

N42RF ERROR SUMMARY
20241106H2_ES

Flight ID: 20241106H2

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/20241106H2

Local Met Data	Takeoff KLAL (2037Z)	Landing KLAL (1529Z)
Dynamic Corrections		Yes
AttackAngleIntercept		2.32804
AttackAngleSlope		6.09319
SlipAngleIntercept		0.25
SlipAngleSlope		6.641
AttackAngleIntercept2		2.06219
AttackAngleSlope2	5.99068	
SlipAngleIntercept2		0.125
SlipAngleSlope2		6.9873

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.
TDM.1 spikes toward end of flight after off station. No factor to mission data.
SFMR data (all channel TB, WS, RAIN RATE) under assessment and should be used with caution.

Expendable Type -----	# deployed -----	# good -----	# transmitted -----
Dropsondes	11	10	11
Test sondes	0	0	0
AXBTS	0	0	0
AXCPs	0	0	0
AXCTDs	0	0	0
UAS	0	0	0

Flight Director: Englert/Zawislak
Phone #: 8636064768

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:	20241106H2	FLT #:		AC:	Keith	Other Crew:	sUAS		Dropsondes		
From:	KLAL	ETD:	1530L / 2030Z	CP(s):	Taraboletti	Sim Aberson (HRD)	Type	Released	Good	Bad	Sent
To:	KLAL	ETA:	2330L / 0430Z		Ellis					10	1
Block Time		Flight Time		NAV(s):	Meier	Victoria Pizzini (UM/HRD)					
Out:	20:28	T/O:	20:37	FE(s):	Tyson		Other Expendables		Dropsonde Charge Codes		
					Wysinger		Type	Released			
In:	01:51	Land:	01:43	FD(s):	Englert				AXBTs		
					Zawislak				Good	Bad	Sent
Total:	5.4	Total:	5.1	SSA:	McAlister				0	0	0
					Dykeman						
Sponsoring Org:		NHC		IFT(s):	Vargas		Pennies		3xHU (1xCat3, 2xCat2)		
Program:		PRX					Storm ID: (i.e., AL072012)		AL182024		
Purpose:	TDR Mission			MX:	Sans Souci		Mission ID: (i.e., NOAA2 2418A SANDY)		NOAA2 1518A RAFAEL		
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	N/A	2152z	extrap 966mb	
LACK OF PRECIPITATION				X							
RELATIVE HUMIDITY ≥ 80%			X				2	N/A	2306z	extrap 966mb	
LARGE AIR-SEA TEMP GRADIENT				X							
HIGH SURFACE WINDS			X				3	N/A	0014z	extrap 969mb	
LONG FETCH / DURATION OF SFC WND				X							
SEA SALT ACCRETION FORECAST				X			4				
SEA SALT ACCRETION OBSERVED											
*Highlighted items must be completed before departure.											

P-3 QC Checklist

Overall Assessment	Minor instrument issue(s) - minimal mission impact.
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Flight ID:	20241106H2
Flight Director(s):	Englert/Zawislak
Mission:	Tasked/Operational
UWZ.d mean:	0.16

Pressure Comparison		
	Pre-flight	Post-flight
Aircraft	1008.8	-
Airfield	1008.9	-

This form uses:
_A.nc

SFMR Serial Unit	3
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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 X SFMR	SFMR	X CH 1 TB X CH 2 TB X CH 3 TB	X CH 4 TB X CH 5 TB X CH 6 TB		✓ UWZ.d ✓ PSURF X WS SFMR	✓ WS.d ✓ WD.d X RAIN RATE SFMR

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)	X
Sensor Inoperative	inop

NOTES:

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

TTM.1 spikes toward end of flight after off station. No factor to mission data.

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

AOC GPS Dropwindsonde Log (updated Mar 2019)

Flight ID: 2024110642ASPEN Operator/Flight Director(s): Vargal / EngiertMission ID: ISIYK RAFAELStorm Name/Track: RAFAEL (HX)

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	212801	50667	1	24.4	-82.8	TAG	1006.8	IP1	2139	✓✓
2	2	214128	20168	2	23.5	-82.6	↓	1001.4	MP1	2157	✓✓
3									No center sonde (over land)		
4	3	222334	50642	3	20.9	-82.6		1006.3	EP1	2231	✓✓
5	4	224024	20186	4	21.8	-81.7		1006.8	IP2	2251	✓✓
6	5	231943	10236	5	23.4	-84.0		1002.8	MP02	2343	✓✓
7	6	232852	10240	6	23.8	-84.6		1006.7	EP2	2349	✓✓
8	7	234811	30022	7	22.4	-85.0		1006.6	IP3	2358	✓✓
9	8	001824	21696	8	23.3	-83.0		✓	RMW, fast fall, didn't reach surface (reversed heights, uncalibrated etc)	0031	✓✓
10	9	001910	14542	1	23.3	-83.0		991.1	RMW	0047	✓✓
11	10	002837	20153	2	23.6	-82.4		1009.2	MP03	0054	✓✓
12	11	003955	10238	3	24.0	-81.7		1008.5	EP3 (Last report)	0107	✓✓
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ASPEN Operator will ensure this form is delivered to the AOC Flight Director to be archived

COMMENTS:

Obs
MissedObs
Missed# of sondes
launched# of bad
sondes

AVAPS Drop Log

Project: Hurricane 2024 Mission: Hx Rafael Flight ID: 20241106H2
 Take Off: 2035 UTC Landing: _____ Flt Dir: RRRi / JZ Launcher S/N: 2864

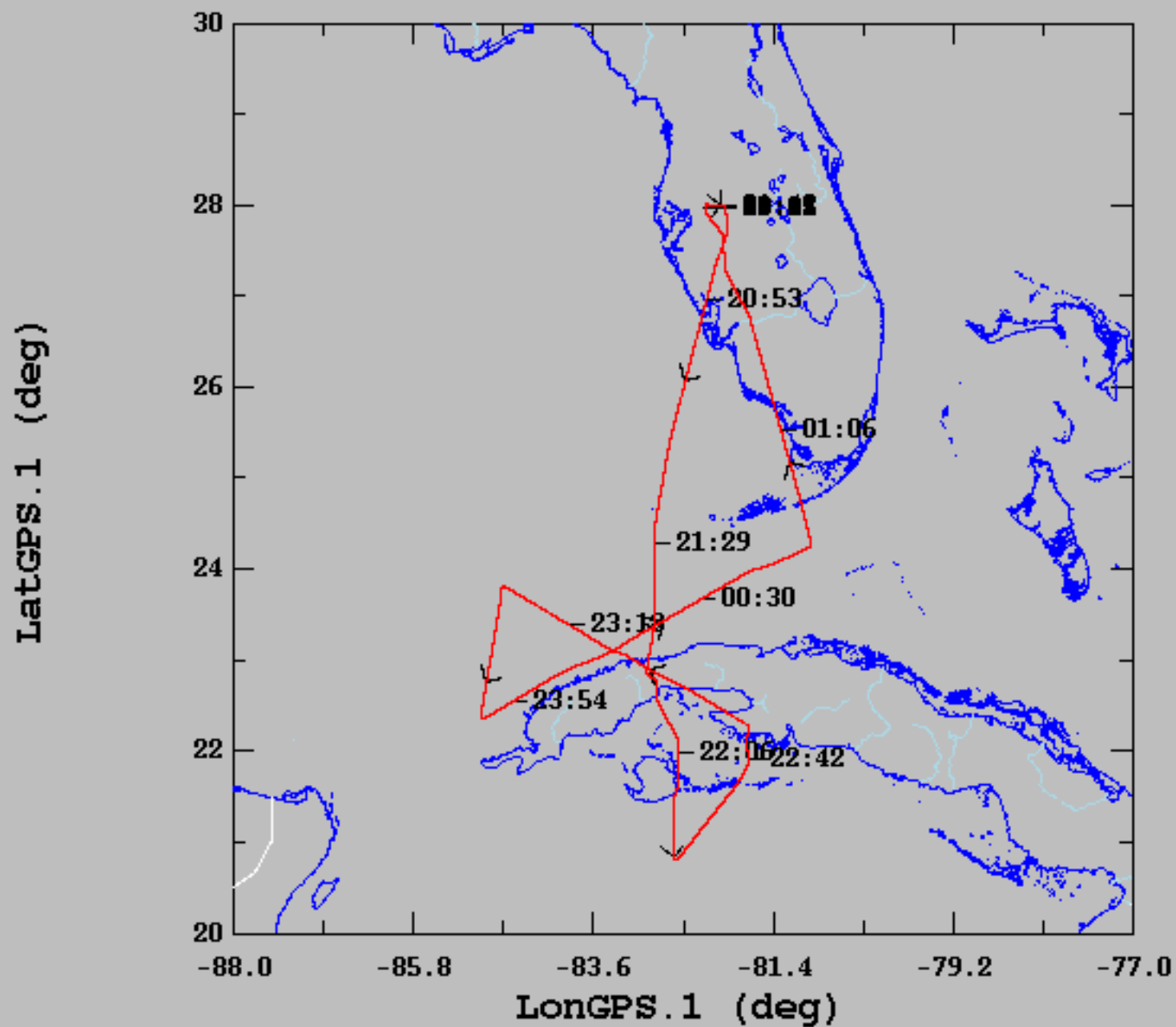
Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	233950667	1	-0.3	2128	JA	NWS	IP1	✓
2	232320168	2	-1.2	2141	JA	NWS	MP11	✓
3	233950692	3	-1.1	2223	JA	NWS	EP1	✓
4	232320186	4	-1.5	2240	JA	NWS	IP2	✓
5	232210236	5	-1.0	2319	JA	NWS	MP02	✓
6	232210240	6	-0.8	2328	JA	NWS	EP2	✓
7	231830022	7	-0.5	2348	JA	NWS	IP3	✓
8	231821696	8	-0.0	0018	JA	NWS	NOT FAST FALL BUT labeled accident	✗
9	233814542	1	-0.5	0019	JA	NWS	RMW	✓
10	232320153	2	-1.0	0028	JA	NWS	MP03	✓
11	232210238	3	-0.7	0039	JA	NWS	EP3	✓
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NOT FAST FALL
 TERMINAL
 BY OPERATOR

11 charged to NWS
 1 Fast Fall
 EARLY CUTOFF

10 good

11/06/2024, 19:05:23-25:42:52



	mean	sigma	min	max
LatGPS.1 (deg), 1 s/sec	24.90	2.37	20.81	28.00
LongGPS.1 (deg), 1 s/sec	-82.53	0.93	-84.97	-80.92