

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

FLT ID: 960805 I	FM: MCF	TO: MCF
FLT NO: 0	BLK IN: 0201	ATA: 0154
ETD: 1600	BLK OUT: 1703	ATD: 1714
ETE: 8+30	BLK TIME: 9.1	FLT TIME: 8.6
SPONSOR ORG: NOAA	PROGRAM: HRD	PURPOSE: Electr/Fran

OAO PERSONNEL

AC PLAYER G ✓	SYS ENG LYNCH, T ✓
CP MCKIM/TAGGART ✓	DATA SYS GONZALEZ, J ✓
NAV KOZAK, S ✓	RADAR MCNAMARA, R ✓
FE BAST, G ✓	BT/ODW CARPENTER, D ✓
RADIO SANS SOURCE ✓	CLD PHYS
FD WHITE, S	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
MAXSON, B ✓	DAX Science ↓ News News	AOC
BLACK, M/BLACK, B		HRD
SAMURAY, C		
LEIGHTON, P ✓		
GOLDENBERG, S ✓		
JONES, S ✓		
BERKSTROM/FLETCHER, K	News	AP Services
KLEIN, J ✓	News	Nightline

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

29.81 ~ 1004.0

27.83 ~ 1009.5

DPTD MCF WX MISSION AT 05/17 NZ

ETA 31.8 N 78.2 W AT 05/1850Z.

4 EYE PENETRATIONS

LAST REPORT OBS 01 THRU --

ETA KMCF 06/0200Z.

06/0200Z

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

FLT ID: 960805 I

TIME OFF: 1703

TIME ON: 0154

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	1008.2	1009.0	1009.2	1009.5

NO

DATA DISPOSITION/DATE/QUALITY

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

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON	✓	✓	✓	✓
OFF				
RATE				

REMARKS

NOAA • AOC • SED
N43RF DATA STATION LOG

Project : Hurricanes '96

Mission : Fran

Flight ID : 960905I

Operators : Lynch

Take Off : 17:15

Landing : 01:54

RAMS DAT 1 On [8 9]: <u>17:01</u>	RAMS DAT 1 Off: <u>02:01</u>	CPU Selected: <u>A</u> B
RAMS DAT 2 On [8 9]:	RAMS DAT 2 Off:	VCR's Used: <u>N L R D</u>
RAMS DAT 3 On [8 9]:	RAMS DAT 3 Off:	
Printer On: <u>17:01</u>	Printer Off:	
VCR's On: <u>17:01</u>	VCR's Off: <u>01:57</u>	VCR Count: <u>45916</u>
MARS DAT On:	MARS DAT Off:	
PMS DAT On:	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> <u>17:49</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u> <u>21:01</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>18:03</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u> <u>21:16</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>18:14</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u> <u>21:41</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>18:30</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u> <u>22:01</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>19:15</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u> <u>22:30</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>19:30</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u> <u>22:59</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>19:46</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u> <u>23:16</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>20:00</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u> <u>23:32</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>20:17</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u> <u>23:57</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>20:18</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u> <u>00:18</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>20:36</u>		<u>R</u> <u>V</u> <u>S</u> <u>B</u> <u>00:33</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>20:47</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

NOAA • AOC • SED Flight Performance Log

Aircraft : N43RF

Project: Hurricane '96

Mission : FranSED Crew: Lynch, Gonzalez, McNamee, CarpenterFlight ID : 960905IPre-Flight: 15:00 ZTake-Off: 17:15Landing: 01:54

