

N49RF ERROR SUMMARY
20240815N1

Flight ID: 20240815N1

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/2024/MET/20240815N1

Local Met Data	Takeoff KLAL (1200Z)	Landing KLAL (1923Z)
Dynamic Corrections		Yes
AttackAngleIntercept		6.4652
AttackAngleSlope		7.59375
SlipAngleIntercept		0.925
SlipAngleSlope		6.56381
AttackAngleIntercept2		5.40351
AttackAngleSlope2		4.97461
SlipAngleIntercept2		0.71
SlipAngleSlope2		6.22549

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.

Expendable Type -----	# deployed -----	# good -----	# transmitted -----
Dropsondes	37	35	34
Test sondes	0	0	0
AXBTs	0	0	0
AXCPs	0	0	0
AXCTDs	0	0	0
UAS	0	0	0

Flight Director: Carpenter
Phone #: 8635003901

ACAT-4 Version = 7.4

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

FLIGHT INFORMATION				CREW MANIFEST			MISSION INFORMATION				
FLT ID:	20240815N1	FLT #:		AC:	Bhatnagar	Scientists:	Pressure		Dropsondes		
From:	KLAL	ETD:		CP(s):	Cozart		A/C Takeoff		Good	Bad	Sent
To:	KLAL	ETA:			Mayo				31	6	31
Block Time		Flight Time		NAV:			ASOS Takeoff		BTs		
In:	19:27	Land:	19:23	FE(s):					Good	Bad	Sent
Out:	11:32	T/O:	12:01	FD(s):	Carpenter		A/C Land				
					de Solo						
Total:	7.9	Total:	7.4	SSA:	Defeo	Visitors:	ASOS Land				
Sponsoring Org:		HRD/NASA		SEB:	Brannigan	Benningfield	Storm Number ID:		AL052024		
Program:		PHX			Andrews		(ie: AL072012)				
Purpose:		Hurricane Ernesto		MX:			TCPD/WSPD Mission		NOAA9 WA05A ERNESTO		
								(ie: NOAA2 2418A SANDY)			
AS REQUIRED BY ORM				Y	N	REMARKS	Fix Number	Obs Number	Fix Time	SLP	
VOLCANIC ASH							1				
SCIENCE MISSION WITHIN BDY LAYER											
LACK OF PRECIPITATION											
RELATIVE HUMIDITY ≥ 80%							2				
LARGE AIR-SEA TEMP GRADIENT											
HIGH SURFACE WINDS											
LONG FETCH / DURATION OF SFC WND							3				
SEA SALT ACCRETION FORECAST											
SEA SALT ACCRETION OBSERVED											
							4				
							Pennies:				
*Highlighted items must be completed before departure.											
Remarks:											

G-IV QC Checklist

Overall Assessment

No instrument issues noted.

Flight ID:	20240815N1
Flight Director(s):	Carpenter/de Solo
Mission:	Non-tasked Science Collection/Research
UWZ.d mean:	0.03

Pressure Comparison		
	Pre-flight	Post-flight
Aircraft	1009.8	1008.2
Airfield	1009.6	1009.0

This form uses:

[A.nc](#)

Parameters	Raw				Derived, Corrected & Reference	
✓ Acceleration	✓ 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 ✓ ALTPA.d ✓ ALTGA.d	
	✓ AltGPS.2	✓ AltI.2	✓ AltPaADDU.2	✓ AltBCADDU.2		
	✓ AltGPS.3	✓ AltI.3	INOP AltRA.1			
✓ Ground Speed	✓ GsXI.1	✓ GsYI.1	✓ GsZI.1	✓ GsGPS.1	✓ GSXref ✓ GSYref ✓ GSZref	
	✓ GsXI.2	✓ GsYI.2	✓ GsZI.2	✓ GsGPS.2		
	✓ GsXI.3	✓ GsYI.3	✓ GsZI.3			
	✓ GsXGPS.1	✓ GsYGPS.1	✓ GsZGPS.1			
	✓ GsXGPS.2	✓ GsYGPS.2	✓ GsZGPS.2			
✓ Location	✓ LatGPS.1	✓ LatI.1	✓ LonGPS.1	✓ LonI.1	✓ LATref ✓ LONref	
	✓ LatGPS.2	✓ LatI.2	✓ LonGPS.2	✓ LonI.2		
	✓ LatGPS.3	✓ LatI.3	✓ LonGPS.3	✓ LonI.3		
✓ Pressure Sensors	✓ PDALPHA.1	✓ PQALPHA.1	✓ PQM.1	✓ PSM.1	✓ PQMref ✓ PQ.c ✓ PSMref ✓ PS.c	
	✓ PDALPHA.2	✓ PQALPHA.2	✓ PQM.2	✓ PSM.2		
	✓ PDBETA.1	✓ PQBETA.1				
	✓ PDBETA.2	✓ PQBETA.2				
✓ Air Speed	✓ CasADDU.1	✓ TasADDU.1			✓ IAS.d	✓ TAS.d
✓ Pitch / Roll	✓ PitchI.1	✓ PitchRatel.1	✓ RollI.1	✓ RollRatel.1	✓ PITCHref ✓ ROLLref	
	✓ PitchI.2	✓ PitchRatel.2	✓ RollI.2	✓ RollRatel.2		
	✓ PitchI.3	✓ PitchRatel.3	✓ RollI.3	✓ RollRatel.3		
✓ Temperature / Dewpoint	✓ TTM.1	✓ TTM.4	✗ TDM.1		✓ TD.c	✓ TTMref
	INOP TTM.2		✓ TDM.2		✓ TDMref	✓ TA.d
	✓ TTM.3				✗ HUM	
✗ Wind					✓ UWZ.d	✗ WS.d ✗ WD.d

