

N49RF ERROR SUMMARY
20200204N1

Flight ID: 20200204N1

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.3
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/20200204N1

Local Met Data	Takeoff KPDX (1937Z)	Landing KPDX (0333Z)
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:

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.

AltRA.1 has a significant drop out 2044z - 2047z and a low bias of approx 60 meters, do not used as absolute altitude

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

WS.d and WD.d unrepresentative and inaccurate.

TTM.3 has a small amplitude (magnitude 0.2 - 0.3 deg C) unnatural oscillation with a period of roughly 30 seconds

Expendable Type -----	# deployed -----	# good -----	# transmitted -----
Dropsondes	34	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: Henning
Phone #: (863) 500-3982

FLT ID: 20200204N1	From: KPDX	To: KPDX
FLT #:	Blk In: 0338 z	Lnd Time: 0333z
ETD: 1930 z	Blk Out: 1908 z	T/O Time: 1937z
ETE: 8+00	Total Blk: 9.5	Total Flt: 7.9
Sponsoring Org: EMC	Program: PAR	Purpose: AR2020 #2

AOC Flight Crew

Aircraft Commander: MOYERS	SSA: DEFE0
Co-Pilot: NARDI / NORMAN	AVAPS: HARTBERGER PAUL
Navigator: /	Scientists: WILL CHAPMAN
Flight Eng: /	Scientists: MEREDITH FISH
Flt Director: HENNING HATHAWAY	Scientists:
SEB: /	Scientists:

Crew Chief:	Visitors: STA 1032.0	STA 1026.6
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	A/C - Takeoff	Wx Station - Takeoff	A/C - Land	Wx Station - Land
Pressure	1032.9	30.51 +4	1027.8	30.35 +5

AS REQUIRED BY ORM	YES / NO	REMARKS
VOLCANIC ASH		
SCIENCE MISSION WITH IN BOUNDARY LAYER		
LACK OF PRECIPITATION		
RELATIVE HUMIDITY AT OR ABOVE 80%		
LARGE AIR-SEA TEMPERATURE GRADIENT		
HIGH SURFACE WINDS		
LONG FETCH AND/OR DURATION OF SFC WIND		
SEA SALT ACCRETION FORECAST		
SEA SALT ACCRETION OBSERVED		

Droptandies	34	Good: 30	Bad: 4	Sent: 30
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AXBT	Good:	Bad:	Sent:
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Useful data sources in Remarks section

Remarks (Storm VDM Identifier, Mission ID, Fix Times)	Fix #	VDM Ob Num	Fix Time / SLP
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Storm Number Identifier (VDM):
(ie: AL072012)

TCPODWSPOD Mission ID: 05 WSE TRACK 99
(ie: NOAA? 2418A SANDY)

Remarks:

7:30 / 8AM - 7:15 p then 2142
9:30 AM → 8:00 P 2230
libby app 2329
0056

4-12

20-28

AHRA → 2044z
2047z

TDM 2 works only on descent to landing 60 m low bias

G-IV QC Checklist

Flight ID:	20200204N1
Flight Director(s)	Henning / Hathaway
UWZ.d mean:	0.28

Pressure Comparison		
	T/O	Land
Aircraft	1032.9	1027.8
Tower	1032.0	1026.6

	Raw 1Hz Mean File Parameters					C File Parameters	
☐ Accelerometer	☒ AccAXI.1	☒ AccAYI.1	☒ AccAZI.1			☒ AccZref	
	☒ AccAXI.2	☒ AccAYI.2	☒ AccAZI.2				
	☒ AccAXI.3	☒ AccAYI.3	☒ AccAZI.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		☒ LonGPS.3				
☐ Pressure	☒ PDALPHA.1	☒ PQALPHA.1	☒ PQM.1	☒ PSM.1	☒ PDLAPHAref	☒ PQMref	
	☒ PDALPHA.2	☒ PQALPHA.2	☒ PQM.2	☒ PSM.2	☒ PDBETArefer	☒ PQ.c	
	☒ PDBETA.1	☒ PQBETA.1			☒ PQALPHAref	☒ PSMref	
	☒ PDBETA.2	☒ PQBETA.2			☒ PQBETArefer	☒ 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	
	☐ 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)	☒

