



N42RF ERROR SUMMARY

H. IKE MISSION/FERRY TO ST. CROIX



Flight ID: 080906H

<u>Sensor or system</u>	<u>Number or Name</u>
Inertial	INE1
Accelerometer	ACC1
Temperature Probe	TT1
Dew Point Probe	TDM2X (EdgeTech)
Static Pressure	PSF
Dynamic Pressure	PQF1
Vert. Wind	RA159X
Constants File	n42_hur08v3.adc
Project Directory	/acdata/2008/hur08

Notes:

There was one data gap: 150731Z – 150737Z. Beginning with the H080829 H. Gustav flight and continuing through the H080912 H. Ike flight, there was observed a 3 to 4 second lag between all INE1 and INE2 outputs. INE1 was selected since it best corresponded with the analog output.

There were no liquid water sensors available for the flight.

The APN-159 (RA159X) radar altimeter output had two time periods of erroneous values. The RA159 data glitches were fixed using statistical techniques during the following time periods: 110430Z – 110630Z and 1110Z – 111200Z.

Measured dewpoint temperature #2 (EdgeTech)...TDM2...exhibited several time periods of erroneous data during the flight. For 120253Z – 120606Z, 140600Z – 140800Z and 141100Z – 141300Z the erroneous data was removed by substituting TDM3(Maycomm/TDL) output,

TDM2 = TDM3

For 150000Z – 150400Z the erroneous TDM2 data was removed and patched using statistical techniques.

Fuselage dynamic attack pressure (PQAF) had a data spike between 174300Z – 174500Z. The spike was removed and patched using statistical techniques.

All other instruments worked optimally during the flight.

Four (4) GPS dropsondes were deployed with 3 being good. Three (3) tempdrop messages were sent to NHC.

	Takeoff 1053Z	Landing 2056Z
Aircraft Static Pressure	1011.7mb	1010.0mb
Corrected Tower Pressure	1012.4mb	1010.6mb

Flight Director: A. Barry Damiano (813) 828-3310 ext. 3073

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

AOCWFI

Flt ID: 0809064	From: KMCF	To: BT TISX
Flt No: 08-059	Blk In: 2100Z	ATA: 2056Z
ETD: 1100Z	Blk Out: 1047Z	ATD: 1053Z
ETE:	Blk Time: 10:13 (10.2)	Flt Time: 10:03 (10.1)
Sponsor Org: NESDIS	Program: OCEAN WINDS HURRICANE	Purpose: H. IKE NORTH OF PUERTO RICO

AOC Personnel

AC: NELSON ✓	Sys Eng: ROGERS ✓
CP: NEWMAN / GIREMONTE	Data Sys:
Nav: GALLAGHER ✓	Radar:
FE: BAST / KLIPPEL ✓	GPS/BT: BOSKO / GREENE ✓
FD: DAMIANO ✓	Cld Phys:
Avionics: OLNEY ✓	DARBY ✓

Participating Scientists / Visitors / AOC

Name (Last, First)	Activity on Aircraft	Affiliation
CHANG ✓	PI	NESDIS
JELENAK ✓	ASST PI	NESDIS
CHU ✓	C-SCAT	UMASS
STOFFELN, A ✓	OBS	KR KNMI

Proposed/Actual Mission Remarks (Recco, Fixes, Storm, PENET, NHOP #) NOAA2 0309A IKE

1448Z Sat overpass

75nm legs TEAL 72 0655Z 22.25° 104KTS NW QUAD
EYEWALL DROPS 182 962m 66°34'

DP 23°05' 69°30'

Pass 22°10' 68°30'

LF STOP 134650Z

150720 nm setup

LF inop after second pass

7 penetrations

22.4 67.1 09Z 253/14

18Z 22.1 69.0

260/13

Radar 8K alt

U.S. Dept. of Commerce / NOAA / Aircraft Operations Center AOCWF2

Flt ID: 080906H Time Off: 10532 Time On: 20562

Pressure	A/C (Take-Off)	Wx Station (Take-Off)	A/C (Land)	Wx Station (Land)
	<u>1011.97</u>	<u>1012.95</u> <u>29.91</u> <u>1012.4</u>	<u>1010.0</u>	<u>29.82</u> <u>1012.2</u>

