

N42RF ERROR SUMMARY
20210721H1

Flight ID: 20210721H1

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.2
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/2021/MET/20210721H1
Local Met Data	Takeoff KLAL (2157Z) Landing KLAL (0000Z)
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.

GPS.3 and GPS.4 intermittent failures. PDAlpha.2 and PDBeta.2 initialize poorly on the ground but appear to perform in-flight. PQM.4 shows delayed response during takeoff but trends with other PQMs in-flight. PitchI.3 and RollI.3 unavailable. TTM.3 unavailable. Errant spike in TDM.2 between 2203 and 2208Z. Oscillatory behavior in TDM.1. TRadU.1 unavailable.

Expendable Type -----	# deployed -----	# good -----	# transmitted -----
Dropsondes	2	2	2
Test sondes	0	0	0

AXBTS	0	0	0
AXCPs	0	0	0
AXCTDs	0	0	0
UAS	0	0	0

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

ACAT-4 Version = 7.4

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

FLIGHT INFORMATION				CREW MANIFEST			MISSION INFORMATION				
FLT ID:	20210721H1	FLT #:	21-	AC:	Abitbol	Scientists:	Pressure		Dropsondes		
From:	KLAL	ETD:	2200Z	CP(s):	Keith		A/C Takeoff	1012.3	Good	Bad	Sent
To:	KLAL	ETA:	0300Z								
Block Time		Flight Time		NAV:	Utama		ASOS Takeoff	KLAL 2150Z 1013.1 mb	2	0	2
In:	1:36	Land:	1:26	FE(s):	Tuffnel				BTs		
Out:	21:51	T/O:	21:58	FD(s):	Carpenter		A/C Land	1015.2	Good	Bad	Sent
Total:	3.8	Total:	3.5	SSA:	Warnecke	Visitors:	ASOS Land	KLAL 0150Z 1015.3 mb	0	0	0
Sponsoring Org:		AOC		AVAPS:	Underwood		Storm Number ID:		N/A		
Program:		PSM		SEB:			(ie: AL072012)				
Purpose:		SFMR Calibration.		MX:			TCPD/WSPD Mission (ie: NOAA2 2418A SANDY)		NOAA2 WXWXA TRAIN		
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:	N/A			

*Highlighted items must be completed before departure.

Remarks:

P-3 QC Checklist

Overall Assessment	Minor instrument issue(s) - no mission impact.
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Flight ID:	20210721H1
Flight Director(s):	Carpenter
Mission:	Equipment Checkout
UWZ.d mean:	0.27

Pressure Comparison		
	T/O	Land
Aircraft	1012.3	1015.2
Tower	KLAL 2150Z 1013.1 mb	KLAL 0150Z 1015.3 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	✓ PDLAPHaref ✓ 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

