

P-3 QC Checklist

Overall Assessment	Minor instrument issue(s) - minimal mission impact.
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Flight ID:	20230126/1
Flight Director(s):	Holmes
Mission:	Equipment Checkout
UWZ.d mean:	0.46

Pressure Comparison		
	T/O	Land
Aircraft	1018 mb	N/A
Tower	1021 mb	1020 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	☒ PitchRatI.1 ☒ PitchRatI.2 ☐ PitchRatI.3	☒ RollI.1 ☒ RollI.2 ☐ RollI.3	☒ RollRatI.1 ☒ RollRatI.2 ☐ RollRatI.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:

-UWZ.d mean is abnormally high (0.46).

-There is a 40-50 mb average offset between PDAAlpha.1 and PDAAlpha.2

-PDBeta.1 significantly noisier than PDBeta.2

-PQM.1 has a ~10mb offset compared to PQM.2 or PQM.3

-PQM.4 has significant variation from the other PQM sensors and reference parameter.

-PSM.1 is significantly noisier than PSM.2 or PSMref

-TDM.2 has significantly less noise when compared to TDM.1 and TDMref.

-TTM.3/TDM.3 did not collect data during this mission.

AOC GPS Dropwindsonde Log (updated Mar 2019)

Flight ID: 20230126I1ASPEN Operator/Flight Director(s): TIMMERS/HOLMESMission ID: WVWA TRAINStorm Name/Track: WIND CALPG 1 of 1

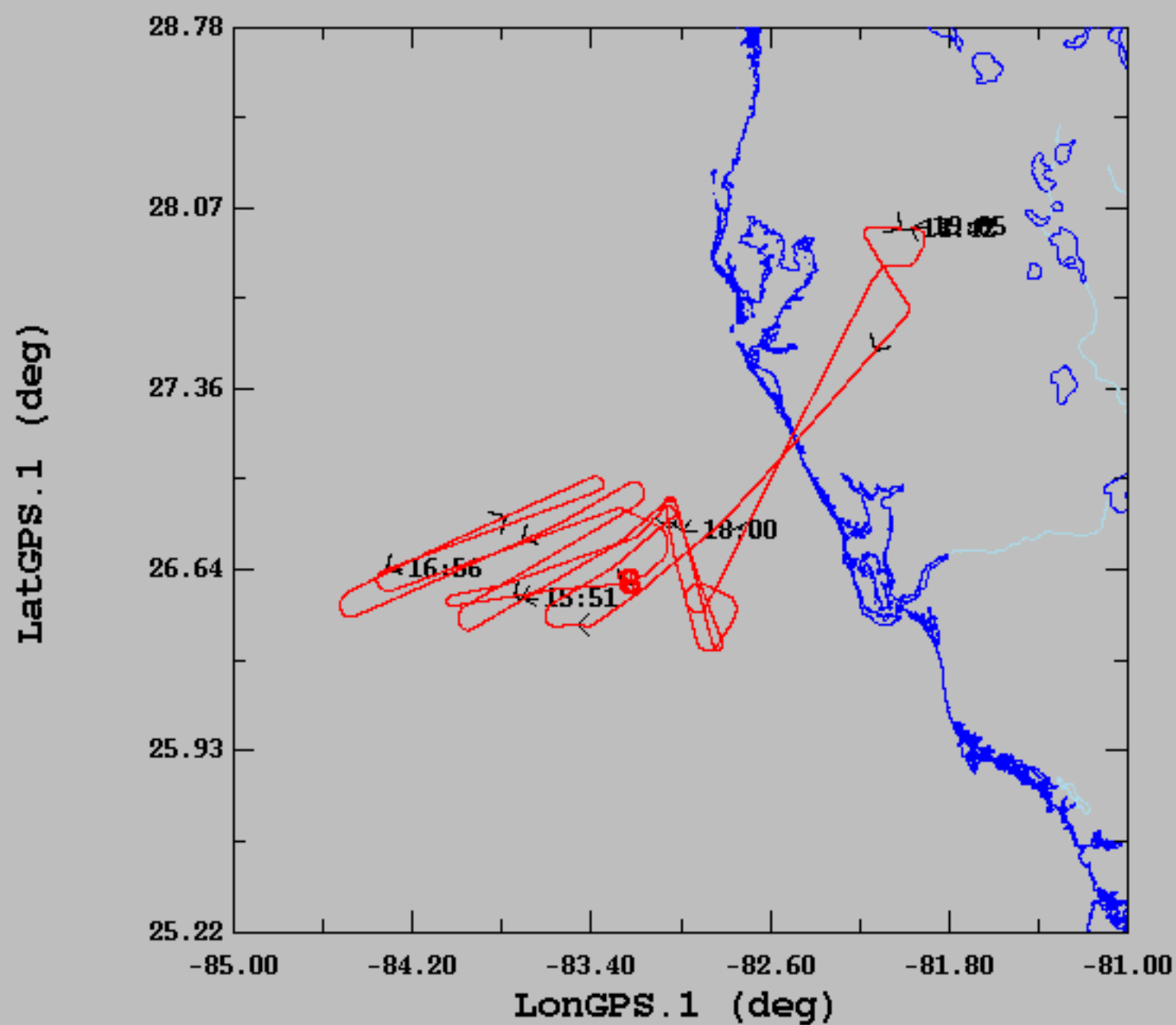
Sonde #	Ob #	Launch Time HHMMSS (Z)	Sonde ID (min last 5)	Ch # used	Lat (°N)	Lon (°E)	Prominent Wx Cond.	SFC Prs (mb)	Comments / Issues / QC / ASPEN Edits	KWBC #	Sonde Issues?
1	1	1520 52	30463	1	26.8	-82.8	BKN	1021.9	///	1538	✓
2	2	1526 44	50792	2	26.5	-83.2	BKN	1022.7	///	1554	✓✓
3	3	1534 54	50280	3	26.6	-83.4	BKN	1022.2	345/26	1557	✓✓
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ASPEN Operator will ensure this form is delivered to the AOC Flight Director to be archived

