

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

FLT ID: 961126I	FM: KPHE	TO: KMCF
FLT NO: 97-	BLK IN: 1626	ATA: 1619
ETD: 1000	BLK OUT: 0955	RTD: 1004
ETE: 1930	BLK TIME: 6:31 6.5	FLT TIME: 6:15 6.3
SPONSOR ORG: NHC	PROGRAM: RELCO	PURPOSE: T.S. M.A.R.C.O.

000 PERSONNEL

AC	PHILLIPSBOEN, R ✓	SYS ENG	PRADAS, C ✓
CP	TAGGART, B ✓	DATA SYS	MC MILLAN, S ✓
NAV	RATHBUN, D ✓	RADAR	SMITH, J ✓
FE	BAST, G ✓	BT/ODW	
RADIO	ROGERS, M ✓	CLD PHYS	
FD	CZYZYK, S ✓	DOPPLER	

PARTICIPATING SCIENTIST/VISITORS/OAO

[illegible]

PROPOSED/ACTUAL	MISSION/REMARKS	(RECCO, FIXES, STORM, PENET, NHOP #)
20.4 84.7	122	

20.4 84.7 128

2 Fixes

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

FLT ID: 961126±

TIME OFF:

TIME ON:

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	1015.2	30.01	1018.4	30.11

NO

DATA DISPOSITION/DATE/QUALITY

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

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON				
OFF				
RATE				

REMARKS

NOAA • AOC • SED Flight Performance Log

Aircraft : N43RF

Project: Hurricane '96

Mission : TS' MARCOSED Crew: JCPB, SMITH, STM, ROGERS, CZYBYFlight ID : 961126IPre-Flight: 0800Take-Off: 10:04:16Landing: 161853

System			Pre-Flight	In-Flight	Post-Flight		
N A V	INE #1	Aligned to : 0	✓ STM	STM			
	INE #2	Aligned to : 0	✓ STM	STM			
	GPS		✓ STM	STM			
R A D A R	Nose		✓ JCPB / JAS		Lat	Long	GS
	L/F	R/T SN : 103	STM	JCPB	Mod Switch Off 0 ✓		
	Tail	R&T SN : 202 204	STM	JCPB	Mod Switch Off 0 ✓		
	ASAU's & RCU		STM	JCPB			
P M S	MARS Data System		STM	JCPB	# DATs : 1		
	2DG-C	Ch 1/64: /	N/U	N/U	N/U		
	2DG-P	Ch 1/64: /	N/U	N/U	N/U		
	FSSP	Ref VDC:	N/U	N/U	N/U		
	SEA Data System		N/U	N/U	# DATs : 0		
T E M P		Cal High	Cal Low		Cal High	Cal Low	
	Temp #1	30.7	-30.4	✓ STM	STM	30.9	-29.9
	Temp #2			✓ STM	STM		
P R E S S	Temp #3 (Starboard)						
	Dewpoint #1		✓ STM	STM (4)			
	Dewpoint #2 (AOC)		✓ STM	STM			
F L T L V L	Attack Angle (AP/DAP)		STM	STM			
	Slip Angle (BP/DBP)		STM	STM			
	Differential (PQ1/PQ2/PQ3)		STM	STM			
	Absolute (PS1/PS2)		STM	(3) STM			
	Radome Transducers		Plugs ? ✓ JAP				
M I S C	Cabin Transducer (Station 5)		✓ JCPB	STM			
	Apn-159	SN: SW-3	✓ JCPB/JAS	STM	Off 0 ✓		
	Apn-232	SN: 169T	✓ JCPB/JAS	STM	Off 0 ✓		
	King Liquid Water		JAS/JCPB		✓		
	J&W Liquid Water		JAS/JCPB		✓		
	Down PRT-5 (SST)		STM	STM	✓		
	Side PRT-5 (CO ²)		STM	STM	✓		
U S E R	RAMS Data System		STM (3)	STM	# DATs : 1		
	ASDL		STM	STM	Off 0 ✓		
	Eppl Radiometers (PSP / PIR)						
	Exterior Walk Around		JCPB/JAS	N/A			
	Video	(N) (L) (R) (D)	JAS		✓		
	AXBT Receivers		N/U	N/U	N/U		
	AXBT Sonobouys		# On Board : 0	# Dropped : 0	# Good : N/A		
	ODW System		N/U	N/U	# Tapes : N/A		
	ODW Dropsondes		# On Board : 0	# Dropped : 0	# Good : N/A		
	FCU	D A C	(1) STM (5)		UPS Off : ?		
U S E R	Charge Probe		N/A	N/A	Accelerometers		
	HRD Workstation		N/A	N/A	#1 (2 G) :		
	Field Mills	L R U D			#2 (2.5 G) :		
	Lawrence Water Collector		N/A	N/A	#3 (3 G) :		
	Formvar		N/A	N/A	#4 (3.5 G) :		

