

N42RF ERROR SUMMARY
20190829H2

Flight ID: 20190829H2

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/20190829H2
Local Met Data	Takeoff KLAL (2056Z) Landing KLAL (0456Z)
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.

Temporary fault in GPS.1 and GPS.2 early in flight. PDAlpha.2 and PDBeta.2 unavailable. Intermittent failures with PQM.1 and PQM.4. Pitch.3 and Roll.3 unavailable. TTM.3 unavailable. Trend of TDM.1 and TDM.3 are reasonable during flight but values are generally unrepresentative. Unrealistic spike in TDM.3 noted at approximately 2350z. TRadU.1 unavailable.

Expendable Type -----	# deployed -----	# good -----	# transmitted -----
Drosondes	17	17	17
Test sondes	0	0	0

AXBTS	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:	20190829H2	FLT #:	19-95	AC:	Kibbey	Scientists:	Pressure		Dropsondes		
From:	KLAL	ETD:	20:30Z	CP(s):	Kahn	Rogers, Rob	A/C Takeoff	1007.2	Good	Bad	Sent
To:	KLAL	ETA:	04:30Z		Rossi	Sellwood, Kathryn	ASOS Takeoff	KLAL 2050Z 1007.3 mb	17	0	17
Block Time		Flight Time		Nav(s):	Richards/B.	Hazelton, Andy			A/C Land	1009.9	BTs
In:	5:03	Land:	4:56	FE(s)	Darby	Sapp, Joe	ASOS Land	KLAL 0450Z 1010.6 mb			Good
Out:	20:46	T/O:	20:57		Tuffnel	Visitors:			0	0	0
Total:	8.28	Total:	7.98	FD(s):	Parrish		Kovalovich, Aria	Storm Number ID:			
Sponsoring Org:		EMC		SEB:	Peek	Linsmayer, Lauren	(ie: AL072012)				
Program:		PRX		SSA:	McAlister	Youpel, Mary	TCP0D/WSP0D Mission		NOAA2 1605A DORIAN		
Purpose:		TDR Mission Hurricane Dorian		AVAPS:	Lynch/T.		(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:	20190829H2
Flight Director(s):	Parrish / Carpenter
UWZ.d mean:	-0.01

Pressure Comparison		
	T/O	Land
Aircraft	1007.2	1009.9
Tower	KLAL 2050Z 1007.3 mb	KLAL 0450Z 1010.6 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	X LatGPS.1 X LatGPS.2 ✓ LatGPS.3 ✓ LatGPS.4	✓ LatI-GPS.1 ✓ LatI-GPS.2	X LonGPS.1 X 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	X PQM.1 ✓ PQM.2 ✓ PQM.3 X 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	X TDM.1 ✓ TDM.2 X 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)	X

NOTES:
Temporary fault in GPS.1 and GPS.2 early in flight. PDAlpha.2 and PDBeta.2 unavailable. Intermittent failures with PQM.1 and PQM.4. Pitch.3 and Roll.3 unavailable. TTM.3 unavailable. Trend of TDM.1 and TDM.3 are reasonable but data values are generally unrepresentative. Unrealistic spike in TDM.2 noted at ~2350z. TRadU.1 unavailable.

NOAA • AOC • SED N42RF AVAPS DROP LOG

Lead Tech: Mike Mascaro

Project: Hurricane 2019

Mission: H DorianFlight ID: 20190829 HZTake Off: 20:57Landing: 04:55 ZFlt Dir: Parrish | Computer