COMMENTS:

Obs
XmittedObs
Missed# of sondes
launched# of bad
sondes

01/26/2023, 13:42:47-19:05:04



	mean	sigma	min	max
LatGPS.1 (deg), 1 s/sec	27.08	0.59	26.33	28.00
LongGPS.1 (deg), 1 s/sec	-82.95	0.74	-84.52	-81.91

U.S. Department of Commerce / NOAA / OMAO / Aircraft Operations Center - N43RF Manifest

FLIGHT INFORMATION				CREW MANIFEST			MISSION INFORMATION				
FLT ID:	20230126I1	FLT #:		AC:	Copare	Scientists:	Pressure		Dropsondes		
From:	KLAL	ETD:	1000L	CP(s):	Rannenberg		A/C Takeoff		Good	Bad	Sent
To:	KLAL	ETA:	1500L		Palmer				1	2	1
Block Time		Flight Time		NAV:	Utama		ASOS Takeoff		BTs		
In:	1920	Land:	1906	FE(s):	Stokes				Good	Bad	Sent
Out:	1448	T/O:	1457	FD(s):	Holmes		A/C Land				
					Timmers						
Total:	4.5	Total:	4.2	SSA:	Richards (T)	Visitors:	Storm Number ID:				
				AVAPS:		James Clifford (Dev)					
Sponsoring Org:		AOC		SEB:	Kotz		(ie: AL072012)				
Program:					Waggoner		TCPD/WSPD Mission				
Purpose:		WindCal					(ie: NOAA2 2418A SANDY)				
				MX:							
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		3x sondes		2				
RELATIVE HUMIDITY ≥ 80%				x							
LARGE AIR-SEA TEMP GRADIENT				x	2x Tanker		3				
HIGH SURFACE WINDS				x	1x new						
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:		Wind cal + TAG and AirOps Testing									

N43RF ERROR SUMMARY
20230126I1

Flight ID: 20230126I1

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/2023/MET/20230126I1

Local Met Data	Takeoff KLAL (1457Z)	Landing KLAL (0000Z)
Dynamic Corrections		Yes
AttackAngleIntercept		0.126754
AttackAngleSlope		5.36078
SlipAngleIntercept		0.2
SlipAngleSlope		6.67768

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	3	1	1
Test sondes	0	0	0
AXBTS	0	0	0
AXCPs	0	0	0
AXCTDs	0	0	0
UAS	0	0	0

Flight Director: Holmes
Phone #: 8635003984

ACAT-4 Version = 7.4