

19871010H1-FDIR

HURRICANES 87 DATA SUMMARY

871010H T.S. Floyd ODW (NOAA42)

TYPE OF DATA

SENSOR OR OPTION

INE	2
Accelerometer	2
Temperature probe	1
Altitude change option (for vertical winds)	RA
Static pressure	Rosemount (fuselage)
Dynamic pressure	Rosemount (fuselage)
Time source	Micro 29
Constants file	CO2872.CON

Notes:

Numerous syncro radar altimeter spikes have been removed from the data and patched with either a digital radar altimeter or pressure altitude correction. The spikes normally occur while changing altitude, in roughly 3300 foot intervals.

No renavigation attempted. INE2 selected because of more accurate enroute positions, even though the terminal longitude was slightly worse than INE1.

Apparent problem with J/W liquid water sensor until 211340Z.

Removed and patched a number of Rosemount static pressure spikes. We used the Garrett for these corrections (usually less than 5 seconds in duration).

We transmitted no ASDL one-minute data before 2036Z because of an ASDL computer failure. All RECCO messages hand coded by yours truly, and I sent radar altitude instead of pressure altitude by mistake.

The LF radar failed at about 00Z through the rest of the flight.

	Take Off	Landing
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Aircraft Static Pressure	1015.3 mb	1011.5 mb
Corrected Tower Pressure	1015.7 mb	1012.0 mb

Jack Parrish

FLT ID: 871010H	FM: KMIA	TO: KMIA
FLT NO: 2-88	BLK IN: 0415	ATA: 0410Z
ETD: 18Z	BLK OUT: 1833	ATD: 1845Z
ETE: 9.5	BLK TIME: 9:42	FLT TIME: 9:25
SPONSOR ORG: HAD	PROGRAM: Research	PURPOSE: ODW

OAO PERSONNEL

AC Turner ✓	SYS ENG Jarvi ✓
CP Meyers ✓	DATA SYS Lino Leyva ✓
NAV Secretan ✓	RADAR
FE Moore	BT/ODW Leyva Lino ✓
RADIO	CLD PHYS
FD Parrish	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
Burpee, Bob ✓	P.I.	HAD
Willoughby, H. ✓	ODW	"
Franklin, J. ✓	ODW	"
Coplan, J. ✓	ODW	"

47- PROPOSED/ACTUAL MISSION/REMARKS (RECCO, FIXES, STORM, PENET, NHOP #)

47-29.94
 1012.5 Fly ODW mission in Gulf
 SP 1011.5 1800 - Delayed for landing light installation
 FM 3K ASDL problems early in flight
 SP 1011.4 ~ 2250 - Stopped OB 18 IAW CARCAH instructions
 FM 1.5 200Z - Lost comms w/ KMY, but overheard → retransmitted
 ED 20.2 055 22-26
 PS 1013.5 ~ 00Z - Lost LF ET
 PS 1012 at Blocks

Leader -
 430711 0042Z WX FLDY
 430711 0042Z WX FLDY
 430711 0042Z WX FLDY

FLT ID: 871012H

TIME OFF: 1845Z

TIME ON: 0410Z

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	PS 1015 SP 1014	ALT 1016.5 CAL Lb 1015.7	PS 1013.5 SP 1011.4	ALT 299.1 1012.0 C

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES

FAST FLT LVL TAPES

RADAR TAPES

DOPPLER TAPES

ODW CASSETTES

HARD COPIES

ODW cassettes 13

AXBT

AXCP

ODW

28 2 bet T.H

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON				
OFF				
RATE	1/5	1/5	1/5	

