

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:	20190919N1	FLT #:	19-116	AC:	Mansour	Scientists:	Pressure		Dropsondes		
From:	TBPB	ETD:	17:30Z	CP(s):	Waddington	Kaplan, John	A/C Takeoff	1004.8	Good	Bad	Sent
To:	TBPB	ETA:	01:30Z		Nardi		ASOS Takeoff	TBPB TO: 00Z 1002.9 mb	33	2	33
Block Time		Flight Time		Nav(s):			A/C Land	1005.0	BTs		
In:	1:19	Land:	1:16	FE(s):			ASOS Land	TBPB UL: 00Z 1003.8 mb	0	0	0
Out:	17:20	T/O:	17:32	FD(s):	Carpenter	Visitors:	Storm Number ID:		AL102019		
Total:	7.98	Total:	7.73		Henning		(ie: AL072012)				
Sponsoring Org:	NHC/NWS			SEB:	Lynch/C		TCPOD/WSPOD Mission		NOAA9 0210A JERRY		
Program:	PHS			SSA:	Miller		(ie: NOAA2 2418A SANDY)				
Purpose:	TS Jerry Surveillance			AVAPS:	Underwood		OBSERVATIONS				
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:	20190919N1
Flight Director(s):	Carpenter / Henning

Pressure Comparison		
	T/O	Land
Aircraft	1004.8	1005.0
Tower	TBPB 18:00Z 1002.9 mb	TBPB 01:00Z 1003.8 mb

UWZ.d mean:	0.12 post-processing
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	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:

GsGPS.3 unavailable.

TTM.2 unavailable.

TDM.1 unrealistic spike during descent leads to high supersaturations.

TDM.2 values are too low.

AVAPS Drop Log

Project: Hurricane Surveillance Mission: Hurricane Jerry Flight ID: 20190919N1
 Take Off: 1730Z Landing: 0116Z Flt Dir: Carpenter Launcher S/N: 02

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	185130642	1/5	-0.6	1755Z	NGU	NWS	Point #1	✓
2	185130639	2/6	-0.7	1806Z			Point #2	✓
3	185140376	3/7	-0.5	1817Z			Point #3, late winds	X
4	191010449	4/8	-0.5	1818Z			Point #3 backup	✓
5	192040917	1	0.0	1828Z			Point #4	✓
6	185120831	2	0.0	1838Z			Point #5	✓
7	185130795	3	-0.4	1849Z			Point #6	✓
8	190930049	4	-0.5	1859Z			Point #7	✓
9	185130637	1	0.0	1914Z			Point #8	✓
10	185130653	2	0.0	1925Z			Point #9	✓
11	185110407	3	0.0	1938Z			Point #10	✓
12	185140375	4	0.0	1949Z			Point #11	✓
13	185120851	1	0.0	1957Z			Point #12	✓
14	185120824	2	0.0	2018Z			Point #13	✓
15	185130640	3	0.0	2034Z			Point #14	✓
16	185120833	4	-0.4	2049Z			Point #15	✓
17	185130641	1	0.0	2104Z			Point #16	✓
18	185120823	2	0.0	2119Z	RGH		Point #17	✓
19	185120827	3	0.0	2135Z	RGH		Point #18	✓
20	192050081	4	0.0	2150Z	RBH		NO LAUNCH DET	X
21	185120837	1	-0.2	2151Z	RGH		Point #19	✓
22	185130631	2	-0.1	2206Z	RGH		Point #20	✓
23	191010408	3	-0.4	2229Z			Point #21	✓
24	185130635	4	0.0	2247Z			Point #22	✓
25	185120834	1	0.0	2300Z			Point #23	✓
26	185120820	2	0.0	2309Z			Point #24	✓
27	185140071	3	0.0	2319Z			Point #25	✓
28	191110110	4	0.0	2328Z			Point #26, died at 16k ft	✓
29	191010407	1	0.0	2338Z			Point #27	✓
30	185130634	2	0.0	2347Z			Point #28	✓
31	191110112	3	0.0	2356Z			Point #29	✓

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
32	185140030	4	0.0	0005Z	NGU	NWS	Point #30	✓
33	185130645	1	0.0	0016Z	↓	↓	Point #31	✓
34	185120829	2	0.0	0026Z	↓	↓	Point #32	✓
35	185120844	3	0.0	0037Z	↓	↓	Point #33	✓
36						↓		
37								
38								
39								
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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)

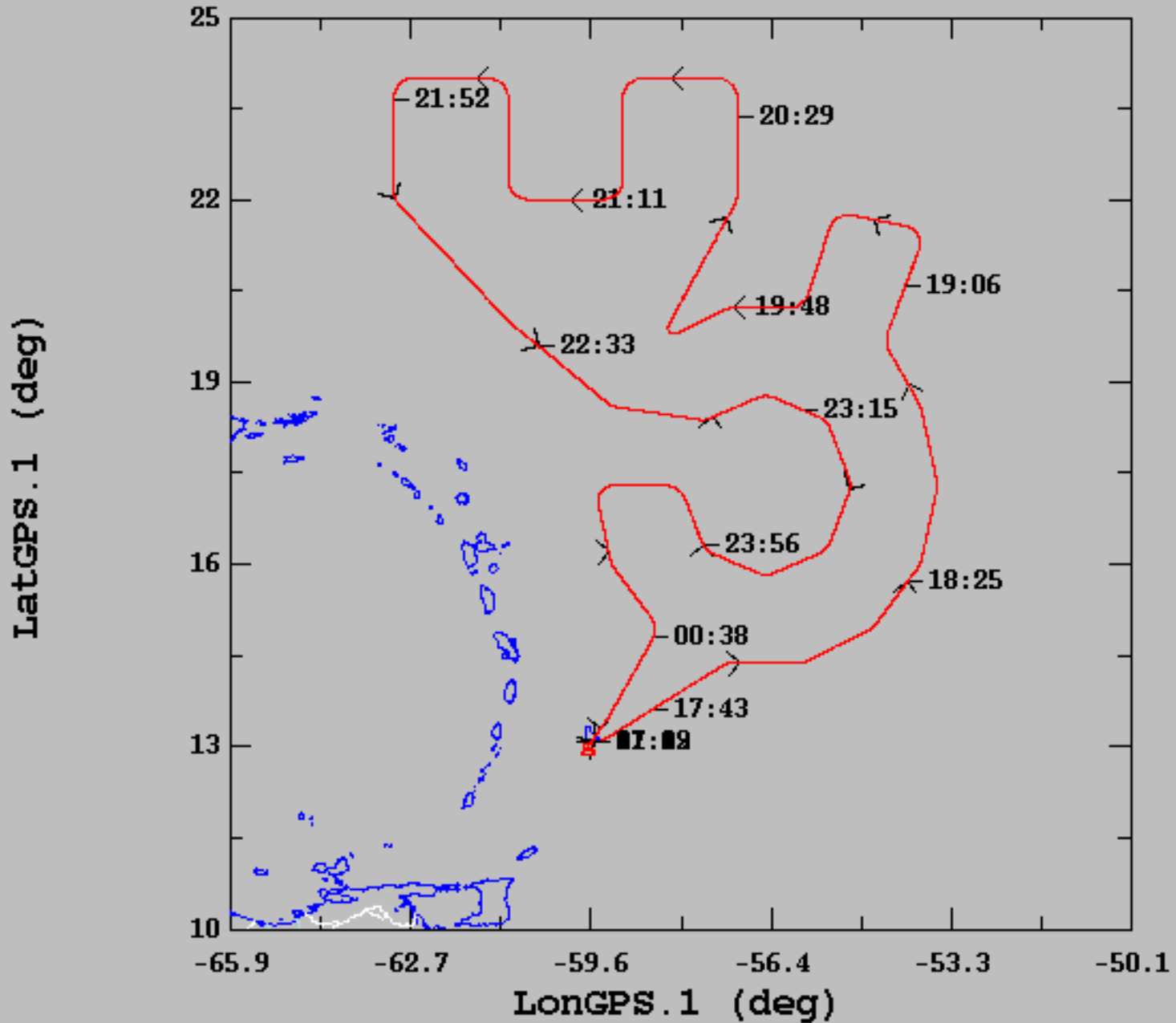
AVAPS Pre-Flight Check:

- 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**

09/19/2019, 17:02:18-25:19:49



	mean	sigma	min	max
— LatGPS.1 (deg), 1 s/sec	18.47	3.57	12.85	24.00
— LongGPS.1 (deg), 1 s/sec	-58.01	2.49	-63.00	-53.51