FLT ID: I950829	FM: TBPB	TO: ~~TPA~~ TISX
FLT NO: 95-060	BLK IN: 0624	ATA: 0619Z
ETD: 2100Z	BLK OUT: 2050Z	ATD: 2059Z
ETE:	BLK TIME: 9.34	FLT TIME: 9:20
SPONSOR ORG: HRD	PROGRAM: HRCN. RESEARCH	PURPOSE: ~~VME~~ on V. H. IRIS

OAO PERSONNEL

AC	KENNEDY	SYS ENG	
CP	PLAYER	DATA SYS	LYNCH
NAV	KOZAK	RADAR	
FE	MOORE / BAST	BT/ODW	McMILLAN
RADIO	SANS. SOUCY	CLD PHYS	RADAS-BERGNES
FD	DAMIANO	DOPPLER	

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
CLOSSER	MECH	AOC
MCFADDEN	??	AOC
MARKS	HRD	
FRANKLIN		
GRIFFIN		
KAPLAN		
LEIGHTON		

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

220920 just abv cld

2321Z NM2RF MV
23°24'
6209'

00532
23°30'
62°06'

2335Z
23°29'
62°10'

0138Z
23°32'
62°03'

2322Z ~~NM2RF~~
23°35'
6207'

0137Z
23°36'
62°02'

02162
23°37'
6207'

0350Z
23°39'
6153'

AF fix
2315Z
23°23'
62°07'
76 KTS
976 SONDE

0206Z
23°35'
62°02'

0302Z
23°38'
61°58'

NM2RF
0433Z
2341
6156
978 mb

23°31' 0057Z
62°02'
75 KTS W
971 EXTRAP

23232 LIGHTNING STRIKE A/C

0045Z DN2 out

0050Z BAL DN1
0130Z

OVER

5

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

FLT ID: I950829 TIME OFF: 2059Z TIME ON: 0619Z

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	1006.0		1010.5	

	NO	DATA DISPOSITION/DATE/QUALITY
1/SEC FLT LVL TAPES	1	
FAST FLT LVL TAPES		
RADAR TAPES	2	
DOPPLER TAPES		
ODW CASSETTES	9	
HARD COPIES		
PMS	2	
AXBT		
AXCP		
ODW	22	

PHOTOGRAPHY

	FWD	LS	RS	VERT	
ON					
OFF					
RATE					

REMARKS Took a hit from lightning during first penetration of the storm. Decided to be at 14K feet ~~when~~ for following penetrations.

N43RF flt 0437Z
23°42',
61°55'
9

NOAA • AOC• SED Flight Performance Log

Aircraft : N43RF Project: Hurricane '95 Mission : IRIS

SED Crew: Lynch, Pradas, McMillian Flight ID : 950829I

Pre-Flight: 18:24 Take-Off: 2050 Landing: 06:19

	System			Pre-Flight	In-Flight	Post-Flight		
NAV	INE #1 18:24	Aligned to :	5	✓ TL		+.4	+5.2	2
	INE #2 18:24	Aligned to :	9	✓ TL		+5.2	+.2	9
	GPS 18:24			✓ TL		Lat	Long	GS
RADAR	Nose			✓ TL				
	L/F	R/T SN :	103	✓ TL		Mod Switch Off ? ✓		
	Tail	R&T SN :	202/201	✓ TL		Mod Switch Off ? ✓		
	ASAU's & RCU			✓ TL				
	MARS Data System			✓ TL		# DATs : 2		
PMS	2DG-C	Ch 1/64:	/	✓ STM				
	2DG-P	Ch 1/64:	/	✓ STM				
	FSSP	Ref VDC:	8.4	✓ STM				
	SEA Data System			✓ STM		# DATs : 2		
		Cal High	Cal Low			Cal High	Cal Low	
TEMP	Temp #1	30.7	-30.2	✓ TL		30.7	-30.2	
	Temp #2			✓ TL				
	Temp #3 (Starboard)			✓ TL				
	Dewpoint #1			✓ TL				
	Dewpoint #2			✓ TL				
PRESS	Attack Angle (AP/DAP)			✓ TL				
	Slip Angle (BP/DBP)			✓ TL				
	Differential (PQ1/PQ2/PQ3)			✓ TL				
	Absolute (PS1/PS2)			✓ TL				
	Radome Transducers			Plugs Out? ✓ TL				
	Cabin Transducer (Station 5)			✓ TL				
FLT LVL	Apn-159	SN:	660-021	✓ TL				
	Apn-232	SN:	1699	✓ JC/B				
	King Liquid Water			NI				
	J&W Liquid Water			✓ STM				
	Down PRT-5 (SST)			✓ TL				
	Side PRT-5 (CO^2)			✓ TL				
	RAMS Data System			✓ JCPB		# DATs : 1		
MISC	ASDL			✓ JCPB				
	Exterior Walk Around			✓ STM				STM
	Video	(N) (L) (R) D		✓ JCPB	(2) (A)			
	AXBT	0	# on Board	NU	# Dropped: —	# Good —		
	ODW	39	# on Board : STM (1)		# Dropped : 22	# Good : 17?		
	FCU	A-B-C-D		✓ STM				
USER	Charge Probe			NU		Accelerometers		
	Formvar			NU		#1 (2 G) : 8150		
	Field Mills	(L) (R) (U) (D)		✓ TL		#2 (2.5 G) : 6684		
	Lawrence Water Collector			NI		#3 (3 G) : 5967		
	HRD Workstation			???		#4 (3.5 G) : 2892		

Please Note any Discrepencies

Item #				
*		OH 28 Aug - Rotated Precip probe to Standard orientation. It had been Horiz - moved to Vert	TL	—
(1)		Output of TI-700 - Sta 5 Master is poor. Light Quality - check printhead.	TL	—
(2)		Left side VCR NO TIME BAR DISPLAY	TC	—
(3)		Swapped TI-700 Sta 5 Master with Sta 5 Slave	TL	—
(4)		Warning #6 on Left VCR - about 10 seconds after turning power on	TL	—
(5)		TI-700 @ Sta 4 need ldp	TC	—

H. IRIS VME

FLIGHT #03 I950829

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	CO3958.CON

Notes:

There were no time/data gaps.

Dewpoint temperature #1, DW1, behaved erratically throughout the flight especially during the time frame, 0420Z - 0455Z. Values from DW2 were substituted for DW1 during this period. The DW1 instrument was balanced during the following time frames:

0048Z - 0053Z
0128Z - 0131Z

The erroneous values generated by this activity were removed and patched.

Total temperature #1, TT1, iced up during the frame 2322Z - 2326Z. The erroneous values were removed and patched.

Downward spikes in radar altimeter output are a result of overflying land.

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.

	Takeoff	Landing
Aircraft static pressure	1006.0mb	1010.5mb
Corrected tower pressure	1006.3mb	1010.0mb

Flight Meteorologist: A. Barry Damiano, (813) 828-3310 ext. 3073

I 950829

NO DATA GAPS

RENAU INEI
212200, -.3, .5
222200, -1.2, -.2
232200, -2.5, 1.1
002200, -2.7, 1.1
012200, -3.9, 1.1
022200, -3.3, 3.8
032200, -2.8, 3.4
042200, -3.3, 4.4
052200, -1.9, 4.5
062100, .4, 5.2

PSF + PSW check + other variables experienced a dropout

021130

DAP OK

~~2324~~, ~~0[illegible]0~~, 0122-0132, 0140, ~~0210-0213~~, ~~0250~~, ~~0335~~-0392, ~~0409~~, 0458-0502, 0506-0517, 0530-0558, 0549, 0553-0605

TF1 fix with TF3
2322-2326

TF1 ~~2354 002100~~, ~~0313~~, ~~0[illegible]~~ 0457-0517

DW1

BAL 0048-0053
11-38
PATCH 0.15

0128-0131
23-38

DW1 = DW2
0420-045500

OK

BPF 001330, 0129, 0139, 0152, 0223, 0309, 0347, 0403,

BPR 011830 ICED UP

RA159 = RA132
2058-2101
061830-0622

2235-2242 GPS RA check

W2 check
2316-2326

OAA FORM 59-4
(-72)

I950829

TIME	LAT	LON	TRK	HD	WD	WS	PA	GA	TA	TD	SP	PS			PQ
210000	1305	5926	74	80	151	10	4778	5114	24.4	20.6	1014.1	945.6	CLR		57.2
211900	1406	6001	334	337	114	9	4789	5079	.2	-7.4	1009.1	553.2	CLR		57.2
213000	1449	6024	335	337	119	9	5513	5844	-2.9	-17.4	1005.5	504.2	CLR		77.0
215400	1629	6127	333	333	225	5	5510	5795	-3.1	-17.6	1005.5	504.4	CLR		76.4
220700	1727	6151	352	350	261	12	5511	5843	-3.3	-16.4	1006.8	504.5	CLR		78.2
222100	1836	6201	350	348	244	17	5507	5837	-3.9	-12.3	1007.9	504.4	CLD	BLW	80.0
224208	2022	6210	359	357	244	31	5506	5821	-4.0	-17.0	1007.1	504.6	Good	ODW	79.1
225430	2123	6209	0	335	253	34	5505	5806	-4.3	-11.3	1005.6	504.8	Good	ODW	
230900	2233	6205	9	359	267	57	5516	5769	-2.5	-5.3	994.4	503.9	R	OD	72.2
233235	2402	6224	221	221	60	30							Good	ODW	
234522	2311	6300	92	85	342	42			-2.1	-6.3		504.1		ODW	
235100	2311	6231	82	74	326	44	5512	5740	.8	-6.4	984	504			69.6
000539	2318	6110	129	142	210	52	5522	5781	-3.2	-4.5	996.4	503.5	Good	ODW	67.5
001748	2250	6023	129	138	211	38	5524	5824	-4.1	-8.5	1003.6	503.3	Good	ODW	69.4
003153	2217	5933	0	356	220	37	5523	5843	-3.9	-21.1	1006.9	503.4	Good	ODW	67.8
005320	2405	5934	0	2	176	27	5522	5840	-4.6	-12.8	1007.7	503.6			64.5
010327	2451	5940	241	237	162	27	5522	5841	-4.3	-8.5	1006.4	503.6	Good	ODW	70.4
011635	2421	6035	240	239	147	33	5522	5823	-3.5	-10.6	1002.9	503.9	Good	ODW	66.2
015350	2258	6246	104	99	100	100	4291	4470	4.8	3.9	998.5	593.5	Good	ODW	74.7
020653	2259	6139	329	320	271	56	4290	4432	7.5				Good	ODW	
023056	2434	6220	8	17	82	37	4273	4466	4.4	1.7	1001.8	595	Good	ODW	76.0
024237	2523	6213	7	14	76	29	6109	6457	-7.2	-16.3	1002.2	465	Good	ODW	71.5
025347	2606	6216	242	242	70	20	6109	6469	-5.5	-21.9	999.9	465	BAD	ODW	72.4
025941	2552	6245	241	243	51	22	6109	6466	-5.7	-21.4	1000.1	465	Good	ODW	75.3
031500	2513	6404	241	245	22	24	6108	6471	-6.5	-21.7	1002.9	465			73.1
032343	2449	6438	116	112	6	28	6107	6466	-7.4	-22.5	1005.6	465	Good	ODW	73.6
033524	2424	6340	115	110	9	32	6106	6450	-6.3	-21.3	1000.9	465	Good	ODW	73.9
041149	2325	6100	347	341	208	47	4302	4461	3.9	4.4	997.2	594	BAD	ODW	80.5
042805	2414	6133	215	207	131	48	4264	4420	4.6	7.2	992.8	594	Good	ODW	74.0
044842	2256	6228	248	259	311	50	5449	5720	-3.0	—	990.9	503.6	Good	ODW	58.9
050236	2238	6328	250	256	305	27	6406	6766	-9.0	-20.2	1001.7	446.1	Good	ODW	67.6
051400	2220	6427	253	256	288	15	6406	6777	-8.4	-20.0	1002.9	446.1	Good	ODW	77.5
054200	2011	6442	181	185	270	18	6405	6787	-9.2	-23.6	1005.4	446.3			76.6

☆U.S. GOVERNMENT PRINTING OFFICE: 1980—765-013

DATE : 8/29/95

TO : Chief, AOC Flight Operations

FROM : Pilot/Flight Director, Aircraft N43RF ON 0624Z BLOCKTIME OFF 2050Z 9:34

SUBJECT: Hazardous Duty

PURPOSE OF FLIGHT: ~~HR~~ HURRICANE RESEARCH IN H. IRIS

Hazardous Duty Pay is required for flight made on 8/29/95 (DATE)

Request based on FLYING INTO H. IRIS

Personnel on board authorized Hazard Pay:

BAST	
MOORE	
DAMIANO	
LYNCH	
SANS SOUCI	
McMILLAN	
PRADAS-BERGNES	
CLOSSER	
McFADDEN	

PILOT/FLIGHT DIRECTOR: Al Barry Damiano

APPROVED: _____ DISAPPROVED: _____

CHIEF, AOC FLIGHT OPERATIONS: _____

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Rockville, MD 20852-3019

OFFICE OF NOAA CORPS OPERATIONS
Aircraft Operations Center
P.O. Box 6829
Tampa, Florida 33608-0829

MEMORANDUM FOR: DR. HUGH WILLOUGHBY, ACTING DIR. HRD

FROM: CAPT George C. Player III, NOAA
Acting Director, Aircraft Operations Center

SUBJECT: Hazard Duty Flight

The mission flown on AOC aircraft # N43RF on 8/29/95 has been declared hazardous. The following personnel from you laboratory participated in this mission.

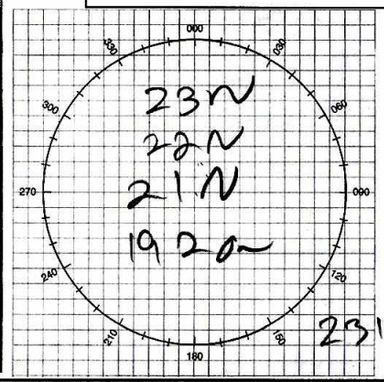
MARKS KAPLAN
FRANKLIN LEIGHTON
GRIFFIN

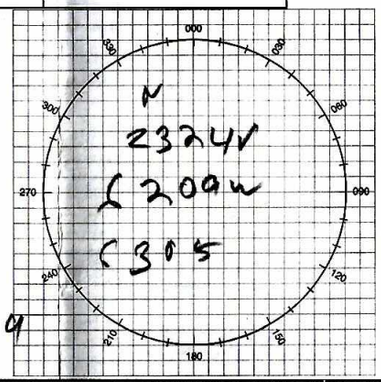
For purposes of computing allowable hazard duty time, the hazard period during this mission was from 5 pm local time on 8/29/95 until 2:30 AM on 8/30/95.

