

U.S. Dept. of Commerce / NOAA / Aircraft Operations Center

Flt ID: 110827I1	From: KMCF	To: KMCF
Flt No: 11-070	Blk In: 1526Z	ATA: 1515
ETD: 0800Z	Blk Out: 0756Z	ATD: 0804Z
ETE:	Blk Time: 7:30 (7.5)	Flt Time: 7:11 (7.2)
Sponsor Org: HRD NEAR LANDFALL	Program: HURRICANE	Purpose: H. IRENE NEAR LANDFALL

AOC Personnel

AC: HALVERSON	Sys Eng:
CP: NELSON / MARTIN	Data Sys: NAEHER
Nav: SLOAN	Radar: LYNCH, T
FE: KLIPPEL / HEYSTEK	GPS/BT: WARNECKE
FD: DAMIANO	Cid Phys:
Avionics: SANS SOUCI	

Participating Scientists / Visitors / AOC

Name (Last, First)	Activity on Aircraft	Affiliation
UHLHORN, E	PI	HRD
SELLWOOD, K	SONDES	↓
REASON, P	REASON	
MARKS, F	RADAR	
PELUSO, DAVE	OBS	COS (C) ↓
SHOUBE, CLINTON	OBS	REP BILIRAKIS STAFF MEMBER
BOEX, C	MEDIA	FOX 13 NEWS
SIPOS, J	MEDIA	FORNIA Radio CBS

Proposed/Actual Mission Remarks (Recco, Fixes, Storm, PENET, NHOP #)

29 3418 1009Z 3:15

27 7638 951 smoke

29778 3439 951

9 7635 1149Z

(2)

NOAA3 3209A IRENE

0710 0557Z TEAL 72 8,9,12Z

33 45 952 33° 22'

7637 76° 35'

3406, 0856Z 3417

7638 952 7637

AF 12Z

3402 76.4 020/12

0234Z 10K

32° 32' N

76° 52' W

DAP - 2.2 on ground before T/O

U.S. Dept. of Commerce / NOAA / Aircraft Operations Center

AOCWF2

Flt ID:

110827I1

Time Off:

0804Z

Time On:

1515Z

A/C (Take Off)

Wx Station (Take Off)

A/C (Land)

Wx Station (Land)

Pressure

1007.4

29.78 (1007.6)

1009.8

29.84 (1009.7)

Number

Data Disposition / Date / Quality

Flt Lvl Tapes

2

Radar Tapes

Cloud Physics Tapes

Video Tapes

AXBT

AXCP

AXCTD

Dropsondes

24

19 good & 5 bad (all no launch detect)
all H&D drops 19 temp drops sent

Video

Forward

Left Side

Right Side

Down

Remarks

Time On

Time Off

Rate

Remarks



N43RF ERROR SUMMARY
HURRICANE IRENE
LANDFALL IN NORTH CAROLINA



Flight ID: 20110827I1 HRD MISSION

Sensor or system	Number or Name
INE (for wind derivation)	INE1
Accelerometer	ACC1
Temperature Probe	TT1
Dew Point Probe	TDM2 (EgdeTech)
Altitude (for vertical wind)	ALTI1 (GPS)
Static Pressure	PSF
Dynamic Pressure	PQF2
Constants File	/acdata/adc/n43_hur11v3.adc
Project Directory	/acdata/2011/MET/20110826I1

Notes:

There were no data gaps.

Dewpoint sensor #2 (TDM2...EdgeTech) erroneous values were replaced with dewpoint sensor #1 (TDM1...Buck) values during the time frames 081820Z – 081828Z and 101024Z – 101028Z.

Dewpoint sensor #2 (TDM2...EdgeTech) erroneous values were removed and replaced using statistical techniques during the time frames 093200Z – 093400Z, 141300Z – 141500Z and 150600Z – 150800Z. Dewpoint sensor #3 values were used as a reference.

During the flight there were numerous 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.

Twenty-four (24) dropsondes were deployed. Nineteen (19) were good and 5 were bad.

SPECIAL NOTE!!! The variable names dpj_wgs, dpj_was and dpj_wz in the netCDF file represent vertical ground speeds , vertical air speeds 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 (0804Z)	Landing (1515Z)
Aircraft Static Pressure	1007.4mb	1009.8mb
Corrected Tower Pressure	1007.6mb	1009.7mb
Flight Director:	A. Barry Damiano (813) 828-3310 ext. 3073	

Flight ID 110827I1



Uttahora

COPYRIGHT

STATION C3X

FLIGHT ENGINEER

STATION 2

STATION 1

STATION 3

FLIGHT DIRECTOR

STATION 4.