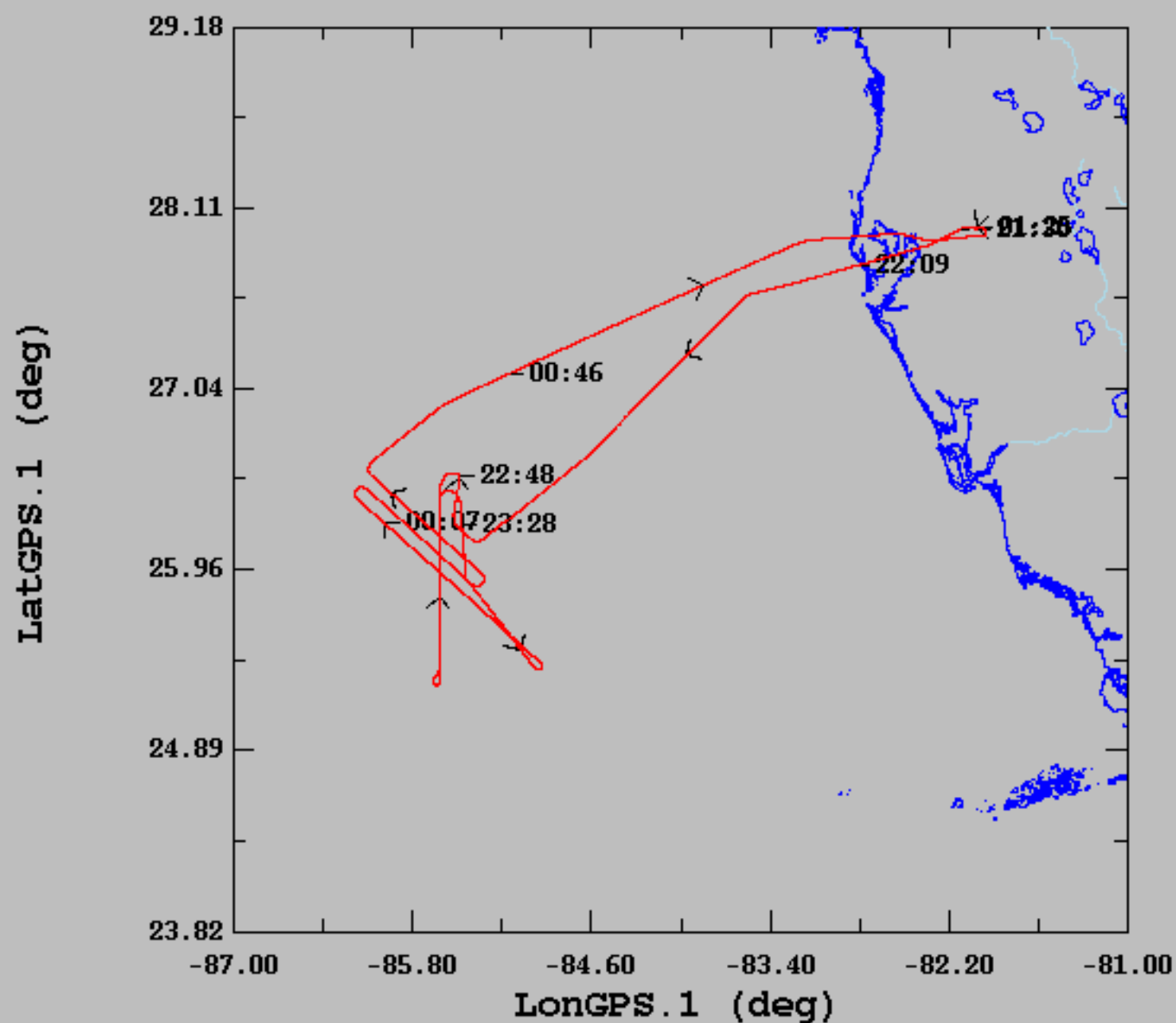
FLID_Mission_Documents.pdf:
✓ Error Summary
✓ Crew Manifest
✓ QC Checklist
✓ Dropwindsonde Log(s) - AVAPS and FD if completed
✓ Flight Track
✗ Miscellaneous FD Notes

QC Key	
Not checked	☐
Valid	☒
Errors (note)	☒

NOTES:
GPS.3 and GPS.4 intermittent fails. PDAlpha.2 and PDBeta.2 initialize poorly on the ground but appear to perform in-flight. PQM.4 shows delayed response during takeoff but trends with other PQMs in-flight. PitchI.3 and RollI.3 unavailable. TTM.3 unavailable. Errant spike in TDM.2 between 2203 and 2208Z. Oscillatory behavior in TDM.1. TRadU.1 unavailable.

[illegible]

07/21/2021, 21:30:30-25:25:48



	mean	sigma	min	max
LatGPS.1 (deg), 1 s/sec	26.78	0.89	25.28	27.99
LongGPS.1 (deg), 1 s/sec	-84.43	1.43	-86.18	-81.95