

Hurricane Irene Cuba Recco
N43RF

I991014

DATA TYPE SENSOR or OPTION

INE	1
Accelerometer	1
Temperature Probe	1
Altitude (for vertical wind)	RA159
Static Pressure	Fuselage
Dynamic Pressure	Fuselage
Dewpoint Probe	2

Notes:

Patched bad values of APN-159 radar altimeter before take-off and after landing.

Renavigated this flight's INE1 positions using 13 valid GPS positions.

This Recco flight included five center fixes through a disorganized center as Irene was making its way off the north coast of Cuba. Extrapolated surface pressure, D-value, and downward radiometer values at each of the fix positions should be closely scrutinized in case the fix was slightly over land.

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

	Takeoff	Landing
Aircraft static pressure	1010.8 mb	1010.0 mb
Corrected tower pressure	1012.5 mb	1012.0 mb

Flight Director: Jack Parrish, (813) 828-3310 ext. 3077

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

FLT ID: 991014H	FM: MCF	TO: MCF
FLT NO: 00-06	BLK IN: 0354	ATA: 0345
ETD: 19Z	DLK OUT: 1843	RTD: 1856
ETE: 9	BLK TIME: 9:11(9.2)	FLT TIME: 8:49(8.8)
SPONSOR ORG: NHC	PROGRAM: RECCO	PURPOSE: 4.1 RENE

OAO PERSONNEL

AC: Tennessee	SYS ENG: McMillan ✓
CP: Kernal	DATA SYS: Delgado ✓
NAV: Newman ✓	RADAR:
FE: Best	BT/ODW:
RADIO: Sans Souci ✓	CLD PHYS:
FD: Parrish ✓	DOPPLER: Floyd

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
Cron ✓	↓	HRD
Dodge ✓	↓	↓
Black ✓	↓	↓
Walsh ✓	↓	↓
PRO KA ✓	↓	↓
Jeff Patterson ✓	↓	WFLA RADIO
Greg Davis ✓	↓	WFLA TV
		Bay Dews 9

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

29/21 21Z, 00Z, 03Z Fixes	0513A 1 RENE	22.3 82.3	0155
29/20 5 FIX 2054Z 23 02N, 82 35W	988mb		25/22
080/14 5 FIX 2210Z 23 09N, 82 42W	988mb		050/9
133 5 FIX 2338Z 23 07N, 82 45W	989mb		29-91
1012.3 5 FIX 0107Z 23 01N, 82 39W	988mb		1012
29/19.3 5 FIX 0220Z 23 04N, 82 31W	—	Oswald	SP1009-3 Fm 1.2K
1010.7 5 FIX 0220Z 23 04N, 82 31W	—	Oswald	SP1010.2
1010.8 5 FIX 0220Z 23 04N, 82 31W	—	Oswald	PM 11K
5/1010.8			90/8
5/1010.4			1010

Five Eye Penetrations

FLT ID: 704

TIME OFF:

TIME ON:

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	1			

NO

DATA DISPOSITION/DATE/QUALITY

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

PHOTOGRAPHY

	FWD	LS	RS	VERT	
ON					
OFF					
RATE					

REMARKS

10/25
 11/25
 12/25
 1/1
 2/1/25
 3/1/25
 4/1/25
 5/1/25
 6/1/25
 7/1/25
 8/1/25
 9/1/25

