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

Flt ID: I040722	From: MMMZ	To: MMMZ
Flt. No: 04 - 43	Blk In: 2003 z	Time On: 1957 z
ETD: 1300 z	Blk Out: 1245 z	Time Off: 1253 z
ETE: +	Blk Time: 7.18 7.3 Hrs	Flt Time: 7:04 - 7.1 Hrs
Sponsoring Org: OGP/NSSL	Program: NAME	Purpose: FLUX FLT FLT #5

AOC Flight Crew

Aircraft Commander: SILAH, M. ✓	Data System: TONG ✓
Co-Pilot: STRONG, T. ✓	AVAPS: LYNCH ✓
Navigator: ADLER, J. ✓✓	System Eng:
Flight Eng: FLOYD ✓✓, KLIPPEL ✓	A A:
Flight Director: D'AMIANO ✓	A A:
Avionics: SANS ~~SANS~~ SOUCI ✓	Crew Chief:

Participating Scientists / Visitors

Name (Last, First)	Activity on Aircraft	Affiliation
DOUGLAS, M ✓	PI	NSSL
RAO, G. ✓	CO-PI	U of St. Louis
SANTHANAM, K ✓	OBS	U of St. Louis
MEJIA, F ✓	RADAR	NSSL/SIMS
KERMOND, J. ✓	MEDIA	OGP/NOAA PHOTOG
FEHER, R. ✓	OBS	NOAA TEACHER IN FIELD
HINOJOS, J. ✓	OBS	NOAA TEACHER IN FIELD
MEITIN, J. ✓	OBS	JOSS
ROSENGAUS, M. ✓	OBS	SMN DIR., MEX WX SVR

Remarks (Storm Name, Mission ID, Recco Times, Fix Times) ~~Recco Times~~ ~~Fix # Fix Time~~

Storm Name:

Mission ID:

Penetration number and time

NO CO_2 Radiometer

1349z went to 232RA - 159RA ~~off~~ turned off

1400z 25 went back to 159RA

At 1515z we added to northern end of original flt track that adds 40 minutes to flt time

(See reverse for additional remarks)

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

Flight ID: I040722	Time Off: 1253 Z	Time On: 1957 Z

	A/C - Takeoff	Wx Station - Takeoff	A/C - Land	Wx Station - Land
Pressure	~~1011.0~~ 1010.3 mb	1011.0 mb	1011.3 mb	29.90 / 1011.0 mb

ATIS	Time	Observation
Takeoff	Z	
Land	Z	

	Number	Data Disposition / Date / Quality
Flight Level Tapes	3	
Radar Tapes	1	
Cloud Physics Tapes / CDs		
Video Tapes	~~4~~ 3	
Dropsondes	//	Good: Bad:
AXBT	//	
AXCP	//	
AXCTD		

Remarks: 6K

NOAA P-3 N43RF
NAME Flt #5

Flight ID: I040722

Sensor or system	Number or Name
INE	2
Accelerometer	2
Temperature Probe	1
Dew Point Probe	2 (EdgeTech)
Altitude (for vertical wind)	Pressure Altitude
Static Pressure	Rosemount Fuselage
Dynamic Pressure	Rosemount Fuselage
Time Source	Micro 99
Constants File	CO3042.CON

Notes:

There were no time/data gaps.

The radar altitude 159 (RA159) was turned off from 135031Z - 140230Z. The erroneous values generated from this action were replaced with radar altitude 232 (RA232) values.

Dewpoint sensor #2 (DW2) was fixed during the following time periods: 1657Z - 1659Z, 1716Z - 1718Z, 1728Z - 1730Z and 1804Z - 1806Z. Also DW2 values were replaced with DW1 values during the following time frames:

125702Z - 125954Z, 130825Z - 130938Z, 133124Z - 133538Z, 134112Z - 134258Z, 140115Z - 140435Z, 141100Z - 141124Z, 142316Z - 142356Z, 150048Z - 150152Z, 151142Z - 151417Z, 153151Z - 153300Z, 154219Z - 154700Z, 155301Z - 155638Z, 173644Z - 173856Z, 175018Z - 175239Z, 175824Z - 175922Z, 180308Z - 180358Z, 183522Z - 183552Z, 184605Z - 184811Z, 185709Z - 185845Z, 191937Z - 192122Z, 192951Z - 193937Z and 194109Z - 194856Z.

