

# 19990803H1 - FDIR

## Hurricane 1999 Warm Pool Eddy

Flight #1: 990803H

<u>Sensor or system</u>	<u>Number or Name</u>
INE	1
Accelerometer	1
Temperature Probe	1
Dew Point Probe	2
Altitude (for vertical wind)	RA-159
Static Pressure	Rosemount Fuselage
Dynamic Pressure	Rosemount Fuselage
Time Source	Micro 99
Constants File	CO2991.CON

### Notes:

There were two time gaps and 1757:31-1809:00 and 1811:11-1811:20.

The radar altimeter (RA159) had a spike at takeoff and was set to zero prior to takeoff, from 1320:01-1332:17. There were several spikes in RA159 that were removed and patched (1442:01-1442:30, 1502:30-1503:00, 1504:31-1505:30, 1521:31-1522:00, 1527:01-1527:30, 1550:01-1550:30, 1605:31-1606:30, 1616:31-1617:00, 1627:01-1627:30, 1629:31-1630:00, 1645:01-1646:00, 1647:01-1647:30, 1659:01-1659:30, 1714:01-1715:00, 1754:31-1755:00, 1756:31-1757:00, 1815:01-1815:30, 1832:31-1835:00 (3), 1837:31-1840:00 (2), 1842:01-1842:30, 1844:01-1845:00, 1850:31-1851:00, 1854:01-1854:30, 1902:01-1902:30, 1908:01-1909:00 (2), 1912:31-1913:00, 1918:31-1919:00, 1921:01-1922:30 (2), 1923:01-1924:00, 1941:31-1942:00, 1956:01-1956:30, 2001:31-2002:00 (2), 2010:01-2010:30, 2012:31-2013:00, 2020:01-2020:30, 2028:01-2028:30, 2038:01-2038:30, 2040:31-2041:30, 2045:31-2046:00, 2101:01-2101:30, 2122:01-2124:00 (2), 2130:01-2131:00 (2), 2136:01-2136:30, 2145:31-2146:00, 2155:31-2156:00, 2221:31-2222:00, 2234:00-2234:30 and 2245:01-2245:30. A spike also occurred at landing and RA159 was replaced by RA232 (2245:21-2253:00).

Dewpoint (DW2) exceeded ambient temperature (AT2) briefly due to heavy precipitation.

	<u>Takeoff</u>	<u>Landing</u>
Aircraft static pressure	1013.3	1012.1
Corrected tower pressure	1014.2	1012.5

The 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 speeds, respectively, computed using Dave Jorgensen's vertical wind algorithm. It is recommended that these values be used for vertical wind analysis.

Flight Meteorologist: Stan Czyzyk, (813) 828-3310 ext. 3086

U.S. DEPT. COMM./NOAA/OAO - DATA SECTION WORK FORM NO.1 OAOWF1 FILE

FLT ID: 990803H	FM: KMCF	TO: KMCF
FLT NO: 99-	BLK IN: 2254Z	ATA: 2246Z
ETD: 1300Z	DLK OUT: 1320Z	RTD: 1332Z
ETE: 2130Z	BLK TIME: 9.34 9.6	FLT TIME: 9:14 9.2
SPONSOR ORG: NOAA/1	PROGRAM: HRD	PURPOSE: WARM POOL... EDDY BT

OAO PERSONNEL

AC TENNESSEN, D	SYS ENG McMILLAN, S ✓
CP KENUL, P / P+11, R ✓	DATA SYS RILES, J ✓
NAV RATHBUN, D ✓	RADAR
FE EAST, C / TURNER, R -	BT/ODW McNAMARA, R ✓
RADIO	CLD PHYS
FD C2424K, S -	DOPPLER CURRY, J ✓ / MCCANN, B -

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
BLACK, P -	PI	HRD
LEONE, J -	SCIENTIST	"
WHLHORN, E -	"	"
JACOB, D -	"	U OF MIAMI
DAVIES, P -	SECTION	PENGUIN BOOKS

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

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

FLT ID: *990803H*

TIME OFF: *1332Z*

TIME ON: *2246Z*

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	<i>1013.3</i>	<i>29.95</i>	<i>1012.1</i>	<i>29.90</i>

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES	<i>2</i>	
FAST FLT LVL TAPES		
RADAR TAPES	<i>1</i>	
DOPPLER TAPES		
ODW CASSETTES		
HARD COPIES	<i>2</i>	
AXDT	<i>46</i>	
AXCP	<i>2</i>	
ODW		
<i>GFD</i>	<i>2</i>	
<i>GPS</i>	<i>1</i>	

