

N49RF ERROR SUMMARY
20240816N1

Flight ID: 20240816N1

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/20240816N1

Local Met Data	Takeoff KLAL (1237Z)	Landing KLAL (2019Z)
Dynamic Corrections		Yes
AttackAngleIntercept		6.4652
AttackAngleSlope		7.59375
SlipAngleIntercept		0.925
SlipAngleSlope		6.56381
AttackAngleIntercept2		4.97461
AttackAngleSlope2		5.40351
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	35	34	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:	20240816N1	FLT #:		AC:	Varwig	Scientists:	Pressure		Dropsondes		
From:	KLAL	ETD:		CP(s):	Mayo		A/C Takeoff		Good	Bad	Sent
To:	KLAL	ETA:							35	1	34
Block Time		Flight Time		NAV:			ASOS Takeoff		BTs		
In:	20:24	Land:	20:19	FE(s):					Good	Bad	Sent
Out:	12:27	T/O:	12:38	FD(s):	Carpenter		A/C Land				
					de Solo						
Total:	8.0	Total:	7.7	SSA:	Defeo	Visitors:	ASOS Land				
Sponsoring Org:		HRD/NASA		AVAPS:	Andrews	Parrish	Storm Number ID:		AL052024		
Program:		PHX			Paul	Licitra	(ie: AL072012)				
Purpose:		Hurricane Ernesto		SEB:	Brannigan		TCP0D/WSP0D Mission		NOAA9 WC05A ERNESTO		
							(ie: NOAA2 2418A SANDY)				
				MX:			OBSERVATIONS				
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:	20240816N1
Flight Director(s):	Carpenter/de Solo
Mission:	Non-tasked Science Collection/Research
UWZ.d mean:	-0.01

Pressure Comparison		
	Pre-flight	Post-flight
Aircraft	1011.4	1010.1
Airfield	1012.0	1011.1

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 June 2023)

Flight ID: 20240816N1ASPEN Operator/Flight Director(s): TIMMERS(TAG)/DE SOLO/CARPENTERMission ID: NOAA9 WCOSAStorm Name/Track: ALOS 2024 ERNESTOPG 1 of 2

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	/	1342							TEST		
2	/	1345							TEST		
3	/	1347							TEST		
4	/	1350							TEST		
5	1	1406 35	24689	1	31.3	-71.0		1010.1	025/26	1433	✓✓
6	2	1414 24	14538	2	31.1	-69.9		1009.0	020/30	1439	✓✓
7	3	1421 39	24640	3	30.9	-68.8		1007.1	020/32	1457	✓✓
8	4	1428 51	41244	4	30.8	-67.8		1003.7	055/24	1459	✓✓
9	5	1435 45	31729	1	31.5	-67.4		1006.4	055/28	1502	✓✓
10	6	1441 21	14613	2	32.1	-66.9		1008.2	060/27	1507	✓✓
11	7	1447 43	34220	3	31.5	-66.5		1005.9	095/26	1510	✓✓
12	8	1455	51445	4	30.7	-66.0		1004.5	095/41	1528	
13	9	1502	50069	1	30.7	-65.0		1006.2	120/34	1536	
14	10	1505	20909	2	30.5	-64.8		1006.9	145/39	1542	
15	11	1508	24509	3	30.1	-64.8		1005.2	150/42	1547	
16	12	1516	20202	4	29.1	-64.5		1005.1	165/49	1551	
17	13	1522	41112	1	28.4	-64.4		1007.9	185/46	1554	
18	14	1530	40700	2	27.7	-63.8		1011.5	170/35	1606	
19	15	1539	40111	3	27.8	-64.8		1009.1	180/46	1604	
20	X	1548		4					signal lost @ 20K		
21	16	1555	40824	1	27.2	-66.5		1008.3	215/30	1615	
22	17	1602	40821	2	26.6	-67.0		1008.9	215/28	1625	
23	18	1608	21009	3	27.2	-67.4		1008.1	230/27	1638	✓✓
24	19	1616 03	24545	4	27.9	-67.9		1005.8	285/20	1703	✓✓
25	20	1623 37	31972	1	27.8	-68.8		1007.1	275/21	1708	✓✓
26	21	1631 38	40776	2	27.6	-69.8		1008.9	290/13	1712	✓✓
27	22	1637 53	41237	3	27.5	-70.6		1010.3	300/21	1715	✓✓
28	23	1643 36	20822	4	28.0	-70.1		1008.1	325/20	1719	✓✓
29	24	1651 05	21011	1	28.7	-69.4		1006.4	320/18	1723	✓✓
30	25	1658 58	24687	2	29.4	-68.6		1008.3	345/25	1724	✓✓
31	26	1717 01	50110	3	30.6	-66.6		987.7	060/64	1748	✓✓
32	27	1728 18	40793	4	30.7	-65.0		1000.7	120/43	1813	✓✓
33	28	1740 54	10953	1	29.5	-64.1		1005.6	160/49	1904	✓✓
34	29	1757 59	40772	2	28.0	-65.5		1005.7	205/45	1909	✓✓
35	30	1811 09	24692	3	28.1	-67.2		1004.9	260/24	1911	✓✓
36	31	1822 57	10482	4	29.3	-68.1		1003.3	295/28	1917	✓✓
37	32	1833 40	10481	1	29.1	-69.5		1005.3	345/15	1923	✓✓
38	33	1841 23	60357	2	28.9	-70.5		1008.8	340/27	1928	✓✓