The King liquid water probe and the CO2 side radiometer were inoperative for the entire mission.

All other instruments worked optimally during the flight.

The aircraft INE positions were renavigated with respect to GPS.

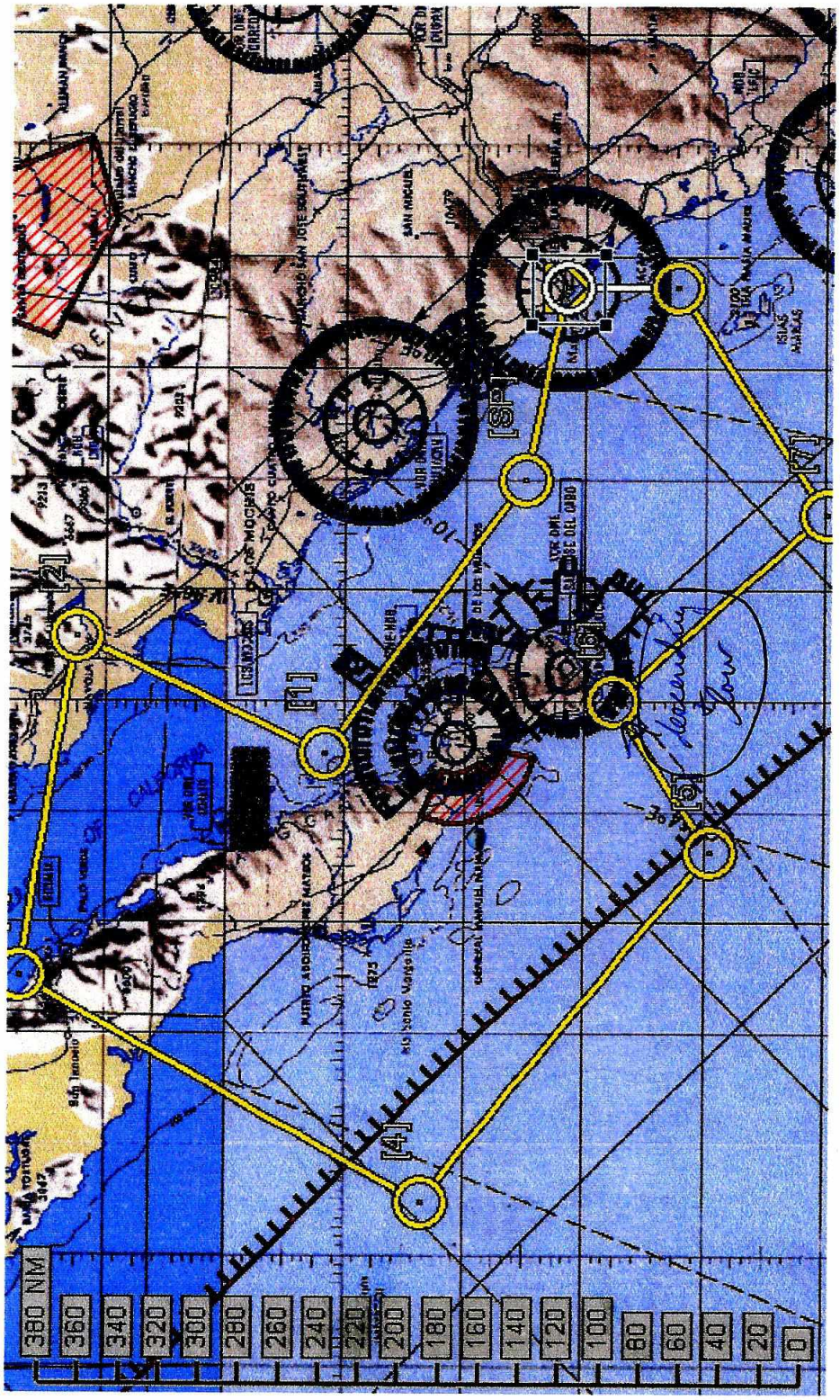
SPECIAL NOTE!!! Locations 80, 81 and 82 of record five on the standard tape contain vertical ground, vertical air and vertical speeds, respectively, computed using Dave Jorgensen's vertical wind algorithm. It is recommended that these values be used for vertical wind analysis.

