

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

FLT ID: 1960911	FM: KMCF	TO: KMCF
FLT NO: 96-05	BLK IN: 0055	ATA: 6044
ETD: 1430	DLK OUT: 1443	RTD: 1455
ETE: 0030	BLK TIME: 10.12 (10.2)	FLT TIME: 9.49 (9.9)
SPONSOR ORG: NHC	PROGRAM: RECCO	PURPOSE: RECCO/HORTENSE

OAO PERSONNEL

AC MCKIM, G ✓	SYS ENG LYNCH, T ✓
CP TAGGART, B ✓	DATA SYS OFFUTT, D ✓
NAV RATHBUN, D ✓	RADAR McNAMARA, R DELGADO, J ✓
FE MOORE, B ✓	BT/ODW
RADIO SANS SOURCE, D ✓	CLD PHYS
FD CZYZYK, S ✓	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
WHITE, S ✓		AOC
MAXSON, B ✓		↓
YATES, G.		↓
BLACK, M ✓ / LEIGHTON, P ✓		HRP
FOURIER, S ✓ / GEORZELMAN, S ✓		↓
MONSEES, D. ✓		CH. 13
BARRETT, S. ✓		CH. 13

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

CONV E/NE FRT LTG CC
SW OPEN
MAX WIND E-NE
MOD TURB PENETRATING
GOOD RADAR PENETRATION

Early 17/182. AEAP COR

172

FLX 1	FLX 2	FLX 3	FLX 4
21 36 N	21 47	21 58	22 09
70 44 W	70 48	70 56	71 13
970 mb	970	968	966
90 FT WIND	100 FT WIND	100 WIND	10

NOAA3 1208A HORTENSE
182/00Z
26.1 N 71.1 W
320/13
RECCOS TURNPOINTS
NO RADAR SENT
22.5 N 74.0 W

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

FLT ID:	TIME OFF:	TIME ON:
	A/C T/O	WX STN
	A/C LAND	WX STN
PRESSURE	1012.7	29.93
	1016.5	29.85

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES		
FAST FLT LVL TAPES		
RADAR TAPES	1	
DOPPLER TAPES		
ODW CASSETTES	—	
HARD COPIES	1	
AXBT	—	
AXCP	—	
ODW	—	

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON				
OFF				
RATE				

REMARKS

N43RF DATA STATION LOG

Project : Hurricanes '96

Mission : HortenseFlight ID : 960911IOperators : LYNCH, DELGADO, OFFUTTTake Off : 14:54Landing : 004435Z

RAMS DAT 1 On [8 9]: <u>14:42</u>	RAMS DAT 1 Off: <u>5707Z</u>	CPU Selected: <u>A</u> B
RAMS DAT 2 On [8 9]:	RAMS DAT 2 Off:	VCR's Used: <u>N</u> <u>L</u> <u>R</u> <u>D</u>
RAMS DAT 3 On [8 9]:	RAMS DAT 3 Off:	
Printer On: <u>14:42</u>	Printer Off: <u>0057Z</u>	
VCR's On: <u>14:40</u>	VCR's Off: <u>0048Z</u>	VCR Count: <u>✓</u>
MARS DAT On:	MARS DAT Off:	
PMS DAT On: <u>17:03</u> <u>2240</u>	PMS DAT Off:	