REMARKS

871010H ODD Floyd Flight

Time	LAT	LONG	TK	WD	WS	PG	GA	TA	TD	SP	PS				
1852	25.42	79.51	52	48	31	2326	2450	12.7	8.3	1012.9	747	7			
1859	26.05	79.27	51	88	3	2459	2635	5.7	4.2	1014.5	654.1	7			
190430	26.15	79.05	48	202	7	4239	4494	1.1	-0.8	1014	555	7			
191530	26.51	78.29	23	186	8	5124	5421	-2.5	-0.7	1014.5	521.3				
192054	27.28	77.56	143	150	15	5122	5419	-2.8	-2.7	1015.6	521.3		Drop 1	Good	
19410	26.48	77.18	139	185	24	5124	5433	-2.5	-3.7	1017.5	520				
194832	26.17	76.47	136	222	21	5144	5438	-2.9	-5.9	1009	529.5		Drop 2	Good	
195830	25.45	76.14	137	184	21	5142	5442	-3.3	-4.2	1010.5	526				
200319	25.27	76.02	225	186	23	5139	5441	-2.6	-7.7	1009.8	530	DV			
202626	24.15	77.16	222	183	15	6096	6445	-7.9	-12.1	1005	466	55888	3 Drop 3	Good	
2030	24.04	77.27	222	186	13	6098	6439	-8.6	-13.6	1004.5	465.5	331	Dvalue	Rec 06.4	
2045	24.01	78.38	271	219	16	6091	6424	-8.4	-13.1	1004.7	466	333	DV	Rec 06.6	
2049	24.01	79.01	270	215	13	6092	6425	-8.4	-10.3	1004.1	466		Drop 4	Good	
205830	24.02	79.48	269	200	11	6145	6482	-8.7	-9.9	1004.6	462.6	338			
2107	24.01	80.30	269	213	10	6142	6480	-8.6	-10.2	1004.1	462.6	337		Rec 06.8	
2113.4	24.00	81.02	269	176	9	6142	6475	-8.9	-9.9	1004.4	462.7	335	Drop 5	Good	
2125	24.01	82.03	272	173	26	6117	6440	-8.1	-9.2	1003.6	464	324		Rec 06.9	
213705	23.59	83.05	243	158	17	6115	6436	-8.4	-9.4	1002.1	464	321	Drop 6	Bad T	
214100	23.51	83.22	243	145	22	6114	6431	-8.7	-9.6	1001.4	464.5	318	Drop 7	Good	
214500	23.43	83.41	244	151	24	6116	6432	-8.2	-9.0	1001.2	464.5	317		Rec 06.11	
215552	23.20	84.30	243	136	19	6113	6431	-8.4	-9.7	1002	464.4	315	Drop 8	Good	
2205	23.01	85.13	245	155	23	6113	6421	-8.3	-9.9	1000.6	464.5	307		Rec 06.13	
221545	22.37	86.04	268	94	16	6112	6425	-7.8	-8.5	1000.8	464.2	312	Drop 9	Good	
222430	22.38	86.50	272	140	13	6110	6421	-8.7	-9.3	1001.6	464.8	312		Rec 06.14	
223126	22.39	87.26	273	193	12	6109	6421	-8.8	-11.5	1003	465	311			
2243	22.35	88.24	265	235	15	6111	6420	-9.7	-18.1	1006	465	309		Rec 06.19	
224835	22.35	88.53	266	244	8	6110	6418	-10.8	-15.4	1008	465	310	Drop 10		
2303	22.34	90.05	269	270	5	6114	6424	-11.4	-14.9	1009.1	465	313		Rec 06.20	
230620	22.32	90.21	270	240	15	6110	6422	-11.8	-19.8	1010	464.7	312	Drop 11		
232034	22.26	91.32	234	220	18	6112	6414	-11.9	-18.6	1013	464.6	307	Drop 12	Bad	
2326	22.10	91.51	224	226	15	6114	6413	-13.2	-23	1013.5	464.4	296		Rec 06.22	
233722	21.30	92.30	222	201	19	6111	6409	-13.1	-18.7	1013.7	464.5	297	Drop 13	Good	
2345	21.05	92.56	222	188	17	6115	6410	-13.4	-18.4	1014.5	464.5	296		Rec 06.25	
235540	20.33	93.33	316	171	5	6113	6405	-14.9	-19.5	1016.8	464.6	294	Drop 14	Good	
0004	21.02	94.03	315	95	2	6112	6400	-14.3	-20.8	1017	464.6	292		Rec 06.27	
000639	21.11	94.12	316	138	3	6113	6405	-14.4	-21.6	1017	464.5	293	Drop 15	Good	
001910	21.55	94.54	17	351	7	6115	6410	-14.5	-21.5	1018	464.5	297	Drop 16	Good	
0025	22.19	94.46	17	340	8	6113	6413	-14.5	-23	1017.8	464	296		Rec 06.29	
004350	23.46	94.16	14	33	12	6113	6424	-13.1	-32.1	1015.7	464.6	311	Drop 17	Good	
0045	23.50	94.15	14	36	12	6113	6424	-13.2	-34.3	1016	464.6	311		Rec 06.32	
010505	25.21	93.47	22	25	7	6148	6475	-13.4	-40	1017.7	462.3	325	Drop 18	Rec 06.34	
0125	26.45	93.07	23	23	9	6146	6478	-14.4	-37	1021.5	462.4	332		Rec	
012850	26.59	92.55	84	6	11	6407	6758	-17	-39	1023	444	338	Drop 19	36	
0145	27.00	91.28	90	10	14	7061	7439	-21	-44	1024	407	7566		Rec 06.31	
015007	26.57	90.58	136	31	13	7064	7437	-21	-45	1023	407		Drop 20		
0204	26.06	90.05	137	010	7	7061	7435	-20	-24	1018	407	7565		Rec 06.39	
020514	26.00	89.59	136	208	5	7057	7432	-20	-23	1019	407	7568	Drop 21		
022255	25.04	88.48	40	237	14	7058	7435	-19	-22	1017	407	7570	Drop 22		
0225	25.11	88.42	40	238	16	7056	7433	-20	-22	1018	407.5	7563		Rec 06.41	
023632	25.58	87.56	43	265	19	7056	7431	-18.9	-22.1	1015.7	407.5	7566	Drop 23		
0245	26.28	87.28	41	304	17	7055	7432	-19	-23	1016	407.4	7570		Rec 06.43	
025324	26.58	86.48	93	0	17	7053	7430	-20	-25	1017	408	7570	Drop 24		
0309	26.53	85.23	94	165	6	7054	7435	-16	-19	1008	407	7576		Rec 06.46	
031302	26.51	84.59	94	165	13	7052	7435	-16	-18	1006	408	7576	Drop 25	Good	
033429	26.31	82.57	101	207	26	7050	7439	-14.5	-16.2	1002	408	7582	Drop Last		

