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

FLT ID: 980921I	FM: TBPB	TO: KORF
FLT NO: 98-022	BLK IN: 0210	ATA: 0204
ETD: 1730	BLK OUT: 1730	ATD: 1740
ETE: 9	BLK TIME: 8:40 (8.7)	FLT TIME: 8:24 (8.4)
SPONSOR ORG: HRD	PROGRAM: Research	PURPOSE: H-Georges Sea Flow

OAO PERSONNEL

AC Tennesen, D. ✓	SYS ENG Lynch, T. ✓
CP McKim, G. / O'Neal, T.	DATA SYS Hornbrook, C. ✓
NAV Strong, T. ✓	RADAR
FE Moore, H. ✓ / Wade, S. ✓	BT/ODW Smith, J. ✓
RADIO Sens Souci, D.	~~CLD PHYS~~ McFadden, J. ✓
FD Parrish, J. ✓	~~DOPPLER~~ Closser, G.

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
Black, M. ✓	P.I.	HRD
Dodge, P. ✓	Dropsonde	V

ATTS
31/27
1013
090/10
30
24.8
1006.2
1061
SP 1012 fm .6K
SP 1014.8 fm 10K
29.98
1014.5

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

OFF 25 54.4 80 16.7

HURRICANE GEORGES (SYNOPTIC FLOW, BARBADOS-OPA LOCKA)

Flight 2 980921I N43RF

DATA TYPE	SENSOR or OPTION
INE	2
Accelerometer	1
Temperature Probe	1
Altitude (for vertical wind)	RA APN-159
Static Pressure	Fuselage
Dynamic Pressure	Fuselage
Dewpoint Probe	1

Notes:

Aircraft INE #2 positions were renavigated with respect to GPS.

APN-159 radar altimeter spikes before take off and after landing were removed and patched with APN-232 altitudes.

At 184930z, JW Liquid water spikes positive close to 1 gm/kg. However, at the same time the Down Radiometer drops from 22C to 2C, indicating the aircraft encountered a dense cloud.

TA1 patched with corrected TA2 from 0204Z - 0207Z.

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	1012.8 mb	1015.1 mb
Corrected tower pressure	1013.0 mb	1014.5 mb

Flight Director: Jack Parrish, (813) 828-3310 ext. 3077

980921I H. Georges Synoptic Flow

173001	0.0	0.1	04.6	29.5	INEZ IZEWAV
1815	0.0	+0.2	54.3	32.2	
1905	-0.5	-0.2	58.0	16.0	
1950	-0.3	+0.2	00.0	51.1	
2025	-0.4	-0.1	00.0	48.5	
2115	-0.3	+0.2	01.4	05.7	
2155	-0.3	0.0	00.0	32.8	
2300	+0.3	+0.4	59.6	20.7	
0005	+1.0	-0.1	51.7	26.3	
0055	+1.8	+0.1	57.9	44.1	
0140	+1.3	-0.2	30.1	06.5	
(12) 0210	+2.2	+0.1	54.6	16.5	

At 184930, IW 1g H_2O spikes positive close to 1 gm/kg. However, the aircraft encountered at same time 2D goes from about 22°C to 2°C, indicating denser cloudiness.

IRA 159 patch (173001 - 174030), 020430 - 021000.

TA1 patch (020400 - 020700) 29, 49

LW baseline high - spike real.

AA FORM 59-4
(-72)

