

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

ACAT-4 Version = 7.3

U.S. Department of Commerce / NOAA / OMAO / Aircraft Operations Center - N49RF Manifest

FLIGHT INFORMATION				CREW MANIFEST			MISSION INFORMATION				
FLT ID:	20190920N1	FLT #:	19-117	AC:	Mansour	Scientists:	Pressure		Dropsondes		
From:	TBPB	ETD:	17:30Z	CP(s):	Waddington		A/C Takeoff	1007.0	Good	Bad	Sent
To:	TBPB	ETA:	01:30Z		Nardi		ASOS Takeoff	TBPB 17:00Z 1005.8 mb	32	1	32
Block Time		Flight Time		Nav(s):			ASOS Land	1008.2	BTs		
In:	0:50	Land:	0:46	FE(s):			A/C Land	TBPB 01:00Z 1007.8 mb	0	0	0
Out:	17:19	T/O:	17:27	FD(s):	Carpenter	Visitors:	ASOS Land		Storm Number ID: (ie: AL072012)		
Total:	7.52	Total:	7.32		Henning				TCPOD/WSPOD Mission (ie: NOAA2 2418A SANDY)		
Sponsoring Org:		NHC/NWS		SEB:	Lynch/C		AL102019		NOAA9 0610A JERRY		
Program:		PHS		SSA:	Miller		OBSERVATIONS				
Purpose:		Hurricane Jerry Surveillance		AVAPS:	Underwood		Fix Number	Obs Number	Fix Time	SLP	
AS REQUIRED BY ORM			Y	N	REMARKS		Fix Number	Obs Number	Fix Time	SLP	
VOLCANIC ASH				X							
SCIENCE MISSION WITHIN BDRY LAYER				X							
LACK OF PRECIPITATION				X							
RELATIVE HUMIDITY ≥ 80%			X								
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							
Gmax:				Gmin:		*Highlighted items must be completed before departure.					
Remarks:											

G-IV QC Checklist

Flight ID:	20190920N1
Flight Director(s):	Carpenter / Henning
UWZ.d mean:	0.12 post-processing

Pressure Comparison		
	T/O	Land
Aircraft	1007.0	1008.2
Tower	TBPB 17:00Z 1005.8 mb	TBPB 01:00Z 1007.8 mb

	Raw 1Hz Mean File Parameters				C File Parameters	
✓ Accelerometer	✓ AccAXI.1 ✓ AccAXI.2 ✓ AccAXI.3	✓ AccAYI.1 ✓ AccAYI.2 ✓ AccAYI.3	✓ AccAZI.1 ✓ AccAZI.2 ✓ AccAZI.3		✓ AccZref	
✓ Altitude	✓ AltGPS.1 ✓ AltGPS.2 ✓ AltGPS.3	✓ AltI.1 ✓ AltI.2 ✓ AltI.3	✓ AltPaADDU.1 ✓ AltPaADDU.2 ✓ AltRA.1	✓ AltBCADDU.1 ✓ AltBCADDU.2	✓ ALTref ✓ ALTPA.d ✓ ALTGA.d	
✓ Ground Speed	✓ GsXI.1 ✓ GsXI.2 ✓ GsXI.3 ✓ GsXGPS.1 ✓ GsXGPS.2 ✗ GsXGPS.3	✓ GsYI.1 ✓ GsYI.2 ✓ GsYI.3 ✓ GsYGPS.1 ✓ GsYGPS.2 ✗ GsYGPS.3	✓ GsZI.1 ✓ GsZI.2 ✓ GsZI.3 ✓ GsZGPS.1 ✓ GsZGPS.2 ✗ GsZGPS.3	✓ GsGPS.1 ✓ GsGPS.2 ✗ GsGPS.3	✓ GSXref ✓ GSYref ✓ GSZref	
✓ Lat / Lon	✓ LatGPS.1 ✓ LatGPS.2 ✓ LatGPS.3	✓ LatI.1 ✓ LatI.2	✓ LonGPS.1 ✓ LonGPS.2 ✓ LonGPS.3	✓ LonI.1 ✓ LonI.2	✓ LATref ✓ LONref	
✓ Pressure	✓ PDALPHA.1 ✓ PDALPHA.2 ✓ PDBETA.1 ✓ PDBETA.2	✓ PQALPHA.1 ✓ PQALPHA.2 ✓ PQBETA.1 ✓ PQBETA.2	✓ PQM.1 ✓ PQM.2	✓ PSM.1 ✓ PSM.2	✓ PDLAPHAref ✓ PDBETAref ✓ PQALPHAref ✓ PQBETAref	✓ PQMref ✓ PQ.c ✓ PSMref ✓ PS.c
✓ Air Speed	✓ CasADDU.1	✓ TasADDU.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	✓ TTM.4	✓ TDM.1 ✓ TDM.2		✓ 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>GsGPS.3 unavailable.</p> <p>TTM.2 unavailable.</p> <p>TDM.1 unrealistic spikes during descent lead to unreasonable supersaturations.</p> <p>TDM.2 values too low.</p>

