N42RF ERROR SUMMARY
H. GUSTAV IN GULF OF MEXICO

Flight ID: 080831H

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

Notes:

There were three (3) data gaps: 230641Z – 230730Z, 230851Z – 230900Z and 014801Z – 014900Z. 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. INE1was 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 several time periods of erroneous values. The RA159 data glitches were fixed using statistical techniques during the following time periods: 194940Z – 195140Z, 203700Z – 203900Z, 212500Z – 212700Z, 001100Z – 001300Z, 004500Z – 004700Z, 011300Z – 011500Z, 011600Z – 011800Z, 022830Z – 023030Z, and 031940Z - 032140Z.

Measured dewpoint temperature #2 (EdgeTech)...TDM2...exhibited several time periods of erroneous data during the flight. For 030253Z – 030338Z, and 031114Z - 031127Z the erroneous data was removed by substituting TDM3(Maycomm/TDL) output,

TDM2 = TDM3

For 000237Z – 000510Z, and 002120Z – 002141Z the erroneous TDM2 data was removed by substituting TDM1(Buck) output,

TDM2 = TDM1

All other instruments worked optimally during the flight.

Seventeen (17) GPS dropsondes were deployed with 15 being good. Fifteen (15) tempdrop messages were sent to NHC.
Sixteen (16) AXBTs were deployed with 15 being good.

	Takeoff 1922Z	**Landing 0349Z**
Aircraft Static Pressure	1008.6mb	1010.9mb
Corrected Tower Pressure	1008.8mb	1011.1mb

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

1520 1520

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AOCWF1

Flt ID: 080831H	From: KMCF	To: KMCF
Flt No: 08-058	Blk In: 0357	ATA: 0349Z
ETD: 1980Z	Blk Out: 1910Z	ATD: 1922Z
ETE:	Blk Time: 8:47 (8.8)	Flt Time: 8:27 (8.5)
Sponsor Org: NESDIS	Program: OCEAN WINDS HURRICANE	Purpose: H. GUSTAV IN GULF OF MEXICO

AOC Personnel

AC: CHOY	Sys Eng: GOLDSTEIN
CP: GIRIMONTE / TAGGART	Data Sys:
Nav: ~~PASTOR~~ SIEGEL	Radar:
FE: ~~[illegible]~~ / BAST	GPS/BT: BOSKO / GREENE
FD: DAMIANO	Cld Phys:
Avionics: OLNEY	DARBY

Participating Scientists / Visitors / AOC

Name (Last, First)	Activity on Aircraft	Affiliation
ABERSON		NRD
LORSOLO	OBS	〃
ANNANE	OBS	〃
JELENAK	PI	NESDIS
MANUS	C-SCAT	UMASS
CHU	C-SCAT	UMASS
CHANG, P	PI	NESDIS
304.8		

Proposed/Actual Mission Remarks (Recco, Fixes, Storm, PENET, NHOP #) NOAA2 2407A GUSTAV

Satell overpass 2347Z drop 0225Z — 19343S

RA 159 SFC 140/

cndpts sonde/BT

eye BT/sonde EMC/HRD

eyewalls - NESDIS

TEAL 70 - 2330Z 10K

TEAL 72 IP ~~2500~~ 8530

② 2730 8818

③ 2500 8818

④ 2730 8530

7 ~~pe~~ penetrations

TO delayed til 3:30pm for satellite overpass

20N 26°16' FORECAST 86°54'

OVER →

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AOCWF2

Flt ID: ~~08~~ 080831H | Time Off: 1922Z | Time On: 0349Z

	A/C (Take Off)	Wx Station (Take Off)	A/C (Land)	Wx Station (Land)
Pressure	1008.6	29.80 1009.3 1008.8	1010.9	29.87 1011.6 1011.1

	Number	Data Disposition / Date / Quality
Flt Lvl Tapes	2	
Radar Tapes	1	
Cloud Physics Tapes		
Video Tapes		
AXBT	16	3 ~~inside~~ still with plane ; 1 bad; 15 good
AXCP		
AXCTD		
Dropsondes	17	15 good ; 2 bad; 15 messages sent 5 EMC; 1 NHC; 11 NESDIS

Video

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

Remarks

11 overpass

16

0039Z 26.5N 87.4W 953 - 952 mb

0203Z 27.0 87.5 955 mb

0126Z 27.8N 95.2W 87.3

2356Z 26.4N, 87.0W, 952 mb

2327Z 26.4N, 87.3W, 952 EXT

2258Z 26.3N, 87.2W, 953 mb Surface

2058Z 26.1N, 87.1W, 955 mb

1 NOAA/MSG

DATE	SCHEDULED RX TIME	AIRCRAFT NUMBER	FLIGHT DIRECTOR

WX MISSION IDENTIFIER	OB NUMBER
	17

VORTEX DATA MESSAGE

A	01 / 0203 Z		DATE and TIME of FIX CCA
B	27 DEG 10 MIN (N) S		LATITUDE of FIX
	87 DEG 59 MIN (W) E		LONGITUDE of FIX
C	MBA	M	MINIMUM HEIGHT of STANDARD LEVEL
D	85	KT	ESTIMATE of MAXIMUM SURFACE WIND OBSERVED
E	001 DEG 23	NM	BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND
F	095 DEG 113	KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER
G	061 DEG 21	NM	BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND
H	955	MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.
I	20 C / 2440 M		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE
J	21 C / 2441 M		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE
K	17 C / C		DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE
L	OPEN S		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		

