N42RF ERROR SUMMARY
H. IKE OVER SE GULF OF MEXICO

Flight ID: 080910H

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

Notes:

There were two data gaps: 200931Z – 200939Z and 005451Z – 005458Z.
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) was inop for the entire flight. The blended GPS altitude from INE1 (ALTI1) was used.

Measured dewpoint temperature #2 (EdgeTech)...TDM2...exhibited a couple of time periods of erroneous data during the flight. For 203834Z – 205655Z the erroneous data was removed by substituting TDM3(Maycomm/TDL) output,

TDM2 = TDM3

For 000249Z – 000529Z the erroneous TDM2 data was removed by substituting TDM1(Buck) output,

TDM2 = TDM1

Fuselage static pressure (PSF) exhibited several time periods of erroneous data during the flight. For 211400Z – 211800Z the erroneous data was removed and patched using statistical techniques.

All other instruments worked optimally during the flight.

Eighteen (18) GPS dropsondes were deployed with 17 being good. Five (5) tempdrop messages were sent to NHC.
Ten (10) AXBTs were deployed with eight (8) being good.

	Takeoff 2003Z	**Landing 0330Z**
Aircraft Static Pressure	1010.1mb	1013.3mb
Corrected Tower Pressure	1010.5mb	1013.8mb

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

~~20~~
110

U.S. Dept. of Commerce / NOAA / Aircraft Operations Center — AOCWF1

Flt ID: 080910H	From: KMCF	To: KMCF
Flt No: 08 – ~~64~~ 63	Blk In: 0338Z	ATA: 0330Z
ETD: 2000Z	Blk Out: 1952Z	ATD: 2003Z
ETE:	Blk Time: 7:46 (7.8)	Flt Time: 7:27 (7.5)
Sponsor Org: NESDIS	Program: OCEAN WINDS HURRICANE	Purpose: H. IKE I ✓ SE GULF OF MEXICO

AOC Personnel

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

Participating Scientists / Visitors / AOC

Name (Last, First)	Activity on Aircraft	Affiliation
CHANG, P	PI	NESDIS
JELENAK, Z	ASST PI	↓
CHU, T ✓	C-SCAT	UMASS
STOFFELEN, A	OBS	NETHERLANDS
MARKS, F	OBS	HRD
BLACK, B	HAPS	↓
GOPALAKRISHNAN, S	OBS	
SIPPEL, J	OBS	↓ TEXAS A+M
~~SPINRAD~~, SPINRAD, R	OBS	AA of OAR

Proposed/Actual Mission Remarks (Recco, Fixes, Storm, PENET, NHOP #) NOAA2 2209A IKE

0028Z ~~SAT PASS~~

NO-LF

24°31', 949 EXT mile, 8605, 2151Z

24°39', 8613, 945 mile EXT, 2323Z

24°43', 8622, 0029Z, 942 EXT

TEAL 70 2330Z

0037Z, 24°43', 8621, 942 EXT

1729Z 24°10' 85°43' 79 SE 958

24°44', 8627, 941 EXT, 0105Z

24°45', 8628, 0156Z, 942 EX

0219Z, 24°49', 8632, 944

(8)

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

Flt ID: 080910H	Time Off: 2003Z	Time On: 0330Z

	A/C (Take Off)	Wx Station (Take Off)	A/C (Land)	Wx Station (Land)
Pressure	1010.1	29.85 1011.0 1010.5	1013.3	29.98 1014.1 1014.3 1013.8

	Number	Data Disposition / Date / Quality
Flt Lvl Tapes	2	
Radar Tapes	2	
Cloud Physics Tapes		
Video Tapes		
AXBT	10	8 good; 2 bad
AXCP		
AXCTD		
Dropsondes	18	16 good; 2 fast fall 5 sonde messages 1 NHC; 6 HRD; 11 NESDIS sent