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON				
OFF				
RATE				

REMARKS

990203H

Time	LAT	CON	TIC	HIO	TA	TO	WD	WS	PA	CA	PS	SP	REMARKS
24300	2742	8248	264	267	7.4	4.6	319	11.3	3057	3243	685.5	1017.2	LEFL 10K
24445													
10650	2759	8437	292	294	7.2	6.2	322	8.7	3074	3262	694.6	1016.9	IN CLOUD TOP
11855	2814	8529											IN RAIN + TSPN
12520	2815	8600											BT 1 IN CLEF
12900	2815	8617	271	273	9.8	1.4	23	4.7	3056	3253	696.1	1015.1	BT 2
3333	2815	86110	271	273									THIN LAYER AG
14136	2816	8720	271	273	10.2	0.2	31	5.1	3056	3257	696.0	1015.4	BT 3
15106	2816	8806	271	272	9.9	-0.8	5	2.9	3056	3257	696.1	1015.9	BT 4 DIED HALF
16210	2816	8900	269	270	9.6	0.6	56	3.8	3056	3258	696.2	1016.1	BT 5
17140	2814	9022	270	270	9.6	0.9	137	7.0					BT 6
2722	2739	9014	163	162	9.6	-2.1	111	9.6	3054	3254	696.7	1016.1	BT 7
3525	2715	9005	163	161	9.5	-1.0	114	9.9	3055	3251	696.2	1016.3	BT 8
4002	2644	8954	162	163	8.6	2.6	147	2.8	3053	3254	696.3	1017.0	BT 9
55009	2615	8944	164	164	9.2	1.1	72	4.1	3054	3254	696.2	1016.7	BT 10
5625	2548	8935	167	164	8.8	0.9	204	1.7	3054	3254	696.7	1016.8	BT 11 DUD
628													BT 12
10433	2515	8924	163	164	9.1	4.5	189	1.5	3055	3253	696.3	1016.7	DROP
1238													BT 13
1350	2400	8856	57	57	8.1	4.9	295	4.9	3054	3249	696.7	1016.9	PT 2
3210	2420	8824	63	63	8.8	-0.5	253	2.1	3053	3251	696.4	1017.1	BT 14
3749	2431	8801	63	63	8.7	1.4	260	4.8	3052	3249	696.4	1016.5	BT 15
4551	2450	8728	59	59	8.9	-0.6	254	3.6	3053	3249	696.4	1016.5	BT 16
5550													BT 17
5651	2515	8649	285	285	9.0	-2.6							PT 3
70130													BT 18 DESCEN
10637	2530	8729	294	296	18.6	12.6	331	8.2	1519	1632	843.6	1016.4	LEFL SK
1752	2548	8811	296	298	18.7	12.9	318	9.6	1523	1636	843.2	1016.6	BT 19
2420	2558	8835	296	296	18.3	14.3	319	7.6	1523	1635	843.2	1016.4	CP #1
3047	2608	8900	292	294	18.7	12.9	330	9.0	1521	1637	843.3	1016.4	BT 21
4111	2613	8945	276	278	18.9	12.7	316	5.4	1524	1637	843.1	1016.2	BT 22
5339	2645	9025	294	295	19.6	11.0	311	3.9	1524	1638	843.1	1016.1	BT 22A
0515	2700	9100											CP #2
140	2705	9131	172	173	18.6	14.7	344	8.1	1524	1636	843.2	1016.3	BT 23
247	2715	9123	172	173	18.0	14.2	340	10.2	1524	1636	843.6	1016.8	BT 24
3635	2533	9112	45	44	18.3	12.3	325	9.3	1524	1636	843.1	1016.4	CTD
4640													BT 25
4338	2551	9050	52	50	18.4	12.8	339	12.1	1523	1634	843.2	1016.7	BT 26
5341	2616	9016	51	49	18.9	12.9	325	9.8	1523	1631	843.1	1015.6	BT 27
6042	2633	8953	51	50	19.2	11.5	318	8.0	1519	1628	843.7	1016.0	CTD
118	2658	8916	53	52	19.3	10.9	318	5.7	1523	1626	843.2	1015.0	BT 28
2121	2722	8841	53	53	20.1	9.7	320	2.8	1522	1625	843.2	1014.6	BT 29
3543	2754	8750	185	114	19.9	12.6	345	7.3	1524	1626	843.1	1014.5	BT 30
4429	2737	8716	175	175	19.1	13.5	11	8.8	1523	1625	843.2	1014.8	BT 31
5211	2705	8712	179	178	18.1	14.8	11	10.8	1524	1625	843.1	1015.7	BT 32
5750	2705	8710	41										BT 32
755	2630	8708	177	176	18.3	13.5	15	15.4	1522	1620	843.7	1014.7	BT 33
106	2600	8705	173	174	18.0	14.5	359	15.9	1523	1619	843.2	1015.0	BT 34
													BT 35 SKIP
1362	2430	8656	175	177	17.8	12.7	330	11.5	1523	1620	843.1	1015.0	BT 36
4840	2312	8649	56	54	18.6	5.2	307	12.4	1521	1620	843.1	1015.8	BT 37
10040	2409	8605	61	59	17.4	14.2	322	12.0	1522	1615	843.2	1014.7	BT 38
159	2434	8516	294	217	17.7	14.1	339	9.6	1524	1620	843.1	1014.9	BT 39

