

N42RF ERROR SUMMARY  
20210820H1

Flight ID: 20210820H1

Sensor or System	Number or Name
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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/2021/MET/20210820H1

Local Met Data	Takeoff KLAL (2002Z)	Landing KLAL (0231Z)
Dynamic Corrections		Yes
AttackAngleIntercept		2.307
AttackAngleSlope		6.07515
SlipAngleIntercept		0.237
SlipAngleSlope		7.04607
AttackAngleIntercept2		2.06219
AttackAngleSlope2		5.99068
SlipAngleIntercept2		0.125
SlipAngleSlope2		6.9873

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.

PitchI.3 and RollI.3 unavailable. TTM.3 unavailable. TDM.3 inoperative. TRadU.1 unavailable.

Expendable Type	# deployed	# good	# transmitted
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Dropsondes	22	20	20
Test sondes	0	0	0
AXBTS	7	6	6
AXCPs	0	0	0
AXCTDs	0	0	0
UAS	0	0	0

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

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:	20210820H1	FLT #:	21-	AC:	Mitchell	Scientists:	Pressure		Dropsondes		
From:	KLAL	ETD:	2000Z	CP(s):	Doremus		A/C Takeoff	<b>1006.6</b>	Good	Bad	Sent
To:	KLAL	ETA:	0400Z		Legidakes / Copare		ASOS Takeoff	<b>KLAL 1955Z 1009.0 mb</b>	<b>20</b>	<b>2</b>	<b>20</b>
Block Time		Flight Time		NAV:	Freeman / Hough		ASOS Land	<b>1007.5</b>	BTs		
In:	<b>2:38</b>	Land:	<b>2:32</b>	FE(s):	Darby		A/C Land	<b>1007.5</b>	Good	Bad	Sent
Out:	<b>19:52</b>	T/O:	<b>20:03</b>	FD(s):	Wysinger		ASOS Land	<b>KLAL 0148Z 1008.9 mb</b>	<b>6</b>	<b>1</b>	<b>6</b>
Total:	<b>6.8</b>	Total:	<b>6.5</b>	SSA:	Mascaro	Visitors:					
Sponsoring Org:		NWS / EMC		AVAPS:	Underwood		Storm Number ID:		<b>AL082021</b>		
Program:		PRX		SEB:			(ie: AL072012)				
Purpose:		TDR mission #1 HENRI		MX:			TCPOD/WSPOD Mission		<b>NOAA2 0608A HENRI</b>		
							(ie: NOAA2 2418A SANDY)				
AS REQUIRED BY ORM				Y	N	REMARKS	Fix Number	Obs Number	Fix Time	SLP	
VOLCANIC ASH					X		<b>1</b>				
SCIENCE MISSION WITHIN BDRY LAYER					X		<b>2</b>				
LACK OF PRECIPITATION					X		<b>3</b>				
RELATIVE HUMIDITY ≥ 80%				X			<b>4</b>				
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		<b>Pennies:</b>	3 (Tropical Storm)			

\*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:	20210820H1
Flight Director(s):	Carpenter
Mission:	Tasked/Operational
UWZ.d mean:	0.05

Pressure Comparison		
	T/O	Land
Aircraft	1006.6	1007.5
Tower	KLAL 1955Z 1009.0 mb	KLAL 0148Z 1008.9 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 ✓ 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	✓ 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	✓ 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	<input type="checkbox"/>
Valid	<input checked="" type="checkbox"/>
Errors (note)	<input checked="" type="checkbox"/>

NOTES:
<p>PitchI.3 and RollI.3 unavailable.</p> <p>TTM.3 unavailable.</p> <p>TDM.3 inoperative.</p> <p>TRadU.1 unavailable.</p>

AVAPS Drop Log

Project: Hurricanes 2021 Mission: TS Henri Flight ID: 20210820H1

Take Off: \_\_\_\_\_ Landing: \_\_\_\_\_ Flt Dir: Carpenter Launcher S/N: \_\_\_\_\_

