

N49RF ERROR SUMMARY
Hurricane IRMA

Flight ID: 20170908N1

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	AccZI.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/2017/MET/20170908N1

Local Met Data	Takeoff KLAL (0556Z)	Landing KLAL (1331Z)
Dynamic Corrections		Yes
AttackAngleIntercept		5.1083
AttackAngleSlope		5.91956
SlipAngleIntercept		1.05
SlipAngleSlope		6.80484
AttackAngleIntercept2		5.05312
AttackAngleSlope2		5.74156
SlipAngleIntercept2		0.8
SlipAngleSlope2		6.89644

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	35	29	29
Test sondes	0	0	0
AXBTS	0	0	0
AXCPs	0	0	0
AXCTDs	0	0	0

UAS

0

0

0

Flight Director: SEARS
Phone #: 863.500.3986

ACAT-4 Version = 7.1

APPENDIX 2 – GIV QC Checklist

Flight ID:	20170908N1
Flight Director(s):	SEARS FLAHERTY

Pressure Comparison		
	T/O	Land
Aircraft	1011.0	1010.9
Tower	1010.9	1010.9

UWZ.d mean: 0.27

	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			PQALPHaref	PSMref
	PDBETA.2	PQBETA.2			PQBETAref	PS.c
✓ Air Speed	CasADDU.1	TasADDU.1	IasADDU.1		IAS.d	TAS.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:

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

22
-27

FLT ID: 20170908N1	From: KLAL	To: KLAL
FLT #: _____	Blk In: 1338 Z	Lnd Time: 1332 Z
ETD: _____ Z	Blk Out: 0549 Z	T/O Time: 0557 Z
ETE: _____	Total Blk: 7.8	Total Flt: 7.6
Sponsoring Org: NHC	Program: _____	Purpose: IRMA

AOC Flight Crew

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

Crew Chief: _____ Visitors: HOWARD ALTMAN /

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

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: 29 Bad: 6 Sent: 29

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: (ie: NOAA2 2418A SANDY)			

Remarks:

9

N49RF AOC G Dropwindsonde Log

212-275
7620
7:07
AUSYN
8:10A

416
205
3809
JUSTIN
IREWIN
HEATHER
MISOX

Flight ID: 20170908 N1

Flight Director: FLAHERTY / SEARS

Mission ID: 1911A IRMA

Storm/Track: HURRICANE IRMA

Pg ___ of ___

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	35032	0624	29	-79	DARK		1014.9			1		0646
2	2	55022	0638	29	-77	"		1015.1			2		0709
3						FAST FALL					3		
4						NO WINDS					4		
5	3	45044	0657	29	-74	DARK		1015.8			1		0718
6	4	45103	0706	29	-72.7	"		1015.7			2		0726
7	5	35008	0717	29	-71.1	"		1015.9		BAD WINDS 650-800 mb	3		0739
8	6	55003	0735	27	-72	"		1013.5			4		0819
9	7	45030	0750	27	-74	"		1012.10			1		0821
10	8	15113	0805	27	-76	"		1011.8			2		0832
11	9	45062	0820	27	-78	"		1012.6			3		0846
12	10	15045	0834	25.3	-78	"				TERMINATED EARLY	4		0904
13	11	55183	0851	23.5	-78.8	"		1010.0			1		0915
14						FAST FALL					2		
15	12	15098	0909	22.5	-77.1	"		1007.3			3		0938
16	13	45123	0916	23.3	-76.8	"		1006.7			4		0952
17	14	45121	0926	24.3	-76	"		1008.8			1		0959
18	15	45125	0936	24.8	-74.8	"		1008.9			2		1001
19	16	45128	0947	24.8	-73.5	"		1009.6			3		1006
20	17	45117	0957	24.2	-72.3	"		1007.7			4		1020
21	18	15011	1008	23.2	-71.5	OVC BLW		1007.6			1		1031
22						BAD SONDE					2		
23	19	35058	1031	20.6	-71.5	OVC BLW		1003.4			3		1055
24	20	45125	1040	20	-72.3	"		1004.4			4		1100
25	21	35060	1054	19	-73.5	OVC BLW		1006.1			1		1134
26	22	45031	1104	19	-74.8	SCT BLW		1005.0			2		1137
27	23	15075	1115	17.5	-76	SCT BLW				TERM EARLY	3		1142
28						FAST FALL					4		
29	24	15116	1131	19.5	-78.1	SCT BLW		1008.0			1		1150
30	25	55043	1145	20.0	-80	"					2		1220
31	26	15203	1200	20.5	-82	"		1009			3		1237
32	27	35052	1216	21	-84	"		1011			4		1243
33	28	15235	1237	23	-84.8	"		1012.4		NO DATA (60-90 mb)	2		1303
34	29	55141	1254	25	-84	"		1013.5			3		1313

Cal lab pres
Cal lab 1011,
Plane 1011.

Project: Hurricane 2017 Mission: Hurricane Irma Flight ID: 20170908N1

Take Off: _____ Landing: _____ Flt Dir: Sears Launcher S/N: _____

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	162835032	1	-9	0624	JEH	PHS		✓
2	163 255 002	2	-3	0638				✓
3	162 845 070	3	+3	0652			fast fall, then recovered	✓
4	162 715 105	4	-8	0654			lost GPS	✓
5	162 845 044	1	-4	0657				✓
6	163 845 103	2	-5	0706				✓
7	163 835 008	3	-9	0717				✓
8	163 255 003	4	-4	0735				✓
9	162 845 030	1	0	0750				✓
10	162 715 113	2	-2	0805				✓
11	162 745 062	3	-6	0820				✓
12	163 815 045	4	+2	0834			lost-GPS	✓
13	162 655 183	1	-4	0851				✓
14	162 835 046	2	-9	0907			fast fall till 3000ft	✓
15	162- 715 098	3	0	0918				✓
16	163 845 123	4	0	0916				✓
17	163 845 121	1	-2	0926				✓
18	162 745 125	2	-5	0936				✓
19	163 845 128	3	+3	0947				✓
20	163 845 117	4	0	0952				✓
21	162 715 211	1	-2	1008				✓
22	164 015 011	2	-4	1020			weak telemetry	interference
23	162 835 058	3	0	1031				✓
24	163 845 125	4	0	1040				✓
25	162 835 060	1	-3	1054				✓
26	162 845 831	2	-2	1104				✓
27	162 815 275	3	-0	1116				✓
28	163 255 024	4	-2	1129			Fast fall	✓
29	163 615 116	1	-5	1131				✓
30	162 055 043	2	-7	1145				✓
31	162 715 203	3	+4	1200		GPS	Interference	✓
32	162 835 052	4	-5	1216				✓
33	163 815 106	1	-6	—			No Drop	✓
33	162 715 235	2	-2	1237			Telemetry interference	✓

No Drop

432-5700B

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
34	162 655 141	3	-1	1254				✓
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								

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

2017-09-08, 04:40:19-13:40:01

