

1990915Z1-FDIR

HURRICANE FLOYD XCDX/AIR-SEA INTERACTION

Flight 4 1990915

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 two data/time gaps due to data system problems:

203811Z - 205150Z  
000711Z - 000730Z

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

2031Z - 2034Z  
2134Z - 2136Z

These spikes were removed and patched over.

The vertical wind had erroneous values at 2052Z 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 re-navigated 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	1001.0 mb	1007.3 mb
Corrected tower pressure	1001.5mb	1007.3 mb

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

FLYID: <u>I990915</u>	FM: <u>KTPA</u>	TO: <u>KMCF</u>
FLT NO: <u>99-055</u>	BLK IN: <u>05:18z</u>	ATA: <u>0509z</u>
ETD: <u>1900z</u>	BLK OUT: <u>1940z</u>	ATD: <u>1948z</u>
ETE:	BLK TIME: <u>9:38</u>	FLT TIME: <u>9:21</u>
SPONSOR ORG: <u>HRD</u>	PROGRAM: <u>HURR. RESEARCH</u>	PURPOSE: <u>ATR-SEA INTERACTION Ho FLOYD</u>

**OAD PERSONNEL**

AC <u>McKIM</u> ✓	SYS ENG <u>McNAMARA</u>
CP <u>KENUL</u>	DATA SYS <u>LYNCH</u>
NAV <u>RATHBUN</u> ✓	RADAR <u>DELGADO</u> ✓
FE <u>MOORE/WADE</u>	BT/ODW <u>CARPENTER</u>
RADIO <u>SANS SOUFI</u>	CLD PHYS
FD <u>DAMIANO</u> ✓	DOPPLER

**PARTICIPATING SCIENTIST/VISITORS/OAD**

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
<u>MARKS</u> ✓	<u>PI</u>	<u>HRD</u>
<u>LANDSEA</u> ✓	<u>ASST PI</u>	<u>S</u>
<u>BLACK, M.</u> ✓	<u>HAPS</u>	<u>S</u>
<u>WALSH</u> ✓	<u>SAR</u>	<u>NASA</u>
<u>PETER DAVIES</u> ✓	<u>OBS</u>	
<u>SCHENNYDER</u> ✓	<u>MEDIA</u>	<u>CRN</u>
<u>BEARS TUCHMAN</u> ✓	<u>MEDIA</u>	<u>CNN</u>
<u>BEARS</u> ✓	<u>MEDIA</u>	<u>NEWSWEEK</u>

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

*T/O delayed due to getting data/radar system ready*

2058z  
 31°19' 950mb  
 78°56'  
 9  
 2223z  
 3130'  
 7854'  
 9  
 0343z  
 3303'  
 7818'  
 953mb  
 2340  
 32°01'  
 78°41'  
 9  
 0109z  
 3216' 951mb  
 7834'  
 9  
 0229z  
 3244' 951mb  
 7829'

**BEACH RUN 0138z.**

U.S. DEPT. COMM./NOAA/ORD - DATA SECTION WORK FORM NO.2 OROWF2 FILE

FLT ID: F990915

TIME OFF: 1948Z

TIME ON: 0509Z

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	1001.0	29.59	1007.8	<del>29.76</del> 29.76

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES

3

FAST FLT LVL TAPES

RADAR TAPES

1

DOPPLER TAPES

ODW CASSETTES

HARD COPIES

AXBT

22

AXCP

~~GPS~~ GPS

35

30 good, 5 bad 31 XMPT

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON				
OFF				
RATE				

REMARKS

I990915

NOAA FORM 59-4  
(2-72)