ASDL Messages							
Message	Time	Message	Time	Message	Time	Message	Time
<u>R</u> <u>V</u> <u>S</u> <u>B</u> 1533		<u>R</u> <u>V</u> <u>S</u> <u>B</u> 2236 <u>68</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>	
<u>R</u> <u>V</u> <u>S</u> <u>B</u> 1557		<u>R</u> <u>V</u> <u>S</u> <u>B</u> 2247 <u>69</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>	
<u>R</u> <u>V</u> <u>S</u> <u>B</u> 1629		<u>R</u> <u>V</u> <u>S</u> <u>B</u> 2316 <u>75</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>	
<u>R</u> <u>V</u> <u>S</u> <u>B</u> 1703		<u>R</u> <u>V</u> <u>S</u> <u>B</u> 2346 <u>79</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>	
<u>R</u> <u>V</u> <u>S</u> <u>B</u> 1819		<u>R</u> <u>V</u> <u>S</u> <u>B</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>	
<u>R</u> <u>V</u> <u>S</u> <u>B</u> 1859		<u>R</u> <u>V</u> <u>S</u> <u>B</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>	
<u>R</u> <u>V</u> <u>S</u> <u>B</u> 1940		<u>R</u> <u>V</u> <u>S</u> <u>B</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>	
<u>R</u> <u>V</u> <u>S</u> <u>B</u> 1953 <u>42</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>	
<u>R</u> <u>V</u> <u>S</u> <u>B</u> 2016 <u>43</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>	
<u>R</u> <u>V</u> <u>S</u> <u>B</u> 2054 <u>51</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>	
<u>R</u> <u>V</u> <u>S</u> <u>B</u> 2103 <u>52</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>	
<u>R</u> <u>V</u> <u>S</u> <u>B</u> 2135 <u>60</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u>	

R=Recco V=Vortex S=Sonde B=AXBT

Data Station Operator Notes

Mission #

Storm/Project Name

1208AHortense02837Z Print rate change from 10 s to 30 s088.4 group 413409 92245

NOAA • AOC • SED Flight Performance Log

Aircraft : N43RF

Project: Hurricane '96

Mission : HORTENSESED Crew: LYNCH, DELGADO, OFFUTTFlight ID : 960911 IPre-Flight: 0857Take-Off: 1454Landing: 004435Z

System			Pre-Flight	In-Flight	Post-Flight		
NAV	INE #1	Aligned to : <u>0</u>	✓ TL		46.1	-2.0	11
	INE #2	Aligned to : <u>01</u>	✓ TL		-13.7	46.9	10
	GPS		✓ TL		Lat	Long	GS
RADAR	Nose		✓ DEO				
	L/F	R/T SN : <u>103</u>	✓ DEO		Mod Switch Off ? ✓		
	Tail	R&T SN : <u>202/201</u>	✓ DEO		Mod Switch Off ? ✓		
	ASAU's & RCU		✓ DEO				
	MARS Data System		✓ DEO		# DATs : <u>1</u>		
PMS	2DG-C	Ch 1/64: <u>1</u>	✓ DEO				
	2DG-P	Ch 1/64: <u>1</u>	✓ DEO				
	FSSP	Ref VDC: <u>8.52</u>	✓ DEO				
	SEA Data System		✓ DEO	(2)	# DATs : <u>1</u>		
TEMP		Cal High	Cal Low		Cal High	Cal Low	
	Temp #1	<u>30.6</u>	<u>-30.2</u>	✓ DEO	<u>30.7</u>	<u>-30.3</u>	
	Temp #2			✓ DEO			
	Temp #3	(Starboard)		NI			
	Dewpoint #1			✓ DEO			
PRES	Dewpoint #2	(AOC)		✓ DEO			
	Attack Angle	(AP/DAP)		✓ DEO			
	Slip Angle	(BP/DBP)		✓ DEO			
	Differential	(PQ1/PQ2/PQ3)		✓ DEO			
	Absolute	(PS1/PS2)		✓ DEO			
FLTLVL	Radome Transducers		Plugs ? ✓ DEO				
	Cabin Transducer	(Station 5)		✓ DEO			
	Apn-159	SN: <u>SW-3</u>	✓ TL		Off ? : ✓		
MISC	Apn-232	SN: <u>1699</u>	✓ TL		Off ? : ✓		
	King Liquid Water		✓ TL				
	J&W Liquid Water		✓ TL				
	Down PRT-5	(SST)	✓ DEO				
	Side PRT-5	(CO ²)	✓ DEO				
MISC	RAMS Data System		✓ TL	(1)	# DATs : <u>1</u>		
	ASDL		✓ TL		Off ? : ✓		
	Eppl Radiometers	(PSP / PIR)	NI				
	Exterior Walk Around		✓ DEO				
	Video	(N)(L)(R)(D)	✓ DEO				
	AXBT Receivers		NI				
	AXBT Sonobouys		# On Board : <u>0</u>	# Dropped :	# Good : <u>—</u>		
	ODW System		NI		# Tapes : <u>—</u>		
	ODW Dropsondes		# On Board : <u>0</u>	# Dropped : <u>0</u>	# Good : <u>—</u>		
	FCU	<u>A B C</u>	✓ TL		UPS Off : ?		
USER	Charge Probe				Accelerometers		
	HRD Workstation				#1 (2 G): <u>8157</u>		
	Field Mills	(L)(R)(U)(D)	✓ TL		#2 (2.5 G): <u>6684</u>		
	Lawrence Water Collector				#3 (3 G): <u>5967</u>		
	Formvar		NI		#4 (3.5 G): <u>2892</u>		