Please Note any Discrepancies

2000 12T

Item #	Zulu Time	Problem Description	Initials	A-23A #
1		FCU B broke		
2	0920	ASSRU ADC Slow Data Burst Error	STM	//
//	//	ASSRU ADC Fast Data Burst Error	//	//
//	//	RAMS System locked up. Twice Now	//	//
		Reset ADC and reran setup.		
3	1008	PS1 & PS2 have a 3.5 mb offset	STM	
4	1010	TW1 & TW2 have a 2 deg. offset	STM	
5		FCU D glitched during power switching from APU to #2 engine.	STM	
6	1021	Broken H Power field Mills High voltage wick	Jrb	
7	0900	CPU A LOCK UP WHILE RUNNING GRAPHICS INITIALIZATION PROGRAM	Jrb	
8		No Field Mill Control		
9	1030	MARS Tape write error 5121 ATAP 704 in LUB. Switched to new tape in LU9.	STM	//
//	//		//	//
10	1130	Enter 1813A for Mission # ASDL SPi+ out 1.8813. Reinitialized and reset Mission # 1813A	STM	//
//	//		//	//
11	1154	ASDL TI Terminal dies out occasionally in the middle of typing. Terminal was in Full Duplex, switched to half duplex not it seems to be ok.	STM	//

N43RF DATA STATION LOG

Project : Hurricanes '96

Mission : MARCO #1Flight ID : 961126IOperators : McMillin, Pradas, SmithTake Off : 100416Landing : 161853

RAMS DAT 1 On [8 9]: 9:44:50	RAMS DAT 1 Off: 162648	CPU Selected: (A) B
RAMS DAT 2 On [8 9]:	RAMS DAT 2 Off:	VCR's Used: (N) (L) (R) (D)
RAMS DAT 3 On [8 9]:	RAMS DAT 3 Off:	
Printer On: 9:44	Printer Off: 162642	
VCR's On: 9:47	VCR's Off: 161730	VCR Count: 3206
MARS DAT On: 10:13 10:32:59	MARS DAT Off: 10:30 153423	
PMS DAT On:	PMS DAT Off:	

ASDL Messages							
Message	Time	Message	Time	Message	Time	Message	Time
1 (R) V S B 1022 (3)		(R) V S B 1251 (30)		R V S B		R V S B	
2 (R) V S B 1059 (8)		(R) V S B 1329 (8)		R V S B		R V S B	
3 (R) V S B 1129 (11)		(R) V S B 1405 (40)		R V S B		R V S B	
4 (R) V S B 1154 (15)		(R) V S B 1419 (41)		R V S B		R V S B	
COR 1 (R) V S B 1022 (16)		(R) V S B 1429 (44)		R V S B		R V S B	
COR 2 (R) V S B 1059 (12)		R V S B		R V S B		R V S B	
COR 3 (R) V S B 1129 (19)		R V S B		R V S B		R V S B	
5 (R) V S B 1225 (23)		R V S B		R V S B		R V S B	
COR 2 (R) V S B 1059 (23)		R V S B		R V S B		R V S B	
COR 3 (R) V S B 1129 (25)		R V S B		R V S B		R V S B	
COR 4 (R) V S B 1022 (27)		R V S B		R V S B		R V S B	
5 (R) V S B 1243 (29)		R V S B		R V S B		R V S B	

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

Data Station Operator Notes

what a bucket!

