

19990913II - FDIR

HURRICANE FLOYD XCDX

Flight 2 1990913

DATA TYPE	SENSOR or OPTION
INE	2
Accelerometer	2
Temperature Probe	1
Altitude (for vertical wind)	RA159
Static Pressure	Fuselage
Dynamic Pressure	Fuselage
Dewpoint Probe	2

Notes:

There were several data/time gaps due to data system problems:

195141Z - 201100Z  
215212Z - 215220Z  
223751Z - 223810Z

Several small spurious spikes in the fuselage static pressure (PSF) data occurred during the following time frames:

2149Z - 2152Z  
2205Z - 2208Z

These spikes were removed and patched over.

The vertical wind had erroneous values at 195131Z and 201110Z due to the aforementioned data gaps.

During the penetration of the eyewall, dewpoint temperature values were greater than ambient temperature values.

Aircraft INE positions were renavigated with respect to GPS.

**SPECIAL NOTE!!!** Locations 80, 81 and 82 of record five on the standard tape contain vertical ground, vertical air and vertical wind speeds, respectively, derived from Dave Jorgensen's vertical wind algorithm. It is recommended that these values be used for vertical wind analysis.

	Takeoff	Landing
Aircraft static pressure	1009.0 mb	1007.0 mb
Corrected tower pressure	1010.5mb	1007.0 mb

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

FLT ID: I990913	FM: KMIA	TO: KMIA/KMCF
FLT NO: 99-053	BLK IN: 0204/0329z	ATA: 0152z/0320z
ETD: 1730z	BLK OUT: 1727z/0227z	RTD: 1737z/0233z
ETE:	BLK TIME: 8:37/1:02	FLT TIME: 8:15/1:47
SPONSOR ORG: HRD	PROGRAM: HURR. RESEARCH	PURPOSE: XCDX H. FLOYD

OAD PERSONNEL

AC: MCKIM	SYS ENG
CP: KENUL	DATA SYS: McNAMARA
NAV: RATHBUN	RADAR: DELGADO
FE: WADE/MOORE	BT/ODW: CARPENTER
RADIO: SANS SOUCI	CLD PHYS
FD: DAMIANO	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/OAD

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
WILLOUGHBY	PI	HRD
DOEST	HAPS	HRD
LEIGHTON	RADAR	HRD
WALSH	SAR	NASA
REICHER	OBS	HRD
KATSAROS	OBS	AORNL DIRECTOR
GILBERT	MEDIA	ABC WASH
WRIGHT	MEDIA	ABC WASH

PROPOSED/ACTUAL MISSION/REMARKS (RECCO, FIXES, STORM, FENET, NHOP #)

LF not working well. Switched Trans. did not solve problem. invert back to original trans.

1942z (195934z sys lock up)

2408	2114z	2237z	0022z
7314	2416	2424	2428
924 mb soude	7329	7349	7408

STOPPED IN MIAMI TO DROPOFF/PICKUP HRD FOLKS

Lots of ERR writing & tape 8

AVAPS problem talking to NAPS

U.S. DEPT. COMM./NOAA/ORD - DATA SECTION WORK FORM NO.2 OROWFZ FILE

FLT ID: 1990913 TIME OFF: 1737Z/0233Z TIME ON: 0152Z/0320

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	<u>1009.5</u>	<u>29.85/29.75</u>	<u>1007.0/1016.0</u>	<del>29.76/29.8</del>

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES	<u>3</u>	
FAST FLT LVL TAPES		
RADAR TAPES	<u>1</u>	
DOPPLER TAPES		
ODW CASSETTES		
HARD COPIES		

AXBT	<u>10</u>	
AXCP		
<del>AXCP</del> <u>GPS</u>	<u>22</u>	<u>22 good; only 3 messages sent out</u>

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON				
OFF				
RATE				

REMARKS

(12)

(10)