REMARKS

MAX FL WIND 113 KT N QUAD 0158 Z

MAX OUTBOUND WIND 108 KTS 0241Z NE

CCA

2710 8759 27.16 87.99

20mm 344 27.472 88.098 Sonde Splash

2728 8806

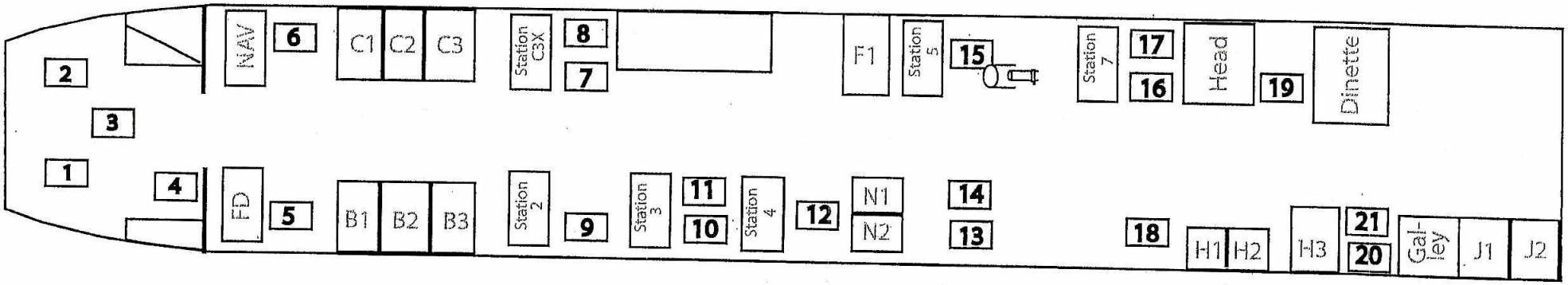
87.98 27.49

,8 BTS

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.

NOAA AIRCRAFT OPERATIONS CENTER

Flight ID 08083/4



1. C HOY — PILOT
2. GIRIMONTE — COPILOT
3. BAST — FLIGHT ENGINEER
4. CHANG — STATION 1
5. D AMIANO — FLIGHT DIRECTOR
6. ~~BISHOP~~ SIEGEL — NAVIGATOR
7. ANNANE — STATION C3X
8. ~~[illegible]~~ DARBY — STATION C3X
9. ~~[illegible]~~ SELENAK — STATION 2
10. ABERSON — STATION 3
11. LORSOLO — STATION 3
12. GOLDSTEIN — STATION 4
13. GREENE — PROJECT SEAT
14. _____ — PROJECT SEAT
15. BOSKO — STATION 5
16. CHU — STATION 7
17. McMANUS — STATION 7
18. OLNEY — STATION 8
19. TAGGART — DINETTE
20. _____ — GALLEY
21. _____ — GALLEY

NOAA • AOC • SED
N42RF AVAPS DROP LOG

Project : Hurricane '08 Mission : GUSTAV Flight ID : 080831h

Take Off : 1520 Landing : Flt Dir : BARRY D. Launcher S/N:

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Winds Time	Operator	Charge $$ To	Comments	Good ?
1	06151 9093	1	-.5	2031	5	JB	EMC		✓
2	06131 9035	2	-.9	2054	7		NES.	EYEWALL	✓
3	06152 9047	3	-.5	2102	5		NES	EYEWALL	✓
4	06132 9168	4	-.4	2124	7		EMC		✓
5	06204 9289	1	-.3	2157	4		EMC		✓
6	06204 9148	2	0	2218	7		NES	EYEWALL	✓
7	06035 6033	3	-.5	2226	5		EMC	CNTR	✓
8	062 049 119	4	-.3	2254			NES	FAS FALL	✓
~~9~~	~~06152 9126~~	~~1~~	~~-.4~~						
9	06132 9046	2	0	2256	5		EMC		✓
10	06152 9126	1	-.3	2320	3		NES.	EYEWALL	✓
11	06035 6142	2	0	45	3		NES		✓
12	06224 9141	3	0	2349	5		NES.	EYEWALL	✓
13	06152 9148	4	0	0121	7		NES	—	✓
14	062 049 057	2	-.4	1:57	0		NES	LOST Data	
15	06224 9314	3	+.3	1:57	3		NES		✓
16	06133 9118	4	-.4	0202			NHC		✓
17	06151 9103	1	0	222	3		NES		✓

