

Hurricane 1999

Hurricane Dennis Synoptic Flow

Flight #4: 990826H

<u>Sensor or system</u>	<u>Number or Name</u>
INE	2
Accelerometer	2
Temperature Probe	2
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:

The radar altimeter (RA159) had a spike at takeoff and was replaced by RA232 from 1731:01-1740:00. Several spikes in RA159 were removed and patched (2052:30-2053:00, 2238:00-2239:00, 2241:30-2243:00, 2321:00-2321:30, 2342:00-2343:00, 0011:30-0013:00 (3), 0031:30-0032:30, 0042:30-0043:30, 0044:30-0045:30, 0048:30-0049:30, 0111:00-0112:00, 0125:00-0126:00, 0129:00-0130:00, and 0147:00-0147:30). A spike also occurred at landing and RA159 was replaced by RA232 (0147:34-0155:00).

Dewpoint (DW2) was replaced by DW1 from 0135:16-0155:00. Dewpoint (DW2) exceeded ambient temperature (AT2) several times due to heavy precipitation.

Static pressure (PSF) had several spikes and was replaced by the wingtip static pressure (PSW) from 2043:00-2115:00 with an offset of +4.0 and from 2326:00-2339:00 with an offset of +3.9.

	<u>Takeoff</u>	<u>Landing</u>
Aircraft static pressure	1012.5	1018.7
Corrected tower pressure	1012.9	1020.0

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/DAO - DATA SECTION WORK FORM NO.1 DAOWF1 FILE

FLT ID: 990826H	FM: KMIA	TO: TXJF
FLT NO: 99-016	BLK IN: 0156Z	ATA: 0150Z
ETD: 1730Z	BLK OUT: 1725Z	RTD: 1735Z
ETE: 0230Z	BLK TIME: 8.31 8.5	FLT TIME: 8.15 8.3
SPONSOR ORG: NOAA	PROGRAM: NHC	PURPOSE: SYN FLOW DENNIS

DAO PERSONNEL

AC TENNESEN, D ✓	SYS ENG McMILLAN, S ✓
CP KENR, P ✓	DATA SYS HILL, J ✓
NAV RATHBUN, D	RADAR
FE BAST, G	BT/ODW HORN BROOK, C ✓
RADIO ROGERS, M ✓	CLD PHYS
FD (2424K), S ✓	DOPPLER CURRY, J

PARTICIPATING SCIENTIST/VISITORS/DAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
ABERSON, S ✓	PI	HRSD
LEIGHTON, P ✓	SCIENTIST	"
MARKS, F ✓	"	"
LANDSEA, C ✓	"	"
MCFADDEN, J ✓	10 P.M.	APC
CMSWELL, J ✓	C-SCAT/KU SCAT	UMASS

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

5 1906Z
2437 7354

6 1943Z
2439N
7353W

5 2019Z
2441N
7354W

(3)

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

FLT ID: 990 8264 TIME OFF: 1735Z TIME ON: 0150Z

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	1012.5	29.91	1018.7	30.12

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES	2	
FAST FLT LVL TAPES		
RADAR TAPES		
DOPPLER TAPES		
ODW CASSETTES		
HARD COPIES	1	
AXBT	7	
AXCP		
ODW		
GPS	22	

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON				
OFF				
RATE				

REMARKS

990826H

TIME	LOT	CON	TK	HD	TA	TD	WD	WS	PA	GA	PS	SP	REMARKS
1739-												3500 FT	CLOUD BASE
1754													LEVEL 17K RA
180200	2524	7850	109	108	4.9	-2.7	29	8.8	4069	4293	611.2	1008.1	IN CLEAR
181813	2500	7730	108	106	5.8	-6.7	358	16.0	4067	4270			DROP #1
185655	2500	7433	133	126	6.3	0.5	26	37.4	4090	4241	610.0	1002.9	DROP #2
1906	2437	7354											BT1 NW
191940	2419	7305	344	340	3.2	4.2	204	38.1	4113	4326	603.6	1002.2	DROP #3
1928-													BT2 SE
193240	2515	7329	208	201	7.5	5.4	119	34.6	4058	4228	611.2	1005.1	NE RAINBAND
1939													DROP #4 NE
1943													BT3
1943													DROP #5 EYE
1943													BT4 EYE
1943													DROP #6 EYE
1943	2439	7353											BT5
195527	2354	7416	68	65	5.6	1.6	298	27.9	4101	4273	608.5	1000.5	994 MB
200820	2417	7315											DROP #7
201440	2433	7337											BT5
202035													SE CORNER
202035													DROP #8
202035													DROP #9
2019	2441	7354											BT6
202350	2448	7416											DROP #10
2045~													CLOUDS
205620	2402	7644	240	243	-4.6	-16.8	342	13.7	5629	5944	496.4	1005.1	DROP #11
212035	2257	7824	117	116	-4.7	-14.7	355	12.2	5626	5953	496.5	1006.2	DROP #12
212428	2251	7811	112	111	-4.5	-15.3	353	12.3	5629	5953	496.4	1006.6	DROP #13
214118	2222	7646	111	109	-4.8	-14.5	344	16.6	5627	5948	496.5	1006.2	DROP #14
2144~													CLOUDS
220215	2147	7500	66	64	-5.5	-14.7	316	16.3	5852	6185	481.6	1004.8	DROP #15
2225	2229	7302	124	127	-8.3	-12.9	297	30.2	5781	6092	486.3	1000.3	DROP #16
225442	2103	7059	49	49	-8.6	-14.6	263	5.1	6097	6457	465.7	1008.0	BT6
232215	2231	6904	52	54	-8.0	-18.5	152	7.6	6098	6470	465.6	1009.1	DROP #17
235052	2435	7028	46	52	-8.1	-14.8	158	29.8	6096	6462	465.6	1008.2	DROP #18
002549	2132	6803	50	53	-8.6	-21.2	97	15.0	6097	6484	465.7	1011.7	DROP #19
005053	2830	6711	18	21	-8.6	-24.0	68	13.2	6097	6492	465.5	1012.7	BT7
011604	3025	6610	32	33	-8.4	-20.6	342	3.0	6096	6496	465.6	1013.0	DROP #20
													DROP #21
													DROP #22

