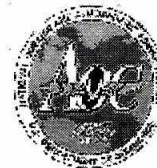




NOAA P-3 N43RF
RAINEX - CHECKOUT FLIGHT #3



Flight ID: 050823I

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 were no time/data gaps during the flight.

The King Liquid Water Sensor was inoperative during the entire flight.

All other instrumentation worked optimally.

The selected aircraft INE positions were not 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	1012.2 mb	1010.9 mb
Corrected Tower Pressure	1012.7 mb	1011.3 mb

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

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

AOCWF1

Flt ID: I050823	From: KMCF	To: KMCF
Flt No: 05-045	Blk In: 2017	ATA: 2006Z
ETD: 1800Z	Blk Out: 1740Z	ATD: 1751Z
ETE:	Blk Time: 2:37 (2.6)	Flt Time: 2:15 (2.3)
Sponsor Org: HRD	Program: RAINEX	Purpose: CHECKOUT FLT WITH NRLP3

AOC Personnel

AC: FEAR STRONG	Sys Eng:
CP: NELSON	Data Sys: LYNCH
Nav: SIEGEL SIEGEL	Radar:
FE: KLIPPEL	GPS/BT: OLNEY
FD: DAMIANO / MAYEAUX	Cld Phys:
Avionics:	

Participating Scientists / Visitors / AOC

Name (Last, First)	Activity on Aircraft	Affiliation
SMULL, B	PI	U of W
HENCE, D	RADAR	U of W
GAMACHE, J	RADAR	HRD

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

box N/S **MPN-159** **1-1.5 hr duration**
60KM separation for parallel
15 minute leg length
12.5 K alt
turn at 84°+85°W
used 232
dummy flt

28°N LAT **44N45E**
2725' NRLP3

met.psu.edu/harnott
1 report/ecgenifs
NO KLV

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

AOCWF2

Flt ID:

6050823

Time Off:

1751Z

Time On:

2006Z

A/C (Take Off)

Wx Station (Take Off)

A/C (Land)

Wx Station (Land)

