N42RF ERROR SUMMARY
20230911H1

Flight ID: 20230911H1

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.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/2023/MET/20230911H1

Local Met Data	Takeoff TISX (1956Z)	Landing KLAL (2331Z)
Dynamic Corrections		Yes
AttackAngleIntercept		2.305
AttackAngleSlope		6.07576
SlipAngleIntercept		0.235
SlipAngleSlope		7.01112
AttackAngleIntercept2		2.06219
AttackAngleSlope2		5.99068
SlipAngleIntercept2		0.125
SlipAngleSlope2		6.9873

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 has droppouts on descent to LAL at ~2323 UTC for a few seconds, and ~2324 and ~2327 UTC for about a minute; impacts ALTref since it is set to AltGPS.3, as well as LatGPS.3 and LonGPS.3
I.3 for Pitch and Roll is not operational
TTM.3 is not operational
TRadU.1 is not operational
TDM.1 deviates from TDM.2 for much of the flight, running lower than TDM.2 and thus TDM.1 should not be used
TDM.2 is the better behaving sensor and TDMref is set to TDM.2
TDM.3 has erroneous data throughout the flight and should not be used; overall, TDM.1 and TDM.2 after 2318 UTC appears unrealistic and should not be used (same for TDMref, TD.c, and HUM)
TA.d, TD.c, TAS.d, and thus WS.d and WD.d drops out at ~23:22:46 for 3 minutes while on final descent

PDALPHAref, PDBETAref, PQALPHAref, PQBETAref, and DPJ_WSZ are not provided since _AC file is not produced; all other 'C' file parameters checked are from the _A file
UWZ is noisier than expected with a spike ~2327 UTC on final descent; the UWZ mean is also higher than expected, exceeding 0.20

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: Zawislak / Parrish
Phone #: 305-707-4359

ACAT-4 Version = 7.4

U.S. Department of Commerce / NOAA / OMAO / Aircraft Operations Center - N42RF Manifest

FLIGHT INFORMATION

FLT ID:	20230911H1	**FLT #:**	FY23-
From:	TISX	**ETD:**	1630L / 2030Z
To:	KLAL	**ETA:**	2030L / 0030Z
Block Time		**Flight Time**	
Out:	19:52	T/O:	19:56
In:	23:37	Land:	23:31
Total:	3.8	Total:	3.6
Sponsoring Org:	AOC		
Program:	PMV		
Purpose:	Transit TISX - KLAL		

CREW MANIFEST

AC:	Doremus	**Scientists:**
CP(s):	Rannenberg	Hazelton (HRD)
	Palmer	Sellwood (HRD)
NAV:	Hough / Schaefer	Sapp (NESDIS)
FE(s):	Stokes	Chang (NESDIS)
	Gee	Jelenak (NESDIS)
FD(s):	Parrish	
	Zawislak	
SSA:	McAlister	**Visitors:**
AVAPS:	Waggoner	
SEB:	Santoni (IFT)	
MX:	Decker / Kregelka / Olney	

MISSION INFORMATION

Pressure		Dropsondes		
		Good	Bad	Sent
A/C Takeoff	1008.7	0	0	0
ASOS Takeoff	1008.2	**BTs**		
		Good	Bad	Sent
A/C Land		0	0	0
ASOS Land	1010.1			

Storm Number ID: (ie: AL072012)	N/A
TCPOD/WSPOD Mission (ie: NOAA2 2418A SANDY)	NOAA2 WXWXA TRAIN

AS REQUIRED BY ORM

	Y	N
VOLCANIC ASH		x
SCIENCE MISSION WITHIN BDRY LAYER		x
LACK OF PRECIPITATION	x	
RELATIVE HUMIDITY ≥ 80%		x
LARGE AIR-SEA TEMP GRADIENT		x
HIGH SURFACE WINDS		x
LONG FETCH / DURATION OF SFC WND		x
SEA SALT ACCRETION FORECAST		x
SEA SALT ACCRETION OBSERVED		x

REMARKS

OBSERVATIONS

Fix Number	Obs Number	Fix Time	SLP
1			
2			
3			
4			
Pennies:			

*Highlighted items must be completed before departure.

Remarks:

P-3 QC Checklist

Overall Assessment	Minor instrument issue(s) - minimal mission impact.

