

U.S. DEPT. COMM./NOAA/DAO - DATA SECTION WORK FORM NO.1 OROWF1 FILE

FLT ID: 970719H	FM: MCF / OPF	TO: OPF / MKPB
FLT NO: 97-047	BLK IN: 1525Z / 2316Z	ATA: 1522Z / 2313Z
ETD: 1430/	BLK OUT: 1426Z / 1655Z	RTD: 1435Z / 1701Z
ETE:	BLK TIME: 7.20 7.3	FLT TIME: 6:59 7.0
SPONSOR ORG: HRD	PROGRAM: GENESIS	PURPOSE: TO #5

DAO PERSONNEL

AC McKim, G ✓	SYS ENG BARR BARR, J ✓
CP TAGGART, B ✓	DATA SYS CARPENTER, D ✓
NAV RATHBUN, D ✓	RADAR GONZALEZ, J ✓
FE TORREY, R ✓	BT/ODW
RADIO ROGERS, M ✓	CLD PHYS MCWHIRTER, D ✓
FD CZYZYK, S ✓	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/DAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
DODGE, P ✓	SCIENTIST	HRD
BLACK, M ✓	SCIENTIST	HRD (1st Leg)
ABERSON, S ✓	↓	HRD
GOLDENBERG, S ✓	↓	HRD
MARKS, F ✓	↓	HRD
WILLOUGHBY, H ✓	↓	HRD
McFADDEN, J ✓	↓	AOC

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

500 mb

18.5 64W

1731:30Z - BALANCE PTR #1

1736:10

1426
1522

U.S. DEPT. COMM./NOAA/OAD - DATA SECTION WORK FORM NO.2 DROWF2

FLT ID: 920719H

TIME OFF: 1435Z

TIME ON: 2313Z

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	1015.5/1016.1	30.02/30.02	1016.1/	30.02

NO

DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES

FAST FLT LVL TAPES

RADAR TAPES

DOPPLER TAPES

ODW CASSETTES

HARD COPIES

GPS SOURCES

5

AXBT

AXCP

ODW

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON				
OFF				
RATE				

REMARKS

N42RF DROP STATION LOG

Hurricane Research

TPA → OPA

Project: ~~XXXXXX~~

Mission: OPA → Barbados

Flight ID: 970719H

Take Off: 1435Z/1701Z

Landing: _____

Drop #	Sonde Serial #	Rcvr #	Press. Offset	Launch Time	Operator	Sonde OK	Comments
1	970150046	1	-1.5	1816	DWC	NO	Sonde did not lock to any satellites until 375 seconds after launch. HAD NO DATA before that
2	970150197	2	-0.5	1825	DWC	NO	PTH Good No winds - never got satellites
3	970150203	1	-0.3	2036	JGG	✓	60secs. to pick up sat. intermittently, PTH good
4	970150200	1	-0.4	2104	JG	✓	Picked up 4 satellites @ 25 secs. After launch PTH Good - winds in + out
5	970150084	1	-0.57		JG		- " -
6							
7							
8							
9							
10							
11							
12							

TD #5/ TROPICAL WAVE

Flight #1 H970719

<u>Sensor or system</u>	<u>Number or Name</u>
INE	2
Accelerometer	2
Temperature Probe	1
Dew Point Probe	1
Altitude (for vertical wind)	RA-159
Static Pressure	Rosemount Fuselage
Dynamic Pressure	Rosemount Fuselage
Time Source	Micro 99
Constants File	CO2973.CON

Notes:

There was one small time gap: 1655:21-1655:40.

Downward spikes in radar altimeter are a result of overflying land (2240:01-2247:00).

Radar altimeter (RA-159) had a spike at takeoff (1701:31-1702:00) and was replaced with RA-232. RA-159 was set to zero after landing due to a spike (2313:09-2315:30).

Dewpoint (DW1) was balanced 1731:15-1736:10 and was replaced by DW3 + 5.0. Spike was removed and patched 1733:15-1733:25.

Dewpoint #1 (DW1) exceeded ambient temperature several times due to precipitation.

There were spikes in several instruments due to a turn and downward pitch 2003:01-2006:00.