991014I H. IREWE BECCO

Time	LAT	LONG	TK	WD	WS	PA	GA	TA	TD	SP	PS	SD	
1843	1300K	04T											
185945	2750	8221.2	185	82	23.4	1295	1333	16.4	14.6	1010.7	845		↑
193445	2809	8311	175	84	16.1	3978	4156	3.8	1.0	1000.7	618	-	
195520	2440	8247	138	88	23	3988	4137	3.6	2.0	1003.7	617.4	Drop	16 Sande
200045	2422	8232	134	104	18.7	3987	4128	4.0	1.4	1001	617.4	Drop	412
200709	2402	8214	112	122	19.4	3987	4121	3.9	3.8	1000.4	617	Drop	13 Sande
201150	2347	8202	141										
201552	2335	8152	141	160	39	3976	4096	5.6	2.3	996	618	Drop	Sande
2054	2302	8235				1555		2.2	17	988			
212715	2350	8407	186	52	37	1506	1505	17.0	15.8	1004	845		
214545	2244	8412	73	18	31	1499	1485	17.8	14.9	1002.5	845	WD	OT canker
215030	2251	8354	65	20	30	1497	1476	17.7	13.5	1001.8	845.6		
2210	2309	8242								987			
221415	2313	8226	71	162	50	1498	1413	18.1	17.5	995	846	E of center	
222630	2321	8139	92	150	41	1554	1522	16.7	17.0	1001	838	Drop	
223903	2321	8052	90	163	56	1559	1554	17.1	15.7	1003.7	839	Drop	
230445	2439	8105											
232211	2355	8205	231	115	50	1552	1521	17.3	16.8	1001.7	842	BD	
2332	2328	8239	Drop										
2338	2307	8245								989			
234445	2325	8248	357	96	36	1601	1546	18.1	17.4	996	835	Drop	Sande
2353	2356	8254											
000645	2447	8253	359	80	44	1517	1532	17.0	15.0	1006	843.7	Drop	
004315	2357	8339	120	50	36.6	1483	1486	17.7	15.9	1004.5	847.7		
0107	2301	8239								988			
0123	2338	8142	68	163	32	1553	1516	17.8	16.8	1001	842		
013020	2405	8110	48	122	49	1524	1512	17.1	17.0	1005	845	Drop	NE of center
0157	2341	8116	271	128	48	1545	1552	17.4	16.6	1003.3	842		
0201	2342	8128		148	47								
0220	2304	8231								991			
0242	2347	8404.8	298	16	27	3683	3820	7.4	1.8	1001	642	Drop	One land
024620	2357	8418	21	28	31	3687	3832	6.7	4.3	1002.8	642	BD	Drop
025250	2427	8406	20	34	30	3685	3832	6.5	2.4	1003	642	BD	16
025810	2449	8357	20	38	26	3682	3834	6.1	3.6	1004	642	BD	12
030453	2516.6	8344.8	25	50	34	3664	3821	6.3	1.4	1005	643.4	BD	16
032915	2708	8255	12	72	24	3390	3549	6.7	2.3	1009.5	666.9	↓ to	LAND
0554	2751.1	8229.8				15		24.4	20.6		1011.5	BLK	

NAVIGATOR

AIRCRAFT COMMANDER

FLIGHT DIRECTOR

SCHEDULED / ACTUAL TAKEOFF Z	DATE OF TAKEOFF
------------------------------	-----------------

TIME OF TAKEOFF

[illegible]

