

N49RF ERROR SUMMARY
Atmospheric Rivers 2022 IOP-20

Flight ID: 20220309N1

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/20220309N1

Local Met Data	Takeoff PHNL (1911Z)	Landing PHNL (0320Z)
Dynamic Corrections		Yes
AttackAngleIntercept		3.97801
AttackAngleSlope		3.86172
SlipAngleIntercept		1.258
SlipAngleSlope		6.69941
AttackAngleIntercept2		0
AttackAngleSlope2		5.40932
SlipAngleIntercept2		0.72
SlipAngleSlope2		7.0494

Notes:
 Data from Inertial #1 was unusable for calculation of derived MET parameters. Used Inertial #2 instead
 Mean UWZ much higher than previous or subsequent flights. Therefore, vertical winds are usable but somewhat suspect
 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 -----
Drosondes	31	30	30
Test sondes	0	0	0
AXBTS	0	0	0
AXCPs	0	0	0
AXCTDs	0	0	0

UAS	0	0	0
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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:	20220309N1	FLT #:		AC:	Nardi	Scientists:	Pressure		Dropsondes		
From:	PHNL	ETD:	1915Z	CP(s):	de Tiquet		A/C Takeoff		Good	Bad	Sent
To:	PHNL	ETA:	0315Z	NAV:			ASOS Takeoff		30	1	30
Block Time		Flight Time		FE(s):			A/C Land		BTs		
In:	0324Z	Land:	0320Z	FD(s):	Henning Kalen	Visitors:	ASOS Land		Good	Bad	Sent
Out:	1859Z	T/O:	1911Z	SSA:	DeGo						
Total:	8.4	Total:	7.9	AVAPS:	Patel						
Sponsoring Org:		PAR		SEB:							
Program:				MX:			Storm Number ID:				
Purpose:		Atmospheric Rivers					(ie: AL072012)				
							TCP00/WSP00 Mission		NOAA9 ORWSL		
							(ie: NOAA2 2418A SANDY)		IOPLO		
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:	20220309N1
Flight Director(s)	Henning / Kalen
UWZ.d mean:	-0.31

Pressure Comparison		
	T/O	Land
Aircraft	1018.9	1016.2
Tower	1018.8	1015.8

	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:		
Data from Inertial #1 was unusable for calculation of derived MET paramters. Used Inertial #2 instead		
Mean UWZ much higher than previous or subsequent flights. Therefore, vertical winds are usable but somewhat suspect		
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 should be considered suspect		
It is recommended that data collected on the ground not be used for scientific analysis.		

Flight ID: 20220309N1

ASPEN Operator/Flight Director(s):

Kalen/Henning

Mission ID: 08W5C 10P20

Storm Name/Track: Atmospheric Rivers

PG 1 of 1

Sonde #	Ob #	Launch Time HHMMSS (Z)	Sonde ID (mm last 5)	Ch # used	Lat (°N)	Lon (°E)	Prominent Wx Cond.	SFC Pts (mb)	Comments / Issues / QC / ASPEN Edits	KWBC #	Sonde Issues?
1	1	210129	30177	1	30.01	-160.00	OKST	1019.5	21515	92120	N
2	-	211221	20551	2	-	-		-	No PTH	-	Y
3	2	211313	20667	3	31.09	-160.3		1017.9	22019	92131	N
4	3	212303	20542	4	32.01	-160.5		1017.5	22023	92141	N
5	4	213314	30176	1	33.01	-160.7		1016.7	36010	92151	N
6	5	214319	20780	2	34.01	-161.0		1016.7	32007	92202	N
7	6	215307	50850	3	35.03	-161.3		1017.7	29007	92213	N
8	7	220226	20367	4	36.02	-161.5		1016.8	31014	92222	N
9	8	221148	20550	1	37.02	-161.8		1016.5	27010	92232	N
10	9	222110	30213	2	38.01	-162.1		1016.0	27019	92243	N
11	10	223022	20484	3	39.01	-162.4	Brkn	1015.8	26021	92249	N
12	11	223936	30178	4	40.01	-162.7	Sct	1012.0	25524	92257	N
13	12	224729	20479	1	40.5	-163.6	Brkn	1010.3	26527	92306	N
14	13	225551	20465	2	41.05	-164.6	Sct	1009.0	26028	92314	N
15	14	230655	20648	3	41.1	-166.1	Few	1009.5	26522	92324	N
16	15	231822	50841	4	41.1	-167.7	Sct	1010.6	27030	92340	N
17	16	232949	20372	1	41.1	-169.3	Sct	1011.4	27528	92349	N
18	17	234140	20478	2	41.1	-170.9	Sct	1010.1	27526	00000	N
19	18	235313	30150	3	41.02	-172.4	Sct	1011.1	26521	00013	N
20	19	235911	20475	4	40.5	-172.9	Sct	1011.3	26520	00023	N
21	20	000501	20483	1	39.99	-173.4	Ovcst	1012.4	24515	00027	N
22	21	001318	20511	2	39.0	-172.9	Brkn	1013.2	29011	00033	N
23	22	002143	20413	3	38.0	-172.4	Ovcst	1014.4	27016	00041	N
24	23	003008	50858	4	37.0	-171.9	Few	1015.6	24514	00049	N
25	24	003820	20468	1	36.0	-171.4	Ovcst	1016.1	24510	00058	N
26	25	004656	20414	2	35.0	-171.1		1016.7	28526	00108	N
27	26	005530	20480	3	34.0	-170.4		1017.6	27512	00115	N
28	27	010353	20532	4	33.0	-170.0		1017.1	29508	00123	N
29	28	011323	50844	1	32.0	-168.8		1016.7	07504	00132	N
30	29	012259	20485	2	31.0	-167.6		1018.2	02505	00141	N
31	30	013249	50033	3	30.0	166.5		1015.9	06511 / Last Report	00152	N
32											
33											
34											
35											
36											
37											
38											

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

COMMENTS:

Obs
Xmitted

30

Obs
Missed

0

of sondes
launched

31

of bad
sondes

1

30/31

AVAPS Drop Log

Project: ARR 2022

Mission: ARR

Flight ID: 20220309N1

Take Off: _____

Landing: _____

Flt Dir: Rich. / Kalen

Launcher S/N: _____

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	213530177	1	0	2101	ATP	AR		✓
2	213520551	2	0	2112			No PTH	X
3	213620667	3	0	2113				✓
4	213520542	4	0	2123				✓
5	213530176	1	0	2133				✓
6	213520780	2	0	2143				✓
7	213550850	3	0	2153				✓
8	213520367	4	0	2202				✓
9	213520550	1	0	2211				✓
10	213430213	2	0	2221				✓
11	213620484	3	0	2230				✓
12	213530178	4	0	2239				✓
13	213620479	1	0.5	2247				✓
14	213620465	2	0.5	2255				✓
15	213620648	3	0	2306				✓
16	213550841	4	0.6	2318				✓
17	213520372	1	0	2329				✓
18	213620478	2	0.5	2341				✓
19	213530150	3	0.5	2353				✓
20	213620475	4	0	2359				✓
21	213620483	1	0	0005				✓
22	213620511	2	0	0013				✓
23	213520413	3	0.5	0021				✓
24	213550858	4	0	0030				✓
25	213620468	1	0	0038				✓
26	213520414	2	0	0046				✓
27	213620480	3	0	0055				✓
28	213520532	4	0	0103				✓
29	213550844	1	0	0113				✓
30	213620485	2	0	0123				✓
31	211450033	3	0	0132				✓

30/31

2022-03-09, 19:11:11-27:20:24

LatGPS.3 (deg)