System			Pre-Flight	In-Flight	Post-Flight		
NAV	INE #1	Aligned to: <u>5</u>	✓ TL		42.7	-2.1	1
	INE #2	Aligned to: <u>4</u>	✓ TL		314.3	-10.3	3
	GPS		✓ TL		Lat	Long	GS
RADAR	Nose		✓ TL				
	L/F	R/T SN: <u>103</u>	✓ RSM				Mod Switch Off? ✓ YL
	Tail	R&T SN <u>202/201</u>	✓				Mod Switch Off? ✓ YL
	ASAU's & RCU		✓				
	MARS Data System		DC ↓				# DATs: <u>1</u>
PMS	2DG-C	Ch 1/64: <u>1</u>	✓ TL				
	2DG-P	Ch 1/64: <u>1</u>	✓ TL	①			
	FSSP	Ref VDC: <u>8.3</u>	✓ TL				
	SEA Data System		✓ TL				# DATs: <u>2</u>
TEMP		Cal High	Cal Low			Cal High	Cal Low
	Temp #1	<u>30.16</u>	<u>-30.2</u>	RJM			
	Temp #2			RJM			
	Temp #3	(Starboard)		NI			
	Dewpoint #1			RJM			
	Dewpoint #2	(AOC)		RJM			
PRES	Attack Angle	(AP/DAP)	RJM				
	Slip Angle	(BP/DBP)	RJM				
	Differential	(PQ1/PQ2/PQ3)	RJM				
	Absolute	(PS1/PS2)	RJM				
	Radome Transducers		Plugs? JG	⑤			
FLTLVL	Cabin Transducer (Station 5)		RJM				
	Apn-159	SN: <u>SW 71-01</u>	✓ TL				Off?: ✓ YL
	Apn-232	SN: <u>1699</u>	✓ TL				Off?: ✓ YL
	King Liquid Water		✓ TL	②			
	J&W Liquid Water		RJM				
	Down PRT-5 (SST)		RJM				
	Side PRT-5 (CO ²)		RJM				
	RAMS Data System		✓ TL				# DATs: <u>1</u>
	ASDL		✓ TL				Off?: ✓ YL
	Epply Radiometers (PSP / PIR)		NI				
MISC	Exterior Walk Around		DC				
	Video	<u>① ② ③ ④</u>	TL				
	AXBT Receivers		NI				
	AXBT Sonobouys		#On Board: <u>0</u>	#Dropped: <u>—</u>	#Good: <u>—</u>		
	ODW System		NU			#Tapes: <u>—</u>	
	ODW Dropsondes		#On Board: <u>0</u>	#Dropped: <u>—</u>	#Good: <u>—</u>		
	FCU	<u>A B C</u>	✓ TL	③			UPS Off?: ✓ YL
	Charge Probe		✓ YL				
	HRD Workstation		✓ TL				
	Field Mills	<u>① ② ③ ④</u>	✓ TL	⑥			
USER	Lawrence Water Collector		✓ YL				
	Formvar		✓ YL				
				Accelerometers			
				#1 (2 G): <u>8154</u>	<u>4</u>		
				#2 (2.5 G): <u>60844</u>			
				#3 (3 G): <u>59167</u>			
				#4 (3.5 G): <u>2892</u>			

Please Note any Discrepancies

[illegible]

HURR. FRAN ELECTRIFICATION

FLIGHT #1 I960905

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	CO3964.CON

Notes:

The RA159 was replaced with the RA232 for the following time period: 0153:00 - 0156:00

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

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	1008.2mb	1009.2mb
Corrected tower pressure	1009.0mb	1009.5mb

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

960905 I

START: ~~170101~~
171001

END: ~~020100~~
015600

Ø BAD BLOCKS

RA 159 w/232

0154 - 0156
3

RENAV

180000	-0.8	0.0
190000	-0.9	+0.2
200000	-0.4	+1.2
210000	-0.3	+1.8
220000	-1.0	+0.7
230000	+0.7	+0.1
000000	+3.9	+2.1
010000	+2.6	-0.2
015600	+3.0	-2.0

Time	TA	TD	WD	WS	Remarks
1700					Eng
1703					Blk
1714	31.2	23.2	250	12.6	1/0
1744					Level
1806					Descent to 5K
1852					main eye to East 32 1810 77 47W
2012					
2033			178	880	climb 19k 2078 King Lig H ₂ O
2050					commence 216-2165 @ 19k ^{spike} downwind
2200					" " " @ 21K " "
2210	-8.8	-9.1	141	72.6	inbound leg
0154					WD
0202					Blk

DATE : 5 Sept 1996

TO : Chief, AOC Flight Operations

FROM : Pilot/Flight Director, Aircraft N43RF ON 0201 BLOCKTIME
OFF 1703 9.1

SUBJECT: Hazardous Duty

PURPOSE OF FLIGHT: ELECTRIFICATION

Hazardous Duty Pay is required for flight made on 5 Sept 1996
(DATE)

Request based on SEVERE WEATHER
IN AND AROUND HURRICANE FRAN

Personnel on board authorized Hazard Pay:

BAST, G

SANS SOUCI, D

LYNCH, T

GONZALEZ, J

MCNAMARA, R

CARPENTER, D

PILOT/FLIGHT DIRECTOR: CCDR S. R. White

APPROVED: ✓

DISAPPROVED: _____

CHIEF, AOC FLIGHT OPERATIONS: Ray Walter

DATE		SCHEDULED FIX TIME		AIRCRAFT NUMBER		ARWO	
MANOP HEADING (PRECEDENCE IMMEDIATE)							
MISSION IDENTIFIER AND OBSERVATION NUMBER							
(ABBREVIATED) (DETAILED) VORTEX DATA MESSAGE							
A	05/1852	Z	DATE AND TIME OF FIX				
B	32 DEG 18 MIN N S		LATITUDE OF VORTEX FIX *				
	77 DEG 47 MIN E W		LONGITUDE OF VORTEX FIX *				
C	850 MB	NA	M	MINIMUM HEIGHT AT STANDARD LEVEL			
D	185	80	KT	ESTIMATE OF MAXIMUM SURFACE WIND OBSERVED			
E	005	25	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM SURFACE WIND			
F	280	94	KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER			
G	185	20	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND			
H	EXTRAP	952	MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM WITHIN 1500 FT OF SEA SURFACE			
I	19	c/1750	M	MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE OUTSIDE EYE			
J	20	c/1940	M	MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE INSIDE EYE			
K	19	c/NA	C	DEWPOINT TEMP/SEA SURFACE TEMP INSIDE EYE			
L	OPEN S			EYE CHARACTER: Closed wall, poorly defined, open SW, etc.			
M	C50			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	32	18	MIN N S	CONFIRMATION OF FIX: Coordinates and Time *			
	77	47	MIN E W				
	05/1852	Z					
O	1234	/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 MAX FL WIND --- KT --- QUAD. SLP EXTRAP FROM --- MB.						
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.							

