

N43RF ERROR SUMMARY  
20221030I1

Flight ID: 20221030I1

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/20221030I1

Local Met Data	Takeoff TISX (0853Z)	Landing TISX (1558Z)
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. PDBeta.2 and PQM.4 frequently unrepresentative throughout flight, possibly due to icing. 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. Unrepresentative data spikes at ground level and low altitudes in TDM.2. TDM.3 inoperative. TRadu.1 inoperative.

Expendable Type -----	# deployed -----	# good -----	# transmitted -----
Dropsondes	25	24	24
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:	2022103011	FLT #:	23-	AC:	Doremus	Scientists:	Pressure		Dropsondes				
From:	TISX	ETD:	0900Z	CP(s):	Wood	J. Zawislak	A/C Takeoff	1008.4	Good	Bad	Sent		
To:	TISX	ETA:	1700Z		Keith	J. Zhang	ASOS Takeoff	TISX 0853Z 1007.9 mb	24	1	24		
Block Time		Flight Time		NAV:	Miller	P. Chang						A/C Land	1011.2
In:	16:02	Land:	15:58	FE(s):	Stokes	Visitors:	ASOS Land	TISX 1553Z 1010.9 mb	Good	Bad	Sent		
Out:	8:45	T/O:	8:54	FD(s):	Tyson				0	0	0		
Total:	7.3	Total:	7.1	SSA:	Richards		Storm Number ID:					AL952022	
Sponsoring Org:	NWS / EMC			AVAPS:	Warnecke	(ie: AL072012)		NOAA3 0215A TDR					
Program:	PRX			SEB:		TCPOD/WSPOD Mission					NOAA3 0215A TDR		
Purpose:	TDR Mission #1 AL91			MX:		(ie: NOAA2 2418A SANDY)							
AS REQUIRED BY ORM				Y	N	REMARKS	Fix Number	Obs Number	Fix Time	SLP			
VOLCANIC ASH					X		1						
SCIENCE MISSION WITHIN BDRY LAYER					X			2					
LACK OF PRECIPITATION					X		3						
RELATIVE HUMIDITY ≥ 80%				X				4					
LARGE AIR-SEA TEMP GRADIENT					X		4						
HIGH SURFACE WINDS					X			4					
LONG FETCH / DURATION OF SFC WND					X		4						
SEA SALT ACCRETION FORECAST					X			4					
SEA SALT ACCRETION OBSERVED					X		Pennies:		N/A				

\*Highlighted items must be completed before departure.

Remarks:

## P-3 QC Checklist

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

Flight ID:	20221030I1
Flight Director(s):	Carpenter
Mission:	Tasked/Operational
UWZ.d mean:	0.04

Pressure Comparison		
	T/O	Land
Aircraft	1008.4	1011.2
Tower	TISX 0853Z 1007.9 mb	TISX 1553Z 1010.9 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 X PDBETA.2	✓ PQALPHA.1 ✓ PQBETA.1	✓ PQM.1 ✓ PQM.2 ✓ PQM.3 X PQM.4	✓ PSM.1 ✓ PSM.2 X 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	✓ PitchRateI.1 ✓ PitchRateI.2 X PitchRateI.3	✓ RollI.1 ✓ RollI.2 X RollI.3	✓ RollRateI.1 ✓ RollRateI.2 X RollRateI.3	✓ PITCHref ✓ ROLLref	
✓ Temp / Dewpt	✓ TTM.1 ✓ TTM.2 X TTM.3	✓ TDM.1 ✓ TDM.2 X TDM.3	✓ TRadD.1 ✓ TRadS.1 X 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
X Miscellaneous FD Notes

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

NOTES:
<p>GPS.4 unavailable.</p> <p>PDBeta.2 frequently unrepresentative throughout flight, possibly due to icing.</p> <p>PQM.4 frequently unrepresentative throughout flight, possibly due to icing.</p> <p>15-20 mb difference between PSM.1 and PSM.2. PSM.2 appears more representative. PTM.1 appears affected by icing.</p> <p>PitchI.3 and RollI.3 unavailable.</p> <p>Significant electrical oscillations in TTM.2. TTM.3 inoperative.</p> <p>Unrepresentative data spikes noted at ground level and lower altitudes in TDM.2. TDM.3 inoperative.</p> <p>TRadU.1 inoperative.</p>

### AVAPS Drop Log

Project: Hurr 22      Mission: INVEST 95L      Flight ID: 27063651  
 Take Off: \_\_\_\_\_      Landing: \_\_\_\_\_      Flt Dir: Carpeteer      Launcher S/N: 209

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	214110649	1	Ø	0944	JW	NWS		✓
2	210240780	2	-1.5	0958				✓
3	210351012	3	-1.0	1010				✓
4	210240907	4	Ø	1023				✓
5	210820291	5	-1.5	1035				✓
6	211450575	Ø	-1.4	1047			(END of leg 1)	✓
7	210240716	7	-1.0	1059				✓
8	204941555	8	-1.0	1112			Weak Telemetry	X
9	210820289	1	-1.5	1115			Back up	✓
10	210240901	2	-1.5	1125				✓
11	210240777	3	1.8	1141				✓
12	210930248	4	Ø	1151				✓
13	211450606	5	Ø	1205			(END of leg 2)	✓
14	210910570	6	Ø	1217				✓
15	211440421	7	Ø	1230				✓
16	211450572	8	Ø	1244				✓
17	210930264	1	Ø	1257				✓
18	213440717	2	Ø	1309				✓
19	210710261	3	Ø	1321			(End of leg 3)	✓
20	210420676	4	Ø	1332				✓
21	210731080	5	Ø	1344				✓
22	210430441	6	Ø	1357				✓
23	210240795	7	0	1409				✓
24	213430261	8	Ø	1421				✓
25	210240484	1	-1.0	1434				✓
26								
27								
28								
29								
30								
31								

leg 1

leg 2

leg 3

## Dropwindsonde Scientist Log

<b>Storm:</b>	AL95	<b>Flight ID:</b>	20221030I1	<b>Mission ID:</b>	02JJA	<b>Takeoff:</b>	0853Z	<b>Landing:</b>	1558Z
---------------	------	-------------------	------------	--------------------	-------	-----------------	-------	-----------------	-------

<b>Dropsonde Scientist(s):</b>	Jun Zhang	<b>AVAPS Operator:</b>	Warnecke
--------------------------------	-----------	------------------------	----------

### 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.

Storm: AL95

Flight ID: 2022103011

Mission ID: 02JJA

Page 1 of 3

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	0649	094625	16.99	-68.71	1010.0	12018	10			01
Comments: IP Contains post splash										
2	0780	095855	17.00	-69.91	1008.2	10522	10			02
Comments: post-splash data										
3	1012	101040	17.00	-71.11	1007.3	12020	10			03
Comments:										
4	0907	102332	17.00	-72.37	1007.8	11548	10			04
Comments:										
5	0291	103522	1700	-73.53	1008.5	06024	10			05
Comments: post-splash data										
6	0575	104710	1700	-74.71	1009.2	03018	10			06
Comments:										
7	0796	105906	15.98	-74.68	1007.5	06522	10			07
Comments: leg 2 started										
8	1555	111227	15.89	-73.47	NA	NA	10			NA
Comments: no data below 650 mb (not sent)										
9	0289	111530	15.90	-73.18	1007.2	04517	10			08
Comments: Backup sonde for 8										
10	0901	112543	15.89	-72.28	1007.1	09023	10			09
Comments:										

Storm: AL95

Flight ID: 20221030I1

Mission ID: 02JJA

Page 2 of 3

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	0777	114122	15.90	-70.84	1009.6	13034	10			10
Comments:										
12	0248	115159	15.899	-69.87	1010.6	11519	10			11
Comments:										
13	0606	120502	15.87	-68.71	1009.2	10517	10			12
Comments:										
14	0570	121756	14.81	-68.73	1011.5	04003	10			13
Comments: leg 3 started										
15	0421	123031	14.80	-69.91	1011.0	16011	10			14
Comments: 1230										
16	0572	124009	14.80	-71.13	1008.1	17518	10			15
Comments:										
17	0264	125702	14.80	-72.31	1008.1	20521	10			16
Comments:										
18	0717	130914	14.80	-73.59	1005.8	32011	10			17
Comments:										
19	0261	132121	14.72	-74.69	1008.6	32508	10			18
Comments:										
20	0676	133250	13.62	-74.66	1008.9	25009	10			19
Comments:										



