N43RF ERROR SUMMARY
20221031I1

Flight ID: 20221031I1

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/2022/MET/20221031I1

Local Met Data Takeoff TISX (0823Z) Landing TISX (0000Z)	
Dynamic Corrections	Yes
AttackAngleIntercept	0.126754
AttackAngleSlope	5.36078
SlipAngleIntercept	0.2
SlipAngleSlope	6.67768

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. PDAlpha.2 and PDBeta.2 likely affected by icing 1330-1400Z. 15-20 mb differential between PSM.1 and PSM.2. PSM.2 more representative. PitchI.3 and RollI.3 unavailable. Significant electrical oscillation noted in TTM.2. TTM.3 inoperative. Electrical oscillations evident in TDM.1. TDM.2 frequent failures throughout flight. TDM.3 inoperative. TRadU.1 inoperative.

Expendable Type	# deployed	# good	# transmitted
Dropsondes	15	15	15
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

FLT ID:	2022103111	**FLT #:**	23-
From:	TISX	**ETD:**	0830Z
To:	TISX	**ETA:**	1630Z
Block Time		**Flight Time**	
In:	15:18	Land:	15:15
Out:	8:15	T/O:	8:24
Total:	7.1	Total:	6.9
Sponsoring Org:	NWS / EMC		
Program:	PRX		
Purpose:	TDR Mission #2 PTC15		

CREW MANIFEST

AC:	Doremus	**Scientists:**
CP(s):	Wood	J. Zawislak
	Keith	J. Zhang
NAV:	Miller	P. Chang
FE(s):	Stokes	A. Wilson
	Tyson	
FD(s):	Carpenter	
SSA:	Richards	**Visitors:**
AVAPS:	Warnecke	
SEB:		
MX:		

MISSION INFORMATION

Pressure		**Dropsondes**		
		Good	Bad	Sent
A/C Takeoff	1010.4	15	0	15
ASOS Takeoff	TISX 0853Z 1009.5 mb	**BTs**		
		Good	Bad	Sent
A/C Land	N/A	0	0	0
ASOS Land	TISX 1453Z 1012.3 mb			
Storm Number ID: (ie: AL072012)		AL152022		
TCPOD/WSPOD Mission (ie: NOAA2 2418A SANDY)		NOAA3 0615A TDR		

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:	3 (TS)		

*Highlighted items must be completed before departure.

Remarks:

P-3 QC Checklist

Overall Assessment	Major instrument issue(s) - significant mission impact.

Flight ID:	20221031I1
Flight Director(s):	Carpenter
Mission:	Tasked/Operational
UWZ.d mean:	0.04

Pressure Comparison		
	T/O	Land
Aircraft	1010.4	N/A
Tower	TISX 0853Z 1009.5 mb	TISX 1453Z 1012.3 mb

	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	✓ ALTref	✓ AltRA1.c
	✓ AltGPS.2	✓ AltI-GPS.2	✓ AltBCADDU.1	✓ AltRA.2	✓ ALTPA.d	✓ AltRA2.c
	✓ AltGPS.3				✓ ALTGA.d	
	X 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	
	✓ LatGPS.3		✓ LonGPS.3			
	X LatGPS.4		X LonGPS.4			
✓ Pressure	✓ PDALPHA.1	✓ PQALPHA.1	✓ PQM.1	✓ PSM.1	✓ PDLAPHAref	✓ PQMref
	X PDALPHA.2	✓ PQBETA.1	✓ PQM.2	✓ PSM.2	✓ PDBETAref	✓ PQ.c
	✓ PDBETA.1		✓ PQM.3	✓ PTM.1	✓ PQALPHAref	✓ PSMref
	X PDBETA.2		✓ PQM.4		✓ 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	✓ TDM.1	✓ TRadD.1		✓ TD.c	✓ TTMref
	✓ TTM.2	X TDM.2	✓ TRadS.1		✓ TDMref	✓ TA.d
	X TTM.3	X TDM.3	X TRadU.1			
✓ Misc. (Must check)					✓ UWZ.d	✓ WS.d
					✓ DPJ_WSZ	✓ WD.d
					✓ HUM	

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	☐
Valid	✓
Errors (note)	X

NOTES:

GPS.4 unavailable.

PDAlpha.2 and PDBeta.2 likely affected by icing ~1330-1400Z.

15-20 mb differential between PSM.1 and PSM.2. PSM.2 appears more representative.

PitchI.3 and RollI.3 unavailable.

Significant electrical oscillation in TTM.2. TTM.3 inoperative.

Electrical oscillations evident in TDM.1. TDM.2 frequent failures throughout flight. TDM.3 inoperative.

TRadU.1 inoperative.