Please Note any Discrepancies

[illegible]

HURRICANE HORTENSE 1996 (RECCO)

FLIGHT #1 960911I

TYPE OF DATA

SENSOR OR OPTION

INE	1
Accelerometer	1
Temperature probe	1
Altitude change option (for vertical winds)	RA-159
Static pressure	Rosemount fuselage
Dynamic pressure	Rosemount fuselage
Time source	Micro 99
Constants file	CO3964.CON

Notes:

Dewpoint temperature #1, DW1, exceeded ambient temperature several times throughout the flight when heavy precip was occurring.

TT1 was patched from 1520:00-1521:30 due to spike, and was replaced by TT2 from 1442:31-1456:30, due to several electronic spikes. The replacement of TT1 was mainly prior to takeoff.

Radar Altimeter, RA-159, was set to zero after landing due to a spike (0044:30-0057:00).

Spike in radar altimeter, RA-159, between 2320:40-2321:10 was due to overflying land (Northern Eleuthera Island).

There were 2 electronic glitches/spikes in the fuselage static pressure sensor, PSF, and both were patched (1515:00-1517:00, 1908:30-1910:00).

	Takeoff	Landing
	-----	-----
Aircraft static pressure:	1012.7 mb	1010.5 mb
Corrected airport pressure:	1013.5 mb	1010.8 mb

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

[illegible]

DATE : 9/11/96
TO : Chief, AOC Flight Operations
FROM : Pilot/Flight Director, Aircraft N43RF ON 0055 BLOCKTIME
OFF 1443 10.2
SUBJECT: Hazardous Duty

PURPOSE OF FLIGHT: HURR. HORTENSE RECCO

Hazardous Duty Pay is required for flight made on 9/11/96
(DATE)

Request based on HURRICANE CONDITIONS ON SEVERAL
PASSES THROUGH THE EVE

Personnel on board authorized Hazard Pay:

MOORE, B

SANS SOUCI, D

CZYZYK, S

LYNCH, T

OFFUTT, D

DELGADO, J

PILOT/FLIGHT DIRECTOR: [Signature]

APPROVED: [Signature]

DISAPPROVED: _____

CHIEF, AOC FLIGHT OPERATIONS: [Signature]

DATE 9/11/96		SCHEDULED FIX TIME 1800Z		AIRCRAFT NUMBER N43RF		ARWO	
MANOP HEADING (PRECEDENCE IMMEDIATE)							
MISSION IDENTIFIER AND OBSERVATION NUMBER 1208A HURTENSE							
(ABBREVIATED) (DETAILED) VORTEX DATA MESSAGE							
A	11/ 1753		Z	DATE AND TIME OF FIX			
B	21 DEG 36 MIN N S			LATITUDE OF VORTEX FIX *			
	70 DEG 44 MIN E W			LONGITUDE OF VORTEX FIX *			
C	820 MB 1165		M	MINIMUM HEIGHT AT STANDARD LEVEL			
D	NA		KT	ESTIMATE OF MAXIMUM SURFACE WIND OBSERVED			
E	NA DEG		NM	BEARING AND RANGE FROM CENTER OF MAXIMUM SURFACE WIND			
F	035 DEG 90		KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER			
G	110 DEG 20		NM	BEARING AND RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND			
H	EXTRAP 970		MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM WITHIN 1500 FT OF SEA SURFACE			
I	19 c/ 1530		M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE			
J	21 c/ 1765		M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE			
K	20 c/ NA		C	DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE			
L	OPEN ST			EYE CHARACTER: Closed wall, poorly defined, open SW, etc.			
M	C35			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 5 NM. CO8-14 - Concentric eye, diameter inner eye 8 NM, outer eye 14 NM.			
N	21 DEG 36 MIN N S			CONFIRMATION OF FIX: Coordinates and Time *			
	70 DEG 44 MIN E W						
	11/1753		Z				
O	12345 / 8			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	1 / 2		NM	NAVIGATION FIX ACCURACY/METEOROLOGICAL ACCURACY			
Q				REMARKS SURFACE PRESSURE EXTRAP. FROM 850 MB MAX FL WIND 90 KTS NW QUAD GOOD RADAR PRESENTATION			

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.

