NOAA P-3 N43RF
Katrina Recco Flight

Flight ID: 050825I

Sensor or system	Number or Name
INE	2
Accelerometer	2
Temperature Probe	1
Dew Point Probe	2 (Edgetech)
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 was one time/data glitch during this flight which occurred between 162511Z and 162520Z.

Data from radar altimeter 232 was replaced with radar altimeter 159 from 210900Z-211200Z.

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 two were made between 134430Z-134615Z and 152105Z-152135Z 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	1013.3 mb	1009.8 mb
Corrected Tower Pressure	1013.5 mb	1011.8 mb

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

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

AOCWF1

Flt ID: 05085 25	From: KMCF	To: KMCF
Flt No: 05 – 045	Blk In: 2118Z	ATA: 2109
ETD: 1330Z	Blk Out: 1259Z	ATD: 1310Z
ETE:	Blk Time: 8:19 (8.3)	Flt Time: 7:59 (8.0)
Sponsor Org: NHC	Program: HURR. RECON	Purpose: TS KATRINA EAST OF FT. LAUDERDALE

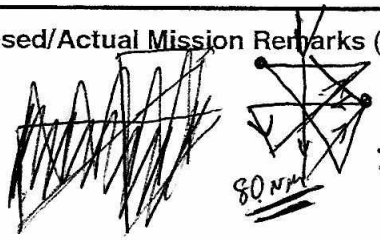
AOC Personnel

AC: SIZAH	Sys Eng:
CP: STRONG / NELSON	Data Sys: LYNCH
Nav: SIEGEL	Radar:
FE: [redacted] BAST / [redacted]	GPS/BT: OLNEY
FD: DAMIANO / MAYEAUX	Cld Phys:
Avionics: SANS SOUCI	

Participating Scientists / Visitors / AOC

Name (Last, First)	Activity on Aircraft	Affiliation
GAMACHE, J.	RADAR	HRD
ROGERS, R.	OBS	HRD
SMULL, B.		UW

Proposed/Actual Mission Remarks (Recco, Fixes, Storm, PENET, NHOP #) NOAA3 0612A KATRINA



304.8 U
122.925 V

19 sonder available

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

AOCWF2

Flt ID:	Time Off:	Time On:
I050825	1310Z	2109

	A/C (Take Off)	Wx Station (Take Off)	A/C (Land)	Wx Station (Land)
Pressure	1013.3	29.93	1004.8	2988

	Number	Data Disposition / Date / Quality
Flt Lvl Tapes		
Radar Tapes		
Cloud Physics Tapes		
Video Tapes		
AXBT		
AXCP		
AXCTD		
Dropsondes	16	8 good/8 bad 1 AOC 15 NHC

Video

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

Remarks

1421Z
26°14'
79°14'

1533Z
26°13'
79°20'

1618Z
26°12'N
79°25'W

1718Z
26°12'N
79°30'W

1848Z
26° 09'N
79 42'W

2014Z
26°03'N
79°30W

3066

NOAA FORM 56-49
(2-95)

MISSION PREFLIGHT LOG

DESTINATION	MISSION	NAVIGATOR	AIRCRAFT COMMANDER	FLIGHT DIRECTOR	SCHEDULED / ACTUAL TAKEOFF Z	DATE OF TAKEOFF
KMCF	KATRINA #1 (TASKED)	SIEGEL	SILAH	DAMIANO	1330 / 1310	25AUG05

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
KMCF	N 27 51.0 W 82 31.3	1 / 1-2	077	4W	073	0	073		L	V								
LAL	27 59.2 82 00.8	2 / 12	107	5W	102	0	102											
VRB	27 40.7 80 29.4	~~13~~	106	5W	101	0	101											
PERMT	27 24.9 78 56.8	4 / 14																
PBI	26 40.8 80 05.2	3 / 13																

INS PERFORMANCE	INS 1	INS 2
BEGIN ALIGN TIME	1150	1150
ALIGN STATUS (0-5)	0	0
END NAV TIME	2110	2110
START NAV TIME	1248	1248
DELTA T	8+22	8+22

