

U.S. DEPT. COMM./NOAA/OAO - DATA SECTION WORK FORM NO. 1 OADWF1 FILE

FLT ID: 960826H	FM: TISX	TO: TISK
FLT NO:	BLK IN:	ATA:
ETD: 1600	BLK OUT: 1552	RTD:
ETE: 9+00	BLK TIME:	FLT TIME:
SPONSOR ORG: NOAA	PROGRAM: HRD	PURPOSE: Vent Eye wall

OAO PERSONNEL

AC MCKIM ✓	SYS ENG MCMICCAN ✓
CP TAGGART ✓	DATA SYS
NAV STRONG	RADAR DELGADO ✓
FE WADE/TORREY ✓	BT/ODW BARR ✓
RADIO	CLD PHYS
FD WHITE ✓	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
MCVERNE ✓	DR	AOC
MCADDEN ✓	PM	
BLACKLANDSEA	SCIENCE	HRD
ABERSON		
GAMACHE		
DONNELLY ✓		
BRACKEN ✓		

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

102 717R 304.8 2nd
 123.05 1st
 4701
 DPTD NOAA 2 WX MISSION
 TISX 26/1613z.
 ETA 18N 55W 26/1840z. 7 Penetrations
 ETA TISX 27/0110z
 LAST REPORT OBS 01 THRU 24.

U.S. DEPT. COMM./NOAA/OAD - DATA SECTION WORK FORM NO.2 OADWF2 F11

FLT ID: 960826H TIME OFF: 1632 TIME ON:

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	1015.0	1014.0	1011.2	1012.0

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES	1		
FAST FLT LVL TAPES			
RADAR TAPES			
DOPPLER TAPES			
DDW CASSETTES			
HARD COPIES			
AXBT			
AXCP			
DDW GPS	4		

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON	1	1	1	1
OFF				
RATE				

REMARKS

EDOUARD 26/182 - 18.3N 54.7W.
 6 EYEWALL PLUS AN EXIT AND
 RE-ENTER FOR 43 AND BAD DDW AT 212.

Time	TA	TD	WD	WS	Remarks
1548					EUS
1552					BCK
1613	25.9	21.9	350	12	T/O
1645	-3.2	-33.3	023	12	Level → IP
1715	-3.2	-20.0	058	15	
1745					
1753	-2.6	-9.1	042	28	IP EYE 15.15 54 28 IP 1732 5430 EYE
1819	-2.4	-4.1	057	48.9	outer outer main band
1853	11.1	7.7			GPS sound In eye PTH
1958	18.0	2.7			GPS sound 1856 18 28 54 41 PTH + winds
					938 mb 3kt
19	3.2	1.9	168	55	turn take w
2001	6.4	10.2	021	100	eye wall fly out
2039	5.5	3.3	304	54	idea 43 at 1415 inbound 045-
2102	4.6	4.8	255	85.6	43 says 1839 55 00
					40 says 1837 55 02
2226	13.5	8.1	125		GPS says Sound 9 Good
2228	13.5	8.0	204	54.8	GPS sound Good
					WD BCK

EDOUARD'S EYEWALL EXPERIMENT

FLIGHT #2 H960826

TYPE OF DATA -----	SENSOR OR OPTION -----
INE	1
Accelerometer	1
Temperature probe	1
Altitude change option (for vertical winds)	RA159
Static pressure	Rosemount fuselage
Dynamic pressure	Rosemount fuselage
Time source	Micro 99
Constants file	CO2964.CON

Notes:

There were two time/data gaps: 1651:01 1651:20

The RA159 was replaced with the RA232 or the GPS for the following time periods:

1613:00 - 1615:00
1616:00 - 1618:00
1640:00 - 1642:00
2143:00 - 2157:00
2226:00 - 2230:00
0112:00 - 0117:00

Dewpoint temperature exceeds ambient temperature throughout the flight during heavy precip.

The King Liquid water probe was inoperable for the entire flight.

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.

	Takeoff -----	Landing -----
Aircraft static pressure	1015.0mb	1011.2mb
Corrected tower pressure	1014.0mb	1012.0mb

Flight Meteorologist: Sean White: (813) 828-3310 ext. 3072

960826H

START: 1610:01
END: 0117:00

BAD BLOCKS

1651:01
:20

100 RENA

RA 159 spike @ landing

✓ 01~~12~~¹³ - 0117
replace w RA 232

RA 159 w/ 232

✓ 1613 - 1615
w/GPS (+20)

✓ 1616 - 1618
w/GPS (+15)

✓ 1640 - 1642
w/GPS (+20)

✓ 2143 - 2157
w/GPS (+30)

