FLT ID: 980824 I	FM: KMCF	TO: KMCF
FLT NO:	BLK IN: 0329	ATA: 0320
ETD: 18Z	BLK OUT: 1757	ATD: 1825
ETE: 9	BLK TIME: 9:32 (9.5)	FLT TIME: 8:55 (8.9)
SPONSOR ORG: HRD	PROGRAM: Research	PURPOSE: Air-Sea Interaction

AOC PERSONNEL

AC Mckim ✓	SYS ENG Hodes ✓
CP Tennesen ✓ / Kenul ✓	DATA SYS Lynch ✓
NAV Kozak ✓	RADAR
FE Moore ✓	BT/ODW Smith ✓
RADIO Sans Souci ✓	~~CLD PHYS~~ Moran
FD Parrish ✓	~~DOPPLER~~ McFadden ✓

PARTICIPATING SCIENTIST/VISITORS/AOC

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
Black, P. ✓		
Dodge, P. ✓		
Camacho, J. ✓		
Walsh, E. ✓		
Wright, W. ✓		
Fm .7K SP 1013 Fm 2.5K	SP 1006.5 Fm 10K	
Fm 1K SP 1013.6 Fm 4K SP 1014 Fm 5K		

30/19 92 300/6 1012.5 32/21.8 1011.6 SP 1012.5 Fm .1K 30/10 SP 1013.4 SP 1013

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

Fly air/sea interaction OK. SK. Center EP 26.0N, 72.8W. NOAA3 WXOZA Bonnie ETA 2035Z

§ 26°24'N, 72°59'W 963 mb 2052Z

§ 2210Z 26°35'N, 72°55'W 962 mb

§ 2320Z 26°41'N, 72°59'W 961 mb

§ 0016Z 26°47'N, 73°02'W 962 mb

§ 0124Z 27°00'N, 73°06'W 962 mb

5 penetrations H.D.

ABD155 = ABD232+13

0114Z - 012800Z

980824I INE1 12EDAV

2000	0.0	0.4	27.8	19.8
2110	0.4	0.5	41.8	09.2
2200	0.4	0.2	02.8	25.7
2300	0.4	0.5	16.7	56.7
2330	0.6	0.1	22.8	55.2
0000	1.1	0.5	31.4	38.6
0040	0.5	0.4	46.0	29.4
0115	1.4	0.0	04.4	31.6
0200	0.7	0.6	00.4	50.3
0225	1.0	0.0	06.6	05.2
0300	1.5	0.6	40.6	23.3
0329	1.2	0.4	51.0	29.6

(12)

175401
~~175744~~ - 032900

start to 18262

- Patch ABD155 with ABD 232+13m between 0114Z + 01282, and with ABD 232+7 after ~~landing~~ 03227.

- TW1 unusable. TW2 needs patching end of flt.

* New start of data 175741Z

980824I

0922I

28I

HURRICANE BONNIE (AIR-SEA INTERACTION, MCF-MCF)

Flight 4 980824I N43RF

DATA TYPE	SENSOR or OPTION
INE	1
Accelerometer	1
Temperature Probe	1
Altitude (for vertical wind)	RA APN-159
Static Pressure	Fuselage
Dynamic Pressure	Fuselage
Dewpoint Probe	2

Notes:

Aircraft INE #1 positions were renavigated with respect to GPS.

APN-159 radar altimeter spikes before take off and after landing were removed and patched with APN-232 altitudes.

During significant periods following 0115Z, the APN-159 RA source failed. During these periods, it was replaced by APN 232 + 13m (the mean difference between the APN 159 and APN 232 sources noted before the failure period).

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	1011.8 mb	1010.7 mb
Corrected tower pressure	1012.5 mb	***** mb

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

NOAA FORM 59-4
(2-72)

NASA 817
205 2
806

980824I H. Bonnie Air-Sea Interaction

Time	LAT	LON	WD	WS	RA	GA	TA	TD	SP	AS	AD	
1757	2750.9	8229.5			12		32.9	19.3		1014.7		16LK$
1827	2753	8225	81	32	9	560	549	25.5	18.9	1013	435	29.9
183345	27565	8136	78	22	7.0	3603	3770	6.8	-1.4	1006.6	640	28.8
190430	28 00.3	A33.0	96	34	8.3	3979	4200	7.1	-24.3	1007.3	618.2	23.2
191930	2752	7821	97	37	18	4002	4213	5.1	-8.0	1007.3	616.6	24.4
1938	2741	7653	99	24	23	3998	4198	5.6	-7.9	1005.4	616.6	
194930	2733	7557	97	40	36.5	3784	3925	6.5	-1.0	1006	646	24.8
2009	2724	7449	100	64	65	1499	1490	19.9	12.1	1002	845.5	25.7
2018	2719.4	7421.6	99	64	75	1535	1500	18.8	17.0	994.2	842.5	23.6
2029	2713	7403	131	67	83	1595	1530	17.7	15.8	995.6	835	24.7
2052	2624	7259								968		
2121	2542.9	7146	1	193	84	1579	1515	18.3	17.4	995	837	—
2137	2706	7143	3	140	98	1581	1533	16.1	15.3	998.6	837	
214630	2740	7152	211	122	87	1538	1524	17.0	11.2	1001	834	NE
215930	27040	7225	220	135	99	1695	1534	17.5	17.3	984	825	—
2206	2647	7241	219	145	57	1811	1549	19.5	18.0	967	812.	
224030	2526	7406			2210	26	35	72	37	6	962	
2248	2511	7333	116	465	55	1659	1615	17.6	16.2	997.8	829.5	
225930	2515	7257	3	242	69	1657	1599	18.6	16.1	995.5	829	
231015	2600.8	7255.6	1	240	89	1057	1432	19.0	18.1	576	829	
2320	2641	7259						26	16	961		
2340	2846	7235	0	90	80	1557	1513	17.2	14.3	998	839	
235730	2736	7345	141	76	86	1602	1502	17.7	16.7	992	855	
0016	2647	7302						25	17	962		
0029	2647	7207	94	174	94	162	1514	18.0	16.6	990	835	
0043	2646	7119	90	155	83	1531	1517	17.2	15.5	1003	843	
00453	2647	7110	TURN	AT	PT	8						
0050	2708	7118	337	150	84	1509	1472	18.0	16.4	1001.4	841	
010515	2724	7202	227	133	105	1608	1524	17.4	16.2	992	853	
0113	2708	7226	234									
0124	27	7306						23	21	962		
013915	27	7414	269	22	74	1752	1626	17.5	16.1	988	819	
015030	2700	7504	271	359	52	3660	3750	8.7	2.5	994	644	
020215	2700	7602	271	4	35	5828	6120	-2.7	-31.7	993	483	
023345	2715	7852	282	341	12	5828	6177	-5.1	-16.9	1005.9	483.0	
024730	2729.7	8011.4	280	352	6	5827	6186	-5.0	-25.1	1006.4	483.0	
0329	2751	8229								1010		

Aircraft Operations Center
PO Box 6829
MacDill AFB, FL 33608-0829

Aug 31, 1998
~~March 16, 1996~~ ~~AOC1:sw~~

MEMORANDUM FOR: Same

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

SUBJECT: Hazard Duty Flight

The mission flown on AOC aircraft # N43RF on 24 Aug 98 has been declared hazardous. The following personnel from your laboratory participated in this mission.

Black, P.
Dodge, P.
Gamache, J.

For purpose of computing allowable hazard duty time, the hazard period during this mission was from 1357 local time on 24 Aug until 2329 on 24 Aug.

26 42
71 04 W

Fix 2 221025Z

[redacted] 26 38 [26 34] WS 3KTS
72 55 [72 52] HT850 1109M SP 962

ET 962

136 DEG 106 KTS 39°/270mi

17C/1671 TEAC 33

24C/1844 25 22

19C/25C 74 11 2347Z

Fix 3

0025 27 34 26 42
0030 24/231934Z 73 50 72 55

26 41 850 1106

72 59 961

244/88KTS. 180/34mi

19/1659

26/1836

16/24

2340
26 40
73 02 Tea 1
962 33

27 54 0016 26 47 68/101 KT 320/45mi Fix 4
71 41 73 02 962

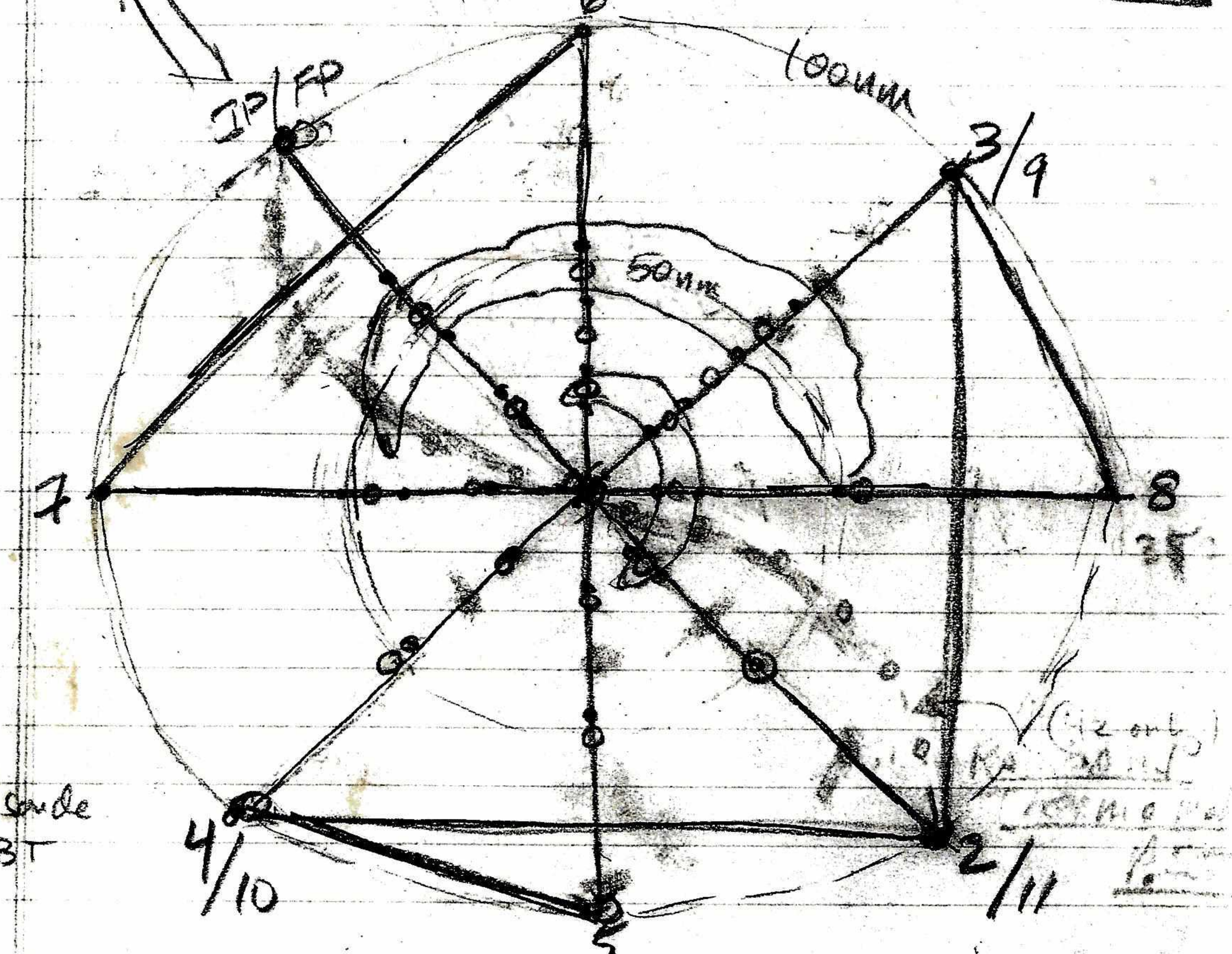
18/1648 26 43
73 59

0130 25/1824
ETA 17/22

26.0 72.8 0125Z

MODIFIED

Air-Sea Interaction - P46



• GPS sonde
O AXBT

N43RF flies same track as N42RF 10-15 min behind

N42RF 50 sondes / 21 AXBTs (external)
N43RF 25 sondes

Crews

N42RF (15000ft)		N43RF (5000ft)
M. Black	35 12 25.1	P. Black
Cione	20 44.5	Dodge
Leighton	72	Gamache
Marks		E. Walsh
~~[illegible]~~ Goldenberg		Ed's Engineer
Aberson		

0113
26 56
72 58
962
0:5/9
TEAL

FIX 5 0125
26 59
73 05W
962
146/120 71/50

0119Z
27
72 58

25/012337 27.0N 73°06'W
850 1101M SP962
146/120 71/50
19/1603
23/1764
21/24

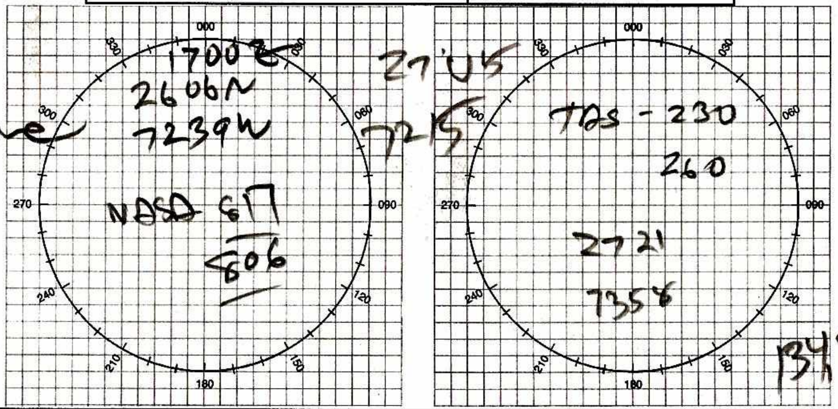
(2345) (3) 2735 7141 2515N 7141 21082 2132 12 2527 7122

MISSION LOG

PAGE ___ OF ___

CLEARANCES

FREQ	ALT	HDG	OTHER
			2035 ETA DD ∫
			1834 42 Arbue
26 38N			
7440W			+26
2			2015 2045



POSITION REPORT

1. POSITION 2722
2. TIME 7156
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 ______ 4 2522 N
- POSITION ______ N/S 7411 W
______ E/W AT ______Z
- HEADING ______ TRUE/MAG
- AT ______ KTS TRUE/INDICATED 5 2452
- FLIGHT LEVEL OR ALTITUDE ______
- WE ARE A P-3 AIRCRAFT WITH ______ SOULS ON BOARD 7254
- 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
1751	VIS	2251.0N 8229.5W	✓		✓																ENG /Chocks
1757		Taxi	RWAY	4	2092																
1825	TOFF MCF																				
1846	GPS	2804.3N 8055.9W	2804.5N 8055.4W	-.2 +.3	2804.7N 8055.9	-.4 0			087	0	087	256	333	5	13K	257					Level off
2012	GPS	2722.6N 7440.4W	2722.6N 7440.2W	0 -.4	2723.1N 7440.6W	-.5 -.2			091	7R	098	165	060	65	5K	222					[illegible]
2052	GPS	2624.5N 7250.1W	2624.3N 7250.8W	+.2 +.3	2624.7N 7250.7W	-.2 +.4									5K						∫ Bunnm
2210	GPS	2633.4N 7253.9	2632.8 7252.8	+.6 +.1	2633.7N 7252.6W	-.3 -.3									5K						∫ Bunnip
2320	GPS	2642.3N 7254.8W	2642.1N 7254.7W	+.2 +.1	2642.9N 7255.3W	-.6 -.5									5K						∫ Bunnip
0016	GPS	2649.5N 7300.0W	2648.6N 7259.7W	+.9 +.3	2648.8N 7300.5W	+.7 -.5									5K						∫ Bunnip
0124	GPS	2700.4N 7305.7W	2658.6N 7305.3W	+1.4 +.4	2658.8N 7305.4W	N +.1									5K						∫ Bunni
0212	GPS	2701.2N 7655.5W	2700.4N 7655.3W	+.8 +.2	2700.0N 7656.5W	+1.6 -1.0			277	7L	274	294	067	28	19K	291					Off SD
0320		Land	MCF																		
0329	VIS	2751.0N 8229.5W	2749.6N 8229.2W	+1.2 +.3	2749.4N 8231.0W	+1.6 -1.5															Chocks

962 f
2641N 7259W
60

2+10 2025 2020 14 2154 2700N 7258W 961

NOAA FORM 56-49
(2-95)

MISSION PREFLIGHT LOG

DESTINATION	MISSION	NAVIGATOR	AIRCRAFT COMMANDER	FLIGHT DIRECTOR	SCHEDULED / ACTUAL TAKEOFF Z	DATE OF TAKEOFF
MCF→MCF	98-011	Kozak	Parrish	Dinckin	1800 / 1825	980824

30 19
2992

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
	2759.1N 8200.8W	LAL											27 27					
1 2	2806.3N 8038.1W	MEL											73 100					
3	2710.0N 7407.0W	IP											351 451					

INS PERFORMANCE

	INS 1	INS 2
BEGIN ALIGN TIME	1530	1530
ALIGN STATUS (0-5)	0	0
END NAV TIME	0330	0330
START NAV TIME	1751	1751
DELTA T	9+39	9+39

TERMINAL ERRORS

	INS 1	INS 2
DELTA LAT	+1.2	+1.6
DELTA LON	+.3	-1.5
RGS	1	1
RADIAL ERROR	2	2

REMARKS

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