TERMINAL ERRORS	INS 1	INS 2
DELTA LAT	-30.8	+8.4
DELTA LON	+15.5	-5.3
RGS	7	1
RADIAL ERROR	35	10

REMARKS

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

MISSION LOG PAGE 2 OF 2

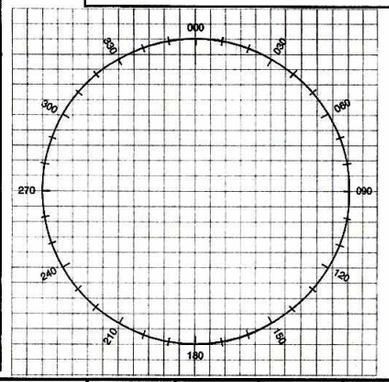
FIX TYPES
(G) - GPS (I) - INS (R) - RADIO (V) - VISUAL (C) - CELESTIAL (D) - DR

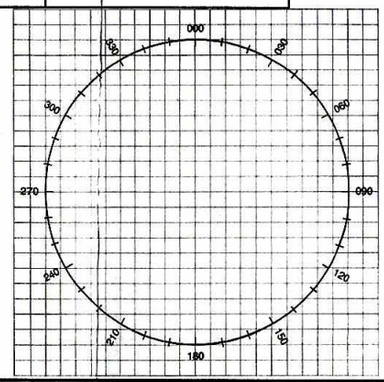
TIME	FIX TYPE	POSITION	INS 1 POSITION	K ERR	INS 2 POSITION	K ERR	MH	VAR +E==>	TH	DR +R==>	TRK	GS	WD	WS	ALT	TAS	NEXT PT	DIST	TIME	ETA	REMARKS
1421	(G)	26 14.8 79 MK. 0																			
1533	(G)	26 13 79 20																			
1618	(G)	26 12 79 25																			
1718	(G)	26 18 79 30																			
1848	(G)	26 08 79 42	26 09 79 42																		
2015	(G)	26 03 79 50	230/6		984.5		←	HURRICANE KATRINA													

CLEARANCES			
FREQ	ALT	HDG	OTHER
			CAF R080 FL600 9KHC
			119.9 8617
			5043

MISSION LOG

PAGE 1 OF 2





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:

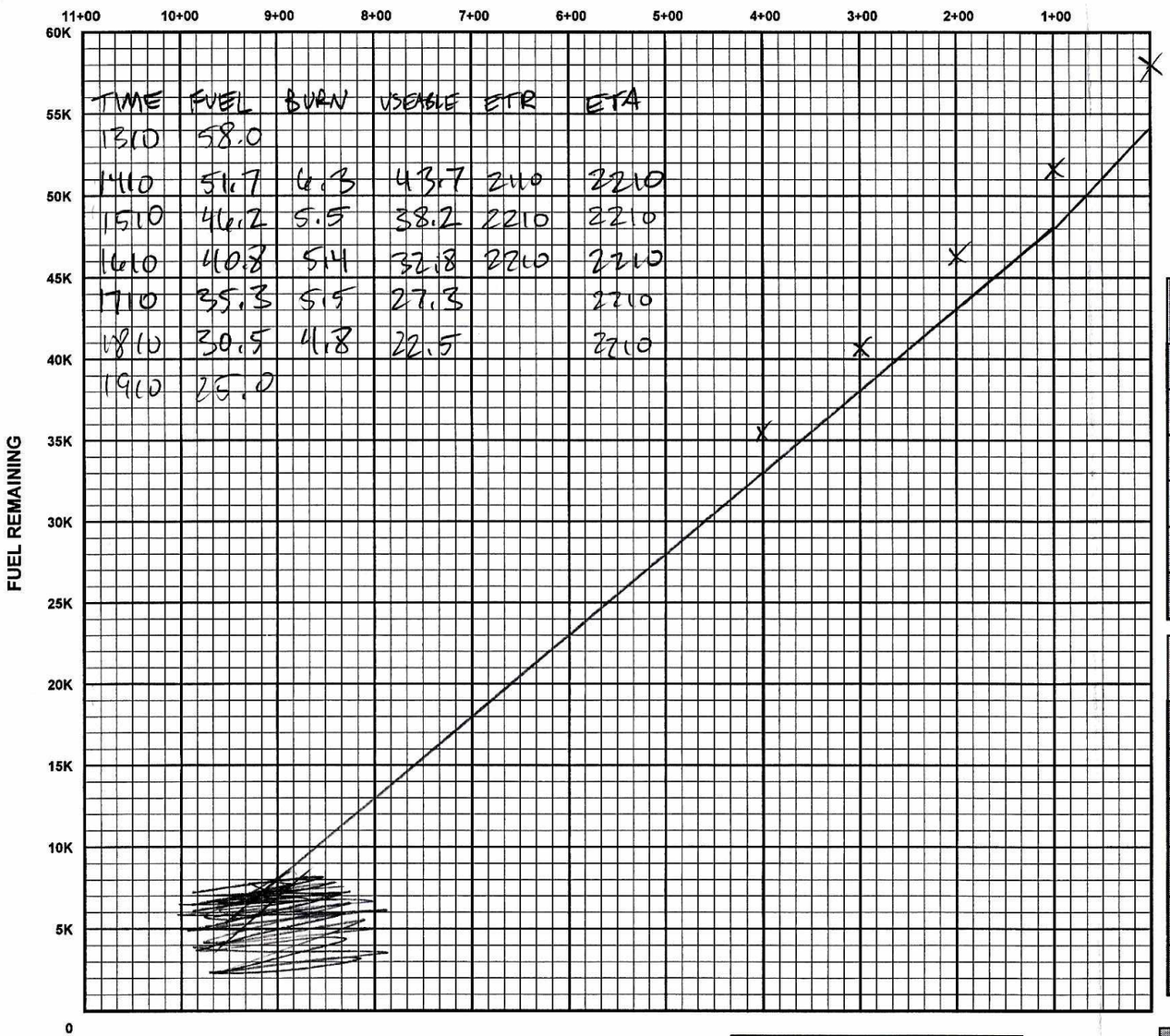
UHF/VOICE	VHF/VOICE	MF/VOICE	HF/CW	MF/CW
243.0	121.5	2182 KHZ	8364 KHZ	500 KHZ

