

N49RF ERROR SUMMARY
Atmospheric Rivers 2022 IOP-22

Flight ID: 20220311N1

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.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/20220311N1

Local Met Data	Takeoff PHNL (1854Z)	Landing PHNL (0231Z)
Dynamic Corrections		Yes
AttackAngleIntercept		3.97801
AttackAngleSlope		3.86172
SlipAngleIntercept		1.258
SlipAngleSlope		6.69941
AttackAngleIntercept2		5.01255
AttackAngleSlope2		5.40932
SlipAngleIntercept2		0.72
SlipAngleSlope2		7.0494

Notes:

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

TTM.3 displays oscillations of multiple periods superimposed on each other and should not be used

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 -----
Dropsondes	32	29	29
Test sondes	0	0	0
AXBTS	0	0	0
AXCPs	0	0	0
AXCTDs	0	0	0
UAS	0	0	0

Flight Director: Kalen / Henning
Phone #: (863) 500-3982

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:	20220311N1	FLT #:		AC:	Nardi	Scientists:	Pressure		Dropsondes		
From:	PHNL	ETD:	1900Z	CP(s):	de Triquet		A/C Takeoff		Good	Bad	Sent
To:	PHNL	ETA:	0300Z	NAV:			ASOS Takeoff		29	3	29
Block Time		Flight Time		FE(s):			A/C Land		BTs		
In:	0237Z	Land:	0231Z	FD(s):	Kalen Henning	Visitors:	ASOS Land		Good	Bad	Sent
Out:	1844Z	T/O:	1854Z	SSA:	DeGeo						
Total:	7.9	Total:	7.6	AVAPS:	Patel						
Sponsoring Org:		PAR		SEB:				Storm Number ID:			
Program:				MX:			(ie: AL072012)				
Purpose:		Atmospheric Rivers					TCP00/WSP00 Mission	NOAA9 10W5C IOP22			
							(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:	20220311N1
Flight Director(s)	Henning / Kalen
UWZ.d mean:	0.06

Pressure Comparison		
	T/O	Land
Aircraft	1022.0	1019.3
Tower	1021.5	1019.0

	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	☒ 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	☒ 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:

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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: 20220311N1ASPEN Operator/Flight Director(s): KALEN / HENNINGMission ID: 10WSC 10P22Storm Name/Track: ATMOSPHERIC RIVERSPG 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	1	204736	40673	1	27.0	169.0	SCT	1022.1	<u>SURFACE WIND</u> 170/15	2109	✓✓
2	2	210232	41176	2	27.8	170.5	SCT	1021.2	190/17	2134	✓✓
3	3	211708	10845	3	28.5	172.0	SCT	1018.8	200/13	2139	✓✓
4	4	212740	40690	4	29.6	172.5	SCT	1017.1	195/19	2149	✓✓
5	5	213743	41174	1	30.6	173.0	SCT	1015.9	205/30	2205	✓✓
6	6	214833	40904	2	31.7	173.5	BKN	1013.5	215/28	2209	✓✓
7		2158		3			OVC		FAST FALL		
8	7	215951	10305	4	32.9	174.1	OVC	1010.4	210/24	2230	✓✓
9	8	220918	40675	1	33.8	174.6	OVC	1006.4	205/32	2237	✓✓
10	9	221904	40915	2	34.8	175.1	OVC	1001.0	200/43 ELD	2311	✓✓
11	10	222930	41145	3	35.9	175.7	BKN	994.9	200/48	2317	✓✓
12	11	223901	40890	4	36.9	176.3	BKN	987.9	205/46	2329	✓✓
13		2249		1					FAST FALL		
14	12	225030	41126	2	38.2	176.7	OVC	979.8	205/48	2340	✓✓
15	13	225744	10843	3	39.1	175.8	OVC	981.2	165/32	2344	✓✓
16	14	230605	41135	4	39.3	174.3	OVC	986.6	145/35	2351	✓✓
17	15	231432	41125	1	39.4	172.7	OVC	992.8	145/27	2353	✓✓
18	16	232256	41140	2	39.4	171.1	OVC	998.5	145/30	2359	✓✓
19	17	232958	41156	3	39.0	169.9	OVC	1002.6	140/27	0000	✓✓
20	18	233619	41136	4	38.6	168.8	OVC	1006.7	150/27	0002	✓✓
21	19	234454	10853	1	37.7	168.1	OVC	1009.0	155/29	0007	✓✓
22		2352		2			OVC		BAD CHUTE		
23	20	235349	41123	3	36.7	167.3	OVC	1011.6	165/23	0019	✓✓
24	21	000046	41149	4	35.9	166.8	OVC	1013.0	170/19	0022	✓✓
25	22	000845	41182	1	35.0	166.1	OVC	1014.4	180/17	0043	✓✓
26	23	001634	41175	2	34.1	165.5	OVC	1016.1	215/16	0044	✓✓
27	24	002452	40889	3	33.1	164.9	OVC	1017.3	255/20	0051	✓✓
28	25	003228	10841	4	32.2	164.3	OVC	1018.1	245/13	0055	✓✓
29	26	004006	40903	1	31.3	163.7	SCT	1019.5	205/15	0059	✓✓
30	27	004745	20344	2	30.4	163.1	BKN	1020.1	215/14	0110	✓✓
31	28	005551	40918	3	29.4	162.6	BKN	1020.9	225/13	0118	✓✓
32	29	010326	40891	4	28.5	162.0	BKN	1021.4	235/09 LAST	0125	✓✓
33									REPORT		
34											
35											
36											
37											
38											

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

COMMENTS:

Obs
Xmitted

29

Obs
Missed

1

of sondes
launched

32

of bad
sondes

3

AVAPS Drop Log

Project: ARR 2022

Mission: ARR

Flight ID: 20220311N1

Take Off: _____

Landing: _____

Flt Dir: Quinn / Rich

Launcher S/N: _____

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	213740673	1	0	2048	AJP	AR		
2	213741176	2	0	2102				
3	213810845	3	0	2117				
4	213740690	4	0	2127				
5	213741174	1	0	2137				
6	213740904	2	0	2148				
7	213741138	3	0	2158			initial fast fall	
8	213210305	4	0	2159				
9	213740675	1	0	2209				
10	213740915	2	0	2219				
11	213741145	3	0	2229				
12	213740890	4	0.5	2239				
13	213741128	1	0	2248			fast fall / stable later	
14	213741126	2	0	2250				
15	213810843	3	0	2257				
16	213741135	4	0	2306				
17	213741125	1	0	2314				
18	213741140	2	0	2322				
19	213741156	3	0	2329				
20	213741136	4	0	2336				
21	213810853	1	0	2344				
22	213740901	2	0.5	2352			fast fall / stable later	
23	213741123	3	0	2353				
24	213741149	4	0	0000				
25	213741182	1	0	0008				
26	213741175	2	0.5	0016				
27	213740889	3	0	0024				
28	213810841	4	0	0032				
29	213740903	1	0	0040				
30	213620344	2	0	0047				
31	213740918	3	0	0055				

- label as good ^{drop} sonde when closing channel instead fast fall

2022-03-11, 18:10:10-26:37:35