	Takeoff	Landing
Aircraft Static Pressure	1010.5mb	1011.3 mb
Corrected Tower Pressure	1011.0mb	1011.0 mb
Flight Director:	A. Barry Damiano	
Phone #:	(813) 828-3310 ext. 3073	

221818 16015KT P6SM SCT008 BKN012CB OVC070

TEMPO 1923 3SM RA/TSRA

17462 12016KT 10SM FEW012 BKN020CB OVC040 24/21 2995



PCPN S AND SW

LWR CLD

OVNT BKN OVC

D04022

new1

28 34

111 53

new2

28 30

113 19

6 K feet

N43RF Hurricane / CBLAST '04 Flight Performance Log

Mission NAME #5 Flt ID 040722I

SED Crew Lynch, San Saaci, Tong

Pre-Flight 11:00 Take-Off 1252Z Landing 1957Z

TERRY HAS GREAT GLUTES!

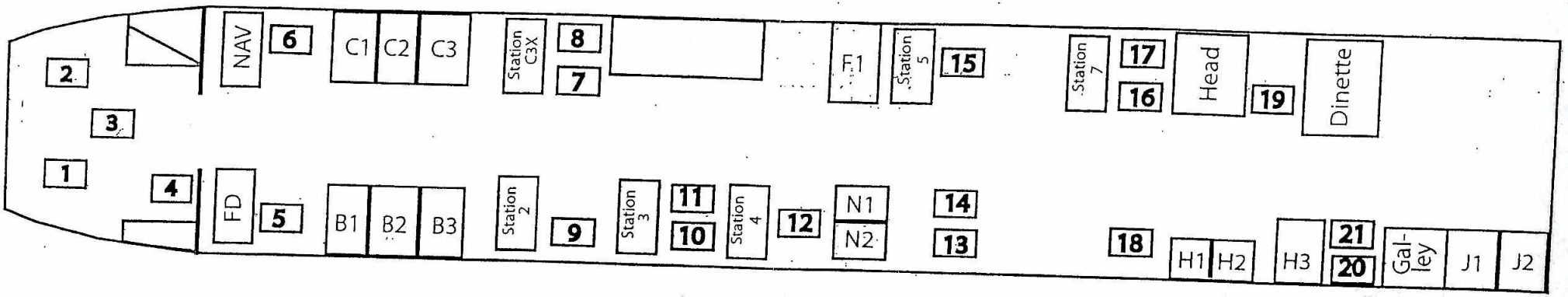
	System			Pre-Flight	In-Flight			Post-Flight			
								LAT	LON	GS	RE
NAV	GPS	FM : 1		RT							
	INE #1 Time On: 1053	Aligned to : Ø		RT				41.3	-.2	1	4
	INE #2 Time On: 1053	Aligned to : Ø		RT				41.3	-.5	0	1
	Diff GPS			RT							
RADAR	MARS Data	Start	Stop	Ready?	HRD?			# DATs ?	Given To: ABD		
	MARS	1300	1946	JB	Y (N)			1			
	MARS Data / Tape Status				LFRec	TARec	EOF's				
	MARS LU8	Clean	RT	RT	—	—	—				
	MARS LU9	Clean	RT	RT	1619	23759	46				
	RADAR R/T SN Tail 102 202 LF 102			RT	Mod Switches	ON		Mod Switches	OFF		
	Nose			DS				Power	OFF		
PMS	FSSP Ref VDC:	Covers	OFF	NI				Covers	~~ON~~		
	Cloud Mono	Covers	OFF					Covers	ON		
	CIP	Covers	OFF					Covers	ON		
	SEA Data DAT	Start	Stop:	Ready?	#DATS	Errors	Disk Write	Given To:	—		
	DAT Clean?	—	—		—	—	Y / (N)		—		
TEMP		Cal High	Cal Low					Cal High		Cal Low	
	Temp #1	30.6	-30.4	RT				30.7		-30.2	
	Temp #2			RT				Power	OFF		
	Temp #3			NI				Power	~~OFF~~		
	Dewpoint (#1) (#2) #3 (TDL)			RT				Power	OFF		