0216 2337 6207 2325 6209 0206 2335 6202

CLEARANCES			
FREQ	ALT	HDG	OTHER
			CON A032 RON
			FL18,000
2312N			21457
0620N			
			2300N 6210
			2350

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	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 _____, 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

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
2046	Vis	1304.6N 5929.5W	✓		✓																CHOPS END
2150																					TAXI
2058																					TOFF RUNDOWN
2130	GPS	1446.1N 6002.4W	1446.6N 6001.6W	-.8 +.8	1446.7N 6002.0W	-.7 +.4			335	2L	333	298	116	8	16K	292	214				LEVEL OFF
2207	GPS	1729.8N 6151.3W	1731.2N 6150.8W	-1.4 +.5	1730.4N 6151.5W	+.6 -.2			351	6	351	297	240	9	18K	294	TAP	9	2055		FM 1
2242	GPS	2021.9N 6209.6W	2023.3N 6209.6W	-1.4 0	2022.3N 6210.5W	-1.4 -.9			356	5R	001	287	243	20	18K	295					SAND DROP
2322	GPS	2335.0 6156.2	2337.5N 6155.4W	-2.5 +.2	2337.1N 6156.8W	-2.1 -.6			000	0	005	286	152	16	18K	275					OFF ICE
0023	GPS	2233.1N 6003.7W	2234.6N 6002.8W	-1.5 +.39	2236.6N 6003.4W	-3.5 -.3			138	9L	129	272	220	40	18K	273					
0103	GPS	2451.1N 5939.1W	2454.8N 5936.6W	-3.7 +2.5	2455.4N 5939.6W	-4.3 -.5			236	4R	240	274	187	32	18K	287					SAND DROP
0137	GPS	2336.3N 6201.1W	2339.2N 6201.9W	-2.9 +.9	2339.5N 6203.3W	-3.2 -1.2															OFF ICE
0214	GPS	2327.2N 6205.1W	2330.0N 6210W	-2.8 +3.5	2331.0N 6203.8W	-3.8 +2.0															OFF ICE
0300	GPS	2551.1N 6246.3W	2555.2N 6244.2W	-4.1 +2.1	2553.6N 6248.0W	-2.5 -1.7			240	2L	241	321	053	22	20K	300					SAND DROP
0355	GPS	2339.3N 6153W	2342.3N 6149.4W	-3.0 +3.6	2341.3N 6152.6W	-2.0 +.8									14K						OFF ICE
0457	GPS	2341.8N 6156.4	2344.4N 6157W	-2.6 -.4	2343.0N 6157.1W	-1.2 -.7															OFF ICE 6154.5W
0620																					CLEAR OF ICE
36 83	VIS	1742.0N 6447.5W	1741.6N 6448.3W	+.4 +.52	1736.8N 6447.3W	+5.2 +.2															

NOAA FORM 56-49
(2-95)

MISSION PREFLIGHT LOG

DESTINATION: Barbados COX | MISSION: 95-60 | NAVIGATOR: Kozuk | AIRCRAFT COMMANDER: Kennedy | FLIGHT DIRECTOR: Dominono | SCHEDULED / ACTUAL TAKEOFF Z: ~~2100Z~~ 2056 | DATE OF TAKEOFF: 29 Aug 95

AP- 456

WP	LAT / LON	RTE	MH	VAR +E==>	TH	DR +R==>	TRK	GS	WD	WS	ALT	TAS	LEG / TOT DIST	LEG / TOT TIME	PROP ETA	ETA	ATA	REMARKS
1	BARNO 1421N 6012W												87 87	+24 +24	2124	2124		
2	TASAR 1539N 6057W												89 176	+20 +44	2143			
3	MEDUS 1645N 6135W												75 251	+14 +58	2157			
4	DIRO 1709N 6147W												27 278	+06 1+04	2203			
5	2120N 6230W												255 533	+53 1+57	2250			
6	2400N 6234W																	
7																		

INS PERFORMANCE

	INS 1	INS 2
BEGIN ALIGN TIME	1715	1715
ALIGN STATUS (0-5)	5	0
END NAV TIME	0625	0625
START NAV TIME	2045	2045
DELTA T	9+40	9+40

TERMINAL ERRORS

	INS 1	INS 2
DELTA LAT	+.4	-5.2
DELTA LON	+5.2	+.2
RGS	2	9
RADIAL ERROR		

REMARKS

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
AIRCRAFT OPERATIONS CENTER