T.S. MARCO 1996 (RECCO)

FLIGHT #1 961126I

TYPE OF DATA -----	SENSOR OR OPTION -----
INE	2
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	CO3965.CON

Notes:

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

Radar Altimeter, RA-159, was set to zero after landing due to a spike (1618:50-1625:00).

There were 3 electronic glitches/spikes in the fuselage static pressure sensor, PSF, and all were patched (1329:00-1329:30, 1402:10-1402:40, and 1407:10-1407:40).

	Takeoff -----	Landing -----
Aircraft static pressure:	1015.2 mb	1018.4 mb
Corrected airport pressure:	1016.3 mb	1019.6 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

±961126

[illegible]

6/96		SCHEDULED FIX TIME 1200Z		AIRCRAFT NUMBER N438T		ARWO	
MANOP HEADING (PRECEDENCE IMMEDIATE)							
MISSION/IDENTIFIER AND OBSERVATION NUMBER NOAA5 18134 MARCO							
(ABBREVIATED) (DETAILED) VORTEX DATA MESSAGE							
A	26/1221		Z	DATE AND TIME OF FIX			
B	20 DEG 05 MIN W S			LATITUDE OF VORTEX FIX *			
	84 DEG 17 MIN E W			LONGITUDE OF VORTEX FIX *			
C	NA MB		M	MINIMUM HEIGHT AT STANDARD LEVEL			
D	30		KT	ESTIMATE OF MAXIMUM SURFACE WIND OBSERVED			
E	300 DEG 10		NM	BEARING AND RANGE FROM CENTER OF MAXIMUM SURFACE WIND			
F	60 DEG 39		KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER			
G	310 DEG 6		NM	BEARING AND RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND			
H	EXTRAP 1012		MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM WITHIN 1500 FT OF SEA SURFACE			
I	25 C/ 430		M	MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE OUTSIDE EYE			
J	25 C/ 427		M	MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE INSIDE EYE			
K	24 C/ 27.5		C	DEWPOINT TEMP/SEA SURFACE TEMP INSIDE EYE			
L	NA			EYE CHARACTER: Closed wall, poorly defined, open SW, etc.			
M	NA			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	20 DEG 05 MIN W S			CONFIRMATION OF FIX: Coordinates and Time *			
	84 DEG 17 MIN E W						
	26/1221		Z				
O	2345 / 1			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 POOR RADAR PRESENTATION SLP EXTRAP FROM 1500 FT						
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 11/26/96	SCHEDULED FIX TIME 1200Z	AIRCRAFT NUMBER N43RF	ARWO
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MANOP HEADING (PRECEDENCE IMMEDIATE)

MISSION IDENTIFIER AND OBSERVATION NUMBER
NOAAS 1813A MARCO

(ABBREVIATED) (DETAILED) VORTEX DATA MESSAGE

A	26/1221	Z	DATE AND TIME OF FIX
B	20 DEG 05 MIN (N) S		LATITUDE OF VORTEX FIX *
	84 DEG 17 MIN E (W)		LONGITUDE OF VORTEX FIX *
C	NA	MB	MINIMUM HEIGHT AT STANDARD LEVEL
D	30	KT	ESTIMATE OF MAXIMUM SURFACE WIND OBSERVED
E	308 DEG 10	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM SURFACE WIND
F	060 DEG 39	KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER
G	0310 DEG 6	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND
H	EXTRAP 1012	MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM WITHIN 1500 FT OF SEA SURFACE
I	C/	M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE
J	C/	M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE
K	C/	C	DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE
L	NA		EYE CHARACTER: Closed wall, poorly defined, open SW, etc.
M	NA		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	26 DEG 05 MIN (N) S		CONFIRMATION OF FIX: Coordinates and Time *
	84 DEG 17 MIN E (W)		
	26/1221	Z	
O	345 / 1		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		

