

Flight Director: Hathaway
Phone #: 863-500-3911

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:	20210827H1	FLT #:	1	AC:	Rossi	Scientists:	Pressure		Dropsondes		
From:	KLAL	ETD:	1600 L	CP(s):	Shaw	Rogers	A/C Takeoff		Good	Bad	Sent
To:	KLAL	ETA:	0000 L		Keith	Zhang			25	0	25
Block Time		Flight Time		NAV:	Utama		ASOS Takeoff		BTs		
In:	4:20	Land:	4:13	FE(s):	Sanchez				A/C Land		Good
Out:	19:43	T/O:	19:55	FD(s):	Hathaway		ASOS Land				5
Total:	8.6	Total:	8.3	SSA:	Richards T.	Visitors:			Storm Number ID:		AL092021
Sponsoring Org:	HRD			AVAPS:	McAlister		(ie: AL072012)				
Program:	PHX			SEB:			TCPOD/WSPOD Mission		WA09A IDA		
Purpose:	Research			MX:			(ie: NOAA2 2418A SANDY)				
AS REQUIRED BY ORM				REMARK			OBSERVATIONS				
		Y	N				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						
HIGH SURFACE WINDS				X							
LONG FETCH / DURATION OF SFC WND					X						
SEA SALT ACCRETION FORECAST					X						
SEA SALT ACCRETION OBSERVED					X		Pennies:	4			
*Highlighted items must be completed before departure.											
Remarks:											

P-3 QC Checklist

Overall Assessment	Minor instrument issue(s) - minimal mission impact.
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Flight ID:	20210827H1
Flight Director(s):	Hathaway / Lundry
Mission:	Non-tasked Science Collection/Research
UWZ.d mean:	0.2

Pressure Comparison		
	T/O	Land
Aircraft	1099.6	N/A
Tower	KLAL - 1010.6	KLAL - N/A

	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 <input type="checkbox"/> 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 <input checked="" type="checkbox"/> PDALPHA.2 ✓ PDBETA.1 ✓ PDBETA.2	✓ PQALPHA.1 ✓ PQBETA.1	<input checked="" type="checkbox"/> PQM.1 ✓ PQM.2 ✓ PQM.3 <input checked="" type="checkbox"/> PQM.4	✓ PSM.1 ✓ PSM.2 ✓ PTM.1	✓ PDALPHaref ✓ 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 <input type="checkbox"/> PitchI.3	✓ PitchRateI.1 ✓ PitchRateI.2 <input type="checkbox"/> PitchRateI.3	✓ RollI.1 ✓ RollI.2 <input type="checkbox"/> RollI.3	✓ RollRateI.1 ✓ RollRateI.2 <input type="checkbox"/> RollRateI.3	✓ PITCHref ✓ ROLLref	
✓ Temp / Dewpt	✓ TTM.1 ✓ TTM.2 <input checked="" type="checkbox"/> TTM.3	<input checked="" type="checkbox"/> TDM.1 ✓ TDM.2 ✓ TDM.3	✓ TRadD.1 ✓ TRadS.1 <input type="checkbox"/> TRadU.1		✓ TD.c ✓ TDMref	✓ TTMref ✓ TA.d
✓ Misc. (Must check)					✓ UWZ.d ✓ DPJ_WSZ ✓ HUM	✓ WS.d ✓ WD.d

FLID_Mission_Documents.pdf:
<ul style="list-style-type: none"> ✓ 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:
<ul style="list-style-type: none"> - PDAAlpha.2 has a large spike around hour 4 of flight. - PQM.1 and PQM.4 have a large unusual drop out around hour 4 in flight. - TDM.1 has a large spike around hour 4 of flight.

AVAPS Drop Log

Project: 2021 Hurriseason Mission: Hurricane Ida Flight ID: 20210827H1
 Take Off: 1600L Landing: _____ Fit Dir: Landry Launcher S/N: _____

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	204610672	2	Ø	2106Z	Mac	HRD	1PNW/BT Combo	
2	204640102	1	Ø	2114Z			1st MID IN NW	
3	204610666	3	-0.6	2124Z			1st IN RMW NW	
4	204650370	4	-0.3	2145Z			1st OUT MID SE	
5	204840593	5	-0.2	2157Z			1st END PT SE	
6	204610668	6	-0.4	2232Z			MICROPHYS SPIRAL	
7	204031025	7	-0.4	2312Z			2nd IP NE/Combo	
8	204521412	8	-0.4	2321Z			2nd MID IN NE	
9	204650358	1	-0.9	2344Z			2nd out 1/4 SW	
10	204260854	2	-0.6	2350Z		HRD	2nd MID OUT SW	
11	204620004	3	-0.5	0004Z		ONR	2nd End PT SW	
12	204610654	4	-0.6	0022Z			3rd IP South	
13	204420094	5	-0.6	0033Z			3rd MID IN SOUTH	
14	204260861	6	-0.6	0051Z			1st CB Module NW	
15	204270045	7	-0.4	0057Z			2nd CB Module NW	
16	204620016	8	-0.6	0127Z			3rd MID out N/Combo	
17	204260873	1	-0.5	0139Z			3rd END PT N/Combo	
18	204640459	2	-0.5	0212Z			4th IP West/Combo	
19	204031021	3	-0.3	0224Z			4th MID IN West	
20	204330611	4	-0.7	0238Z			4th INB RMW	
21	204610809	5	-0.7	0244Z			4th CTR maybe	
22	204260891	6	-0.7	0252Z			4th RMW out	
23	204840594	7	-0.3	0258Z			4th MID OUT EAST	
24	204530193	8	-0.6	0307Z			4th END PT EAST	
25	204650368	1	-0.4	0308Z	Mac	GNR	B/U END PT / GPS ON DROP 4	
26								
27								
28								
29								
30								
31								

08:50:30
 54:30
 20:55:00

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
32								
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 ½ 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**

NOAA P-3 GPS Dropwindsonde Scientist Log (revised March 2019)

Storm *Ida* Flight ID *20140827H* Dropsonde Scientist *Jin Zhang* AVAPS Operator *Max Neftci*
 Mission ID *WFOFA* (exp. 0213A) Dropsonde Scientist *Jin Zhang* AVAPS Operator *Max Neftci*

Drop #	Sonde ID	Time UTC	Lat (°N/S)	Long (°E/W)	Sfc Pressure (mb)	Wind closest to		SST (°C)	Eye/Wall, Rainband, etc.	Ob #
						Dir/Spd (deg/kt)	Hgt (m)			
1	20140827H	216612	23.053	84.593	1056.2	07079	10	29		
Comments: <i>Combo JP NW</i>										
2	20140827H	211415	22.67	84.16	1055.9	05339	10			
Comments: <i>1st IN NW RWV eye wall</i>										
3	20140827H	2124	22.16	83.61	1057.3	05166	10			
Comments: <i>1st IN NW RWV</i>										
4	20140827H	2145	21.249	82.31	1055.8	17133	10			
Comments: <i>1st OUT NW DP SE</i>										
5	20140827H	2157	20.96	81.69	1059.4	18024	10			
Comments: <i>1st END SE</i>										
6	20140827H	2232	21.85	82.12	1057.2	17034	10			
Comments: <i>MZ wings spread Hgt low power</i>										
7	20140827H	2312	23.62	82.11	1010.2	09033	10	29.4		
Comments: <i>Combo. 2nd JP NE</i>										
8	20140827H	2321	23.96	82.66	1057.4	08149	10			
Comments: <i>2nd MIP NW NE</i>										
9	20140827H	2344	22.09	83.69	1052.9	24519	10			
Comments: <i>2nd SW DP 1/4 power SW</i>										
10	20140827H	2355	21.816	83.984	1056.4	28019	10			
Comments: <i>2nd MIP PT out SW</i>										

01
02
03
04
05
06
07

NOAA P-3 GPS Dropwindsonde Scientist Log (revised March 2019)

Storm ID: **IDA** Flight ID: **20210827141** Dropsonde Scientist: **J. Zhang** AVAPS Operator: **Ma**
 Mission ID: **WVAP04** (exp. 0213A) Dropsonde Scientist: **J. Zhang** AVAPS Operator: **Ma** Page # **2**

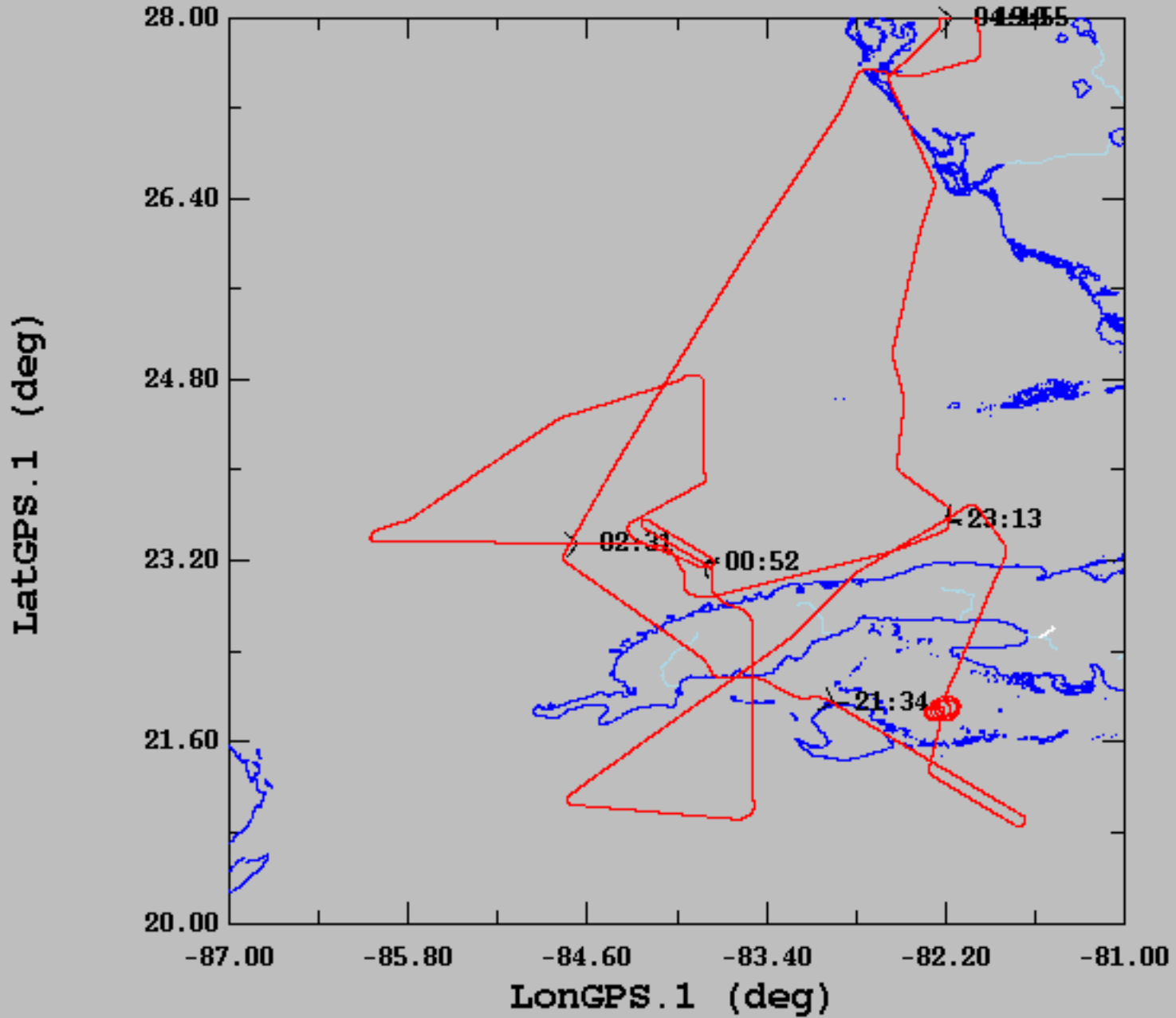
Drop #	Sonde ID	Time UTC	Lat (°N/S)	Long (°E/W)	Sfc Pressure (mb)	Wind closest to		SST (°C)	Eye/Eyewall, Rainband, etc.	Ob #
						Dir/Spd (deg/kt)	Hgt (m)			
11	20460504	0059	21.144	84.694	1007.4	350/19	10			
Comments	2nd GND PT SW									
12	20461054	0022	21.04	83.47	1009.3	220/12	10			
Comments	3rd GND FP South.									
13	20462544	0033	21.82	83.48	1002	215/18	10			
Comments	2nd MID NW South									
14	20463006	0051	23.12	83.76	999.6	030/52	10			
Comments	1st GND hump drop									
15	20463100	0057	23.43	84.14	1005.9	040/50	10			
Comments	2nd GND hump module NW									
16	20462596	0127	23.89	83.89	1009.4	050/44	10			
Comments	3rd MID SW 160th, 137 conds									
17	20463023	0139	24.756	83.819	1011.4	090/29	10			
Comments	3rd GND PT North 87 conds									
18	20463549	0212	23.37	81.00	1007.3	055/22	10			
Comments	2nd IP WEST									
19	20463102	0224	23.36	85.14	1007.8	030/39	10			
Comments	4th MID NW WEA									
20	20463321	0238	23.34	84.18	999.8	051/65	10			
Comments	4th NWBD RNNW									

NOAA P-3 GPS Dropwindsonde Scientist Log (revised March 2019)

Storm **IODA** Flight ID **2021087H1** Dropsonde Scientist **Jim Shaw** AVAPS Operator **Mer** Page# **3**
 Mission ID **WAcq4** (exp. 0213A) Dropsonde Scientist **Jim Shaw** AVAPS Operator **Mer**

Drop #	Sonde ID	Time UTC	Lat (°N/S)	Long (°E/W)	Sfc Pressure (mb)	Wind closest to		SST (°C)	Eye/Eyewall, Rainband, etc.	Ob #
						Dir/Spd (deg/kt)	Hgt (m)			
21	200610809	0244	23.07	83.94	993	137/27	10			
Comments	Higher level center - surface wind hgt - deformation at H4									
22	200610891	0252	22.99	83.42	1002.0	130/52	10			
Comments	H4 below out Tower									
23	200610554	0258	23.15	82.946	1004.8	125/24	10			
Comments	H4 H40 out Tower									
24	200610193	0307	23.22	82.301	1006.8	105/30	10			
Comments	H4 H40 RND H7 - Low 6PS									
25	200610352	0308	22.43	82.16	1008.7	085/43	10			
Comments	H4 H40 rain - second drop									
26										
Comments										
27										
Comments										
28										
Comments										
29										
Comments										
30										
Comments										

2021-08-27, 19:55:04-28:10:28



	mean	sigma	min	max
— LatGPS.1 (deg), 1 s/sec	23.49	1.82	20.86	27.99
— LonGPS.1 (deg), 1 s/sec	-83.34	1.04	-86.05	-81.66