

Flt ID: <i>I020921</i>	From: <i>KMCF</i>	To: <i>KMCF</i>
Flt No.: <i>02-34</i>	Blk In: <i>0210Z</i>	ATA: <i>0201Z</i>
ETD: <i>1700Z</i>	Blk Out: <i>1650Z</i>	ATD: <i>1702Z</i>
ETE:	Blk Time: <i>9:20 (9.3)</i>	Flt Time: <i>8:59 (9.0)</i>
Sponsor Org: <i>HRD</i>	Program: <i>HURRICANE RESEARCH</i>	Purpose: <i>HAIRPIN FOR H. ISIDORE</i>

AOC Personnel

AC: <i>TENNESEN</i> ✓	Sys Eng: <i>SMITH</i> ✓
CP: <i>HALVERSON / SELAH</i> ✓	Data Sys: <i>LYNCH</i> ✓
Nav: <i>ADLER</i> ✓	Radar:
FE: <i>FLOYD</i> ✓ <i>CURRY</i>	GPS/BT: <i>TONG</i> ✓
Avionics: <i>SANS SOUCI</i> ✓	Cid Phys:
FD: <i>DAMIANO</i> ✓	

Participating Scientists/Visitors/AOC

Name (Last, First)	Activity on Aircraft	Affiliation
<i>BLACK, P.</i> ✓	<i>PI</i>	<i>HRD</i>
<i>SHAY, L. (NICK)</i> ✓	<i>PI</i>	<i>RSMA5</i>
<i>COOK, T.</i> ✓	<i>AXBT</i>	<i>S</i>
<i>GUHIN, S.</i> ✓	<i>AXBT</i>	<i>S</i>
<i>WALSH, E.</i> ✓	<i>SAR</i>	<i>NASA</i>
<i>STEADLEY, S. (CDR)</i> ✓	<i>OBS</i>	NAVY <i>NAVY</i>
BOONE, J.	HAPS	<i>HRD</i>
<i>DODGE, P.</i> ✓	<i>HAPS</i>	<i>HRD</i>
<i>MATISOV, P.</i> ✓	<i>High speed video</i>	<i>SCRIPPS</i>

Proposed/Actual Mission/Remarks (Recco, Fixes, Storm, PENET, NHOP #)

NO KLV

<i>1852Z</i>	<i>1957Z</i>	<i>2138Z</i>	<i>0028Z</i>	<i>0054Z</i>	<i>20 AXBT</i>
<i>2158</i>	<i>2159</i>	<i>2205</i>	<i>2208</i>	<i>RA159</i>	<i>42 CP/CTD</i>
<i>86007</i>	<i>8608</i>	<i>8614</i>	<i>8634</i>	<i>jump</i>	<i>TEAL 22</i>
<i>947MB</i>	<i>946MB</i>	<i>946MB</i>	<i>947MB</i>		<i>(TEAL 74 J High plane)</i>

4 penetrations

U.S. Dept. of Commerce/NOAA/Aircraft Operations Center

ACCWF2

Flt ID: *7020921*

Time Off: *1702Z*

Time On: *0201Z*

	A/C (Take Off)	Wx Stn (Take Off)	A/C (Land)	Wx Stn (Land)
Pressure	<i>1010.5</i>	<i>29.85 / 1010.4</i>	<i>1010.3</i>	<i>29.85 / 1010.4</i>

	Number	Data Disposition/Date/Quality
Slow/Fast Flt Lvl Tapes		
Radar Tapes	<i>1</i>	
Cloud Physics Tapes		
Video Tapes	<i>3</i>	
AXBT	<i>20</i>	
AXCP	<i>30</i>	
AXCTD	<i>14</i>	
Dropsondes	<i>22</i>	<i>20 messages sent ; 1 fast fall</i>

Video

	Forward	Left Side	Right Side	Down	Remarks
Time On					
Time Off					
Rate					

Remarks

N43RF Analog Source & ADC Channel Assignments

Hurricane '02

14 September 02

Comment: Edit this master version for a specific project and then save it under a new filename. This master version is write protected.

Analog Source	Instrument	ADC Input	KCON	Analog Source	Instrument	ADC Input	KCON
00	J-W Liquid Water	00	251	48	AXBT Channel #1	48	299
01	Total Temperature #1	01	252	49	AXBT Channel #2	49	300
02	Total Temperature #2	02	253	50	AXBT Channel #3	50	301
03	Dewpoint #1 - General Eastern	03	254			51	302
05	Attack Pressure (AP)	04	255			52	303
06	Dynamic Attack Pressure (DAP)	05	256			53	304
07	Sideslip Pressure (BP)	06	257			54	305
08	Dynamic Sideslip Pressure (DBP)	07	258			55	306
15	PS1 - Wingtip Rosemount 1281	08	259			56	307
04	PQ1 - Wingtip Rosemount 1281	09	260			57	308
10	Down PRT-5 Radiometer (SST)	10	261			58	309
		11	262			59	310
09	Side PRT-5 Radiometer (CO2)	12	263			60	311
		13	264			61	312
12	Vertical Accelerometer #2	14	265			62	313
11	Vertical Accelerometer #1	15	266			63	314
16	Radome Attack Pressure	16	267	64	SFMR Brightness - B3 4.55 GHz	64	315
17	Radome Sideslip Pressure	17	268	65	SFMR Brightness - B5 5.64 GHz	65	316
18	PQ4 - Radome Diff Pressure	18	269	66	SFMR Brightness - B7 6.96 GHz	66	317
19	Radome Impact Pressure	19	270	67	SFMR Brightness - B8 7.22 GHz	67	318
20	Total Temp #3 (Starboard)	20	271	68	SFMR Brightness - B6 6.34 GHz	68	319
		21	272	69	SFMR Brightness - B4 5.06 GHz	69	320
		22	273	70	SFMR Temp - T8 Rcvr Noise Src	70	321
		23	274	71	SFMR Temp - T7 Rcvr Ref Load	71	322
24	Dewpoint #2 - EdgeTech 137	24	275	72	SFMR Temp - T6 Antenna Left	72	323
		25	276	73	SFMR Temp - T5 Antenna Right	73	324
26	AIR Lyman α Hygrometer	26	277			74	325
27	Dewpoint #3 - Buck 1011C	27	278			75	326
28	Dewpoint #3 Balance (0-10 VDC)	28	279			76	327
		29	280			77	328
		30	281			78	329
31	King Liquid Water	31	282			79	330
32	PS2 - CoPilot Rosemount 1281	32	283	12	Heading - T5(41)	00	
33	PQ2 - CoPilot Rosemount 1281	33	284	10	Roll - T5(43)	01	
34	PQ3 - CoPilot Rosemount 1221F	34	285	02	True Airspeed - T5(102)	02	
35	TT1 Heater Current	35	286	9	Pitch - T5(42)	03	
36	TT2 Heater Current	36	287	0	Dewpoint - T5(51)	04	
		37	288			05	
		38	289			06	
		39	290			07	
		40	291			08	
		41	292			09	
		42	293			10	
		43	294			11	
		44	295			12	
		45	296			13	
		46	297		Note : DAF 00, 01, 03 & 04	14	
47	Cabin Pressure Rmnt 1201F	47	298		are +/- 5 VDC	15	

DAC

DAF

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NOAA P-3 N43RF
Hurricane Research
H ISIDORE IN STORM SURVEY



Flight ID: I020921

Sensor or system

INE
Accelerometer
Temperature Probe
Dew Point Probe
Altitude (for vertical wind)
Static Pressure
Dynamic Pressure
Time Source
Constants File

Number or Name

2
2
1
3 (Buck Research)
Radar Altitude (RA-159)
Rosemount Fuselage
Rosemount Fuselage
Micro 99
CO3022.CON

Notes:

There were no time/data gaps.

The radar altimeter 159, RA159, had a spikes during the following time frames: 2135Z - 2138Z, 2353Z - 2355Z and 0052Z - 0058Z. These spikes were removed and patched over using the RA232 (radar altimeter 232) and pressure altitude as references.

The King liquid water probe was not operating for the entire mission.

All other instruments worked optimally during the flight.

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	1010.5 mb	1010.3 mb
Corrected Tower Pressure	1010.4 mb	1010.4 mb
Flight Director:	A. Barry Damiano	(813) 828-3310 ext. 3073

U.S. Department of Commerce/NOAA/National Oceanic and Atmospheric Administration															Form 1
Time	Lat	Long	Trk	Hdg	Wind Dir	Wind Spd	T _s	T _a	Press. Alt.	Geo. Alt.	Slc Press.	Press. Slc	Dyn. Press	Remarks	
171300	2727	8231	212	209	101	16	15.1	8.7	2147	2241	1009.2	779.3	90.7	SET CLD	
172800	2622	8253	197	193	126	21	14.6	10.7	2039	2127	1011.2	792.3	102.4	SET CLD	
175605	2426	8331			122	32					1007.8			BT ¹⁶	
180103	2410	8344			139	32					1005.9			BT ¹²	
180604	2354	8355			155	36					1004.6			BT ¹⁶	
181107	2338	8407			151	42					1004.0			BT ¹²	
181609	2323	8419			152	38					1002.0			BT ¹⁶	
182048	2308	8431			156	37			1524	1501	1000.7	843.1		BT ¹²	
182448	2256	8441												SONDE / CP	
183000	2246	8459												CTD ¹²	
183500	2237	8516			147	51			1573	1516	996.10			CP ¹⁴	
184002	2227	8535			140	65			1602	1504	991.2			CTD ¹²	
184502	2216	8550												SONDE / CP	
185005	2203	8605			100	59								DCP ¹²	
185349	2148	8609			785	100			1919		962.2			SONDE	
185737	2125	8609												SONDE	
190740	Start leg				253	45			427	363	963.3				
191840	end leg														
192601	2003	8609												SONDE / CP	
192621	2004	8609			268	37			1538	1509	999.9			SONDE	
193105	2022	8609												CTD ¹²	
193617	2041	8609												CP ¹⁴	
194111	2059	8609			261	54			1575	1509	994.9			CTD / SONDE	
194623	2119	8609			260	66			1635	1516	989.7			CP ¹⁴	
195120	2138	8609			275	89				1579	976.5			CP ¹²	
195328	2146	8609												CP ¹² / SONDE	
195359	2147	8609			276	102				1604	960.2			SONDE	
195702	2159	8608												CP / EVE	
200037	2213	8608			96	97			1534					SONDE (12)	
200242	2221	8608												CP ¹²	
200737	2240	8608												CP (12)	
201228	2259	8608			98	58					993.7			SONDE / CP	
201734	2318	8607			102	51								CP	
202237	2337	8607			100	45								CP	
203024	2401	8612			102	39					1000.1			SONDE / CP ¹⁶	
203612	2348	8634												CP ¹²	
203756	2344	8640			88	43					998.9			BT ¹⁴	

Time	Lat	Long	Trk	Hdg	Wind Dir	Wind Spd	T _a	T _s	Press. AL	Geo. AL	Sic Press.	Press. Sic	Dyn. Press	Remarks
204356	2338	8703												BT (2)
204903	2319	8723			39	33								BT 14
205407	2307	8741			40	35				304	998.9			BT 12
205530	end	1 K	leg											
210038	2252	8759			23	39					998.6			(32) SONDE/CP 16
210519	2244	8743			26	40					997.3			CP 12
211004	2236	8727			20	41					995.3			CP
211518	2228	8709			28	50				1469	993.6			CTD 12/34 SONDE
212029	2220	8651			34	69				1565	987.7			CP
212512	2212	8635												SONDE CP
212512	22	86												SONDE
212812	2207	8624												BT
212840	2207	8622			EYE WALL NW									SONDE (32)
214022	2202	8605			201	93								SONDE
214104	2200	8602			205	93								SONDE
214130	2159	8601			202	98								SONDE
214559	2150	8547												CP 12
214902	2144	8537			204	73					990.1			CP 14
215433	2132	8519			202	54					994.9			SONDE/CTD
215948	2122	8500												CP
210501	2112	8443			198	39								CTD 12
211013	2103	8426			190	50					1000.0			CP 16
211609	2111	8442			200	37	18.9	17.7			998.8			SONDE (22)
222942	2156	8517												BT 12
224009	2241	8459			142	50					998.4			BT 14
224559	2327	8439			137	50								BT 16
225730			start		1 K	leg								BT
225946			end		1 K	leg								
230507	2413	8421			138	35					1004.1			BT 16/CP
232011	2400	8405												CP 12
232601	2446	8424			133	35					1004.7			CP
233154	2433	8443			131	37					1004.6			CTD 16
233744	2419	8501												CTD 12
234339	2406	8520			130	51					1002.3			CTD 14
234939	2352	8540			120	55					1001.3			CTD
235544	2337	8600			107	50								CP
000133	2322	8621			101	62					997.0			CP/RT
000709	2307	8641			88	65					994.0			CP/RT 12

Flight ID: I020921

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U.S. Department of Commerce/NOAA/Air Grant Operations Center

Time	Lat	Long	Trk	Hdg	Wind Dir	Wind Spd	T _a	T _s	Press. Air	Geo. Air	Sfc Press.	Press. Sfc	Dyn. Press	Remarks
001213	2251	8659			65	70				1489	992.0			CP ¹⁴ /BT ¹²
001653	2235	8708			45	70								CP ¹⁴ /BT ¹²
002640	2213	8640												SONDE (EW)
002821	2208	8634												EYE
003121	2216	8625			139	96							47	SONDE/SONDE
003737	2237	8612												BT
010000	2430	8452	31	38	110	35	1.7	-1.0	4744	4967	1000.4	559.0	98.1	CLR

N43RF AVAPS DROP LOG

Project : Hurricane '02

Mission : 020921 I

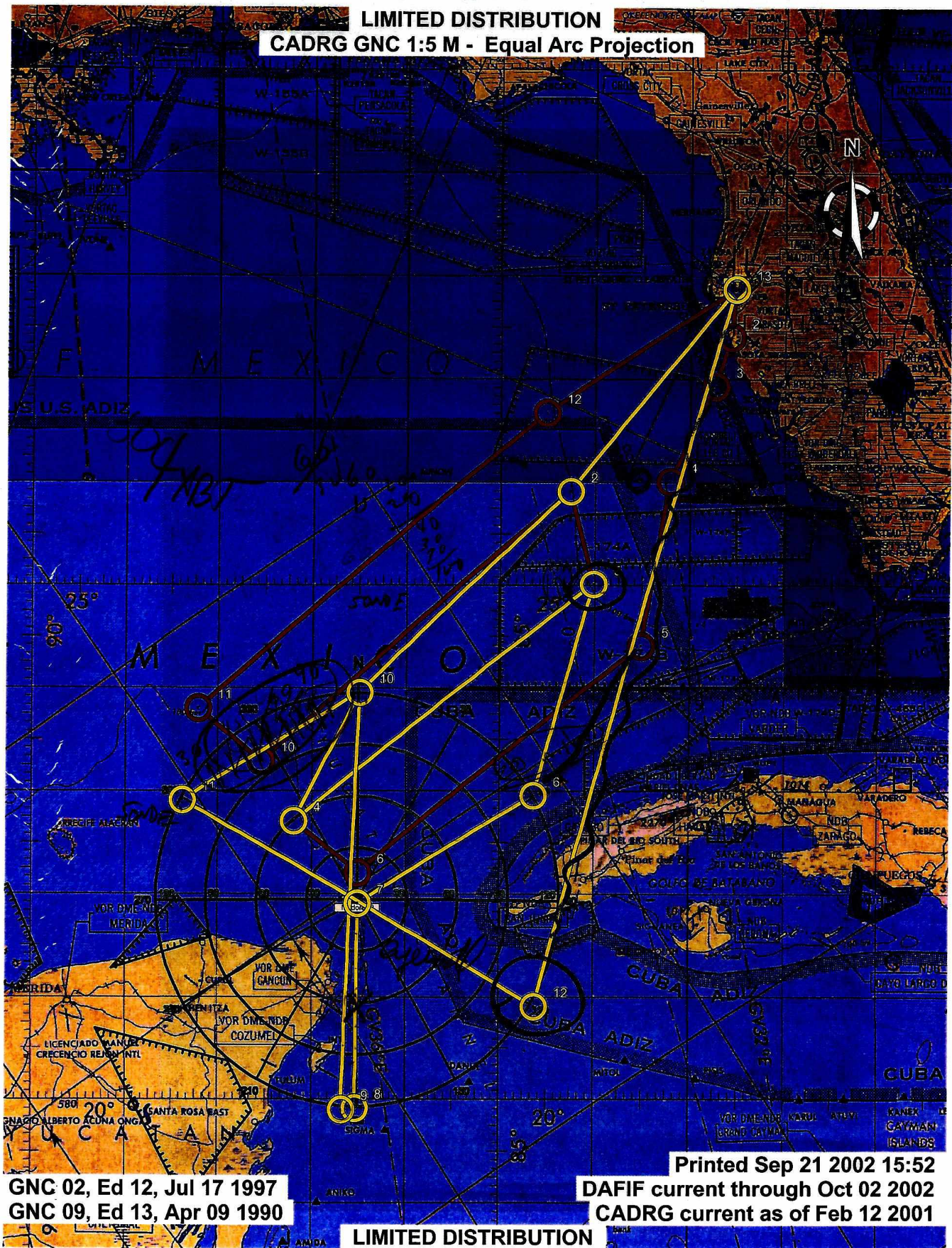
Flight ID : 020921 I

Take Off : 1700

Landing : 02012

[illegible]

LIMITED DISTRIBUTION
CADRG GNC 1:5 M - Equal Arc Projection



HURRICANE RESEARCH DIVISION MISSION PLAN: ISIDORE/HAIRSIN

NOAA/Hurricane Research Division Friday, September 20, 2002 6:07:34 PM

Aircraft: N43RF Nominal Altitude 5,000 ft

Proposed takeoff:

TRACK DISTANCES

#	LAT (d m)	LON (d m)	RAD/AZM (nm/dg)	LEG (nm)	TOTAL (nm)	TIME (h:mm)
0	MACDILL			0.	0.	0:00
1	26 00	83 30		124.	124.	0:31
2	25 00	84 00		66.	191.	0:47 descend to 5,000 ft
3	24 20	84 58		69.	259.	1:04
4	23 12	86 32		112.	371.	1:32
5	22 00	88 12		120.	492.	2:02 descend to 1,000 ft for 10
7	21 12	86 32		45.	607.	2:31
8	23 12	86 32		120.	727.	3:01
9	25 05	86 36		113.	840.	3:29
10	23 50	88 10		117.	957.	3:59
11	23 12	86 32		102.	1059.	4:24
12	22 30	84 30		124.	1183.	4:55
13	23 38	84 33		68.	1251.	5:12
14	24 47	84 18		70.	1321.	5:30
15	25 54	84 15		67.	1388.	5:47
16	23 32	87 13		222.	1610.	6:42
17	23 12	86 32		44.	1654.	6:53 descend to 1,000 ft for 5
18	24 36	85 24		106.	1760.	7:20
19	24 08	83 50		94.	1855.	7:43
20	MACDILL			235.	2090.	8:42

57 2157
9468607 sonde 1/2 way on first leg into storm
(2 sondes in eye wall)

S band
at 1K
from 10 miles

SK

57 miles

AXBT
↓

~~2424~~ IP
~~8330~~

54 IP

2256' pt 6
8438 sonde

Set
1954
8631

2154
8630

~~SR~~ / SH

2002

PAGE OF

POSITION REPORT

1. POSITION

2. TIME

3. ALTITUDE

4. NEXT POSITION

5. ETA

6. NEXT POSITION

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 _____

- 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 DESIR

- PILOT INTENTIONS
- WE HAVE

ENDURANCE REMAINING

[illegible]

230519 top

	REMARKS
	IP
	Re 1854