N49RF ERROR SUMMARY
Hurricane Delta

Flight ID: 20201008N1

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	AccZI.1
Altimeter	AltGPS.3
INE Selection	1
Differential Attack Pressure Probe	PDALPHA.2
Differential Sideslip Pressure Probe	PDBETA.2
Dynamic Attack Pressure Probe	PQALPHA.2
Dynamic Sideslip Pressure Probe	PQBETA.2

Flight Directory acdata/2020/MET/20201008N1

Local Met Data Takeoff KLAL (0531Z) Landing KLAL (1231Z)

Dynamic Corrections	Yes
AttackAngleIntercept	3.97801
AttackAngleSlope	3.86172
SlipAngleIntercept	1.258
SlipAngleSlope	6.69941
AttackAngleIntercept2	5.05753
AttackAngleSlope2	5.52397
SlipAngleIntercept2	0.931
SlipAngleSlope2	6.57562

Notes:
There were no edits made in the measured parameters used to calculate meteorological and navigational parameters.
AltRA.1 has multiple significant dropouts it should not be used as absolute altitude.
PQBeta.1 and PQBeta.2 are unrepresentative with unusual drop outs.
When examined at high resolution, data from the three inertials (IRUs) shows "stairstepping" for all parameters w intervals generally less than 15 seconds
TDM.1 & TDM.2 were unrepresentative for the cruise portion of the mission above 41K and also for intervals at low altitudes.
Consider all relative humidity values to be considered suspect.
TTM.3 has a small amplitude (magnitude 0.2 - 0.3 deg C) unnatural oscillation with a period of roughly 30 seconds.
TTM.1 was used for calculation of Ambient Temperature (TA)
Takeoff/Landing data: Data during landing and takeoff are potentially suspect. It is recommended that ground data not be used for scientific analysis.

Expendable Type	# deployed	# good	# transmitted
Dropsondes	34	32	32
Test sondes	0	0	0
AXBTs	0	0	0
AXCPs	0	0	0
AXCTDs	0	0	0
UAS	0	0	0

Flight Director: Henning
Phone #: (863) 500-3982

ACAT-4 Version = 7.3

U.S. Department of Commerce / NOAA / OMAO / Aircraft Operations Center - N49RF Manifest

FLIGHT INFORMATION

FLT ID:	20201008N1	**FLT #:**	
From:	KLAL	**ETD:**	0530z
To:	KLAL	**ETA:**	1330z
Block Time		**Flight Time**	
In:	**1238**	Land:	**1231**
Out:	**0522**	T/O:	**0532**
Total:	**7.3**	Total:	**7.0**
Sponsoring Org:	NHC		
Program:	PHS		
Purpose:	Hurricane DELTA		

CREW MANIFEST

AC:	Waddington	**Scientists:**
CP(s):	Norman	
	Varwig	
NAV:		
FE(s):		
FD(s):	Henning	
	Kalen	
SSA:	Miller	**Visitors:**
AVAPS:	Underwood	
SEB:		
MX:		

MISSION INFORMATION

Pressure		**Dropsondes**		
A/C Takeoff		Good	Bad	Sent
ASOS Takeoff		**32**	**2**	**32**
		BTs		
A/C Land		Good	Bad	Sent
ASOS Land				
Storm Number ID: (ie: AL072012)		**AL262020**		
TCPOD/WSPOD Mission (ie: NOAA2 2418A SANDY)		**NOAA9 1326A DELTA**		

OBSERVATIONS

Fix Number	Obs Number	Fix Time	SLP
Pennies:			

AS REQUIRED BY ORM	Y	N
VOLCANIC ASH		x
SCIENCE MISSION WITHIN BDRY LAYER		
LACK OF PRECIPITATION		
RELATIVE HUMIDITY ≥ 80%		
LARGE AIR-SEA TEMP GRADIENT		
HIGH SURFACE WINDS		
LONG FETCH / DURATION OF SFC WND		
SEA SALT ACCRETION FORECAST		
SEA SALT ACCRETION OBSERVED		

REMARKS

*Highlighted items must be completed before departure.

