

N42RF ERROR SUMMARY
20190830H1

Flight ID: 20190830H1

Sensor or System -----	Number or Name -----
Static Pressure Probe	PSM.2
Dynamic Pressure Probe	PQM.2
Total Temperature Probe	TTM.1
Dewpoint Temp. Probe	TDM.2
Vertical Accelerometer	AccZfilterI-GPS.1
Altimeter	AltGPS.3
INE Selection	1
Differential Attack Pressure Probe	PDALPHA.1
Differential Sideslip Pressure Probe	PDBETA.1
Dynamic Attack Pressure Probe	PQALPHA.1
Dynamic Sideslip Pressure Probe	PQBETA.1

Flight Directory acdata/2019/MET/20190830H1

Local Met Data	Takeoff KLAL (0902Z)	Landing KLAL (1702Z)
Dynamic Corrections		Yes
AttackAngleIntercept		2.27641
AttackAngleSlope		6.01899
SlipAngleIntercept		0.232
SlipAngleSlope		7.17429
AttackAngleIntercept2		2.06387
AttackAngleSlope2	6.01177	
SlipAngleIntercept2		0.195
SlipAngleSlope2		6.67434

Notes:

There were no edits made in the measured parameters used to calculate meteorological and navigational parameters.

Takeoff/Landing data: Data during landing and takeoff are potentially suspect. It is recommended that ground data not be used for scientific analysis.

PDAlpha.2 INOP for entire mission

PDBeta.2 INOP for entire mission

Expendable Type -----	# deployed -----	# good -----	# transmitted -----
Dropsondes	23	22	22
Test sondes	0	0	0
AXBTS	0	0	0
AXCPs	0	0	0
AXCTDs	0	0	0
UAS	0	0	0

Flight Director: Holmes

Phone #: 863-500-3983

P-3 QC Checklist

Flight ID:	20190830H1
Flight Director(s):	Holmes
UWZ.d mean:	-0.13 m/s

Pressure Comparison		
	T/O	Land
Aircraft	1008.0	--
Tower	1008.0	

	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	✓ PDLAPHAref ✓ PDBETAref ✓ PQALPHAref ✓ 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 ✓ PitchI.3	✓ PitchRatel.1 ✓ PitchRatel.2 ✓ PitchRatel.3	✓ RollI.1 ✓ RollI.2 ✓ RollI.3	✓ RollRatel.1 ✓ RollRatel.2 ✓ RollRatel.3	✓ PITCHref ✓ ROLLref	
✓ Temp / Dewpt	✓ TTM.1 ✓ TTM.2 ✗ TTM.3	✓ TDM.1 ✓ TDM.2 ✓ TDM.3	✓ TRadD.1 ✓ TRadS.1 ✗ 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
✓ Miscellaneous FD Notes

