

N42RF ERROR SUMMARY
20220202H1

Flight ID: 20220202H1

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	AccZfilterI-GPS.1
Altimeter	AltGPS.3
INE Selection	1
Differential Attack Pressure Probe	PDALPHA.1
Differential Sideslip Pressure Probe	PDBETA.1
Dynamic Attack Pressure Probe	PQALPHA.1
Dynamic Sideslip Pressure Probe	PQBETA.1

Flight Directory	acdata/2022/MET/20220202H1
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Local Met Data	Takeoff PANC	Landing PANC
Dynamic Corrections		Yes
AttackAngleIntercept		2.307
AttackAngleSlope		6.07515
SlipAngleIntercept		0.237
SlipAngleSlope		7.04607
AttackAngleIntercept2		2.06219
AttackAngleSlope2		5.99068
SlipAngleIntercept2		0.125
SlipAngleSlope2		6.9873

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.

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

Flight Director: Hathaway / Holmes
Phone #: 863-500-3911

ACAT-4 Version = 7.4

P-3 QC Checklist

Overall Assessment	Minor instrument issue(s) - minimal mission impact.
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Flight ID:	20220202H1	Pressure Comparison		
Flight Director(s):	Hathaway / Holmes		T/O	Land
Mission:	Non-tasked Science Collection/Research	Aircraft	1008.7 mb	N/A
UWZ.d mean:	0.05	Tower	1006.1 mb	1006.2 mb

	Raw 1Hz Mean File Parameters					C File Parameters	
✓ Accelerometer	✓ AccAXI.1 ✓ AccAXI.2 ✓ AccAXI-GPS.1 ✓ AccAXI-GPS.2	✓ AccAYI.1 ✓ AccAYI.2 ✓ AccAYI-GPS.1 ✓ AccAYI-GPS.2	✓ AccAZI.1 ✓ AccAZI.2 ✓ AccAZI-GPS.1 ✓ AccAZI-GPS.2	✓ AccZfilter-GPS.1 ✓ AccZfilter-GPS.2		✓ AccZref	
✓ Altitude	✓ AltGPS.1 ✓ AltGPS.2 ✓ AltGPS.3 ✓ AltGPS.4	✓ AltI-GPS.1 ✓ AltI-GPS.2	✓ AltPaADDU.1 ✓ AltBCADDU.1	✓ AltRA.1 ✓ AltRA.2		✓ ALTref ✓ ALTPA.d ✓ ALTGA.d	✓ AltRA1.c ✓ AltRA2.c
✓ Ground Speed	✓ GsXI-GPS.1 ✓ GsXI-GPS.2	✓ GsYI-GPS.1 ✓ GsYI-GPS.2	✓ GsZI-GPS.1 ✓ GsZI-GPS.2			✓ GSXref ✓ GSYref ✓ GSZref	
✓ Lat / Lon	✓ LatGPS.1 ✓ LatGPS.2 ✓ LatGPS.3 ✓ LatGPS.4	✓ LatI-GPS.1 ✓ LatI-GPS.2	✓ LonGPS.1 ✓ LonGPS.2 ✓ LonGPS.3 ✓ LonGPS.4	✓ LonI-GPS.1 ✓ LonI-GPS.2		✓ LATref ✓ LONref	
✓ Pressure	✓ PDALPHA.1 ✓ PDALPHA.2 ✓ PDBETA.1 ✓ PDBETA.2	✓ PQALPHA.1 ✓ PQBETA.1	✗ PQM.1 ✓ PQM.2 ✓ PQM.3 ✗ PQM.4	✓ PSM.1 ✓ PSM.2 ✗ PTM.1		✗ PDALPHAref ✗ PDBETAref ✗ PQALPHAref ✗ PQBETAref	✓ PQMref ✓ PQ.c ✓ PSMref ✓ PS.c
✓ Air Speed	✓ CasADDU.1	✓ TasADDU.1	✓ IasADDU.1			✓ IAS.d	✓ TAS.d
✓ Pitch / Roll	✓ PitchI.1 ✓ PitchI.2 ✗ PitchI.3	✓ PitchRateI.1 ✓ PitchRateI.2 ✗ PitchRateI.3	✓ RollI.1 ✓ RollI.2 ✗ RollI.3	✓ RollRateI.1 ✓ RollRateI.2 ✗ RollRateI.3		✓ PITCHref ✓ ROLLref	
✓ Temp / Dewpt	✓ TTM.1 ✓ TTM.2 ✗ TTM.3	✓ TDM.1 ✓ TDM.2 ✗ TDM.3	✓ TRadD.1 ✓ TRadS.1 ✗ TRadU.1			✓ TD.c ✓ TDMref	✓ TTMref ✓ TA.d
✓ Misc. (Must check)						✓ UWZ.d ✓ DPJ_WSZ ✓ HUM	✓ WS.d ✓ WD.d

