

N42RF ERROR SUMMARY
20230814H1

Flight ID: 20230814H1

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/2023/MET/20230814H1

Local Met Data	Takeoff KLAL (2102Z)	Landing KLAL (1650Z)
Dynamic Corrections		Yes
AttackAngleIntercept		2.305
AttackAngleSlope		6.07576
SlipAngleIntercept		0.235
SlipAngleSlope		7.01112
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.

I.3 for Pitch and Roll is not operational.

TRadU.1 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.

GPS.4 parameters inop for duration of flight

PQM.1 has large negative spikes between 2201 - 2202

TDM.1 has large oscillations throughout flight

TTM.3 & TDM.3 inop

Expendable Type -----	# deployed -----	# good -----	# transmitted -----
Dropsondes	4	4	4
Test sondes	0	0	0

AXBTS	0	0	0
AXCPs	0	0	0
AXCTDs	0	0	0
UAS	0	0	0

Flight Director: KALEN
Phone #: 863-500-3962

ACAT-4 Version = 7.4

U.S. Department of Commerce / NOAA / OMAO / Aircraft Operations Center - N42RF Manifest

FLIGHT INFORMATION				CREW MANIFEST			MISSION INFORMATION				
FLT ID:	20230814H1	FLT #:		AC:	COPARE	Scientists:	Pressure		Dropsondes		
From:	KLAL	ETD:	2100Z	CP(s):	RANNENBERG		A/C Takeoff		Good	Bad	Sent
To:	KLAL	ETA:	0100Z					4	0	4	
Block Time		Flight Time		NAV:	HOUGH		ASOS Takeoff		BTs		
In:	1:03	Land:	0:52	FE(s):	GEE		A/C Land		Good	Bad	Sent
Out:	20:55	T/O:	21:03	FD(s):	KALEN		ASOS Land		0	0	0
Total:	4.1	Total:	3.8	SSA:	MCALISTER	Visitors:					
				AVAPS:	KOTZ						
Sponsoring Org:	AOC			SEB:			Storm Number ID:		N/A		
Program:	PSM						(ie: AL072012)				
Purpose:	SFMR CAL							TCPD/WSPD Mission		WXWXA TRAIN	
				MX:			(ie: NOAA2 2418A SANDY)				
AS REQUIRED BY ORM				Y	N	REMARKS	Fix Number	Obs Number	Fix Time	SLP	
VOLCANIC ASH					X		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:				
						*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:	20230814H1	Pressure Comparison		
Flight Director(s):	Kalen		T/O	Land
Mission:	Equipment Checkout	Aircraft	1011.9	-
UWZ.d mean:	0.11	Tower	1012.3	-

	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	✗ PDLAPHAref ✗ PDBETAref ✗ PQALPHAref ✗ 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 ✗ PitchI.3	✓ PitchRatel.1 ✓ PitchRatel.2 ✗ PitchRatel.3	✓ RollI.1 ✓ RollI.2 ✗ RollI.3	✓ RollRatel.1 ✓ RollRatel.2 ✗ RollRatel.3	✓ PITCHref ✓ ROLLref	
✓ Temp / Dewpt	✓ TTM.1 ✓ TTM.2 ✗ TTM.3	✓ TDM.1 ✓ TDM.2 ✗ TDM.3	✓ TRadD.1 ✓ TRadS.1 ✗ TRadU.1		✓ TD.c ✓ TDMref	✓ TTMref ✓ TA.d
✓ Misc. (Must check)					✓ UWZ.d ✗ 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	☐
Valid	✓
Errors (note)	✗

NOTES:
I.3 for Pitch and Roll is not operational. TRadU.1 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. GPS.4 parameters inop for duration of flight PQM.1 has large negative spikes between 2201 - 2202 TDM.1 has large oscillations throughout flight TTM.3 & TDM.3 inop