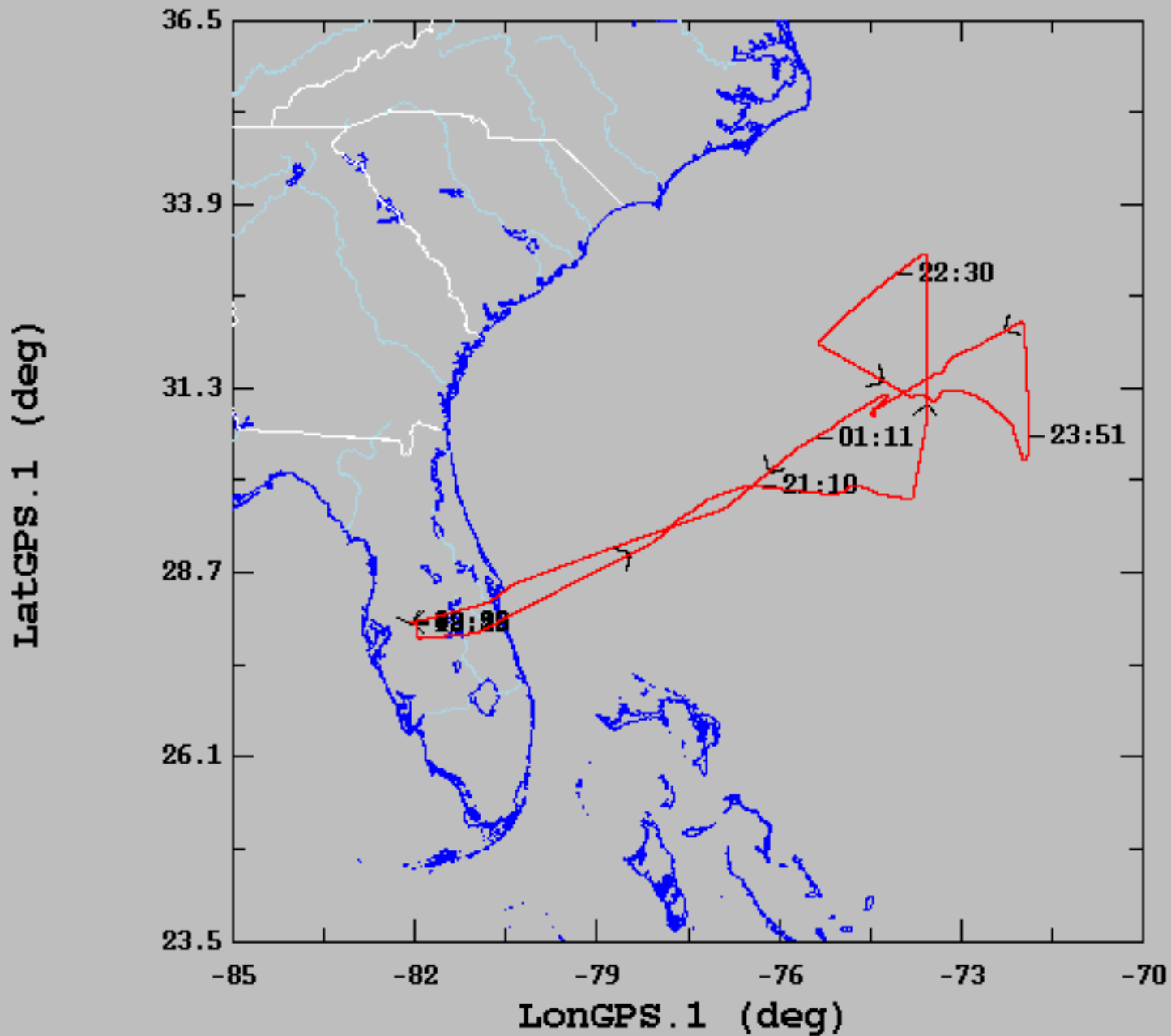
Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	204260870	1	-0.7	2137Z	NGU	NWS	IP, IB, combo	✓
2	204270040	2	-0.6	2147Z			MP, IB	✓
3	204521425	3	-0.5	2153Z			Center CPA	✓
4	204350537	4	-0.8	2206Z		ONR	QP, OB	✓
5	204420093	5	-0.6	2212Z		NWS	MP, OB	✓
6	204521285	6	-0.5	2223Z			EP, OB, combo	✓
7	204521392	7	-0.5	2249Z			EP, IB, combo	✓
8	204260853	8	-0.6	2302Z			MP, IB	✓
9	204420095	1	-0.7	2312Z			Center #2 CPA	✓
10	204420091	2	-0.6	2326Z		ONR	QP, OB, late wind	X
11	204260884	3	-0.5	2327Z			" " backup	✓
12	204350382	4	-0.5	2333Z		NWS	MP, OB	✓
13	204260885	5	-0.5	2346Z			EP, OB	✓
14	204350381	6	0.0	0009Z			EP, IB	✓
15	204260868	7	-0.6	0029Z			MP, IB, no winds	X
16	204420096	8	-0.6	0025Z			" " backup	✓
17	204260903	1	0.0	0031Z		ONR	QP, IB	✓
18	204270031	2	-0.5	0032Z		NWS	Center CPA	✓
19	204330665	3	-0.5	0045Z		ONR	QP, OB	✓
20	205050402	4	0.0	0054Z		ONR	Saildrone, combo	✓
21	204270041	5	-0.5	0103Z		NWS	MP, OB	✓
22	204270044	6	-0.5	0115Z			EP, OB	✓
23								
24								
25								
26								
27								
28								
29								
30								
31								

