

A3

**APPENDIX 2 – GIV QC Checklist**

Flight ID:	20180209 H1
Flight Director(s):	Holmes

Pressure Comparison		
	T/O	Land
Aircraft	1017	
Tower	1017	

UWZ.d mean: 0.06 m/s

	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-GPS.1	GsXI.1	GsGPS.1	GsXGPS.1	✓ GSXref	
	GsXI-GPS.2	GsXI.2	GsGPS.2	GsXGPS.2	✓ GSYref	
	GsYI-GPS.1	GsXI.3		GsYGPS.1	✓ GSZref	
	GsYI-GPS.2	GsYI.1	GsZI.1	GsYGPS.2		
	GsZI-GPS.1	GsYI.2	GsZI.2	GsZGPS.1		
	GsZI-GPS.2	GsYI.3	GsZI.3	GsZGPS.2		
✓ 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	✓ PDALPHaref	✓ PQMref
	✓ PDALPHA.2	✓ PQALPHA.2	✓ PQM.2	✓ PSM.2	✓ PDBETAref	✓ PQ.c
	✓ PDBETA.1	✓ PQBETA.1	X 13		✓ PQALPHaref	✓ PSMref
	✓ PDBETA.2	✓ PQBETA.2	X 14		✓ PQBETAref	✓ PS.c
✓ Air Speed	CasADDU.1	TasADDU.1	IasADDU.1		✓ IAS.d	✓ IAS.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					
✓ Miscellaneous (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

**NOTES:**

N42RF ERROR SUMMARY  
20180209H1

Flight ID: 20180209H1

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.2
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/2018/MET/20180209H1

Local Met Data	Takeoff EINN (1804Z)	Landing EINN (0125Z)
Dynamic Corrections		Yes
AttackAngleIntercept		2.35256
AttackAngleSlope		6.11627
SlipAngleIntercept		0.23
SlipAngleSlope		6.9614

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.

PDAlpha.2 was unrepresentative throughout the flight. PQM.1 and PQM.4 were unrepresentative for portions of the mission. None of the sensors were used as the source during the mission or in post processing and therefore there are no impacts to the flight level data.

Expendable Type -----	# deployed -----	# good -----	# transmitted -----
Dropsondes	9	8	0
Test sondes	1	1	0
AXBTs	0	0	0
AXCPs	0	0	0
AXCTDs	0	0	0
UAS	0	0	0

Flight Director: Holmes  
Phone #: 863-500-3983

## NOAA Aircraft Operations Center - NOAA 42 Flight Manifest

FLIGHT INFORMATION				CREW MANIFEST			MISSION INFORMATION				
FLT ID:	20180209H1	FLT #:		AC:	KIBBEY	Scientists:	Pressure		Drosondes		
From:	EINN	ETD:	1800Z	CP(s):	ROSSI	PAUL CHANG JOE SAPP MARK ROMER ZORANA JELENAK	A/C Takeoff		Good	Bad	Sent
To:	EINN	ETA:	0300Z	Nav(s):	MITCHELL		Wx Station Takeoff		9	1	Ø
Block Time		Flight Time		FE(s):	RICHARDS (B) SLOAN		A/C Land		BTs		
In:	035	In:	0125	FD(s):	SANCHEZ LALONDE		Wx Station Land		1	Ø	Ø
Out:	1751	Out:	1804	SEB:	HOLMES	Visitors:  Federica Polverari	Storm Number ID:				
Total:	7.7	Total:	7.4	SSA:	LYNCH (T)		(ie: AL072012)				
Sponsoring Org:	NESDIS			AVAPS:	MASCARO		TCPOD/WSPOD Mission		NOAA2 WXWXA OCEANWINDS7		
Program:	OWW 2018				PATEL	(ie: NOAA2 2418A SANDY)					
Purpose:	Science Mission #5, OWW Mission #7							OBSERVATIONS			
AS REQUIRED BY ORM				Y	N	REMARKS	Fix Number	Obs Number	Fix Time	SLP	
VOLCANIC ASH					X						
SCIENCE MISSION WITHIN BDRY LAYER					X						
LACK OF PRECIPITATION					X						
RELATIVE HUMIDITY ≥ 80%				X							
LARGE AIR-SEA TEMP GRADIENT				X							
HIGH SURFACE WINDS				X							
LONG FETCH / DURATION OF SFC WND				X							
SEA SALT ACCRETION FORECAST					X						
SEA SALT ACCRETION OBSERVED					X						

Additional Remarks:

Cockpit Gmax:

Gmin:

\*Highlighted items must be completed before departure.



Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								

Drop Station Operator Notes

Charge \$\$ To Options: AOC, NWS, HFIP, **NESDIS**, IR/SST or HRD **ONLY – Do not use funding codes!!!**

AVAPS Pre-Flight Check:

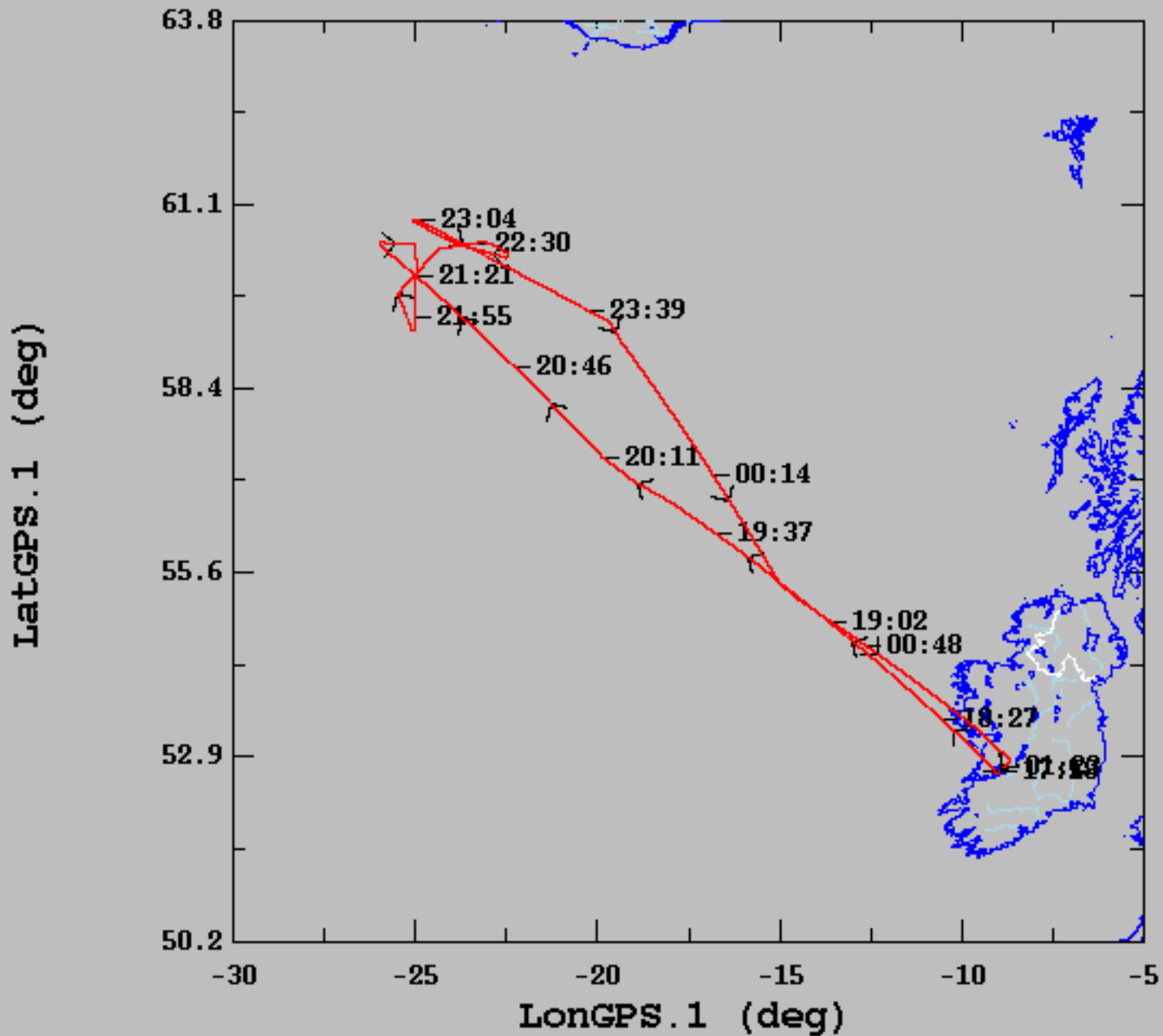
- If time-permits, verify cabin pressure sensor w/ lab standard
- Start AVAPS., then start Soundings and set the Project Name and full Flight ID (example 2015011811).
- Update the Frequency band allocation as required:  
Band A - W53rd, Band B - N42RF, Band C - N43RF, Band D - N49RF, Band E - not allocated
- Perform a prelaunch check on each channel, look for reasonable data and no CRC error status lights. Verify data is available on Remote AVAPS at the FD Station, then terminate the sonde by selecting **Abort** to cancel the sonde initialization. Verify the AVAPS Data mission folder has been created.
- **Verify AVAPS PC Time is correct**
- **Early launch detects are caused usually by remanufactured sondes with the chute riser line not properly coiled between the PCB ears. This may also cause fast falls. If this is suspected, repack the riser line as time permits**
- **Eyewall drop performance is improved when using sondes manufactured after 7/2016**
- **Perform RH Regeneration on all sondes – this must be done prior to sonde initialization -**

AVAPS Launch:

- Select a sonde frequency in the Green band and away from other sondes
- Enter sonde pressure error offset. The latest AVAPS inserts a default offset value. Adjust if pressure offset is 0.4 mB or greater
- **if the Cal lab pressure standard and the cabin pressure standard match, apply pressure offset +/- 0.1 mB**
- Select "begin data collection" and verify good data (including Winds) prior to putting sonde in launch tube
- Failure to keep good lock on GPS is likely due to the GPS antenna connector on the sonde PCB needing to be rotated away from surface mount components – do this if needed.
- Cut off about 1/2 of ribbon, loosen ribbon and extend end of ribbon to near, but not over, the sensor end of the sonde
- Place the sonde in the launch tube, sensor arm up, with the power pin socket facing starboard
- Verify the sonde is actively tracking GPS data prior to launch and no **Early Launch detect**

# 20180209H1 Flight Track

2018-02-09, 17:18:39-25:23:28



	mean	sigma	min	max
— LatGPS.1 (deg), 1 s/sec	57.00	2.81	52.65	60.86
— LonGPS.1 (deg), 1 s/sec	-17.73	5.80	-25.94	-8.66