

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

FLT ID: 960830	FM: KMCF	TO: KMCF
FLT NO: 96-055	BLK IN: 0412	ATA: 0300/0404
ETD: 1800	BLK OUT: 1812	RTD: 1820/0319
ETE: 0345	BLK TIME:	FLT TIME:
SPONSOR ORG: NHC	PROGRAM: HARR. RESEARCH	PURPOSE: SYNOPTIC FLOW

OAO PERSONNEL

AC PHILLIPS BORN, R ✓	SYS ENG LYNCH, T ✓
CP KENUL, P	DATA SYS MCNAMARA, R ✓
NAV REDACTED KOZAK, S ✓	RADAR
FE MOORE, B ✓	BT/ODW GONZALEZ, J ✓
RADIO REDACTED	CLD PHYS
FD CZYZYK, S ✓ / PARRISH, J ✓	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
SMITH, J ✓		AOC
ACFADDEN, J ✓		↓
FINKE, M ✓		HRD
MARKS, F ✓		↓
FRANKLIN, J ✓		
DODGE, P. ✓		
LEIGHTON, P. ✓		
KAPLAN, J ✓		

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

TASKING	NOAA3	1105A	EDOUARD	002	29.3	70.7
TEAL 34	1730Z	to Biloxi		182	2	
TEAL 44	2300Z	700nb	123.5			

88 29 N
70 33 W
2517'
934
134 KT NE QUAD
325/14

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

FLT ID: I960836

TIME OFF: 1822

TIME ON:

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	1011.3 (29.87)	29.90		29.89

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES		
FAST FLT LVL TAPES	1	
RADAR TAPES	1	
DOPPLER TAPES		
ODW CASSETTES	7	
HARD COPIES		
PMZ	2	
AXBT		
AXCP		
ODW	26	

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON				
OFF				
RATE				

REMARKS

NOAA • AOC • SED Flight Performance Log

Aircraft : N43RF

Project: Hurricane '96

Mission : EDOUARD

SED Crew: Lynch, Gonzales, McNamara Smith

Flight ID : 960830I

Pre-Flight: 14:40

Take-Off: 16:22 / 03:19

Landing: 02:59 / 04:04

System		Pre-Flight	In-Flight	Post-Flight		
N A V	INE #1 <u>1446</u> Aligned to: <u>Ø</u>	✓ TL		-10.5	+11.3	2
	INE #2 <u>1441</u> Aligned to: <u>Ø</u>	✓ TL		-5.8	+6.5	1
	GPS	GN		Lat	Long	GS
R A D A R	Nose	✓ TL				
	L/F R/T SN: <u>103</u>	✓ TL		Mod Switch Off?	✓ TL	
	Tail R&T SN: <u>202 / 201</u>	✓ TL		Mod Switch Off?	✓ TL	
	ASAU's & RCU	✓ TL				
	MARS Data System	✓ TL ②		# DATs:	1	
P M S	2DG-CLOUD Ch 1/64: <u>1</u>	✓ TL				
	2DG-PRECIP Ch 1/64: <u>1</u>	✓ TL				
	FSSP Ref VDC: <u>8.75</u>	✓ TL				
	SEA Data System	✓ TL		# DATs:	2	
T E M P	Cal High	Cal Low		Cal High	Cal Low	
	Temp #1	<u>+30.7</u>	<u>-30.3</u>	RDM	<u>30.5</u>	<u>30.2</u>
	Temp #2			RDM		
	Temp #3 (Starboard)			NI		
	Dewpoint #1			RDM		
	Dewpoint #2 (AOC)			RDM		
P R E S S	Attack Angle (AP/DAP)		RDM			
	Slip Angle (BP/DBP)		RDM			
	Differential (PQ1/PQ2/PQ3)		RDM			
	Absolute (PS1/PS2)		RDM			
	Radome Transducers		Plugs? <u>GN</u>			
	Cabin Transducer (Station 5)		RDM			
F L T L V	Apn-159 SN: <u>71-01</u>	✓ TL		Off?:	✓ TL	
	Apn-232 SN: <u>1699</u>	✓ TL		Off?:	✓ RM	
	King Liquid Water	✓ TL				
	J&W Liquid Water	✓ JS				
	Down PRT-5 (SST)	RDM				
	Side PRT-5 (CO ²)	RDM				
	RAMS Data System	✓ TL ①		# DATs:	1	
M I S C	ASDL	✓ TL	④	Off?:	✓ TL	
	Epply Radiometers (PSP / PIR)	NI				
	Exterior Walk Around	JS				
	Video: <u>(N) (L) (R) (D)</u>	✓ TL				
	AXBT Receivers	NI				
	AXBT Sonobouys	#On Board: <u>Ø</u>	# Dropped: <u>—</u>	# Good: <u>—</u>		
	ODW System	✓ JS	③	# Tapes: <u>7</u>		
	ODW Dropsondes	#On Board: <u>24</u>	# Dropped: <u>19</u>	# Good: <u>4</u>		
FCU: <u>CAD</u>	✓ TL		UPS Off?:	✓ TL		
U S E R	Charge Probe	NU		Accelerometers		
	HRD Workstation	✓		#1 (2 G):	<u>8154</u>	
	Field Mills: <u>(Ø) (R) (Ø) (Ø)</u>	RDM		#2 (2.5 G):	<u>10168A</u>	
	Lawrence Water Collector	✓		#3 (3 G):	<u>596T</u>	
	Formvar	NU		#4 (3.5 G):	<u>2892</u>	

