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

FLT ID: 960814H	FM: MCF/OPF	TO: OPF/BPB
FLT NO: 96-0	BLK IN: 2241	ATA: 1750/2241
ETD: 1500	BLK OUT: 1448/1726	ATD: 1503/1732
ETE: 5+45	BLK TIME:	FLT TIME: 5+09
SPONSOR ORG: NOAA	PROGRAM: HRD	PURPOSE: Cyclogenesis

OAO PERSONNEL

AC PLAYER, G ✓	SYS ENG MCMILLAN, S ✓
CP MCKIM, G ✓	DATA SYS
NAV RATHBUN, D ✓	RADAR
FE ~~HORREY~~/WADE ✓	DT/ODW BARR, J ✓
RADIO	CLD PHYS
FD WHITE, S ✓	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
KINNEY, B ✓	AOC	
McFADDEN, J ✓	"	
POPSTEFANIA, I ✓	~~U MASS~~ SCIENTIST	U MASS
POWELL, R ✓	~~U MASS~~	U MASS
HOXIE, T	~~A~~	NCAR
BLACK, P ✓		HRD
FRANKLIN, J ✓		
GAMACHE, ✓		

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

4U. GPS "G" 220/6 30/25 -.114 PA

80 / 9 / 2

30.07 ≈ 1017.8

60/5 66 101

~~EDIT~~ WD /RMS

EDIT /RAMS_COMMON2.HU96

Ø - 121 AT WD /RAMS

$Ø_E$ - 122 ET

ASDL

Rec

end of drop award not

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

FLT ID: 960814 H TIME OFF: 1732 TIME ON: 2241

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	~~1017.0~~ 1017.3mb	~~1017.5~~ 1017.8mb	1007.8	1020.3

	NO	DATA DISPOSITION/DATE/QUALITY
1/SEC FLT LVL TAPES		
FAST FLT LVL TAPES		
RADAR TAPES		
DOPPLER TAPES		
ODW CASSETTES		
HARD COPIES		
AXBT	Ø	
AXCP	Ø	
~~ODW~~ GPS	8	1-bad 1-Good 6-Good

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON				
OFF				
RATE				

REMARKS

-1 drop 1515

1500, 10k, 18k ↑ 2 min

4 ODW/GPS
2 channels 20m each

1 drop in Precip

~~Switch APN 232/1935 Z~~

43 42
0-5 5-10
30-35 35-40
2000
20
60

3-4 mb high

WB Form 413-50
2 - 63

960814 H

Time	TA	TD	WD	WS	PS	Remarks			
1503	31.6	21.4	210	13.0	1017.2	T/O	MCF		
						END			
1732	36.2	21.0			1017.0	T/O	OPF		
1737:30	24.9	21.2	102	2.1	965.5	} Intercompare w/ 10432			
1738:36	123	2.0	24.8	21.5	964.1				
1739:30									
1751:45									
1751:41			358	4.5		}	"	"	
1814:27							GPS sonde	Gone	
1817:05	-9.0	-19.5	212	7.6			GPS sonde	Gone	
1819:00	-9.1	-21.0	196	9.5		}	start freq		
1820:05	-7.0	-22.1	206	8.0			middle	Intercompare	
1821:00	-8.8	-22.6	206	6.7			end		
1840:01	-8.4	-26.6	160	6.7			GPS sonde	gone	Ok, no Wind
1850:00	-7.9	-28.0	091-6	2.1			GPS sonde	gone	no Alt, T
1900:00	-7.3	-28.0	060	4.1			GPS sonde	gone	~~Ok, no wind~~
1958:40	-11.8	-14.0	053	7.3			GPS sonde	gone	
1909:36	-11.9	-2.6	107	3.0			GPS sonde		
1914:50	0.2	-1.6	096	20.3			GPS sonde		

960814 H 11/15/96 START: 1730:01
END: 2243:00

BAD BLOCK
✓1749:17
✓1804:11
✓1804:30
1831 ~~1831:03~~ (10), ~~15, 20~~ (yes)
✓1845:51
✓1846:01, 10 (12)
✓1913:10, ~~11, 30~~ (yes)
✓2121:~~16~~, ~~20, 22, 30~~
✓2136:11, 30
✓~~2203:40~~, ~~41, 50~~
✓2219:51
✓2220:10

✓replace 159 w/232 1733:31 - 1735:00 (36)
✓replace 159 w/GPS avg of (6800) 1932:00 - 1938:00
✓replace 159 w/GPS avg of 6775 2125:00 - 21:30:00
✓replace 159 w/GPS avg of 4850 2157:00 ~~2206:00~~ - 2206:00
✓replace 159 w/232 2241:00 - 2243:00
✓replace 159 w/GPS avg of 6775 2047:00 - 2056:00