TIME	LAT	LONG	TRK	HD	WD	WS	TA	TD	PA	GA	SP	PS			PC
200700	2849	8135	31	23	313	40	8.9	3.4	3467	2455	990.4	660.6	BTN	CLD	78.
202100	2937	8058	34	25	322	51	8.7	5.2	3486	3499	989.8	661.8	BTN	CLD	85.
202944	3005	8037	54	42	324	60	13.1	12.8	2429	2354	988.8	753.4	BTN	CLD	76.
203500	3024	8005	55	44	322	53	15.9	13.6	2420	2296	980.5	754.1	BTN	CLD	71.
205311	3100	7908											BTN	CLD	71.
205327	3101	7908											BTN	CLD	71.
205842	3119	7954											BTN	CLD	71.
205854	3120	7856											BTN	CLD	71.
210359	3135	7839	45	64	136	72	17.3	17.6					EYE	BTN	CLD
210451	3137	7836											EYE	BTN	CLD
211420	3202	7804											BT	CLD	78.
211424	3203	7805	46	66	142	82	16.0	13.1	2430	2263	976.8	753.5	BT	CLD	73.
212144	3223	7740	48	66	146	70							BT	CLD	73.
212949	3247	7713	327	327	143	73	13.6	13.5	2426	2370	990.1	753.6	BT	CLD	73.
214700	3241	7851											BT	CLD	73.
215619	3248	7944	247	247	67	55	14.6	14.9	2420	2314	983.6	754.6	BAD	CLD	73.
215851	3242	7957	232	231	57	59	14.3	14.4	2425	2304	983.0	754.6	BT	CLD	73.
220138	3232	8009	204	194	48	53	14.9	14.2	2422	2323	984.5	754.2	BT	CLD	73.
220732	3214	7952	136	123	36	62	14.9	15.0	2422	2284	979.5	754.3	BT	CLD	73.
221431	3154	7928											BT	CLD	73.
222006	3137	7905											BT	CLD	73.
222008	3137	7905	130	124	335	58	18.8	17.1	2445	2087	952.6	750.3	BT	CLD	73.
223000	3107	7825											BT	CLD	73.
223004	3107	7824											BT	CLD	73.
223620	3050	7802			226	82							EYE	BTN	CLD
224355	3029	7737			222	70							BT	CLD	73.
225154	3010	7710	71	80	213	68	15.1	11.8	2416	2378	991.4	754.7	BT	CLD	73.
231126	3145	7628	280	260	178	79	14.0	13.6	2417	2366	984.4	754.7	BT	CLD	73.
231857	3147	7703			182	85							BT	CLD	73.
232200	3149	7717	280	260	181	89	15.8	13.2	2418	2280	979.9	754.5	BTN	CLD	74.
232636	3152	7738			180	104							BT	CLD	74.
232836	3153	7746											BT	CLD	74.
232838	3153	7747			180	105							EYE	BTN	CLD
233039	3155	7756	281	253	184	120							EYE	BTN	CLD
234052	3204	79											BT	CLD	74.
234455	3204	7903											BT	CLD	74.
234938	3207	7924											BT	CLD	74.
234941	3208	7925			23	68							BT	CLD	74.
000731	3156	8046	131	122	357	60	13.1	12.2	2439	2377	990.2	752.7	BT	CLD	67.1
002600	3056	7927	133	138	294	51	16.1	13.7	2443	2351	983.8	752.4	BT	CLD	79.8
003941	3015	7829	20	8	256	58	14.0	12.9	2442	2391	990.6	752.3	BT	CLD	69.6
004642	3046	7826	0	348	249	63							BT	CLD	69.6
005318	3115	7826											BT	CLD	69.6
005323	3115	7826	0	346	250	69	17.9	13.1	2442	2296	976.3	752.3	BT	CLD	74.5
005956	3143	7826			259	80							BT	CLD	74.5
010237	3153	7828	349	334	265	65	21.3	15.3				752.6	BT	CLD	74.5
010846	3216	7834											EYE	BTN	CLD
011431	3240	7831											EYE	BTN	CLD
011504	3242	7836											BT	CLD	74.5
011635	3247	7836											BT	CLD	74.5
012404	3316	7835											BT	CLD	74.5
013421	3349	7832			100	63							BT	CLD	74.5
					112	72							BT	CLD	74.5

I990915

9

TIME	LAT	LONG	TRK	HD	WD	WS	TA	TD	PA	GA	SP	PS	REMARKS	WIND
014615	3310	7910	180	170	51	65	14.3	14.7	2428	2277	979.3	753.9	(36) DROP	78.
015455	3245	7951	241	249	24	52	15.0	14.3	2462	2344	982.8	749.9	(37) DROP	70.
022125	2231	7900	82	65	349	73	15.7	13.2	2426	2180	962.5	753.9	(38) DROP	410.
022530	3235	7842	61	47	330	59	20.7	15.5	2444	2083	952.5	752.1	(39) DROP	
023453	3301	7809	47	69	137	93	16.2	16.5	2453	2143	959.5	750.6	(38) DROP	EW.
024509	3327	7735	49	70	151	84	14.9	14.4	2462	2326	979.5	750.2	(39) DROP	FYI
030605	3439	7648	270	255	145	69	14.5	10.1	2450	2435	983.2	751.2	(39) DROP	MHL
031600	3424	7734	234	219	126	71	13.2	13.0	2454	2385	988.0	751.4	(39) RW+	72.5
033648	3327	7821	181	162	81	86							(39) DROP	
035848	3319	7821			98	42							(39) DROP	
042100	3049	8012	216	225	395	34	2.6	1.0	4395	4523	995.1	585.3		73.5