NOAA • AOC • SED
N43RF DATA STATION LOG

Project : Hurricanes '96

Mission : Edouard

Flight ID : 960830I

Operators : Lynch

Take Off : 18:22 / 03:19

Landing : 02:59 / 04:04

RAMS DAT 1 On (B) 9]: 18:09	RAMS DAT 1 Off: 04:11	CPU Selected: (A) B
RAMS DAT 2 On [8 9]:	RAMS DAT 2 Off:	VCR's Used: (N) (Q) (R) (D)
RAMS DAT 3 On [8 9]:	RAMS DAT 3 Off:	
Printer On: 18:09	Printer Off: 04:11	
VCR's On: 18:10	VCR's Off: 03:01	VCR Count: 4539
MARS DAT On:	MARS DAT Off:	
PMS DAT On: 18:40	PMS DAT Off: 00:40	

ASDL Messages							
Message	Time	Message	Time	Message	Time	Message	Time
(R) V S B	19:03	(R) V S B	22:59	R V S B		R V S B	
(R) V S B	19:20	(R) V S B	23:20	R V S B		R V S B	
(R) V S B	19:42	(R) V S B	23:40	R V S B		R V S B	
(R) V S B	20:02	(R) V S B	23:59	R V S B		R V S B	
(R) V S B	20:19	(R) V S B	00:19	R V S B		R V S B	
(R) V S B	20:39	(R) V S B	00:44	R V S B		R V S B	
(R) V S B	20:59	(R) V S B	01:01	R V S B		R V S B	
(R) V S B	21:19	(R) V S B	01:23	R V S B		R V S B	
(R) V S B	21:39	(R) V S B	01:40	R V S B		R V S B	
(R) V S B	21:59	(R) V S B	01:59	R V S B		R V S B	
(R) V S B	22:20	(R) V S B	02:20	R V S B		R V S B	
(R) V S B	22:40	R V S B		R V S B		R V S B	

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

Data Station Operator Notes

→ 1105A Edouard

HURRICANE EDOUARD 1996

FLIGHT #4 960830I

TYPE OF DATA -----	SENSOR OR OPTION -----
INE	2
Accelerometer	2
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:

Radar Altimeter, RA-159 was patched during takeoff due to spike (1822:00-1823:10).

The radar altimeter was set to zero after landing due to spike (0259:30-0310:00).

Dewpoint #1, DW1, was replaced by dewpoint #2, DW2, from 1936:00-2059:55, due to the sensor being unbalanced. DW1, was patched from 1934:00-1937:00 and from 2058:00-2101:00.

Total temperature #1, TT1, froze up from 0029:00-0049:00 and its values are 5 to 10 degrees too high.

Dynamic attack pressure #1, DAP, froze up from 2349:00-0030:30 and from 0045:30-0236:00. This sensor was corrected using PSF.

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

Two electronic glitches/spikes occurred the static pressure sensor, PSF, between 2113:45-2114:45, and was patched.

There were 20 ODW dropsondes during the mission: 1934:00, 1940:15, 2023:12, 2050:30, 2114:35, 2140:45, 2156:43, 2213:28, 2229:25, 2246:08, 2322:22, 2340:05, 2359:30, 0014:10, 0035:45, 0101:28, 0121:11, 0128:03, 0141:11, and 0202:10.

	Takeoff -----	Landing -----
Aircraft static pressure:	1011.3 mb	1011.1 mb
Corrected airport pressure:	1012.5 mb	1012.2 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

DROP LOCATIONS

#	LAT	LON	TIME
1	31 00	79 00	0:55
2	31 00	77 00	1:16
3	32 30	75 15	1:42
4	34 00	73 30	2:08
5	36 00	73 15	2:33
6	38 00	73 00	2:58
7	38 00	71 15	3:15
8	38 00	69 30	3:32
9	38 00	67 45	3:50 2150 2212
10	38 00	66 00	4:07
11	35 00	66 00	4:44 2244 2306
12	35 00	67 45	5:02 2302 2324
13	35 00	69 30	5:20
14	33 30	69 30	5:38
15	32 00	69 30	5:57
16	32 00	72 00	6:23
17	30 40	73 20	6:45
18	29 20	74 40	7:07
19	28 00	76 00	7:29
20	28 00	78 00	7:51