PRES	Attack / Slip Angle (AP) (DAP) (BP) (DBP)			RT				Power	OFF		
	Differential (PQ1) (PQ2) (PQ3) (PQ4)			RT				Power	OFF		
	Absolute (PS1) (PS2) (CBPS)			RT				Power	OFF		
FLTLVL	Apn-159 SN: SN-1			RT				Power	OFF		
	Apn-232 SN: 1699			RT				Power	OFF		
	Liquid Water (J&W) ~~King~~			JB	28V WOW : ON ?			Power	OFF		
	Radiometer ~~CO2~~ (SST)			RT	28V WOW: (ON)?			Power	OFF		
RAMS	RAMS Data	Start	Stop	Ready?	Errors 8:	Errors 9:		# DATs ?	Given To:		
	CPU: (A) B	1241	2003	RT	1	0		Power	OFF		
	RAMS Data / Tape Status				Slow Rec	Fast Rec		Disk Records:	2653		
	RAMS LU8	Clean	RT	RT	26554	26540					
	RAMS LU9	Clean	RT	RT	Hung	Hung					
	Flight Director Laptop			TL				Power	OFF		
	Network			NI							
	ASDL Mission #: WXWX Name: TRAIN				Freq: 30	Block: 10		Power	OFF		
	C.I. Printer	Start	Stop	Ready?	Paper Bin Stores			Given To:	ABD		
	PRATE: 10	1241	2003	TL	0% 25% 50% (75%) 100%			Power	OFF		
MISC	Exterior Walk Around	Plugs	Covers	JMA				Plugs	Covers		
	SATCOM (W/S) (Inmarsat) (GlobalStar)			TL				Power	OFF		
	AXBT Internal # Loaded : 6			NU				# Launched :	—		
	AXBT External # Loaded :				28V WOW			# Launched :	—		
	AVAPS # On Board : 4							# Dropped :	—		
	Video Cameras	Start	Stop	Ready?	Cameras	Mode		# Tapes ? 3	Given To: ABD		
	VHS (SVHS)	1241	2003	RT	(N) L (R) D	2 / (12)		Lens Cap ? :			
	FCU	-B-C-D-		TL				UPS	OFF		
USER	SFMR ~~HRD~~ AOC			TL				Accelerometers			
	NASA SRA			NU				#1 (2 G) :	8202		
	ARL BAT Probe, SST & IRGA							#2 (2.5 G) :	6687		
	UW PDA							#3 (3 G) :	5967		
	Scripps MASS, Laser Alt, IR Cam & Sono							#4 (3.5 G) :	2892		
	RSMAS Licor			TL							

