N49RF ERROR SUMMARY
20231214N1

Flight ID: 20231214N1

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	AccZI.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/20231214N1

Local Met Data	Takeoff PHNL (1937Z)	Landing PHNL (0244Z)
Dynamic Corrections		Yes
AttackAngleIntercept		4.95911
AttackAngleSlope		5.43613
SlipAngleIntercept		1.06
SlipAngleSlope		6.97813
AttackAngleIntercept2		5.05753
AttackAngleSlope2		5.52397
SlipAngleIntercept2		0.931
SlipAngleSlope2		6.57562

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.

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.
All dew point and humidities suspect
AltRA.1 inop
AltGPS.1 and .2 stair step
AltI.3 trending a few meters high

Expendable Type	# deployed	# good	# transmitted
Dropsondes	31	30	30
Test sondes	0	0	0
AXBTs	0	0	0
AXCPs	0	0	0

AXCTDs	0	0	0
UAS	0	0	0

Flight Director: KALEN / DE SOLO
Phone #: 863-500-3962

ACAT-4 Version = 7.4

U.S. Department of Commerce / NOAA / OMAO / Aircraft Operations Center - N49RF Manifest

FLIGHT INFORMATION

FLT ID:	20231214N1	**FLT #:**	
From:	PHNL	**ETD:**	1930Z
To:	PHNL	**ETA:**	0244Z
Block Time		**Flight Time**	
In:	2:49	Land:	2:44
Out:	19:24	T/O:	19:38
Total:	7.4	Total:	7.1
Sponsoring Org:			
Program:	PAR		
Purpose:	ATMOSPHERIC RIVERS		

CREW MANIFEST

AC:	WADDINGTON	**Scientists:**
CP(s):	PAWLENKO	
NAV:		
FE(s):		
FD(s):	KALEN	
	DE SOLO	
SSA:	DEFEO / DYKEMAN	**Visitors:**
AVAPS:	KELLER	
SEB:		
MX:		

MISSION INFORMATION

Pressure		**Dropsondes**		
		Good	Bad	Sent
A/C Takeoff		30	1	30
ASOS Takeoff		**BTs**		
		Good	Bad	Sent
A/C Land		-	-	-
ASOS Land				

Storm Number ID: (ie: AL072012)	N/A
TCPOD/WSPOD Mission (ie: NOAA2 2418A SANDY)	NOAA9 09WSC IOP09

OBSERVATIONS

Fix Number	Obs Number	Fix Time	SLP
1			
2			
3			
4			
Pennies:			

AS REQUIRED BY ORM	**Y**	**N**
VOLCANIC ASH		x
SCIENCE MISSION WITHIN BDRY LAYER		x
LACK OF PRECIPITATION	X	
RELATIVE HUMIDITY ≥ 80%		x
LARGE AIR-SEA TEMP GRADIENT		x
HIGH SURFACE WINDS		x
LONG FETCH / DURATION OF SFC WND		x
SEA SALT ACCRETION FORECAST		x
SEA SALT ACCRETION OBSERVED		x

REMARKS

*Highlighted items must be completed before departure.

Remarks:

G-IV QC Checklist

Overall Assessment	Minor instrument issue(s) - no mission impact.

Flight ID:	20231214N1
Flight Director(s):	KALEN / DE SOLO
Mission:	Tasked/Operational
UWZ.d mean:	0.19

Pressure Comparison		
	T/O	Land
Aircraft	1019.3	-
Tower	1018.9	-

	Raw 1Hz Mean File Parameters				C File Parameters	
✓ Accelerometer	✓ AccAXI.1	✓ AccAYI.1	✓ AccAZI.1	✓ AccZI.1	✓ AccZref	
	✓ AccAXI.2	✓ AccAYI.2	✓ AccAZI.2	✓ AccZI.2		
	✓ AccAXI.3	✓ AccAYI.3	✓ AccAZI.3	✓ AccZI.3		
✓ Altitude	✓ AltGPS.1	✓ AltI.1	✓ AltPaADDU.1	✓ AltBCADDU.1	✓ ALTref	
	✓ AltGPS.2	✓ AltI.2	✓ AltPaADDU.2	✓ AltBCADDU.2	✓ ALTPA.d	
	✓ AltGPS.3	✓ AltI.3	x AltRA.1		✓ ALTGA.d	
✓ Ground Speed	✓ GsXI.1	✓ GsYI.1	✓ GsZI.1	✓ GsGPS.1	✓ GSXref	
	✓ GsXI.2	✓ GsYI.2	✓ GsZI.2	✓ GsGPS.2	✓ GSYref	
	✓ GsXI.3	✓ GsYI.3	✓ GsZI.3		✓ GSZref	
	✓ GsXGPS.1	✓ GsYGPS.1	✓ GsZGPS.1			
	✓ GsXGPS.2	✓ GsYGPS.2	✓ GsZGPS.2			
✓ Lat / Lon	✓ LatGPS.1	✓ LatI.1	✓ LonGPS.1	✓ LonI.1	✓ LATref	
	✓ LatGPS.2	✓ LatI.2	✓ LonGPS.2	✓ LonI.2	✓ LONref	
	✓ LatGPS.3	✓ LatI.3	✓ LonGPS.3	✓ LonI.3		
✓ Pressure	✓ PDALPHA.1	✓ PQALPHA.1	✓ PQM.1	✓ PSM.1	✓ PDLAPHAref	✓ PQMref
	✓ PDALPHA.2	✓ PQALPHA.2	✓ PQM.2	✓ PSM.2	✓ PDBETAref	✓ PQ.c
	✓ PDBETA.1	✓ PQBETA.1			✓ PQALPHAref	✓ PSMref
	✓ PDBETA.2	✓ PQBETA.2			✓ PQBETAref	✓ PS.c
✓ Air Speed	✓ CasADDU.1	✓ TasADDU.1			✓ IAS.d	✓ TAS.d
✓ Pitch / Roll	✓ PitchI.1	✓ PitchRateI.1	✓ RollI.1	✓ RollRateI.1	✓ PITCHref	
	✓ PitchI.2	✓ PitchRateI.2	✓ RollI.2	✓ RollRateI.2	✓ ROLLref	
	✓ PitchI.3	✓ PitchRateI.3	✓ RollI.3	✓ RollRateI.3		
✓ Temp / Dewpt	✓ TTM.1	✓ TTM.4	✓ TDM.1		✓ TD.c	✓ TTMref
	x TTM.2		✓ TDM.2		✓ TDMref	✓ TA.d
	✓ TTM.3					
✓ Misc. (Must check)					✓ UWZ.d	✓ WS.d
					✓ DPJ_WSZ	✓ WD.d
					✓ HUM	

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)	x

NOTES:

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.

All dew point and humidities suspect

AltRA.1 inop

AltGPS.1 and .2 stair step

AltI.3 trending a few meters high

AOC GPS Dropwindsonde Log (updated June 2023)

Flight ID: 20231214N1 ASPEN Operator/Flight Director(s): KALEN / DE SOLO

Mission ID: NOAA9 09WSC IOP09 Storm Name/Track: ATMOSPHERIC RIVERS MISSION 7 PG 1 of 1

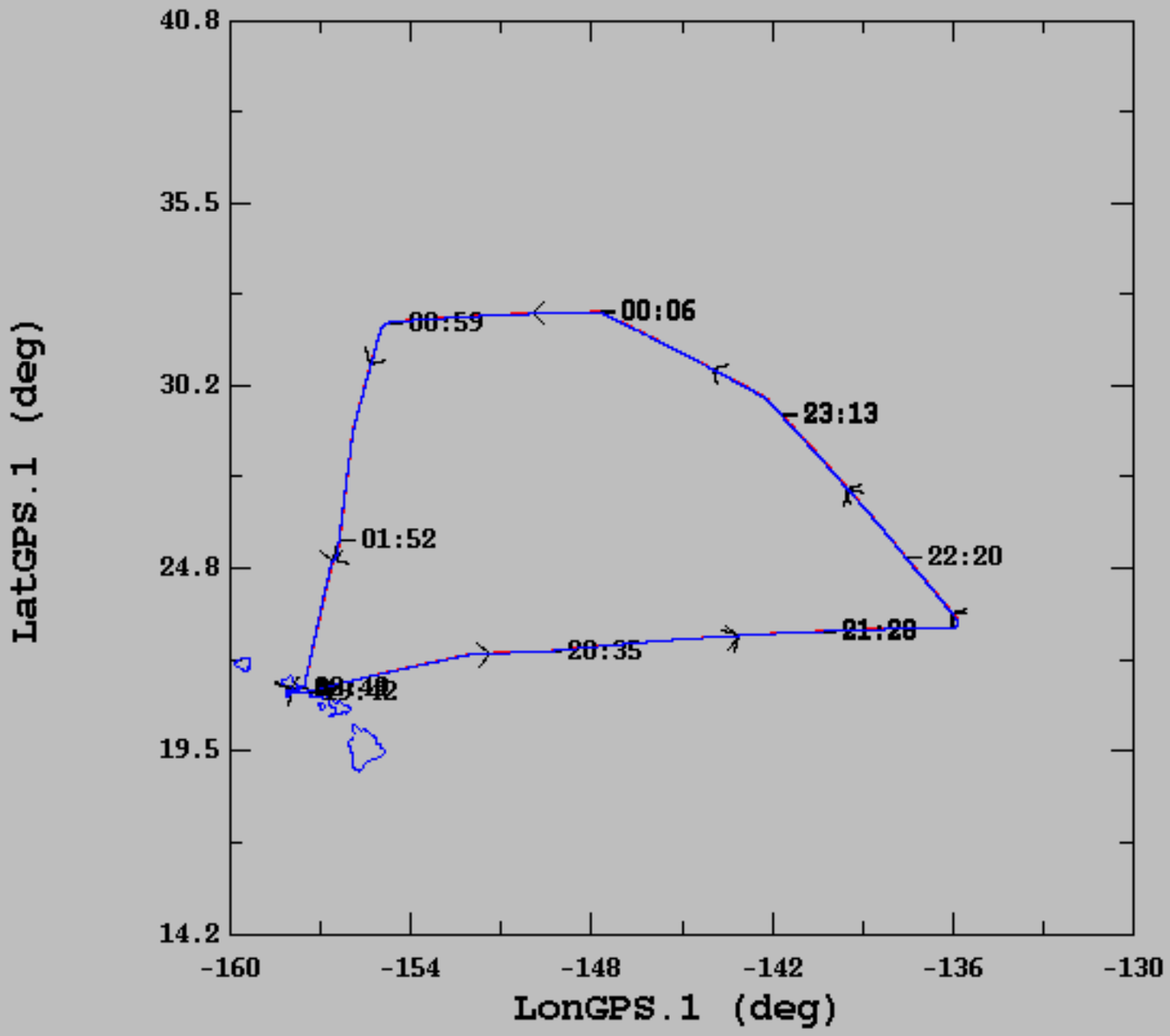
Sonde #	Ob #	Launch Time HHMMSS (Z)	Sonde ID (min last 5)	Ch # used	Lat (ºN)	Lon (ºW)	Prominent Wx Cond.	SFC Prs (mb)	Comments / Issues / QC / ASPEN Edits	KWBC #	Sonde Issues?
1	1	203455	10131	1	22.40	-149.57	FEW	1015.4	NO SFC WINDS	42111	Y
2	2	204208	10156	2	22.51	-148.32	FEW	1014.0		42119	N
3	3	204923	50803	3	22.61	-147.05	CLR	1012.2		42122	N
4	4	205641	10148	4	22.71	-145.77	CLR	1011.1		42127	N
5	5	210354	10132	1	22.80	-144.51	CLR	1010.7		42136	N
6	-	-	30965	2	-	-	CLR	-	NO LAUNCH DETECT	-	Y
7	6	211154	51199	3	22.87	-143.13	CLR	1010.4		42145	N
8	7	211844	50818	4	22.93	-141-96	BKN	1010.1		42148	N
9	8	212612	30967	1	22.98	-140.70	OVC	1010.3		42152	N
10	9	213350	20818	2	23.03	-139.41	CLR	1010.0		42155	N
11	10	214128	20801	3	23.06	-138.13	BKN	1010.5		42159	N
12	11	214904	40184	4	23.08	-136.86	FEW	1010.4		42208	N
13	12	215551	51155	1	23.20	-135.80	BKN	1011.6		42212	N
14	13	220633	50817	2	24.07	-136.50	CLR	1011.1		42225	N
15	14	221938	50277	3	25.04	-137.42	BKN	1008.9		42241	N
16	15	223232	10061	4	26.01	-138.34	BKN	1007.6		42253	N
17	16	224452	50814	1	26.97	-139.29	BKN	1005.9		42302	N
18	17	225637	10143	2	27.92	-140.24	FEW	1004.0	NO SURFACE WINDS	42315	Y
19	18	230819	10121	3	28.87	-141.22	OVC	1002.3		42325	N
20	19	231931	51197	4	29.80	-142.21	OVC	1003.5		42342	N
21	20	233120	20814	1	30.45	-143.56	OVC	1005.2		42351	N
22	21	234306	40009	2	31.08	-144.92	OVC	1007.5		50009	N
23	22	235438	51018	3	31.70	-146.31	BKN	1010.7	NO SURFACE WINDS	50016	Y
24	23	000618	30288	4	32.29	-147.72	BKN	1013.6		50031	N
25	24	001637	20661	1	32.26	-149.14	BKN	1015.5		50041	N
26	25	002716	10161	2	32.23	-150.59	BKN	1017.3		50045	N
27	26	003806	10128	3	32.16	-152.04	BKN	1020.5		50055	N
28	27	004855	50994	4	32.08	-153.47	OVC	1020.6		50105	N
29	28	005942	50893	1	31.91	-154.83	FEW	1024.3	NO SURFACE WINDS	50118	Y
30	29	011256	20799	2	30.37	-155.42	BKN	1022.4		50137	N
31	30	012611	41333	3	28.78	-155.90	OVC	1022.6	LAST REPORT	50144	N
32											
33											
34											
35											
36											
37											
38											

ASPEN Operator will ensure this form is delivered to the AOC Flight Director to be archived

COMMENTS:

Obs Xmitted 30 Obs Missed 0 # of sondes launched 31 # of bad sondes 1

12/14/2023, 18:49:45-26:44:50



	mean	sigma	min	max
LatGPS.1 (deg), 1 s/sec	25.74	4.00	21.12	32.30
LonGPS.1 (deg), 1 s/sec	-149.15	7.50	-158.10	-135.79
LatI.1 (deg), 1 s/sec	25.76	4.00	21.14	32.31
LonI.1 (deg), 1 s/sec	-149.13	7.49	-158.10	-135.78