MAYDAY, MAYDAY, MAYDAY
THIS IS NOAA _____, NOAA _____, NOAA 43

- 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 14 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
1254	START																				
1259	TAXI																				
1259	BLOCK																				
1310	T/O																				
1314	X✓	N 27 52.7 W 82 19.1	27 52.8 82 19.1	-.1 0	27 52.7 82 19.1	0 0	102	5W	097	5R	102	201	065	29	7090	221					
1410	△	26 52.9 79 12.4	26 53.9 79 11.4	-1.0 +1.0	26 52.4 79 12.7	+.5 -.3	189	8W	181	8R	189	219	116	35	050	232					
1512	△	26 17.0 77 54.3	26 20.7 77 52.7	-3.7 +1.6	26 15.9 77 54.9	+1.1 -.6	269	8W	261	8R	269	231	182	36	050	233					
1610	△	25 48.0 79 35.9	25 49.8 79 33.7	-1.8 +2.2	25 40.9 79 36.9	+2.1 -1.0	023	8W	015	8R	023	250	287	43	050	242					
1710	△	26 59.8 79 41.8	26 51.0 79 37.4	-10.2 +4.4	26 36.4 79 43.0	+3.4 -1.2	150	8W	142	9R	151	228	067	37	050	233					27 33.5 79 38.5
1810	△	26 52.7 78 33.7	27 09.3 78 26.6	-16.6 +7.1	26 47.9 78 35.9	+4.8 -2.2	309	8W	301	3R	304	266	147	28	050	237					
1913	△	24 38.3 79 40.0	24 59.7 79 30.5	-21.4 +9.5	24 32.1 79 43.0	+6.2 -3.0	048	8W	040	0	040	259	223	25	050	232					
2011	△	25 59.7 80 01.4	26 27.1 79 48.5	-27.4 +13.9	25 52.3 80 05.3	+7.4 -3.9	070	8W	062	5R	067	239	353	10	050	241					
2045	△	27 20.8 80 58.2	27 49.5 80 44.3	-28.7 +13.9	27 12.7 81 02.7	+8.1 -4.5	298	6W	292	7L	285	291	052	45	100	262					
2110	LAND	27 51.1 82 31.2	28 21.9 82 14.7	-30.8 +15.5	27 42.7 82 36.5	+8.4 -5.3															
2118	BLOCK																				

RANGE CONTROL GRAPH



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

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

ENROUTE FUEL	
ENROUTE TIME	9+00
ENROUTE FUEL (6K, 5K,4.5K RULE)	46.0
RESERVE AT DESTINATION	8.0
REQUIRED RAMP	54.0
ACTUAL RAMP FUEL	58.0