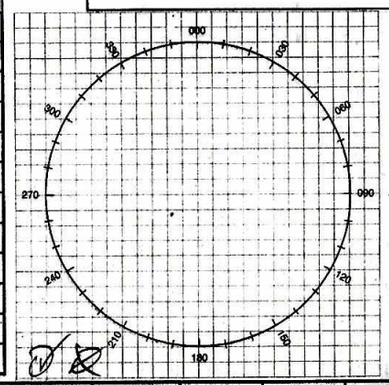
5 1 11

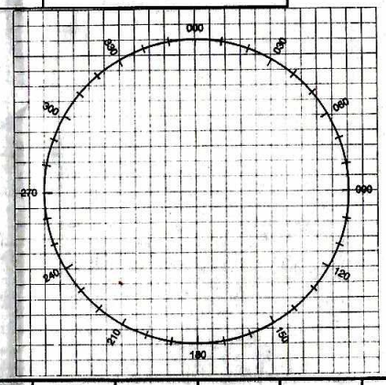
CLEARANCES

FREQ	ALT	HDG	OTHER
			CAF R 080 ↗1600
			LOK +10m 119.9
			SQ2152
			BLK 6-10K ✓
		D	11330 8846 11342
		N	6586 5520 8933 6640
			2347Z 0225Z satellites

MISSION LOG

PAGE ___ OF ___





POSITION REPORT

1. POSITION
2. TIME
3. ALTITUDE
4. NEXT POSITION
5. ETA
6. NEXT POSITION

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	MF/VOICE	HF/CW	MF/CW
243.0	121.5	2182 KHZ	8364 KHZ	500 KHZ

MAYDAY, MAYDAY, MAYDAY
THIS IS NOAA _____, NOAA _____, NOAA 42

- POSITION _____ N/S _____ W/E AT _____Z
- HEADING _____ TRUE/MAG
- AT _____ KTS TRUE/INDICATED
- FLIGHT LEVEL OR ALTITUDE _____
- WE ARE A P-3 AIRCRAFT WITH 8 SOULS ON BOARD
- NATURE OF EMERGENCY
- ASSISTANCE DESIRED
- PILOT INTENTIONS
- WE HAVE _____ ENDURANCE REMAINING

TIME	FIX TYPE	POSITION	INS 1 POSITION	K ERR	INS 2 POSITION	K ERR	MH	VAR +E==>	TH	DR +R==>	TRK	GS	WD	WS	ALT	TAS	NEXT PT	DIST	TIME	ETA	REMARKS
1903	START																				
1910	TAXI																				
1910	BLOCK																				
1921	T/O																				
1929	X✓	N 27 39.8 W 82 37.3	27 39.8 82 37.3	0 0	27 39.8 82 37.3	0 0	230	5W	225	9R	234	259	115	43	↗070	240	IP				
2010	△	28 20.1 85 07.7	28 20.5 85 07.5	+2 +2	28 20.3 85 07.6		222	5W	217	8R	222	194	210	43	R 070	237	IP				
2110	△	27 30.6 88 18.4	27 30.6 88 18.4	0 0	27 30.6 88 18.8	0 -4	332	1W	331	15L	316	247	059	67	R 070	240	SW				
2213	△	28 47.4 87 44.8	28 48.1 87 44.3	+7 +5	28 47.6 87 44.0	+2 +2	058	1W	057	1R	046	246	294	62	R 070	240	G				
2313	△	27 11.3 86 45.8	27 13.9 86 45.3	-2.6 +.5	27 11.8 86 46.5	-.5 -.7	217	2W	210	21R	231	223	134	88	R 070	230	G				
0013	△	27 48.5 87 19.5	27 45.0 87 18.8	+3.5 +.7	27 43.6 87 18.8	+5.3 +.7	031	1W	030	10L	010	242	113	86	R 070	238	OVA				
0113	△	27 48.3 88 11.6	27 52.6 88 10.0	-4.3 +1.6	27 47.4 88 11.5	+.9 +.1	132	1W	131	19R	150	213	072	78	R 070	239	G				
0213	△	27 28.3 87 55.9	27 45.1 87 27.8	-16.8 +28.1	27 28.2 87 26.1	+.1 +1.8	077	1W	076	24L	051	236	151	101	R 070	236	OW3				
0311	△	27 58.4 85 05.0	28 07.0 85 01.3	-8.6 +3.7	27 58.7 85 05.4	-.3 -.4	114	3W	111	10R	101	216	161	52	110	249	MCF				
0351	BAND	27 50.8 82 31.4	28 08.3 82 28.0	-18.3 +3.4	27 50.5 82 31.1	+.3 +.3															
0357	BLOCK																				