





**U.S. Department of Commerce / NOAA / OMAO / Aircraft Operations Center - N43RF Manifest**

FLIGHT INFORMATION				CREW MANIFEST			MISSION INFORMATION				
FLT ID:	20230911I1	FLT #:		AC:	COPARE	Scientists:	Pressure		Dropsondes		
From:	TISX	ETD:	0830Z	CP(s):	KEITH	ABERSON	A/C Takeoff		Good	Bad	Sent
To:	TISX	ETA:	1630Z		WOOD	J. ZHANG			<b>37</b>	<b>0</b>	<b>36</b>
Block Time		Flight Time		NAV:	UTAMA	KO	ASOS Takeoff		BTs		
In:	<b>16:17</b>	Land:	<b>16:11</b>	FE(s):	TYSON				Good	Bad	Sent
Out:	<b>8:25</b>	T/O:	<b>8:32</b>	FD(s):	TUFNELL		A/C Land		<b>8</b>	<b>0</b>	<b>6</b>
Total:	<b>7.9</b>	Total:	<b>7.7</b>		SSA:	RICHARDS					
Sponsoring Org:	EMC			SEB:		KELLY RYAN	Storm Number ID:		<b>AL132023</b>		
Program:	PRX					PATRICK DURAN	(ie: AL072012)				
Purpose:	HX LEE TDR					JACK BRANKA	TCPOD/WSPOD Mission		<b>1613A LEE</b>		
				MX:		MATTHEW CAPPUCCI	(ie: NOAA2 2418A SANDY)				
AS REQUIRED BY ORM				Y	N	REMARKS	Fix Number	Obs Number	Fix Time	SLP	
VOLCANIC ASH					X		<b>1</b>	7	0955Z	949MB	
SCIENCE MISSION WITHIN BDRY LAYER					X						
LACK OF PRECIPITATION					X		<b>2</b>	19	1118Z	948MB	
RELATIVE HUMIDITY ≥ 80%				X							
LARGE AIR-SEA TEMP GRADIENT					X		<b>3</b>	30	1240Z	951MB	
HIGH SURFACE WINDS				X							
LONG FETCH / DURATION OF SFC WND					X		<b>4</b>				
SEA SALT ACCRETION FORECAST					X						
SEA SALT ACCRETION OBSERVED					X		<b>Pennies:</b>	4 - 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:	2023091111
Flight Director(s):	KALEN / LUNDRY
Mission:	Non-tasked Science Collection/Research
UWZ.d mean:	-0.17

Pressure Comparison		
	T/O	Land
Aircraft	1010.4	-
Tower	1010.9	-

	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	x PDLAPHaref x PDBETAref x PQALPHaref x 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 x 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
✓ Miscellaneous FD Notes

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

NOTES:
<p>I.3 for Pitch and Roll is not operational.</p> <p>TRadU.1 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> <p>TTM.3 and TDM.3 inop</p> <p>PQM.1 trending ~5 mb high</p> <p>TDM.1 has large spike at 11:17</p> <p>TDM.2 unrepresentative until 10:30; large spike at 12:29</p> <p>Humidity parameters suspect</p>

# AVAPS Drop Log

 Project: Hurricane Lee

Mission: \_\_\_\_\_

 Flight ID: 20230919 I 1

Take Off: \_\_\_\_\_

Landing: \_\_\_\_\_

 Flt Dir: Q

Launcher S/N: \_\_\_\_\_

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	220570920	1	-1.0	0929	HK	NWS	IP1 Combo	✓
2	221631337	2	-0.8	0942	HK	NWS	MP	✓
3	220570928	3	-0.7	0948	HK	NWS	RMW	✓
4	221310246	4	-0.5	0948	HK	NWS	RMW	✓
5	220910586	5	-1.2	0952	HK		RMW	✓
6	220460043	6	-0.6	0955	HK		CNTR	✓
7	220610166	7	-0.8	0959	HK		RMW 1	✓
11	21620957	8	-1.0	0959	HK		RMW3	✓
9	221730484	1	-0.6	1008	HK		MP	✓
10	221310245	2	-0.6	1016	HK		EP 1	✓
8	230620124	3	-0.3	0959	HK		RMW 2	✓
12	221250010	4	-0.3	1051	JW	NWS	IP#2	✓
13	221240691	5	-0.8	1104	JW		MP	✓
14	221730485	6	-0.4	1111	JW		RMW	✓
15	221820321	7	-0.5	1112	JW		RMW	✓
16	221740817	8	-0.6	1113	JW		RMW	✓
17	221740718	1	-0.4	1118	JW		Combo CNTR #2	✓
18	221730244	2	-0.6	1128	JW		RMW	✓
19	221730264	3	-0.6	1135	JW		RMW	✓
20	221740805	4	-1.2	1138	JW		MP combo	✓
21	221740716	5	-0.5	1151	JW		EP com	✓
22	221830741	6	-0.9	1216	HK	NWS	IP3 Combo	✓
23	221740820	7	-0.5	1226	HK		RMW	✓
24	221810049	8	-0.5	1227	HK		RMW	✓
25	221740612	1	-0.9	1229	HK		RMW	✓
26	221810099	2	-1.2	1236	HK	HRD	RMW	✓
27	221750594	3	-0.9	1240	HK	NWS	CNTR	✓
28	221810087	4	-1.2	1245	HK	NWS	RMW	✓
29	221730254	5	-0.5	1249	HK		RMW	✓
30	221810098	6	-1.3	1250	HK		RMW	✓
31	221750151	7	-0.5	1253	HK		MP	✓

