

N49RF ERROR SUMMARY
20200309N1

Flight ID: 20200309N1

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.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/20200309N1

Local Met Data	Takeoff KPDX (1857Z)	Landing KPDX (0303Z)
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.

GsGPS.3 unavailable. TTM.2 unavailable. Both dewpoint sensors performed poorly at all altitudes, all moisture quantities are suspect.

Expendable Type -----	# deployed -----	# good -----	# transmitted -----
Dropsondes	27	27	27
Test sondes	0	0	0
AXBTs	0	0	0
AXCPs	0	0	0
AXCTDs	0	0	0
UAS	0	0	0

Flight Director: Carpenter / Holmes
Phone #: 863-500-3901

ACAT-4 Version = 7.3

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

FLIGHT INFORMATION				CREW MANIFEST			MISSION INFORMATION				
FLT ID:	20200309N1	FLT #:	20-31	AC:	MacIntyre	Scientists:	Pressure		Dropsondes		
From:	KPDX	ETD:	1900Z	CP(s):	Mansour		A/C Takeoff	1025.1	Good	Bad	Sent
To:	KPDX	ETA:	0300Z		Nardi		ASOS Takeoff	KPDX 1855Z 1023.9 mb	27	0	27
Block Time		Flight Time		NAV:			ASOS Land	1023.4	BTs		
In:	3:10	Land:	3:04	FE(s):			A/C Land	1023.4	Good	Bad	Sent
Out:	18:48	T/O:	18:58	FD(s):	Carpenter		ASOS Land	KPDX 0305Z 1023.2 mb	0	0	0
Total:	8.37	Total:	8.10	SSA:	Miller	Visitors:	Storm Number ID:		IOP16		
Sponsoring Org:	NWS			AVAPS:	Patel	Luca Monache	(ie: AL072012)		NOAA9 16WSE TRACK99		
Program:	PAR			SEB:	Underwood	Dan Steinhoff	TCPD/WSPD Mission				
Purpose:	Atmospheric Rivers Mission #13			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:				

*Highlighted items must be completed before departure.

Remarks:

G-IV QC Checklist

Flight ID:	20200309N1
Flight Director(s):	Carpenter / Holmes

UWZ.d mean:	0.11 post-processing
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Pressure Comparison		
	T/O	Land
Aircraft	1025.1	1023.4
Tower	KPDX 1855Z 1023.9 mb	KPDX 0305Z 1023.2 mb

	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	X GsGPS.3	✓ GSZref		
	✓ GsXGPS.1	✓ GsYGPS.1	✓ GsZGPS.1				
	✓ GsXGPS.2	✓ GsYGPS.2	✓ GsZGPS.2				
	X GsXGPS.3	X GsYGPS.3	X 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	✓ 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	✓ RolI.1	✓ RollRatel.1	✓ PITCHref		
	✓ PitchI.2	✓ PitchRatel.2	✓ RolI.2	✓ RollRatel.2	✓ ROLLref		
	✓ PitchI.3	✓ PitchRatel.3	✓ RolI.3	✓ RollRatel.3			
✓ Temp / Dewpt	✓ TTM.1	✓ TTM.4	X TDM.1		X TD.c	✓ TTMref	
	X TTM.2		X TDM.2		X TDMref	✓ TA.d	
	✓ TTM.3						
✓ Misc. (Must check)					✓ UWZ.d	✓ WS.d	
					✓ DPJ_WSZ	✓ WD.d	
					X 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)	☒

NOTES:
GsGPS.3 unavailable. TTM.2 unavailable. Both dewpoint sensors performed poorly at all altitudes. All moisture quantities should be considered suspect.

AOC GPS Dropwindsonde Log (updated Mar 2019)

Flight ID: 20200309N1

ASPEN Operator/Flight Director(s): Holm (ASPEN/FD), Carpenter (FDT)

