

19980921/11-FDIR

Hurricane Georges Eyewall/Synoptic Flow

Flight #12 H980921

<u>Sensor or system</u>	<u>Number or Name</u>
INE	1
Accelerometer	1
Temperature Probe	2
Dew Point Probe	1
Altitude (for vertical wind)	RA-159
Static Pressure	Rosemount Fuselage
Dynamic Pressure	Rosemount Fuselage
Time Source	Micro 99
Constants File	CO2989.CON

Notes:

The radar altimeter (RA159) had a spike at takeoff and was set to zero from 1614:01-1618:42. There were several dips in RA159 due to overflying land (1623:00-1625:00 (Barbados), 1646:00-1653:00 (Martinique), 1750:00 - 1751:00 (St. Croix), and 1812:00-1815:00 (Puerto Rico). Several spikes in RA159 were removed and patched throughout the flight (1927:00-1927:30, 1940:00-1940:30, 1951:00-1952:00, 1955:00-1956:00, 2003:30-2004:30, 2235:00-2236:00, 2242:00-2242:30, 2257:30-2258:30, 2307:00, 2307:30, 2351:30-2352:30, and 2357:30-2358:00). A spike also occurred just prior to landing and RA159 was set to zero (0058:58-0101:00).

Dynamic slip pressure (DBP) had problems due to possible leak in the line. DBP was replaced by the dynamic pressure on the fuselage (PQF1) with an appropriate offset (1725:13-1754:36, offset (5.1) and 1830:44-1955:05, offset (4.9).

Dewpoint temperature (DW1) exceeded ambient temperature (AT2) several times due to heavy precipitation.

	<u>Takeoff</u>	<u>Landing</u>
Aircraft static pressure	1006.8	1014.7
Corrected tower pressure	1013.9	1014.9

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

980921H

1749

TIME	LAT	LON	TK	HD	TA	TD	WD	WS	PA	GA	P	SP	REMARKS
1641	14 07	60 28	317	315									THIN PA OF AL @ 17K
164145	14 10	60 32	317	315	-1.8	-16.9	173	19.4	4874	5157	549.0	1012.5	LEVEL 16K
16418													REN MOUNTAIN
1711	15 42	62 18											IN CLOUD (THIN)
171640	16 00	62 37											LINE ON CLOUD
172330													DESCEND
172600	16 24	63 14	314	309	0.9	1.0	230	27.4	4331	4542	590.0	1008.9	LEVEL 15K
172857	16 33	63 23	315	308	0.6	1.5	211	38.7	4341	4550	589.4	1007.6	DROP #1 N. 600
173800	17 03	63 53	315	307	3.0	2.1	213	46.1	4374	4570	587.8	1005.3	DROP #2
174930	17 42	64 37	311	300	3.2	5.7	201	56.5	4453	4533	581.0	994.4	DROP #3 ELEV 4
1759	17 49	64 54											9 20 KTS
175902	18 01	65 12											DROP #4
181131	18 29	65 39	194	191	1.8	0.8	36	45.6	4380	4561	586.5	1002.2	DROP #5
1830	17 50	64 59											6 1.5 KTS
184332	17 56	64 00	335	333	1.7	2.8	166	54.7	4349	4524	588.9	1001.9	DROP #6
18521	18 03	64 51											DROP #7 ETC.
1903	17 50	65 05											5 4 KTS
190828	17 34	65 22	226	240	2.5	5.8	322	70.2	4445	4547	581.9	993.5	DROP #8
191741	17 05	65 42	115	115									DROP #9
1939	17 55	65 09											5 DROP 9 KTS
194514	18 23	65 11	359	14	3.6	4.2	101	69.2	4445	4567	582.1	991.2	DROP #10 ELEV 4
202900	20 45	63 14	48	50	-8.8	-12.0	78	21.8	6122	6494	464.0	1008.8	LEVEL 120K
203300	21 01	63 00	7	11	-8.5	-12.7	88	18.6	6120	6492	464.1	1008.7	DROP #11
205835	23 02	62 35	284	284	-8.9	-39.0	122	10.6	6120	6501	464.1	1010.5	DROP #12
211705	23 21	64 17	283	283	-7.9	-44.7	109	7.3	6402	6807	446.3	1009.1	LEVEL 21K
212546	23 26	65 03	196	194	-10.4	-41.3	66	17.8	6407	6814	446.1	1011.9	DROP #13
214931	21 29	65 35	266	268	-9.7	-25.9	66	27.9	6406	6803	446.2	1007.8	DROP #14
220610	21 29	67 10	271	275	-9.8	-37.9	44	28.8	6407	6805	446.1	1008.5	DROP #15
222946	21 32	69 01	270	271	-10.2	-41.4	73	17.0	6406	6812	446.1	1012.4	DROP #16
224729	21 32	71 02	359	02	-10.5	-29.5	56	16.0	6407	6816	446.2	1011.9	DROP #17
30533	22 59	71 05	303	310	-10.8	-28.6	41	22.4	6407	6822	446.2	1013.2	DROP #18
329	24 16	72 40											CLIMB 22K
333448	24 31	73 00	290	292	-12.2	-31.3	5	6.3	6726	7124	426.7	1010.9	DROP #19
00816	25 29	76 05	275	271	-14.2	-34.6	177	21.6	7029	7485	409.0	1011.3	LEVEL 231K DROP #20