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 11/26/96	SCHEDULED FIX TIME	AIRCRAFT NUMBER N43RF	ARWO
MANOP HEADING (PRECEDENCE IMMEDIATE)			
MISSION IDENTIFIER AND OBSERVATION NUMBER NOAA3 1813A MARCO 08 08			
(ABBREVIATED) (DETAILED) VORTEX DATA MESSAGE			
A	26/1357 Z	DATE AND TIME OF FIX	
B	19 DEG 57 MIN (N) S	LATITUDE OF VORTEX FIX *	
	84 DEG 16 MIN E (W)	LONGITUDE OF VORTEX FIX *	
C	NA MB M	MINIMUM HEIGHT AT STANDARD LEVEL	
D	25 KT	ESTIMATE OF MAXIMUM SURFACE WIND OBSERVED	
E	030 DEG 10 NM	BEARING AND RANGE FROM CENTER OF MAXIMUM SURFACE WIND	
F	105 DEG 32 KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER	
G	030 DEG 8 NM	BEARING AND RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND	
H	EXTRAP 1013 MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM WITHIN 1500 FT OF SEA SURFACE	
I	24 C/ 456 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE	
J	25 C/ 444 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE	
K	23 C/ 27.0 C	DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE	
L	NA	EYE CHARACTER: Closed wall, poorly defined, open SW, etc.	
M	NA	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	19 DEG 57 MIN (N) S	CONFIRMATION OF FIX: Coordinates and Time *	
	84 DEG 16 MIN E (W)		
	26/1357 Z		
O	1345 / 1	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	21/3 NM	NAVIGATION FIX ACCURACY/METEOROLOGICAL ACCURACY	
Q	REMARKS DOOR RADAR PRESENTATION SLP EXTRAP FROM 1500 FT MAX FL WIND 39 KT NW QUAD		
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	11/26/96	SCHEDULED FIX TIME	AIRCRAFT NUMBER	ARWO
MANOP HEADING (PRECEDENCE IMMEDIATE)				
NOAA3 1813A MARC 08 08				
MISSION IDENTIFIER AND OBSERVATION NUMBER				
(ABBREVIATED) (DETAILED) VORTEX DATA MESSAGE				
A	19 57 0 Z	DATE AND TIME OF FIX		
B	84 DEG 16 MIN N S	LATITUDE OF VORTEX FIX *		
	NA DEG MIN E W	LONGITUDE OF VORTEX FIX *		
C	MB 25 M	MINIMUM HEIGHT AT STANDARD LEVEL		
D		KT	ESTIMATE OF MAXIMUM SURFACE WIND OBSERVED	
E	030 10	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM SURFACE WIND	
F	105 32	KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER	
G	030 8	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND	
H	EXTRAP 1013	MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM WITHIN 1500 FT OF SEA SURFACE	
I	24 456	M	MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE OUTSIDE EYE	
J	25 C/ 444	M	MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE INSIDE EYE	
K	23 C/ 27.0	C	DEWPOINT TEMP/SEA SURFACE TEMP INSIDE EYE	
L	NA C/	EYE CHARACTER: Closed wall, poorly defined, open SW, etc.		
M	NA	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	84 DEG 16 MIN N S	CONFIRMATION OF FIX: Coordinates and Time *		
	26 DEG 135 MIN E W			
	Z			
O	1345	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	NM	NAVIGATION FIX ACCURACY/METEOROLOGICAL ACCURACY	
Q	REMARKS			
POOR RADAR PRESENTATION SLP EXTRAP FROM 1500 FT MAX FL WIND 39 KT NW QUAD				
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 11/26/96		SCHEDULED FIX TIME 1200Z		AIRCRAFT NUMBER N43RF		ARWO	
MANOP HEADING (PRECEDENCE IMMEDIATE)							
MISSION IDENTIFIER AND OBSERVATION NUMBER NOAA3 18134 MARCO							
(ABBREVIATED) (DETAILED) VORTEX DATA MESSAGE							
A	26/1221		Z	DATE AND TIME OF FIX			
B	20 DEG 05 MIN (N) S		LATITUDE OF VORTEX FIX *				
	84 DEG 17 MIN E (W)		LONGITUDE OF VORTEX FIX *				
C	NA	MB	M	MINIMUM HEIGHT AT STANDARD LEVEL			
D	30		KT	ESTIMATE OF MAXIMUM SURFACE WIND OBSERVED			
E	300	DEG	10	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM SURFACE WIND		
F	300	DEG	39	KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER		
G	310	DEG	6	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND		
H	EXTRAP 1012		MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM WITHIN 1500 FT OF SEA SURFACE			
I	25	C/	430	M	MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE OUTSIDE EYE		
J	25	C/	427	M	MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE INSIDE EYE		
K	24	C/	27.5	C	DEWPOINT TEMP/SEA SURFACE TEMP INSIDE EYE		
L	NA		EYE CHARACTER: Closed wall, poorly defined, open SW, etc.				
M	NA		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	20 DEG 05 MIN (N) S		CONFIRMATION OF FIX: Coordinates and Time *				
	84 DEG 17 MIN E (W)						
	26/1221						
O	2345 / 1		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 POOR RADAR PRESENTATION SLP EXTRAP FROM 1500 FT						