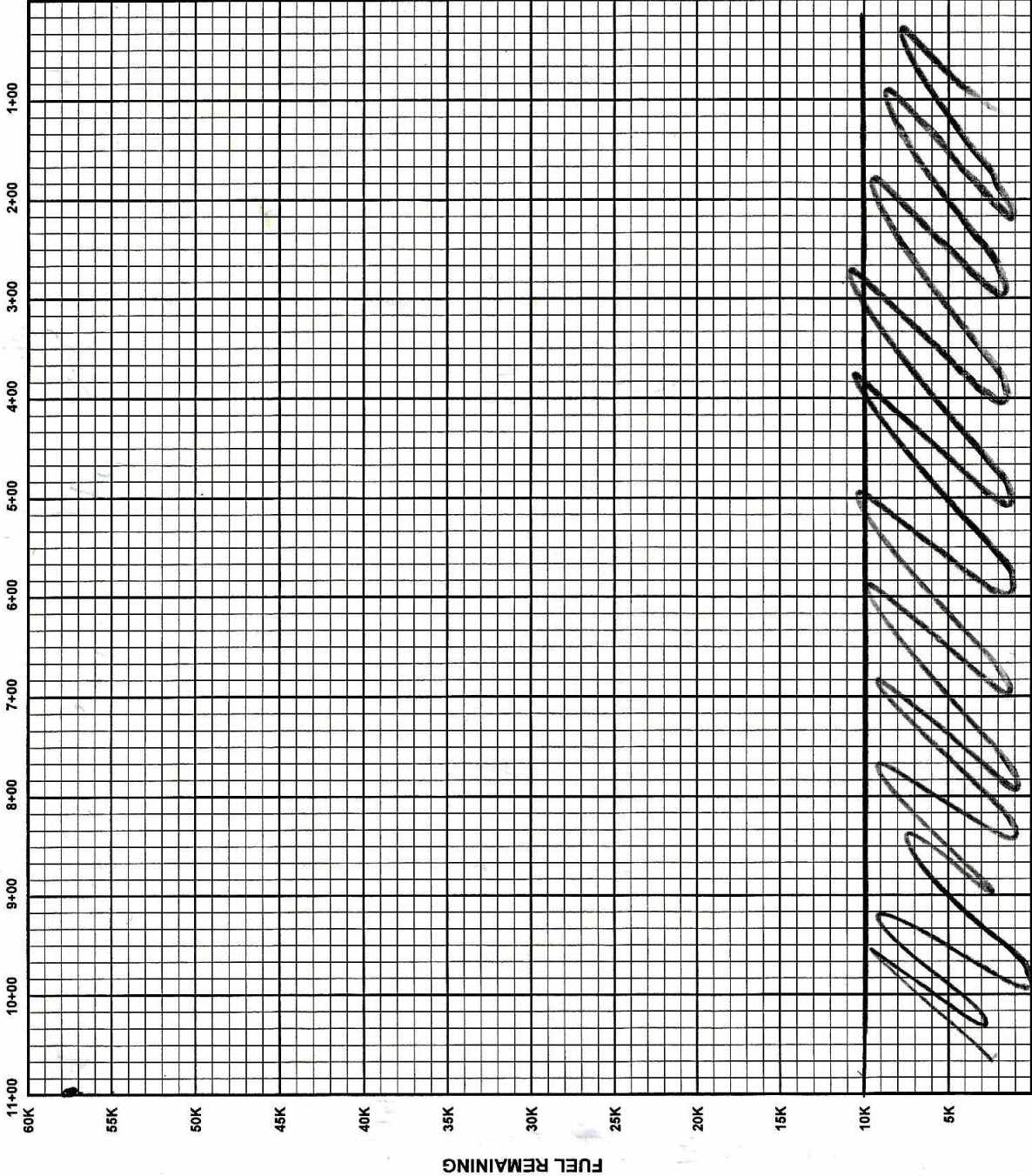
INS PERFORMANCE		INS 1	INS 2
BEGIN ALIGN TIME		1800	1800
ALIGN STATUS (0-5)		0	0
END NAV TIME		0400	0400
START NAV TIME		1830	1830
DELTA T		10	10

TERMINAL ERRORS		INS 1	INS 2
DELTA LAT	-4	+8.5	
DELTA LON	+1.6	-7.2	
RGS	7	7	
RADIAL ERROR	2	10.	