Remarks:

G-IV QC Checklist

Overall Assessment	Minor instrument issue(s) - minimal mission impact.

Flight ID:	20201008N1
Flight Director(s):	Henning / Kalen
Mission:	Tasked/Operational
UWZ.d mean:	0.18

Pressure Comparison		
	T/O	Land
Aircraft	1011.7	1012.4
Tower	1011.2	1012.6

	Raw 1Hz Mean File Parameters				C File Parameters	
☐ Accelerometer	☑ AccAXI.1	☑ AccAYI.1	☑ AccAZI.1	☑ AccZI.1	☑ AccZref	
	☑ AccAXI.2	☑ AccAYI.2	☑ AccAZI.2	☑ AccZI.2		
	☑ AccAXI.3	☑ AccAYI.3	☑ AccAZI.3	☑ AccZI.3		
☐ Altitude	☑ AltGPS.1	☑ AltI.1	☑ AltPaADDU.1	☑ AltBCADDU.1	☑ ALTref	
	☑ AltGPS.2	☑ AltI.2	☑ AltPaADDU.2	☑ AltBCADDU.2	☑ ALTPA.d	
	☑ AltGPS.3	☑ AltI.3	X AltRA.1		☑ ALTGA.d	
☐ Ground Speed	☑ GsXI.1	☑ GsYI.1	☑ GsZI.1	☑ GsGPS.1	☑ GSXref	
	☑ GsXI.2	☑ GsYI.2	☑ GsZI.2	☑ GsGPS.2	☑ GSYref	
	☑ GsXI.3	☑ GsYI.3	☑ GsZI.3		☑ GSZref	
	☑ GsXGPS.1	☑ GsYGPS.1	☑ GsZGPS.1			
	☑ GsXGPS.2	☑ GsYGPS.2	☑ GsZGPS.2			
☐ Lat / Lon	☑ LatGPS.1	☑ LatI.1	☑ LonGPS.1	☑ LonI.1	☑ LATref	
	☑ LatGPS.2	☑ LatI.2	☑ LonGPS.2	☑ LonI.2	☑ LONref	
	☑ LatGPS.3	☑ LatI.3	☑ LonGPS.3	☑ LonI.3		
☐ Pressure	☑ PDALPHA.1	☑ PQALPHA.1	☑ PQM.1	☑ PSM.1	☑ PDALPHAref	☑ PQMref
	☑ PDALPHA.2	☑ PQALPHA.2	☑ PQM.2	☑ PSM.2	☑ PDBETAref	☑ PQ.c
	☑ PDBETA.1	X PQBETA.1			☑ PQALPHAref	☑ PSMref
	☑ PDBETA.2	X PQBETA.2			X PQBETAref	☑ PS.c
☐ Air Speed	☑ CasADDU.1	☑ CasADDU.2	☑ TasADDU.1	☑ TasADDU.2	☑ IAS.d	☑ TAS.d
☐ Pitch / Roll	☑ PitchI.1	☑ PitchRateI.1	☑ RollI.1	☑ RollRateI.1	☑ PITCHref	
	☑ PitchI.2	☑ PitchRateI.2	☑ RollI.2	☑ RollRateI.2	☑ ROLLref	
	☑ PitchI.3	☑ PitchRateI.3	☑ RollI.3	☑ RollRateI.3		
☐ Temp / Dewpt	☑ TTM.1	☑ TTM.4	X TDM.1		X TD.c	☑ TTMref
	☐ TTM.2		X TDM.2		X TDMref	☑ TA.d
	☑ TTM.3					
☐ Misc. (Must check)					☑ UWZ.d	☑ WS.d
					☑ DPJ_WSZ	☑ WD.d
					X HUM	

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)	X

NOTES:

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AOC GPS Dropwindsonde Log (updated Mar 2019)