NAVIGATOR

DIRECT

STATION 33X

PROJECT SLIP

PROFIT

STATION 5

STATION 7

STATION 7

STATION B

DIRECT

GALLERY

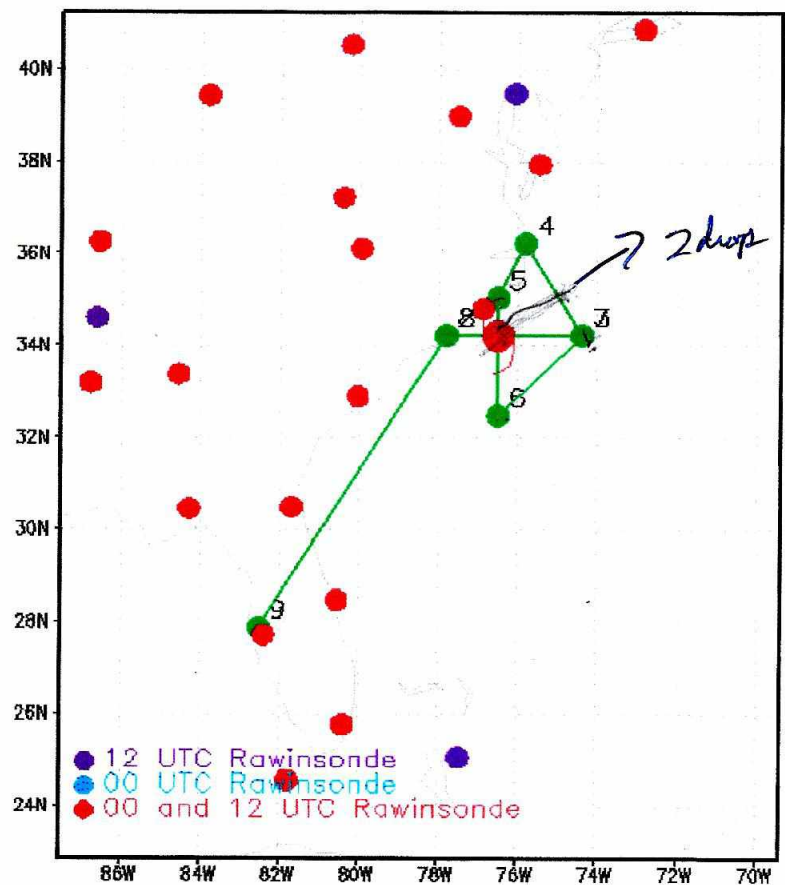
PROFIT

W
3407
7749

3408 C
7618

340720
7427 E

3623
7530 N



GrADS: CQLA/IGES

2011-08-26-12:41

45 -90
3/135
12
75

3542
KNKT 7442
KMRH

~~rainband~~
in rainband → (20) → (20)

DATE		SCHEDULED RX TIME		AIRCRAFT NUMBER		FLIGHT DIRECTOR <i>71w</i>	
WX MISSION IDENTIFIER						OB NUMBER <i>16</i>	
VORTEX DATA MESSAGE							
A	<i>27 11149 Z</i>			DATE and TIME of FIX			
B	<i>34 DEG 39 MIN N</i>			LATITUDE of FIX			
	<i>76 DEG 35 MIN E</i>			LONGITUDE of FIX			
C	<i>200 MB 2692 M</i>			MINIMUM HEIGHT of STANDARD LEVEL			
D	<i>44 KT</i>			ESTIMATE of MAXIMUM SURFACE WIND OBSERVED			
E	<i>033 DEG 164 NM</i>			BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND			
F	<i>156 DEG 92 KT</i>			MAXIMUM FLIGHT LEVEL WIND NEAR CENTER			
G	<i>057 DEG 29 NM</i>			BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND			
H	<i>230/6 HRS 951 MB</i>			MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.			
I	<i>14 C / 2436 M</i>			MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE			
J	<i>20 C / 2435 M</i>			MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE			
K	<i>19 C / NA C</i>			DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE			
L	<i>NA</i>			EYE CHARACTER: Closed wall, poorly defined, open SW, etc.			
M	<i>NA</i>			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	<i>12345 / NA</i>			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	<i>1 / 1 NM</i>			NAVIGATION FIX ACCURACY / METEOROLOGICAL ACCURACY			
P	REMARKS <i>OUTBOUND</i> MAX FL WIND <i>60</i> KT <i>S</i> QUAD <i>1158</i> Z						

INSTRUCTIONS: Items A thru G (and H when extrapolated) are transmitted from the aircraft immediately following the fix. The remainder of the message is transmitted as soon as available for scheduled fixes and at the Flight Director's discretion for unscheduled (intermediate) fixes.

DATE		SCHEDULED RX TIME		AIRCRAFT NUMBER		FLIGHT DIRECTOR	
WX MISSION IDENTIFIER						OB NUMBER	
VORTEX DATA MESSAGE							
A	27 / 1009 Z		DATE and TIME of FIX				
B	34 DEG 18 MIN N S		LATITUDE of FIX				
	76 DEG 38 MIN W E		LONGITUDE of FIX				
C	200 MB 2686 M		MINIMUM HEIGHT of STANDARD LEVEL				
D	57 KT		ESTIMATE of MAXIMUM SURFACE WIND OBSERVED				
E	243 DEG 21 NM		BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND				
F	348 DEG 65 KT		MAXIMUM FLIGHT LEVEL WIND NEAR CENTER				
G	251 DEG 33 NM		BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND				
H	158/8 951 MB		MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.				
I	17 C / 2458 M		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE				
J	19 C / 2456 M		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE				
K	18 C / NA C		DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE				
L	EYE CHARACTER: Closed wall, poorly defined, open SW, etc.						
M	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	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	/ NM		NAVIGATION FIX ACCURACY / METEOROLOGICAL ACCURACY				
P	REMARKS MAX FL WIND _____ KT _____ QUAD _____ Z 1016 MAX FL Temp 20C 235/8mm						

INSTRUCTIONS: Items A thru G (and H when extrapolated) are transmitted from the aircraft immediately following the fix. The remainder of the message is transmitted as soon as available for scheduled fixes and at the Flight Director's discretion for unscheduled (intermediate) fixes.

Flight ID: 20110827-1

Flt Dir: DAMIANO

[illegible]