AVAPS Drop Log

Project: Hurricane Surveillance Mission: Hurricane Jerry Flight ID: 20190920N1
 Take Off: 1727Z Landing: 6046Z Flt Dir: Capester Launcher S/N: 02

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	185130632	1	-0.6	1753Z	NGU	NWS	Point #1	✓
2	192040985	2	0.0	1804Z			Point #2	✓
3	185120826	3	-0.5	1816Z			Point #3	✓
4	191110390	4	-0.6	1829Z			Point #4	✓
5	191110389	1	0.0	1843Z			Point #5	✓
6	185130646	2	0.0	1855Z			Point #6	✓
7	191050413	3	0.0	1905Z			Point #7	✓
8	191110386	4	0.0	1915Z			Point #8	✓
9	191110388	1	0.0	1925Z			Point #9	✓
10	191110109	2	0.0	1944Z			Point #10	✓
11	185130196	3	0.0	1955Z			Point #11	✓
12	185120855	4	0.0	2004Z			Point #12	✓
13	185130638	1	0.0	2016Z			Point #13	✓
14	191110387	2	0.0	2026Z			Point #14	✓
15	192040931	3	0.0	2035Z			Point #15	✓
16	191940530 <small>soft ware</small>	4	0.0	2046Z			Point #16	✓
17	192031213	1	0.0	2055Z			Point #17	✓
18	192050101	2	0.0	2105Z			Point #18	✓
19	192041044	3	0.0	2118Z			Point #19	✓
20	192040756	4	0.0	2133Z			Point #20	✓
21	192040753	1	0.0	2149Z	RGH		Point #21	✓
22	190050062	2	0.0	2201Z	RGH		Point #22	✓
23	192040754	3	0.0	2215Z	RGH		Point #23	✓
24	192031217	4	+0.2	2228Z	RGH		Point #24	✓
25	192050063	1	+0.1	2244Z	NGU		Point #25	✓
26	191820246	2	0.0	2301Z			Point #26	✓
27	192040734	3	0.0	2316Z			Point #28	✓
28	192041051	4	0.0	2317Z			Point #29	✓
29	192040752	1	0.0	2328Z			Point #30	✓
30	192050064	2	0.0	2337Z			Point #31	✓
31	192040735	3	0.0	2347Z			Point #32	✓

RH Burn

No RH burn rest of sondes

ser 191941356

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
32	192040745	4	-0.7	00148	NGU	NWS	Point #33 No launch det	X
33	185130636	1	0.0	00142	↓	↓	Point #33 back up	✓
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)

