

N43RF ERROR SUMMARY
20231022I1

Flight ID: 20231022I1

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/2023/MET/20231022I1

Local Met Data	Takeoff TBPB (1302Z)	Landing TBPB (2116Z)
Dynamic Corrections		Yes
AttackAngleIntercept		0.050058
AttackAngleSlope		5.32015
SlipAngleIntercept		0.165
SlipAngleSlope		6.66754

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.

I.3 for Pitch and Roll is not operational

TTM.3 is not operational

TRadU.1 has erroneous data throughout the flight and should not be used
TDM.1 spikes between 18:56:30 and 19:00:30 UTC after the stratiform spiral, but also exhibits some oscillatory behaviour towards the top of each spiral

Though TDM.1 exhibits some different behavior during the spirals, it otherwise tracks well with TDM.2 for the rest of the flight, so both TDMs are checked good

TDM.3 has erroneous data throughout the flight and should not be used
PDALPHAref, PDBETAref, PQALPHAref, PQBETAref, and DPJ_WSZ are not provided since _AC file is not produced; all other 'C' file parameters checked are from the _A file

PDALPHA.2 (Radome), PDBETA.2 (Radome), PQALPHA.1 (Fuselage), PQM.4 (Radome) do spike, but it's during the microphysics spirals, so both checked good

Expendable Type	# deployed	# good	# transmitted
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Dropsondes	22	22	20
Test sondes	0	0	0
AXBTs	4	2	2
AXCPs	0	0	0
AXCTDs	0	0	0
UAS	1	1	0

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

ACAT-4 Version = 7.4

U.S. Department of Commerce / NOAA / OMAO / Aircraft Operations Center - N43RF Manifest

FLIGHT INFORMATION				CREW MANIFEST			MISSION INFORMATION					
FLT ID:	2023102211	FLT #:	FY24-	AC:	Doremus	Scientists:	Pressure		Dropsondes			
From:	TBPB	ETD:	0900L / 1300Z	CP(s):	Wood	Frank Marks (HRD)	A/C Takeoff	1005.8	Good	Bad	Sent	
To:	TBPB	ETA:	1630L / 2030Z		Keith	Jun Zhang (HRD)			22	0	20	
Block Time		Flight Time		NAV:	Miller	Joe Cione (HRD)	ASOS Takeoff	1005.9	BTs			
Out:	12:51	T/O:	13:03	FE(s):	Tyson	Andrew Person (Altius)			Good			Bad
In:	21:20	Land:	21:16	FD(s):	Zawislak	Patrick Sosa (Altius)	A/C Land		2	2	2	
					Lundry							
Total:	8.5	Total:	8.2	SSA:	Richards	Visitors:	ASOS Land	1003.9				
Sponsoring Org:		HX - HRD			AVAPS:	Waggoner / Patel			Storm Number ID:		AL202023	
Program:		PHX			SEB:		(ie: AL072012)					
Purpose:		Altius sUAS + HRD Modules			MX:		TCPOD/WSPOD Mission		NOAA3 WA20A TAMMY			
							(ie: NOAA2 2418A SANDY)					
AS REQUIRED BY ORM				Y	N	REMARKS	Fix Number	Obs Number	Fix Time	SLP		
VOLCANIC ASH					x	Successful Altius release	1					
SCIENCE MISSION WITHIN BDRY LAYER					x							
LACK OF PRECIPITATION					x		2					
RELATIVE HUMIDITY ≥ 80%				x								
LARGE AIR-SEA TEMP GRADIENT					x		3					
HIGH SURFACE WINDS				x								
LONG FETCH / DURATION OF SFC WND				x			4					
SEA SALT ACCRETION FORECAST					x							
SEA SALT ACCRETION OBSERVED					x							
							Pennies:	5 x CAT 1				

*Highlighted items must be completed before departure.

