

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

FLT ID: 2010825H	From: KNUK	To: KNUK
FLT #: 11-044	Blk In: 0332 Z	Lnd Time: 0325 Z
ETD: 8100 2000 Z	Blk Out: 1939 Z	T/O Time: 1949 Z
ETE: 8100	Total Blk: 7.9	Total Flt: 7.6
Sponsoring Org: HRD	Program: HPIP	Purpose: 11ZENE

AOC Flight Crew

Aircraft Commander: NORMAN	Data System: BOSKO
Co-Pilot: KERNS / SWEENEY	Avaps: RICHARDS
Navigator: BRATON /	System Engineer: PEBK
Flight Eng: DABBY / FLOYD	AA: HARRISON
Flt Director: SEARS /	AA:
Avionics: OZNEY	Crew Chief:

Participating Scientists, Visitors, & Add'l Aircrew on back.

of people listed on back:

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

ATIS - Takeoff

ATIS - Land

Data Source	Number	Data Disposition / Date / Quality
Flight Level Tapes		
Radar Tapes		
Dropsondes		Good: 36 Bad: 3 Sent: 31
AXBT		

List other data sources on back in Remarks section.

Remarks (Storm Name, Mission ID, Recco Times, Fix Times)

Recco

Times:

Fix #

Fix Time

Storm Name: 1 REWE

Mission ID: 2309A

6 2114
 6 2224
 6 2337
 6 0042

6 0158



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FLT ID: T/O Time: Z Lnd Time: Z

Name (Last, First)	Activity on Aircraft	Affiliation
CORSOLO, S	SCI	(HR)
ROGERS, R	LPS	(HR)
KLOTZ, B	SCI	(HR)
SHABAN, BIGAD	MEDIA	CBS
MCGILVER, JAMIE	MEDIA	CBS

Remarks:

71
26 85
27 25

19 49

7 36

92

39

53



N42RF ERROR SUMMARY HURRICANE IRENE



Flight ID: 20110825H1

<u>Sensor or system</u>	<u>Number or Name</u>
INE (for wind derivation)	INE1
Accelerometer	ACCI1
Temperature Probe	TT1
Dew Point Probe	TDM2X
Static Pressure	PSF
Dynamic Pressure	PQF1
Vert. Wind	ALTI1
Constants File	/acdata/adc/42_11v5.adc
Project Directory	/acdata/2011/MET/20110825H1

Special note: There was a major problem with the attack angle output during this mission that results in erroneous vertical winds for the entire mission.

Notes:

There were many data gaps throughout the flight. The times are listed below.

205521Z

210411Z – 210412Z

212211Z

230101Z – 210102Z

232751Z

011541Z

021821Z

021911Z – 021914Z

Dewpoint sensor 2 (TDM2 [EdgeTech]) generated erroneous data between 203205Z – 203220Z. The erroneous data were replaced with dewpoint sensor 1 (TDM1 [Buck]) output via direct substitution: TDM2X = TDM1.

Dewpoint sensor 2 (TDM2 [EdgeTech]) generated erroneous data between 015539Z – 015732Z. The erroneous data was replaced with dewpoint sensor 3 (TDM3 [Maycomm TDL]) output via direct substitution: TDM2X = TDM3

During the flight there were instances where dewpoint temperature values exceeded derived ambient temperature values resulting in humidity values above 100%. These situations occurred during heavy precipitation events.