Mission ID: 16WSE

Storm Name/Track: Track 99

PG ___ of ___

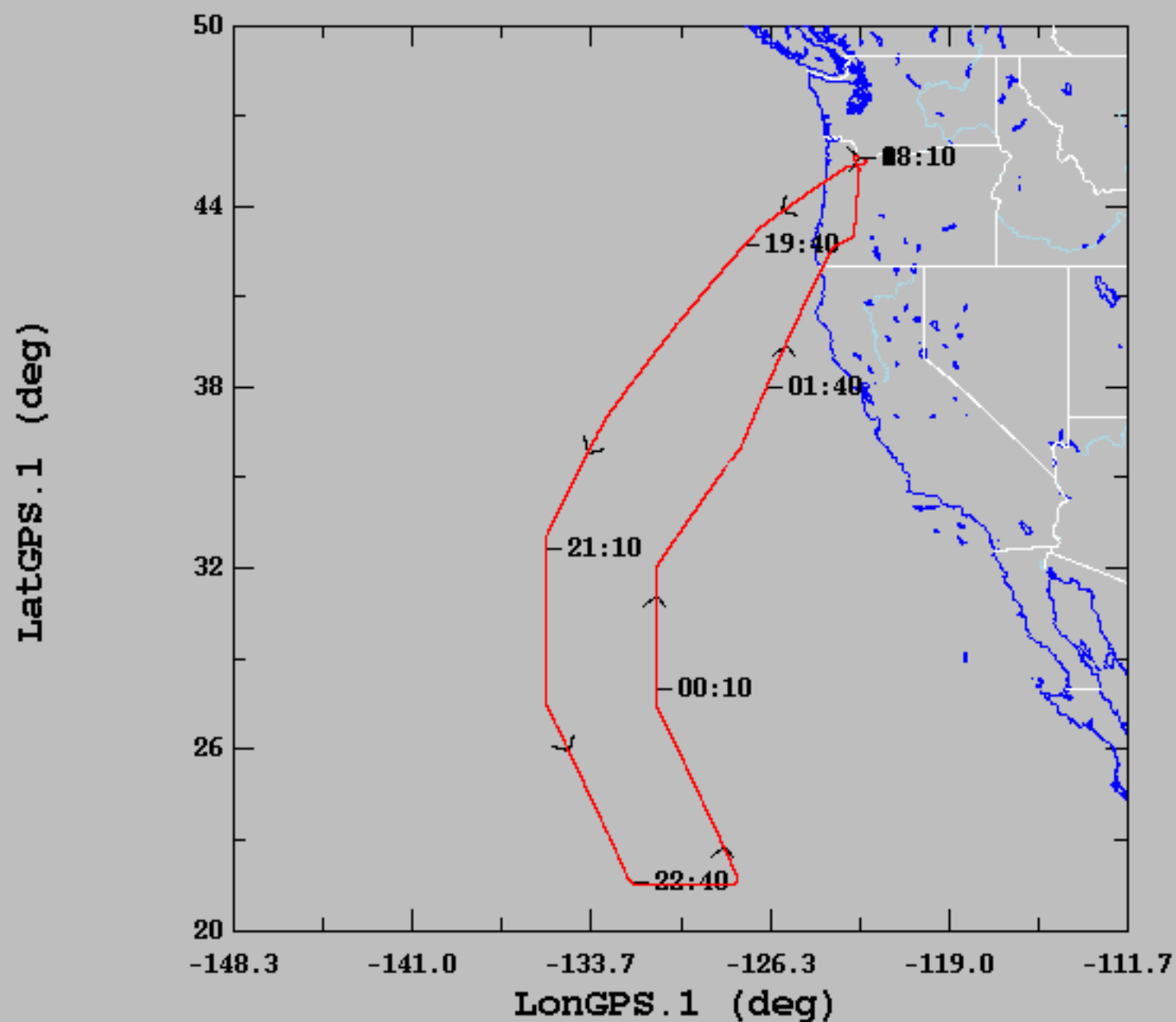
Sonde #	Ob #	Launch Time HHMMSS (Z)	Sonde ID (min last 5)	Ch # used	Lat (°N)	Lon (°E)	Prominent Wx Cond.	SFC Prs (mb)	Height		KWBC #	Sonde Issues?
									200m	500m		
1	1	203436	40435	1	3699N	13301W	VML	1019	11767	5611		
2	2	204556	50034	2	3566N	13387W	"	1017	11768	5598		
3	3	205654	10930	3	3432N	13469W	"	1014	11760	5577		
4	4	210800	20544	4	3297N	13549W	"	1015	11785	5575		
5	5	211737	41020	1	3162N	13550W	"	1015	11803	5560		
6	6	213022 211250	41040	2	2987N	13550W	"	1014	—	5551	No launch 12.1 → 300m	
7	7	213749	41024	3	2887N	13550W	"	1013	11879	5574		
8	8	214828	50051	4	2749N	13548W	"	1012	11911	5610		
9	9	215839	41041	1	2629N	13475W	"	1012	11950	5639		
10	10	220902	20358	2	2510N	13406W	"	1011	11999	5669		
11	11	221932	50028	3	2390N	13360W	"	1013	12052	5709	Bad PMV	
12	12	223002	41024	4			"	1012	12092	5725	Fast Fall	
13	13	224044	40917	1	2155N	13428W	"	1012	12153	5756		
14	14	224925	41026	2	2152N	13048W	"	1012	12165	5759		
15	15	225837	41003	3	2000N	12600W	"	—	—	—	Did not hit SFC	
16	16	230701	50059	4	2161N	12762W	"	1011	12186	5763		
17	17	231807	50050	1	2073N	12817W	"	1011	12121	5732		
18	18	233040	40504	2	2396N	12889W	"	1011	12056	5694		
19	19	234221	41006	3	2513N	12957W	"	1010	11990	5644		
20	20	235438	50045	4			"	1009	11929	5581		
21	21	000633	40989	1	2752N	13099W	"	1008	11865	5516		
22	22	001849	50032	2	2902N	13100W	"	1008	11795	5487		
23	23	003110	40988	3	3051N	13100W	"	1009	11754	5500		
24	24	004333	41028	4	3202N	13097W	"	1010	11739	5523		
25	25	005633	40712	1	3334N	12986W	"	1008	11727	5541	ALV * did not hit SFC	
26	26	010959	40703	2	3469N	12769W	"	1011	11725	5573		
27	27	012318	41005	3	3603N	12748W	"	1015	11728	5598		
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ASPEN Operator will ensure this form is delivered to the AOC Flight Director to be archived

COMMENTS:

Obs
XmittedObs
Missed# of sondes
launched# of bad
sondes

03/09/2020, 18:10:28-27:10:12



	mean	sigma	min	max
LatGPS.1 (deg), 1 s/sec	34.83	8.15	21.50	45.68
LongGPS.1 (deg), 1 s/sec	-128.82	4.25	-135.50	-122.33