I990913

TIME	LAT	LONG	TRK	HD	WD	WS	TA	TD	PA	GA	SP	PS			PQ
175000	2335	7927	101	99	42	18	12.7	-2.0	2760	2888	1008.8	722.3	ABU	CLD	85.2
180700	2517	7810	110	105	19	25	2.0	-13.4	4625	4843	1004.1	567.8	BTW	CLD	73.5
184200	2549	7540	127	118	6	52	1.5	-3.1	4650	4812	995.3	565.7	BTW	CLD	70.8
190400	2246	7459	134	141	290	61	6.3	5.6	3670	3706	991.4	643.4	RW	-	71.8
191635	2224	7327	0	351	276	51	6.3	4.3	3667	3720	994.0	643.2	(19)	DROP	75.1
193007	2320	7324	12	355	293	78	8.1	9.6	2710	3607	972.2	641.3	(22)	DROP	72.0
194143	2408	7314	9	8	254	12	22.8	9.6	3665	3176	977.1	643.7	(20)	DROP	72.8
195702	2513	7314	1	21	96	84	8.3	9.9	3662	3616	978.2	643.2	(20)	BT	
195704	2513	7314											(20)	DROP	70.8
201209	2616	7318	230	220	87	71	6.7	3.4	3676	3760	975.7	642.4	(20)	DROP	66.2
202318	2534	7403	225	222	61	76	7.1	5.8	3676	3699	988.1	642.9	BT		74.0
203000	2508	7433	224	226	40	82	7.4	6.5	3677	3682	986.8	642.9	RW	-	73.9
203404	2452	7450	226	232	28	72	7.3	7.2	3676	3691	987.3	643.0	BT		69.1
204614	2406	7534	107	91	3	64	7.1	2.8	3677	3736	993.2	642.7	(20)	DROP	68.0
210121	2407	7426	78	64	352	71	8.6	6.3	3677	3596	975.0	642.7	(20)	DROP	78.1
211041	2412	7343	58	64	335	86	13.1	12.6	3672	3213	926.5	643.8	EYE	DROP	70.9
211625	2417	7317	91	113	183	91	12.7	12.7	3669	3230	933.4	643.8	(20)	DROP	69.5
212148	2416	7254	90	111	180	84	9.8	5.3	3673	3525	965.7	643.2	BT		71.7
213005	2416	7218	90	110	181	83	7.6	7.9	3652	3643	973.6	643.61	BT		
213005													(20)	DROP	
214725	2420	7105	337	335	165	61	5.8	3.2	3678	3776	998.6	642.6	(20)	DROP	74.5
220452	2540	7152	231	215	136	70	6.2	3.7	3679	3766	997.2	642.4	(20)	DROP	76.2
221935	2400	7240	242	222	151	95	8.1	8.5	3679	3619	979.8	643.9	(20)	DROP	73.9
222603	2447	7305	240	221	147	92	8.8	8.9	3684	3534	967.6	643.4	BT		71.2
223238	2434	7333	246	225	138	99	13.0	12.4	3639	3160	925.0	645.8	EYE	DROP	71.8
223925	2417	7400	237	257	316	90	12.0	13.2	3578	3169	940		EYE	DROP	
225248	2346	7451	233	249	340	71	7.8	7.9	3673	3651	982.1	643.1	(20)	DROP	75.2
230831	2307	7543	89	80	329	52	5.9	5.0	3672	3788	995.1	643.7	(20)	DROP	76.6
233500	2306	7317	90	98	238	59	7.2	6.4	3686	3710	988.5	642.0	(20)	DROP	76.8
234957	2310	7205	301	281	199	56	6.9	3.2	3675	3759	996.0	643.1	(20)	DROP	70.2
500438	2347	7303	305	291	214	73	7.9	8.0	3657	3618	981.0	644.9	(20)	BT	
201144	2404	7330	304	287	211	80	9.4	9.1	3664	3527	966.9	643.8	(20)	DROP	69.4
202145	2427	7410											BT		71.1
203719	2513	7458	317	337	45	83	7.2	6.8	3694	3658	986.4	641.2	EYE	DROP	
204200	25	75											(20)	DROP	73.2
204700	2527	7512	315	333	49	76	6.9	4.9	3688	3701	988.0	641.8	BT		68.2
104830	2546	7537	281	293	55	70	6.4	4.2	3691	3758	994.0	641.6	(20)	DROP	74.2

PREFLIGHT LOG			NAVIGATOR			AIRCRAFT COMMANDER			FLIGHT DIRECTOR			SCHEDULED / ACTUAL TAKEOFF Z		DATE OF TAKEOFF	
MISSION FLOYD			ILATHUN			MELIM			DAMIANO			1730Z	1736Z	13 SEP 99	
MH	VAR +E=>	TH	DR +R=>	TRK	GS	WD	WS	ALT	TAS	LEG/TOT DIST	LEG/TOT TIME	PROP ETA	ETA	ATA	REMARKS
				105	240					57	+14				1
										57	+14	1750		1752	
				111	265					42	+09				
										160	+37	1813		1815	
				117	270					55	+12				
										364	+22	1858		1859	
				357	260					260	+00				
										693	+37	2013		2011Z	
				087	260					264	+00				
										145	+15	2151	2146	2145	
				225	260					293	+56				
										1473	+28	2304	2305	2305	
				311	260					259	+00				
										1907	+03	0039	0045	0048	
				225	290					77	+17				
										2099	+44	0120			
				244	260					40	+09				
										2177	+01	0137			

6+00  
3+25  
10+05

INS PERFORMANCE		
	INS 1	INS 2
BEGIN ALIGN TIME	1522Z	→
ALIGN STATUS (0-5)	0	0
END NAV TIME	0325Z	→
START NAV TIME	1720Z	→
DELTA T	10+05	→

TERMINAL ERRORS		
	INS 1	INS 2
DELTA LAT	-1.5	+1.9
DELTA LON	+1.4	-2.7
RCS	1	2
RADIAL ERROR	1	3

REMARKS
40
38
79
113
270
260
430
135
565