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

COMMENTS:

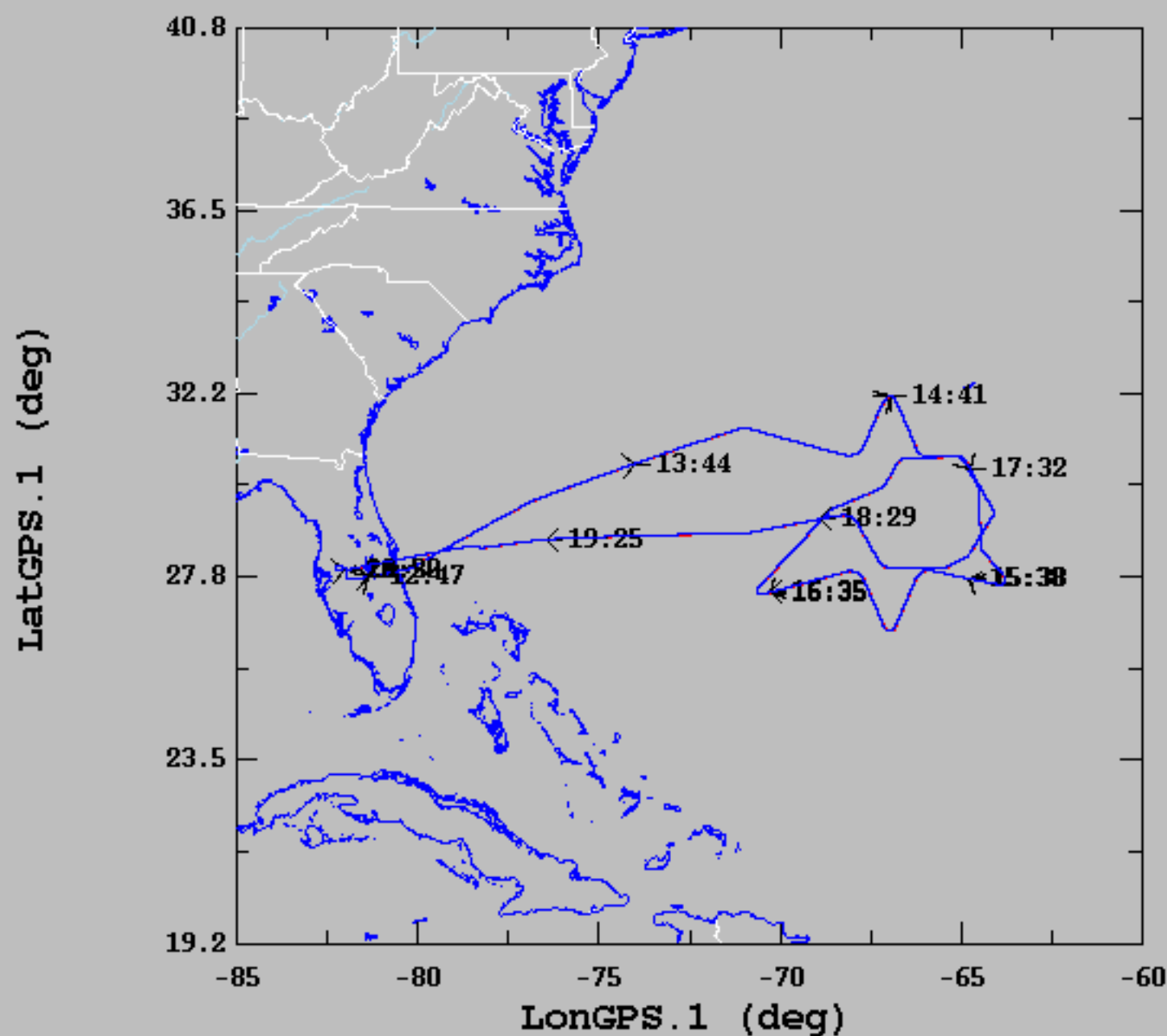
34

Obs
XmittedObs
Missed

39

of sondes
launched# of bad
sondes

08/16/2024, 11:50:46-20:22:49



	mean	sigma	min	max
LatGPS.1 (deg), 1 s/sec	28.98	1.22	26.55	32.10
LongGPS.1 (deg), 1 s/sec	-72.07	6.21	-82.23	-63.75
LatI.1 (deg), 1 s/sec	28.98	1.22	26.55	32.09
LonI.1 (deg), 1 s/sec	-72.06	6.20	-82.23	-63.74