Video

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

Remarks

1853Z
33
25
29.86

IMEI
ACCI
TTI
DW2
PSF
PQFI
GPS Blended

#080910H

Date Gaps
200931 - 200939
005451 - 005458

DW2 = DW3
203834 - 205855

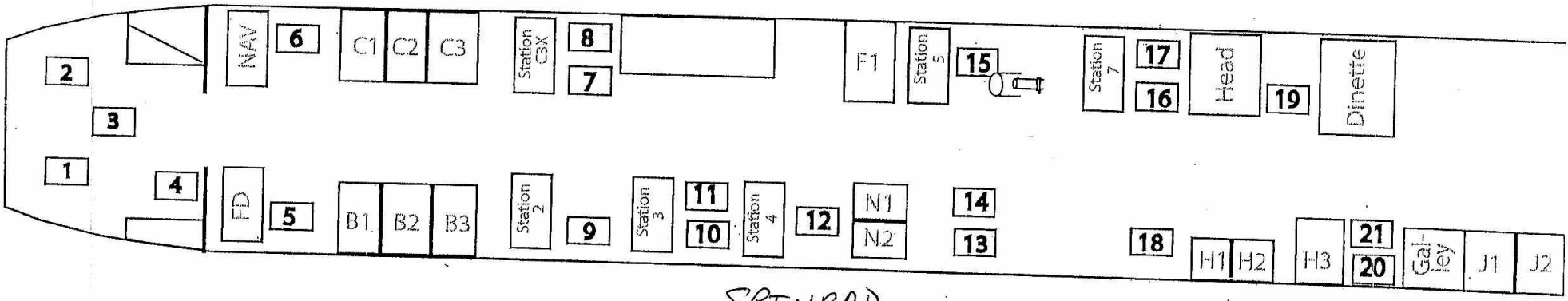
DW2 = DW4
000249 - 000529

PSF fixes
2114 - 2118 until PSW
211526 - 211531 patch .70
211542 - 211547 patch .70
211624 - 211628 patch .70
211638 - 211644 patch .50
211705 - 211713 patch .36