Flight ID: 20201008N1 ASPEN Operator/Flight Director(s): Kalen / Henning

Mission ID: NOAA9 13126A Storm Name/Track: Hurricane Delta PG ___ of ___

Sonde #	Ob #	Launch Time HHMMSS (Z)	Sonde ID (min last 5)	Ch # used	Lat (°N)	Lon (°E)	Prominent Wx Cond.	SFC Prs (mb)	Comments / Issues / QC / ASPEN Edits	KWBC #	Sonde Issues?
1	1	061132	30051	1	29.81	-86.29		1015.1	060508	80632	N
2	2	062253	40288	2	28.92	-87.33		1013.8	09016	80643	N
3	3	063402	40416	3	28.82	-88.75		1013.5	09016	80653	N
4	4	064643	20834	4	27.54	-89.39		1010.9	08021	80708	N
5	5	070358	20278	1	28.28	-91.50		1012.3	07019	80726	N
6	6	071314	21082	2	27.29	-91.82		1010.2	11111 / FLW Bad	80936	N
7	7	072229	50273	3	27.20	-93.08		1010.5	05022	80741	N
8	8	073236	20192	4	26.62	-94.27		1009.4	03523	80757	N
9	9	074341	20245	1	25.58	-95.09		1009.5	02522	80803	N
10	10	075517	20256	2	24.28	-95.59		1008.6	01027	80815	N
11	11	080659	30245	3	22.97	-95.07		1006.9	38526	80826	N
12	12	081817	20206	4	21.94	-94.23		1004.9	33024	80838	N
13	13	082229	40286	1	21.71	-93.76		1003.8	31029 / FLW Bad	80844	N
14	14	083209	20209	2	22.64	-93.23		1000.0	32023 / FLW Bad	80854	N
15	15	083553	20167	3	22.88	-93.54		1001.8	33518 / FLW Bad	80902	N
16	16	085351	20244	4	24.52	-94.50		1006.2	00532	80915	N
17	17	090426	60557	1	25.37	-93.44		1005.0	03032	80924	N
18	—	091315	20372	2	—	—		—	FAST FALL	—	Y
19	18	091514	51039	3	25.69	-92.14		1005.1	07527	80938	N
20	19	092227	20234	4	25.33	-91.34		1003.1	08027	80944	N
21	—	093203	20216	1	—	—		—	FAST FALL	—	Y
22	20	093515	50542	2	24.02	-91.01		997.0		80954	N
23	21	094040	50556	3	23.30	-91.17		—	D.D Not H.I Sfc / FLW Bad	81006	Y
24	22	095155	20282	4	23.12	-89.76		1003.9	14541 / FLW Bad	81019	N
25	23	100120	50545	1	24.12	-89.27		1006.1	13030 / FLW Bad	81034	N
26	24	101521	50935	2	23.10	-87.87		1008.9	15524 / FLW Bad	81042	N
27	25	102652	20208	3	24.45	-87.89		1008.7	13525 / FLW Bad	81048	N
28	26	104340	40283	4	25.61	-89.40		1006.7	11526 / FLW Bad	81105	N
29	27	105300	30173	1	26.50	-90.21		1008.5	08016	81116	N
30	28	110941	20692	2	26.65	-88.13		1011.2	09514	81129	N
31	29	111906	51028	3	27.34	-87.72		1011.2	09019 / FLW Bad	81135	N
32	30	112544	50276	4	27.28	-86.39		1012.9	09517 / FLW Bad	81144	N
33	31	113618	61055	1	26.12	-86.15		1011.9	12022	81155	N
34	32	115155	30050	2	27.59	-84.84		1014.3	11516 / Last Drop	81212	N
35											
36											
37											
38											

ASPEN Operator will ensure this form is delivered to the AOC Flight Director to be archived

COMMENTS:

Obs Xmitted | Obs Missed | # of sondes launched | # of bad sondes

2020-10-08, 05:30:01-12:37:41