

N42RF ERROR SUMMARY
20190828H1

Flight ID: 20190828H1

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/20190828H1

Local Met Data	Takeoff TBPB (2004Z)	Landing KLAL (0329Z)
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 and PDBeta.2 unavailable. Pitch.3 and Roll.3 unavailable. TTM.3 unavailable. TDM.3 tracks well with TDM.2 and TDM.1 but values are generally less reasonable. TRadU.1 unavailable.

Expendable Type -----	# deployed -----	# good -----	# transmitted -----
Dro sondes	23	22	14
Test sondes	0	0	0
AXB Ts	0	0	0
AXCPs	0	0	0

AXCTDs	0	0	0
UAS	0	0	0

Flight Director: Carpenter / Parrish
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:	20190828H1	FLT #:	19-93	AC:	Kahn	Scientists:	Pressure		Dropsondes		
From:	TBPB	ETD:	20:00Z	CP(s):	Abitbol	Zawislak, Jon	A/C Takeoff	1006.4	Good	Bad	Sent
To:	KLAL	ETA:	04:00Z		Rossi	Zhang, Jun	ASOS Takeoff	TBPB 2000Z 1005.8	22	1	14
Block Time		Flight Time		Nav(s):	Urato	Hazelton, Andy			A/C Land	1008.4	BTs
In:	3:52	Land:	3:29	FE(s)	Darby	Chang, Paul	ASOS Land	KLAL 0350Z 1008.9 mb			Good
Out:	19:58	T/O:	20:05		Sanchez	Sapp, Joe			0	0	0
Total:	7.90	Total:	7.40	FD(s):	Parrish	Visitors:					
Sponsoring Org:		EMC		SEB:	Carpenter		Carrion	Storm Number ID:		AL052019	
Program:		PRX			Richards/T.	Sans Souci	(ie: AL072012)				
Purpose:	TDR Mission Hurricane Dorian			SSA:	Mascaro	McFadden	TCP0D/WSP0D Mission		NOAA2 1105A Dorian		
				AVAPS:	McAlister		(ie: NOAA2 2418A SANDY)				
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						

*Highlighted items must be completed before departure.

Remarks:

P-3 QC Checklist

Flight ID:	20190828H1
Flight Director(s):	Parrish / Carpenter
UWZ.d mean:	0.00

Pressure Comparison		
	T/O	Land
Aircraft	1006.4	1008.4
Tower	TBPB 2000Z Q1012	KLAL 0350Z 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 X PDALPHA.2 ✓ PDBETA.1 X 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 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 ✓ 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	☐
Valid	☒
Errors (note)	☒

NOTES:

PDAIpha.2 and PDBeta.2 unavailable.

Pitch.3 and Roll.3 unavailable.

TTM.3 unavailable.

TDM.3 tracks well with TDM.2 and TDM.1, but values are generally less reasonable.

TRadU.1 unavailable.

