



NOAA P-3 N43RF Katrina Recco Flight



Flight ID: 050828I

<u>Sensor or system</u>	<u>Number or Name</u>
INE	2
Accelerometer	2
Temperature Probe	1
Dew Point Probe	1 (General Eastern)
Altitude (for vertical wind)	Radar Altimeter 159
Static Pressure	Rosemount Fuselage
Dynamic Pressure	Rosemount Fuselage 1281
Time Source	Micro 99
Constants File	CO3051.CON

Notes:

There were several time/data glitches during this flight which occurred between 163711Z-164950Z, 180231Z-180240Z, 193221Z-193230Z, and 223331Z-223340Z.

Data from radar altimeter 232 was substituted with radar altimeter 159 from 161811Z-162121Z and from 014320Z-014600Z.

The difference in values between the dynamic attack pressure from the radome and the fuselage is greater than 20 mb. No corrections were made to the data.

There were numerous times during the flight where the dewpoint temperature exceeded ambient temperature resulting in RH>100%. This was likely due to rain, a wet-bulb effect on the total temperature sensor, and/or an artificial warming of the dewpoint sensor as it tried to burn off excess moisture. Edits to dewpoint sensor number one were made between 175801Z-175900Z, 184800Z-184910Z, 001801Z-001930Z, 002730Z-003100Z to bring the relative humidity values below 120%.

The King Liquid Water sensor was not operating during this 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	1009.1 mb	1006.9 mb
Corrected Tower Pressure	1009.8 mb	1010.2 mb

Flight Director: Martin Mayeaux (813) 828-3310 ext. 3086

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

Flt ID: D050828	From: KMCF	To: KMCF
Flt. No: 05-047	Blk In: 0153 z	Time On: 0143 z
ETD: 1630 z	Blk Out: 1610 z	Time Off: 1621 z
ETE: +	Blk Time: 9.43 (9.7) Hrs	Flt Time: 9 + 22 (9.4) Hrs
Sponsoring Org: NHC	Program: HURR RECCO	Purpose: H. KATRINA IN GULF OF MEXICO

AOC Flight Crew

Aircraft Commander: SILAH	Data System: LYNCH
Co-Pilot: CHOY STRONG	AVAPS: OLNEY ✓
Navigator: BARROB STIEGEL	System Eng:
Flight Eng: KLIPPEL FLOYD	A A:
Flight Director: DAMIANO MAYEAUX ✓	A A:
Avionics: SANS SOUCI	Crew Chief:

Participating Scientists / Visitors

Name (Last, First)	Activity on Aircraft	Affiliation
ROGERS	PI	HRD
SMULL	RADAR	U of W
GAMACHE	RADAR	HRD
WALSH ✓	SRA	NASA/NOAA
ROUX, F	OBS	France Weather Group
1 SULLIVAN, CARLA	OBS	NOAA HQ ADM LAUCHEWBAKER
1 KUTWY, MARY	OBS	NOAA HQ ADM

Remarks (Storm Name, Mission ID, Recco Times, Fix Times)

Storm Name: **KATRINA**

Mission ID: **1812A**

Penetration number and time

25.8 **Bumpy**
47.9
SE down

TEAL 99 **NW-NE**
164440 **extension**
DATA SYS **1755Z**
STOP **2620**
8839
1923Z
26°34'88.51'

5.3 BT **EXTREME**

(See reverse for additional remarks)

Recco Times

182 **212 00** **Fix #** **Fix Time**
RADAR **26.3 88.5**
DOWN
172705
INBOUND **2231**
2038 **27 00**
2646 **89 07**
8855
2326
2707
8910