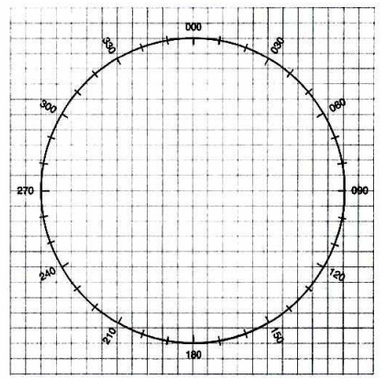
TACTICAL (OFFSTA TO DESTINATION)	4 ENG	3 ENG
DISTANCE (OFFSTA TO DEST)		
ENROUTE TIME (OFFSTA TO DEST)		
BURN RATE (LBS/HR)	4500	5500
ENROUTE FUEL REQUIRED		
RESERVE AT DESTINATION		
FUEL AT OFFSTA		

POINT OF SAFE RETURN	4 ENG	3 ENG
ETP DISTANCE (TO DEPARTURE)		
ENROUTE TIME (TO DEPARTURE)		
BURN RATE (LBS/HR)	4500	5500
FUEL REQUIRED		
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	



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

TRUE AIRSPEED CROSS-CHECK							
TIME	IAS	PRESS ALT	"F" FACTOR	EAS	OAT	TAS	ITAS
1515	217	050			+24	236	235

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N43RF AVAPS DROP LOG

KATRINA

Project : Hurricane '05 / RAINEX Mission : NHC / AOC Flight ID : 050825i

Take Off : _____ Landing : _____ Flt Dir : DAMIANO MEVHEAJ Launcher S/N: 2

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Winds Time	Operator	Comments	Good ?
1	011218009	1	0	1400	31	OLNEY	NHC	✓
2	011245280	2	0	1420			NO WINDS NHC	
3	010715005	3	0	1424			NO WINDS NHC	
4	001115312	4	0	1444	17		NHC	✓
5	001115049	1	0	1510	57		NHC	✓
6	001115098	2	.7	1542			NHC NO WIDS	
7	001115044	3	-.3	1544			NO WINDS NHC	
8	001115018	4	0	1559	20		NHC	✓
9	001115101	1	0	1640	25		NHC	✓
10	000715338	4	.5	1657			NO WINDS	
11	001115021	1	0	1658	1:26		LATE WINDS	
12	001115099	1	0	1718	~	OSS	NO WINDS	NHC
13	001115045	2	0	1742	36		NHC	✓
14	001115297	1	.4	1916	50		AOC	✓
15	000115012	1	0	1945	44		NHC	✓
16	000715078	1	.4	2014	—		NHC	
17								
18								
19								