	<u>Takeoff</u>	<u>Landing</u>
Aircraft static pressure	1016.1	1009.2
Corrected tower pressure	1016.6	

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

970719H

TIME	LAT	ION	TK	HD	TA	TD	WD	WS	PA	GA	SP	RS	REMARKS
143524													TOKEOFF
170130													TAKEOFF
172600	25 33	78 33	111	112	-7.5	-12.2	238	1.9	5805	6158	484.6	1012.1	19 K LEVEL
173700	25 09	77 42	124	126	-7.2	-13.8	223	6.0	5797	6151	485.1	1011.3	DPTR BALANCED
180600	23 51	75 39	122	125	-7.4	-19.0	181	5.4	5807	6161	484.4	1011.9	
181610	23 25	74 56	121	121	-8.0	-14.0	62	4.9	5806	6161	484.5	1013.7	DROP #1 NO WIND
182429	23 05	74 19	117	118	-7.6	-24.8	327	0.2	5802	6158	484.7	1013.1	DROP #2 NO WIND
191800	20 55	70 16	123	125	-6.7	-25.3	193	4.4	5796	6158	485.2	1012.0	
195730	19 07	67 23	120	122	-6.8	-21.0	206	4.6	5790	6152	485.5	1012.7	
200440	18 54	66 49	92	92	-5.3	-13.3	93	9.3	5489	5830	505.7	1012.8	18 K FT
203245	18 44	64 33	95	96	-5.9	-9.2	95	7.1	5492	5827	505.9	1014.2	
203601	18 40	64 18	151	150	-5.6	-11.6	76	8.3	5489	5826	505.8	1012.8	DROP #3 INTWIND
210428	16 50	63 16	264	264	-5.3	-8.3	88	12.8	5576	5910	499.9	1010.2	DROP #4
214604	1706	6517	110	109	-5.9	-8.0	67	11.5	5572	5901	500.3	1011.0	DROP #5
222525	15 42	62 13	134	135	-11.5	-14.1	103	1.4	6407	6777	446.1	1011.5	21 K
225300	14 04	60 27	138	139	-11.2	-18.2	140	12.0	6407	6800	446.1	1011.2	

970719H

1655:21

1655:40

RENAV

1747:00	1.0, 0	24	41.8	-77	0.4
1852:00	1.3, 0	22	2.2	-72	14.7
1915:00	1.0, 0	21	3.6	-70	29.5
2009:00	1.2, 0.2	18	53.4	-66	28.3
2036:00	-1.0, -0.4	18	40.3	-64	17.7
2104:00	1.2, 0	18	50.3	-63	12.7
2156:00	-1.3, -0.1	16	46.0	-64	23.7
2315:30	-2.0, 0.8	13	4.5	-59	29.4