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HURRICANE SYNOPTIC SURVEILLANCE MISSION PLAN

Prepared by the Hurricane Research Division at 2:33:59 PM on 08/29/96.
 File: /users/james/field_prm/flight_tracks/edo30i.ftk

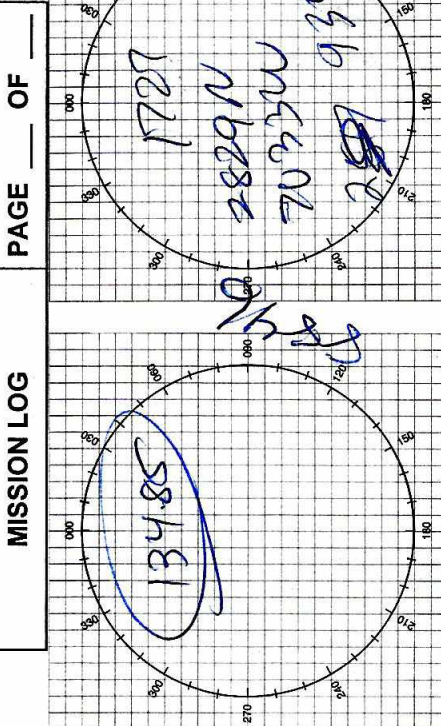
Aircraft: N43RF Proposed takeoff: 30/1800Z

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TRACK DISTANCE TABLE (nm)

#	LAT	LON	LEG	TOTAL	TIME
0	MACDILL		0.	0.	0:00
1	31 00	79 00	264.	264.	0:55
2	31 00	77 00	103.	367.	1:16
3	34 00	73 30	253.	619.	2:08
4	38 00	73 00	241.	861.	2:58
5	38 00	66 00	331.	1192.	4:07
6	35 00	66 00	180.	1372.	4:44
7	35 00	69 30	172.	1544.	5:19
8	32 00	69 30	180.	1724.	5:57
9	32 00	72 00	127.	1852.	6:23
10	28 00	76 00	318.	2169.	7:29 0129
11	28 00	78 00	106.	2275.	7:51
12	OPA LOCKA		175.	2450.	8:27 00.27
					844
					1106

CLEARANCES		OTHER	
FREQ	ALT	HDG	POSITION
			OFF R 1050 5600
			1700W 1000 1919
			200.3 1474
			8846
			5550
			2000 1000 4760



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 MFCW
 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 _____ KTS TRUE/INDICATED
 - FLIGHT LEVEL OR ALTITUDE _____ SOULS ON BOARD
 - NATURE OF EMERGENCY _____
 - ASSISTANCE DESIRED _____
 - PILOT INTENTIONS _____ 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
1806	V	27510N 8229.6W																			1808 engine check
1812																					Taxi
1822																					STOP
1845	G	2830.6N 8813.7W	2881.0N 8815.5W	-7.6 +1.8	2881.0N 8813.1W	-7.8 +1.1			053	0	053	273	310	11	14000	267					Low Alt
1934	G	3059.2N 7856.3W	3100.4N 7855.1W	-11.2 +1.2	3101.2N 7856.3W	-2.10 0			089	0	089	240	311	9	17000	284					SOUND DEPT
1939	U	REP																			S
2023	G	3232.9N 7512.95W	3233.6N 7511.5W	-2.7 +1.4	3234.7N 7512.8W	-3.8 +1.1			051	6	051	285	010	6	18800	290					Sound Drop
2030	G	3405.6N 7351.0W	3406.8N 7348.6W	-3.3 +2.1	3410.1N 7330.6W	-4.5 +1.5			002	NR	002	202	296	12	19500	207					Sound Drop
2141	G	3802.1N 7253.0W	3806.3N 7250.1W	-4.2 +2.9	3807.2N 7258.2W	-5.1 +1.6			087	0	087	261	083	6	20300	287					Sound Drop
2203	G	3602.9N 6928.9W	3609.9N 6925.0W	-5.0 +3.9	3605.0N 6927.3W	-5.1 +1.6			091	0	091	241	299	13	21100	300					Sound Drop
2240	G	3459.8N 6745.6W	3506.1N 6739.6W	-14.3 +5.8	3506.0N 6742.2W	-6.2 +3.2			270	0	270	279	251	22	230	316					Sound Drop
21030	G	3153.5N 7206.0W	3200.4N 7203.3W	-45.9 +1.7	3200.0N 7203.3W	-6.5 +4.7			081	6L	015	320	342	32	240	208					Sound Drop
0002	G	2759.8N 7612.6W	2807.2N 7603.9W	-7.4 +4.8	2806.3N 7607.1	-6.5 +4.5			074	3L	071	302	303	02	250	320					Sound Drop
0300																					Low Alt
0307		2554.6N 8006.9W	2601.5N 8006.6W	+4.9 +4.8	2600.0N 8010.3W	-6.2 +6.1															Checks off
0310																					Taxi OFF

011022 20 44 N
 7027W 27
 Drop 700 2597 106