DATE 9/11/96		SCHEDULED FIX TIME 1800Z		AIRCRAFT NUMBER N43RF		ARWO	
MANOP HEADING (PRECEDENCE IMMEDIATE)							
MISSION IDENTIFIER AND OBSERVATION NUMBER 1208A HURTENSE							
(ABBREVIATED) (DETAILED) VORTEX DATA MESSAGE							
A	11/ 1753 Z			DATE AND TIME OF FIX			
B	21 DEG 36 MIN N S			LATITUDE OF VORTEX FIX *			
	70 DEG 44 MIN E W			LONGITUDE OF VORTEX FIX *			
C	850 MB 1165 M			MINIMUM HEIGHT AT STANDARD LEVEL			
D	NA			KT ESTIMATE OF MAXIMUM SURFACE WIND OBSERVED			
E	NA DEG NM			BEARING AND RANGE FROM CENTER OF MAXIMUM SURFACE WIND			
F	035 DEG 90 KT			MAXIMUM FLIGHT LEVEL WIND NEAR CENTER			
G	110 DEG 20 NM			BEARING AND RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND			
H	EXTRAP 970 MB			MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM WITHIN 1500 FT OF SEA SURFACE			
I	19 C/ 1530 M			MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE			
J	21 C/ 1765 M			MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE			
K	20 C/ NA C			DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE			
L	E35 OPEN SW			EYE CHARACTER: Closed wall, poorly defined, open SW, etc.			
M	C35			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	21 DEG 36 MIN N S			CONFIRMATION OF FIX: Coordinates and Time *			
	70 DEG 44 MIN E W						
	11/1753 Z						
O	12345 / 8			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	1 1 2 NM			NAVIGATION FIX ACCURACY/METEOROLOGICAL ACCURACY			
Q				REMARKS			
SURFACE PRESSURE EXTRAP. FROM 850 MB MAX FL WIND 90 KTS NW QUAD GOOD RADAR PRESENTATION							

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.

DATE 9/11/96		SCHEDULED FIX TIME		AIRCRAFT NUMBER 007 7		ARWO	
MANOP HEADING (PRECEDENCE IMMEDIATE)							
MISSION IDENTIFIER AND OBSERVATION NUMBER NOAA3 12084 HORTENSE							
(ABBREVIATED) (DETAILED) VORTEX DATA MESSAGE							
A	11/1920		Z	DATE AND TIME OF FIX			
B	21 DEG 47 MIN N S		LATITUDE OF VORTEX FIX *				
	70 DEG 48 MIN E W		LONGITUDE OF VORTEX FIX *				
C	850 MB 1162		M	MINIMUM HEIGHT AT STANDARD LEVEL			
D	70		KT	ESTIMATE OF MAXIMUM SURFACE WIND OBSERVED			
E	040 DEG 15		NM	BEARING AND RANGE FROM CENTER OF MAXIMUM SURFACE WIND			
F	135 DEG 100		KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER			
G	040 DEG 20		NM	BEARING AND RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND			
H	EXTRAP 970		MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM WITHIN 1500 FT OF SEA SURFACE			
I	18 CI 1550		M	MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE OUTSIDE EYE			
J	27 CI 1763		M	MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE INSIDE EYE			
K	20 CI 26		C	DEWPOINT TEMP/SEA SURFACE TEMP INSIDE EYE			
L	OPEN SW		EYE CHARACTER: Closed wall, poorly defined, open SW, etc.				
M	C30		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 5 NM. CO8-14 - Concentric eye, diameter inner eye 8 NM, outer eye 14 NM.				
N	21 DEG 47 MIN N S		CONFIRMATION OF FIX: Coordinates and Time *				
	70 DEG 48 MIN E W						
	11/1920						
O	12345 / 8		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	1 / 1		NM	NAVIGATION FIX ACCURACY/METEOROLOGICAL ACCURACY			
Q	REMARKS SURFACE PRESSURE EXTRAP. FROM 850 MB MAX FL WIND 100 KTS NE QUAD GOOD RADAR PRESENTATION						

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.

