

N43RF ERROR SUMMARY
20241007I1_ES

Flight ID: 20241007I1

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.1
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/20241007I1

Local Met Data	Takeoff KLAL (0749Z)	Landing KLAL (1655Z)
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.

Pitch and Roll I.3, TTM.3, TDM.3, and TRadU.1 not operational.

PQM.4 drops out at 0940z and recovers at 0947z. Data in this window is unrepresentative and should not be used.

Spike in TDM.1 at 0950z is erroneous and should not be used.

SFMR data (all channel TB, WS, RAIN RATE) under assessment and should be used with caution.

Expendable Type -----	# deployed -----	# good -----	# transmitted -----
Dropsondes	19	19	19
Test sondes	0	0	0
AXBTS	0	0	0
AXCPs	0	0	0
AXCTDs	0	0	0
UAS	0	0	0

Flight Director: Englert/Carpenter

Phone #: 8636066847

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:	2024100711	FLT #:		AC:	Rannanberg	Other Crew:	sUAS		Dropsondes		
From:	KLAL	ETD:	0400L / 0800Z	CP(s):	Palmer	Zhang, Jun (HRD)	Type	Released	Good	Bad	Sent
To:	KLAL	ETA:	1200L / 1600Z		Taraboletti	Casey Parker (AOC Medical)			19	0	19
Block Time		Flight Time		NAV(s):	Utama / Saunders	Jonathan Shannon (AOC PA)					
Out:	07:40	T/O:	07:50	FE(s):	Ripp	Chelsea Parrish (AOC)	Other Expendables		Dropsonde Charge Codes		
					Dittoe		Type	Released	19 NWS		
In:	15:19	Land:	15:12	FD(s):	Englert				AXBTs		
					Carpenter				Good	Bad	Sent
Total:	7.7	Total:	7.4	SSA:	Richards				0	0	0
				IFT(s):	Hunsinger						
Sponsoring Org:		NHC			MX:	Brannigan		Pennies	1x CAT3, 2x CAT4		
Program:		PRX						Storm ID: (i.e., AL072012)	AL142024		
Purpose:		TDR Mission					Mission ID: (i.e., NOAA2 2418A SANDY)	NOAA3 0714A MILTON			
AS REQUIRED BY ORM			Y	N	REMARKS		OBSERVATIONS				
VOLCANIC ASH				X			Fix Number	Obs Number	Fix Time	SLP	
SCIENCE MISSION WITHIN BDRY LAYER				X			1	3	1021z	955 mb	
LACK OF PRECIPITATION				X			2	9	1134z	949 mb	
RELATIVE HUMIDITY ≥ 80%			X				3	18	1251z	941 mb	
LARGE AIR-SEA TEMP GRADIENT				X			4				
HIGH SURFACE WINDS			X								
LONG FETCH / DURATION OF SFC WND				X							
SEA SALT ACCRETION FORECAST				X							
SEA SALT ACCRETION OBSERVED											
*Highlighted items must be completed before departure.											

P-3 QC Checklist

Overall Assessment

Minor instrument issue(s) - minimal mission impact.

Flight ID:	2024100711
Flight Director(s):	Englert/Carpenter
Mission:	Tasked/Operational
UWZ.d mean:	0.25

Pressure Comparison		
	Pre-flight	Post-flight
Aircraft	1004.5	-
Airfield	1004.8	-

This form uses:

_A.nc

SFMR Serial Unit	1
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Parameters	Raw				Derived, Corrected & Reference	
✓ Acceleration	✓ 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	
✓ Location	✓ LatGPS.1 ✓ LatGPS.2 ✓ LatGPS.3 ✓ LatGPS.4	✓ LatI-GPS.1 ✓ LatI-GPS.2	✓ LonGPS.1 ✓ LonGPS.2 ✓ LonGPS.3 ✓ LonGPS.4	✓ LonI-GPS.1 ✓ LonI-GPS.2	✓ LATref ✓ LONref	
✓ Pressure Sensors	✓ PDALPHA.1 ✓ PDALPHA.2 ✓ PDBETA.1 ✓ PDBETA.2	✓ PQALPHA.1 ✓ PQBETA.1	✓ PQM.1 ✓ PQM.2 ✓ PQM.3 ✗ PQM.4	✓ PSM.1 ✓ PSM.2 ✓ PTM.1	✓ PQMref ✓ PQ.c ✓ PSMref ✓ PS.c	
✓ Air Speed	✓ CasADDU.1	✓ TasADDU.1	✓ IasADDU.1		✓ IAS.d	✓ TAS.d
✓ Pitch / Roll	✓ PitchI.1 ✓ PitchI.2 inop PitchI.3	✓ PitchRatI.1 ✓ PitchRatI.2 inop PitchRatI.3	✓ RollI.1 ✓ RollI.2 inop RollI.3	✓ RollRatI.1 ✓ RollRatI.2 inop RollRatI.3	✓ PITCHref ✓ ROLLref	
✓ Temperature, Dewpoint, Radiometers	✓ TTM.1 ✓ TTM.2 inop TTM.3	✗ TDM.1 ✓ TDM.2 inop TDM.3	✓ TRadD.1 ✓ TRadS.1 inop TRadU.1		✓ TD.c ✓ TDMref ✓ HUM	✓ TTMref ✓ TA.d
✓ Wind and Pressure		✗ CH 1 TB	✗ CH 4 TB		✓ UWZ.d ✓ PSURF ✗ WS SFMR	✓ WS.d ✓ WD.d ✗ RAIN RATE SFMR
✗ SFMR	SFMR	✗ CH 2 TB ✗ CH 3 TB	✗ CH 5 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:

Pitch and Roll I.3, TTM.3, TDM.3, and TRadU.1 not operational.

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Dropwindsonde Scientist Log

Storm:	Milton	Flight ID:	2024100711	Mission ID:	0714A	Takeoff:		Landing:	
Dropsonde Scientist(s):		Kaplan		AVAPS Operator:					

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.

Storm: <<Milton>>

Flight ID: <<24100711>>

Mission ID: << 0714A

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	233950694	0955	23.80	92.45	1004.9	50/25	10			1
Set end of drop at 229.75.										
2	233550054	1007	22.90	92.45	1001.7	37/34	10			2
3	233950672	1021	21.86	92.44	955	205/12	10		center	4
4	233814619	1030	21.31	92.53	996	260/37	10			5
5	233950695	1045	20.18	92.62	1003	250/31	10			6
Set End of drop at 238.75.										
6	233950678	1110	20.80	90.97	1002.2	219/24	10			7
7	233540556	1124	21.37	91.70	996.9	205/42	10			8?
8	23381459	1133	21.72	92.14	956.1	190/90	10		Eyewall SE	10
9	233814439	1135	21.78	92.24	949.2	05/24	10		center	12
End of drop 0.5 earlier than ASPEN default										
10	233541305	1136	21.83	92.36	966.6	320/96	10		Eyewall NW	13
End of drop at 186.25										
11	233814441	1149	22.23	93.09	1000.2	19/39	10			14

Storm: <<Milton>>

Flight ID: <<24100711>>

Mission ID: << 0714A

12	233540566	1201	22.59	93.76	1004.6	10/28	10			15
13	233640694	1222	21.15	93.65	1004.3	322/23	10			16
14	233640669	1233	21.42	92.90	999.8	329/39	10			17
15	233640126	1249	21.65	92.08	M				Eyewall SW	19
Set heights missing. Bad RH. Winds looked fine.										
16	233410820	1251	21.75	91.99	941.2	154/12	10		Center	20
17	233950658	1253	21.79	91.89	961.3	80/105	10		Eyewall NE	21
18	233560360	1306	22.03	90.94	999.8	158/25	10			22
19	233814519	1316	22.15	90.23	1002.3	139/28	10		Last report	23
Set End of drop at 199.75										

