

N49RF ERROR SUMMARY
20220126N1

Flight ID: 20220126N1

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.1
INE Selection	1
Differential Attack Pressure Probe	PDALPHA.2
Differential Sideslip Pressure Probe	PDBETA.2
Dynamic Attack Pressure Probe	PQALPHA.2
Dynamic Sideslip Pressure Probe	PQBETA.2

Flight Directory acdata/2022/MET/20220126N1

Local Met Data	Takeoff PHNL (1908Z)	Landing PHNL (0229Z)
Dynamic Corrections		Yes
AttackAngleIntercept		6.4652
AttackAngleSlope		7.59375
SlipAngleIntercept		0.925
SlipAngleSlope		6.56381
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.

Data system failure between 2151Z and 2204Z affects all quantities. AltRa.1 failure ~0109Z. TTM.2 unavailable. TDM.1 and TDM.2 require calibration. All moisture quantities should be considered unreliable.

Expendable Type -----	# deployed -----	# good -----	# transmitted -----
Drosondes	31	30	30
Test sondes	0	0	0
AXBts	0	0	0
AXCPs	0	0	0
AXCTDs	0	0	0

UAS	0	0	0
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Flight Director: Carpenter / Kalen
Phone #: 863-500-3901

ACAT-4 Version = 7.4

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

FLIGHT INFORMATION				CREW MANIFEST			MISSION INFORMATION				
FLT ID:	20220126N1	FLT #:	22-	AC:	Waddington	Scientists:	Pressure		Dropsondes		
From:	PHNL	ETD:	1900Z	CP(s):	Varwig		A/C Takeoff	1017.8	Good	Bad	Sent
To:	PHNL	ETA:	0230Z		de Triquet		ASOS Takeoff	PHNL 1905Z 1017.5 mb	30	1	30
Block Time		Flight Time		NAV:			ASOS Land	1015.4	BTs		
In:	2:34	Land:	2:30	FE(s):			A/C Land	1015.4	Good	Bad	Sent
Out:	18:49	T/O:	19:09	FD(s):	Carpenter	Visitors:	ASOS Land	PHNL 0230Z 1014.5 mb	0	0	0
Total:	7.8	Total:	7.4	SSA:	Miller		Storm Number ID:	N/A			
Sponsoring Org:		NWS / OAR			AVAPS:	Paul	(ie: AL072012)		NOAA9 01WSC IOP04		
Program:		PAR			SEB:		TCPOD/WSPOD Mission				
Purpose:		A.R. Mission 1 - IOP 14			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:	N/A			

*Highlighted items must be completed before departure.

Remarks:

G-IV QC Checklist

Overall Assessment	Major instrument issue(s) - significant mission impact.
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Flight ID:	20220126N1	Pressure Comparison		
Flight Director(s):	Carpenter / Kalen		T/O	Land
Mission:	Tasked/Operational	Aircraft	1017.8	1015.4
UWZ.d mean:	0.15	Tower	PHNL 1905Z 1017.5 mb	PHNL 0230Z 1014.5 mb

	Raw 1Hz Mean File Parameters					C File Parameters	
✓ Accelerometer	✓ AccAXI.1 ✓ AccAXI.2 ✓ AccAXI.3	✓ AccAYI.1 ✓ AccAYI.2 ✓ AccAYI.3	✓ AccAZI.1 ✓ AccAZI.2 ✓ AccAZI.3	✓ AccZI.1 ✓ AccZI.2 ✓ AccZI.3		✓ AccZref	
✓ Altitude	✓ AltGPS.1 ✓ AltGPS.2 ✗ AltGPS.3	✓ AltI.1 ✓ AltI.2 ✓ AltI.3	✓ AltPaADDU.1 ✓ AltPaADDU.2 ✗ AltRA.1	✓ AltBCADDU.1 ✓ AltBCADDU.2		✓ ALTref ✓ ALTPA.d ✓ ALTGA.d	
✓ Ground Speed	✓ GsXI.1 ✓ GsXI.2 ✓ GsXI.3 ✓ GsXGPS.1 ✓ GsXGPS.2	✓ GsYI.1 ✓ GsYI.2 ✓ GsYI.3 ✓ GsYGPS.1 ✓ GsYGPS.2	✓ GsZI.1 ✓ GsZI.2 ✓ GsZI.3 ✓ GsZGPS.1 ✓ GsZGPS.2	✓ GsGPS.1 ✓ GsGPS.2		✓ GSXref ✓ GSYref ✓ GSZref	
✓ Lat / Lon	✓ LatGPS.1 ✓ LatGPS.2 ✗ LatGPS.3	✓ LatI.1 ✓ LatI.2 ✓ LatI.3	✓ LonGPS.1 ✓ LonGPS.2 ✗ LonGPS.3	✓ LonI.1 ✓ LonI.2 ✓ LonI.3		✓ LATref ✓ LONref	
✓ Pressure	✓ PDALPHA.1 ✓ PDALPHA.2 ✓ PDBETA.1 ✓ PDBETA.2	✓ PQALPHA.1 ✓ PQALPHA.2 ✓ PQBETA.1 ✓ PQBETA.2	✓ PQM.1 ✓ PQM.2	✓ PSM.1 ✓ PSM.2		✓ PDLAPHaref ✓ PDBETAref ✓ PQALPHaref ✓ PQBETAref	✓ PQMref ✓ PQ.c ✓ PSMref ✓ PS.c
✓ Air Speed	✓ CasADDU.1	✓ TasADDU.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	✓ TTM.4	✗ TDM.1 ✗ TDM.2			✓ 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:
Data system failure 2151Z until 2204Z. Affects all quantities. AltRa.1 failure ~0109Z. TTM.2 unavailable. TDM.1 and TDM.2 require calibration. All moisture quantities unreliable. Pressure transducers and wind quantities unreliable 2150-2210Z due to spikes in pressure transducers.

AOC GPS Dropwindsonde Log (updated Mar 2019)

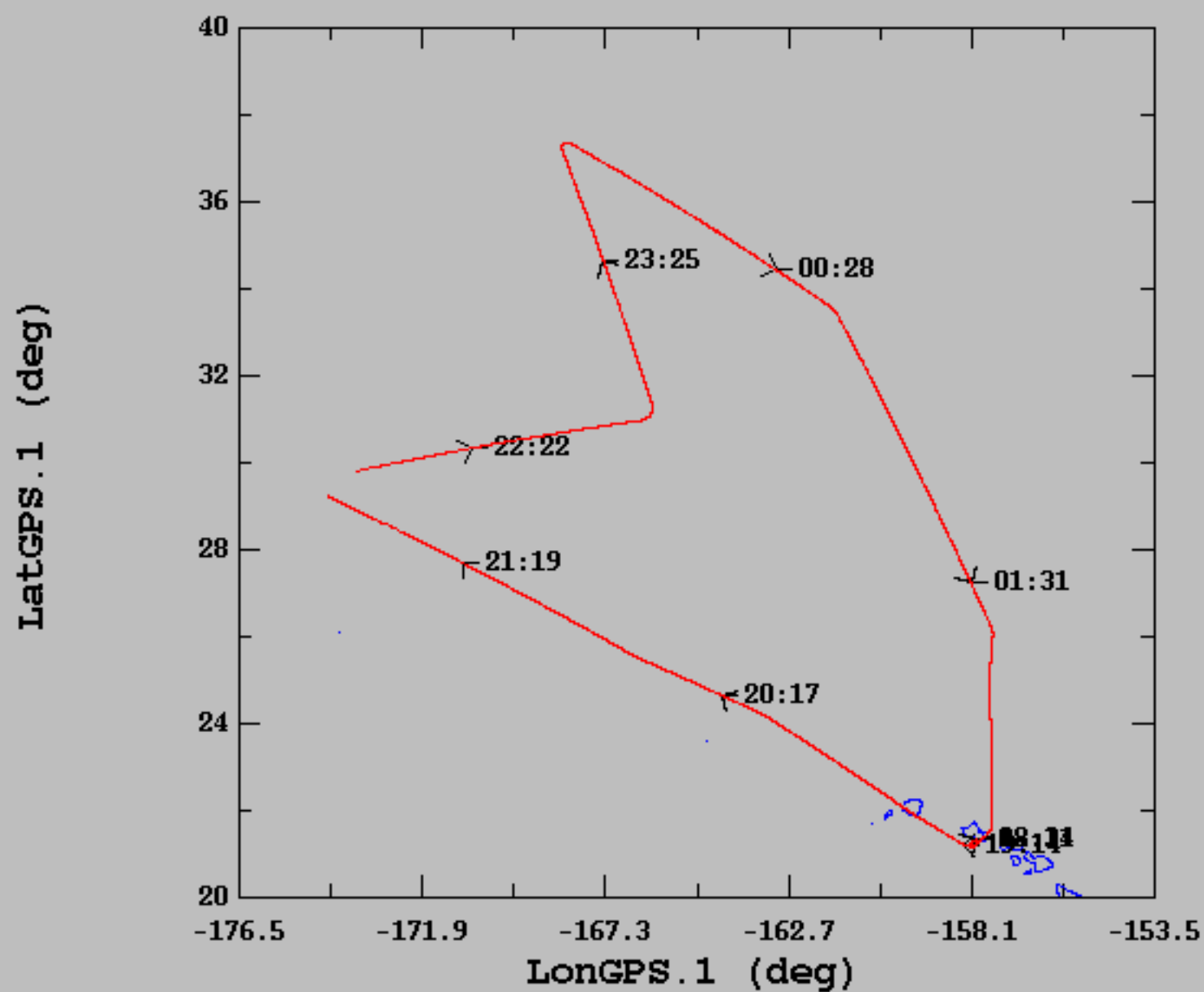
Flight ID: 2020126N1ASPEN Operator/Flight Director(s): Kalen / CarpenterMission ID: 01 WSC IOP04Storm Name/Track: Atmospheric RiversPG of

Sonde #	Ob #	Launch Time HHMMSS (Z)	Sonde ID (non test S)	Ch # used	Lat (°N)	Lon (°E)	Prominent Wx Cond.	SFC Prs (mb)	Comments / Issues / QC / ASPEN Edits	KWBC #	Sonde Issues?
1	1	203758	30342	1	25.5	-166.5	Few	1017.8			N
2	2	204753	20454	2	26.0	-167.5		1016.4			N
3	—	205758	50290	3	—	—		—		—	Y
4	3	210033	30384	4	26.7	-168.8		1014.4			N
5	4	210805	50431	1	27.1	-169.6		1013.4			N
6	5	211804	20441	2	27.6	-170.7		1012.9			N
7	6	212820	20458	3	28.1	-171.7	Bkn	1011.2			N
8	7	215821	30502	4	28.6	-172.8		1009.9			N
9	8	214844	30343	1	29.0	-173.9		1008.7			N
10	9	215730	30332	2	29.5	-174.7		1008.1			N
11	10	220300	20409	3	29.7	-173.9	Overst	1006.9			N
12	11	220956	30399	4	29.9	-172.7		1007.3			N
13	12	221639	30310	1	30.1	-171.6		1008.4			N
14	13	222342	10184	2	30.3	-170.5		1008.8			N
15	14	223047	30474	3	30.5	-169.4		1010.7			N
16	15	223751	41112	4	30.7	-168.2		1010.7			N
17	16	224452	30379	1	30.9	-167.1		1010.9			N
18	17	225132	30397	2	31.1	-166.1		1011.0			N
19	18	230151	21042	3	32.2	-166.4		1010.0			N
20	19	231333	20025	4	33.4	-166.9		1005.5			N
21	20	232022	30386	1	34.3	-167.2		1005.9			N
22	21	233205	30326	2	35.3	-167.6		1003.3			N
23	22	234202	30387	3	36.4	-168.1		1001.7			N
24	23	235012	30382	4	37.3	-168.3		1000.6			N
25	24	235556	30488	1	36.9	-167.4		1000.5			N
26	25	000311	20103	2	36.4	-166.4		1001.6			N
27	26	001030	30398	3	35.8	-165.4		1003.2			N
28	27	001746	20423	4	35.3	-164.4		1003.7			N
29	28	002507	40677	1	34.7	-163.4		1008.2			N
30	29	003257	10542	2	34.1	-162.4		1011.8			N
31	30	003944	20370	3	33.5	-161.5		1014.5			N
32											
33											
34											
35											
36											
37											
38											

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

Obs
XmittedObs
Missed# of sondes
launched# of bad
sondes

2022-01-26, 18:11:24-26:34:05



	mean	sigma	min	max
LatGPS.1 (deg), 1 s/sec	27.69	5.00	21.12	37.34
LonGPS.1 (deg), 1 s/sec	-163.69	5.05	-174.29	-157.51