

N43RF ERROR SUMMARY
20240926I1

Flight ID: 20240926I1

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/2024/MET/20240926I1

Local Met Data	Takeoff KLAL (0901Z)	Landing KEFD (1718Z)
Dynamic Corrections		Yes
AttackAngleIntercept		0.179211
AttackAngleSlope		5.88163
SlipAngleIntercept		0.15
SlipAngleSlope		6.89472

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.

SFMR TB, WS SFMR, and RAIN RATE SFMR data should be used with caution as additional assessment occurs

Expendable Type -----	# deployed -----	# good -----	# transmitted -----
Dropsondes	28	26	25
Test sondes	0	0	0
AXBTS	10	6	6
AXCPs	0	0	0
AXCTDs	0	0	0
UAS	2	0	0

Flight Director: Zawislak
Phone #: 305-707-4359

ACAT-4 Version = 7.4

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

FLIGHT INFORMATION				CREW MANIFEST			MISSION INFORMATION				
FLT ID:	20240926I1	FLT #:	FY24-	AC:	Rannenberg	Other Crew:	sUAS		Dropsondes		
From:	KLAL	ETD:	0500L / 0900Z	CP(s):	Palmer	Jun Zhang (HRD)	Type	Released	Good	Bad	Sent
To:	KEFD	ETA:	1200L / 1700Z		Ellis	Kathryn Sellwood (HRD)	Black Swift	2	26	2	25
Block Time		Flight Time		NAV(s):	Meier / Saunders	Lev Looney (UMiami)					
Out:	08:51	T/O:	09:01	FE(s):	Ripp	Jack Elston (Black Swift)	Other Expendables		Dropsonde Charge Codes		
					Dittoe	Ken Graham (NWS Director)	Type	Released	27 NWS, 1 GOMO		
In:	17:23	Land:	17:18	FD(s):	Zawislak		MicroSWIFT	1	AXBTs		
									Good	Bad	Sent
Total:	8.5	Total:	8.3	SSA:	Richards				6	4	6
				IFT(s):	Hunsinger						
Sponsoring Org:		NHC				Vargas		Pennies	4 x CAT 2		
Program:		PRX		Underwood			Storm ID: (i.e., AL072012)	AL092024			
Purpose:	TDR Mission + sUAS + CHAOS			MX:	Diaz		Mission ID: (i.e., NOAA2 2418A SANDY)		NOAA3 1509A HELENE		
					Anello						
AS REQUIRED BY ORM			Y	N	REMARKS		OBSERVATIONS				
VOLCANIC ASH				X	Graham, Looney first pennies		Fix Number	Obs Number	Fix Time	SLP	
SCIENCE MISSION WITHIN BDRY LAYER				X	all UM AXBTs		1	0B03	10:42:05	964 mb	
LACK OF PRECIPITATION				X					24.45N, 85.92W	340 / 08 kt	
RELATIVE HUMIDITY ≥ 80%			X				2	0B07	12:13:08	964 mb	
LARGE AIR-SEA TEMP GRADIENT				X					24.84N, 85.80W	130 / 10 kt	
HIGH SURFACE WINDS			X				3	0B15	13:18:39	964 mb	
LONG FETCH / DURATION OF SFC WND			X						25.11N, 85.67W	080 / 16 kt	
SEA SALT ACCRETION FORECAST				X			4		14:42:57	965 mb	
SEA SALT ACCRETION OBSERVED									25.33N, 85.43W	220 / 15 kt	
*Highlighted items must be completed before departure.											