NOTES:
AltRA.1 has a significant drop out 2044z - 2047z and a low bias of approx 60 meters, do not used as absolute altitude TDM.1 and TDM.2 are unrepresentative. Consider all flight level humidity to be suspect. WS.d and WD.d unrepresentative and inaccurate. TTM.3 has a small amplitude (magnitude 0.2 - 0.3 deg C) unnatural oscillation with a period of roughly 30 seconds There were no edits made in the measured parameters used to calculate meteorological and navigational parameters. Takeoff/Landing data: Data during landing and takeoff should be considered suspect It is recommended that data collected on the ground not be used for scientific analysis.

AOC GPS Dropwindsonde Log (updated Mar 2019)

Flight ID: 20200204NIASPEN Operator/Flight Director(s): Hathaway/HenningMission ID: NOAA9 05WSE Track99 Storm Name/Track: AR2020 #2PG 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?
									SFC wind	500MB	250MB		
1	1	2102	0937	1	45.25	135.02	ucast	1027.8	245/29	5773	10609	042150	
2	2	2112	1260	2	45.13	136.66		1028.5	230/26	5786	10683	042141	
3	3	2123	1250	3	45.05	138.33		1028.0	225/26	5795	10694	042147	
4	4	2132	0939	4	45.68	139.43		1024.1	220/29	5768	10606	042157	
5	5	2142	0881	1	46.31	140.60		1022.1	240/24	5755	10650	042204	
6	6	2152	0932	2	46.96	141.84		1018.4	225/24	5727	10620	042215	
7	7	2201	1175	3	47.57	143.03		1015.2	215/25	5695	10589	042222	
8	8	2211	1352	4	48.17	144.30		1012.4	225/26	5654	10539	042234	
9	9	2221	1256	1	48.78	145.00		1010.3	225/21	5615	10510	042239	
10	10	2230	1259	2	49.36	146.92		1008.8	240/22	5565	10453	042248	
11		2239	1259	2									NO PTH
12	11	2240	0887	4	49.95	148.38		1005.5	240/27	5495	10381	042259	
13	12	2248	1263	1	50.46	149.65		1004.2	250/25	5443	10319	042309	
14	13	2257	0908	2	50.99	151.07		1003.1	250/20	5384	10258	042318	
15	14	2307	0671	3	51.43	152.50		1002.1	235/22	5345	10200	042328	
16	15	2318	0894	4	50.71	154.05		1001.7	225/20	5335	10184	042337	
17	16	2329	0672	1	50.24	155.35		1002.9	215/15	5339	10186	042347	
18	17	2340	0893	2	49.26	156.70		1003.2	225/26	5336	10178	042358	
19	18	2350	1258	3	48.50	157.73		1002.1	230/25	5321	10160	050010	
20	19	2358	0675	4	47.99	156.49		1005.2	230/20	5370	10219	050019	
21	20	0006	1173	1	47.49	155.01		1008.6	230/18	5431	10299	050026	
22		0014	1173	2									NO PTH
23	21	0015	0678	3	46.90	153.46		1010.4	225/16	5492	10368	050042	
24	22	0023	1302	4	46.41	152.19		1011.2	240/16	5540	10418	050051	
25	23	0031	1212	1	45.83	150.81		1012.1	220/16	5589	10478	050054	
26	24	0039	0574	2	45.23	149.37		1014.0	230/06	5647	10540	050058	
27	25	0047	1119	3	44.67	148.16		1014.2	200/20	5675	10573	050108	
28	26	0056	0572	4	44.07	146.88		1017.1	200/26	5713	10616	050117	
29	27	0104	1132	1	43.44	145.61		1019.6	195/26	5735	10647	050125	
30	28	0112	1111	2	42.81	144.38		1024.5	210/21	5773	10689	050133	
31	29	0121	1128	3	42.16	143.17		1027.2	195/18	5799	10714	050146	
32		0129	1128	4									NO PTH
33		0130	1128	1									NLD
34	30	0132	0568	2	41.78	141.17		1029.2	200/17	5809	10729	050151	LLD 37K
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

2020-02-04, 18:39:10-27:38:09