RADAR 30 miles

1720Z
NO TEAL
FROM NHC

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

Flight ID: 1050828	Time Off: 1621 Z	Time On: 0143 Z
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A/C Takeoff	Wx Station Takeoff	A/C Land	Wx Station Land
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Pressure	1009.1 mb	29.82 / mb	1006.9 mb	29.83 mb
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ATIS	Time	Observation
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Takeoff	Z	
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Land	Z	
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	Number	Data Disposition / Date / Quality
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Flight Level Tapes		
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Radar Tapes		
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Cloud Physics Tapes / CDs		
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Video Tapes		
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Dropsondes	39	Good: 36 Bad: 3
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AXBT	4	
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AXCP		
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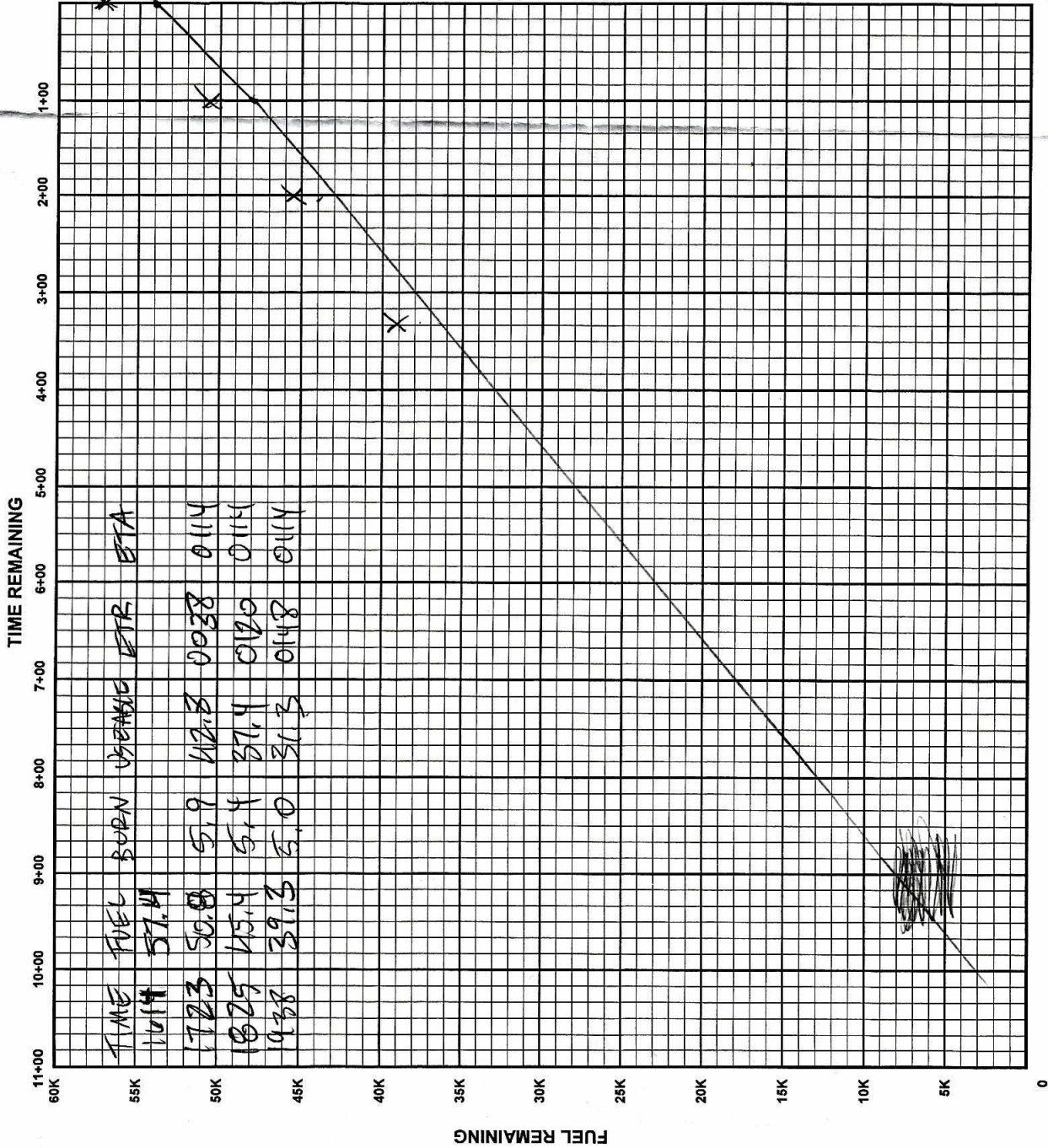
AXCTD		
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Remarks: *DAT #8 not working prior to T/O* *21m 128kt 100deg Sonds*

*2350
158.0*

*26297
2982 18*

RANGE CONTROL GRAPH



ENROUTE FUEL	
ENROUTE TIME	9700
ENROUTE FUEL (6K 5K 4.5K RULE)	4600
RESERVE AT DESTINATION	800
REQUIRED RAMP	5400
ACTUAL RAMP FUEL	57.4

