

N49RF ERROR SUMMARY
20220120N2

Flight ID: 20220120N2

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.2
Differential Sideslip Pressure Probe	PDBETA.2
Dynamic Attack Pressure Probe	PQALPHA.2
Dynamic Sideslip Pressure Probe	PQBETA.2

Flight Directory acdata/2022/MET/20220120N2

Local Met Data	Takeoff KPHX (2043Z)	Landing PHNL (2210Z)
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.

Reposition leg 2 of 2 to PHNL for Atmospheric Rivers. Data system testing conducted in-flight. TDMs require bench calibration, all moisture quantities should be considered unreliable.

Expendable Type -----	# deployed -----	# good -----	# transmitted -----
Drosondes	1	1	1
Test sondes	0	0	0
AXBts	0	0	0
AXCPs	0	0	0
AXCTDs	0	0	0
UAS	0	0	0

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:	20220120N2	FLT #:	22-	AC:	Waddington	Scientists:	Pressure		Dropsondes		
From:	KPHX	ETD:	2030Z	CP(s):	Varwig		A/C Takeoff	981.6	Good	Bad	Sent
To:	PHNL	ETA:	0230Z		de Triquet		ASOS Takeoff	KPHX 2045Z 980.5 mb	1	0	1
Block Time		Flight Time		NAV:					BTs		
In:	3:09	Land:	3:04	FE(s):			A/C Land	N/A	Good	Bad	Sent
Out:	20:35	T/O:	20:43	FD(s):	Carpenter		ASOS Land	PHNL 0305Z 1013.8 mb	0	0	0
Total:	6.6	Total:	6.4	SSA:	Miller	Visitors:	Storm Number ID:		N/A		
Sponsoring Org:		NWS / OAR			AVAPS:	Paul	(ie: AL072012)				
Program:		PAR			SEB:	Andrews	TCPOD/WSPOD Mission		NOAA9 WXWXC TRAIN		
Purpose:		Atmospheric Rivers Transit 2 of 2			MX:	Newnam	(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:	20220120N2	Pressure Comparison		
Flight Director(s):	Carpenter / Kalen		T/O	Land
Mission:	Ferry	Aircraft	981.6	N/A
UWZ.d mean:	-0.27	Tower	KPHX 2045Z 980.5 mb	PHNL 0305Z 1013.8 mb

	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	✓ PitchRatel.1	✓ RollI.1	✓ RollRatel.1		✓ PITCHref	
	✓ PitchI.2	✓ PitchRatel.2	✓ RollI.2	✓ RollRatel.2		✓ ROLLref	
	✓ PitchI.3	✓ PitchRatel.3	✓ RollI.3	✓ RollRatel.3			
✓ Temp / Dewpt	✓ TTM.1	✓ TTM.4	X TDM.1			✓ TD.c	✓ TTMref
	X TTM.2		X 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
X Miscellaneous FD Notes

QC Key	
Not checked	☐
Valid	✓
Errors (note)	X

NOTES:
Reposition flight KPHX to PHNL to support Atmospheric Rivers. AltRa.1 is available in 1Hz_mean file but not _A or _B files. Multiple quantities spike to 0 near end of flight due to data system shutdown. TTM.2 unavailable. TDM.1 and TDM.2 require calibration. All moisture quantities unreliable.

AOC GPS Dropwindsonde Log (updated Mar 2019)

Flight ID: 20220120N2ASPEN Operator/Flight Director(s): Carpenter / KalenMission ID: NOAA9 WXXE TRAINStorm Name/Track: N/APG 1 of 1

Sonde #	Ob #	Launch Time HHMMSS (Z)	Sonde ID (min last 5)	Ch # used	Lat (°N)	Lon (°E)	Prominent Wx Cond.	SFC Prs (mb)	Comments / Issues / QC / ASPEN Edits	KWBC #	Sonde Issues?
1	3	222746	20461	1	36.3	-124.8	4/8 stratus	1028	Good sonde.	202248	N
2											
3											
4											
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37											
38											

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

COMMENTS:

ASPEN v. 3.4.6

Obs
Xmitted

3

Obs
Missed

0

of sondes
launched

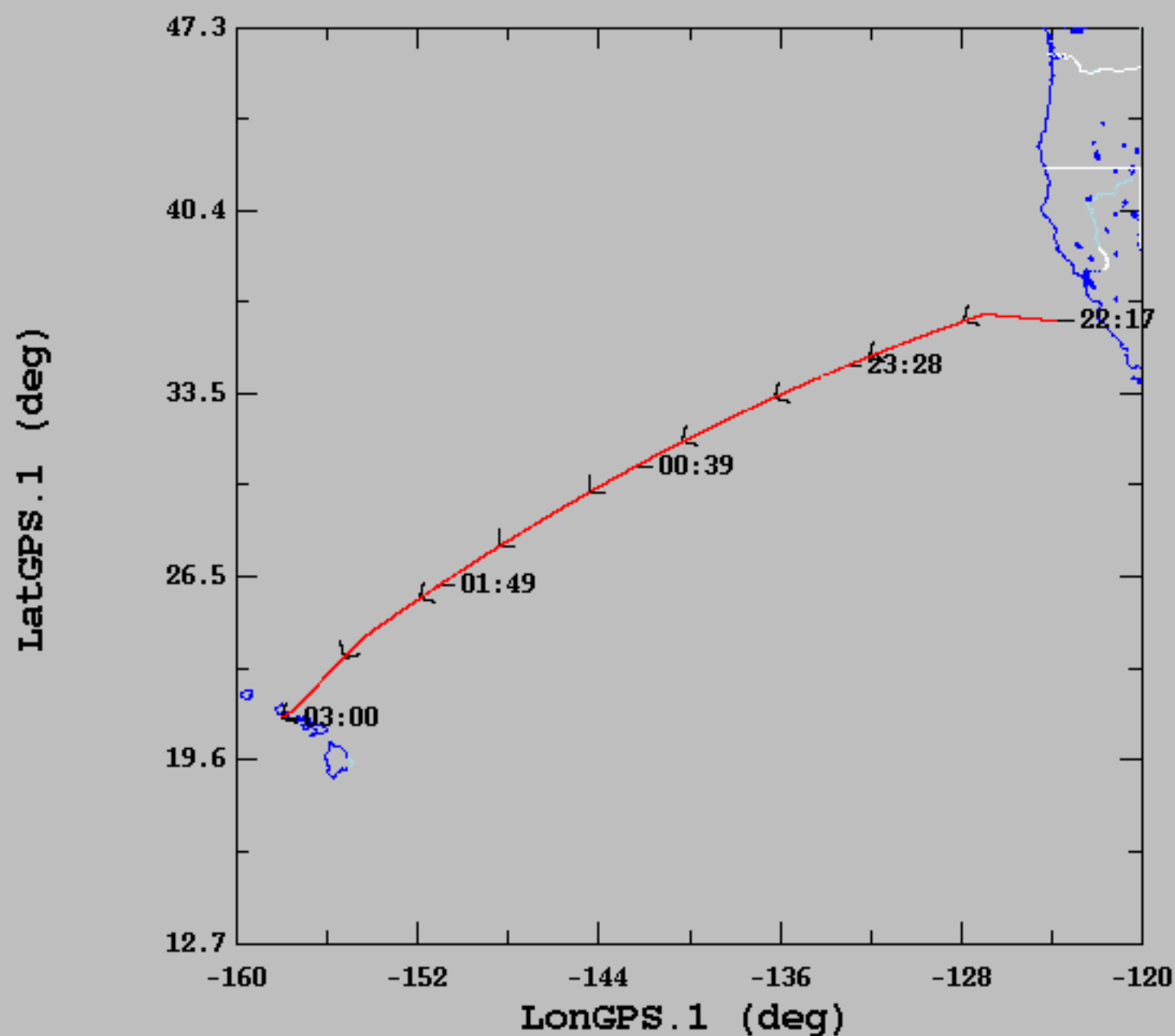
1

of bad
sondes

0

(2 RECCO)

01/20/2022, 22:17:47-27:00:26



	mean	sigma	min	max
LatGPS.1 (deg), 1 s/sec	30.11	4.70	21.20	36.46
LonGPS.1 (deg), 1 s/sec	-142.02	10.14	-157.99	-123.64