AVAPS Drop Log

Project: Hurr 22 Mission: PTC 15 Flight ID: 20220831I1

Take Off: _____ Landing: _____ Flt Dir: Carpenter Launcher S/N: 209

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge $$ To	Comments	Good ?
1	21043043 9	1	Ø	1022	JGW	NWS	IP #1	✓
2	21091048 1	2	Ø	1034			MP	✓
3	21092091 1	3	-.1	1049			CTR #1	✓
4	21145057 4	4	Ø	1103			MP	✓
5	21043007 9	5	-.6	1114			EP #1	✓
6	21024092 9	6	Ø	1137			IP #2	✓
7	21071033 2	7	Ø	1148			MP	✓
8	21073106 2	8	-.4	1200			CTR #2	✓
9	21145057 6	1	-.4	1212			MP	✓
10	21343031 6	2	Ø	1222			EP #2	✓
11	21093026 3	3	-.7	1237			IP #3	✓
12	21073111 4	4	-.8	1248			MP	✓
13	21071033 4	5	Ø	1303			CTR #3	✓
14	21082019 2	6	-.6	1313			MP	✓
15	21065050 9	7	Ø	1326			EP #3	✓
16								
17								
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29								
30								
31								

Dropwindsonde Scientist Log

Storm:	AL15 / LISA	**Flight ID:**	2022103111	**Mission ID:**	0615A	**Takeoff:**	0824Z	**Landing:**	1515Z

Dropsonde Scientist(s):	J. Zhang	**AVAPS Operator:**	Wernecke

Pre-flight

✓ Discuss the pattern with the Lead Project Scientist (LPS) and ensure that enough dropsondes are onboard.

✓ Complete the appropriate pre-flight set-up of your workstation and ASPEN (see Dropsonde Processing Guide).

In-flight

✓ Ensure the Flight Director is aware of upcoming drops and whether a backup is requested in case of failure.

✓ Ensure the AVAPS operator has determined that the dropsonde is (or is not) transmitting a good signal.

✓ Prioritize processing of center drops and report MSLP and surface wind speed and direction to the Flight Director.

✓ Fill in the Dropwindsonde Scientist log as drops are released and processed.

✓ Copy completed ASPEN files (e.g., FRD, netCDF, Skew-t, WMO txt, BUFR) into the “FRD” folder on the workstation desktop for automated transmission to the ground for archival.

Once “science is complete”...

✓ Make synoptic map plots in ASPEN and copy them to the “FRD” folder on the workstation desktop for automated transmission to the ground for archival.

✓ Ensure ASPEN files have been sent to the ground by locating and verifying all files in the “FLIGHTID” folder within the “FRD” folder on the workstation desktop.

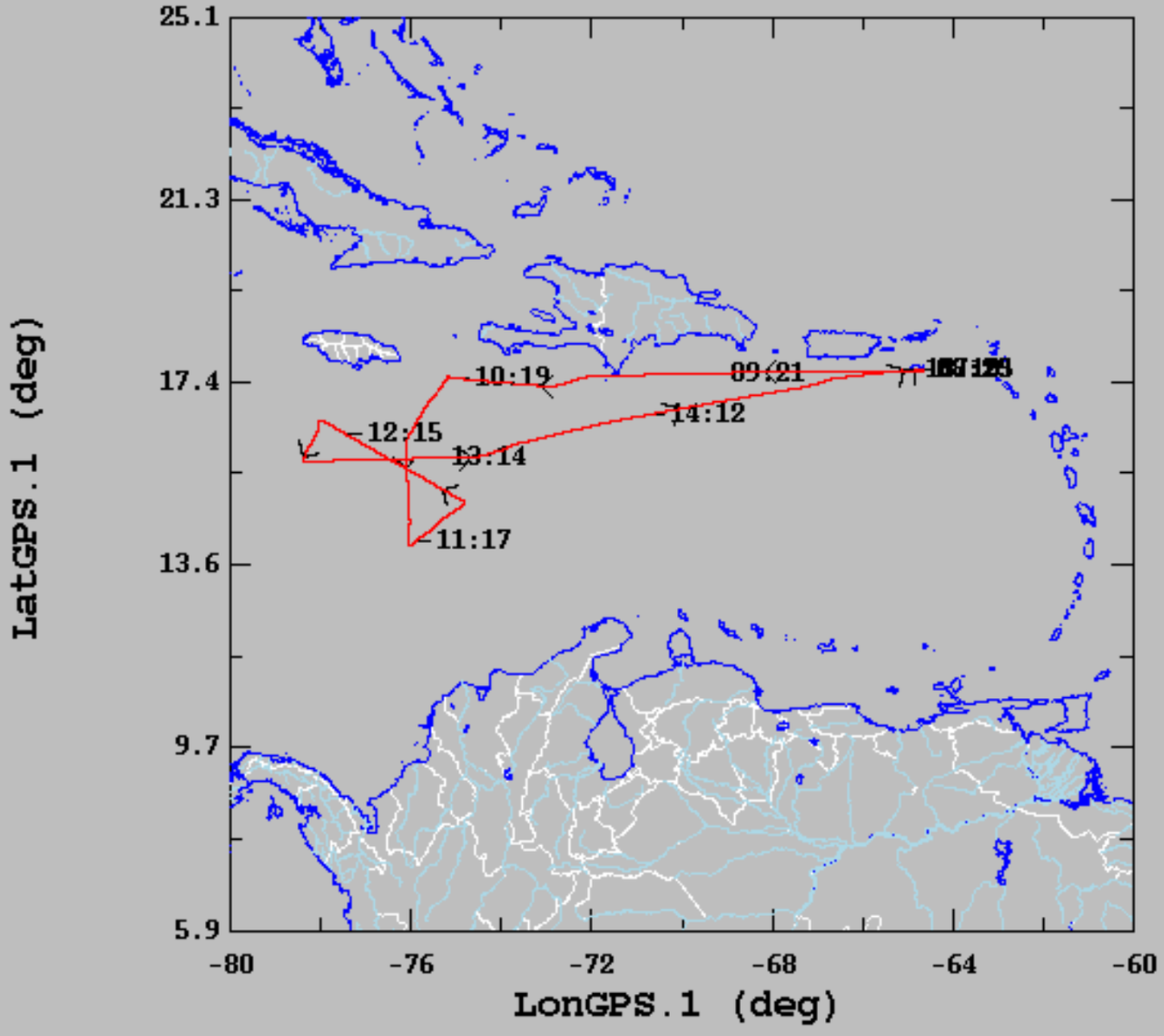
✓ Archive ASPEN_DATA and RAW_DATA into a folder named with the FLIGHTID within the “Season Dropsonde Archive” folder on the workstation desktop, and upload the same directories into StormName/FLIGHTID/Dropsonde/ folder on Drive.

✓ Download this Dropwindsonde Scientist Log as “PDF” and upload completed PDF and Google Doc to the StormName/FLIGHTID/Dropsonde/ folder within the “Mission Reports” directory in the HFP Google Drive.

Drop #	Sonde ID	Time UTC	Lat (°N/S)	Lon (°E/W)	Sfc Pressure (mb)	Lowest Wind Direction/Speed (deg/kt)	Lowest Wind Height (m)	AXBT SST (°C)	Eye, Eyewall, Rainband, etc.	Ob #
1	0439	102241	17.47	-75.20	1008.3	10017	10			01
Comments: IP of NE – SW Pass										
2	0481	103448	16.76	-75.74	1006.8	11020	10			02
Comments: NE Mid PT										
3	0911	104942	15.76	-76.09	1004.6	13025	10			03
Comments: Center										
4	0574	110304	14.84	-76.01	1006.3	18008	10			04
Comments: SW Mid PT										
5	0079	111433	14.05	-76.02	1005.3	01002	10			05
Comments: SW End PT										
6	0929	113720	14.92	-74.87	1008.1	14021	10			06
Comments: SE – NW Pass - SE End PT-IP										
7	0332	11486	15.32	-75.56	1007.6	14029	10			07
Comments: SE Mid PT										
8	1062	120039	15.75	-76.37	1005.5	13524	10			08
Comments: Center										
9	0576	121207	16.18	-77.16	1006.6	05522	10			09
Comments: NW Mid PT										
10	0316	122212	16.58	-77.87	1007.3	04524	10			10
Comments: NW End PT										

Drop #	Sonde ID	Time UTC	Lat (°N/S)	Lon (°E/W)	Sfc Pressure (mb)	Lowest Wind Direction/Speed (deg/kt)	Lowest Wind Height (m)	AXBT SST (°C)	Eye, Eyewall, Rainband, etc.	Ob #
11	0263	123702	15.76	-78.26	1007.7	01519	10			11
Comments: W-E Pass, W End PT and IP of W-E										
12	1114	124815	15.77	-77.41	1006.1	00523	10			12
Comments: W Mid PT										
13	0334	130300	15.77	-76.35	1006.8	13526	10			13
Comments: Center 3										
14	0292	131356	15.81	-75.58	1009.1	13026	10			14
Comments: E Mid PT										
15	0509	132638	15.82	-74.69	1010.2	12025	10			15
Comments: E End PT - Last report										

2022-10-31, 07:25:42-15:10:07



	mean	sigma	min	max
LatGPS.1 (deg), 1 s/sec	16.66	1.03	13.98	17.71
LonGPS.1 (deg), 1 s/sec	-71.73	4.57	-78.35	-64.63