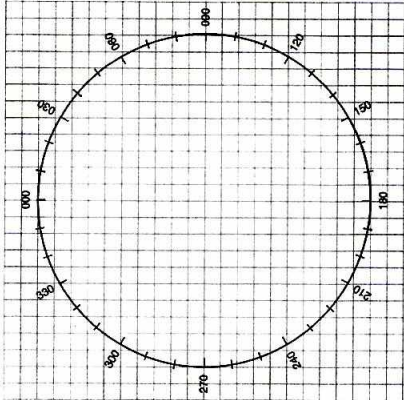
TACTICAL (OFFSTA TO DESTINATION)	
DISTANCE (OFFSTA TO DEST)	
ENROUTE TIME (OFFSTA TO DEST)	
BURN RATE (LBS/HR)	4500
ENROUTE FUEL REQUIRED	5500
RESERVE AT DESTINATION	
FUEL AT OFFSTA	

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	
COMPASS TYPE	INS1 INS2 WET
MCH (READING)	
- MTH (SEXTANT)	
CE	
- VAR	
DEV	

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

CEX SIGHT	
GMT	
GHA	
CORR	
GHA	
LONG W - E	
EXACT LHA	
LAT	
BODY	
DEC	
HC/D	
CORR	
HC	
Z	
ZN	



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

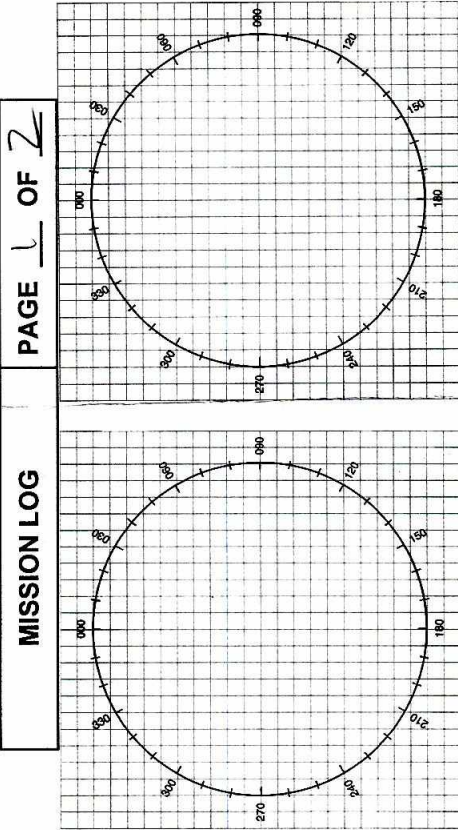
PRESS ALT		200	250	300	350
10,000	1.0	.99	.98	.97	.96
20,000	.99	.98	.97	.96	.95
30,000	.97	.96	.95	.94	.93
40,000	.96	.95	.94	.93	.92

TRUE AIRSPEED CROSS-CHECK						
TIME	IAS	PRESS ALT	"F" FACTOR	EAS	OAT	ITAS
1043	210	1140		11		272-702

DISTANCE REMAINING

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

CLEARANCES			
FREQ	ALT	HDG	OTHER
			CAF 0800 1410
			119.9 0032
			26 34 1453
			87 03 1453
			27.1 8751



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

MAYDAY, MAYDAY, MAYDAY

THIS IS NOAA, NOAA, NOAA 413

- 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 18 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	VAR +E=>	TH	DR +R=>	TRK	GS	WD	WS	ALT	TAS	NEXT PT	DIST	TIME	ETA	REMARKS
1604	START																			
1610	TAXI																			
1610	BLAF																			
1621	TWO																			
1626	XV	N 27 50.9 W 82 21.2	27 50.9 82 21.2	0 -1.2	27 51.0 82 21.3	-1.1 -1.1	208 4W	208	60R	274	228	174	26	120	217	06AR				092/8.5
1720	A	27 31.2 87 02.3	27 31.2 87 02.3	-1.2 -1.4	27 31.3 87 02.3	-1.3 -1.3	210 2W	208	17R	225	225	144	74	100	202	8				
1815	A	25 25.7 89 41.4		-1.1		-1.1	238 2W	234	16L	220	255	318	68	100	251	9				
1900	A	25 28.2 87 36.0	25 28.2 87 36.1	-1.4 -1.1	25 30.0 87 36.3	-1.3 -1.3	300 2W	298	18R	315	258	209	79	100	248	8				
2000	A	27 41.5 90 24.3	27 41.4 90 24.5	-1.1 -1.2	27 43.5 90 24.6	-2.0 -1.3	197 2W	195	60R	201	299	048	65	100	218	7				
2100	A	26 44.7 87 22.1	26 44.3 87 22.2	+1.4 -1.3	26 48.2 87 22.2	-3.5 +0.9	111 2W	112	22L	090	233	189	96	100	232	9				
2200	A	28 35.8 88 57.4	28 35.6 88 51.8	+1.2 +1.6	28 40.0 88 51.3	-4.2 +1.1	343 2W	341	11L	330	295	105	71	100	246	8				
2300	A	25 15.9 89 00.7	25 16.2 89 00.3	-1.3 +1.4	25 21.3 88 58.7	-5.4 +2.0	346 2W	344	12R	330	276	240	59	100	256	8				
0000	A	27 47.6 88 21.8	27 47.4 88 21.2	+1.2 +1.6	27 53.1 88 19.0	-5.5 +2.8	076 2W	074	28L	046	244	141	116	100	246	9				
0100	A	28 00.8 85 05.6	27 59.6 85 05.2	+1.2 +1.4	28 06.6 85 01.9	-4.8 +3.7	007 5W	104	10L	094	271	167	48	100	285	MCF				
0144	LAND	27 50.8 82 51.5	27 51.3 82 29.3	-1.5 +1.7	27 57.2 82 25.8	-6.2 +5.7														
	KMF																			
0154	Block																			

46.8 15.4

[illegible]

NOAA • AOC • SED
N43RF AVAPS DROP LOG

Project : Hurricane '05 / RAINEX

Mission : KATRINA / RAINEX Flight ID : 0508281

Take Off : _____

Landing : _____

Flt Dir : DETROIT
NW

Launcher S/N: 2

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Winds Time	Operator	Comments	Good ?
1	044535018	1	.3	1719	01	OLNEY	NHC	✓
2	051926195	2	0	1743	04		RAINY	✓
3	051926170	3	.3	1743	04		↓	✓
4	051926060	4	0	1744	04		NHC+BT	✓
5	044535440	1	0	1755	04		NHC	✓
6	053116033	2	.8	1758	04		NHC BT	✓
7	043835047	3	0	1758	04		Rx	✓
* 8	044135154	4	0	1800	04		Rx	✓
9	051926265	1	0	1823	04		NHC	✓
10	012225096	2	-.3	1831	23		AOC	✓
11	044535572	3	0	1853	06		NHC	✓
12	044535567	4	0	1917			Rx NO LAUNCH DET	✓
* 13	053116037	1	.4	1918	11		Rx	✓
14	051926298	2	0	1919	12		NHC	✓
15	044535114	3	.4	1923	10		NHC	✓
16	053116039	4	0	1932	06		NHC	✓
17	051926098	1	0	1933	06		Rx	✓
18	051926076	2	0	1934	02		Rx	✓
19	053116035	1	.5	1959	06		NHC BT	✓
20	053116034	1	.8	2012	03	Dfg	NO LAUNCH DET	✓
21	044535064	3	.2	2016	06		NHC	✓
** 22	051926295	1	0	2034	02		NHC	✓
** 23	051926174	3	0	2038	02		NHC	✓
24	044535557	2	.5	2041	02		NHC	✓
25	053116237	1	.2	2106	05		NHC	✓
26	043845006	3	0	2116	05		RAINEX	✓
27	053116065	1	0	2122	02		" "	✓
28	043845059	3	0	2127	6		" "	✓
29	053116223	1	.5	2133	4		" "	✓
30	051926297	1	.3	2204	10		NHC	✓
31	044535355	1	.3	2221	6		NHC	✓
32	053116230	3	.4	2231	5		NHC CONTIN	✓
33	053116231	2	0	2238	6		NHC	✓
34	044535009	1	0	2300	4		NO LAUNCH DET	✓