DATE 9/11/96		SCHEDULED FIX TIME 140000Z		AIRCRAFT NUMBER		ARWO	
MANOP HEADING (PRECEDENCE IMMEDIATE)							
MISSION IDENTIFIER AND OBSERVATION NUMBER NO443 1208A HORTENSE OB 13							
(ABBREVIATED) (DETAILED) VORTEX DATA MESSAGE							
A	11/2202	Z	DATE AND TIME OF FIX				
B	22 DEG 09 MIN ^N S		LATITUDE OF VORTEX FIX *				
	71 DEG 03 MIN ^E W		LONGITUDE OF VORTEX FIX *				
C	850 MB 1125	M	MINIMUM HEIGHT AT STANDARD LEVEL				
D	75	KT	ESTIMATE OF MAXIMUM SURFACE WIND OBSERVED				
E	225 DEG 15	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM SURFACE WIND				
F	300 DEG 90	KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER				
G	225 DEG 12	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND				
H	EXTRAP 966	MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM WITHIN 1500 FT OF SEA SURFACE				
I	17.5 c/ 1585	M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE				
J	26.0 c/ 1760	M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE				
K	15.0 c/ 26.2	C	DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE				
L	OPEN 5		EYE CHARACTER: Closed wall, poorly defined, open SW, etc.				
M	E09/30/20		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 5 NM. CO8-14 - Concentric eye, diameter inner eye 8 NM, outer eye 14 NM.				
N	22 DEG 09 MIN ^N S		CONFIRMATION OF FIX: Coordinates and Time *				
	71 DEG 03 MIN ^E W						
	11/2202	Z					
O	12345/8		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	2 14	NM	NAVIGATION FIX ACCURACY/METEOROLOGICAL ACCURACY				
Q	REMARKS SURFACE PRESSURE EXTRAP FROM 850 MB MAX FL WIND 124 KTS NW QVAD GOOD RADAR PRESENTATION						

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.

DATE	9/11/96	SCHEDULED FIX TIME	AIRCRAFT NUMBER	ARWO
MANOP HEADING (PRECEDENCE IMMEDIATE)				
MISSION IDENTIFIER AND OBSERVATION NUMBER NOAA3 1208A HORTENSE OB 10				
(ABBREVIATED) (DETAILED) VORTEX DATA MESSAGE				
A	11/2036	Z	DATE AND TIME OF FIX	
B	21 DEG 58 MIN (N) S		LATITUDE OF VORTEX FIX *	
	70 DEG 56 MIN E (W)		LONGITUDE OF VORTEX FIX *	
C	850 MB 1145	M	MINIMUM HEIGHT AT STANDARD LEVEL	
D	80	KT	ESTIMATE OF MAXIMUM SURFACE WIND OBSERVED	
E	140 DEG 10	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM SURFACE WIND	
F	235 DEG 100	KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER	
G	140 DEG 15	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND	
H	EXTRAP 968	MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM WITHIN 1500 FT OF SEA SURFACE	
I	18 C/ 1560	M	MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE OUTSIDE EYE	
J	24 C/ 1800	M	MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE INSIDE EYE	
K	18 C/ NA	C	DEWPOINT TEMP/SEA SURFACE TEMP INSIDE EYE	
L	CLOSED		EYE CHARACTER: Closed wall, poorly defined, open SW, etc.	
M	C30		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 5 NM. CO8-14 - Concentric eye, diameter inner eye 8 NM, outer eye 14 NM.	
N	21 DEG 58 MIN (N) S		CONFIRMATION OF FIX: Coordinates and Time *	
	70 DEG 56 MIN E (W)			
	11/2036	Z		
O	12345 / 8		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	1 1 2	NM	NAVIGATION FIX ACCURACY/METEOROLOGICAL ACCURACY	
Q	REMARKS SURFACE PRESSURE EXTRAP FROM 850 MB MAX FL WIND 100 KTS NE AND SE QUADS GOOD RADAR PRESENTATION			

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.