211611

NOAA AIRCRAFT OPERATIONS CENTER

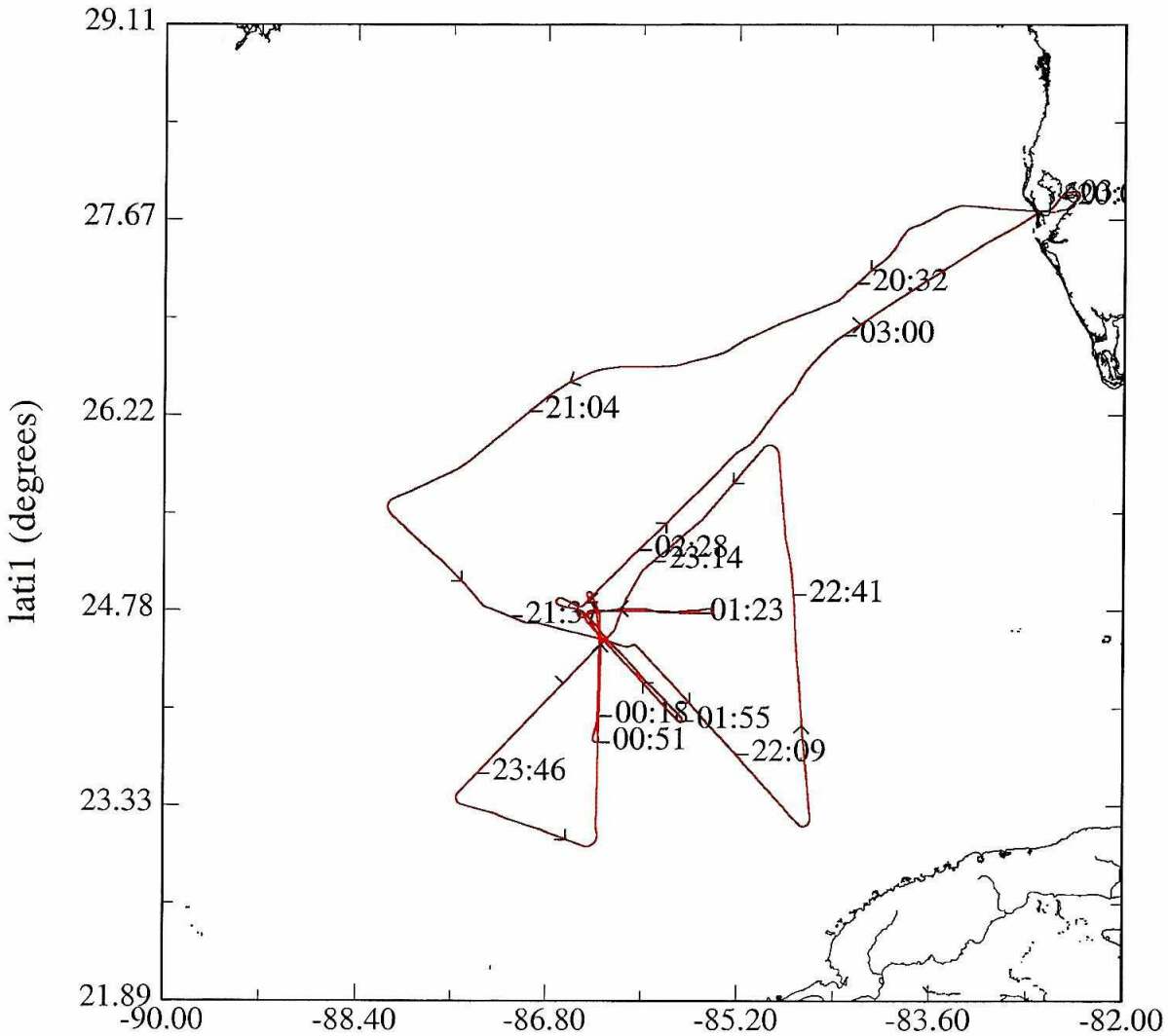
Flight ID 080910H



1. GIRIMONTE — PILOT
2. NEWMAN — COPILOT
3. BAST — FLIGHT ENGINEER
4. CHANG — STATION 1
5. DAMIANO — FLIGHT DIRECTOR
6. GALLAGHER — NAVIGATOR
7. ~~G~~ GOPALAKRISHNAN — STATION C3X
8. SPINRAD — ~~[redacted]~~ — STATION C3X
9. STOFFELEN — STATION 2
10. BLACK — STATION 3
11. MARKS — STATION 3
12. [redacted] ROLES — STATION 4
13. SIPPEL — PROJECT SEAT
14. — PROJECT SEAT
15. OLNEY — ~~[redacted]~~ — STATION 5
16. CHU — STATION 7
17. JELENAK — STATION 7
18. ~~[redacted]~~ BOSKO — STATION 8
19. OFF DUTY PILOT — DINETTE
20. ~~[redacted]~~ SED PERSON — GALLEY
21. — GALLEY

N42RF H. Ike SE Gulf Of Mexico

09/10/2008 UTC, 20:00:01-27:33:00



	mean	sigma	min	max
lati1 (degrees), 1 s/sec	25.20	1.32	23.03	27.88
loni1 (degrees), 1 s/sec	-85.63	1.29	-88.14	-82.38

NOAA • AOC • SED

N42RF AVAPS DROP LOG

Project : Hurricane '08 Mission : GW. IKE Flight ID : 080910h

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

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Winds Time	Operator	Charge $$ To	Comments	Good ?
1	06224919	1	-.5	2121	4	WB			✓
2	061329082	2	-.9	2138	4				✓
3	062939163	3	-0	2149	4				✓
4	06[illegible]39057	4	-.6	2153	4				✓
5	063019007	2	-.0	2223	5				✓
6	062939174	1	0	2257	5				✓
7	062919019	2	0	2321	5				✓
8	063019096	3	+.4	2324	5				✓
9	062249071	4	-.0	2351	4				✓
10	062859033	2	0	0007	2	JB			✓
11	062249120	3	0	0025	5				✓
12	062939175	4	0	0037				FAST FALL	
13	063019113	1	0	0104	20			slow data	✓
14	062919029	2	0	0135	3				✓
15	062919019	3	0	0205	3				✓
16	062839270	4	0	0212	3				✓
17	062049022	1	-.6	0213	3	✓			✓
18	062939165	1	0	0233	5				✓
19									
20									

DATE	SCHEDULED RX TIME	AIRCRAFT NUMBER	FLIGHT DIRECTOR

WX MISSION IDENTIFIER	OB NUMBER
	21

VORTEX DATA MESSAGE

A	11 / 0219 Z	DATE and TIME of FIX
B	24 DEG 49 MIN (N) S	LATITUDE of FIX
	86 DEG 32 MIN (W) E	LONGITUDE of FIX
C	700 MB 2642 M	MINIMUM HEIGHT of STANDARD LEVEL
D	80 KT	ESTIMATE of MAXIMUM SURFACE WIND OBSERVED
E	150 DEG 08 NM	BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND
F	226 DEG 71 KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER
G	149 DEG 07 NM	BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND
H	944 MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.
I	16 C / 2634 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE
J	22 C / 2787 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE
K	12 C / NA C	DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE
L	CLOSED WALL	EYE CHARACTER: Closed wall, poorly defined, open SW, etc.
M	C17	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 71 KT SE QUAD 0217 Z

MAX OUTBOUND AND MAX FL WIND 88 KTS NE QUAD 0221Z

Splash 306/82kts

25

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.

021325.TXT

2420
8551 19.0

Turn Pt	Type	Fix/Point	Latitude	Elev	Aspd	Altitude	MH	TH	Leg Time	Leg Dist	ETA	ATA
	DTD	Descriptio	Longitude	MV	Bank	Wind	MC	TC	Clock Tim	Total Dist		
1		KMCF/A	N 27 50.96	14FT	270T	12000M	265	261	00+00+00	0.0	2003	
*M		MACDILL	W082 31.27	4.5W			265	261	20:00:0	0.0		
2		CIGAR/W	N 27 29.31	unk	270T	12000M	265	261	00+27+12	122.4	2030	
*M	CIGA	CIGAR	W084 46.09	2.3W			265	261	20:27:12	122.4		
3		SNOMN/W	N 26 39.11	unk	270T	12000M	220	217	00+13+58	62.9	2044	2048
*M	SNOM	SNOMN	W085 29.15	2.3W			220	217	20:41:10	185.2		
4			N 25 36.08	unk	270T	12000M	249	247	00+38+05	167.9	2119	2118
*M	IP		W088 10.08	0.3W			249	247	21:16:13	348.1		
5			N 24 21.00	unk	250T	12000M	135	135	00+25+22	105.7	2145	2151
*M	IKE		W086 48.00	1.2W			135	135	21:41:37	448.8		
6			N 23 06.80	unk	250T	12000M	136	135	00+26+06	104.6	2210	2219
*M	3		W085 27.45	1.9W			136	135	22:06:43	553.3		
7			N 25 36.08	unk	250T	12000M	002	360	00+35+43	148.8	2245	2253
*M	4		W085 26.14	2.3W			002	360	22:42:26	702.1		
8			N 24 21.00	unk	250T	12000M	227	225	00+25+19	105.6	2311	2322
*M	IKE		W086 48.00	1.2W			227	225	23:07:45	807.8		
9			N 23 06.80	unk	250T	12000M	227	225	00+25+08	104.7	2336	2351
*M	5		W088 08.77	0.2W			227	225	23:32:53	912.3		
10			N 22 36.79	unk	250T	12000M	112	112	00+19+19	80.5	2355	0003
*M	6		W086 47.90	0.9W			112	112	23:52:12	992.8		
11			N 24 21.00	unk	250T	12000M	001	360	00+24+56	103.9	11 0020	
*M	IKE		W086 48.00	1.2W			001	360	00:17:08	1096.7		
12			N 25 12.55	unk	250T	12000M	001	360	00+12+20	51.4	0032	
*M	8		W086 47.90	1.3W			001	360	00:29:28	1148.1		
13			N 24 21.00	unk	250T	12000M	181	180	00+12+20	51.4	0045	
*M	IKE		W086 48.00	1.2W			181	180	00:41:48	1199.5		
14			N 24 57.14	unk	250T	12000M	046	044	00+12+09	50.6	0057	
*M	10		W086 08.99	1.7W			046	044	00:53:57	1250.1		
15			N 24 21.00	unk	250T	12000M	226	225	00+12+09	50.6	0109	
*M	IKE		W086 48.00	1.2W			226	225	01:06:06	1300.7		
16			N 25 12.55	unk	250T	12000M	001	360	00+12+20	51.4	0121	
*M	12		W086 47.90	1.3W			001	360	01:18:26	1352.1		
17			N 24 21.00	unk	250T	12000M	181	180	00+12+20	51.4	0134	
*M	IKE		W086 48.00	1.2W			181	180	01:30:46	1403.5		
18			N 24 57.14	unk	250T	12000M	317	316	00+12+03	50.2	0146	
*M	14		W087 26.37	0.9W			317	316	01:42:49	1453.7		
19			N 24 21.00	unk	250T	12000M	137	136	00+12+03	50.2	0200	
*M	IKE		W086 48.00	1.2W			137	136	01:54:52	1503.8		
20			N 25 12.55	unk	250T	12000M	001	360	00+12+20	51.4	0212	
*M	16		W086 47.90	1.3W			001	360	02:07:12	1555.2		
21		SNOMN/W	N 26 39.11	unk	270T	12000M	040	039	00+24+50	111.7	0232	
*M	SNOM	SNOMN	W085 29.15	2.3W			040	039	02:32:02	1667.0		
22		MCF/T	N 27 51.67	14FT	270T	12000M	067	065	00+38+48	174.6	0319	0320
*M	KMCF	MACDILL	W082 30.81	4.5W			067	065	03:10:50	1841.6		