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Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
32	221830744	8	-1.4	1301	HK	NWS	EP3 corebo	✓
33	221730248	1	-0.7	1348	HK	GOMO	cardinal Director	✓
34	221820047	2	-0.6	1354	HK	GOMO	Card. Direc E	✓
35	221750228	3	-0.5	1405	HK	GOMO	CARD. Direct. N	✓
36	221820049	4	0.0	1411	HK	GOMO	CARD. Director W	✓
37	222010066	5	-0.4	1504	HK		<del>SAT</del> BJOY	✓
38	<del>221830576</del>	<del>6</del>	<del>-0.5</del>					
39	221730634	7	-0.7					
40	221820063	8	-0.5					
41	<del>221750033</del>	<del>1</del>	<del>-0.7</del>					
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)

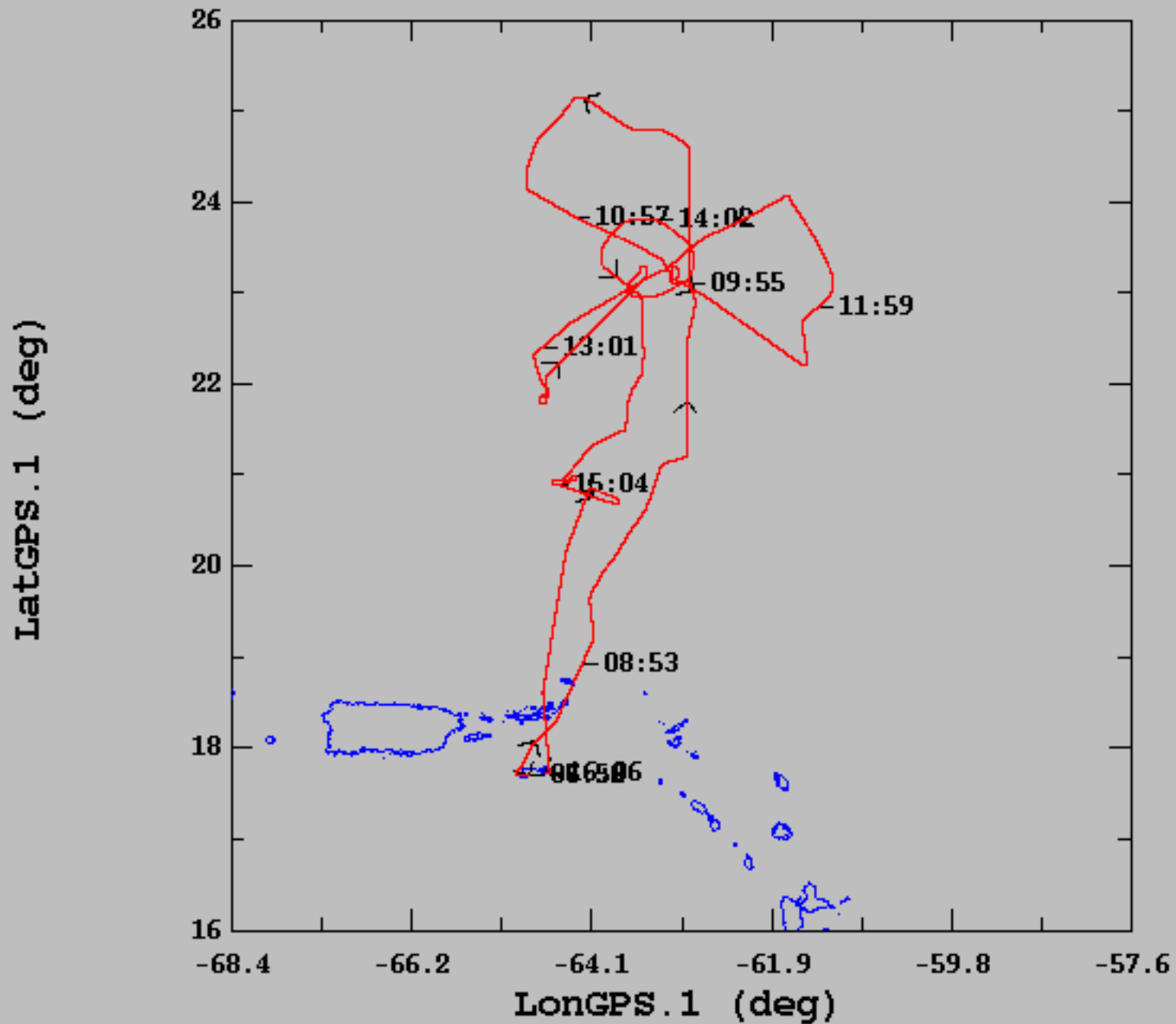
#### AVAPS Pre-Flight Check:

- 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: 53<sup>rd</sup> 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**

09/11/2023, 06:50:25-16:06:21



	mean	sigma	min	max
— LatGPS.1 (deg), 1 s/sec	21.32	2.38	17.69	25.15
— LongGPS.1 (deg), 1 s/sec	-63.78	0.94	-64.97	-61.19