

N49RF ERROR SUMMARY
20200214N1

Flight ID: 20200214N1

Sensor or System -----	Number or Name -----
Static Pressure Probe	PSM.2
Dynamic Pressure Probe	PQM.2
Total Temperature Probe	TTM.4
Dewpoint Temp. Probe	TDM.1
Vertical Accelerometer	AccZI.2
Altimeter	AltGPS.2
INE Selection	2
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/2020/MET/20200214N1
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Local Met Data	Takeoff KPDX (1739Z)	Landing KPDX (0128Z)
Dynamic Corrections		Yes
AttackAngleIntercept		3.97801
AttackAngleSlope		3.86172
SlipAngleIntercept		1.258
SlipAngleSlope		6.69941
AttackAngleIntercept2		5.04641
AttackAngleSlope2		5.41847
SlipAngleIntercept2		0.905
SlipAngleSlope2		6.78464

Notes:

AlTRA.1 contains sporadic drop outs in transit that could be unrepresentative.

PDALPHA.1 running slightly higher than PDALPHA.2

PDBETA.2 running slightly her than PDBETA.1

PQALPHA.1 running slightly higher than PQALPHA.2

PQBETA.2 running slightly higher than PQBETA.1

PQM.1 failed towards the end of flight potentially due to icing. Reference PQM.2 for scienfitic analysis.

TDM.1 and TDM.2 are unrepresentative. Consider all flight level humidity to be suspect.

WS.d and WD.d unrepresentative and inaccurate.

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.

Expendable Type -----	# deployed -----	# good	# transmitted -----
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Dropsondes	35	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: Hathaway / Henning
 Phone #: 863-500-3911

ACAT-4 Version = 7.3

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

FLIGHT INFORMATION				CREW MANIFEST			MISSION INFORMATION				
FLT ID:	20200214NI	FLT #:		AC:	RON MOYERS	Scientists:	Pressure		Dropsondes		
From:	KPDX	ETD:	1745Z	CP(s):	Doug Machtyre	Forest Cannor (USCO)	A/C Takeoff		Good	Bad	Sent
To:	KPDX	ETA:	0120Z		Matthew Nardi				30	5	35
Block Time		Flight Time		Nav(s):			ASOS Takeoff		BTs		
In:	0133	Land:	0128Z	FE(s):			A/C Land		Good	Bad	Sent
Out:	1735Z	T/O:	1739Z	FD(s):	Nikki Hathaway		ASOS Land				
Total:	8.0	Total:	7.8		Rich Henning	Visitors:					
Sponsoring Org:	EMC			SEB:		Natasha Kawalek	Storm Number ID:				
Program:	PAR					(Media - CBS KOIN	(ie: AL072012)				
Purpose:	AR2020*5			SSA:	Gabe Defeo	Portland Chief Met	TCPOD/WSPOD Mission		NOAA9 OBWSE TRACK99		
				AVAPS:	Jeff Hartberger		(ie: NOAA2 2418A SANDY)				
					Steven Paul		OBSERVATIONS				
AS REQUIRED BY ORM				Y	N	REMARKS	Fix Number	Obs Number	Fix Time	SLP	
VOLCANIC ASH					✓						
SCIENCE MISSION WITHIN BDRY LAYER					✓						
LACK OF PRECIPITATION					✓						
RELATIVE HUMIDITY ≥ 80%					✓						
LARGE AIR-SEA TEMP GRADIENT					✓						
HIGH SURFACE WINDS					✓						
LONG FETCH / DURATION OF SFC WND					✓						
SEA SALT ACCRETION FORECAST					✓						
SEA SALT ACCRETION OBSERVED					✓						
Gmax:				Gmin:		*Highlighted items must be completed before departure.					
Remarks:				KEUG, PANC, PACT, KHIO - Alternates							

G-IV QC Checklist

Flight ID:	20200214N1
Flight Director(s):	Hathaway/Henning

UWZ.d mean:	0.23
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Pressure Comparison		
	T/O	Land
Aircraft	1023.3	1023.7
Tower	1023.3	1023.3