AVAPS Drop Log

Project: _____

Mission: SEMR CAL

Flight ID: 20230814H1

Take Off: 1700

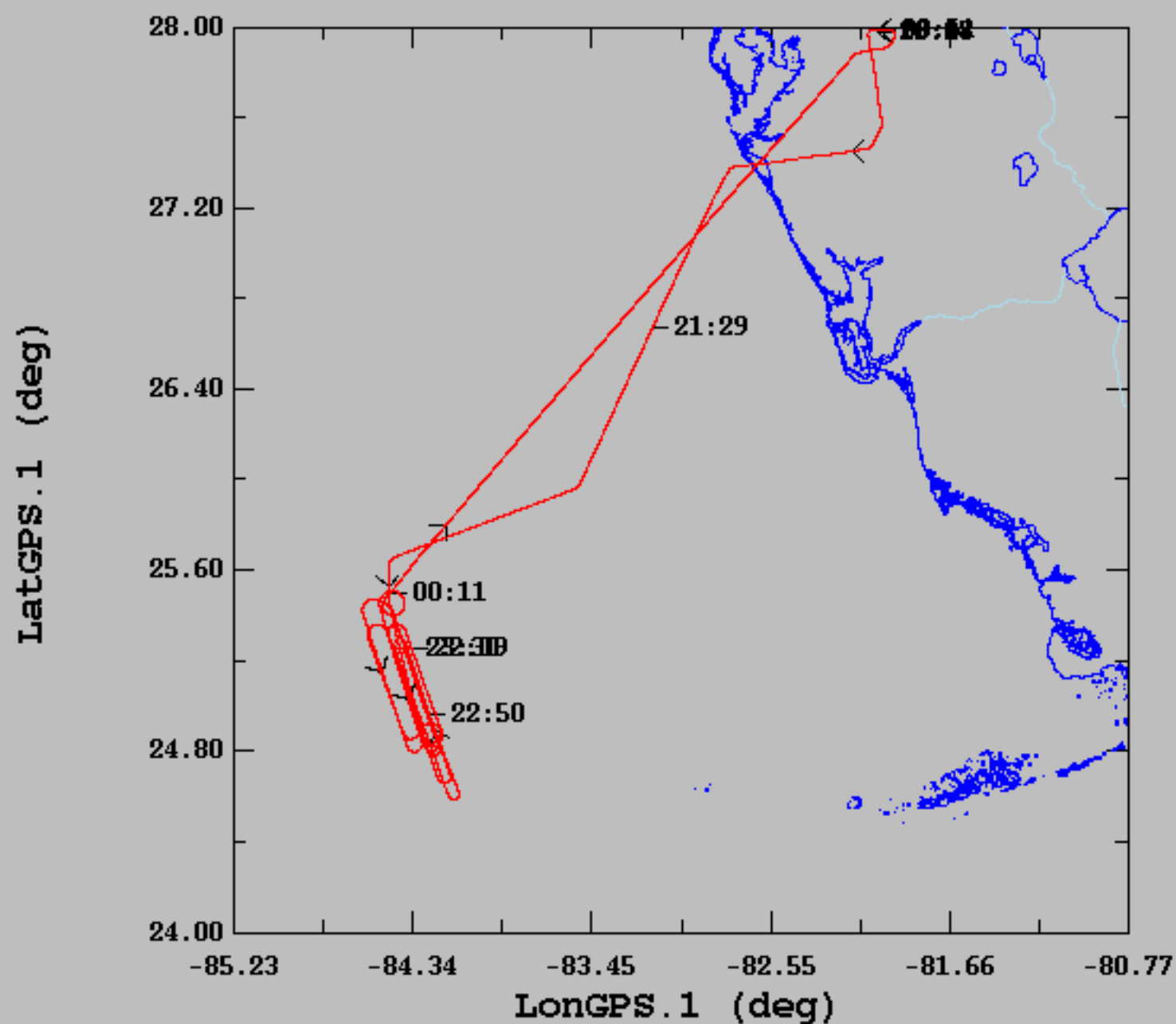
Landing: _____

Flt Dir: K.Q.

Launcher S/N: _____

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	151325160	1	-1.9	2155:35	HK	MS		✓
2	161545124	2	-2.1	2228:34	HK	MS		✓
3	151325157	3	-2.1	2252:01	HK	MS		✓
4	160745059	4	-2.1	2340:08	HK	MS		
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08/14/2023, 18:47:39-24:51:30



	mean	sigma	min	max
LatGPS.1 (deg), 1 s/sec	26.57	1.34	24.59	27.99
LongGPS.1 (deg), 1 s/sec	-83.17	1.08	-84.58	-81.93