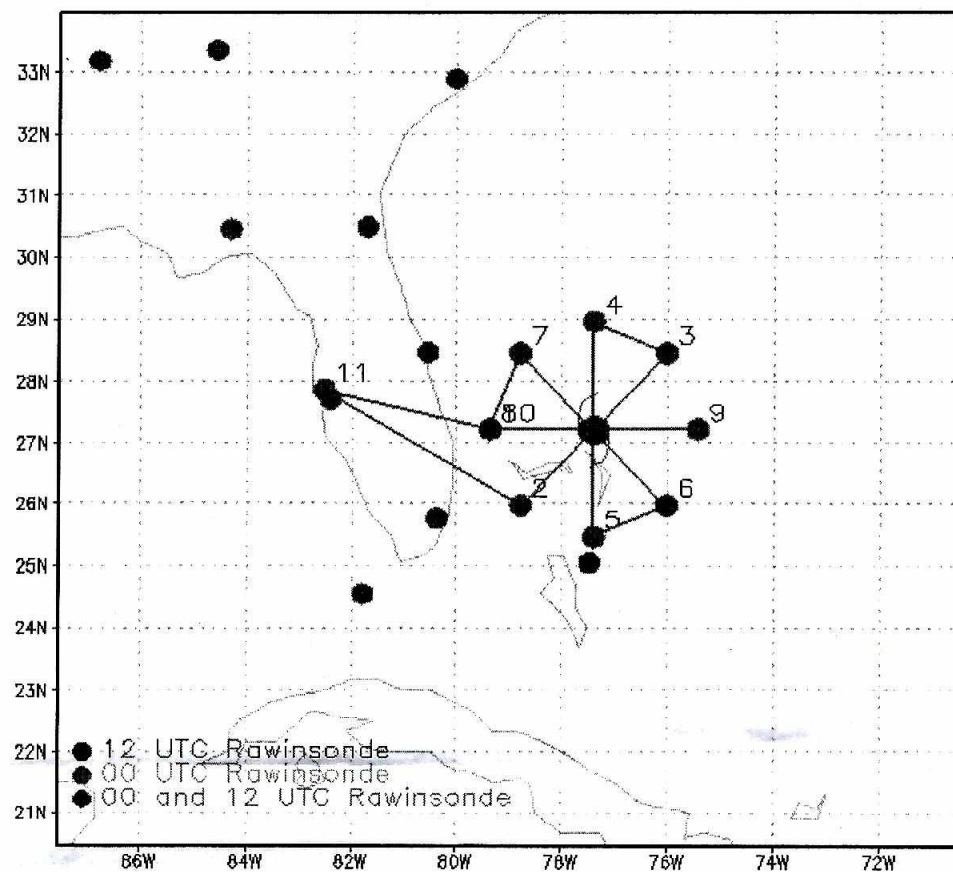
All other instruments worked optimally during the flight.

There were thirty-six (36) GPS dropsondes deployed. 33 were good 3 were bad.

Takeoff/Landing data: Data during landing and takeoff are potentially suspect. It is recommended that ground data not be used for scientific analysis.

SPECIAL NOTE!!! The variable names dpj_wgs, dpj_was, and dpj_wz in the netCDF file represent vertical ground, vertical air, and vertical wind speeds respectively, computed using Dave Jorgensen's vertical wind algorithm. It is recommended that these values be used for vertical wind analysis.

	Takeoff(1949Z)	Landing(0325Z)
Aircraft Static Pressure	1007.0 mb	1007.7 mb
Corrected Tower Pressure	1007.3 mb	1008.0 mb
Flight Director:	Ian Sears	(813) 828-3310 ext. 3039



GRADS: COLA/IGES

2011-08-25-09:43

DATE	SCHEDULED RX TIME	AIRCRAFT NUMBER	FLIGHT DIRECTOR
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WX MISSION IDENTIFIER	OB NUMBER
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VORTEX DATA MESSAGE