NOAA • AOC • SED N42RF AVAPS DROP LOG

Lead Tech: Mike Mascaro

Project: Hurricane 2019

Mission: Hurricane Norbert

Flight ID: 20190828H1

Take Off: _____

Landing: _____

Flt Dir: Parrish / Carpenter

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	182630063	1	-0.6	213026	TMR	NWS	IP	✓
2	182530393	2	-0.6	213944		NWS	Mid Pt. INBD	✓
3	151325176	5	-1.2	213959		AOC	Mid Pt. Mini	✓
4	182630100	3	-0.5	215210		NWS	Center	✓
5	182346107	4	-0.6	215226		AOC	mini center	✓
6	161545187	6	-1.0	2154		NESDIS	No Launch Adv. Rmw	—
7	182230857	1	-0.5	220207		NWS	Mid Pt. OTBD	✓
8	161545679	6	-1.02	220222		AOC	Mid Pt. OTBD mini	✓
9	183010072	2	-0.5	221318		NWS	Turn Pt 1	✓
10	182640557	3	-0.2	223326		NWS	Turn Pt 2	✓
11	160745016	5	-1.03	224528		AOC	Mid Pt. INBD mini	✓
12	182230833	1	-0.5	224544		NWS	Mid Pt.	✓
13	182230849	2	-0.2	225504		NESDIS	Rmw INBD eye wall	✓
14	182840443	3	-0.5	225708		NESDIS	Rmw OTBD eye wall	✓
15	182840452	4	-0.5	230903		NWS	Mid Pt. OTBD	✓
16	161635047	5	-1.1	230922		AOC	Mid Pt. OTBD mini	✓
17	182230202	1	-0.5	231907		NWS	Turn Pt. 3	✓
18	182840455	1	-0.5	234228			Turn Pt. 4	✓
19	182230198	2	0.0	235410			Mid Pt. INBD	✓
20	161545009	5	-1.1	235424		AOC	Mid Pt. INBD mini	✓
21	182601050	3	-0.5	000156		NESDIS	Rmw INBD	✓
22	182230847	4	-0.5			NWS	Mid Pt. OTBD	✓
23	182230823	4	-0.3			\$	NO DROP	
23	160745051	5	-1.07			AOC	Mid Pt. OTBD mini	✓
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								

12 NWS 7 AOC 4 NESDIS

Dropwindsondes

Doppler Wind Echoscientist

Sonde

DWL Scientist

Hazelton

1105A

Flight ID

2019082841

Storm

Dorian (ALOS)

Start Time		Stop Time	Pattern or Az/EI		Notes					ob	comment
Drop #	Sonde ID	Time	Lat	Lon	Sfc Pres	Wind Dir/Spd	Height	Location			
1	D20190828-23026	23030	17.27	65.38	1008.8	205/17	10			02	Water
2	D20190828-23944	23948	17.95	65.39	1008.6	200/19	10			03	
Mini 3	D20190828-23544	23959	18.84	65.39	995	115/26	10			04	
4	D20190828-24548	24210	18.86	65.40	995	115/22	10	Eye		05	
Mini 5	D20190828-24526	24226	18.86	65.40	994	125/25	10	Eye		06	
6	D20190828-24027	24027	19.57	65.44	1009	120/42	10	Eye		05	
Mini 7	D20190828-22022	22025	19.56	65.43	1009	121/42	10				
8	D20190828-24318	22137	20.3	65.49	—	—	—			06	Bad SFC
9	D20190828-22326	22329	19.66	66.88	1009	055/19	10			08	Water
10	D20190828-22444	22430	19.27	66.18	1008	050/16	10			09	
Mini 11	D20190828-22428	22445	19.28	66.19	1010	30/17	10				
12	D20190828-22504	2254	18.97	65.58	—	—	—	Eyewall		10	No SFC
13	D20190828-22508	2257	18.92	65.41	1001	180/62	10	Eyewall		11	
14	D20190828-230403	230404	18.55	67.72	1011.5	165/27	10			12	
Mini 15	D20190828-20422	230923	18.52	67.70	1012	155/23	10				