14325

980921I St. Georges Synoptic Flow

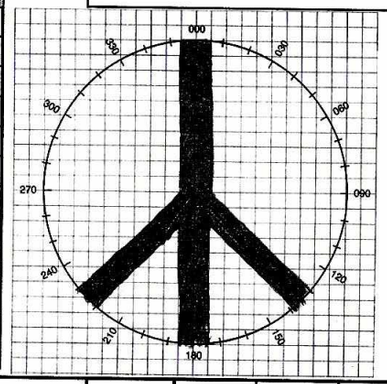
Time	LAT	LON	TK	WD	WS	GA	PA	TA	TD	SP	PS	
1730	1304.6	5929.5					59	38	24		1006	
174145	1305.4	5925.4	74	106	13.2	438	457	24.8	21.6	1012.7	948	↑
174730	1315.6	5933.7	288	131	19.5	2192	2230	15.7	3.8	986	767	↑ Over Barbados
1752	1321.4	5951.3	289	136	17.5	3236	3442	6.8	-1.2	1015	673	
181130	1349.6	6116.3	288	186	15.3	5043	5325	-2.9	-16.1	1011.4	537	-
183215	1419	6253	288	183	16	5087	5374	-1.8	-7.8	1007.2	533.9	
184845	1441.8	64045	287	234	12.6	5083	5358	-1.9	-4.1	2006	533.7	
190130	1457.8	65	271	294	14.6	5197	5478	-2.0	-10.7	1005.6	526	Drop 1 good 250/15
191530	1501	6605	275	337	19.9	5147	5479	-1.5	-16.9	1004.2	526.1	
1923	1504	6640	274	357	18	5198	5485	-1.9	-12.3	1006.3	526.	
193332	1502.7	6730	266	5	21	5502	5812	-3.4	-23.7	1004.7	504	Drop 2 Good
194345	1500	6821	269	13	11.7	5515	5825	-3.2	-20.2	1004.2	504	
1954	1500	6911	270	45	14	5513	5824	-3.4	-21.2	1005.2	504.2	
200343	15	70	270	43	15.3	5517	5832	-3.9	-24.8	1006.6	504.1	Drop 3 Good
202115	1500	7129	270	48	24	5515	5838	-3.4	-27.8	1006.6	504	
203255	1500	7230	271	48	26	5515	5840	-3.7	-23.8	1006.9	503.4	Drop 4 Good
204715	1501.4	7344.6	269	51	22.5	5625	5958	-4.4	-22.7	1006.9	496.7	
210210	1500.7	75	270	68	20	5621	5955	-3.2	-28.4	1004.7	496.9	Drop 5 Good
213114	1500.7	7730	270	99	23	5622	5954	-4.7	-32.8	1007.7	496.7	Drop 6 Good
215045	1500.2	7911.2	269	115	16.4	6129	6494	-7.6	-34.2	1006.4	463.5	
220057	1504	8000.9	2	104	10.1	6127	6492	-7.4	-28.9	1005.7	463.6	Drop 7 Good
221230	16	80	0	94	7.9	6128	6498	-8.2	-25.1	1008	463.6	
222628	1705	7956	20	128	8.5	6124	6495	-8.2	-21.0	1008.2	463.8	Drop 8 Good
224730	1839	7911	25	185	12	6128	6500	-9.0	-21.2	1010.7	463.6	
225250	1901	7856	~~280~~	~~180~~	~~13~~	6128	6498	-9.2	-22.0	1010.6	463.7	Drop 9
230445	1858.8	7755.1	88	151	12.4	6129	6504	-9.4	-25.9	1012.1	463.4	
231415	1900.8	7709.0	91	160	9.0	6128	6505	-9.1	-28.4	1011.7	463.6	
232158	19	7630	91	129	8.1	6130	6508	-8.7	-29.7	10107	463.5	Drop 10 Good
2337	19	7515	91	90	7.3	6128	6518	-8.0	-21.9	1009.5	463.5	
235230	1903	7400	33	47	16.6	6128	6520	-8.2	-28.3	1010.8	463.5	Drop 11 Good
0008	2003.2	7318.1	32	58	22	6423	6836	-9.8	-29.7	1008.6	445.1	
0022	2107.5	7337.6	340	65	17	6423	6839	-9.7	-27.9	1010.1	445.1	
003338	2201.5	7401.7	299	79	8.3	6423	6843	-9.7	-29.9	1010.2	445	Drop Good
0046	2234	7500	302	140	9.7	6424	6847	-9.9	-25.7	1010.9	445	
0103	2325.6	7621.2	311	192	20.8	6143	6538	-8.1	-29.9	1010.4	462.7	
010838	2345.4	7646.4	311	182	23	6140	6532	-8.5	-26.1	1011.2	462.7	Drop Good
0122	2432	7746	310	168	22.2	6143	6529	-10	-22.6	1013	462.7	
013430	2513.6	7843.4	306	152	10	6771	5067	-0.8	-7.1	1013.6	559	↓
0210	2554.6	8016.5	157			16		28.4	15.3		1015.1	BLOCK