P-3 QC Checklist

Overall Assessment	Minor instrument issue(s) - no mission impact.
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Flight ID:	20240926I1
Flight Director(s):	Zawislak
Mission:	Tasked/Operational
UWZ.d mean:	-0.03

Pressure Comparison		
	Pre-flight	Post-flight
Aircraft	1001.4	Not reported
Airfield	1001.0	1009.6

This form uses:
_A.nc

SFMR Serial Unit	1
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Parameters	Raw				Derived, Corrected & Reference	
✓ Acceleration	✓ AccAXI.1	✓ AccAYI.1	✓ AccAZI.1	✓ AccZfilter-GPS.1	✓ AccZref	
	✓ AccAXI.2	✓ AccAYI.2	✓ AccAZI.2	✓ AccZfilter-GPS.2		
	✓ AccAXI-GPS.1	✓ AccAYI-GPS.1	✓ AccAZI-GPS.1			
	✓ AccAXI-GPS.2	✓ AccAYI-GPS.2	✓ AccAZI-GPS.2			
✓ Altitude	✓ AltGPS.1	✓ AltI-GPS.1	✓ AltPaADDU.1	✓ AltRA.1	✓ ALTref	✓ AltRA1.c
	✓ AltGPS.2	✓ AltI-GPS.2	✓ AltBCADDU.1	✓ AltRA.2	✓ ALTPA.d	✓ AltRA2.c
	✓ AltGPS.3				✓ ALTGA.d	
	✓ AltGPS.4					
✓ Ground Speed	✓ GsXI-GPS.1	✓ GsYI-GPS.1	✓ GsZI-GPS.1		✓ GSXref	
	✓ GsXI-GPS.2	✓ GsYI-GPS.2	✓ GsZI-GPS.2		✓ GSYref	
					✓ GSZref	
✓ Location	✓ LatGPS.1	✓ LatI-GPS.1	✓ LonGPS.1	✓ LonI-GPS.1	✓ LATref	
	✓ LatGPS.2	✓ LatI-GPS.2	✓ LonGPS.2	✓ LonI-GPS.2	✓ LONref	
	✓ LatGPS.3		✓ LonGPS.3			
	✓ LatGPS.4		✓ LonGPS.4			
✓ Pressure Sensors	✓ PDALPHA.1	✓ PQALPHA.1	✓ PQM.1	✓ PSM.1	✓ PQMref	
	✓ PDALPHA.2	✓ PQBETA.1	✓ PQM.2	✓ PSM.2	✓ PQ.c	
	✓ PDBETA.1		✓ PQM.3	✓ PTM.1	✓ PSMref	
	✓ PDBETA.2		✓ PQM.4		✓ PS.c	
✓ Air Speed	✓ CasADDU.1	✓ TasADDU.1	✓ IasADDU.1		✓ IAS.d	✓ TAS.d
✓ Pitch / Roll	✓ PitchI.1	✓ PitchRatI.1	✓ RollI.1	✓ RollRatI.1	✓ PITCHref	
	✓ PitchI.2	✓ PitchRatI.2	✓ RollI.2	✓ RollRatI.2	✓ ROLLref	
	inop PitchI.3	inop PitchRatI.3	inop RollI.3	inop RollRatI.3		
✓ Temperature, Dewpoint, Radiometers	✓ TTM.1	✓ TDM.1	✓ TRadD.1		✓ TD.c	✓ TTMref
	✓ TTM.2	✓ TDM.2	✓ TRadS.1		✓ TDMref	✓ TA.d
	inop TTM.3	inop TDM.3	inop TRadU.1		✓ HUM	
✓ Wind and Pressure					✓ UWZ.d	✓ WS.d
✗ SFMR	SFMR	✗ CH 1 TB	✗ CH 4 TB		✓ PSURF	✓ WD.d
		✗ CH 2 TB	✗ CH 5 TB		✗ WS SFMR	✗ RAIN RATE SFMR
		✗ CH 3 TB	✗ CH 6 TB			

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:
SFMR TB, WS SFMR, and RAIN RATE SFMR data should be used with caution as additional assessment occurs