2226 - 2230

~~APF 2047 & 2051~~ JK

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TITLE (MAX 21 CHARACTERS) -- EX HURRICANE PAINE
EDOUARD'S EYEWALL
YYMMDDL FLT I.D.
960826H
HHMSS START TIME -99999 DEFAULT TO START OF DATA FOR PRINTOUT ONLY
161001
HHMSS END TIME 999999 DEFAULT TO END OF DATA FOR PRINTOUT ONLY
011700
HHMSS TAKE OFF TIME
161300
* NUMBER OF TAPES (I2) ...FOR STANDARD TAPE OUTPUT ONLY
2
* -----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
1
* -----ACCELEROMETER (I1) - USUALLY THE SAME AS YOUR INE SELECTION
1
* ----- 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
CO2964.CON
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DATE : 26 August 1996

TO : Chief, AOC Flight Operations

FROM : Pilot/Flight Director, Aircraft N42RF ON 0117 BLOCKTIME
OFF 1552 9.4

SUBJECT: Hazardous Duty

PURPOSE OF FLIGHT: Hurricane Research

Hazardous Duty Pay is required for flight made on 26 Aug 96
(DATE)

Request based on HURRICANE FLIGHTS
THROUGH EYEWALLS
SEVERE WEATHER

Personnel on board authorized Hazard Pay:

TORREY, R

WADE, S

MCMILLAN, S

DELGADO, J

BARR, J

MCFADDEN, J

PILOT/FLIGHT DIRECTOR: LCDR S.R. WHITE

APPROVED: X

DISAPPROVED: _____

for CHIEF, AOC FLIGHT OPERATIONS: [Signature]

85 BT

DATE	SCHEDULED FIX TIME	AIRCRAFT NUMBER	ARWO
MANOP HEADING (PRECEDENCE IMMEDIATE)			
MISSION IDENTIFIER AND OBSERVATION NUMBER			
(ABBREVIATED) (DETAILED) VORTEX DATA MESSAGE			
A	26/1856	Z	DATE AND TIME OF FIX
B	18 DEG 28 MIN N S		LATITUDE OF VORTEX FIX *
	54 DEG 41 MIN E W		LONGITUDE OF VORTEX FIX *
C	MB	M	MINIMUM HEIGHT AT STANDARD LEVEL
D	138	KT	ESTIMATE OF MAXIMUM SURFACE WIND OBSERVED
E	360 DEG 10	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM SURFACE WIND
F	100 DEG 138	KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER
G	360 DEG 10	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND
H	938	MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM WITHIN 1500 FT OF SEA SURFACE
I	5 c/4266	M	MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE OUTSIDE EYE
J	11.5 c/4490	M	MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE INSIDE EYE
K	5.0 c/ N/A	C	DEWPOINT TEMP/SEA SURFACE TEMP INSIDE EYE
L	CLOSED		EYE CHARACTER: Closed wall, poorly defined, open SW, etc.
M	C 20		EYE SHAPE/ORIENTATION/DIAMETER. Code eye shape as: C - Circular; CO - Concentric; E - Elliptical. Transmit orientation of major axis in tens of degrees, i.e., 01-010 to 190; 17-170 to 350. Transmit diameter in nautical miles. Examples: C8 - Circular eye 8 miles in diameter. E09/15/5 - Elliptical eye, major axis 090-270, length of major axis 15 NM, length of minor axis 5NM. CO8-14 - Concentric eye, diameter inner eye 8 NM, outer eye 14 NM.
N	18 DEG 28 MIN N S		CONFIRMATION OF FIX: Coordinates and Time *
	54 DEG 41 MIN E W		
		Z	
O	123 / 5		FIX DETERMINED BY/FIX LEVEL FIX DETERMINED BY: 1 - Penetration; 2 - Radar; 3 - Wind; 4 - Pressure; 5 - Temperature. FIX LEVEL (Indicate surface center if visible; indicate both surface and flight level centers only when same): 0 - Surface; 1 - 1500 ft; 8 - 850 mb; 7 - 700 mb; 5 - 500 mb; 4 - 400 mb; 3 - 300 mb; 2 - 200 mb; 9 - Other.
P	3 /	NM	NAVIGATION FIX ACCURACY METEOROLOGICAL ACCURACY
Q	REMARKS		
<p>5</p> <p>MAX WIND E QUADRANT 135 KTS</p>			
<p>INSTRUCTIONS: Items A through G (and H when extrapolated) are transmitted from the aircraft immediately following the fix. The remainder of the message is transmitted as soon as available for scheduled fixes and at the ARWO's discretion for unscheduled (intermediate) fixes. * CHECK SUM REQUIRED IN WESTPAC.</p>			

FORM JAN 77 82

PREVIOUS EDITION IS OBSOLETE.

ABBREVIATED/DETAILED VORTEX DATA MESSAGE