FLID_Mission_Documents.pdf:

- ✓

 Error Summary
- ✓

 Crew Manifest
- ✓

 QC Checklist
- ✓

 Dropwindsonde Log(s) - AVAPS and FD, if completed
- ✓

 Flight Track

QC Key:

Valid	✓
Errors (see NOTES)	✗
Sensor Inoperative	INOP

NOTES:

Flight level winds are removed due to known inconsistencies.

AOC GPS Dropwindsonde Log (updated Mar 2019)

Flight ID: 20240815N1ASPEN Operator/Flight Director(s): TIMMERS(TAG)/DE SOLO/CARPENTERMission ID: NOAA9 WAOSAStorm Name/Track: ERNESTOPG 1 of 1

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	1315 53	20214	1	27.3	-72.8		1012.1	030/12	1340	✓✓
2	/	1323		2					BAD PTH		
3	2	1324 55	51448	3	27.0	-71.7		1010.2	085/25	1346	✓✓
4	3	1331 28	50050	4	26.8	-70.8		1009.1	070/25	1354	✓✓
5	4	1338 48	67949	1	26.7	-69.9		1006.7	055/30	1359	✓✓
6	5	1347 36	50378	2	27.7	-69.4		1010.1	105/28	1415	✓✓
7	/	1555		3					LOST SIGNAL 6.5m		
8	6	1403 21	24631	4	27.7	-68.6		1010.3	085/17	1421	✓✓
9	7	1411 10	14592	1	27.1	-67.9		1010.1	110/27	1440	✓✓
10	8	1418 55	24542	2	26.8	-66.8		1011.1	130/28	1445	✓✓
11	9	1426 26	20709	3	26.9	-65.8		1012.3	130/24	1451	✓✓
12	10	1435 02	51215	4	26.2	-66.5		1011.4	140/26	1455	✓✓
13	11	1444 54	50048	1	25.3	-67.2		1007.4	150/45	1502	✓✓
14	/	1453		2					LOST SIGNAL 37k FT		
15	/	1455		3					LOST SIGNAL 26k FT		
16	12	1500 02	40121	4	23.8	-67.0		1010.5	170/32	1515	✓✓
17	13	1508 52	50041	1	23.9	-68.1		1009.3	195/43	1527	✓✓
18	14	1517 57	14462	2	22.9	-68.7		1009.1	210/34	1547	✓✓
19	15	1525 36	20914	3	22.0	-69.0		1011.3	205/26	1555	✓✓
20	16	1534 24	41246	4	22.9	-69.4		1009.0	225/32	1558	✓✓
21	/	1543		1					LOST SIGNAL		
22	17	1546 42	41243	2	23.9	-70.3		1005.4	255/33	1608	✓✓
23	18	1550 49	50628	3	23.8	-70.8		1007.3	295/29	1612	✓✓
24	19	1558 15	30778	4	23.5	-71.8		1010.5	280/16	1632	✓✓
25	20	1604 01	24688	1	23.4	-72.5		1011.2	300/19	1634	✓✓
26	21	1610 08	24630	2	24.0	-72.0		1009.2	325/26	1638	✓✓
27	22	1618 06	41256	3	24.6	-71.3		1007.6	330/33	1641	✓✓
28	23	1625 33	40068	4	25.3	-70.6		1003.0	315/38	1653	✓✓
29	24	1637 39	14516	1	24.5	-69.8		1002.1	045/39	1657	✓✓
30	25	1649 46	10814	2	26.5	-68.2		1005.0	115/44	1722	✓✓
31	26	1702 17	14614	3	25.27	-67.4		1009.3	160/51	1724	✓✓
32	/	1715		4					LOST SIGNAL 34k FT		
33	27	1727 49	50540	1	24.1	-69.8		1009.2	250/41	1757	✓✓
34	28	1740 10	50518	2	25.3	-70.6		1002.2	310/42	1831	✓✓
35	29	1748 08	24507	3	26.0	-71.4		1006.5	340/33	1836	✓✓
36	30	1755 55	24690	4	26.6	-72.1		1008.8	005/21	1840	✓✓
37	31	1803 36	20199	1	27.3	-72.9		1010.8	020/15	1844	✓✓
38											