A/C COMMANDER		NAVIGATOR		A/C NO.		MISSION NO.		TIME AIRBORNE		LOCATION		DATE		PROJ. NAME	
TURNER		SECRETAN		NH2RF				1845 E		MIA U		10-OCT 1987		T.S. FLOYD	
TIME OF ENTRY	POSITION	TYPE INE USED	INE #1 POSITION	LAT LON COR'S	INE #2 POSITION	LAT LON COR'S	ALT GS	TH TK	REMARKS						
1845	25-47.1 080-16.6	4 -	25-47.1 080-16.7	0.0 -0.1	25-47.0 080-16.7	+0.1 -0.1			TAKE OFF.						
1911	26-33.3 078-41.9	2 -	26-33.8 078-42.3	-0.5 -0.4	26-33.1 078-42.3	+0.2 -0.4	17000 285		OVER ZFP. STRONG FIX. (± 1 NM)						
1927		9 -	27-28.8 077-57.1		27-28.0 077-57.1				ODW						
2003		9 -	25-27.9 076-01.7		25-25.5 076-02.8				ODW						
2031	23-58 077-32	4 -	24-00.8 077-30.6	-2.8 +1.4	23-57.7 077-33.0	+0.7 -1.0			STRONG FIX (± 1 NM)						
2123	23-59 081-53	2 -	24-01.1 081-52.5	-2.1 +0.5	23-58.8 081-55.8	+0.2 -2.8			005/36 EYW GOOD FIX (± 1.5 NM)						
2137		9 -	23-59.8 083-03.8		23-56.6 083-07.5				ODW						
2252		9 -	22-32.6 089-11.0		22-30.1 089-16.3										
2356		9 -	20-32.3 093-32.5		20-30.1 093-38.6				ODW						
0019		9 -	21-55.1 094-54.4		21-53.2 095-01.1										
0105		9 -	25-20.1 093-46.9		25-19.7 093-53.6				ODW						
0140	26-59.5 092-01.5	3 -	27-00.2 091-54.6	-0.7 +6.9	26-59.9 092-02.3	-0.4 -0.8			GOOD FIX (± 1.5 NM)						
ATC CLEARANCE: MIA, R.R, MIA, $\nearrow 5000$, DF 118.1, SQ 1441															
ENROUTE CLEARANCES: $\nearrow 5000$, $\nearrow$ BSY, $\nearrow 16000$, $\nearrow 17000$, $\nearrow 15000$, $\nearrow 17000$															
X - 25 NM W OF MIA @ 10000', 2994															
X 45 NM W OF BSY @ 10000', 130°, $\nearrow 8000$ '															
TYPE OF FIX: (1) DR (2) RADIO (3) CELESTIAL (4) VISUAL (5) LORAN (6) RADAR (7) DOPPLER - INERTIAL (8) OMEGA (9) INERTIAL (10) OMEGA - INERTIAL															