46.3

2615 087

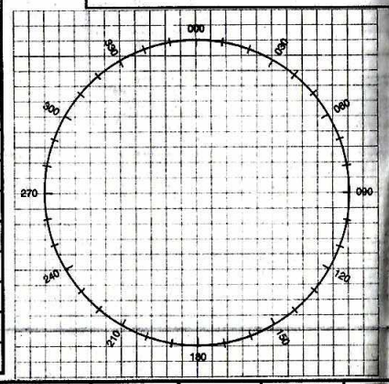
5550 6586

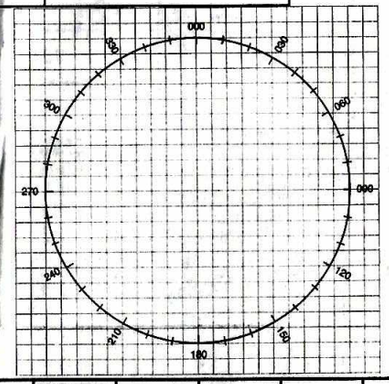
CLEARANCES

FREQ	ALT	HDG	OTHER
119.9			RWY HDG INCR 080
119.65			1600 EX 17000 @ +10
135.77			1411
11330	8846	6506	5570

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 _____

- POSITION _____ N / S
  _____ E / W AT _____ Z
- HEADING _____ TRUE/MAG
- AT _____ KTS TRUE/INDICATED
- FLIGHT LEVEL OR ALTITUDE _____
- WE ARE A P-3 AIRCRAFT WITH _____ 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
1752	CWG / TAXI																				
1852 / 1902	TAKEOFF																				
2005		27-51.4 / 082-22.6	27-51.4 / 082-22.6	—	27-51.4 / 082-22.6	—	270	4W	266	6R	272	231	131	33	17000	226	CKR	128	725	2030	
2102		25-52.9 / 083-28.2	25-52.9 / 083-28.2	—	25-52.9 / 083-28.2	—	273	4W	277	284	355	261	072	20	3000	240	JF	63	+14	2144	
2151		24-31.246 / 086-05.200																			
2203		23-46.2 / 085-13.7	23-46.8 / 085-13.8	-.6 / -.1	23-45.9 / 085-13.6	+.3 / -.1	157	2W	155	RL	136	216	247	074	8000	246	3	48	+13	2218	
2330		25-26.0 / 085-31.3	25-27.3 / 085-31.3	-1.3 / —	25-25.2 / 085-31.3	+.8 / —	207	2W	205	16R	224	216	157	074	8000	241	11LE	69	+20	2350	
2333		24-38.8 / 086-13.1																			
0005		23-29.1 / 086-21.4	23-32.1 / 086-20.7	-3.0 / +1.2	23-28.0 / 086-20.8	+1.1 / +1.1	347	1W	346	15R	001	233	260	66	8000	231	1KG	80	+21	0026	
0029		24-43.318 / 086-22.759																			
0105		24-44.294 / 086-26.876																			
0135		24-46.7 / 086-36.6	24-50.9 / 085-35.6	-4.6 / +1.0	24-46.3 / 085-36.4	+.4 / +.2	310	2W	308	22R	086	231	180	86	8000	239	10	50	+4	0119	
0136		24-44.304 / 086-26.492					312	1W	311	18R	329	241	234	80	8000	241	1KG				
0205		24-32.2 / 086-41.7	24-37.0 / 086-41.0	-4.8 / +.7	24-32.2 / 086-42.2	+.5 / -.5	312	1W	311	18R	329	241	234	80	8000	241	1KE	37	+08	0227	
0213		024-47.409 / 086-32.474																			
0220		024-49.68 / 086-32.52																			

11330

MISSION LOG	PAGE ___ OF ___

FIX TYPES
(G) - GPS (I) - INS (R) - RADIO (V) - VISUAL (C) - CELESTIAL (D) - DR

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
0303	△	27-00.0 084-00.8	27-05.9 083-58.4	-5.9 +2.8	26-57.0 084-00.7	+1.0 +.1	074	4W	070	13L	057	261	139	53	11000	274	KMCF	93	+20	0321	
0320	LAND	27-30.1 082-29.6	27-57.2 082-28.0	-6.3 +1.6	27-57.6 082-30.2	-.7 -.6															
0338	BLK	27		017/6.4		327/0.78															
			1156.7 1125.6 30.7																		

BLOND 11000 2544