

N42RF ERROR SUMMARY
20240521H1

Flight ID: 20240521H1

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/20240521H1

Local Met Data	Takeoff KLAL (2202Z)	Landing KLAL (0215Z)
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, TTM.3, and TDM.3 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 _BC file is not produced; all other "C" file parameters checked are from the _B file.
PDALPHA.2 and PDBETA.2 inop
PQM.4 unrepresentative
TTM.3 inop
TDM.3 inop
Flight was for SFMR Calibration and Scientific Systems Shakedown - data should not be used for research purposes

Expendable Type -----	# deployed -----	# good -----	# transmitted -----
Dropsondes	4	4	1
Test sondes	0	0	0

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

Flight Director: KALEN / ZAWISLAK

Phone #: 860-500-3962

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:	20240521H1	FLT #:		AC:	Rannenberg	Scientists:	Pressure		Dropsondes		
From:	KLAL	ETD:	2200Z	CP(s):	Taraboletti		A/C Takeoff		Good	Bad	Sent
To:	KLAL	ETA:	0300Z						4	0	1
Block Time		Flight Time		NAV:	Meier		ASOS Takeoff		BTs		
In:	2:22	Land:	2:16	FE(s):	Tyson				Good	Bad	Sent
Out:	21:52	T/O:	22:02	FD(s):	Dittoe		A/C Land		-	-	-
					Kalen						
Total:	4.5	Total:	4.2	SSA:	McAlister	Visitors:	ASOS Land				
Sponsoring Org:		AOC		AVAPS:	Keller	Ellis (OBS)	Storm Number ID:		N/A		
Program:		PSM			Kotz (IFT)		(ie: AL072012)				
Purpose:		SFMR Calibration		SEB:			TCPD/WSPD Mission		NOAA2 WXWXA TRAIN		
							(ie: NOAA2 2418A SANDY)				
				MX:			OBSERVATIONS				
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								
RELATIVE HUMIDITY ≥ 80%				x			2				
LARGE AIR-SEA TEMP GRADIENT				x							
HIGH SURFACE WINDS				x							
LONG FETCH / DURATION OF SFC WND				x			3				
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	Major instrument issue(s) - significant mission impact.
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Flight ID:	20240521H1
Flight Director(s):	KALEN / ZAWISLAK
Mission:	Tasked/Operational
UWZ.d mean:	0.01

Pressure Comparison		
	Pre-flight	Post-flight
Aircraft	1007.6	1011.0
Airfield	1007.3	1009.9

This form uses:
_B.nc

SFMR Serial Unit	#	2
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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	✓ AltRA1.c		✓ ALTPA.d	✓ ALTGA.d	
	✓ AltGPS.4	✓ AltRA2.c		✓ ALTGA.d		
✓ 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	
	inop PDALPHA.2	✓ PQBETA.1	✓ PQM.2	✓ PSM.2	✓ PQ.c	
	✓ PDBETA.1		✓ PQM.3	✓ PTM.1	✓ PSMref	
	inop 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	✓ 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	x TRadU.1		✓ HUM	
✓ Wind and Pressure		x CH 1 TB	x CH 4 TB		✓ UWZ.d	✓ WS.d
✓ SFMR	SFMR	x CH 2 TB	x CH 5 TB		✓ PSURF	✓ WD.d
		x CH 3 TB	x CH 6 TB		x WS SFMR	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:

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AVAPS Drop Log

Project: Cal Flights

Mission: Day 2

Flight ID: 20240521H1

Take Off: _____

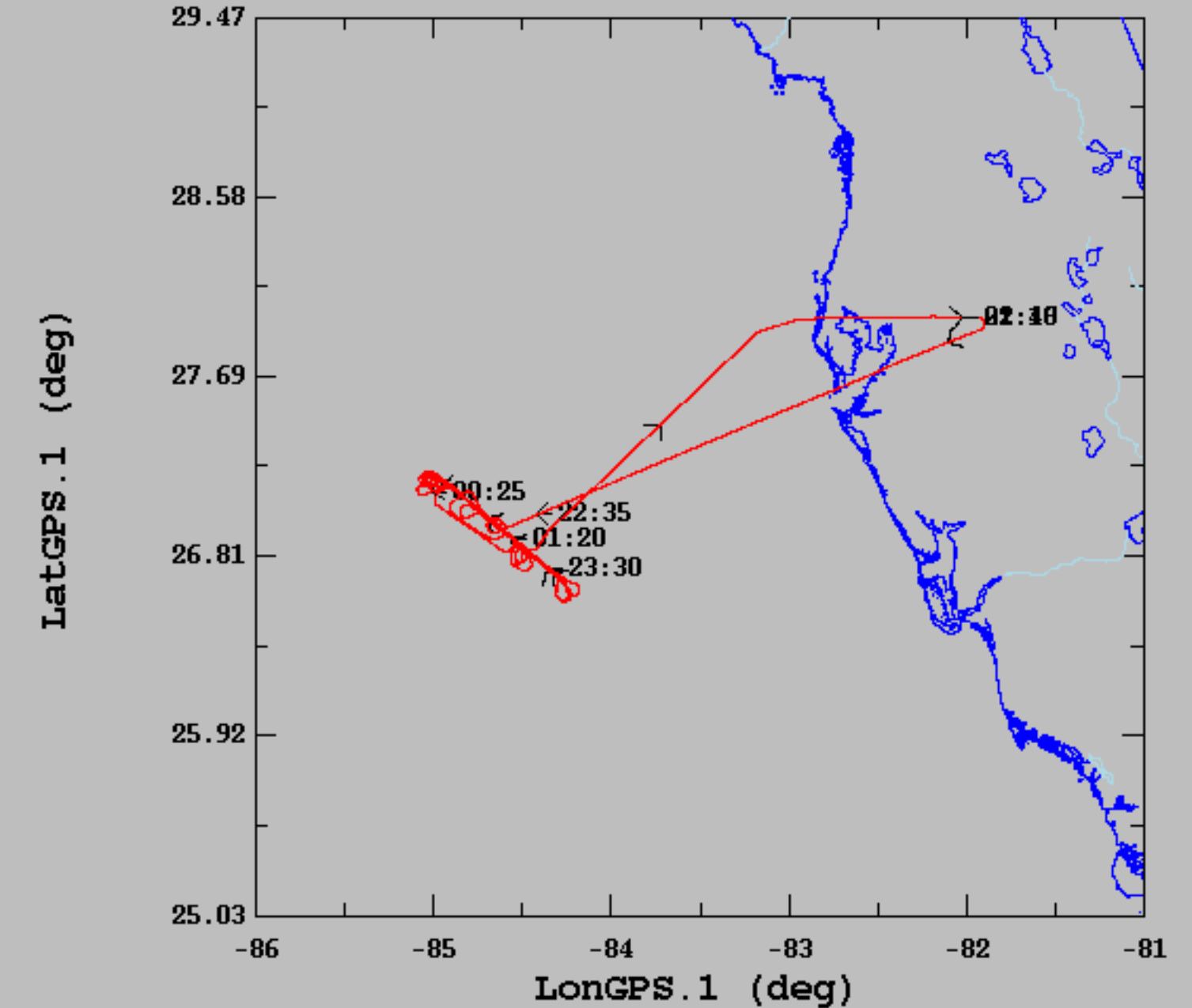
Landing: _____

Flt Dir: Kalen

Launcher S/N: _____

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	221836438	1	-0.6	2322	RK	AOC		✓
2	221830928	2	-2.0	2342	RK	AOC		✓
3	222520351	1	-0.3	0010	HK	AOC		✓
4	222520351	2	-0.2	0113	HK	AOC		✓
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05/21/2024, 21:40:14-26:16:08



	mean	sigma	min	max
LatGPS.1 (deg), 1 s/sec	27.21	0.42	26.58	27.99
LongGPS.1 (deg), 1 s/sec	-84.06	0.99	-85.09	-81.89