

Test sondes	0	0	0
AXBTS	2	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				CREW MANIFEST			MISSION INFORMATION				
FLT ID:	20230908H1	FLT #:	FY23-	AC:	Doremus	Scientists:	Pressure		Dropsondes		
From:	TISX	ETD:	1630L / 2030Z	CP(s):	Rannenberg	Hazelton (HRD)	A/C Takeoff	1010.2	Good	Bad	Sent
To:	TISX	ETA:	0030L / 0430Z		Palmer	Sellwood (HRD)			31	1	25
Block Time		Flight Time		NAV:	Hough / Schaefer	Sapp (NESDIS)	ASOS Takeoff	1009.6	BTs		
Out:	21:17	T/O:	21:23	FE(s):	Stokes	Chang (NESDIS)			A/C Land	Good	Bad
In:	4:56	Land:	4:52	FD(s):	Parrish	Jelenak (NESDIS)	ASOS Land	1010.6	2	2	0
Total:	7.7	Total:	7.5	SSA:	McAlister	Visitors:			Storm Number ID:		AL132023
Sponsoring Org:	HX - NHC/EMC			SEB:	Santoni (IFT)	Richard Motta Jr. (USVI)	(ie: AL072012)		NOAA2 0513A LEE		
Program:	PRX				MX:		Daryl Jaschen (USVI)	TCPOD/WSPOD Mission			
Purpose:	TDR Mission + HRD/NESDIS Modules							(ie: NOAA2 2418A SANDY)		OBSERVATIONS	
AS REQUIRED BY ORM				Y	N	REMARKS	Fix Number	Obs Number	Fix Time		
VOLCANIC ASH					x		1	OB04 18.90N, 55.89W	23:15:06	Extrap 958 mb No Drop	
SCIENCE MISSION WITHIN BDRY LAYER					x						
LACK OF PRECIPITATION					x		2	OB15 19.04N, 56.05W	0:35:07	Extrap 960 mb No Drop	
RELATIVE HUMIDITY ≥ 80%				x							
LARGE AIR-SEA TEMP GRADIENT					x		3				
HIGH SURFACE WINDS				x							
LONG FETCH / DURATION OF SFC WND				x			4				
SEA SALT ACCRETION FORECAST					x						
SEA SALT ACCRETION OBSERVED					x		Pennies:	6 x CAT 3			

*Highlighted items must be completed before departure.

Remarks:

P-3 QC Checklist

Overall Assessment	Minor instrument issue(s) - no mission impact.
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Flight ID:	20230908H1
Flight Director(s):	Zawislak / Parrish
Mission:	Tasked/Operational
UWZ.d mean:	0.19

Pressure Comparison		
	T/O	Land
Aircraft	1010.2	No good measurement
Tower	1009.6	1010.6

	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	✓ lasADDU.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	<input type="checkbox"/>
Valid	<input checked="" type="checkbox"/>
Errors (note)	<input checked="" type="checkbox"/>

NOTES:
<p>I.3 for Pitch and Roll is not operational</p> <p>TTM.3 is not operational</p> <p>TRadU.1 is not operational</p> <p>TDM.1 spikes between 2233 and 2238 UTC and again between 0244 and 0245 UTC and runs lower than TDM.1 during the ferries; TDM.2 is the better behaving sensor and TDMref is set to TDM.2</p> <p>TDM.3 has erroneous data throughout the flight and should not be used</p> <p>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</p>