	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	☒ 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	☐ GsGPS.3	☒ GSZref		
	☒ GsXGPS.1	☒ GsYGPS.1	☒ GsZGPS.1				
	☒ GsXGPS.2	☒ GsYGPS.2	☒ GsZGPS.2				
	☐ GsXGPS.3	☐ GsYGPS.3	☐ GsZGPS.3				
☐ 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	☒ PDALPHAref	☒ 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	☒ CasADDU.2	☒ TasADDU.1	☒ TasADDU.2	☒ 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	
	☐ 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:

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AOC GPS Dropwindsonde Log (updated Mar 2019)

Flight ID: 20200214N1

ASPEN Operator/Flight Director(s):

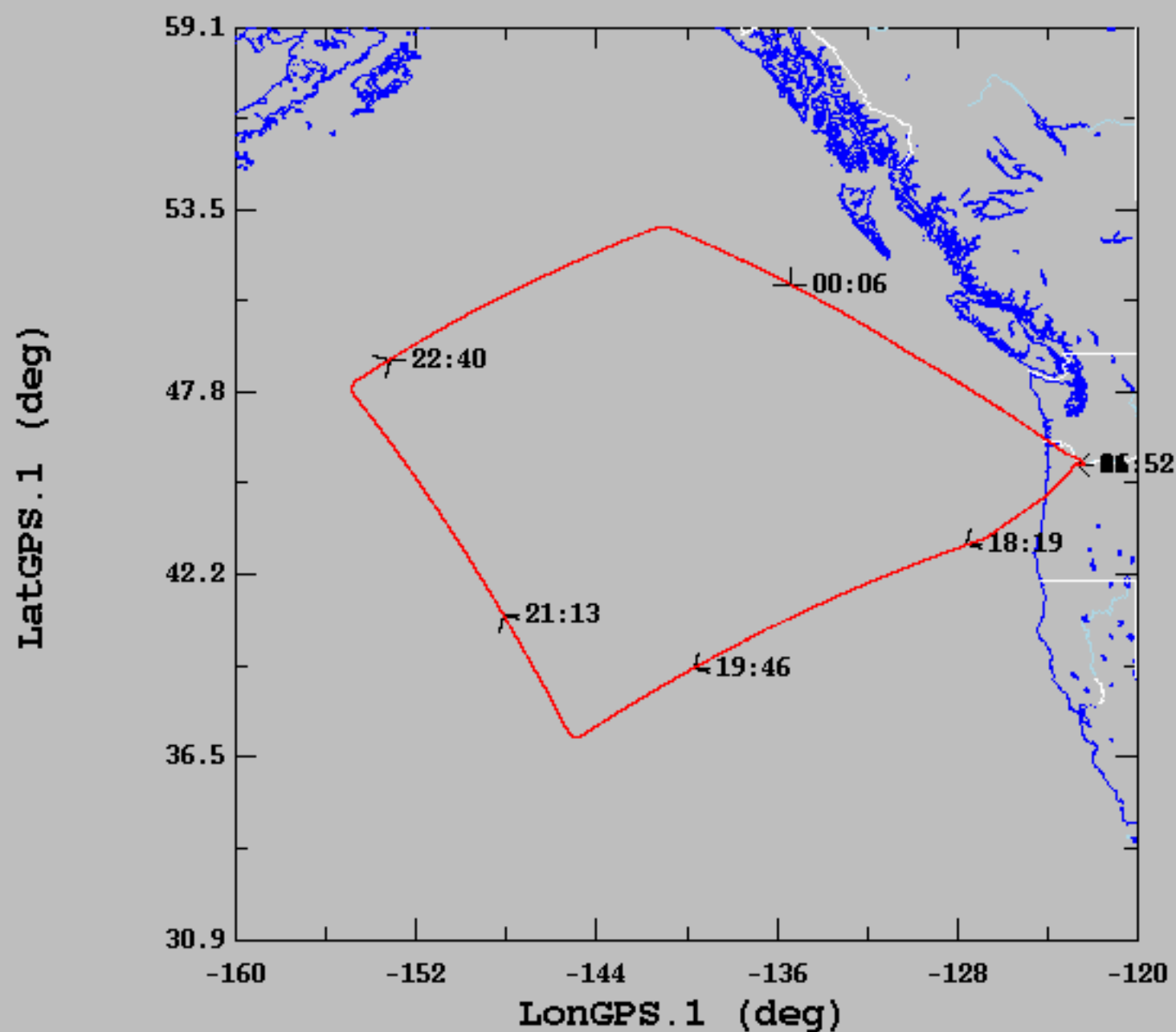
HENNING/PERRINI

Mission ID: NOAA9 08WSE TRACK99 Storm Name/Track:

PG ___ of ___

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	1	2030	0481	1	37.1	145	UCST	1030.3	10838	5876	200/14	2052	✓
2	1	2039	—	2	—	—	BAD WINDS	—	—	(LATE WINDS)	—	—	✓
3	2	2041	0592	3	38.0	145.8	✓	1029.2	10824	5867	200/11	2103	✓
4	3	2049	0128	4	38.8	146.3	✓	1028.8	10809	5856	210/14	2108	✓
5	4	2058	0172	1	39.6	147	✓	1027.0	10778	5831	220/14	2118	✓
6	5	2108	0394	2	40.5	147.7	✓	1025.7	10745	5810	220/17	2133	✓
7	6	2118	0450	3	41.3	148.4	✓	1023.3	10700	5775	215/20	2141	✓
8	7	2127	0756	4	42.2	149.2	✓	1021.2	10656	5746	225/15	2153	✓
9	8	2136	0014	1	43.0	150	UCST	1020.4	10603	5716	070/5	2211	✓
10	9	2145	0741	2	43.9	150.7	↓	1022.1	10567	5691	045/4	2215	✓
11	10	2155	0480	3	44.7	151.5	↓	1022.8	10515	5654	010/9	2222	✓
12	10	2204	—	4	—	—	—	NLD	—	—	—	—	✓
13	11	2206	1023	1	45.7	152.5	✓	1022.6	10423	5599	320/11	2239	✓
14	11	2214	—	2	—	—	—	NO PTH	—	—	—	—	✓
15	12	2215	0608	3	46.6	153.3	✓	1022.7	10366	5567	265/9	2246	✓
16	13	2222	0745	4	47.2	154.1	✓	1021.6	10307	5533	240/15	2254	✓
17	13	2230	—	1	—	—	—	NO PTH	—	—	—	—	✓
18	14	2231	0740	2	48.1	154.7	✓	1019.4	10237	5488	225/20	2259	✓
19	15	2237	0749	3	48.6	153.5	✓	1019.8	10236	5491	215/20	2305	✓
20	16	2245	0609	4	49.2	152.1	✓	1019.2	10226	5483	235/19	2319	✓
21	17	2252	1035	1	49.9	150.6	✓	1018.3	10220	5478	260/17	2321	✓
22	18	2300	0573	2	50.4	149.1	✓	1017.4	10206	5469	255/18	2326	✓
23	19	2308	0914	3	51	147.6	✓	1016.0	10195	5451	270/26	2344	✓
24	20	2316	1049	4	51.5	146	✓	1014.6	10180	5431	280/25	2345	✓
25	21	2323	0711	1	52.0	144.3	✓	1013.0	10168	5417	111/11	2348	LST WIN
26	22	2331	1041	2	52.5	142.7	✓	1010.3	10151	5388	280/33	0006	✓
27	23	2339	1060	3	52.9	140.9	✓	1007.2	10131	5362	280/31	0009	✓
28	24	2347	1046	4	52.5	139.3	✓	1007.6	10161	5386	295/29	0012	✓
29	—	2355	—	1	—	—	—	NO PTH	—	—	—	—	✓
30	25	2356	1048	2	51.9	137.5	✓	1007.1	10196	5415	275/33	0020	✓
31	26	0003	0918	3	51.4	136	✓	1007.8	10233	5449	280/29	0023	✓
32	27	0011	1062	4	50.8	134.4	✓	1009.1	10269	5491	260/27	0031	✓
33	28	0019	0785	1	50.2	132.9	✓	1009.5	10284	5505	215/25	0038	✓
34	29	0026	1131	2	49.6	131.4	✓	1013.2	10318	5534	195/24	0045	✓
35	30	0034	0555	3	49.0	130	✓	1017.4	10340	5556	225/14	0053	✓

2020-02-14, 16:52:51-25:33:39



	mean	sigma	min	max
LatGPS.1 (deg), 1 s/sec	44.81	4.41	37.11	52.94
LonGPS.1 (deg), 1 s/sec	-137.59	10.54	-154.80	-122.32