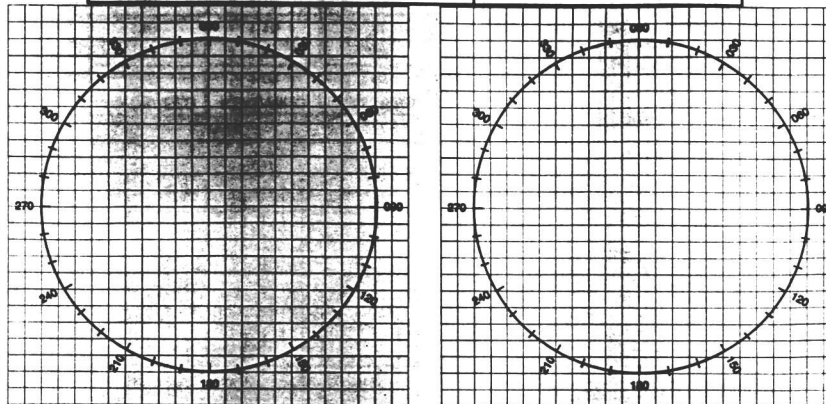
TEAL 29

2224 3107 7845

005114 30 59 PM 1947Z  
79 04 W

CLEARANCES			
FREQ	ALT	HDG	OTHER
			1525Z 2954N 7907W
			MCF RN ORL 020 73K
			11K +10 135.5 664H
			230Z 3140N 7846W
			020114 950MB

MISSION LOG PAGE \_\_\_ OF \_\_\_



POSITION REPORT

- POSITION
- TIME 36K
- ALTITUDE  $\frac{22}{14}$
- NEXT POSITION
- ETA  $\frac{4500}{14}$
- NEXT POSITION  $\frac{19200}{216}$

TRANSMIT THE FOLLOWING FREQUENCY IN USE, ANY OF THE FOLLOWING:

UHF/VOICE VHF/ 243.0 121.

MAYDAY, MAYDAY THIS IS NOAA

- POSITION \_\_\_\_\_

- HEADING \_\_\_\_\_

- AT \_\_\_\_\_ KTS

- FLIGHT LEVEL \_\_\_\_\_

- WE ARE A P-3 A

- NATURE OF EM \_\_\_\_\_

- ASSISTANCE DI \_\_\_\_\_

- PILOT INTENT \_\_\_\_\_

- WE HAVE \_\_\_\_\_

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	T
1933																			
1940																			
1947																			
205849		29 31.9 8102.6	29 31.3 8102.6	+1.1 0	29 31.9 8102.6	+1.4 +1													
2230		31 19.8 78 55.9	31 19.5 78 55.1	+1.3 +1.8	31 19.4 78 55.8	+1.4 +1				050	6L	046	239	132	27	8K	238		
2230		31 07.8 78 24.9	31 07.5 78 24.3	+1.3 +1.6	31 07.1 78 25.4	+1.7 -1.5				153	21L	132	266	247	104	8K	247		
2340:20		32 01.1 78 41.8	32 00.5 78 41.2	+1.6 +1.6	32 00.7 78 42.9	+1.4 -1.1				282	4L	278	253	032	23	8K	242		
0054		31 18.6 78 26.0	31 17.6 78 25.6	+1.0 +1.4	31 18.6 78 27.7	0 -1.7				346	15R	001	255	252	63	8K	239		
0204		32 22.5 80 18.6	32 22.2 80 18.2	+1.3 +1.4	32 22.8 80 20.6	-1.3 -2.0				061	10R	071	232	000	45	8K	246		
0343		33 03.5 78 18.3																	
0429		30 19.1 80 35.4	30 19.9 80 33.9		30 19.3 80 38.0					224	10L	214	265	315	44	14K	260		