

N43RF ERROR SUMMARY
20210815I1

Flight ID: 20210815I1

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.1
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/2021/MET/20210815I1
Local Met Data	Takeoff TNCA (1553Z) Landing TNCA (0000Z)
Dynamic Corrections	Yes
AttackAngleIntercept	0.131251
AttackAngleSlope	6.02327
SlipAngleIntercept	0.23
SlipAngleSlope	7.02537

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.4 unavailable. 10-20 mb difference between PSM.1 and PSM.2. PSM.2 appears more stable. Moisture quantities unreliable. TDM.1 exhibits significant electrical oscillatory behavior. TDM.2 pronounced low bias. TDM.3 trends with other TDMS but is likewise unrepresentative. TRadU.1 inoperative.

Expendable Type -----	# deployed -----	# good -----	# transmitted -----
Dropsondes	4	4	4
Test sondes	0	0	0
AXBTS	0	0	0
AXCPs	0	0	0
AXCTDs	0	0	0
UAS	0	0	0

Flight Director: Carpenter
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:	2021081511	FLT #:	21-	AC:	Mitchell	Scientists:	Pressure		Dropsondes		
From:	TNCA	ETD:	1600Z	CP(s):	Rannenberg	Zawislak	A/C Takeoff	1011.2	Good	Bad	Sent
To:	TNCA	ETA:	0000Z		Legidakes / Copare	Sellwood	ASOS Takeoff	TNCA 1600Z 1013 mb	4	0	4
Block Time		Flight Time		NAV:	Urato	A/C Land			1005.1	BTs	
In:	20:38	Land:	20:31	FE(s):	Darby		ASOS Land	TNCA 2100Z 1009 mb		Good	Bad
Out:	15:42	T/O:	15:53	FD(s):	Wysinger	Visitors:			Storm Number ID: (ie: AL072012)	0	0
Total:	4.9	Total:	4.6	SSA:	Mascaro		TCPOD/WSPOD Mission (ie: NOAA2 2418A SANDY)	AL072021		NOAA3 0207A GRACE	
Sponsoring Org:		NWS / NHC			AVAPS:	Underwood			OBSERVATIONS		
Program:		PRX			SEB:		Fix Number	Obs Number	Fix Time	SLP	
Purpose:		18Z Fix Mission #2 TS Grace			MX:		1				
AS REQUIRED BY ORM		Y	N	REMARKS							
VOLCANIC ASH			X				3				
SCIENCE MISSION WITHIN BDRY LAYER			X								
LACK OF PRECIPITATION			X				Pennies:	N/A (Open Wave - Unable to Close)			
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								

*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:	20210815I1
Flight Director(s):	Carpenter
Mission:	Tasked/Operational
UWZ.d mean:	0.02

Pressure Comparison		
	T/O	Land
Aircraft	1011.2	1005.1
Tower	TNCA 1600Z 1013 mb	TNCA 2100Z 1009 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 X 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 X LatGPS.4	✓ LatI-GPS.1 ✓ LatI-GPS.2	✓ LonGPS.1 ✓ LonGPS.2 ✓ LonGPS.3 X 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 X PitchI.3	✓ PitchRatel.1 ✓ PitchRatel.2 X PitchRatel.3	✓ RollI.1 ✓ RollI.2 X RollI.3	✓ RollRatel.1 ✓ RollRatel.2 X RollRatel.3	✓ PITCHref ✓ ROLLref	
✓ Temp / Dewpt	✓ TTM.1 ✓ TTM.2 X TTM.3	X TDM.1 X TDM.2 X TDM.3	✓ TRadD.1 ✓ TRadS.1 X TRadU.1		X TD.c X TDMref	✓ TTMref ✓ TA.d
✓ Misc. (Must check)					✓ UWZ.d ✓ DPJ_WSZ X 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
X Miscellaneous FD Notes

QC Key	
Not checked	<input type="checkbox"/>
Valid	<input checked="" type="checkbox"/>
Errors (note)	X

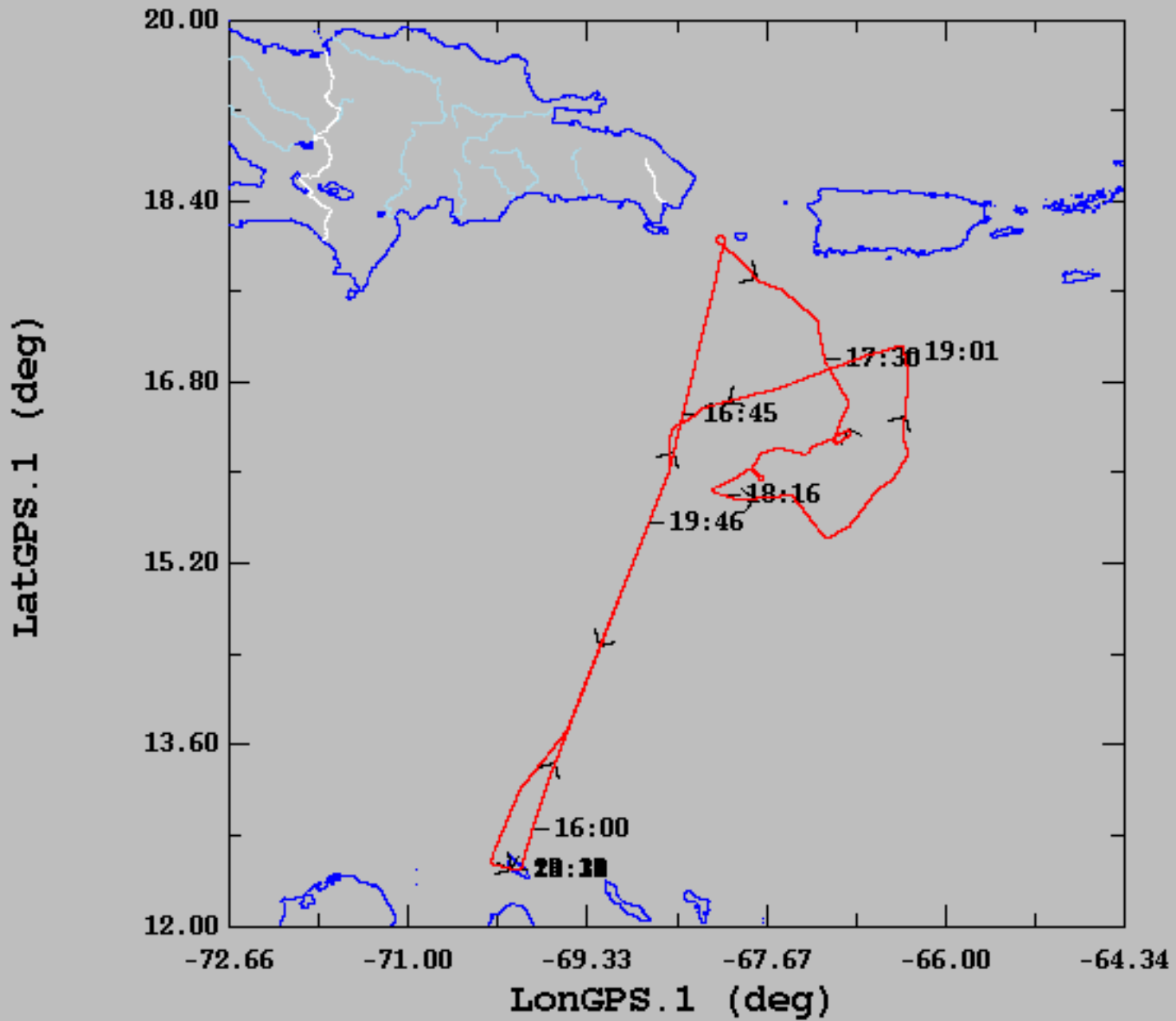
NOTES:
<p>GPS.4 unavailable.</p> <p>10-20 mb difference between PSM.1 and PSM.2. PSM.2 appears more stable.</p> <p>Moisture quantities unreliable. TDM.1 exhibits significant electrical oscillatory behavior. TDM.2 pronounced low bias. TDM.3 trends but is likewise unrepresentative.</p> <p>TRadU.1 inoperative.</p>

AVAPS Drop Log

Project: Hurricanes 2021 Mission: TS Grace Flight ID: 20210815I1
 Take Off: 1553Z Landing: _____ Flt Dir: Carpenter Launcher S/N: _____

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	2027 21624	1	-1.2	1708Z	NGU	NWS	IP, IR	✓
2	2027 30076	2	-0.5	1824Z			General data	✓
3	2027 30072	3	-1.1	1847Z			EP, OB, CPA	✓
4	2026 10496	4	-1.0	19:00				
5		5						
6		6						
7		7						
8		8						
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08/15/2021, 14:30:04-20:31:47



	mean	sigma	min	max
— LatGPS.1 (deg), 1 s/sec	14.98	1.87	12.49	18.09
— LongGPS.1 (deg), 1 s/sec	-68.57	1.24	-70.22	-66.34