

Test sondes	0	0	0
AXBTs	0	0	0
AXCPs	0	0	0
AXCTDs	0	0	0
UAS	0	0	0

Flight Director: Carpenter / Holmes
Phone #: 863-500-3901

ACAT-4 Version = 7.3

U.S. Department of Commerce / NOAA / OMAO / Aircraft Operations Center - N42RF Manifest

FLIGHT INFORMATION				CREW MANIFEST			MISSION INFORMATION				
FLT ID:	20201009H1	FLT #:	21-6	AC:	Abitbol	Scientists:	Pressure		Dropsondes		
From:	KLAL	ETD:	0900Z	CP(s):	Mitchell	Zawislak, Jon (HRD)	A/C Takeoff	1010.9	Good	Bad	Sent
To:	KLAL	ETA:	1700Z		Shaw	Chang, Paul (NESDIS)			ASOS Takeoff	KLAL 0848Z 1011.2 mb	27
Block Time		Flight Time		NAV:	Richards/B	Jelenak, Zorana (NESDIS)	ASOS Land	1011.8			BTs
In:	17:23	Land:	17:12	FE(s):	Darby				A/C Land	1011.8	Good
Out:	8:49	T/O:	8:57	FD(s):	Heystek		ASOS Land	KLAL 1647Z 1013.0 mb			0
Total:	8.6	Total:	8.3	SSA:	Mascaro	Visitors:			Storm Number ID:		AL262020
Sponsoring Org:	NWS / EMC			AVAPS:	Warnecke	Utama, Andrew (AOC)	(ie: AL072012)				
Program:	PRX			SEB:			TCPOD/WSPOD Mission		NOAA2 1926A DELTA		
Purpose:	Hurricane Delta TDR Mission #3			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						
LACK OF PRECIPITATION					X						
RELATIVE HUMIDITY ≥ 80%				X			2				
LARGE AIR-SEA TEMP GRADIENT					X						
HIGH SURFACE WINDS				X			3				
LONG FETCH / DURATION OF SFC WND				X							
SEA SALT ACCRETION FORECAST					X		4				
SEA SALT ACCRETION OBSERVED					X						
							Pennies:	4 Hurricane Pennies			

*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:	20201009H1
Flight Director(s):	Carpenter / Holmes
Mission:	Tasked/Operational
UWZ.d mean:	0.23

Pressure Comparison		
	T/O	Land
Aircraft	1010.9	1011.8
Tower	KLAL 0848Z 1011.2 mb	KLAL 1647Z 1013.0 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 ✓ 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 X PDALPHA.2 ✓ PDBETA.1 X PDBETA.2	✓ PQALPHA.1 ✓ PQBETA.1	X 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 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>Data system required restart during transit to storm. B file contains in-storm data and was used to generate a BC file.</p> <p>PDAlpha.2 and PDBeta.2 inoperative.</p> <p>PQM.1 generally trends with the other PQM sensors but diverges at several points in-flight.</p> <p>PitchI.3 and RollI.3 unavailable.</p> <p>TTM.3 unavailable.</p> <p>TDM.1 multiple data spikes early in-flight, particularly at ~1038 and ~1111Z.</p> <p>TDM.3 inoperative.</p> <p>TRadU.1 unavailable.</p>

AVAPS Drop Log

Project: Hurr 20

Mission: Hurricane Delta

Flight ID: 20201009 H1

Take Off: 0836Z

Landing: _____

Flt Dir: Carports/Holmes

Launcher S/N: _____

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	201510639	1	∅	1058	JW	NWS	IP #1	✓
2	201740652	2	∅	1117			Midpoint #1	✓
3	201630254	3	∅	1125			RmW #1	✓
4	201440527	4	∅	1126			RmW #2	✓
5	201440479	5	∅	1131			Center #1	✓
6	201740767	6	∅	1136			RmW #3	✓
7	201740655	7	∅	1143			Midpoint #2	✓
8	201740623	8	∅	1154			Endpoint #1	✓
9	202270522	1	∅	1225			IP #2	✓
10	201630258	2	∅	1233			Midpoint #3	✓
11	202621405	3	∅	1234			RmW #4	✓
12	202621456	4	∅	1255			Midpoint #4	✓
13	201740658	5	∅	1304			Endpoint #2	✓
14	201740742	6	∅	1321			IP #3	✓
15	201630200	7	∅	1331			Midpoint #5	✓
16	201740660	8	∅	1337			RmW #5	✓
17	201730181	1	∅	1341			Center #3	✓
18	201420283	2	∅	1342			Center #4	✓
19	201740708	3	∅	1347			RmW #6	✓
20	201730191	4	∅	1358			Midpoint #6	✓
21	201620284	5	∅	1410			Endpoint #3	✓
22	201620287	6	∅	1417		HRD		✓
23	201740699	7	∅	1422		HRD		✓
24	201740079	8	∅	1446			IP #4	✓
25	201630227	1	∅	1500			Center #4	✓
26	201740650	2	∅	1511			Midpoint #7	✓
27	201740687	3	∅	1523			Endpoint #4	✓
28								
29								
30								
31								

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 **A226/0657A** Flight ID **20201009H1** Dropsonde Scientist **ZAWORSKI** AVAPS Operator **WARNECKI** Page# **1 of 3**
 Mission ID **1926A** (exp. 0213A) Dropsonde Scientist **ZAWORSKI** AVAPS Operator **WARNECKI**

Drop #	Sonde ID	Time UTC	Lat (°N/S)	Long (°E/W)	Sfc Pressure (mb)	Wind closest to		SST (°C)	Eye/Ewall, Rainband, etc.	Obs #
						Dir/Spd (deg/kt)	Hgt (m)			
1	201510639	105852	29.42	93.78	1007.0	039/37				1
Comments										
2	201740652	111739	28.22	93.78	994.8	064/50				2
Comments										
3	201630254	112536	27.72	93.79	978.2	055/05				5
Comments SPANIC SON COV B/W 215 AND 249 9950ms HIGHER WINDS IN THIS ONE										
4	201440527	112638	27.66	93.79	974.2	040/02				6
Comments										
5	201440479	113100	27.38	93.79	960.0	155/22				3
Comments DIRECTIONAL CHANGE FROM 11:36 56.25 14001 11:31 00.25. WTE CURRENT DIRECTION										
6	201740707	113618	27.02	93.79	973.0	240/55				7
Comments										
7	201740655	114336	26.56	93.80	992.4	248/46				8
Comments										
8	201740625	115417	25.84	93.80	1000.2	245/34				9
Comments POSIT - SPANIC PDM										
9	202270522	122514	27.66	92.54	997.8	128/50				10
Comments										
10	201630258	123306	27.66	93.16	983.9	119/62				11
Comments										

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

Storm **AC22C/DELTA** Flight ID **20201009H 1** Dropsonde Scientist **ZAWISWAK** AVAPS Operator **WARRANTER** Page# **2 of 3**
 Mission ID **1926A** (exp. 0213A) Dropsonde Scientist **ZAWISWAK** AVAPS Operator **WARRANTER**

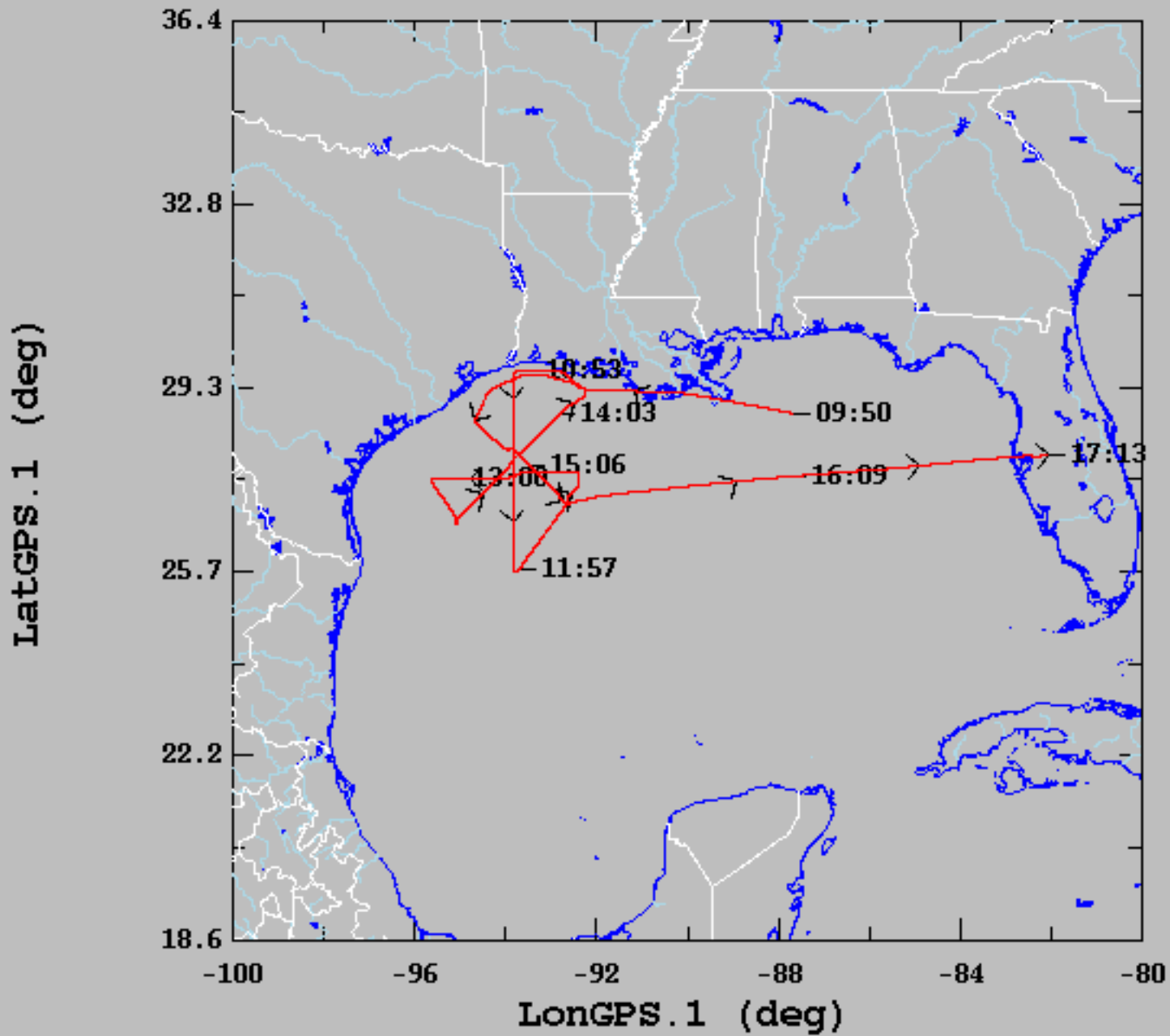
Drop #	Sonde ID	Time UTC	Lat (°N/S)	Long (°E/W)	Sfc Pressure (mb)	Wind closest to		SST (°C)	Eye/EyeWall, Rainband, etc.	Obs #	
						Dir/Spd (deg/kt)	Hgt (m)				
11	202621405	123458	27.66	93.31	979.5	124	80			RMW E	12
Comments											
12	202621456	125520	27.54	94.78	993.9	336	136			MP W	13
Comments											
13	201740658	130453	27.54	95.53	1001	335	39			EP W	15
Comments											
POST-SPURS DATA FLOG											
14	201740742	132134	26.74	95.02	1000.1	315	40			1P SW	20
Comments											
POST-SPURS DATA											
15	201630200	133159	27.25	94.46	990.6	304	136			MP SW	21
Comments											
16	201740660	133740	27.53	94.14	971.6	316	88			RMW SW	18
Comments											
17	201730181	134158	27.75	93.91	963	325	119			RMW E	1
Comments											
MICHIE TAV THE CRVA BECU											
18	201620293	134237	27.79	93.90	962	110	16			CRV E 2/2	16
Comments											
POST-SPURS DATA FLOG											
19	201740708	134754	28.05	93.63	971.0	682	94			RMW NE	19
Comments											
TRANSMIT THIS ONE W/ LOWEST SFC PRESS/ WINDSPEED WINDS											
20	201730191	135836	28.54	93.05	994.4	101	56			MP NE	22
Comments											

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

Storm **AL26/DETA** Flight ID **20201009H1** Dropsonde Scientist **ZAWISNAK** AVAPS Operator **WARRWICK** Page# **3 of 3**
 Mission ID **1926A** (exp. 0213A) Dropsonde Scientist **ZAWISNAK** AVAPS Operator

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	201620284	141022	29.64	92.35	1002.2	-/-			EPNE	23
Comments										
22	201620287	141722	29.38	92.53	1004.4	078 / 40			LANDFALL 120	25
Comments										
23	201740099	142227	29.49	93.01	1002.8	056 / 30			LANDFALL 120	26
Comments										
24	201740079	144654	28.57	94.58	994.2	006 / 62			1P NW	27
Comments										
25	201630227	150616	28.08	93.81	963	025 / 12			CR24	24
Comments										
26	201740650	151138	27.57	93.22	987.9	181 / 64			NO SE	28
Comments										
27	201740087	152325	27.67	92.67	999.8	189 / 44			EO SE	29
Comments										
LAST REPORT										
Comments										
Comments										
Comments										

10/09/2020, 09:50:48-17:13:09



	mean	sigma	min	max
LatGPS.1 (deg), 1 s/sec	27.95	0.92	25.73	29.59
LongGPS.1 (deg), 1 s/sec	-91.64	3.44	-95.63	-82.02