AVAPS Drop Log

Project: PRX

Mission: Helene

Flight ID: 20240926JL

Take Off: 0500

Landing: _____

Flt Dir: Don

Launcher S/N: _____

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	233331511	1	-1.4	1018	JV	NWS		✓
2	233241103	2	-0.4	1031	JV		?	X
3	231830075	3	-0.2	1042	JV			✓
4	232010025	4	-0.2	1050	JV			✓
5	233241029	5	-0.7	1108	JV			✓
6	233150006	6	-0.4	1145	JV			✓
7	233150162	7	-0.1	1157	JV			✓
8	232320013	8	-0.3	1202?	JV	1000	?	X
9 ⁸	233560223	1	-0.6	1204*	JV	1000	cap on	X
10 ⁹	233140634	2	-0.8	1204	JV	1000		✓
11 ¹⁰	233560226	3	-0.4	1213	JV	NWS		✓
12 ¹¹	233150248	4	-0.8	1218	JV			✓
13 ¹²	233140853	5	-0.5	1225	JV			✓
14 ¹³	233241117	6	-0.5	1236	JV			✓
15 ¹⁴	233121174	7	-0.5	1253	JV			✓
16 ¹⁵	233241081	1	-0.7	1306	JV			✓
17 ¹⁶	233140472	2	-0.6	1315	JV			✓
18 ¹⁷	233140652	3	-0.4	1318	JV			✓
19 ¹⁸	233140489	4	-0.8	1327	JV			✓
20 ¹⁹	233140751	5	-1.1	1331	JV			✓
21 ²⁰	231830067	6	-0.4	1344	JV			✓
22 ²¹	233140854	7	-0.5	1417	JV			✓
23 ²²	233140474	8	-0.6	1428	JV			✓
24 ²³	233550061	1	-0.4	1434	JV			✓
25 ²⁴	233560357	2	-0.5	1442	JV			✓
26 ²⁵	233241119	3	-0.1	1446	JV			✓
27 ²⁶	233550056	4	-0.2	1456	JV			✓
28	233241083	5	-1.3	1512	JV	NWS		✓
29	233550499	6	+0.1					
30		7						
31								

Drop 1 Combo IP1 ch Time BT Temp

Drop 2 up ch Time

AVAPS Drop Log
rev: 2024-06-21

GOMO

Dropwindsonde Scientist Log

Storm:	AL09/Helene	Flight ID:	2024092611	Mission ID:	1509A	Takeoff:	0901z	Landing:	1718z
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Dropsonde Scientist(s):	Kaplan	AVAPS Operator:	Vargas/Hunsinger
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Pre-flight

- ✓ Discuss the pattern with the Lead Project Scientist (LPS) and ensure that enough dropsondes are onboard.
- ✓ Complete the appropriate pre-flight set-up of your workstation and ASPEN (see [Dropsonde Processing Guide](#)).

In-flight

- ✓ Ensure the Flight Director is aware of upcoming drops and whether a backup is requested in case of failure.
- ✓ Ensure the AVAPS operator has determined that the dropsonde is (or is not) transmitting a good signal.
- ✓ Prioritize processing of center drops and report MSLP and surface wind speed and direction to the Flight Director.
- ✓ Fill in the Dropwindsonde Scientist log as drops are released and processed.
- ✓ Copy completed ASPEN files (e.g., FRD, netCDF, Skew-t, WMO txt, BUFR) into the “FRD” folder on the workstation desktop for automated transmission to the ground for archival.

Once “science is complete”...