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	1B2940542	1	0	23:23	TL	NWS		✓
2	1B2940418	2	0	23:35				✓
3	1B2940420	3	-.3	23:50			Center Drop	✓
4	1B2940387	4	-.2	02:39			Mid Point	✓
5	1B2940402	1	-.4	00:13			End Point	✓
6	1B2520047	2	-.2	00:36			End Point	✓
7	1B2940419	3	-.4	00:47			Mid Point	✓
8	1B2740413	4	-.4	00:56		MISDS	RMLW	✓
9	1B2740413	1	-.4	01:10		NWS	Mid Point	✓
10	1B2930364	2	-.8	01:20			End Point	✓
11	1B2940557	3	-.5	01:38			End Point	✓
12	1B2520028	4	-.4	01:50			Mid Point	✓
13	1B2940556	1	-.5	02:01			Center	-Lost 400
14	1B2940555	2	-.5	02:02		MISDS	RMLW	-Lost 400
15	1B2530200	3	-.4	02:09		MISDS		
16	1B2531180	4	-.7	02:13		NWS		
17	1B2740661	1	-.5	02:24				
18	1B2940398	2	-.6				BACKUP only = NO Drop	
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								

Telen

NOAA P-3 GPS Dropwindsonde Scientist Log (revised March 2019)

Storm Dorian
Mission ID 1505A

Flight ID 20190829H2
(exp. 0213A)

Dropsonde Scientist Schwab
Dropsonde Scientist DeG

AVAPS Operator
AVAPS Operator

Terry Lyndon
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Drop #	Sonde ID	Time UTC	Lat (°N/S)	Long (°E/W)	Sfc Pressure (mb)	Wind closest to		SST (°C)	Eye/Eyewall, Rainband, etc,	Obs #
						Dir/Spd (deg/kt)	Hgt (m)			
1	182940542	2323	2347	6930	1013	060/16	10		IP	2
Comments ended at 242.75										
2	182940418	2335	2323	6848	1010	080/34	10		mid	3
Comments good										
3	182940420	2350	2250	6757	979	130/16	10		Center	4
Comments end at 17500										
4	182940387	0002	2227	6714	1009	180/37	10		mid	5
Comments										
5	18294042	0013	2207	6635	1013	160/29	10		End leg 1	6
Comments end at 247.75										
6	182920047	0036	2343	6638	1012	120/36	10		Leg 2 End	8
Comments end at 239.75										
7	182940419	0047	2339	6737	1016	106/41	10		mid	9
Comments good										
8	182740413	0056	235	6757	991	80/80	12		Rmw	10
Comments rmw no center end 253.75										
9	182940400	109	2255	6847	1010	315/23	10		mid	11
Comments end at 253.25										
10	182930364	120	2215	6928	1013	316/15	10		END	12
Comments										



(revised March 2019)

Storm
Mission ID

Flight ID
(exp. 0213A)