Number	Data Disposition / Date / Quality
Flt Lvl Tapes	<u>2</u>
Radar Tapes	<u>1</u>
Cloud Physics Tapes	
Video Tapes	
AXBT	
AXCP	
AXCTD	
Dropsondes	<u>18</u> <u>5 bad; 17 NESDIS; 1 NHC</u>

Video

Forward	Left Side	Right Side	Down	Remarks
Time On				
Time Off				
Rate				

Remarks

951

69012

2130

19152

951m

EXTRAP

953

6906

18262

2133

68056

956

2140

EXTRAP

17072

6839

21046

16882

957 EXTRAP

EXTRAP

958

17492

14552

EXTRAP

957

2148

6816

2148

14152

23

26

2885

N42RF AVAPS DROP LOG

Project : Hurricane '08

Mission: HARRIS **Flight ID:** 0809061+

Take Off: 0658L

Landing :

Fit Dir: DAM:AND

Launcher S/N:

[illegible]

NEEDS = PED

DATE		SCHEDULED RX TIME		AIRCRAFT NUMBER		FLIGHT DIRECTOR <i>Daniels</i>	
WX MISSION IDENTIFIER						OB NUMBER <i>J</i>	
VORTEX DATA MESSAGE							
A	06 / 14 / 15 Z		DATE and TIME of FIX				
B	21 DEG 48 MIN (N) S		LATITUDE of FIX				
	08 16 MIN (W) E		LONGITUDE of FIX				
C	NA MB NA M		MINIMUM HEIGHT of STANDARD LEVEL				
D	85 KT		ESTIMATE of MAXIMUM SURFACE WIND OBSERVED				
E	310 DEG 13 NM		BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND				
F	025 DEG 125 KT		MAXIMUM FLIGHT LEVEL WIND NEAR CENTER				
G	310 DEG 15 NM		BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND				
H	953 MB		MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.				
I	16 C 12413 M		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE				
J	17 C 12669 M		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE				
K	16 C NA C		DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE				
L	OPEN W		EYE CHARACTER: Closed wall, poorly defined, open SW, etc.				
M	E35/25/20		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	/ / / NM		NAVIGATION FIX ACCURACY / METEOROLOGICAL ACCURACY				
P	REMARKS						
MAX FL WIND 125 KT NW QUAD 1412Z Z MAX OUTBOUND FL 95 SE QUAD 1418Z WIND EYE OPEN W-SW 60 SFC (61) 1450Z TURBULENT NW QUAD DRY AIR INTRUSION							

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.