Storm: AL95

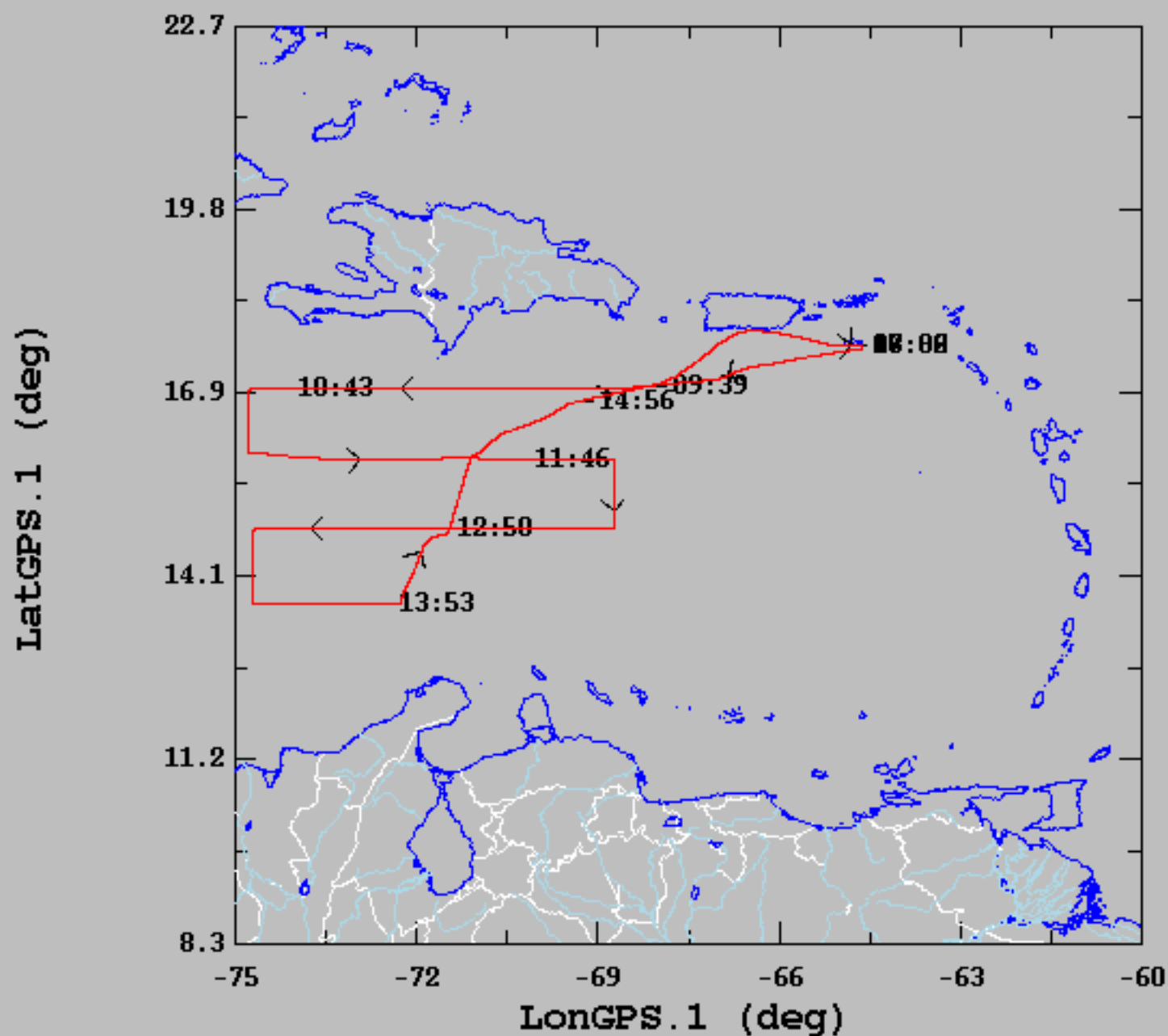
Flight ID: 20221030I1

Mission ID: 02JJA

Page 3 of 3

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 #
21	1080	134459	13.60	-73.48	1008.6	26510	10			20
Comments:										
22	0441	135701	13.6	-72.28	1009.4	20525	10			21
Comments: descent to 10K after this point										
23	0785	140918	14.54	-71.85	1008.0	19014	10			22
Comments:										
24	0261	142142	15.18	-71.31	1010.8	14518	10			23
Comments:										
25	0484	143422	15.99	-70.95	1010.7	13031	10			24
Comments: Last report										
Comments:										
Comments:										
Comments:										
Comments:										

2022-10-30, 07:32:46-16:00:22



	mean	sigma	min	max
— LatGPS.1 (deg), 1 s/sec	16.33	1.29	13.60	17.92
— LongGPS.1 (deg), 1 s/sec	-69.51	3.34	-74.78	-64.60