20/2023, 15:02:23-25:58:32



	mean	sigma	min	max
LatGPS.1 (deg), 1 s/sec	38.27	7.12	27.98	47.86
LonGPS.1 (deg), 1 s/sec	-96.56	13.02	-122.43	-82.01