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

FLT ID: 980921H	FM: TRPB	TO: KOPF
FLT NO: 98-078	BLK IN: 0101Z	ATA: 0659Z
ETD: 1600Z	BLK OUT: 1611Z	RTD: 1619Z
ETE: 0030Z	BLK TIME: 8:50 8.8	FLT TIME: 8:40 8.7
SPONSOR ORG: HRD	PROGRAM: SYN. FLW/EYEWALL	PURPOSE: HURR. GEMARJ

OAO PERSONNEL

AC PHILIPPSBIRN, R ✓	SYS ENG CARPENTER, D ✓
CP KENUL, P ✓ TAGGART, B	DATA SYS 1
NAV RATHBUN, D ✓	RADAR ROLES, J ✓
FE TORREY, R ✓ BAST, G ✓	DT/ODW BARR, J ✓
RADIO ROGERS, M ✓	CLD PHYS
FD CZYZYK, S ✓	DOPPLER CURRY, J

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
BLACK, P ✓	PI	HRD
ABERSON, S ✓	SCIENTIST	"
LEIGHTON, P ✓	"	"
GAMACHE, J ✓	"	"
POPSTEFANITJA, I ✓	USAR/CSCOT	QUADRANT

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

6 1754Z 6 1830Z 6 1903Z 6 1939
 1749 1750 1750 1755
 6454 6459 6505 6509

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

FLT ID: 980 211

TIME OFF: 1619Z

TIME ON: 0059Z

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE		29.94	1014.7	29.97

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES	2	
FAST FLT LVL TAPES		
RADAR TAPES		
DOPPLER TAPES		
ODW CASSETTES		
HARD COPIES	1	
AXDT		
AXCP		
ODW		
6PS	21	

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON				
OFF				
RATE				

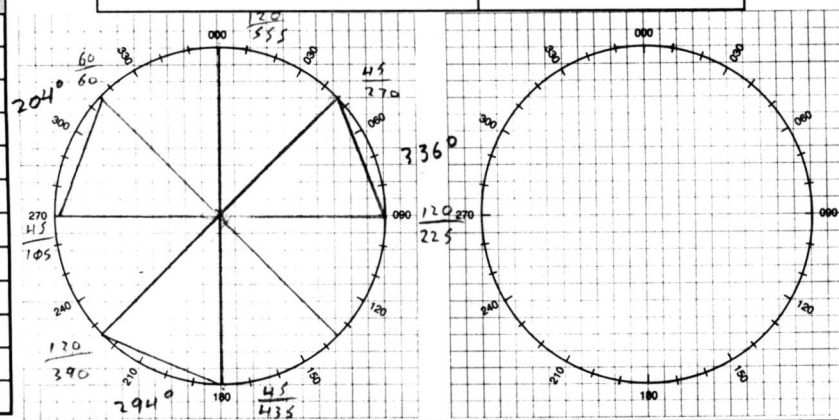
REMARKS

N 7214

[illegible]

N43LF $\phi_2 = 0.8$ $\phi_1 = 0.4$ $\phi_3 = 0.4$

PAGE OF



EMERGENCY MESSAGE

- 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 _____

1. POSITION
2. TIME
3. ALTITUDE
4. NEXT POSITION
5. ETA
6. NEXT POSITION

[illegible]

MISSION PREFLIGHT LOG

DESTINATION

TBPP → KOPF

MISSION

660665

NAVIGATOR

NATHAN

AIRCRAFT COMMANDER

PHILIPSBORN

FLIGHT DIRECTOR

CZTZK

SCHEDULED / ACTUAL TAKEOFF Z / DATE OF TAKEOFF

1500Z '1618Z 21 SEP

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
X06E	1304.4 5929.1							225				2475	80 +21	221	1639	1618		
000US	1402.0 6028.0							265				2395	48 +11	221			1640	
X0F	1435.4 6101.4											2347	128 +32	221	1650		1650	
000LA	1508.0 6139.0											2290	49 +11	221	1701		1700	
XILWAI	1618.0 6300.0											2192	106 +24	221	1725	1723	1723	
IP	1630.0 6330.0							255				2172	20 +45	221	1730			
X5	1748 6448											2065	107 +25	221	1755			
IP	1846 6500											1510	555 2710	221			1951	
X1	2100 6300							260				1325	965 3447	221			2033	
X2	2300 6230	PISAX						290				1200	1150 4430	221	2114	2100	2058	
X3	2330 6500											1060	125 726	221	2143	2125	2125	
X4	2130 6530											935	1415 5+25	221	2208	2150	2149	
X5	2130 6700											852	125 5+50	221	2225			
X6	2130 6900											740	83 6+07	221	2248			
X7	2130 7100	GTK										628	112 723	221	2251	2245	2246	
X8	2300 7100											538	1847 6+53	221	2305	2305	2333	
X9	2430 7300											395	90 7+12	221	2335			
X10	2530 7600	MAMEL										225	143 7+42	221	2401	2436		
ZAV	2542.3 7917.7							225				50	175 8+43	221	2410	2450		
OPF	2554.8 8017.2												50 2475	221				

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