Pressure

1012.2

29.92 / 1012.7

1010.9

29.88 / 1011.3

Number

Data Disposition / Date / Quality

Flt Lvl Tapes

2

Radar Tapes

1

Cloud Physics Tapes

Video Tapes

AXBT

AXCP

AXCTD

Dropsondes

Video

Forward

Left Side

Right Side

Down

Remarks

Time On

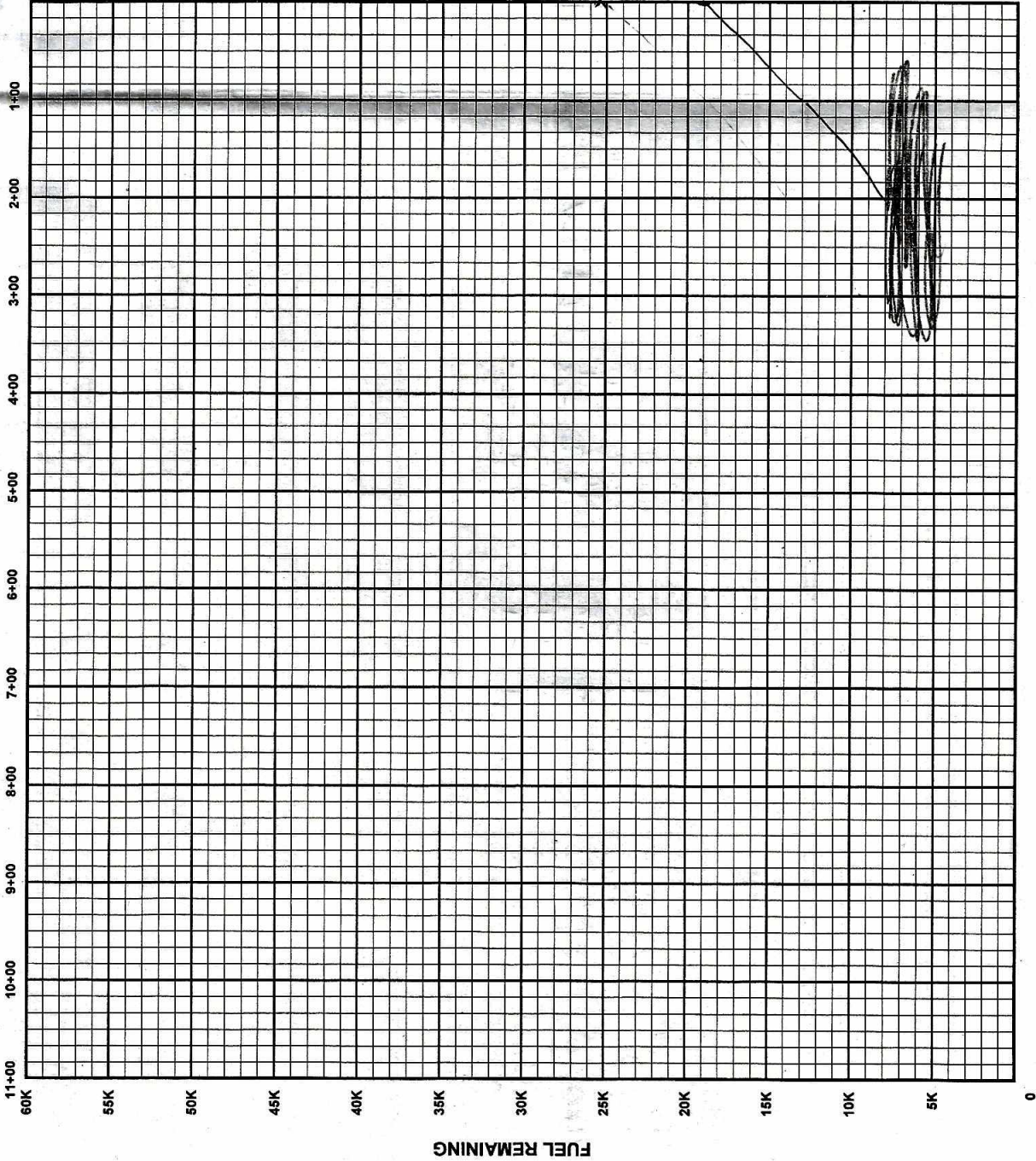
Time Off

Rate

Remarks

RANGE CONTROL GRAPH

TIME REMAINING



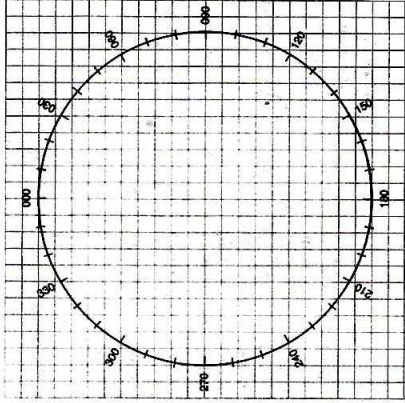
ENROUTE FUEL	
ENROUTE TIME	2400
ENROUTE FUEL (6K 5K 4.5K RULE)	11.0
RESERVE AT DESTINATION	8.0
REQUIRED RAMP	19.0
ACTUAL RAMP FUEL	25.3

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

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

CEX - TRUE BEARING METHOD				CEX SIGHT	
COMPASS TYPE	INS1	INS2	WET	GMT	
MCH (READING)				GHA	
MTH (SEXTANT)				CORR	
CE				GHA	
VAR				LONG W E	
DEV				EXACT LHA	
				LAT	
				BODY	
				DEC	
				HC/D	
				CORR	
				HC	
				Z	
				ZN	

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



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

DISTANCE REMAINING

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

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

TRUE AIRSPEED CROSS-CHECK						
TIME	IAS	PRESS ALT	"F" FACTOR	EAS	OAT	ITAS
1835	214	125		413	204	254

[illegible]

INS PERFORMANCE		INS 1	INS 2
BEGIN ALIGN TIME		1600	1600
ALIGN STATUS (0-5)		0	1
END NAV TIME		2006	2006
START NAV TIME		1728	1728
DELTA T		2+38	2+38

TERMINAL ERRORS		
	INS 1	INS 2
DELTA LAT	-1.4	-1.2
DELTA LON	+1.1	-1.2
RGS	1	0
RADIAL ERROR	2	0

[illegible]

[illegible]

PAGE 1 OF 1

MISSION LOG

PAGE 1 OF 1

The figure consists of two identical circular diagrams, one positioned above the other, both set against a fine grid background. Each diagram is a circle with a radius of approximately 100 units, centered at the intersection of the grid's main horizontal and vertical axes. The circles are marked with degree increments of 30 degrees, starting from 0° at the top (for the top diagram) or right (for the bottom diagram) and proceeding clockwise. The markings are: 0°, 30°, 60°, 90°, 120°, 150°, 180°, 210°, 240°, 270°, 300°, 330°, and 360°. In the top diagram, a solid horizontal line passes through the center of the circle. In the bottom diagram, a solid vertical line passes through the center of the circle. To the left of the diagrams, the text 'MISSION LOG' is written vertically. To the right, the text 'PAGE 1 OF 1' is written horizontally.