QC Key	
Not checked	☐
Valid	☒
Errors (note)	☒

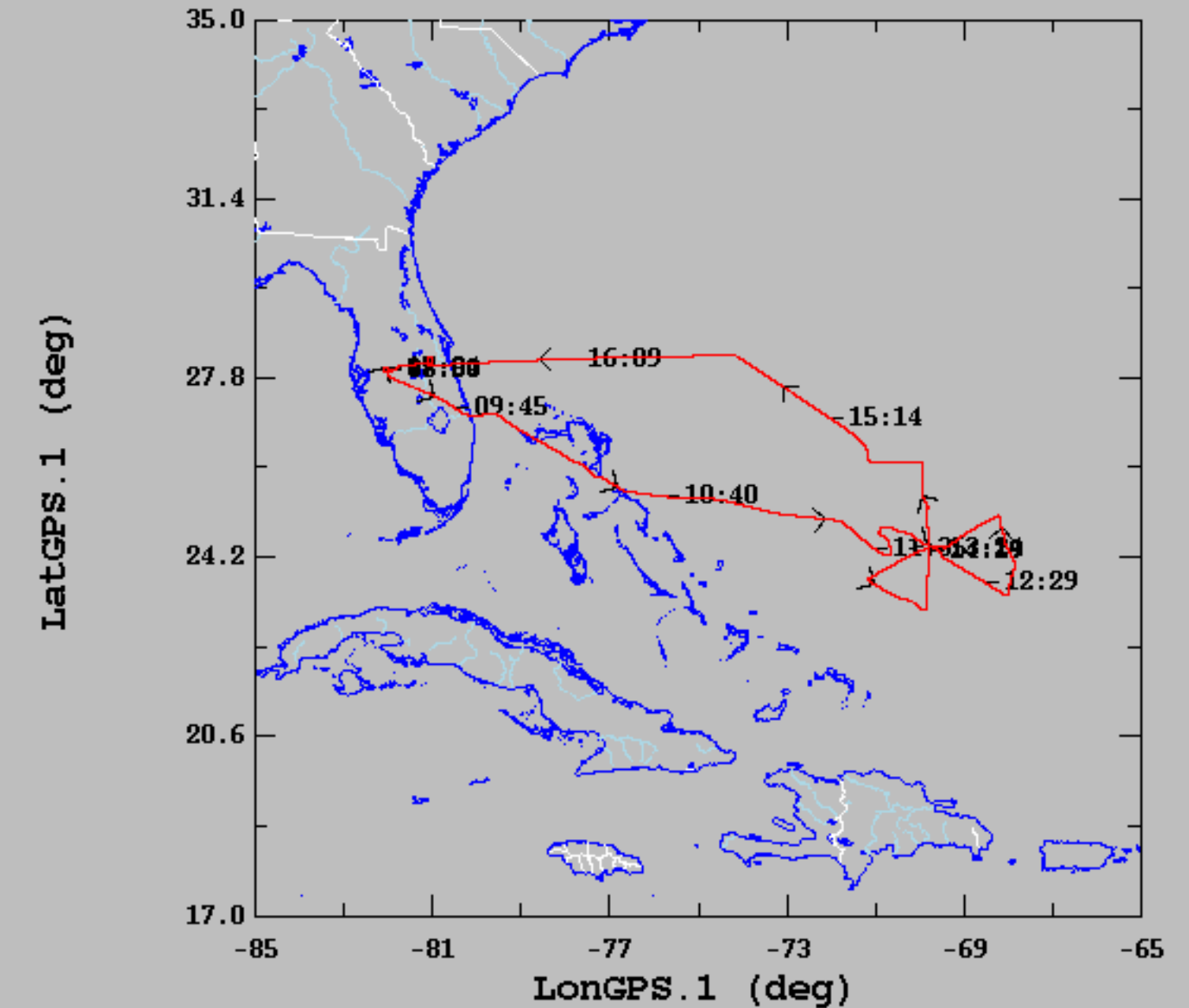
NOTES:
PDAlpha.2 INOP for entire mission PDBeta.2 INOP for entire mission

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

FLIGHT INFORMATION				CREW MANIFEST			MISSION INFORMATION				
FLT ID:	20190830H1	FLT #:		AC:	Didier	Scientists:	Pressure		Dropsondes		
From:	KLAL	ETD:	0930Z	CP(s):	Mitchell	Gus Alaka	A/C Takeoff		Good	Bad	Sent
To:	KLAL	ETA:	1800Z		Doremus	Jason Sippel					
Block Time		Flight Time		Nav(s):	Freeman	Brittany Dahl	ASOS Takeoff		22	1	
In:	1709	Land:	1702			Paul Chang			BTs		
Out:	0913	T/O:	0922	FE(s):	Lalonde	Mike Gonsalves	A/C Land		Good	Bad	Sent
					Heystek						
Total:	0:00 7.9	Total:	0:00 7.7	FD(s):	Holmes		ASOS Land		-1	4	0
Sponsoring Org:		EMC		SEB:		Visitors:	Storm Number ID:		AL052019		
Program:		PRX				Joe Newcomb	(ie: AL142018)				
Purpose:		TDR		SSA:	Naher	Meckley, Chad	TCPOD/WSPOD Mission		NOAA2 1705A DORIAN		
						Sur, Christine	(ie: NOAA2 0614A MICHAEL)				
				AVAPS:	Greene		OBSERVATIONS				
AS REQUIRED BY ORM			Y	N	REMARKS		Fix Number	Obs Number	Fix Time	SLP	
VOLCANIC ASH				X							
SCIENCE MISSION WITHIN BDY LAYER				X							
LACK OF PRECIPITATION				X	3x 5 Humane Penies						
RELATIVE HUMIDITY ≥ 80%			X		CAT II						
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											
*Highlighted items must be completed before departure.											
Remarks:											