REPLACE RA159 W/RA232 @ TAKEOFF DUE TO SPIKE 1701:31 - 1702:00 X

RA159 SPIKES OVERLAND 2240:01 - 2247:00 X

RA159 SPIKE @ LANDING ~~RA159 SPIKE~~ 2313:09 - 2315:30
~~2315:30~~ SET TO ZERO X

BALANCED DW#1 @ 1731:15 - 1736:10 DW1 = DW3 + 5 ✓

SPIKE DW#1 @ 1733:15 - 1733:25 ✓

SPIKE IN SEVERAL INSTRUMENTS DUE TO TURN + DOWN PITCH 2003:01 - 2006:00

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TITLE (MAX 21 CHARACTERS) -- EX HURRICANE PAINE
TD #5/WAVE
YYMMDDL FLT I.D.
970719H
HHMMSS START TIME -99999 DEFAULT TO START OF DATA FOR PRINTOUT ONLY
165501
HHMMSS END TIME 999999 DEFAULT TO END OF DATA FOR PRINTOUT ONLY
231530
HHMMSS TAKE OFF TIME
170100
* NUMBER OF TAPES (I2) ...FOR STANDARD TAPE OUTPUT ONLY
1
* -----LOGICAL UNIT OF INPUT DATA (I1) 5, 8 OR 9 FOR TAPE DRIVE
9
* -----LOGICAL UNIT OF OUTPUT TAPE DRIVE (I1) [FOR STANDARD TAPE ONLY]
9
* -----LOGICAL UNIT OF PRINTER (I1)
6
* -----DATE OF PROGRAM (MMDDY)
06094
* -----STATIC PRESSURE PROBE (I1)
* 1 = PSW (WINGTIP)
* 2 = PSF (CO-PILOT/FUSELAGE)
* 3 = FUTURE USE
2
* -----DYNAMIC PRESSURE PROBE (I1)
* 0 = PQW(WINGTIP)
* 1 = PQF1 (FUSELAGE 1281)
* 2 = PQF2 (FUSELAGE 1221)
* 3 =FUTURE US
1
* -----INE SELECTION (I1)
* 1 = INE 1
* 2 = INE 2
2
* -----ACCELEROMETER (I1) - USUALLY THE SAME AS YOUR INE SELECTION
2
* ----- TOTAL TEMPERATURE PROBE (I1) [1 OR 2]
1
* ----- DEWPONT TEMPERATURE PROBE (I1) [1 OR 2]
1
* -----ALTIMETER OPTION (I1) - FOR VERTICAL WIND COMPUTATION
* 0 = PRESSURE ALTITUDE (OVER LAND)
* 1 = RADAR ALTITUDE APN-159 (OVER WATER)
* 2 = RADAR ALTITUDE APN-232 (OVER WATER)
1
* -----PRINTOUT RATE SECONDS (I2)
10
* -----WINDSPEED/DIRECTION RUNNING AVERAGE TIME, SECONDS (I2)
10 ! FOR STANDARD TAPE OUTPUT ONLY
* -----TIME OPTION (I1)
* 1 = MICRO 29
* 2 = TIME BASED GENERATOR #1
* 3 = TIME BASED GENEATOR #2
1
* -----NAME OF CONSTANTS FILE EX C03863.CON
C02973.CON
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Aircraft Operations Center
PO Box 6829
MacDill AFB, FL 33608-0829

March 16, 1996 AOC1:sw

MEMORANDUM FOR: *Dr. Hugh Willoughby, DIRECTOR HRD*

FROM: Captain George C. Player, III, NOAA
Director, Aircraft Operations Center

SUBJECT: Hazard Duty Flight

The mission flown on AOC aircraft # N42RF on 7/19/97 has been declared hazardous. The following personnel from your laboratory participated in this mission.

*DODGE, P
WILLOUGHBY, H
MARKS, F
ABERSON, S
GOLDENBERG, S*

For purpose of computing allowable hazard duty time, the hazard period during this mission was from 1255 local time on 7/19/97 until 1916 on 7/19/97.

SUBJECT: Hazardous Duty

PURPOSE OF FLIGHT: FERRY TO BARBADOS / INVESTIGATE FORMER TO #5

Hazardous Duty Pay is required for flight made on 7/19/97
(DATE)

Request based on INVESTIGATION OF TROPICAL WAVE/TD#5
OF ENCOUNTERING SEVERE WEATHER

Personnel on board authorized Hazard Pay:

CZ424K, 5

TORREY, R

BARR, J

CARPENTER, D

GONZALEZ, J

MCWHIRTER, D

ROGERS, M

PILOT/FLIGHT DIRECTOR:

APPROVED:

DISAPPROVED:

CHIEF, AOC FLIGHT OPERATIONS:

19K

1

7/18/97

IP = AGADA
18 43.9 N
64 20.4 W

IP ≈ 18.18 N

[1] (D)

~~WAVE~~

WAVE AXIS
? modified *

SEC CTR

17 N
64.3 W

90 mi

modified *
(D)

90 mi

↓ BARBADOS
13.03
59.46

MID CTR
17.8 N
63.8 W

NE → SW
WIND SHIFT

Poss Replacement
(D)

TR 060

TR 150
40 mi

TR 285

[4]

[3]

16 52 N
63 08 W

18 N
61 53 W

42 - 500 mb

TR 150 AFTER CTR FOR 40 MILES

43 - 850 mb (5000 ft PA)

23 N
69 W

140
90
230 n.mi extra ~ 1 hr

405.02

405.24
-0.57

~ 75.0 W

* 970150200 23.25 N
970150112

405.32 MHz
402.70

FREQ OF DROP SOME
STATIC PRESSURE OFFSET - 0.3

ASDL 10 MIN BUNDS

POSITION REPORT

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	8384 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 _____

[illegible]