



N42RF ERROR SUMMARY TS KYLE OVER OPEN ATLANTIC



Flight ID: 080926H

<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	GPS(Blended)
Constants File	n42_hur08v3.adc
Project Directory	/acdata/2008/hur08

Notes:

There was one (1) data gap: 011511Z – 011523Z.

No lag was observed between INE1 and INE2 outputs.

There were no liquid water sensors available for the flight.

The APN-159 (RA159X) was inop for the entire flight. The blended GPS altitude from INE1 (ALTI1) was used.

Measured dewpoint temperature #2 (EdgeTech)...TDM2...exhibited several time periods of erroneous data during the flight. For 023341Z – 023350Z, 042947Z - 043022Z and 044539Z - 044549Z the erroneous data was removed by substituting TDM3(Maycomm/TDL) output,

$$\text{TDM2} = \text{TDM3}$$

For 214500Z – 214515Z, 221200Z – 221214Z and 042900Z - 043100Z erroneous TDM2 data was removed using statistical techniques.

For 000245Z – 000531Z the erroneous TDM2 data was removed by substituting

TDM1(Buck) output,

$$\text{TDM2} = \text{TDM1}$$

All other instruments worked optimally during the flight.

Eleven (11) GPS dropsondes were deployed with 9 being good. Nine (9) tempdrop messages were sent to NHC.

	Takeoff 2057Z	Landing 0458Z
Aircraft Static Pressure	1010.8mb	1012.8mb
Corrected Tower Pressure	1011.3mb	1013.3mb

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

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

AOCWF

Flt ID: 0809264	From: KMCF	To: KMCF
Flt No: 08 - 71	Blk In: 0506Z	ATA: 0458Z
ETD: 2030Z	Blk Out: 2051Z	ATD: 2057Z
ETE:	Blk Time: 8:15 (8.3)	Flt Time: 8:01 (8.0)
Sponsor Org: AFEMC/NESDIS	Program: HURRICANE	Purpose: TS KYLE

AOC Personnel

AC: NELSON	Sys Eng:
CP: GRIMONTE / PRILE	Data Sys: ROLES
Nav: SEBEL BISHOP	Radar:
FE: WADE / BAST	GPS/BT: BOSKO / MILLER
FD: DAMIANO	Cld Phys:
Avionics: OLNEY	

Participating Scientists / Visitors / AOC

Name (Last, First)	Activity on Aircraft	Affiliation
CHANG, P	PI	NESDIS
JELENIAK, Z	ASST. PI	NESDIS
MANUS, J	C-SCAT	UMASS
ABERSON	PI	HRD
MURILLO	HAPS	
SELLWOOD	HAPS	

AL112008

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

AF 23°18' 1933Z 2227Z

T/O delayed due to getting waivers for 5 crewmembers approaching the 120 hr/30 day

2350Z
28°44'
68°33'

948mb

2915
68°49'

EXT 992
Sonde 995

5K TEAL72 now

TEAL70 02Z

2900
6840 999mb
0056Z

NOAA2 7311A KYLE

2655

68°47'

1734Z

2800

6830

Drop at
CNTR IP

2800

6955

1002mb

SFC CNTR
SW OF
FL CNTR

CNTR

IP

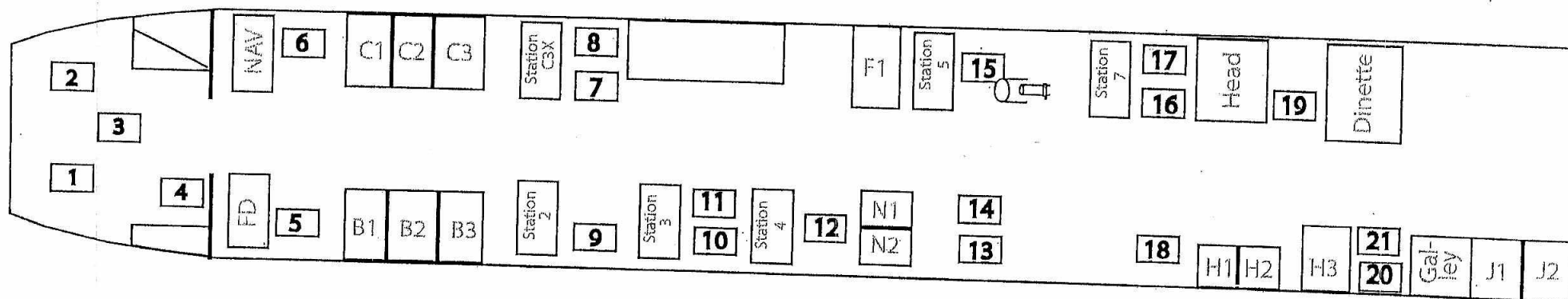
U.S. Dept. of Commerce / NOAA / Aircraft Operations Center

