

N42RF ERROR SUMMARY
20220128H1

Flight ID: 20220128H1

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/20220128H1
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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:	20220128H1
Flight Director(s):	Hathaway / Holmes
Mission:	Non-tasked Science Collection/Research
UWZ.d mean:	0.1

Pressure Comparison		
	T/O	Land
Aircraft	988.1 mb	N/A
Tower	986.1 mb	986.4 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)	☒

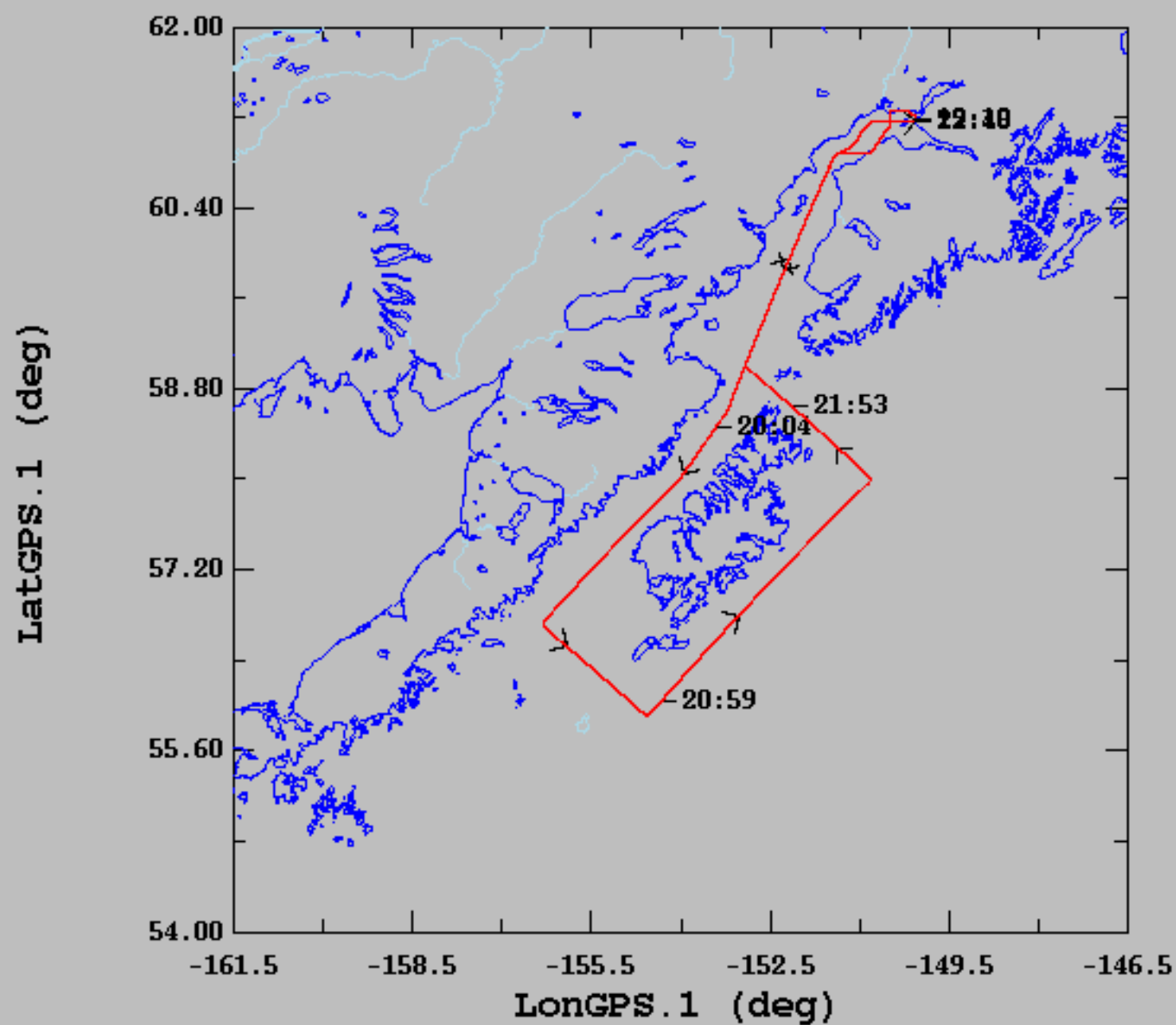
NOTES:

- PQM.1 is erroneous and unrepresentative throughout the whole flight.
- PQM.4 diverges from PQM.2 and PQM.3 around 21:20Z of flight.
- PTM.1 is erroneous and unrepresentative throughout the whole flight.
- TDM.2 is overly smoothed out throughout majority of flight. TDM.1 was chosen as reference.
- TDM.3 has unusual spikes between hours 2030Z to 2130Z of flight.
- Portions of the flight when TDM.1 is warmer than or equal to TA.d in flight, mainly occurring during icing conditions.

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

FLIGHT INFORMATION				CREW MANIFEST			MISSION INFORMATION				
FLT ID:	20220128H1	FLT #:	OWW 1	AC:	Doremus	Scientists:	Pressure		Dropsondes		
From:	PANC	ETD:	1000L	CP(s):	Shaw	Chang	A/C Takeoff		Good	Bad	Sent
To:	PANC	ETA:	1500L		Keith	Jelenak			0	0	0
Block Time		Flight Time		NAV:	Miller	Vilardell Sanchez	ASOS Takeoff		BTs		
In:	22:57	Land:	22:48	FE(s):	Darby	Sapp			A/C Land		Good
Out:	18:57	T/O:	19:10	FD(s):	Pitmann	FE: Gee	ASOS Land				0
Total:	4.0	Total:	3.6		SSA:	Hathaway			Nav: Freeman	0	
				AVAPS:	Holmes	SSA:Mascaro					
Sponsoring Org:	AOC			SEB:			Storm Number ID:		N/A		
							(ie: AL072012)				
							Program:	PED			MX:
Purpose:	OWW Mission #1			(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:											

2022-01-28, 19:10:00-22:48:09



	mean	sigma	min	max
LatGPS.1 (deg), 1 s/sec	58.65	1.64	55.91	61.27
LongGPS.1 (deg), 1 s/sec	-152.73	1.59	-156.29	-150.01