Remarks:

P-3 QC Checklist

Overall Assessment	Minor instrument issue(s) - no mission impact.
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Flight ID:	2023102211
Flight Director(s):	Zawislak / Lundry
Mission:	Non-tasked Science Collection/Research
UWZ.d mean:	-0.13

Pressure Comparison		
	T/O	Land
Aircraft	1005.8	No good measurement
Tower	1005.9	1003.9

	Raw 1Hz Mean File Parameters				C File Parameters	
✓ Accelerometer	✓ 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	
✓ Lat / Lon	✓ 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	✓ 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	X PDLAPHAref X PDBETAref X PQALPHAref X PQBETAref	✓ PQMref ✓ PQ.c ✓ PSMref ✓ PS.c
✓ Air Speed	✓ CasADDU.1	✓ TasADDU.1	✓ IasADDU.1		✓ IAS.d	✓ TAS.d
✓ Pitch / Roll	✓ PitchI.1 ✓ PitchI.2 X PitchI.3	✓ PitchRateI.1 ✓ PitchRateI.2 X PitchRateI.3	✓ RollI.1 ✓ RollI.2 X RollI.3	✓ RollRateI.1 ✓ RollRateI.2 X RollRateI.3	✓ PITCHref ✓ ROLLref	
✓ Temp / Dewpt	✓ TTM.1 ✓ TTM.2 X TTM.3	✓ TDM.1 ✓ TDM.2 X TDM.3	✓ TRadD.1 ✓ TRadS.1 X TRadU.1		✓ TD.c ✓ TDMref	✓ TTMref ✓ TA.d
✓ Misc. (Must check)					✓ UWZ.d X DPJ_WSZ ✓ HUM	✓ WS.d ✓ WD.d

FLID_Mission_Documents.pdf:
✓ Error Summary
✓ Crew Manifest
✓ QC Checklist
✓ Dropwindsonde Log(s) - AVAPS and FD if completed
✓ Flight Track
✓ Miscellaneous FD Notes

QC Key	
Not checked	<input type="checkbox"/>
Valid	<input checked="" type="checkbox"/>
Errors (note)	X

NOTES:
<p>I.3 for Pitch and Roll is not operational</p> <p>TTM.3 is not operational</p> <p>TRadU.1 has erroneous data throughout the flight and should not be used</p> <p>TDM.1 spikes between 18:56:30 and 19:00:30 UTC after the 2nd stratiform spiral, but also exhibits some oscillatory behaviour towards the top of each spiral</p> <p>Though TDM.1 exhibits some different behavior during the spirals, it otherwise tracks well with TDM.2 for the rest of the flight, so both TDMs are checked as good</p> <p>TDM.3 has erroneous data throughout the flight and should not be used</p> <p>PDALPHAref, PDBETAref, PQALPHAref, PQBETAref, and DPJ_WSZ are not provided since _AC file is not produced; all other 'C' file parameters checked are from the _A file</p> <p>PDALPHA.2 (Radome), PDBETA.2 (Radome), PQALPHA.1 (Fuselage), PQM.4 (Radome) do spike, but it's during the microphysics spirals, so both checked good</p>