Flight ID:	20230911H1
Flight Director(s):	Zawislak / Parrish
Mission:	Ferry
UWZ.d mean:	0.23

Pressure Comparison		
	T/0	Land
Aircraft	1008.7	No good measurement
Tower	1008.2	1010.1

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

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

QC Key	
Not checked	☐
Valid	✓
Errors (note)	X

NOTES:
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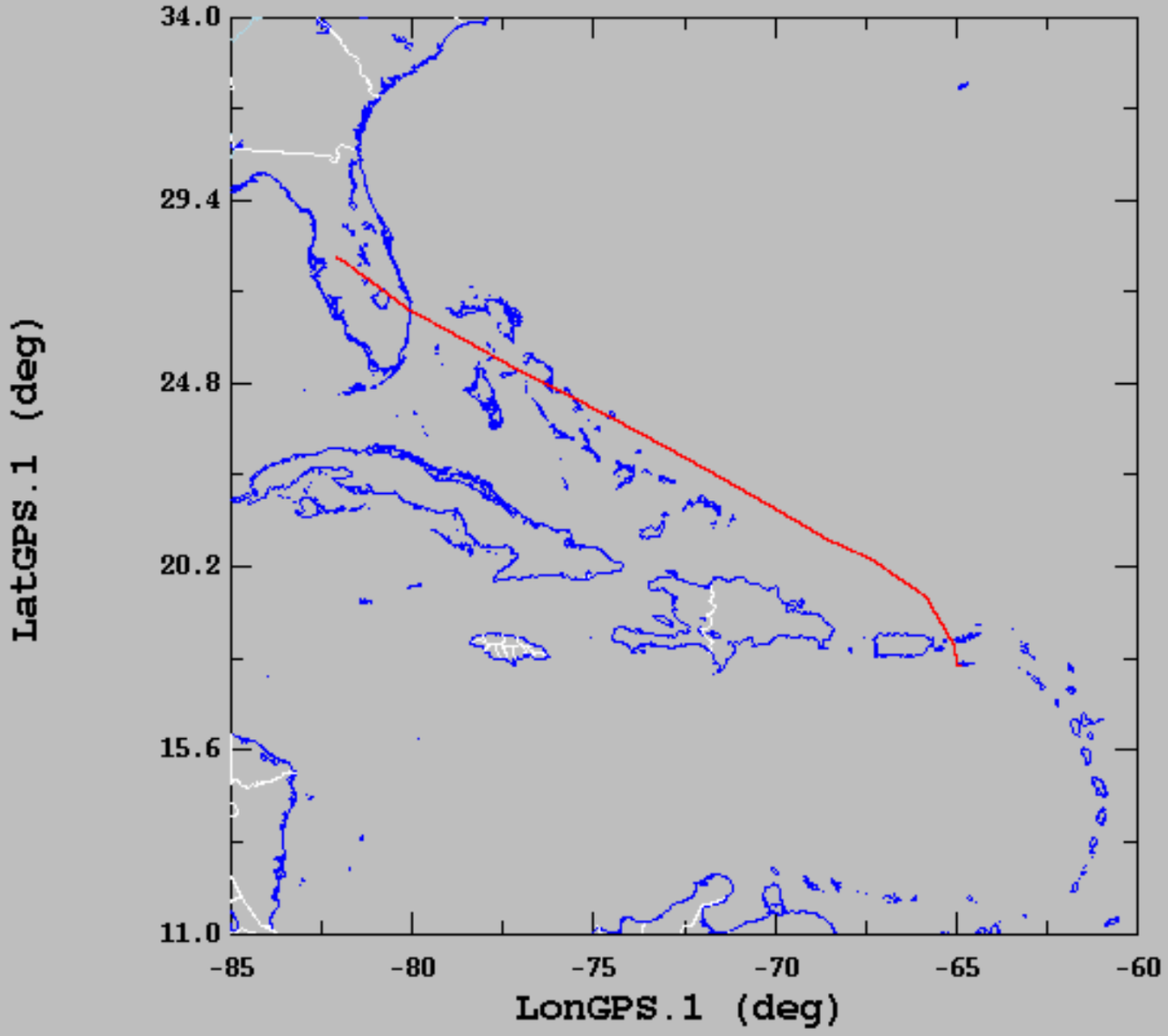
09/11/2023, 19:25:06-23:31:15



	mean	sigma	min	max
LatGPS.1 (deg), 1 s/sec	22.41	3.26	17.70	27.99
LonGPS.1 (deg), 1 s/sec	-71.95	5.77	-82.07	-64.79