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

COMMENTS:

31

Obs
Xmitted

4

Obs
Missed

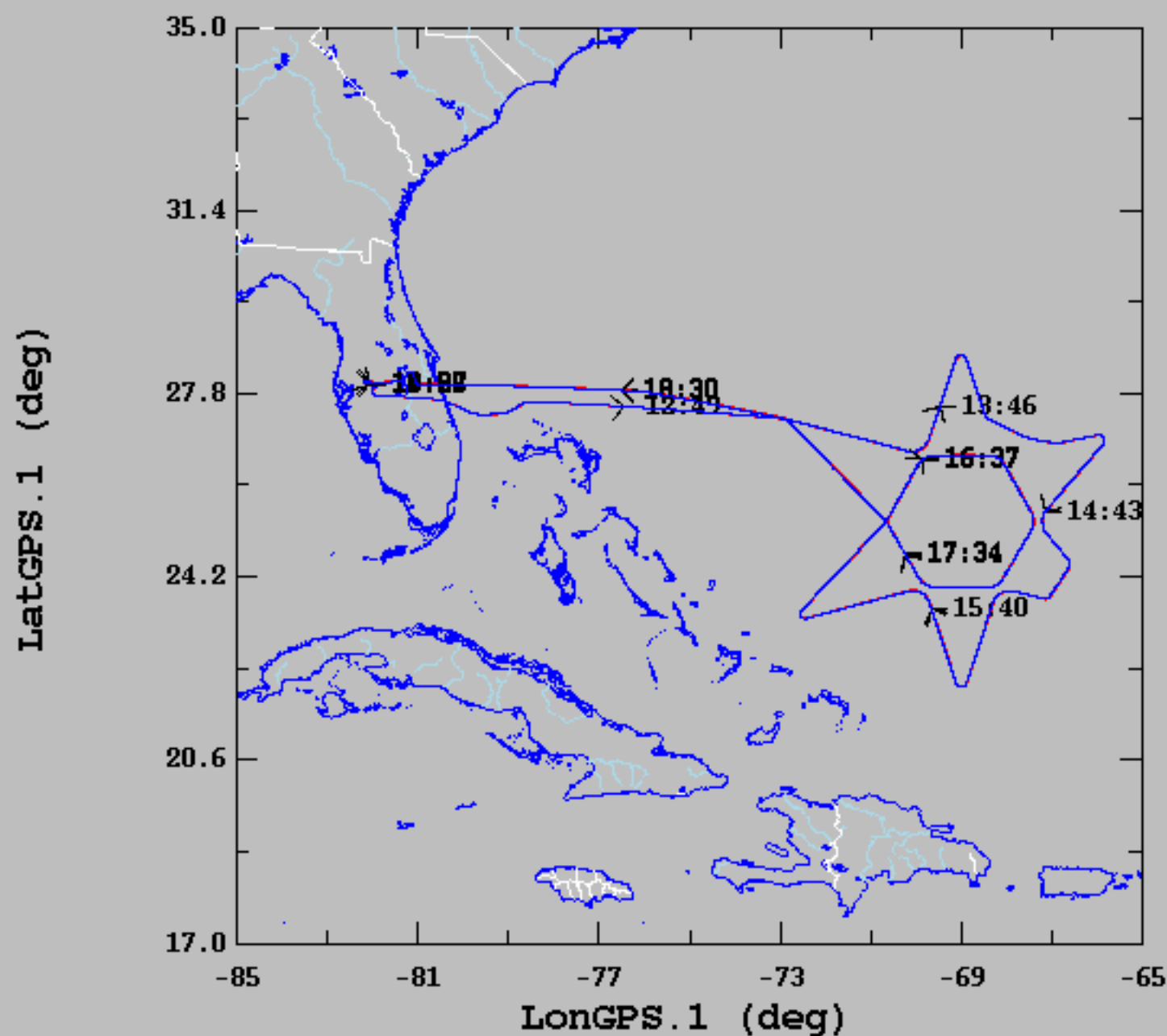
37

of sondes
launched

6

of bad
sondes

08/15/2024, 10:55:27-19:27:54



	mean	sigma	min	max
LatGPS.1 (deg), 1 s/sec	26.43	1.70	22.04	28.54
LongGPS.1 (deg), 1 s/sec	-73.65	5.47	-82.18	-65.82
LatI.1 (deg), 1 s/sec	26.43	1.70	22.04	28.54
LonI.1 (deg), 1 s/sec	-73.64	5.47	-82.17	-65.81