20190830H1 Flight Track

2019-08-30, 08:50:18-17:04:32



	mean	sigma	min	max
LatGPS.1 (deg), 1 s/sec	25.95	1.66	23.15	28.24
LonGPS.1 (deg), 1 s/sec	-74.19	4.76	-82.10	-67.83

NOAA • AOC • SED N42RF AVAPS DROP LOG

Lead Tech: Mike Mascaro

Project: Hurricane 2019

Mission: 20190830 H1

Flight ID: 20190830 H1

Take Off: _____

Landing: _____

Flt Dir: HOLMES

DORIAN

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	182520029	1	0	1153	JR	NWS	EP EMC	
2	182940399	2	0	1204	JR	NWS	CP RMW	
3	182740780	3	-0.7	1210		NESDIS	RMW	
4	182940398	4	-0.4	1212		NESDIS	CENTER RMW	
5	183320116	5	0	1215		NWS	CENTER	
6	18404033	6	0	1227		NWS		
7	184040014	7	0	1237		NWS		
8	183320256	8	0	1300		NWS		
9	183311012	9	0	1312		NWS	184170582	
10	183220056	10	-0.4	1318		NESDIS	184040014 RMW	
11	184750574	11	0.4	1323		NWS		
12	184040036	12	0				Drop but No Launch	
13	184750411	13	0	1344		NWS		
14	184040015	14	0	1403		NWS		
15	184750410	15	0	1411		NWS		
16	184750404	16	0	1422		NWS		
17	184020761	17	-0.4	1425		NESDIS	RMW	
18	184040047	18	0	1435		NWS		
19	182740654	19	-0.5	1444		NWS		
20	182930367	20	-1.0	1508		NWS		
21	184750408	21	-0.5	1531		NWS	184750342	
22	184750420	22	0	1548		NWS		
23	184750596	23	-0.4	1605		NWS		
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								

183320256@

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Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								

Drop Station Operator Notes

Charge \$\$ To Options: AOC, NWS, **NESDIS**, SAT (Special NESDIS/HRD), IR/SST or HRD **ONLY – Do not use funding codes!!!**

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 2015011811).
- Update the Frequency band allocation as required:
Band A - W53rd, Band B - N42RF, Band C - N43RF, Band D - N49RF, Band E - not allocated
- Perform a prelaunch check on each channel, look for reasonable data and no CRC error status lights. Verify data is available on Remote AVAPS at the FD Station, then terminate the sonde by selecting **Abort** to cancel the sonde initialization. Verify the AVAPS Data mission folder has been created.
- **Verify AVAPS PC Time is correct**
- **Early launch detects are caused usually by remanufactured sondes with the chute riser line not properly coiled between the PCB ears. This may also cause fast falls. If this is suspected, repack the riser line as time permits**
- **Eyewall drop performance is improved when using sondes manufactured after 7/2016**
- **Perform RH Regeneration on all sondes – this must be done prior to sonde initialization -**

AVAPS Launch:

- Select a sonde frequency in the Green band and away from other sondes
- Enter sonde pressure error offset. The latest AVAPS inserts a default offset value. Adjust if pressure offset is 0.4 mB or greater
- **If the Cal lab pressure standard and the cabin pressure standard match, apply pressure offset +/- 0.1 mB**
- Select "begin data collection" and verify good data (including Winds) prior to putting sonde in launch tube
- Failure to keep good lock on GPS is likely due to the GPS antenna connector on the sonde PCB needing to be rotated away from surface mount components – do this if needed.
- **Cut off about ½ of ribbon, loosen ribbon and extend end of ribbon to near, but not over, the sensor end of the sonde**
- Place the sonde in the launch tube, sensor arm up, with the power pin socket facing starboard
- Verify the sonde is actively tracking GPS data prior to launch and no **Early Launch detect**