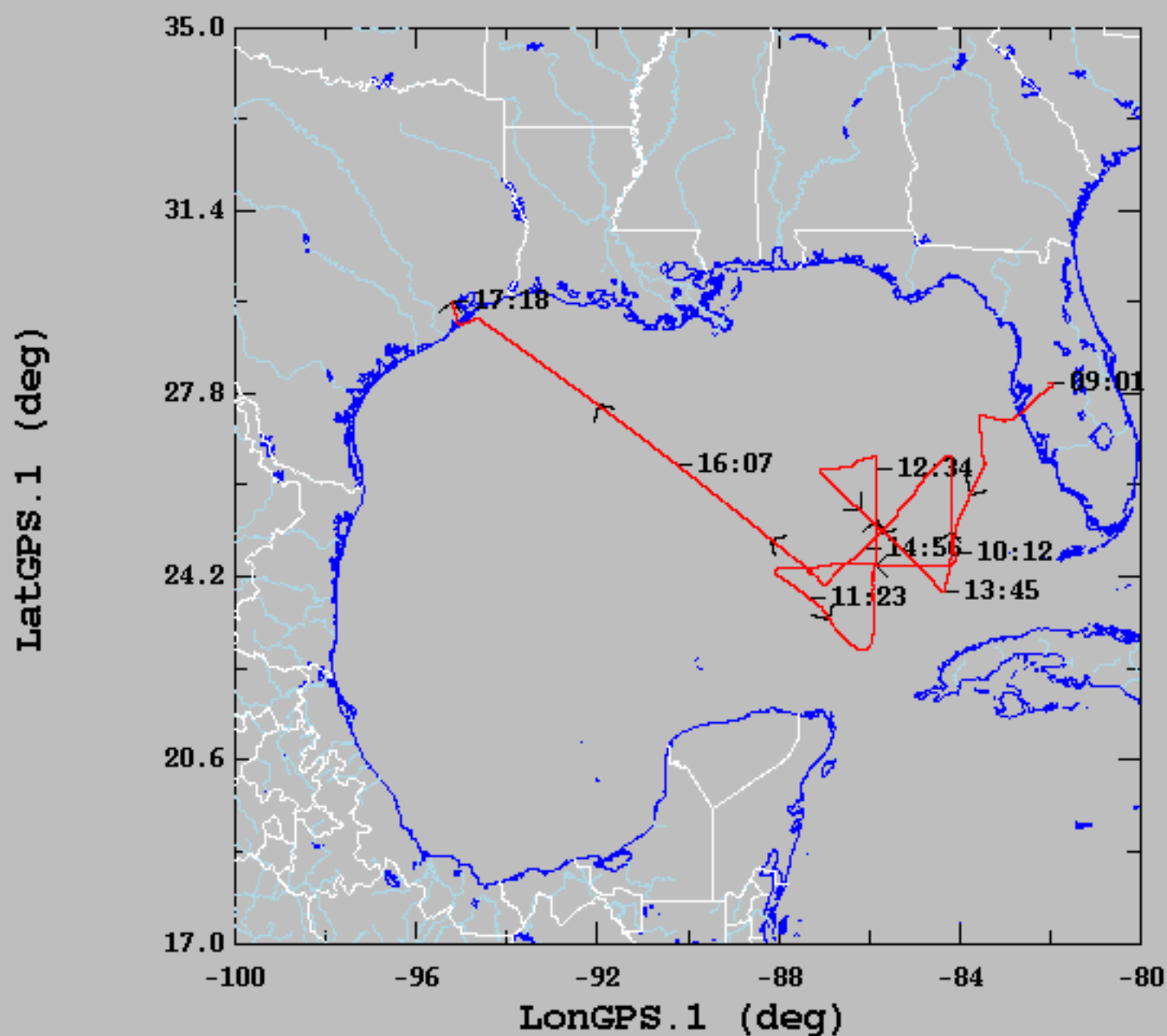
- ✓ Make synoptic map plots in ASPEN and copy them to the “FRD” folder on the workstation desktop for automated transmission to the ground for archival.
- ✓ Ensure ASPEN files have been sent to the ground by locating and verifying all files in the “FLIGHTID” folder within the “FRD” folder on the workstation desktop.
- ✓ Archive ASPEN_DATA and RAW_DATA into a folder named with the FLIGHTID within the “Season Dropsonde Archive” folder on the workstation desktop and upload the same directories into StormName/FLIGHTID/Dropsonde/ folder on Drive.
- ✓ Download this Dropwindsonde Scientist Log as “PDF” and upload completed PDF and Google Doc to the StormName/FLIGHTID/Dropsonde/ folder within the “Mission Reports” directory in the HFP Google Drive.