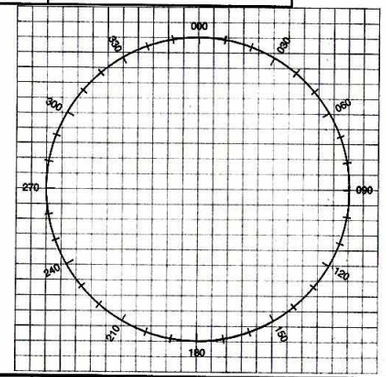
CLEARANCES

FREQ	ALT	HDG	OTHER
			KOPF
			DI BNG
			15N
			065W FZR
			16.0 1743 SD

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	VHF/VOICE	MF/VOICE	HF/CW	MF/CW
243.0	121.5	2182 KHZ	8364 KHZ	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	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
1853	G	14-46.6 64-21.1	14-47.1 64-21.3	-.5 -.2	14-47.2 64-21.3	-.6 -.2	300		286	0	286	264	280	16	17.0	283	(2)		+9	1901	
2049	G	15-01.2 73-54.0	15-02.0 73-53.9	-.8 +.1	15-01.6 73-54.0	-.4 0															
2229	G	17-14.3 79-53.0	17-15.1 79-52.6	-.8 +.4	17-14.6 79-52.8	-.3 +.2															
0210	G	25-54.6 80-16.4	25-57.7 80-15.9	+2.9 +.5	25-52.4 80-16.3	+2.2 +.1															

NOAA FORM 56-49
(2-95)

MISSION PREFLIGHT LOG

DESTINATION	MISSION	NAVIGATOR	AIRCRAFT COMMANDER	FLIGHT DIRECTOR	SCHEDULED / ACTUAL TAKEOFF Z	DATE OF TAKEOFF
KOPF	GEORGES	STRONG	TENNESEN	PARRISH	1730	21SEP98

1740 / 845 / 15.25 — 98-022

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	REMARKS
1 BNE	13-44.0 N 60-58.5 W						295						95 95	------				
2	15-00 N 65-00 W						289						246 341	------		1900		
3	15-00 N 80-00 W						273					280	880 1211	------		2150	2200	
4	17-00 N 80-00 W						005					280	120 1331	+26		2224	2225	
5	19-00 N 79-00 W						033					290	133 1464	+29		2253	2254	
6	19-00 N 74-00 W						095					290	284 1748	+40	✓	2353	2354	
7 Joses	20-08.5 N 73-13.3 W						038					300	82 1830	+17		0010	0010	
8	22-00 N 74-00 W						341					290	120 1950	+24		0034		
9	23-30 N 77-00 W						304						189 2139	+38		0107		
10 OPF	25-54.4 N 80-16.7 W						306						230 2369	+46		0158		
11 FBY	25-42.3 79-17.7															0143		

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INS PERFORMANCE	INS 1	INS 2
BEGIN ALIGN TIME	1700	1700
ALIGN STATUS (0-5)	5	5
END NAV TIME	0210	0210
START NAV TIME	1723	1723
DELTA T	8+47	8+47

TERMINAL ERRORS	INS 1	INS 2
DELTA LAT	+2.9	+2.2
DELTA LON	+.5	+.1
RGS	4	2
RADIAL ERROR	3	2.

REMARKS	
OUT	1730
OFF	1740
ON	0204
IN	0210

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
AIRCRAFT OPERATIONS CENTER