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

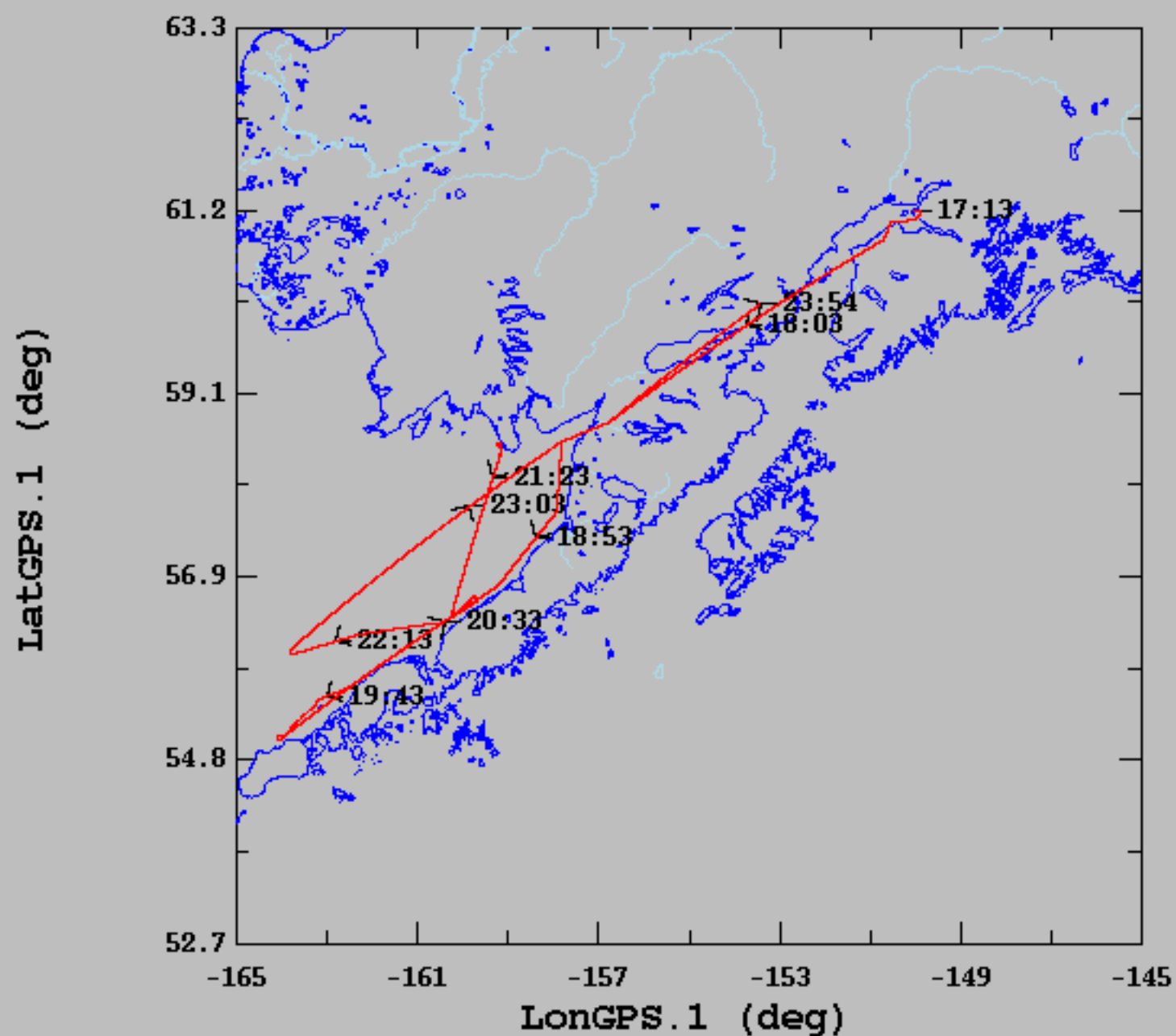
NOTES:

- PDBETA.2 appears to flat line and is unrepresentative between 19-1930Z in flight.
- PQM.1 is erroneous and unrepresentative through a majority of flight.
- PQM.4 is significantly lower in value compared to other PQM sensors and therefore unrepresentative throughout a majority of flight.
- PTM.1 is unrepresentative and erroneous throughout entire flight.
- TDM.3 is unusual warm throughout the majority of flight.
- TDM.2 is overly smoothed out throughout majority of flight. TDM.1 was chosen as reference.

U.S. Department of Commerce / NOAA / OMAO / Aircraft Operations Center - N42RF Manifest

FLIGHT INFORMATION				CREW MANIFEST			MISSION INFORMATION				
FLT ID:	20220202H1	FLT #:	OWW 3	AC:	Doremus	Scientists:	Pressure		Dropsondes		
From:	PANC	ETD:	0815L	CP(s):	Shaw	Chang	A/C Takeoff		Good	Bad	Sent
To:	PANC	ETA:	1600L		Keith	Jelenak			0	0	0
Block Time		Flight Time		NAV:	Miller	Vilardell Sanchez	ASOS Takeoff		BTs		
In:	0:25	Land:	0:21	FE(s):	Darby	FE: Gee			A/C Land		Good
Out:	17:19	T/O:	17:31	FD(s):	Pitmann	Nav: Freeman	ASOS Land				0
Total:	7.1	Total:	6.8		SSA:	Hathaway			SSA:Mascaro	Storm Number ID:	
				AVAPS:	McAlister	Visitors:					
Sponsoring Org:		AOC		SEB:			(ie: AL072012)		WXWXC OCEANWINDS03		
Program:		PED					TCP0D/WSP0D Mission				
Purpose:		OWW Mission #3			MX:			(ie: NOAA2 2418A SANDY)			
AS REQUIRED BY ORM				Y	N	REMAR	Fix Number	Obs Number	Fix Time	SLP	
VOLCANIC ASH					X		1				
SCIENCE MISSION WITHIN BDY 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:	N/A			
						*Highlighted items must be completed before departure.					
Remarks:											

2022-02-02, 17:13:00-23:54:08



	mean	sigma	min	max
LatGPS.1 (deg), 1 s/sec	57.66	1.66	55.04	61.17
LonGPS.1 (deg), 1 s/sec	-158.75	3.77	-164.10	-149.88