AVAPS Drop Log

146

Project: TAMMY

Mission: 4

Flight ID: 20231022I1

Take Off: 1303 Z

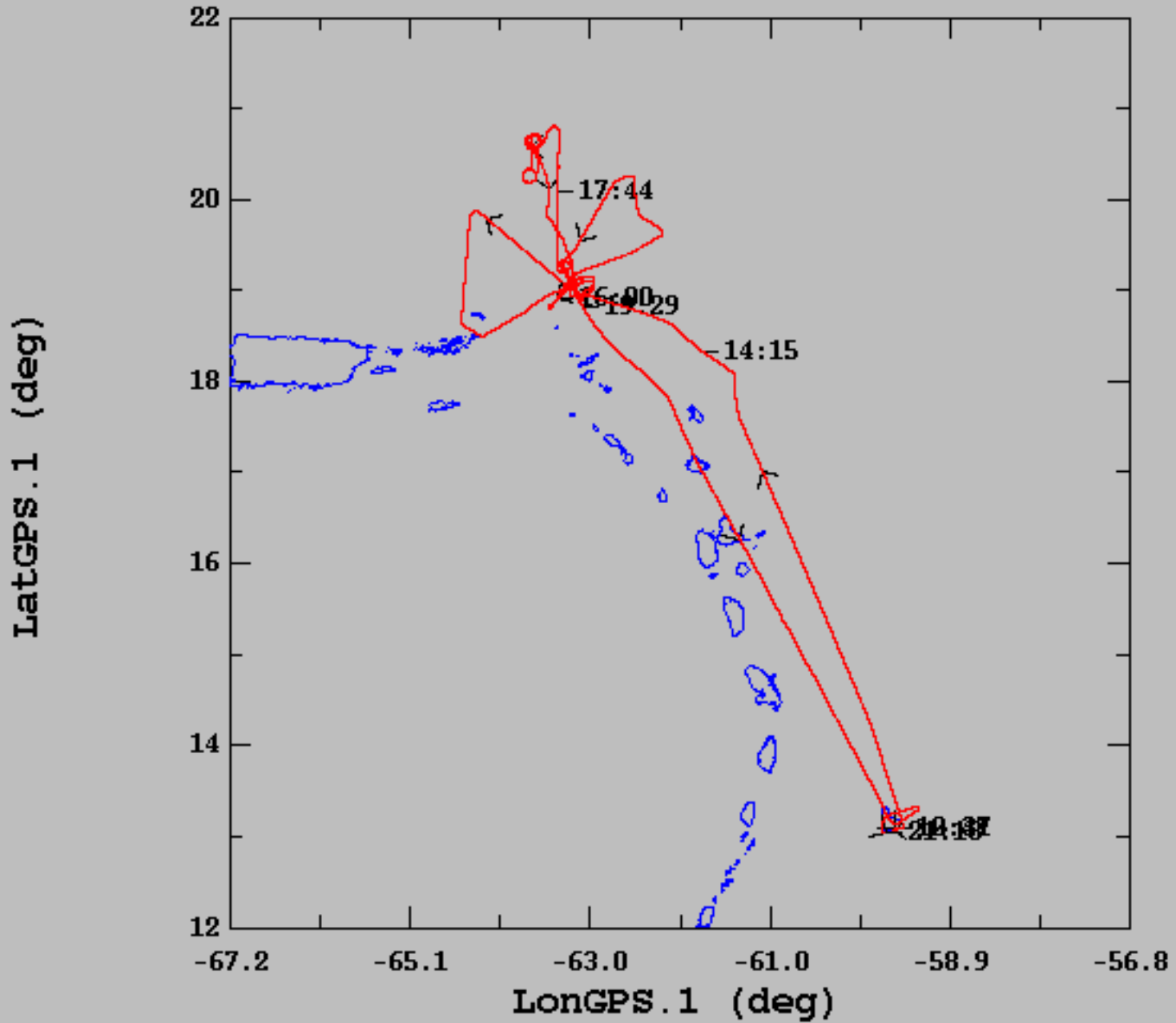
Landing: _____

Flt Dir: JZ

Launcher S/N: _____

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	221740650	1	-1.3	1414	LW	ONR	IP1	✓
2	210440180	2	-1.1	1414	LW	IR/SST	IP1	✓
3	221430460	3	-0.9	1433	LW	ONR	Rmw	✓
4	221640973	4	-0.9	1437	LW	ONR	CTR	✓
5	220610235	5	-1.4	1437	LW	IR/SST	CTR	✓
6	222010791	6	-0.5	1440	LW	ONR	Rmw	✓
7	210440199	7	-1.0	1459	LW	IR/SST	EP 1	✓
8	221950430	8	-1.3	1459	LW	ONR	EP 1	✓
9	211440633	1	-1.1	1522	ASP	IR/SST	IP2	✓
10	221740798	2	-1.0	1522	ASP	ONR	IP2	✓
11	221410025	3	-1.4	1559	ASP	BOMD	Saildrone	✓
12	213320981	4	-0.8	1559	ASP	IR/SST	Saildrone	✓
13	222231515	5	-1.3	1626	ASP	ONR	Rmw	✓
14	222021294	6	-1.4	1650	ASP	ONR	IP3	✓
15	221730339	7	-0.9	1703	ASP	ONR	Rmw	✓
16	222010120	8	-1.2	1733	ASP	ONR	(center ^{cu})	✓
17	221640976	1	-1.0	1737	ASP	ONR	Rmw	✓
18	221950432	2	-0.9	1815	LW	ONR	Spiral	✓
19	221830750	3	-0.9	1846	LW	ONR	Spiral	✓
20	221410021	4	-0.9	1927	LW	ONR	EP3	✓
21	221350537	5	-1.2	2100	LW	ONR		✓
22	222030349	6	-1.2	2101	LW	ONR		✓
23								
24								
25								
26								
27								
28								
29								
30								
31								

10/22/2023, 10:47:08-21:13:29



	mean	sigma	min	max
— LatGPS.1 (deg), 1 s/sec	17.07	2.86	13.05	20.80
— LongGPS.1 (deg), 1 s/sec	-61.80	1.78	-64.53	-59.21