[illegible]

RANGE CONTROL GRAPH

TIME REMAINING



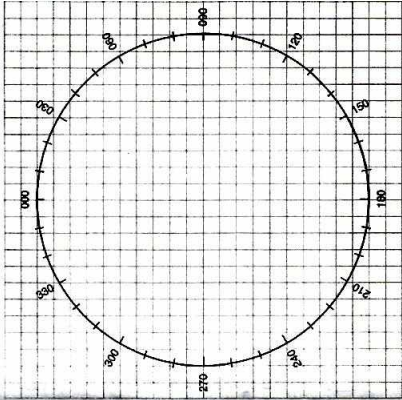
ENROUTE FUEL	
ENROUTE TIME	
ENROUTE FUEL (6K 5K 4.5K RULE)	
RESERVE AT DESTINATION	
REQUIRED RAMP	
ACTUAL RAMP FUEL	58.3

TACTICAL (OFFSTA TO DESTINATION)	
DISTANCE (OFFSTA TO DEST)	
ENROUTE TIME (OFFSTA TO DEST)	
BURN RATE (LBS/HR)	4500
ENROUTE FUEL REQUIRED	5500
RESERVE AT DESTINATION	
FUEL AT OFFSTA	

POINT OF SAFE RETURN	
ETP DISTANCE (TO DEPARTURE)	
ENROUTE TIME (TO DEPARTURE)	
BURN RATE (LBS/HR)	4500
FUEL REQUIRED	5500
RESERVE AT DEPARTURE	
PSR FUEL	

CEX - TRUE BEARING METHOD				CEX SIGHT	
COMPASS TYPE	INS1	INS2	WET	GMT	
MCH (READING)				GHA	
- MTH (SEXTANT)				CORR	
CE				GHA	
- VAR				LONG +W -E	
DEV				EXACT LHA	
				LAT	
				BODY	
				DEC	
				HC/D	
				CORR	
				HC	
				Z	
				ZN	

CEX - ERB METHOD			
COMPASS TYPE	INS1	INS2	WET
MERB (DIAL 000)			
+ ZN			
= MTH			
MCH (READING)			
CE			
- VAR			
= DEV			



WIND FACTOR			
WINDSPEED	HEADWIND	TAILWIND	
10	1.03	.97	
20	1.06	.94	
30	1.10	.92	
40	1.14	.89	
50	1.18	.87	
60	1.22	.85	

PRESS ALT		200	250	300	350
10,000	1.0	.99	.99	.99	.99
20,000	.99	.98	.97	.97	.97
30,000	.97	.96	.95	.94	.94
40,000	.96	.94	.92	.90	.90

TRUE AIRSPEED CROSS-CHECK						
TIME	IAS	PRESS ALT	"F" FACTOR	EAS	OAT	TAS

DISTANCE REMAINING

ETP = .5(TOTAL DISTANCE x OUTBOUND WIND FACTOR)

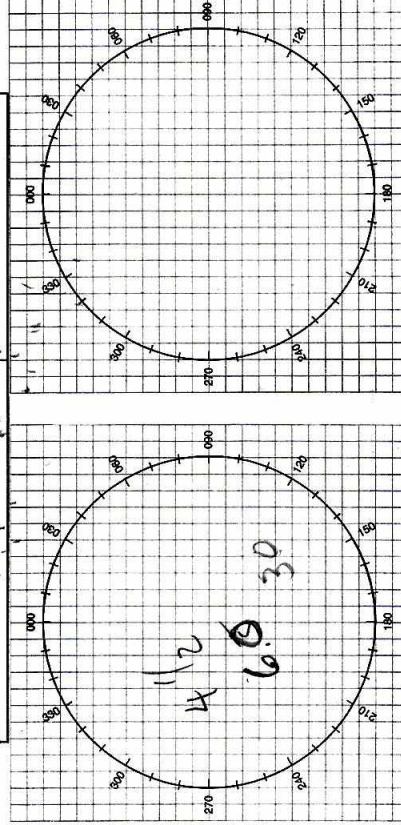
CLEARANCES

FREQ	ALT	HDG	OTHER
			APRIS 29 ⁰⁶ /f
			Rwy 4 - 29/21
			D
		-	RT 080 1600
			119.9 1457
			1300 Rwy 4

MISSION LOG

PAGE OF

POSITION REPORT

[illegible]

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.**

- 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
- WE HAVE _____ ENDURANCE REMAINING

[illegible]

53 5275