W 600

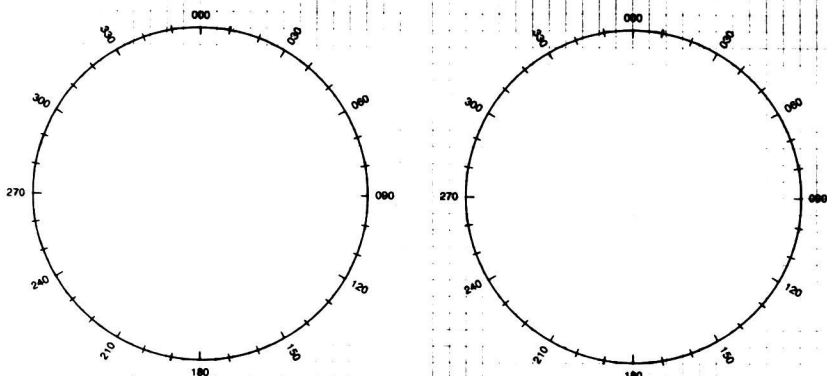
99080314

Time	Lat	Lon	TIC	HP	TA	TD	WD	WS	PA	CA	P)	SP	REMARK
17350	24 52	85 48	305	307	17.6	15.6	351	11.1	152 <sup>3</sup>	1614	842.5	1013.8	BT40
213507	25 14	86 28	19	18	17.2	14.9	348	14.5	1551	1645	840.3	1014.7	BT41
214119	25 36	86 18	53	51	19.3	10.6	357	13.7	1550	1644	840.3	1013.4	BT42
214924	25 55	85 50	56	53	21.1	8.4	348	16.7	1550	1644	840.4	1012.7	BT43 42003
215232	26 02	85 39											BT43A
20150	26 23	85 06	55	52	20.4	8.2	332	17.9	1551	1644	840.3	1013.1	BT44
2013	27 00	84 05	55	53	18.7	10.1	294	11.0	1550	1640	840.3	1012.5	BT45



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 243.0 VHF/VOICE 121.5 MF/VOICE 2182 KHZ HF/CW 8364 KHZ MF/CW 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

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	
47.6	-1.1	2747.5	0																
47.1	-1.1	8347.0	0			293	4L	279	265	033	22	10K	255						
						213	2L	271	258	018	10	10K	255						
5.8	-1.6	2815.6	-1.4			270	2L	268	261	014	9	10K	256						
16.6	+1.1	8916.1	+1.6			162	C	162	256										
						054	1L	053	259	162	4	10K	257						
						200	2L	205	225	052			237						
14.4	-3.5	2613.7	-1.8			278	2L	276	234	353	8	5K	236						
32.3	+1.8	8931.1	+2.0					177	239	326	12	5K	229						
						052	1L	053	243	287	6	5K	240						
						175		174	256	334	18	5K	240						
								206	235										
06.3	-2.3	2610.1	-6.1			053	3L	056	231	350	11	5K	236						
32.1	+3.2	8529.0	+6.3					247	260										
49.9	-2.2	2755.0	-7.3																
19.3	+4.9	8225.0	+9.2																LAND BLOCK IN

MISSION PREFLIGHT LOG						NAVIGATOR	AIRCRAFT COMMANDER	FLIGHT DIRECTOR	SCHEDULED / ACTUAL TAKEOFF Z	DATE OF TAKEOFF	
DESTINATION		MISSION									
LAWSON		AY5 1150				RAMSAY	THOMAS	COOPER	1150Z	11/02	

WP	LAT / LON	RTE	MH	VAR +E=>	TH	DR +R=>	TRK	GS	WD	WS	ALT	TAS	LEG / TOT DIST	LEG / TOT TIME	PROP ETA	ETA	ATA	REMA
								255										
6	2752.7 8424.3												155 +13		1416		1417	
																	1525	
	2815 9025												265 690	1403	1523			
7	2815 8645	+4 -1						235					285 1120	1413	1810		1810	
9	2530 9120	+4 -1											240 1265	1410	1938		1935	
6	2740 8715	+4 -3											240 1640	1401	2046	2049		
8	2435 8515	+4 -3											90 1835	+23	2136	2135		
10	2700 8400	+4 -3											95 2110	+24	2246			
BLOND	2754.9 8309.8	+4 -3																