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/ICW MF/ICW
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 _____ SOULS ON BOARD

- NATURE OF EMERGENCY

- ASSISTANCE DESIRED

- PILOT INTENTIONS

- WE HAVE _____ ENDURANCE REMAINING

MISSION LOG

PAGE 1 OF 1

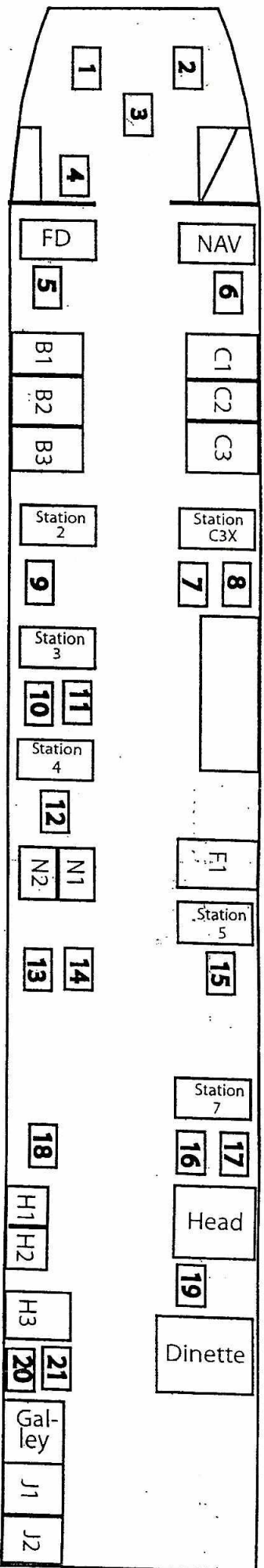
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[illegible]

0508231 TIME	LAT	ION	PS	SP	TA	TD	TK	RA	WD	WS	WZ	Comment
180824	27.53.46	-83.38.34	631.6	1009.8	5.4	-1.1	284.8	4022.0	150.2	4.2	-.2	appching start pt
181323	27.59.82	-84. 1.92	631.6	1009.7	4.9	1.3	265.2	4016.0	134.4	2.9	-.1	strt e/w leg
182533	27.57.78	-85. 2.22	631.8	1009.2	4.8	1.9	270.1	4007.0	77.5	3.6	-.0	end e/w leg 15
deg roll												
182849	27.50.22	-85. 0.42	631.9	1009.1	4.7	2.5	78.7	4005.0	70.0	3.2	.0	strt w/e leg
184130	28. 0.30	-83.59.94	629.9	1009.1	5.0	2.2	85.2	4037.0	160.0	2.9	.5	end w/e leg 30
deg roll												
184319	27.57.06	-84. 0.12	630.1	1009.4	4.9	1.8	275.3	4036.0	125.5	3.4	.4	strt e/w leg
185530	27.59.64	-85. 0.48	630.0	1008.8	4.8	.9	273.3	4029.0	90.9	3.4	.3	end e/w leg 30
deg roll												
190410	27.40.14	-84.31.38	630.2	1008.2	5.0	3.2	114.8	4027.0	111.2	1.9	.2	both glbstr quit
191146	27.25.20	-83.59.70	630.2	1007.9	5.0	.2	123.0	4020.0	106.6	1.5	-.2	end se leg to
nr1p3 ip												
191340	27.22.26	-84. 4.80	630.2	1007.9	5.1	.8	278.9	4023.0	58.3	1.7	.1	heading w
192446	27.24.78	-84.59.70	630.4	1007.2	5.3	2.4	273.5	4018.0	72.3	3.7	-.0	end w leg turn
for KMCF												
195338	27.38.16	-82.37.56	918.8	1011.1	24.3	20.1	85.5	850.0	88.5	2.0	.1	on appch to KMCF
200606	27.51.12	-82.31.08	1007.8	1008.0	33.1	24.0	220.1	2.0	279.7	10.2	5.2	land