77 W 69W 34.2W

MISSION PREFLIGHT LOG

MISSION PREFLIGHT LOG										NAVIGATOR		AIRCRAFT COMMANDER		FLIGHT DIRECTOR		SCHEDULED / ACTUAL TAKEOFF Z		DATE OF TAKEOFF		
DESTINATION		MISSION		RTE	MH	VAR +E==>	TH	DR +R==>	TRK	GS	WD	WS	ALT	TAS	LEG / TOT DIST	LEG / TOT TIME	PROP ETA	ETA	ATA	REMARKS
100																				

INS PERFORMANCE		INS 1	INS 2
BEGIN ALIGN TIME			1504Z →
ALIGN STATUS (0-5)		0	0
END NAV TIME		0150Z →	
START NAV TIME		1720Z →	
DELTA T		8430	→

TERMINAL ERRORS		INS 1	INS 2
DELTA LAT		+7.0	-5.5
DELTA LON		+7	+1.5
RGS		5	4
RADIAL ERROR		7	6

REMARKS	

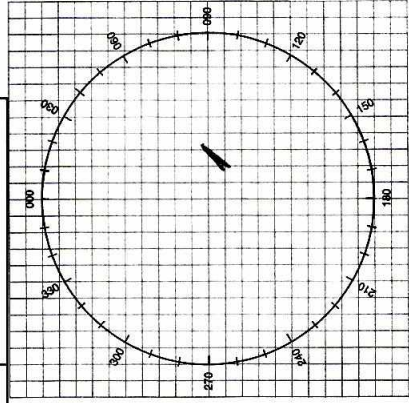
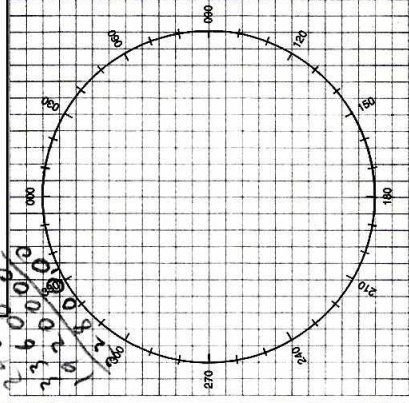
CANT BE RUNNING APPS RESCIND

4800
4175
4000
3600
3200
2800
2400
2000
1600
1200
800
400
0

CLEARANCES			
FREQ	ALT	HDG	OTHER
			NATURAL AT 5KT
			WILDMOUNTED
			77W 69W 34N
			34.2
			230 30.10
		01000	
			13270

MISSION LOG

PAGE 1 OF 1



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 121.5 2182 KHZ HF/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

TIME	FIX TYPE	POSITION	INS 1 POSITION	KERR	INS 2 POSITION	KERR	VAR +E==>	TH	DR +R==>	TRK	GS	WD	WS	ALT	TAS	NEXT PT	DIST	TIME	ETA	REMARKS
1721																				ENG START
1725																				BLOCK OUT
1735																				TAKE OFF
1820	FMI	2457.9 7722.1	2458.0 7721.8	-1.1 +1.3	2458.5 7722.6	-1.6 -1.5		106	212	108	288	340	12	13.5K	279					
1906		2437.0 7353.8																		
1920		2419.5 7306.5	2420.0 7306.4	-1.5 +1.7	2420.3 7306.4	-1.8 -1.9		330	512	340	298	200	40	13.5K	266					
1943		2439.4 7353.3	2440.3 7356.2	-1.9 -2.9	2440.8 7354.6	-1.4 -1.3		214	51	209	277	339	30	13.5K	262					
2009		2440.7 7353.8																		
2020		2442.1 7402.2																		
2103		2345.7 7712.5	2346.8 7711.5	-1.1 +1.0	2348.1 7713.7	-2.4 -1.2		241	31	238	290	348	14	FL190	287					
2150		2207.4 7601.9	2207.4 7600.9	0 +1.0	2210.7 7603.2	-3.3 -1.3		110	0	110	299	299	11	FL190	287					
2240		2145.0 7158.9	2145.6 7157.3	+1.4 +1.6	2149.6 7159.6	-4.6 -1.7		131	31	128	301	240	18	FL200	294					
2320		2223.9 6913.5	2221.7 6912.9	+2.2 +1.6	2228.8 6915.0	-4.9 -1.5		055	21	053	298	140	12	FL200	297					
2352		2437.5 7025.6	2434.8 7024.7	-1.3 +1.9	2442.3 7026.9	-4.8 -1.3		053	61	047	307	155	33	FL200	299					
0037		2726.7 6739.1	2722.3 6738.4	+4.4 +1.7	2732.6 6739.7	-5.9 -1.6		021	21	022	298	078	15	FL200	306					
0108		2949.9 6634.0	2944.1 6634.0	+5.8 0	2954.8 6635.0	-4.9 -1.0		031	11	030	302	090	6	FL200	307					
0150		3221.9 6440.9	3214.9 6440.2	+7.0 +1.7	3227.4 6439.4	-5.5 +1.5														LAND
0156																				BLOCK IN

25.1 25.2
24.5 24.1

100/03 19 FLWHT 210 3000 BAROKAN

30.10 24.99
-77.51

280/200

3219.7
6423.8