33 26
78 06

955mb

33 12 N
78 04 W

3301
33 21
77 59

33 20
78 05

33 26
77 59
952

33 40
78 04
956

0145
0200

MISSION LOG PAGE OF

The image contains two circular diagrams, each representing a compass rose with degree markings from 0 to 360. The top diagram is for the year 1900 and the bottom for 1950. Both diagrams show handwritten magnetic declination values in degrees North (N) for specific locations.

1900 Data:

- 000: 0000270
- 030: 0340N
- 060: 7804

1950 Data:

- 000: 1751
- 030: 3211N
- 060: 07748

POSITION REPORT
1. POSITION
2. TIME
3. ALTITUDE
4. NEXT POSITION
5. ETA
6. NEXT POSITION

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

- POSITION _____ N/S.

- HEADING _____ TRUE/MAG _____
AT _____ KTS TRUE/INDICATED _____

- FLIGHT LEVEL OR ALTITUDE
- WE ARE A B-3 AIRCRAFT WITH

- NATURE OF EMERGENCY
- ASSISTANCE DESIRED

- PILOT INTENTIONS
- WE HAVE

- WE HAVE _____ ENDURANCE REMAINING _____

[illegible]

3175 1825 202

FRAN

MISSION PREFLIGHT LOG										NAVIGATOR		AIRCRAFT COMMANDER		FLIGHT DIRECTOR		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	ATA	REMARKS	
	MISSION	DESTINATION																	
1	2918.0N	8106.8W	OMN											114				5 SEP	
2	3400.0N	7730.0W	IP											114					
3	3400.0N	7730.0W	2											158					
4	3400.0N	7730.0W	3											272					
5	3400.0N	7730.0W	4											220					
6	3400.0N	7730.0W	5											492					
7	3400.0N	7730.0W												180					
8	3400.0N	7730.0W												632					
9	3400.0N	7730.0W												120	3430				
10	3400.0N	7730.0W												792	30.700h				
11	3400.0N	7730.0W																	
12	3400.0N	7730.0W																	
13	3400.0N	7730.0W																	
14	3400.0N	7730.0W																	
15	3400.0N	7730.0W																	
16	3400.0N	7730.0W																	
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41	3400.0N	7730.0W																	
42	3400.0N	7730.0W																	
43	3400.0N	7730.0W																	
44	3400.0N	7730.0W																	
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46	3400.0N	7730.0W																	
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64	3400.0N	7730.0W																	
65	3400.0N	7730.0W																	
66	3400.0N	7730.0W																	
67	3400.0N	7730.0W																	
68	3400.0N	7730.0W																	
69	3400.0N	7730.0W																	
70	3400.0N	7730.0W																	
71	3400.0N	7730.0W																	
72	3400.0N	7730.0W																	
73	3400.0N	7730.0W																	
74	3400.0N	7730.0W																	
75	3400.0N	7730.0W																	
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80	3400.0N	7730.0W																	
81	3400.0N	7730.0W																	
82	3400.0N	7730.0W																	
83	3400.0N	7730.0W																	
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86	3400.0N	7730.0W																	
87	3400.0N	7730.0W																	
88	3400.0N	7730.0W																	
89	3400.0N	7730.0W																	
90	3400.0N	7730.0W																	
91	3400.0N	7730.0W																	
92	3400.0N	7730.0W																	
93	3400.0N	7730.0W																	
94	3400.0N	7730.0W																	
95	3400.0N	7730.0W																	
96	3400.0N	7730.0W																	
97	3400.0N	7730.0W																	
98	3400.0N	7730.0W																	
99	3400.0N	7730.0W																	
100	3400.0N	7730.0W																	

INS PERFORMANCE		INS 1	INS 2
BEGIN ALIGN TIME		1500	1500
ALIGN STATUS (0-5)		5	4
END NAV TIME		0203	0203
START NAV TIME		1703	1703
DELTA T		0400	0400

TERMINAL ERRORS		INS 1	INS 2
DELTA LAT		+2.7	+14.3
DELTA LONG		-2.1	-10.3
RGS		1	1
RADIAL ERROR		3	17.

REMARKS	
MCF	12080
1,600	17,000
1199	1332