Drop #	Sonde ID	Time UTC	Lat (°N/S)	Lon (°E/W)	Sfc Pressure (mb)	Lowest Wind Direction/Speed (deg/kt)	Lowest Wind Height (m)	AXBT SST (°C)	Eye, Eyewall, Rainband, etc.	Ob #
1	233331511	1018	24.40	84.22	991.6	144/48	10			1
Comments:										
2	233241103	1031	x	x	x	x	x	x		X
Comments: Bad sonde. Not sent										
3	231830075	1042	24.45	85.97	964.2	338/8	10		Center	2
Comments: Set end time 0.5 s less than last time in file.										
4	232010025	1056	24.42	86.95	985.3	323/48	10	29.5		4
Comments:										
5	233241029	1108	24.38	87.76	992.7	329/34	10			5
Comments:										
6	233150006	1145	22.96	85.90	994.4	234/38	10			6
Comments:										
7	233150162	1157	23.8	85.89	985.0	239/52	10	29.7	Midpoint	8
Comments:										
8	232320013	1202	24.13	85.89	977.9	251/56	10		RMW south	9
Comments:										
9	233560223	1204	x	x	x	x	x	x	x	X
Comments: Near Wave drifter. BAD sonde. Not sent.										
10	233140634	1204	24.24	85.89	975.7	250/65	10			X
Comments: Not initially seen/processed during mission. Processed afterward and data appears to be good.										

Drop #	Sonde ID	Time UTC	Lat (°N/S)	Lon (°E/W)	Sfc Pressure (mb)	Lowest Wind Direction/Speed (deg/kt)	Lowest Wind Height (m)	AXBT SST (°C)	Eye, Eyewall, Rainband, etc.	Ob #
11	233560226	1213	24.86	85.80	964.0	130/10	10		Center	10
Comments:										
12	233150248	1218	25.23	85.80	974.3	74/55	10		RMW	11
Comments:										
13	233140853	1225	25.70	85.80	985.9	76/44	10		Midpoint N	12
Comments:										
14	233241117	1236	26.49	85.81	992.3	103/32	10		endpoint	13
Comments:										
15	233121174	1253	26.21	87.00	994	30/34	10		NW IP3	14
Comments:										
16	233241081	1306	25.63	86.33	986.5	37/39	10			16
Comments:										
17	233140472	1315	25.25	85.87	968.6	64/35	10		NW eyewall	17
Comments:										
18	233140652	1318	25.11	85.68	964	80/16	10		Center	18
Comments: Set end of drop at 180.75										
19	233140489	1327	24.69	85.19	971.8	187/70	10		NE eyewall	19
Comments:										
20	233140652	1332	24.48	84.97	981.8	193/66	10		Midpoint	20
Comments:										

Drop #	Sonde ID	Time UTC	Lat (°N/S)	Lon (°E/W)	Sfc Pressure (mb)	Lowest Wind Direction/Speed (deg/kt)	Lowest Wind Height (m)	AXBT SST (°C)	Eye, Eyewall, Rainband, etc.	Ob #
21	231830067	1344	23.92	84.37	995.1	189/49	10		Endpoint	21
Comments:										
22	233140854	1417	26.66	84.28	993.2	139/50	10		NE IP	22
Comments:										
23	233140474	1428	26.07	84.80	986.4	118/65	10		Midpoint NE	23
Comments:										
24	233550061	1434	25.76	85.03	974.8	97/50	10		RMW NE	24
Comments:										
25	233560357	1442	25.37	85.38	964.9	220/15	34		Center	25
Comments:										
26	233241119	1446	25.15	85.62	971.7	279/56	10		RMW SW	26
Comments:										
27	233550056	1457	24.71	86.11	987.1	275/47	10		Midpoint S	27
Comments:										
28	233241083	1512	24.09	86.88	995.4	292/38	10		SW endpoint	28
Comments:										

09/26/2024, 09:01:00-17:18:00



	mean	sigma	min	max
LatGPS.1 (deg), 1 s/sec	25.59	1.53	22.76	29.60
LongGPS.1 (deg), 1 s/sec	-86.73	3.06	-95.16	-81.92