INE1 w/GPS

180000	-0.4	-0.2
190000	-1.4	+0.4
200000	-2.5	+0.3
210000	-4.6	+0.6
220000	-4.8	+1.8
224300	-7.0	+2.1

TROP CYCLOGENESIS

FLIGHT #1 H960814

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 fifteen time/data gaps: 1749:17 1804:11 1804:30 1831:10 1845:51 1846:01 1846:10 1913:10 1913:12 2121:16 2136:11 2136:30 2203:40 2219:51 2220:10

RA159 was replace with RA232 or averaged GPS altitude during the following time frames:

1732:31 - 1736:00
1932:00 - 1938:00
2047:00 - 2056:00
2125:00 - 2130:00
2157:00 - 2206:00
2241:00 - 2243:00

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

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.

	Takeoff	Landing
Aircraft static pressure	1017.0mb	1007.8mb
Corrected tower pressure	1017.5mb	unknown

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

```
TITLE (MAX 21 CHARACTERS) -- EX  HURRICANE PAINE
TROP CYCLOGENESIS
YYMMDDL  FLT I.D.
960814H
HHMMSS START TIME    -99999 DEFAULT TO START OF DATA FOR PRINTOUT ONLY
173001
HHMMSS END TIME      999999 DEFAULT TO END OF DATA FOR PRINTOUT ONLY
224300
HHMMSS TAKE OFF TIME
173200
* 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
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 CO3863.CON
CO2964.CON
*****************************************************************
```

DATE : 14 August 1996

TO : Chief, AOC Flight Operations

FROM : Pilot/Flight Director, Aircraft N42RF ON 2244 BLOCKTIME
OFF 1726 5.4

SUBJECT: Hazardous Duty

PURPOSE OF FLIGHT: FERRY + INTERCOMPARISON

Hazardous Duty Pay is required for flight made on 14 August 96
(DATE)

Request based on CLOSE FORMATION WITH N43RF

Personnel on board authorized Hazard Pay:

TORREY, R	
WADE, S	
KINNEY, B	
MCMILLAN, S	
BARR, J	
MCFADDEN, J	

PILOT/(FLIGHT DIRECTOR): LCDR SEAN R. WHITE

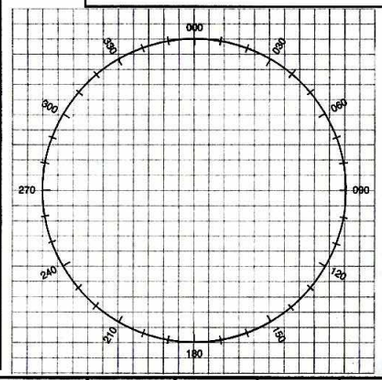
APPROVED: _____ DISAPPROVED: _____

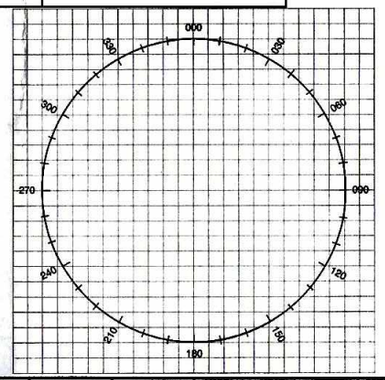
CHIEF, AOC FLIGHT OPERATIONS: _____

MISSION LOG

PAGE ___ OF ___

CLEARANCES			
FREQ	ALT	HDG	OTHER





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
~~1443~~ ~~1447~~ 1502																					ENG START TAXI TAKEOFF
1550																					LAND
~~1723~~ ~~1723~~ 1733																					ENG START TAXI TAKEOFF
1753	GPS FIX 1	2543.6 7858.5	2543.9 7858.5	-.3 0	2544.6 7857.8	-1.0 +.7			116	0	116	253	247	21	11K	232					
1847		2328.9 7512.7	2330.2 7512.5	-1.3 +.2	2329.4 7511.6	-.5 +1.1			128	1L	127	282	285	14	FL190	268					
1935		2134.7 7136.2	2136.5 7136.2	-1.8 0	2136.2 7135.6	-1.5 +.6			114	1L	113	304	318	14	210	293					
2023		1940.6 6758.6	1943.3 6757.6	-2.7 +1.0	1939.8 6757.6	+.8 +1.0			128	0	128	306	309	13	210	295					
2114		1720.2 6436.4	1725.2 6435.8	-5.0 +.6	1720.3 6436.3	-.1 +.1			122	2R	124	320	335	18	FL210	304					
2139		1555.4 6229.9	1559.6 6228.6	-4.2 +1.3	1552.0 6229.8	+3.4 +.1			128	1R	129	317	330	14	FL210	304					
2241		1304.5 5929.6	1311.5 5927.6 7	-7.0 +2.0	1300.8 5930.1 4	+3.7 -.5															LAND

1755.2
065 35.2