[illegible]

FLIGHT PLAN

PROPOSED T.O.

1800Z

ACTUAL T.O.

1845

WAY POINT	TO	RTE	ALT	TAS	TC	W DC	V	TH	VAR	MH	GS	ZONE DIST	TOTAL DIST	ZONE TIME TOTAL TIME	PROPOSED ETA	ETA ATA
1	A.P. (MIA) 25-48.2, 080-17.6															
2	27-30, 078-00										250	160		+32 +38	1925	
3	25-30, 076-00										290	160		+33 1+11	1958	2003
4	24-00, 077-30											122		+25 1+30	2023	
5	CANOA (MUHA) 24-00, 083-04											307		+104 2+40	2127	2137
6	(MMID) 22-38, 086-00											186		+39 3+19	2206	2215
7	22-30, 091-30										300	302		+109 4+19	2306	2315
8	20-30, 093-30											167		+33 A+52	2339	2356
9	LIDAM 21-52, 094-55											115		+23 5+15	0019	0018
1	(MMTY) 23-30, 094-20											102		+20 5+35	0039	
2	EMMIS (KZHU) 25-00, 093-56										310	95		+18 5+53	0057	0100
3	27-00, 093-00											130		+25 6+18	0122	0128
4	27-00, 091-00											107		+21 6+39	0143	0151
5	25-00, 089-00											162		+32 7+11	0215	0221
6	27-00, 087-00											162		+32 7+43	0247	0253
7	(KZMA) 26-55, 086-00											55		+11 7+54	0258	0303
8	FMY 26-35.3, 081-52.0											280		+54 8+18	0352	0358
9	MIA 25-57.8, 080-27.7											85		+16 7+04	0408	0402

SYS	BEGIN ALIGN TIME	NCS CONN	Ω AID	TIME OUT OF COARSE	ALIGN STS 0-5	(1) TIME INTO NAV.	(2) TIME OUT NAV.	ΔT (2)(1)	TERMINAL ERRORS		
				ELAPSE ALIGN POST TIME					LAT	LONG	GS
INS 1	1609	N	N		0	1815	0415	10+0	0.0	+3.5	4
INS 2 IMU	1609	N	N		0	1815	0415	10+0	+0.4	-5.4	1

ALIGN REMARKS: NO NCS/2 COMPUTER. INE'S RUN FREE.

OTHER REMARKS: