

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

FLT ID: 1960829	FM: T15X	TO: MCF
FLT NO: 96-054	BLK IN: 0354	ATA: 0345
ETD: 1730	BLK OUT: 1733	ATD: 1743
ETE: 0330	BLK TIME: 10:21 (10.4)	FLT TIME: 10:03 (10.1)
SPONSOR ORG: NHC	PROGRAM: HURR. RESEARCH	PURPOSE: SYNOPSIS FLIGHT

OAO PERSONNEL

AC KENNEDY, P ✓*	SYS ENG LYNCH, T ✓*
CP KENUL, P ✓*	DATA SYS MCNAMARA, R ✓*
NAV ROZAK, S ✓*	RADAR
FE BAST, G ✓*/ MOORE B. ✓*	DT/ODW GONZALEZ, J ✓*
RADIO SANS SOUCI, D. ✓*	CLD PHYS
FD DAMIANO, B ✓*/ CZYZYK, S. ✓*	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
CLOSSER, G ✓*	MECA.	AOC
MCNIERNEY, E ✓*		AOC
<del>MARKS</del> MARKS, F ✓*		HRD
LEIGHTON, P ✓*		↓
ABERSON, S ✓*		
KAPLAN, J ✓*		
DODGE, P ✓*		

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

4 Drops 5, 8, 10, 17 182 24.6 29.7

4 Reicos/HR 007 25.3 70.3

U.S. DEPT. COMM./NOAA/OAD - DATA SECTION WORK FORM NO.2 OROWF2

FLT ID: I960829

TIME OFF:

TIME ON:

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	1008.8	29.89	1012.2	29.98

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES	1	
FAST FLT LVL TAPES		
RADAR TAPES	2	
DOPPLER TAPES		
ODW CASSETTES	02	
HARD COPIES		
AXDT		
AXCP		
ODW	4	

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON				
OFF				
RATE				

REMARKS



NOAA • AOC • SED  
N43RF DATA STATION LOG

Project : Hurricanes '96

Mission : Edouard #3

Flight ID : 960829I

Operators : Lynch, McNamee

Take Off : 17:44

Landing : 03:45

RAMS DAT 1 On [8 9]: <u>17:30</u>	RAMS DAT 1 Off: <u>03:54</u>	CPU Selected: <u>A</u> B
RAMS DAT 2 On [8 9]:	RAMS DAT 2 Off:	VCR's Used: <u>N D R D</u>
RAMS DAT 3 On [8 9]:	RAMS DAT 3 Off:	
Printer On: <u>17:30</u>	Printer Off: <u>03:54</u>	
VCR's On: <u>17:30</u>	VCR's Off: <u>0349</u>	VCR Count: <u>5298</u>
MARS DAT On:	MARS DAT Off:	
PMS DAT On:	PMS DAT Off: <u>03:04</u>	

ASDL Messages									
Message	Time	Message	Time	Message	Time	Message	Time		
<u>R</u> V S B	<u>1749Z</u>	<u>R</u> V S B	<u>21:00</u>	<u>R</u> V S B	<u>00:02</u>	R	V	S	B
<u>R</u> V S B	<u>18:15</u>	<u>R</u> V S B	<u>21:15</u>	<u>R</u> V S B	<u>00:19</u>	R	V	S	B
<u>R</u> V S B	<u>18:31</u>	<u>R</u> V S B	<u>21:30</u>	<u>R</u> V S B	<u>0033</u>	R	V	S	B
<u>R</u> V S B	<u>18:45</u>	<u>R</u> V S B	<u>21:44</u>	<u>R</u> V S B	<u>0045</u>	R	V	S	B
<u>R</u> V S B	<u>18:59</u>	<u>R</u> V S B	<u>22:00</u>	<u>R</u> V S B	<u>0059</u>	R	V	S	B
<u>R</u> V S B	<u>19:15</u>	<u>R</u> V S B	<u>22:16</u>	<u>R</u> V S B	<u>0114</u>	R	V	S	B
<u>R</u> V S B	<u>19:31</u>	<u>R</u> V S B	<u>22:30</u>	<u>R</u> V S B	<u>0129</u>	R	V	S	B
<u>R</u> V S B	<u>19:44</u>	<u>R</u> V S B	<u>22:44</u>	<u>R</u> V S B	<u>0144</u>	R	V	S	B
<u>R</u> V S B	<u>19:59</u>	<u>R</u> V S B	<u>23:00</u>	<u>R</u> V S B	<u>0214</u>	R	V	S	B
<u>R</u> V S B	<u>20:14</u>	<u>R</u> V S B	<u>23:17</u>	<u>R</u> V S B	<u>0229</u>	R	V	S	B
<u>R</u> V S B	<u>20:29</u>	<u>R</u> V S B	<u>23:30</u>	<u>R</u> V S B	<u>0244</u>	R	V	S	B
<u>R</u> V S B	<u>20:44</u>	<u>R</u> V S B	<u>23:52</u>	<u>R</u> V S B	<u>0259</u>	R	V	S	B

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

Data Station Operator Notes

0705A Edouard

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NOAA • AOC • SED Flight Performance Log

Aircraft : N43RF

Project: Hurricane '96

Mission : EDOUARD #3 - FERRY

SED Crew: LYNCH, GONZALEZ, M<sup>c</sup>NAMARA

Flight ID : 960829I

Pre-Flight: 15:15

Take-Off: 17:44

Landing: 03:45

System		Pre-Flight	In-Flight	Post-Flight			
N	INE #1	Aligned to: <u>0</u>	✓ TL		-3.7	47.0	4
	INE #2	Aligned to: <u>0</u>	✓ TL		-3.8	41.6	3
V	GPS		✓ TL (2)		Lat	Long	GS
	Nose		✓ TL				
R	L/F	R/T SN: <u>103</u>	✓ TL				Mod Switch Off? ✓
	Tail	R&T SN: <u>2021 201</u>	✓ TL				Mod Switch Off? ✓
A	ASAU's & RCU		✓ TL				
	MARS Data System		✓ TL				# DATs: <u>2</u>
P	2DG-C	Ch 1/64: <u>1</u>	✓ TL	(A)			
	2DG-P	Ch 1/64: <u>1</u>	✓ TL	(B)			
	FSSP	Ref VDC: <u>B.3</u>	✓ TL	(C)			
	SEA Data System		✓ TL				# DATs: <u>1</u>
T	Temp #1	Cal High: <u>30.7</u> Cal Low: <u>-30.2</u>	✓ TL		Cal High: <u>30.7</u>	Cal Low: <u>-30.0</u>	
	Temp #2		✓ TL				
	Temp #3 (Starboard)		NI				
	Dewpoint #1		✓ TL				
	Dewpoint #2 (AOC)		✓ TL				
	Dewpoint #3		NI				
P	Attack Angle (AP/DAP)		✓ TL				
	Slip Angle (BP/DBP)		✓ TL				
	Differential (PQ1/PQ2/PQ3)		✓ TL				
	Absolute (PS1/PS2)		✓ TL				
S	Radome Transducers	Plugs? <u>JG</u>					
	Cabin Transducer (Station 5)		✓ TL				
F	Apn-159	SN: <u>71-01</u>	✓ TL		Off?: <u>✓ TL</u>		
	Apn-232	SN: <u>1699</u>	✓ TL		Off?: <u>✓ TL</u>		
	King Liquid Water		✓ TL				
	J&W Liquid Water		✓ JG				
L	Down PRT-5 (SST)		✓ TL				
	Side PRT-5 (CO <sup>2</sup> )		✓ TL				
	RAMS Data System		RJM				# DATs: <u>1</u>
M	ASDL		✓ TL	(7)	Off?: <u>✓ TL</u>		
	Epply Radiometers (PSP / PIR)		NI				
	Exterior Walk Around		JG				
	Video	(N) (O) (R) (D)	RJM				
	AXBT Receivers		NI				
	AXBT Sonobouys		#On Board: <u>0</u>	# Dropped: <u>-</u>	# Good: <u>-</u>		
	ODW System		✓ JG		# Tapes: <u>2</u>		
	ODW Dropsondes		#On Board: <u>28</u>	# Dropped: <u>4</u>	# Good: <u>4</u>		
	FCU	<u>C A D</u>	✓ TL		UPS Off: ?		
	Charge Probe		NI				
U	HRD Workstation		✓ TL		Accelerometers		
	Field Mills	(L) (R) (O) (D)	✓ TL		#1 (2G): <u>8154</u>		
	Lawrence Water Collector		✓ TL		#2 (2.5G): <u>6068A</u>		
	Formvar		NI		#3 (3G): <u>5907</u>		
					#4 (3.5G): <u>2892</u>		





HURRICANE EDOUARD 1996  
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FLIGHT #3 960829I

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:

Downward spikes in radar altimeter output are a result of overflying land (St. Croix, 1746:40-1747:30 and St. Thomas 1757:10-1757:45)

Radar Altimeter, RA-159 was patched during takeoff due to spike (1744:30-1745:00).

The radar altimeter was set to zero after landing due to spike (0345:20-0354:00).

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

An electronic glitch/spike occurred the static pressure sensor, PSF, between 2114:30-2115:00, and was patched.

There were 4 ODW dropsondes during the mission: 2051:15, 2216:20, 2305:13, and 0152:55.

	Takeoff -----	Landing -----
Aircraft static pressure:	1008.8 mb	1014.2 mb
Corrected airport pressure:	1012.2 mb	1015.2 mb

The aircraft INE positions were renavigated with respect to GPS.

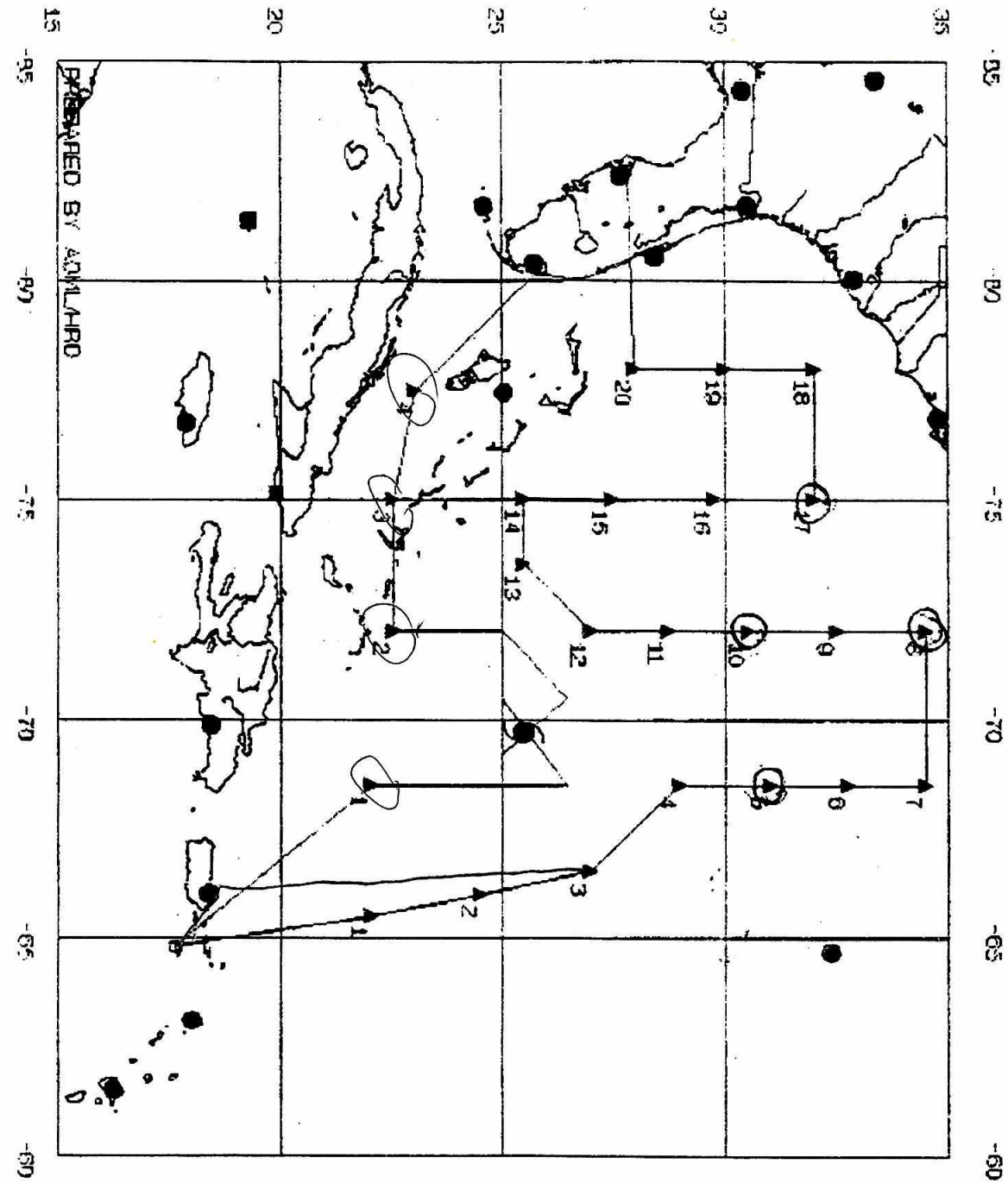
SPECIAL NOTE!!! Locations 80, 81 and 82 of record five on the standard tape contain vertical ground, vertical air and vertical speeds, respectively, computed using Dave Jorgensen's vertical wind algorithm. It is recommended that these values be used for vertical wind analysis.

Flight Meteorologist: Stan Czyzyk: (813) 828-3310 ext. 3086





*Line*



**FLIGHT TRACKS**

ed42flk  
 ed43flk

**RAVINSCHIDES 9605**

- Regular
- 12Z only
- 00Z only
- Infrequent
- Infrequent - 00Z
- Infrequent - 12Z



DROP LOCATIONS N43

#	LAT	LON	TIME
1	22 00	65 30	0:54
2	24 30	66 00	1:26
3	27 00	66 30	1:57
4	29 00	68 30	2:30
5	31 00	68 30	2:55
6	32 45	68 30	3:17
7	34 30	68 30	3:39
8	34 30	72 00	4:14
9	32 30	72 00	4:39
10	30 30	72 00	5:04
11	28 45	72 00	5:26
12	27 00	72 00	5:48
13	25 30	73 30	6:13
14	25 30	75 00	6:29
15	27 30	75 00	6:54
16	29 45	75 00	7:22
17	32 00	75 00	7:50
18	32 00	78 00	8:22
19	30 00	78 00	8:47
20	28 00	78 00	9:11

+00

+06



11 11  
DROP LOCATIONS

42

#	LAT	LON	TIME
1	22 00	68 30	1:09
2	22 30	72 00	4:08
3	22 30	75 00	4:43
4	23 00	77 30	5:12



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 HURRICANE SYNOPTIC SURVEILLANCE MISSION PLAN

 Prepared by the Hurricane Research Division at 6:34:53 AM on 08/29/96.  
 File: /users/james/field\_prm/flight\_tracks/ed42.ftk

 Aircraft: N42RF Proposed takeoff: 29/1730Z  
 =====

## TRACK DISTANCE TABLE (nm)

 =====  

#	LAT	LON	LEG	TOTAL	TIME
0	ST CROIX		0.	0.	0:00
①	22 00	68 30	332.	332.	1:09
2	<del>26 30</del>	<del>68 30</del>	270.	602.	2:05
③	<del>26 125 00</del>	<del>67 10 30</del>	141.	743.	2:34
4	<del>27 30 25 00</del>	<del>72 00 69 12</del>	71.	814.	2:48
5	<del>27 20 26 30</del>	<del>69 10 70 30</del>	114.	928.	3:12
6	<del>26 20 25 00</del>	<del>71 30 72 00</del>	121.	1049.	3:37
7	<del>22 30</del>	<del>72 00</del>	150.	1199.	4:08
8	⑥ 22 30	75 00	166.	1366.	4:43
9	⑦ 23 00	77 30	142.	1507.	5:12
10	OPA LOCKA		232.	1739.	6:00

  
 26 10" 67° 45"  
 22 30 72 00"  
 23 20 65 10"  
 26 20 71 30"

FLT LVL 500 MB

"SOUNDINGS" W/ RECCO'S

AT "DROP" PTS

1, 2, 3, 4

DATE : 8/29/96

TO : Chief, AOC Flight Operations

FROM : Pilot/Flight Director, Aircraft

ON 0354 BLOCKTIME

OFF 1733 10.4

SUBJECT: Hazardous Duty

PURPOSE OF FLIGHT: SYNOPTIC FLOW

Hazardous Duty Pay is required for flight made on 8/29/96  
(DATE)

Request based on FLEW THROUGH RAIN BOWS FROM  
HURRICANE EDWARD, AND EXPERIENCED HURRICANE FORCE  
WINDS

Personnel on board authorized Hazard Pay:

- CZYZYK, S
- DOMIANO, B
- MOORE, B
- SANS SOUCI, D
- BAST, G
- GONZALEZ, J
- LYNCH, T
- MCNAMARA, R
- CLOSSER, E

PILOT/FLIGHT DIRECTOR: *Andy Gump*

APPROVED:

DISAPPROVED: \_\_\_\_\_

for CHIEF, AOC FLIGHT OPERATIONS: *Mark A. Fisher*

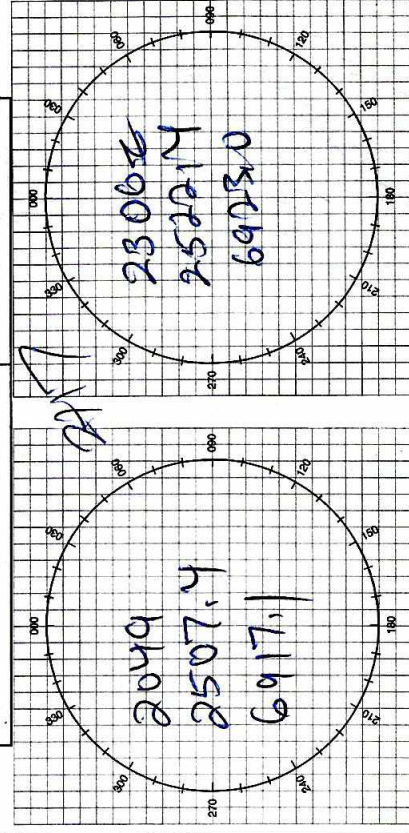


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CLEARANCES

FREQ	ALT	HDG	OTHER
			105 DIM
			ST ST
			27N 6030
			170 - 170

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 2182 KHZ  
VHF/VOICE 121.5  
HF/CW 243.0  
MF/CW 8364 KHZ  
500 KHZ

MAYDAY, MAYDAY, MAYDAY  
THIS IS NOAA, 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 \_\_\_\_\_  
ENDURANCE REMAINING \_\_\_\_\_

TIME	FIX TYPE	POSITION	INS 1 POSITION	K ERR	INS 2 POSITION	K ERR	VAR +E=>	TH	DR +R=>	TRK	GS	WD	WS	ALT	TAS	NEXT PT	DIST	TIME	ETA	REMARKS	
1726	V	17420N 69475W																		Cnb/chaicks	
1733																				TSR	
1743																				TOFFSTX	
1814	G	18581N 66040W	1858.0N 6603.5W	-11 +15	1858.0N 6604.0W	0		355	Q	355	286	277	6	1800	288					Low off	
2008	G	224718N 67188W	2246.4N 6717.0W	-16 +18	2247.8N 6719.0W	0		321	2L	319	209	120	23	1800	279					Posid	
20510	G	31000N 68291W	3100.0N 6829.1W	-11 +20	3059.0N 6829.7W	+11		004	3L	001	302	144	20	18350	285					Posid SAND DRAG	
2216	G	34153N 71516W	3416.7N 7148.8W	-14 +16	3415.3N 7152.5W	-9		186	6L	180	266	237	26	18350	281					SAND DRAG	
2305	G	30290N 70016W	30318N 7157.2W	-19 +16	3030.5N 7157.0W	-16		183	2L	181	265	247	6	18350	288					SAND DRAG	
0039	G	20139N 745910W	2016.2N 7459.0W	+13 +11	2015.6N 7458.9W	+17		000	1R	001	280	200	16	18350	293					Posid	
0153	G	30002N 75045W	30037N 7504.5W	-17 +16	3003.0N 7504.3W	-16		299	3L	286	279	283	11	18350	286					Posid SAND DRAG	
0346																					
0354	V	27500 82291W	27541N 8229.1W	-37 +16	2754.7N 8228.0W	+16															chaicks majority

SP027  
2112  
1736  
SP057

SP057  
SP057  
SP057