Dropwindsonde

Doppler Wind Lidar Scientist

Flight ID 20190828H1

Storm Dorin OSL

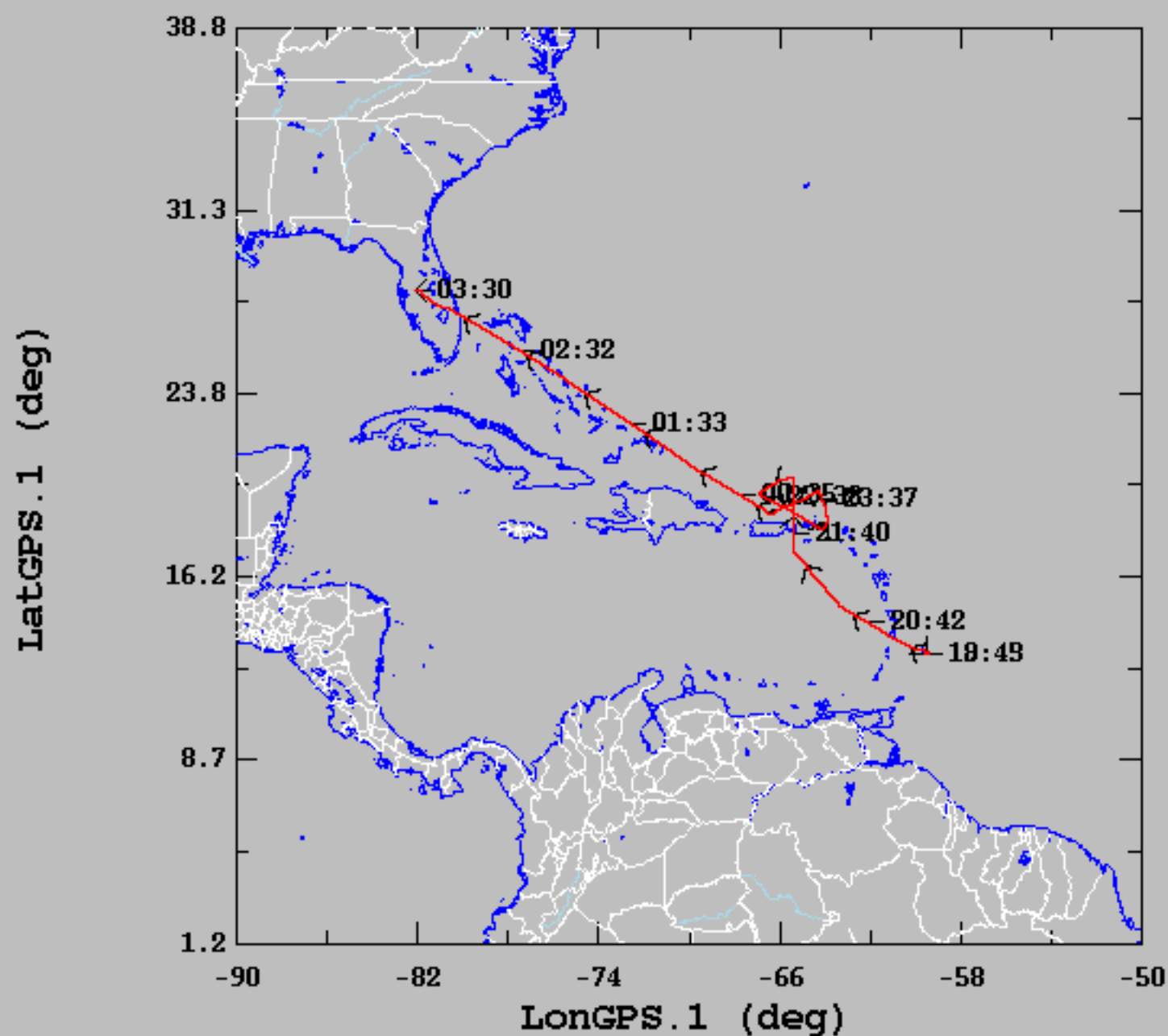
DWL Scientist

Start Time		Stop Time	Pattern or Az/El		Notes					db	Comments
Drop#	Sonde	ID	Time	Alt	Lon	66Pres	Wind Dir/Spd	Height	Location		
16	D20190828	2309	231930	18.23	64.13	1012	160/22	10		13	
17	D20190828	231228	231231	14.74	64.28	1011	140	10		15	
18	D20190828	235410	235409	14.41	65.03	1012	120/30	10		16	
19	D20190828	235424	235427	14.44	65.05	1012	104/32	10			
20	D20190829	000156	240200	14.26	65.55	998	120/79	10	Eyewall	17	Wet
21	D20190829	001513	241530	18.79	66.33	1010	300/07	10		18	
22	D20190829	001532	241539	18.70	66.35	1010	312/8	10			

Mini

Mini

2019-08-28, 18:45:37-27:30:37



	mean	sigma	min	max
LatGPS.1 (deg), 1 s/sec	19.13	4.36	13.07	27.99
LongGPS.1 (deg), 1 s/sec	-67.27	6.42	-82.03	-59.39