NHC

NHC

NHC

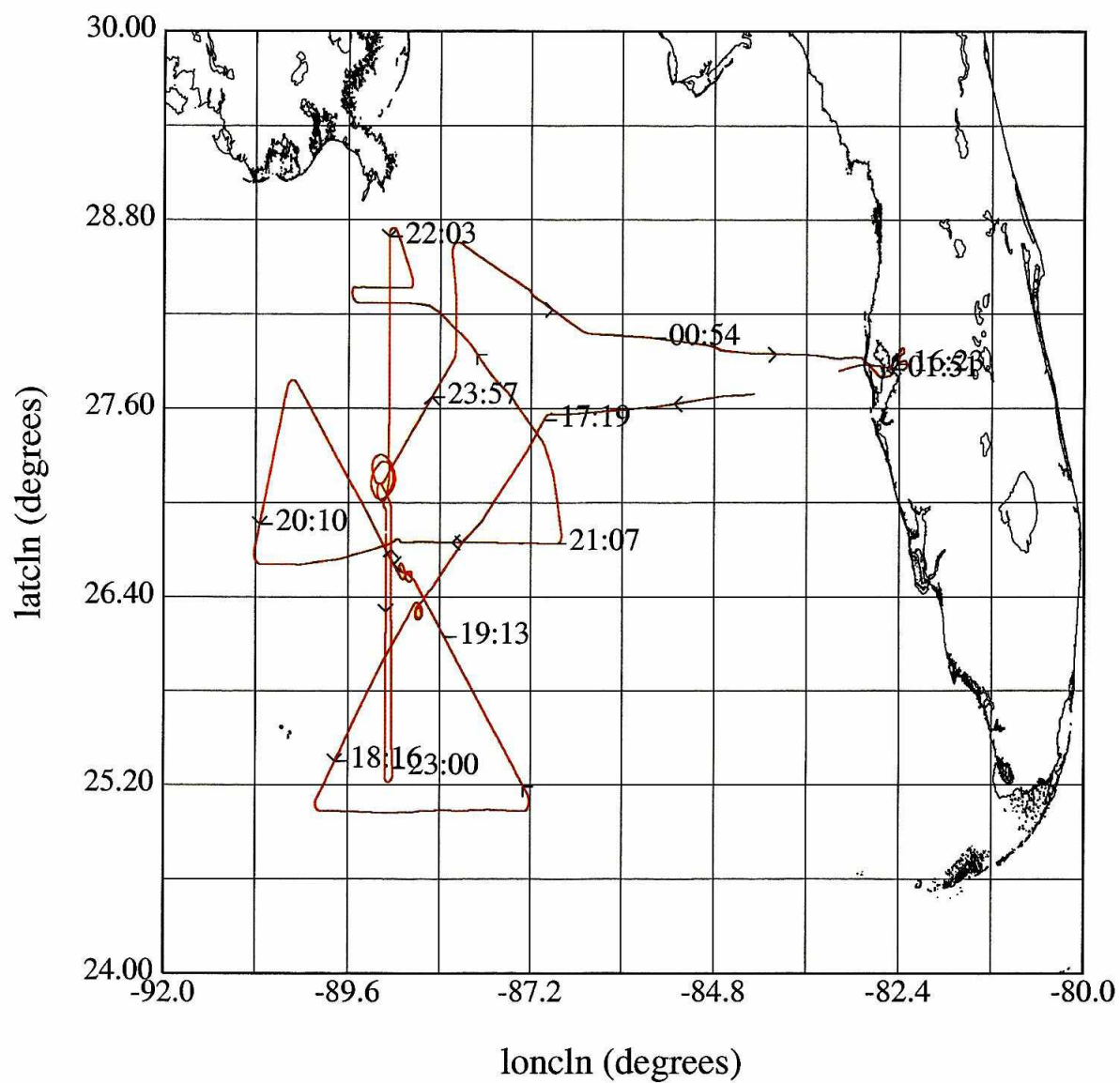
OC 1
HC 26
RAINEX 12

* AOC Sonde borrowed by RAINEX

** BORROWED FROM RAINEX

NOAA P3 Mission Into H. Katrina

08/28/2005 UTC, 16:23:00-25:51:00



	mean	sigma	min	max
latcln (degrees), 1 s/sec	27.09	0.99	25.02	28.75
loncln (degrees), 1 s/sec	-87.80	2.08	-90.81	-82.30