A	26 / 158 Z	DATE and TIME of FIX
B	27 DEG 49 MIN N S	LATITUDE of FIX
	97 DEG 21 MIN W E	LONGITUDE of FIX
C	MA M	MINIMUM HEIGHT of STANDARD LEVEL
D	82 KT	ESTIMATE of MAXIMUM SURFACE WIND OBSERVED
E	31 DEG 13 NM	BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND
F	128 DEG 98 KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER
G	35 DEG 18 NM	BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND
H	942 MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.
I	17 C / 2445M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE
J	21 C / 2440M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE
K	16 C / NA	DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE
L	OPEN SW	EYE CHARACTER: Closed wall, poorly defined, open SW, etc.
M	C25	EYE SHAPE/ORIENTATION/DIAMETER: Code eye shape as: C - Circular; CO - Concentric; E - Elliptical. Transmit orientation of the major axis in tens of degrees, i.e., 01-010 to 190; 17 - 170 to 350. Transmit diameter in nautical miles. Examples: C8= Circular eye 8 miles in diameter; E09/15/5=Elliptical eye, major axis 090-270, length of major axis 15 NM, length of minor axis 5 NM. CO8-14=Concentric eye, diameter inner eye 8 NM, outer eye 14 NM.
N	12345 NA	FIX DETERMINED BY / FIX LEVEL. FIX DETERMINED BY: 1-Penetration; 2-Radar; 3-Wind; 4-Pressure; 5-Temperature. FIX LEVEL (Indicate surface center if visible; indicate both surface and flight level centers ONLY when same): 0-Surface; 1-1500 ft; 9-925mb; 8-850mb; 7-700mb; 5-500mb; 4-400mb; 3-300mb; 2-200mb; NA-Other
O	1 / 1 NM	NAVIGATION FIX ACCURACY / METEOROLOGICAL ACCURACY

P	REMARKS
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~~97~~ ~~27~~ ~~98~~ ~~KT~~ ~~98~~ ~~QUAD~~ ~~Q~~ ~~Z~~
 MAX FL WIND 111 KT NE QUAD 21/538 / 8
 C 24 OPEN SW 340/9

105 2120
27 24 76 49

~~2125~~

2125 27 38 76 33
111 kT

DATE		SCHEDULED RX TIME	AIRCRAFT NUMBER	FLIGHT DIRECTOR
WX MISSION IDENTIFIER				OB NUMBER
VORTEX DATA MESSAGE				
A	2025 / 2142Z		DATE and TIME of FIX	
B	27 DEG 08 MIN N S		LATITUDE of FIX	
	27 DEG 10 MIN W E		LONGITUDE of FIX	
C	MB N K M		MINIMUM HEIGHT of STANDARD LEVEL	
D	61 KT		ESTIMATE of MAXIMUM SURFACE WIND OBSERVED	
E	233 DEG 21 NM		BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND	
F	315 DEG 69 KT		MAXIMUM FLIGHT LEVEL WIND NEAR CENTER	
G	233 DEG 61 NM		BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND	
H	MB		MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.	
I	15 C / 2449M		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE	
J	20 C / 2431M		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE	
K	17 C / NAE		DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE	
L	OPEN SW		EYE CHARACTER: Closed wall, poorly defined, open SW, etc.	
M	C25		EYE SHAPE/ORIENTATION/DIAMETER: Code eye shape as: C - Circular; CO - Concentric; E - Elliptical. Transmit orientation of the major axis in tens of degrees, i.e., 01-010 to 190; 17 - 170 to 350. Transmit diameter in nautical miles. Examples: C8= Circular eye 8 miles in diameter; E09/15/5=Elliptical eye, major axis 090-270, length of major axis 15 NM, length of minor axis 5 NM. CO8-14=Concentric eye, diameter inner eye 8 NM, outer eye 14 NM.	
N	12345 NA		FIX DETERMINED BY / FIX LEVEL. FIX DETERMINED BY: 1-Penetration; 2-Radar; 3-Wind; 4-Pressure; 5-Temperature. FIX LEVEL (Indicate surface center if visible; indicate both surface and flight level centers ONLY when same): 0-Surface; 1-1500 ft; 9-925mb; 8-850mb; 7-700mb; 5-500mb; 4-400mb; 3-300mb; 2-200mb; NA-Other	
O	1 / 1 NM		NAVIGATION FIX ACCURACY / METEOROLOGICAL ACCURACY	
P	REMARKS			
MAX FL WIND _____ KT _____ QUAD _____ Z				