AVAPS Drop Log

 Project: LEE

Mission: _____

Flight ID: _____

 Take Off: 2123

Landing: _____

 Flt Dir: JZ

 Launcher S/N: 407WR

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	222120834	1	-0.6	2248	LW	NWS	IP 1	✓
2	22172179	2	-0.9	2300	LW	NWS	MP	✓
3	221810437	3	-1.1	2312	LW	NWS	Rmw	✓
4	221040333	4	-0.8	2313	LW	ONR	Rmw	✓
5	221841044	5	-0.5	2313	LW	ONR	Rmw	✓
6	221721272	6	-0.5	2317	LW	NWS	Rmw COMBO 1	✓
7	221730005	7	-0.3	2317	LW	ONR	Rmw	✓
8	221920010	8	-0.8	2318	LW	ONR	Rmw	✓
9	222120878	1	-0.6	2341	LW	NWS	MP	✓
10	221841041	2	-0.9	2329	LW	NWS	EP 1	✓
11	221920007	3	0.4	0010	LW	NWS	IP 2 ϕ HUMIDITY	
12	221920014	4	-0.8	0023	LW	NWS	MP	✓
13	221730628	5	-0.6	-	LW	NWS	Rmw NO LAUNCH	
14	220950443	6	-0.8	0031	LW	ONR	Rmw	✓
15	221750689	7	-0.5	0032	LW	ONR	Rmw	✓
16	221910290	8	-0.7	0033	LW	ONR	Rmw	✓
17	221721181	1	-0.9	0035	LW	NWS	CTR COMBO 2	✓
18	221730026	2	-0.8	-	LW	NWS	Rmw NO LAUNCH	
19	221010153	3	-1.0	0049	LW	NWS	MP3	✓
20	221910324	4	-0.9	0049	LW	NWS	MP3	✓
21	222020517	5	-0.9	0101	MM	NWS	2nd End Point	✓
22	221730242	6	-0.6	0124	MM	NWS	3rd IP	✓
23	221920015	7	-1.0	0137	MM	NWS	3rd Mid In	✓
24	221841042	8	-0.8	0145	MM	NWS	Rmw	✓
25	221920009	1	-1.0	0145	MM	ONR	Rmw	✓
26	221721271	2	-0.7	0147	MM	ONR	Rmw	✓
27	221920011	3	-1.2	0148	MM	NWS	Center/Combs 3rd	✓
28	221920017	4	-0.5	0149	MM	NWS	Rmw	✓
29	221910291	5	-1.3	0150	MM	ONR	Rmw	✓
30	221910292	6	-0.7	0150	MM	ONR	Rmw	✓
31	221721269	7	-0.9	0201	MM	N	3rd Mid out/Combs	✓

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
32	221910289	8	-0.9	0212	MM	NWS	3 rd end point	✓
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								

Drop Station Operator Notes

Charge \$\$ To Options (DO NOT USE FUNDING CODES):
AOC, NWS, HRD, NESDIS, IR/SST, AR, STAN (Stanford), SAT (JPSS/NESDIS/HRD)