AOCWEP

Flt ID: 080926H	Time Off: 2057Z	Time On: 0458Z		
A/C (Take Off)	Wx Station (Take Off)	A/C (Land)	Wx Station (Land)	
Pressure 1010.8	29.87 1011.8	1011.3 1012.8	29.98 1013.8	
Number	Data Disposition / Date / Quality			
Flt Lvl Tapes 2				
Radar Tapes				
Cloud Physics Tapes				
Video Tapes				
AXBT				
AXCP				
AXCTD				
Dropsondes 11	9 good; 2 bad; 9 messages 8 for EMC; 3.8 - NESDIS			
Video				
Forward	Left Side	Right Side	Down	Remarks
Time On				
Time Off				
Rate				
Remarks ✓ E E E PL E-PL E PC E E E				

NOAA AIRCRAFT OPERATIONS CENTER

Flight ID 080926H



1. NELSON
PILOT

2. GIRIMONTE
COPILOT

3. WADE
FLIGHT ENGINEER

4. CHANG
STATION 1

5. DAMIANO
FLIGHT DIRECTOR

6. BISHOP
NAVIGATOR

7. OFF DUTY F/E
STATION C3X

8. OFF DUTY PILOT
STATION C3X

9. ABERSON
STATION 2

10. MURILLO
STATION 3

11. SELLWOOD
STATION 3

12. ROLES
STATION 4

13. MILLER
PROJECT SEAT

14.
PROJECT SEAT

15. BOSKO
STATION 5

16. JELENIAK
STATION 7

17. MANUS
STATION 7

18. OLNEY
STATION 8

19.
DINETTE

20.
GALLEY

21.
GALLEY

Project : Hurricane '08

Mission : KVLZ

Flight ID: 080826r

Take Off: _____ Landing: _____ Flt Dir: BARRY D. Launcher S/N: _____

$$E_{MC} = NWS$$

PED = NEEDS

DATE		SCHEDULED RX TIME		AIRCRAFT NUMBER		FLIGHT DIRECTOR	
WX MISSION IDENTIFIER						OB NUMBER	
VORTEX DATA MESSAGE							
A	27 10217 Z			DATE and TIME of FIX			
B	29 DEG 15 MIN (N) S			LATITUDE of FIX			
	68 DEG 49 MIN (W) E			LONGITUDE of FIX			
C	700 MB 3083 M			MINIMUM HEIGHT of STANDARD LEVEL			
D				ESTIMATE of MAXIMUM SURFACE WIND OBSERVED			
E	DEG NM			BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND			
F	119 DEG 79 KT			MAXIMUM FLIGHT LEVEL WIND NEAR CENTER			
G	40 DEG 45 NM			BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND			
H	EXTRAP 992 MB			MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.			
I	C / M			MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE			
J	C / M			MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE			
K	C / 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' 995 mb 207/19 KTS						

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	027 / 0056 Z		DATE and TIME of FIX				
B	29 DEG 00 MIN (N) S		LATITUDE of FIX				
	68 DEG 40 MIN (W) E		LONGITUDE of FIX				
C	MB M		MINIMUM HEIGHT of STANDARD LEVEL				
D	KT		ESTIMATE of MAXIMUM SURFACE WIND OBSERVED				
E	DEG NM		BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND				
F	109 DEG 63 KT		MAXIMUM FLIGHT LEVEL WIND NEAR CENTER				
G	0 DEG 33 NM		BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND				
H	999 MB		MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.				
I	C / M		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE				
J	C / M		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE				
K	C / 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						

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DATE		SCHEDULED RX TIME	AIRCRAFT NUMBER	FLIGHT DIRECTOR
WX MISSION IDENTIFIER				OB NUMBER
VORTEX DATA MESSAGE				
A	22 28 / 2350 Z	DATE and TIME of FIX		
B	28 DEG 44 MIN (N) S	LATITUDE of FIX		
B	68 DEG 33 MIN (W) E	LONGITUDE of FIX		
C	700 MB 3105 M	MINIMUM HEIGHT of STANDARD LEVEL		
D	KT KT	ESTIMATE of MAXIMUM SURFACE WIND OBSERVED		
E	DEG NM	BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND		
F	249 DEG 28 KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER		
G	184 DEG 30 NM	BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND		
H	EXTRAP 998 MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.		
I	14 C / 2318 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE		
J	19 C / 2316 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE		
K	12 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	1345/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 <u>28</u> KT <u>5</u> QUAD <u>23 42 Z</u> MAX OUTBOUND AND MAX FL WIND <u>64 KTS</u> EQUAD <u>0007</u> MAX FL TEMP — C — / — NM FROM FL FL CNTR 28				

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