Serial (C)

		MISSION: 20210820H1			FLIGHT: 0608A		DROPSONDE SCIENTIST: SELLWOOD				
		STORM: HENRI					AVAPS OPERATOR: UNDERWOOD				
		TAKE OFF: 2003Z LAKELAND									
DROP #	CHANNEL	SONDE ID	TIME (UTC)	LATITUDE	LONGITUDE	SFC PRESS	SFC WIND DIR/SPD	HEIGHT	SST	OB #	
1	1	204260870	2137	29.8	-73.77	1009	210/35	10	Bad AXBT	1	
IP S	Looks like and ELD removed first 3 seconds of data including lat/lon										
2	2	204270040	2147	30.53	-73.61	1002	245/6	10		6	
Midpoint inbound S/N leg	Removed lat/lon and RH at top ELD?										
3	3	204521425	2153	30.9	-73.54	998	250/26	10		2	
Center CPA	Late winds very warm and dry flight-level to 800mb										
4	4	204350537	2206	31.86	-73.53	1003	130/34	10		3	
Quarterpoint outbound	No manual QC										
5	5	204420093	2212	32.33	-73.53	1007	120/25	10		4	
Midpoint outbound	End 301.75 removed lat/lon at top late GPS										
6	6	204521285	2223	33.15	-75.54	1009	115/17	12	29	5	
Endpoint N	Set end 297.0 removed first 10 seconds of lat/lon lat GPS										
7	7	204521392	2249	31.99	-75.3	1007	020/28	10	28.9	7	
Endpoint NW/IP	End 309.25 removed first 3 seconds of lat/lon and RH										
8	8	204260853	2302	31.51	-74.49	1004	355/29	10		11	
Midpoint NW/SE inbound											
9	1	204420095	2312	31.21	-73.72	999	320/29	10		8	
Center CPA											
10	2		2326	x	x	x	x	x	x	x	
Quarterpoint outbound	late winds - do not transmit										
11	3		2327	31,19	-72,74	1004	165/44	10		9	
Backup for drop 10	removed lat/lon and first 10 seconds RH first 3 seconds ended 1 frame before last										
12	4	204350382	2333	30.98	-72.4	1007	175/51	10		10	
Midpoint outbound	ended 2 frames before last										
13	5	204260885	2346	30.32	-71.98	1011	180/33	10		12	
Endpoint SE	removed lat/lon at top GPS ended 1 frame before last										
14	6	204350381	9	32.18	-71.96	1010	165/26	10	28	13	
Endpoint NE/SW inbound	end 314.25										



2021-08-20, 18:29:04-26:32:26



	mean	sigma	min	max
— LatGPS.1 (deg), 1 s/sec	29.91	1.61	27.77	33.20
— LonGPS.1 (deg), 1 s/sec	-76.95	3.67	-82.06	-71.88