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Flight Director: SEARS
Phone #: 863.500.3986

ACAT-4 Version = 7.1

APPENDIX 2 – GIV QC Checklist

Flight ID:	20170907M1
Flight Director(s):	SEARS

Pressure Comparison		
	T/O	Land
Aircraft	1010.2	1011.1
Tower	1010.2	1010.6

UWZ.d mean: 0.22

	Raw 1Hz Mean File Parameters				C File Parameters	
<input checked="" type="checkbox"/> Accelerometer	AccAXI.1	AccAYI.1	AccAZI.1		AccZref	
	AccAXI.2	AccAYI.2	AccAZI.2			
	AccAXI.3	AccAYI.3	AccAZI.3			
<input checked="" type="checkbox"/> 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	
<input checked="" type="checkbox"/> 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		
<input checked="" type="checkbox"/> Lat/Lon	LatGPS.1	LatI.1	LonGPS.1	LonI.1	LATref	
	LatGPS.2	LatI.2	LonGPS.2	LonI.2	LONref	
	LatGPS.3		LonGPS.3			
<input checked="" type="checkbox"/> 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			PQALPHAref	PSMref
	PDBETA.2	PQBETA.2			PQBETAref	PS.c
<input checked="" type="checkbox"/> Air Speed	CasADDU.1	TasADDU.1	IasADDU.1		IAS.d	TAS.d
<input checked="" type="checkbox"/> 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		
<input checked="" type="checkbox"/> Temp/Dewpt	TTM.1	TTM.4	TDM.1		TD.c	TTMref
	TTM.2		TDM.2		TDMref	TA.d
	TTM.3					
<input type="checkbox"/> Miscellaneous (must check)	RH IS HIGH.				<input checked="" type="checkbox"/> UWZ.d	<input checked="" type="checkbox"/> WS.d
					<input checked="" type="checkbox"/> DPJ_WSZ	<input checked="" type="checkbox"/> WD.d
					HUM	

FLID_Mission_Documents.pdf:

<input checked="" type="checkbox"/>	Error Summary
<input checked="" type="checkbox"/>	Crew Manifest
<input checked="" type="checkbox"/>	QC checklist
<input checked="" type="checkbox"/>	Dropwindsonde Log(s) – AVAPS and FD if completed
<input checked="" type="checkbox"/>	Flight Track
<input checked="" type="checkbox"/>	Miscellaneous FD notes

NOTES:

U.S. Dep't. of Commerce / OMAO / NOAA / Aircraft Operations Center

FLT ID: 20170907N1	From: KLAL	To: KLAL
FLT #: _____	Blk In: 1426 Z	Lnd Time: 1421 Z
ETD: _____ Z	Blk Out: 0535 Z	T/O Time: 0543 Z
ETE: _____	Total Blk: _____	Total Flt: _____
Sponsoring Org: _____	Program: NHC	Purpose: H. IRMA

AOC Flight Crew

Aircraft Commander: MACINTYRE	SSA: MILLER
Co-Pilot: COWAN /	AVAPS: HARTBERGER, RILES
Navigator: /	Scientists: _____
Flight Eng: /	Scientists: _____
Flt Director: SEARS / FLAHERTY	Scientists: _____
SEB: GOLDSTIEN /	Scientists: _____

Crew Chief: _____ Visitors: WALDENBERGER, GEORGE

A/C - Takeoff	Wx Station - Takeoff	A/C - Land	Wx Station - Land
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Pressure

AS REQUIRED BY ORM	YES / NO	REMARKS
VOLCANIC ASH		
SCIENCE MISSION WITHIN BOUNDARY LAYER		
LACK OF PRECIPITATION		
RELATIVE HUMIDITY AT OR ABOVE 80%		
LARGE AIR-SEA TEMPERATURE GRADIENT		
HIGH SURFACE WINDS		
LONG FETCH AND/OR DURATION OF SFC WIND		
SEA SALT ACCRETION FORECAST		
SEA SALT ACCRETION OBSERVED		

Dropsondes Good: 30 Bad: 35 Sent: 30 * MISSED 2 OBS

AXBT Good: Bad: Sent:

List other data sources in Remarks section

Remarks (Storm VDM Identifier, Mission ID, Fix Times)	Fix #	VDM Ob Num	Fix Time / SLP
Storm Number Identifier (VDM): _____ (ie: AL072012)			
TCPOD/WSPOD Mission ID: 1611A (ie: NOAA2 2418A SANDY)			

Remarks:

30 / 35

35 drops

5 ^{used}

Project: Hurricane 2017

Mission: Trms

Flight ID: 20170907N1

Roles
Hartberger

Take Off: 0542

Landing: 1420

Flt Dir: Sears

Launcher S/N: 2

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	142755208	1	-.7	0618	Roles	PHS	NWS	✓
2	142715011	2	-.6				NO DROP launch detected	Tube
3	142625095	2	-.6	0647	Roles	✓		✓
4	162835061	1	-.4	0709	"		404.7	✓
5	143255088	2	-.5	0725	"		400.7	✓
6	162825003	1	0.0	0738	"		401.7	✓
7	162715093	2	0.0	0755	"			✓
8	162715152	1	0.0	0809	"			✓
9	162745069	2	0.0	0821	"			✓
10	162835047	1	-.4	0835	"			✓
11	162815048	2	0.0?	0849	"			✓
12	162845041	1	0.0	0903	"			✓
13	162745106	2	0.0	0919	"			✓
14	162255009	1	0.0	0950	"		died after 8min	✗
15	162835055	2	-.9	1000	"			✓
16	162715109	1	-.4	1011	"			✓
17	162745113	3	0.0	1025	"			✓
18	163255039	4	0.0	1031				✓
19	163255006	2	0.0	1041			NO winds 0.5m/s	✗
20	162215134	1	-.5	1042				✓
21	142715011	3	0.0	1052				✓
22	162715117	4	0.0	1108				✓
23	163025014	1	0.0	1119				✓
24	163255038	2	0.0	1134			Fast Fall	✗
25	162835062	3	0.0	1136				✓
26	162715106	4	0.0	1145				✓
27	163255021	1	0.0	1201			Winds at 50 ft	✗
28	162745001	2	0.0	1214				✓
29	163025007	3	-.5	1230			No winds	✗
30	162825092	4	-.6	1232				✓
31	163255007	1	0.0	1241				✓
32	163255031	2	0.0	1252				✓
33	162745081	3	0.0	1305				✓
34	162815294	4	0.0	1317				✓

34
35

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
35	162 835 037	1	-4	1328	Rob	PHS		✓
36	162 715 143	2	0.0	1339	Robert	PHS		✓
37								
38								
39								
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51								
52								
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Drop Station Operator Notes

Charge \$\$ To Options: AOC, NWS, HFIP, HRD, 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: 20120823N2).
- Verify the Frequency band allocation as required:
- Band A - W53rd, Band B - Research, Band C - N43RF, Band D - N49RF, Band E - Global Hawk
- Select the **GPS Reference** tab from the **Soundings Displays** page and verify good GPS data
- 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 R1 and L1, 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 if 0.4mB or greater using cabin pressure sensor - warning, this can not be used during a climb
- 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 with winds prior to putting sonde in launch tube
- Do not shorten the ribbon on N49
- 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

N49RF AOC G Dropwindsonde Log

Flight ID: 20170907N1

Flight Director: FLAHERTY / SEARS

Mission ID: 1611A IRMA

Storm/Track: HURRICANE IRMA

Pg 1 of 2

[Handwritten scribbles and signatures]

Drop #	Ob #	Sonde ID	Drop Time (UTC)	Lat (°N)	Lon (°E)	Wx Cond.	L5/R5?	SFC Prs (mb)	Last Wind Alt (m)	Comments	Ch #	SatComm failures	KWBC #
1	1	55208	0618	25	-84.5	DARK		1013.0			1		0641
2	2	15011	0647	21.5	-85.3	"		1012.2			2		0708
3	3	35061	0709	21	-82.7	"		1012.3			1		0727
4	4	55088	0725	20.5	-80.8	"		1011.9			2		0743
5	5	25003	0738	19.9	-79.3	"		1012.3			1		0756
6	6	15093	0755	19.2	-77.5	"		1011.9			2		0813
7	7	15152	0809	18.3	-76.1	"		1010.3			1		0829
8	8	45069	0821	17.5	-75	"		1010.0			2		0840
9	9	15152	0835	17.2	-75.3	"		1009.1			1		0854
10	10	45048	0849	17.0	-71.7	"		1007.4			2		0912
11	11	45041	0903	17.1	-70	"		1008.5			1		0923
12	12	45106	0919	17.1	-68	"		1006.9			2		0939
13	—	55019	0950	20	-65.7	"				BAD SONDE	1		
14	13	35055	1000	21.3	-66	OVERBLW		1009.6			2		1020
15	14	15704	1011	22.3	-66.8	"		1010.0			1		1047
16	15	45113	1021	22.9	-68.0	"		1010.3			3		1044
17	—		(1041)							No WINDS			
18	16	15509	1031			"				12 MIN ATD			
19	17	15134	1042	22.2	-70.7	BAD BLW		1009.7		FAST / BAD	1		1118
20	18	15011	1052	21.4	-71.5	"		1008.3			3		1127
21	19	15117	1108	22	-73.5	SETBLW		1011.6			4		1129
22	20	25014	1119	22	-75	"		1011.6			1		1139
23	—		1134							FAST FALL			
24	21	35062	1136	23.6	-76	SETBLW		1012.9			3		1159
25	22	15106	1145	24	-75	SETBLW		1013.5			4		1208
26	—					FAST				FALL			
27	23	45001	1214	24.3	-71.3	SETBLW		1013.2			1		1239
28	—		1230							No WINDS			
29	24	25092	1232	26.0	-70.3	SETBLW		1015.6			4		1252
30	25	55007	1241	26.0	-71.5	SETBLW		1015.8			1		1314
31	26	55031	1253	26.0	-73.0	SETBLW		1015.3			2		1319
32	27	45081	1305	26	-74.5	SETBLW		1014.9			3		1326
33	28	15274	1317	26	-76	SETBLW		1015.3			4		1334

2017-09-07, 04:42:46-14:27:42