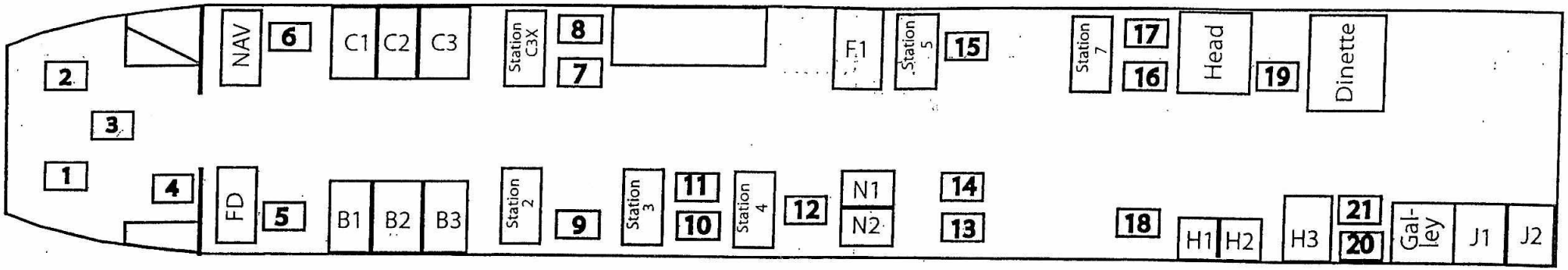
BAD Sondes charge to AOC

NHC 9
AOC 7

* USE CH 14 ONLY *

NOAA AIRCRAFT OPERATIONS CENTER

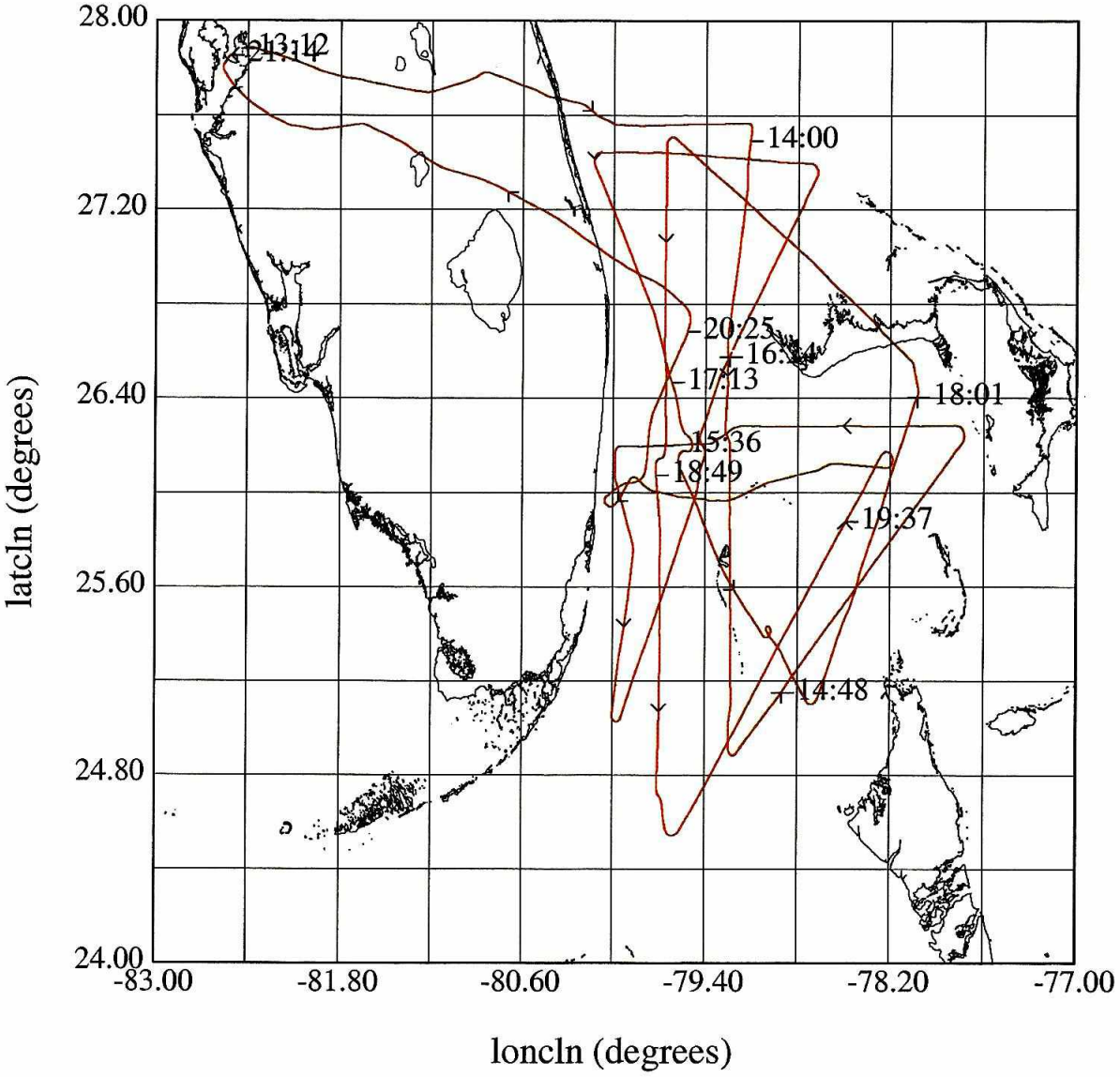
Flight ID D0508245



1. SILAH — PILOT
2. STRONG — COPILOT
3. BAST — FLIGHT ENGINEER
4. ROGERS — STATION 1
5. DAMIANO — FLIGHT DIRECTOR
6. SIEGEL — NAVIGATOR
7. MAYEAUX — STATION C3X
8. FLOYD — STATION C3X
9. — STATION 2
10. SMULL — STATION 3
11. GAMACHE — STATION 3
12. LYNCH — STATION 4
13. — PROJECT SEAT
14. — PROJECT SEAT
15. OLNEY — STATION 5
16. NELSON — STATION 7
17. — STATION 7
18. SANS SOUCI — STATION 8
19. — DINETTE
20. — GALLEY
21. — GALLEY

NOAA P3 Mission Into TS Katrina

08/25/2005 UTC, 13:12:00-21:14:00



	mean	sigma	min	max
latcln (degrees), 1 s/sec	26.40	0.87	24.54	27.89
loncln (degrees), 1 s/sec	-79.56	1.00	-82.56	-77.73