947

8918 11330 39

5:1855Z 010111 V10 F4.6 34124 29.77 +146 041LS

MISSION LOG

PAGE 1 OF 2

FREQ

ALT

HDG

OTHER

119.9

16

204

2080 8K +10

133.4

500030

134.2

363.05

125.7

307.9

119.82

348.7

087 PHK 6.006

123.67

133.4

140

000

090

180

270

360

000

90

180

270

360

000

90

180

270

360

000

90

180

270

360

210 MC

220 MC

2328 MC

0035 MC

000

090

180

270

360

000

90

180

270

360

000

90

180

270

360

000

90

180

270

360

210 MC

220 MC

2328 MC

0035 MC

EMERGENCY MESSAGE

TRANSMIT THE FOLLOWING MESSAGE TO ANY AGENCY ON THE AIR-GROUND FREQUENCY IN USE. IF UNABLE TO ESTABLISH COMMS, ATTEMPT CONTACT ON ANY OF THE FOLLOWING EMERGENCY FREQUENCIES:

UHF/VOICE

VHF/VOICE

MIF/VOICE

HF/CW

243.0

121.5

2182 KHZ

8364 KHZ

500 KHZ

MAYDAY, MAYDAY, MAYDAY

THIS IS NOAA

NOAA

NOAA

42

- POSITION

N / S

E / W

AT

Z

- HEADING

TRUE/MAG

- AT

KTS TRUE/INDICATED

- FLIGHT LEVEL OR ALTITUDE

18

SOULS ON BOARD

- WE ARE A P-3 AIRCRAFT WITH

- NATURE OF EMERGENCY

- ASSISTANCE DESIRED

- PILOT INTENTIONS

- WE HAVE

ENDURANCE REMAINING

POSITION REPORT

1. POSITION

2. TIME

3. ALTITUDE

4. NEXT POSITION

5. ETA

6. NEXT POSITION

TIME	FIX TYPE	POSITION	INS 1 POSITION	K ERR	INS 2 POSITION	K ERR	VAR +E=>	TH +R=>	DR	TRK	GS	WD	WS	ALT	TAS	NEXT PT	DIST	TIME	ETA	REMARKS
1932	ENG	N	N		N															NYR 13348
1939	TAXI	W	W		W															1V 15V 2X25X
1949	1010																			HUMPHRESS 0030 1941Z
1955	X	27-50.5 82-13.9	27-50.5 82-13.9	0	27-50.5 82-13.9	0				147	255	020	23	6K	245					MCP 100115 50
2048	A	26-02.7 78-39.7	26-03.0 78-39.4	-3 +3	26-02.7 78-38.7	0 +1.0				040	242	305	49	8K	250					
2146	A	28-36.6 76-10.10	28-36.7 76-10.8	-1 -2	28-37.1 76-10.2	-1.5 +4				288	314	130	80	8K	240					
2246	A	25-57.0 77-15.6	25-58.7 77-15.4	-1.7 +1.2	25-57.7 77-14.4	-1.7 +1.2				181	238	272	64	8K	289					
2353	A	28-13.1 78-17.1	28-14.1 78-17.3	-1.0 -1.2	28-14.5 78-16.6	-1.4 +1.5				312	254	058	75	8K	244					
0052	A	27-30.8 76-40.3	27-31.6 76-39.6	-1.8 +1.7	27-40.3 76-38.5	-1.5 +1.8				090	232	182	90	8K	241					
0125	C	OPS	20102N	2912N	76-04N	76-04N				0130Z	VHRC	CLIMB			1W	30 min	0725			NYR 8918
0147	A	28-22.2 76-48.9	28-23.3 76-48.6	-1.1 +1.3	28-24.6 76-48.3	-1.4 +1.6				225	229	138	84	8K	245					
0246	A	26-45.9 80-08.5	26-46.3 80-07.3	-1.4 +1.2	26-48.6 80-06.7	-2.7 +1.8				291	275	335	32	140	299					
0305	LAMP																			
0332	BLK																			

3 2824 75-43 4 28-53 77-13 5 25-33 77-16 6 26-05 75-49 7 2843 7846 8 2731 7922