CLEARANCES

FREQ	ALT	HDG	OTHER
			APCT PIE 743 DHP
			BR53V 200A A555
			GTK
			2315 7130 AP BURGO
			280V BR22V FLL AT
			1VB 743 PIE
			MCF PIE APP 20A GTK
			2315 0713 BURGO
			280V FLL LBL BRIDGE

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 _____

- HEADING	TRUE/MAG
-----------	----------

-AT _____ KTS TRUE/INDICATED

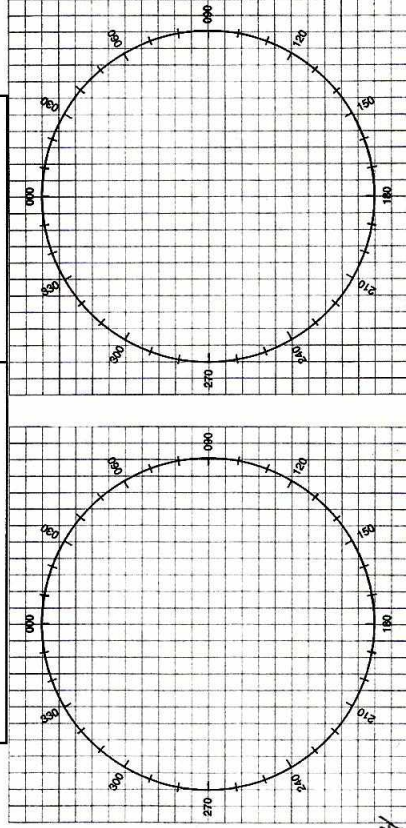
- FLIGHT LEVEL OR ALTITUDE _____

- WE ARE A P-3 AIRCRAFT WITH _____ SOULS ON BOARD _____

- NATURE OF EMERGENCIES

- ASSISTANCE DESIRED
DIRECT INTENTIONS

- PILOT INTENTIONS
- WE HAVE
- ENDURANCE REMAINING

[illegible]
$$\begin{array}{r} 8.8 \\ 4.4 \\ \hline 13.2 \end{array}$$

2259

330/

320/01	345/8
345/6	336/10

NOAA FORM 56-49
(2-95)

MISSION PREFLIGHT LOG

DESTINATION
MCF → MCF

MISSION
MORTENSB 96-057

NAVIGATOR
RATHBUN

AIRCRAFT COMMANDER
PEKIM

FLIGHT DIRECTOR
CZYZYK

SCHEDULED / ACTUAL TAKEOFF Z

DATE OF TAKEOFF

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

MCF

27 30.9
82 29.5

2

PIC

27 34.5
82 41.1

3

LBV

26 49.7
81 23.5

4

OMP

25 48.0
80 20.9

5

RATAY

25 18.2
78 10.9

6

WYND

25 01.7
77 27.0

7

COA

23 34.9
75 15.8

8

STELIN

21 26.4
71 08.0

9

WYND

23 10.4
72 00.9

1

WYND

21 47.7
70 49.8

2

SF

20 36.6
69 29.9

3

WYND

23 15.5
71 30.0

4

WYND

24 25.0
74 34.0

5

WYND

25 42.2
79 17.6

6

WYND

26 04.5
80 09.2

7

WYND

26 49.7
81 23.5

8

WYND

27 34.5
82 41.1

9

WYND

27 50.9
82 29.5

1

WYND

27 27.1
82 08.1

2

WYND

INS PERFORMANCE

INS 1

INS 2

BEGIN ALIGN
TIME

1300Z

1300Z

ALIGN
STATUS (0-5)

1

0

END NAV
TIME

0045Z

0045Z

START NAV
TIME

1435Z

1435Z

DELTA T

10410

10410

TERMINAL ERRORS

INS 1

INS 2

DELTA LAT

+6.1

-13.7

DELTA LON

-2.0

+6.9

RGS

11

10

RADIAL
ERROR

6

15

REMARKS

1525

1410

2255