

19990914II-FDIR

HURRICANE FLOYD SURVEILLANCE

Flight 3 I990914

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:

This was not one of AOC's better flights. There were many data/time gaps due to major hardware failures of the aircraft data system. These problems occurred during the following time frames:

212051Z - 213550Z
232851Z - 232900Z
232902Z - 232910Z
233551Z - 001010Z
002301Z - 002530Z
004431Z - 004440Z
004442Z - 004450Z
005131Z - 005140Z
005821Z - 005830Z

After 010330Z no flight level data was recorded. N43RF completed its mission and landed in Tampa International at 0322Z.

One small spurious spike in the fuselage static pressure (PSF) data occurred during the following time frame:

1858Z - 1900Z

The spike was removed and patched over.

Small spurious spikes occurred in the radar altitude (RA159) data during the following time frames:

2022Z - 2029Z
2204Z - 2206Z

These spikes were removed and patched over.

The vertical wind had erroneous values resulting from the aforementioned data gaps and from overflying land (Great Abaco Island) while in the center of the storm.

The dewpoint temperature data from DW2 behaved erratically during portions of the flight. Its values were replaced with DW1 values during the following time frames:

210430Z - 215300Z
222930Z - 225230Z

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	1003.7 mb	NA
Corrected tower pressure	1004.2 mb	1002.9 mb

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

FLY ID: #990914	FM: KMCF	TO: KTFA KTFA KTPA
FLT NO: 99-054	BLK IN: 0331Z	ATA: 0322Z
ETD: 1730Z 1730Z	BLK OUT: 1803Z	RTD: 1815Z
ETE:	BLK TIME: 9:28	FLT TIME: 9:07
SPONSOR ORG: NHC	PROGRAM: HUER, SURV	PURPOSE: H. FLOYD

0AO PERSONNEL

AC PHILIP BOEN	SYS ENG
CP KENUL	DATA SYS McNAMARA
NAV RATHBUN ✓	RADAR DELGADO
FE WADE/MOORE	BT/ODW CARPENTER
RADIO SANS SOUFT	CLD PHYS
FD D. AMERANO ✓	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
MARKS ✓	PI	HRD
LANDSEA ✓	ASST. PI	↓
BLACK, M. ✓	HAPS	
REASOR, P. ✓	OBS.	
WALSH ✓	SAR	NASA
PALCA, J. ✓	MEDIA	NPR
BAER, J. ✓	MEDIA	NPR

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

T/O delayed due to APU/HUFFER problems

1942Z 2029Z .. 2:030 Radar up

2825 2634' .. 2110. both THLF Presentation

7700 7715' DATA SYS lock up

9932mb 2343 shut CPUA down 212819Z

2353det went to CPU B.

0002Z

0103Z

2230Z
try to
call 4964

U.S. DEPT. COMM./NOAA/OAO - DATA SECTION WORK FORM NO.2 OAOWF2 FILE

FLT ID: 1990914 TIME OFF: 1815Z TIME ON: 0322Z

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	103.7 1003.7	29.67	1002.2	29.63

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES
 FAST FLT LVL TAPES
 RADAR TAPES
 DOPPLER TAPES
 ODW CASSETTES
 HARD COPIES

5

3

AXBT
 AXCP

8

5 good, 3 bad

ODW GPS

26

19 good, 7 bad, 19 ~~miss~~
 no wind

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON				
OFF				
RATE				

REMARKS ~~1990914~~ 0156Z
 MDA 2.6 29.63
 22

I990914

(19)

TIME	LAT	LONG	TRK	HD	WD	WS	TA	TD	PA	GA	SP	PS			PO
183200	2738	8124	101	97	27	28	4.9	0.	4063	4189	996.5	611.3	RTN	CLD	76.5
185200	2708	7953	119	111	16	42	5.8	.4	4074	4177	994.0	610.4	CLD	ABV	78.0
192200	2708	7744	89	82	62	87	4.5	5.2	4378	4328	976.6	587.7	RW		71.0
193450	26	77											(23)	DROP	
193501	2657	7710	180	170	98	75	7.9	8.2	4337	4102	943.9		(12)	DROP	
194234	2625	7707											NO W EYE	DROPS	
194919	25												NO W	DROPS	
194929	2555	7707	182	203	265	100	7.1	6.5	4333	4139	936.1	591.7	(16)	DROP	72.0
200600	2607	7617	46	56	200	97	4.5	3.2	4365	4307	972.0	587.6	RW		71.0
202023	2634	7634											NO W EYE	DROPS	
202100	2634	7636											NO W	DROPS	
202912	2634	7717											NO W EYE	DROPS	
203449	2639	7743											NO W EYE	DROPS	
203459	2634	7744											NO W EYE	DROPS	
205400	2532	7638	202	215	308	55	-0.3	-4.4	5432	5569	979.7	508.0	RTN	CLD	63.5
210447	2442	7859	200	212	314	61	-1.2	-16.0	5522	5713	986.3	503.5	(15)	DROP	72.5
212005	2330	7928	111	111	296	31	-2.8	-18.8	5579	525	994.8	503.9	(19)	DROP	75.4
214348	2326	7710	94	96	262	45	-3.8	-21.7	5698	5944	994.0	491.6	(15)	DROP	78.0
220100	2319	7528	96	100	253	41	-4.7	-14.1	5696	5949	995.9	491.8	RTN	CLD	72.7
220726	2316	7450	96	100	248	40	-4.5	-14.6	5696	5965	996.4	491.7	(15)	DROP	76.0
223239	2305	7231	36	39	190	15	-5.7	-20.0	5831	6131	1000.9	483.0	(15)	DROP	69.9
225044	2419	7130	37	41	170	15	-7.8	-16.4	5970	6285	1003.9	473.7	(15)	DROP	75.5
225900	2453	7101	43	47	151	17	-7.1	-9.2	5968	6283	1002.0	473.9	RTN	CLD	69.0
230821	2530	7030	334	333	165	15	-7.4	-17.0	5968	6294	1004.8	473.9	(15)	DROP	80.9
233229	2532	7245	268	263	192	29	-7.1	-16.7	6120	6435	998.1	464.1	(15)	DROP	79.5
235400	2531	7434	270	262	200	47	-7.1	-7.1	6117	6391	992.8	464.4	(15)	DROP	70.2
235944	2530	7458											DATA SYSTEM DOWN		
002453	2755	7428	81	94	173	58	-6.2	-7.1	6120	6388	990.3	464.1	(15)	DROP	72.1
004700	2803	7231	91	99	168	36	-8.3	-9.4	6122	6447	1001.9	463.9	(15)	DROP	73.5
005847	2806	7130	356	358	165	29	-7.6	-12.5	6121	6461	1002.6	464.0	(15)	DROP	77.5
012639	3030	7235											(15)	DROP	
014906	3027	7459													
014909	3028	7458	246	236	143	55							(15)	DROP	
015815	3010	7546	246	236	152	58							BT		
020816	2950	7639	246	233	136	67	-5.5	-7.2	6122	6372	988.2	463.9	BT		
021731	29	77											BT		
021734	2929	7730	241	233	108	59	-5.6	-6.5	6121	6345		464.0	(15)	DROP	
022814	2855	7827											(15)	DROP	
022817	2855	7827	233	230	67	72							BT		
023421	2838	7900											BT		
023953	2836	7933											BT		
024601	28	80											BT		
024605	2833	8007	259	272	21	52	14.0	8.8	2264	2555	993.3	781.4	(15)	DROP	71.3