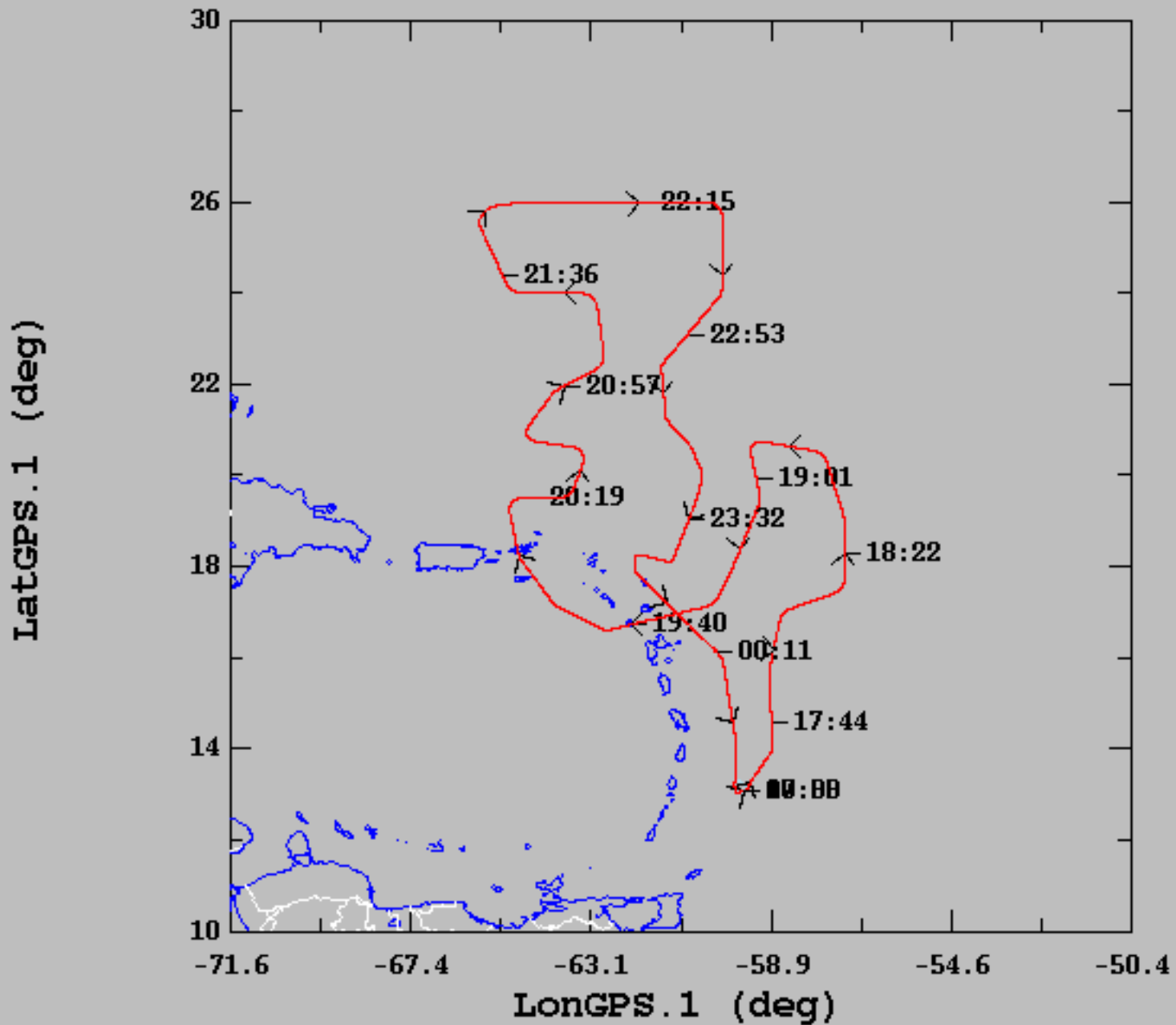
AVAPS Pre-Flight Check:

- 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**

09/20/2019, 17:05:34-24:50:06



	mean	sigma	min	max
— LatGPS.1 (deg), 1 s/sec	19.44	3.86	13.03	26.00
— LongGPS.1 (deg), 1 s/sec	-61.18	2.31	-65.76	-57.10