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	SCHEDULED FIX TIME	AIRCRAFT NUMBER	ARWO
11/26/96	1200Z	N43RF	
MANOP HEADING (PRECEDENCE IMMEDIATE)			
MISSION IDENTIFIER AND OBSERVATION NUMBER NOAA3 1813A MARCO			
(ABBREVIATED) (DETAILED) VORTEX DATA MESSAGE			
A	26/1221	Z	DATE AND TIME OF FIX
B	20 DEG 05 MIN (N) S		LATITUDE OF VORTEX FIX *
	84 DEG 17 MIN E (W)		LONGITUDE OF VORTEX FIX *
C	NA	MB	MINIMUM HEIGHT AT STANDARD LEVEL
D	30	KT	ESTIMATE OF MAXIMUM SURFACE WIND OBSERVED
E	302 DEG 10	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM SURFACE WIND
F	060 DEG 39	KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER
G	0310 DEG 6	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND
H	EXTRAP 1012	MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM WITHIN 1500 FT OF SEA SURFACE
I	C/	M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE
J	C/	M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE
K	C/	C	DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE
L	NA		EYE CHARACTER: Closed wall, poorly defined, open SW, etc.
M	NA		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	26 DEG 05 MIN (N) S		CONFIRMATION OF FIX: Coordinates and Time *
	84 DEG 17 MIN E (W)		
	26/1221	Z	
O	345 / 1		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		
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.			

NOAA FORM 56-49
(2-95)

MISSION PREFLIGHT LOG

DESTINATION
PIF-MCF

MISSION
MARCO

NAVIGATOR
RATHBUN

AIRCRAFT COMMANDER
PHILIPSBORN

FLIGHT DIRECTOR
CZYZYK

SCHEDULED / ACTUAL TAKEOFF Z
1000Z 1003Z

DATE OF TAKEOFF
26 NOV 96

WP	LAT / LON	RTE	MH	VAR +E==>	TH	DR +R==>	TRK	GS	WD	WS	ALT	TAS	LEG / TOT DIST	LEG / TOT TIME	PROP ETA	ATA	REMARKS
1 PIF	27 54.5 82 41.1												96 96	124 124			
2 RSW	26 31.8 81 46.6												266 362	1704 1728			
3 ANALE	22 41.7 84 13.1												118 480	127 1455			
4 NW	21 38 86 00												104 584	129 2124			
5 S	19 57 84 15																
6 FIS	24 32.9 81 47.2																
7 RSW																	
8 MCF																	
9 SE	18 42 82 57																
10 NL	21 20 83 00																
11 SW	18 42 85 33																
12 MCF																	
13 ANALE		-3 +2															
14 FIS																	
15 RSW																	
16 MCF	27 23.9 82 33.3																
17 SMAS																	
18																	
19																	
20																	
21	27 50.9 82 29.6																

INS PERFORMANCE

	INS 1	INS 2
BEGIN ALIGN TIME	0815	0815
ALIGN STATUS (0-5)	0	0
END NAV TIME	1602	1602
START NAV TIME	0950Z	0950Z
DELTA T	6130	6130

TERMINAL ERRORS

	INS 1	INS 2
DELTA LAT	+4.5	+3.3
DELTA LON	-1.6	-1.3
RGS	1	1
RADIAL ERROR	5	3

REMARKS