Storm: <<Milton>>

Flight ID: <<241007I1>>

Mission ID: << 0714A

AVAPS Drop Log

Project: HX 2024

Mission: MILTON

Flight ID: 20241007IT

Take Off: 0400

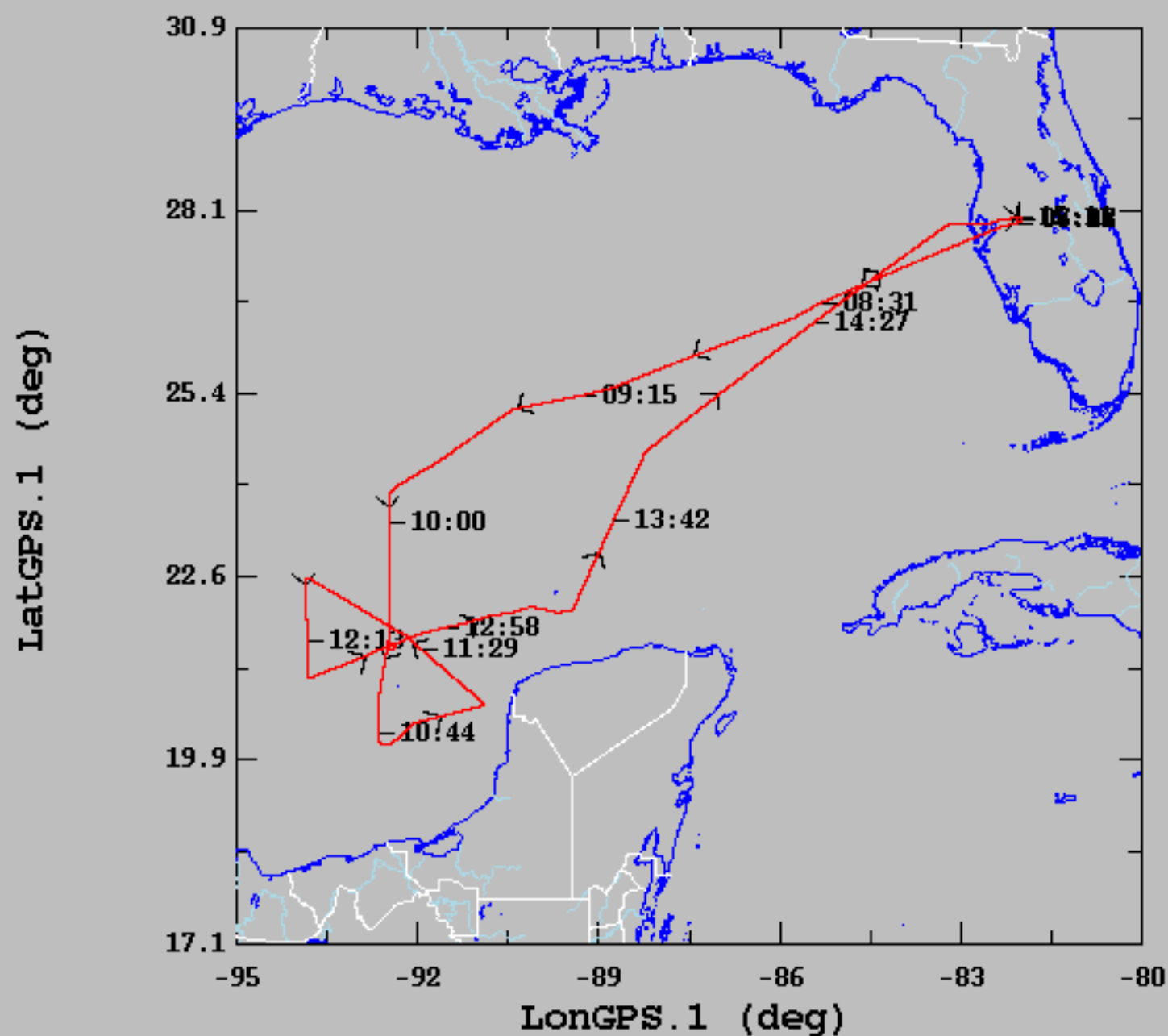
Landing:

Flt Dir: Englert

Launcher S/N:

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	233950694	1	-0.4	0955	JH	NWS	IP1	✓
2	233550054	2	-0.5	1007	JH	NWS	MP	✓
3	233950672	3	-0.2	1021	JH	NWS	CNT	✓
4	233814619	4	-0.4	1030	JH	NWS	MP	✓
5	233950695	5	-0.4	1045	JH	NWS	EP1	✓
6	233950678	1	-0.5	1110	JH	NWS	IP2	✓
7	233540556	2	-0.4	1124	JH	NWS	MP	✓
8	233814591	3	-0.4	1153	JH	NWS	Rmw	✓
9	233814439	4	-0.4	1135	JH	NWS	CNT	✓
10	233541305	5	-0.4	1136	JH	NWS	Rmw	✓
11	233814441	1	-0.4	1149	JH	NWS	MP	✓
12	233540566	2	-0.1	1201	JH	NWS	EP2	✓
13	233640694	3	-0.4	1222	JH	NWS	IP3	✓
14	233640669	4	0.1	1233	JH	NWS	MP	✓
15	233640126	1	-0.4	1249	JH	NWS	Rmw	✓
16	233410820	2	0.0	1251	JH	NWS	CNT	✓
17	233950658	3	-0.1	1253	JH	NWS	Rmw	✓
18	233560360	4	-0.5	1306	JH	NWS	MP	✓
19	233814519	5	-0.3	1316	JH	NWS	EP3	✓
20	233 172							
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								

10/07/2024, 06:17:45-15:11:38



	mean	sigma	min	max
LatGPS.1 (deg), 1 s/sec	24.58	2.70	20.13	27.99
LongGPS.1 (deg), 1 s/sec	-88.08	4.25	-93.84	-81.98