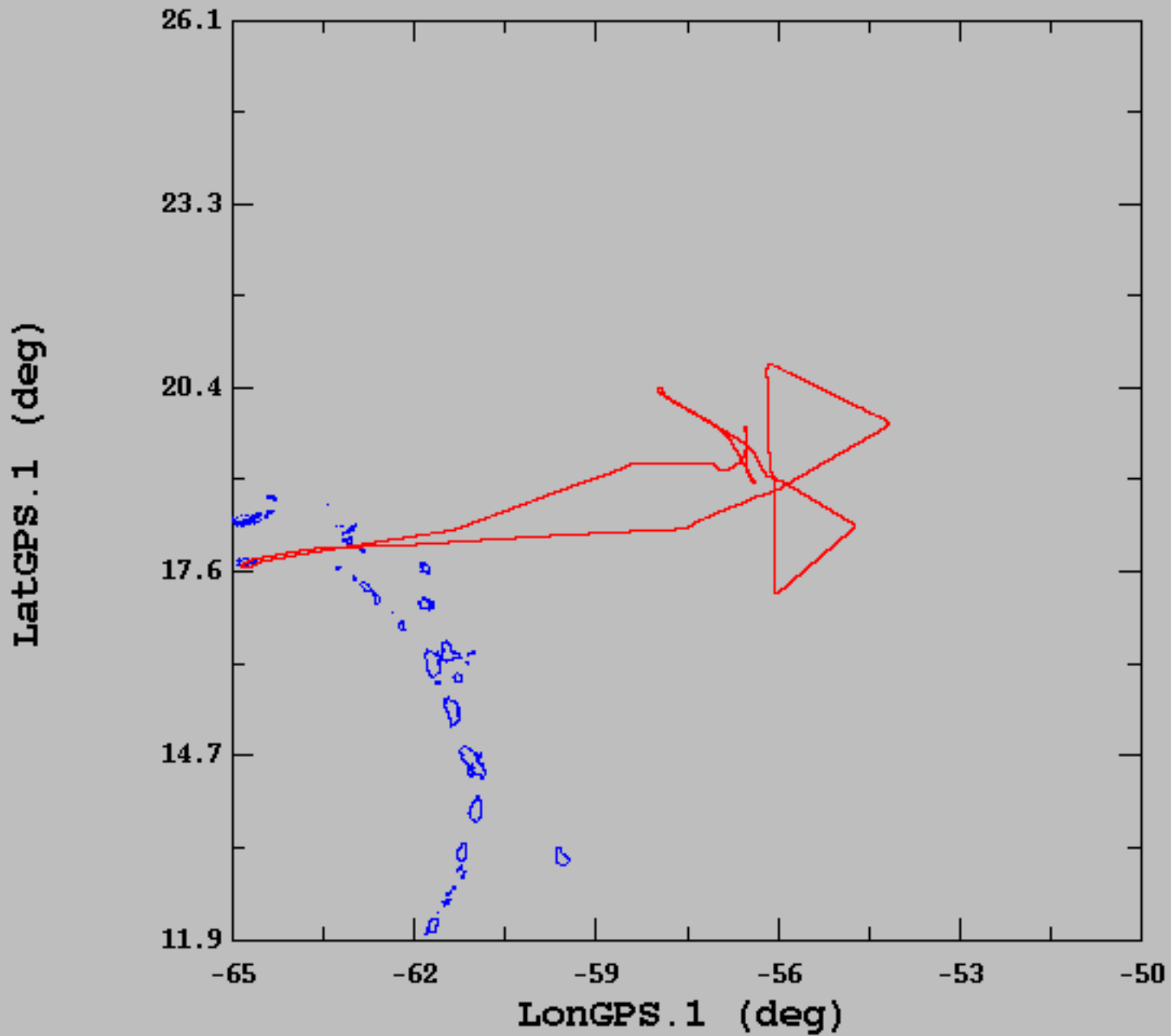
AVAPS Pre-Flight Check:

- If time-permits, verify cabin pressure sensor w/ lab standard
- Start AVAPS., then start Soundings and set the Project Name and Full Flight ID (example: 20120823N2).
- Verify the Frequency band allocation as required:
Band A: 53rd WRS - Band B: N42RF - Band C: N43RF - Band D: N49RF - Band E: Unallocated
- Select the **GPS Reference** tab from the **Soundings Displays** page and verify good GPS data
- Perform a prelaunch check on each channel, look for reasonable data and no CRC error status lights.
- Verify data is available on Remote AVAPS, then terminate the sonde.
- Verify the AVAPS Data mission folder has been created
- Verify AVAPS PC Time is correct – if time is off by >4sec, no data will display
- Early launch detects are caused usually by remanufactured sondes with the chute riser line not properly coiled below the PCB ear. This may also cause fast falls. If this is suspected, repack the riser line as time permits
- Perform RH Regeneration on all sondes – Multiple RD41 sondes may be processed at once

AVAPS Launch:

- Select a sonde frequency in the Green band and away from other sondes
- Enter sonde pressure error offset if 0.4mB or greater using cabin pressure sensor – warning, this can not be used during a climb
- If the Cal lab pressure standard and the cabin pressure standard match, apply pressure offset +/- 0.1 mB
- Wait until GPS available (green) on the pre-launch screen before continuing.
- Select "begin data collection" and verify good data with winds prior to putting sonde in launch tube
- On N42 & N43, remove about 1/2 of the ribbon. Do not shorten the ribbon on N49. Loosen ribbon and extend end of ribbon to near, but not over, the sensor end of the sonde. Place excess orange tape on end of ribbon to form a pocket.
- Place the sonde in the launch tube, sensor arm up, with the power pin socket facing right
- Verify the sonde is actively tracking GPS data prior to launch and no early launch detect

09/08/2023, 18:41:36-28:53:44



	mean	sigma	min	max
— LatGPS.1 (deg), 1 s/sec	18.55	0.89	17.24	20.78
— LonGPS.1 (deg), 1 s/sec	-59.84	3.87	-64.84	-54.16