Please Note any Discrepencies

Item #	Zulu Time	Problem Description	Initials	Status
1	1330	EXAMINING ISSUES W/ AOC SMFR TL isolated to FLIGHTDECK ALTIMETOR APN-194	RT	
2	–	Fastx IAU Data Burst error / ASCII CONVERSION – NUMEROUS TIMES DURING FLIGHT	RT	
3		LU 9 W/N write records while checking on LU8 W/N go through whole	RT	
		tape process		

NOAA AIRCRAFT OPERATIONS CENTER

Flight ID IO40722

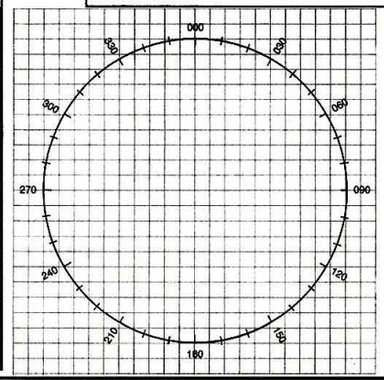


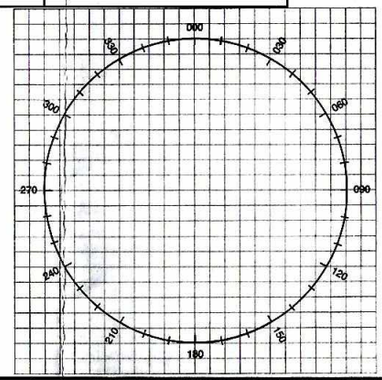
1. SIRAH — PILOT
2. STRONG — COPILOT
3. FLOYD — FLIGHT ENGINEER
4. DOUGLAS — STATION 1
5. DAMIANO — FLIGHT DIRECTOR
6. ADLER — NAVIGATOR
7. RAO — STATION C3X
8. SANTHANAM — STATION C3X
9. ROSENGAUS — STATION 2
10. MEJIA — STATION 3
11. OFF DUTY FE — STATION 3
12. TONG — STATION 4
13. FEHER — PROJECT SEAT
14. HINOJOS — PROJECT SEAT
15. LYNCH — STATION 5
16. ~~KER~~ MEITIN — STATION 7
17. KERMOND — STATION 7
18. SANS SOUCI — STATION 8
19. _____ — DINETTE
20. _____ — GALLEY
21. _____ — GALLEY

CLEARANCES			
FREQ	ALT	HDG	OTHER
			24343 29.88

MISSION LOG

PAGE ___ OF ___





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 _____

- 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

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
1240 1244	ENG TAXI																				
1245 1252	BLOCK T/O																				
1255	XV	23 11.0 106 21.8	23 16.0 106 22.0	+0 -.2	23 11.0 106 22.0	+0 -.2				4L	290	197	340	20	5K	223					
1345		24 31.2 109 28.5	24 30.6 109 28.9	+.6 -.4	24 31.4 109 28.7	-.2 +.2				3L	307	230	045	10	500	223					
1446		27 19.4 109 52.3	27 18.2 109 52.6	+1.2 -.3	27 19.1 109 52.4	+.3 -.1				6L	280	28	335	30	500	230					
1603		28 05.4 113 25.4	28 03.4 113 25.7	+2.0 -.3	28 04.9 113 25.6	+.5 -.2				1L	192	262	335	10	10K	251					
1646		25 22.1 114 11.6	25 19.1 114 11.8	+3.0 -.2	25 21.6 114 11.9	+.5 -.3				3L	195	258	325	10	500	230					
1746		22 33.8 112 07.4	22 30.9 112 08.1	+3.1 -.7	22 32.6 112 07.8	+1.2 -.4				1L	127	235	46		6K	231					
1849		21 37.3 108 48.3	21 34.2 108 48.1	+3.1 +.2	21 35.9 108 48.8	+1.4 -.5				1L	142	191	160	15	500	214					
1957		LAND	MMM																		
		23 09.7 106 15.5	23 05.4 106 15.7	+4.3 -.2	23 08.4 106 16.0	+1.3 -.5															

NOAA FORM 56-49
(2-95)

MISSION PREFLIGHT LOG

DESTINATION	MISSION	NAVIGATOR	AIRCRAFT COMMANDER	FLIGHT DIRECTOR	SCHEDULED / ACTUAL TAKEOFF Z	DATE OF TAKEOFF
MMMZ	NAME #6	ADLER	SILAH	DAMIANO	1300 / 1252	22JUL04

18 SOB

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
9	~~23 30 108~~																	
1	~~25 10 110 28~~																	
2	~~27 15 109 24~~																	
3	27 42.7 112 28																	
4	24 21 114 30																	
5	21 57.5 111 21																	
6	22 45.9 109 59.7																	
7	20 59.6 108 18.0																	
8	22 14.3 106 19.8										12 57 6440							
9	MMMZ										1932							
					TME	FUEL	FF	CC FF	ENDUR	LAND								
					1252	51.9			7+30	2022								
1	28 34.3 111 53				1352	45.9	6.0	②	5.5 6+30	20 22								
2	28 30 113 19				1452	40.3	5.2 5.0		@5.6 5+25	2017								
					1606	33.4	6.9 5.6	✓	4+10	2016								
					1714	27.3	6.1 5.4		3+10	2024								
					1856	18.1												

INS PERFORMANCE

	INS 1	INS 2
BEGIN ALIGN TIME	1155	1155
ALIGN STATUS (0-5)	0	0
END NAV TIME	1957	1957
START NAV TIME	1235	1235
DELTA T	7+22	7+22

TERMINAL ERRORS

	INS 1	INS 2
DELTA LAT	+4.3	+1.3
DELTA LON	-.2	-.5
RGS	1	0
RADIAL ERROR	4	1.

REMARKS

1+04 1746 vs

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