NOAA AIRCRAFT OPERATIONS CENTER

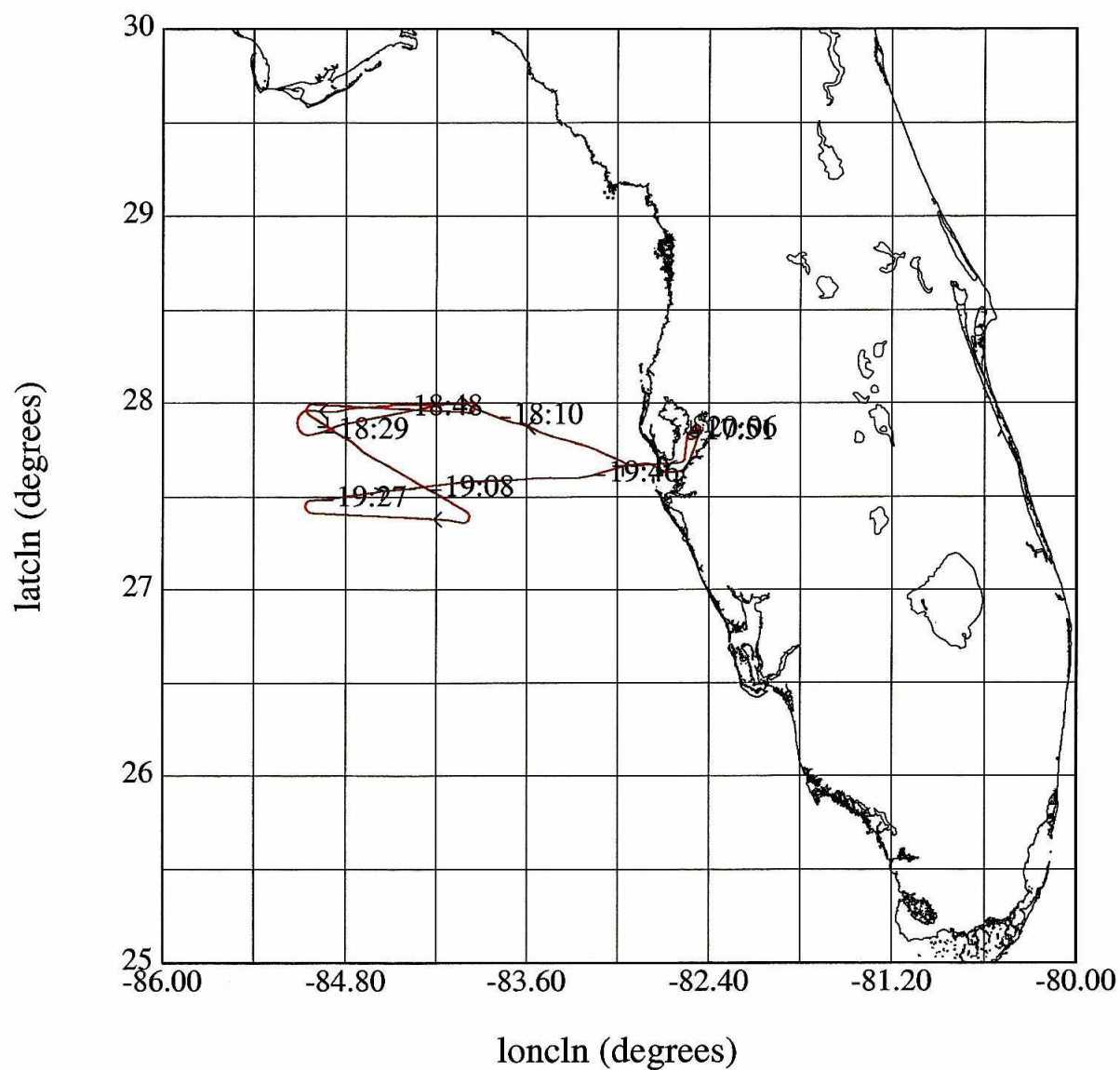
Flight ID 1050823



1. ~~THOMAS~~ STRONG PILOT
2. NELSON COPILOT
3. KLIPPEL FLIGHT ENGINEER
4. SMULL STATION 1
5. DAMIANO FLIGHT DIRECTOR
6. STEGEL NAVIGATOR
7. _____ STATION C3X
8. MAYEAUX STATION C3X
9. _____ STATION 2
10. GAMACHE STATION 3
11. HENCE STATION 3
12. LYNEH STATION 4
13. _____ PROJECT SEAT
14. _____ PROJECT SEAT
15. OLNEY STATION 5
16. _____ STATION 7
17. _____ STATION 7
18. _____ STATION 8
19. _____ DINETTE
20. _____ GALLEY
21. _____ GALLEY

RAINEX Checkout Flt #3

08/23/2005 UTC, 17:51:00-20:06:00



	mean	sigma	min	max
latcln (degrees), 1 s/sec	27.75	0.20	27.36	28.01
loncln (degrees), 1 s/sec	-83.98	0.83	-85.11	-82.45