Turn Pt	Type	Fix/Point	Latitude	Elev	Aspd	Altitude	MH	TH	Leg Time	Leg Dist
	DTD	Descriptio	Longitude	MV	Bank	Wind	MC	TC	Clock TIm	Total Dist
1		KMCF/A	N 27 50.96	14FT	270T	10000M	122	118	00+00+00	0.0
*M	KMCF	MACDILL	W082 31.27	4.5W			122	118	00:00:00	0.0
2		PEI	N 26 40.80	19FT	270T	10000M	122	118	00+02+50	147.8
*M		PALM BEA	W080 08.19	5.9W			122	118	00:32:50	147.9
3		TURPS BR	N 26 40.78	unk	270T	10000M	096	090	00+04+03	18.3
*M		TURPS (P	W079 44.80	6.2W			096	090	00:36:53	166.0
4		MIXAE BR	N 26 40.72	unk	270T	10000M	096	090	00+06+03	18.7
*M		MIXAE	W079 29.47	6.3W			096	090	00:39:56	179.3
5		HALBI BR	N 26 40.61	unk	270T	10000M	097	090	00+04+09	18.7
*M		HALBI (ZB	W079 08.59	6.6W			097	090	00:44:05	198.5
6		ULAMA B	N 26 40.45	unk	270T	10000M	099	092	00+00+57	4.3
*M		ULAMA	W079 08.30	6.6W			099	092	00:43:02	232.3
7		ZFP BR63	N 26 33.32	7FT	270T	10000M	116	110	00+04+39	20.9
*M		FREPOR	W078 41.87	6.8W			116	110	00:49:41	223.7
8		BARTS BR	N 25 59.02	unk	270T	10000M	125	118	00+16+11	72.8
*M		BARTS	W077 30.34	7.5W			125	118	01:06:52	236.3
9		MAMML B	N 25 32.20	unk	270T	10000M	127	120	00+11+55	53.6
*M		MAMML	W076 38.86	7.9W			127	120	01:17:47	350.1
10		DIAZZ BR	N 24 31.29	unk	270T	10000M	128	120	00+17+55	80.7
*M		DIAZZ	W073 22.14	8.6W			128	120	01:35:42	430.3
11		COBBL B	N 24 45.41	unk	270T	10000M	129	121	00+02+33	11.5
*M		COBBL	W075 11.28	8.7W			129	121	01:38:15	442.3
12		LOGVN B	N 24 32.00	unk	270T	10000M	129	121	00+05+48	26.1
*M		LOGVN	W074 46.68	8.9W			129	121	01:44:03	468.4
13		BRRGO B	N 24 25.00	unk	270T	10000M	130	121	00+03+01	13.6
*M		BRRGO	W074 33.93	9.0W			130	121	01:47:04	481.9
14			N 23 05.00	unk	250T	10000M	114	106	01+09+36	290.0
*M			W069 30.00	11.6W			114	106	02:56:40	771.9
15		IKE	N 22 10.00	unk	250T	10000M	146	134	00+18+43	78.0
*M	IKE	IKI	W068 30.00	12.0W			146	134	03:15:23	849.9
16			N 21 20.00	unk	250T	10000M	144	132	00+17+53	74.8
*M			W067 30.00	12.4W			144	132	03:33:21	924.3
17			N 23 05.00	unk	250T	10000M	012	360	00+25+07	104.6
*M			W067 30.00	12.6W			012	360	03:58:28	1029.4
18		IKE	N 22 10.00	unk	250T	10000M	238	226	00+18+43	78.0
*M	IKE	IKI	W068 30.00	12.0W			238	226	04:17:11	1107.4
19			N 21 20.00	unk	250T	10000M	240	228	00+17+58	74.8
*M			W069 30.00	11.3W			240	228	04:35:09	1182.3
20		HARDEW	N 20 00.38	unk	250T	10000M	165	154	00+21+09	88.1
*M		HARDE	W068 49.02	11.5W			165	154	04:36:18	1270.4
21		IDAHO/W	N 19 15.63	unk	290T	10000M	135	124	00+16+36	80.2
*M		IDAHO	W067 38.37	12.0W			135	124	05:12:54	1350.6
22		ROBLLW	N 18 57.27	unk	290T	10000M	129	117	00+03+16	40.9
*M		ROBLE	W067 00.34	12.3W			129	117	05:24:10	1390.6
23		BEANO/W	N 18 45.59	unk	290T	10000M	130	117	00+05+14	25.3
*M		BEANO	W066 37.17	12.4W			130	117	05:26:24	1415.9
24		CORAFW	N 18 38.30	unk	290T	10000M	130	117	00+03+03	14.7
*M		CORAF	W066 23.40	12.5W			130	117	05:29:27	1430.6
25		SJU/R	N 18 26.78	7FT	290T	10000M	130	118	00+05+20	25.8
*M		SAN JUAN	W065 59.37	12.7W			130	118	05:34:47	1456.4

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2155 6750 1700

Turn Pt	Type	Fix/Point	Latitude	Elev	Aspd	Altitude	MH	TH	Leg Time	Leg Dist
	DTD	Descriptio	Longitude	MV	Bank	Wind	MC	TC	Clock Tim	Total Dist
26		COYIE	N 17 44.07	860 FT	290T	10000W	133	120	00+17+36	85.1
	W	ST CROIX	W064 42.04	13.3W			133	120	05:52:23	1541.4
27		TISX/A	N 17 42.09	74 FT	290T	10000M	265	251	00+01+16	6.1
	M	HENRY E	W064 48.12	13.2W			265	251	05:53:39	1547.6

1656	1649
1700	1659

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