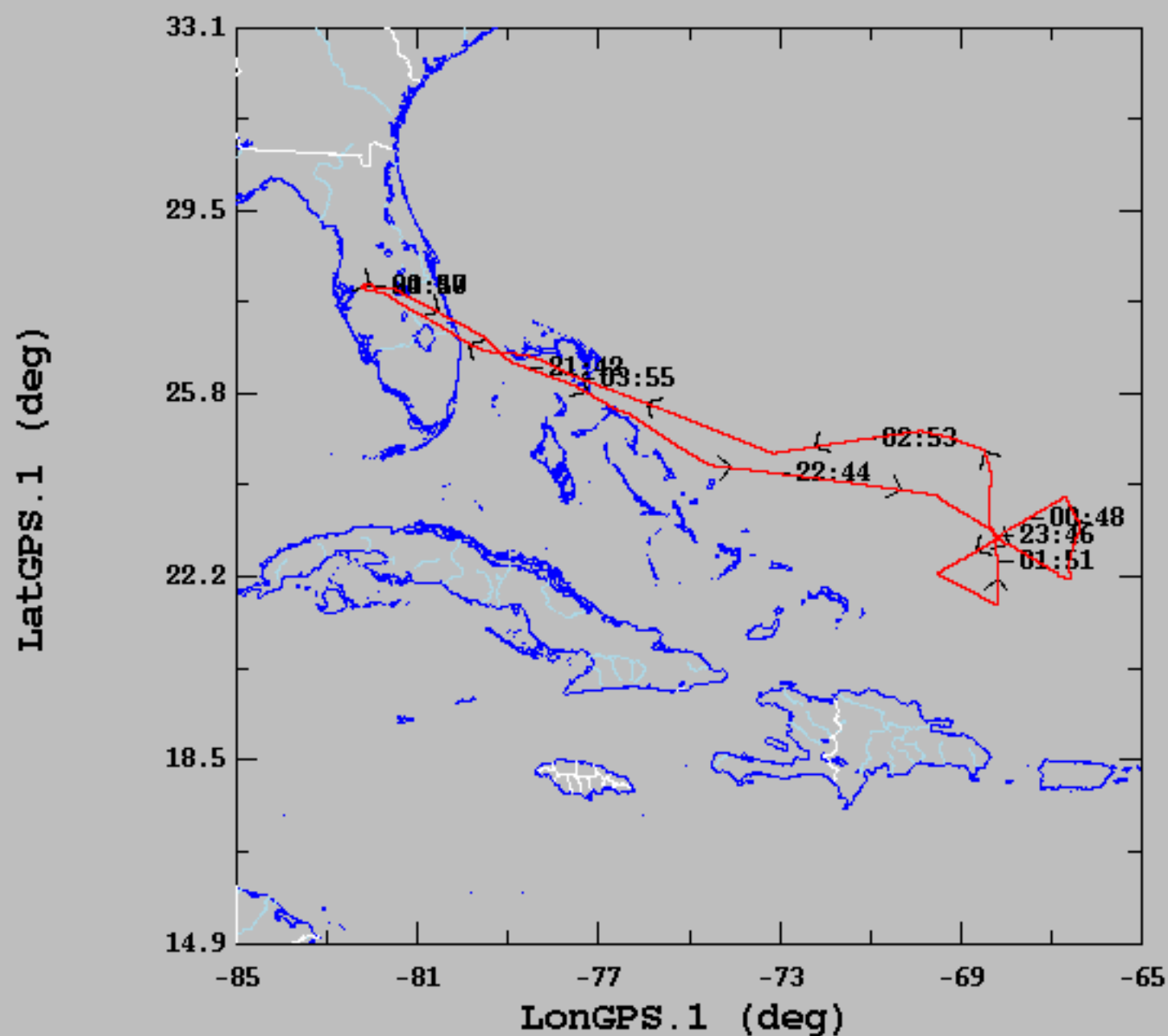
Dropsonde Scientist
Dropsonde Scientist

AVAPS Operator
AVAPS Operator

Page#

Drop #	Sonde ID	Time UTC	Lat (°N/S)	Long (°E/W)	Sfc Pressure (mb)	Wind closest to		SST (°C)	Eye/Eyewall, Rainband, etc.	Obs #
						Dir/Spd (deg/kt)	Hgt (m)			
11	182940557	138	2137	6811	1012	253/19	10		END	14
Comments										
12	182520028	149	2223	6810	1010	266/28	10		MID	15
Comments										
13	182940556	201	2307	6818	N/A	81/14	2nd		center	16
Comments cut out at 260 meters										
14	182940555	202	2314	6819	—	—	—		Rmw	17
Comments cut out near ac										
15	182530200	209	2340	6819	1009	55/51	10		Chung	18
Comments										
16	182531180	212	2354	6819	1011	74/32	10		MID	19
Comments LLD... override lat/lon junk at bottom										
17	182740661	223	2459	6827	1013	80/21	10		END	20
Comments end 253.75										
Comments										
Comments										
Comments										

08/29/2019, 20:40:04-28:57:40



	mean	sigma	min	max
LatGPS.1 (deg), 1 s/sec	24.79	1.82	21.63	27.99
LongGPS.1 (deg), 1 s/sec	-73.26	5.19	-82.21	-66.34