

FLT ID: <u>F950907</u>	FM: <u>TBPP</u>	TO: <u>KOPF / KMLF</u>
FLT NO: <u>95-064</u>	BLK IN: <u>2231Z / 2341Z</u>	ATA: <u>2227Z / 2333Z</u>
ETD: <u>1400Z</u>	BLK OUT: <u>1352Z / 2238Z</u>	ATD: <u>1401Z / 2243Z</u>
ETE: <u>11</u>	BLK TIME: <u>8:39 / 1:03</u>	FLT TIME: <u>8:26 / :50</u>
SPONSOR ORG: <u>HRD</u>	PROGRAM: <u>HRCN RESEARCH</u>	PURPOSE: <u>HALUIS</u>

DAO PERSONNEL

AC <u>PHILIPPSBORN</u>	SYS ENG
CP <u>D'ARRA</u>	DATA SYS <u>LYNCH</u>
NAV <u>STRONG</u>	RADAR
FE <u>BAST / MOORE</u>	BT/ODW <u>McMILLAN</u>
RADIO <u>SANS SOUL</u>	CLD PHYS <u>PRADAS-BERGNES</u>
FD <u>DAMIANO</u>	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/DAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
<u>CLOSSER</u>	<u>MECH</u>	<u>AOC</u>
<u>McFADDEN</u>	<u>??</u>	<u>AOC</u>
<u>GAMACHE</u>	<u>PI</u>	<u>HRD</u>
<u>MARKS</u>	<u>RADAR</u>	<u>HRD</u>
<u>DODGE</u>	<u>RADAR</u>	
<u>LEIGHTON</u>	<u>WORKSTATION</u>	
<u>LEE</u>		

PROPOSED/ACTUAL MISSION/REMARKS (RECCO, FIXES, STORM, PENET, NHOP #)

164000 DWI saturated

2634Z

went to INEZ GS

500 mb OVR NASSAU 00Z

-4 190/18

-10

1652Z 22°46' 67°06'

1916Z 23°12' 67°24'

938 mb FROM SANDE

SYS CRASH

2246-2252Z

TPA 197/20

9:3 26

U.S. DEPT. COMM./NOAA/ORD - DATA SECTION WORK FORM NO.2 DROWF2 FILE

FLT ID: *I950907*TIME OFF: *1401Z / 2243Z* TIME ON: *2227Z / 2333Z*

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	<i>1007.0 / 1011.0</i>		<i>1010.9</i>	

NO

DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES

1

FAST FLT LVL TAPES

RADAR TAPES

2

DOPPLER TAPES

ODW CASSETTES

4

HARD COPIES

*PMS**1*

AXB

CP

ODW

6

PHOTOGRAPHY

	FWD	LS	RS	VERT	
ON					
OFF					
RATE					

REMARKS

NOAA • AOC • SED Flight Performance Log

Aircraft : N43RF

Project: Hurricane '95

Mission : LUIS & Ferry → TPASED Crew: Lynch, McMillan, JCPBFlight ID : 950907IPre-Flight: 1230ZTake-Off: 1A:01/22:42Landing: 22:27/23:33

System			Pre-Flight	In-Flight	Post-Flight		
NAV	INE #1	Aligned to : 3	✓ TL		+4.4	-.9	4
	INE #2	Aligned to : 2	✓ TL		+13.7	-9.4	0
	GPS		✓ TL		Lat	Long	GS
RADAR	Nose		✓ TL				
	L/F	R/T SN : 102			Mod Switch Off ?		✓
	Tail	R&T SN : 202/203			Mod Switch Off ?		
	ASAU's & RCU		✓ STM				
	MARS Data System		✓ STM	Ⓐ	# DATs : 2		
PMS	2DG-C	Ch 1/64: 1	✓ JCPB				
	2DG-P	Ch 1/64: 1	✓ JCPB				
	FSSP	Ref VDC:	✓ JCPB				
	SEA Data System		✓ JCPB		# DATs : 1		
TEMP		Cal High	Cal Low		Cal High	Cal Low	
	Temp #1	30.6	-30.2	✓ TL	36.0	-29.9	
	Temp #2			✓ TL			
	Temp #3 (Starboard)			NU ①			
	Dewpoint #1		✓ TL				
PRESS	Dewpoint #2		✓ TL				
	Attack Angle (AP/DAP)		✓ TL				
	Slip Angle (BP/DBP)		✓ TL				
	Differential (PQ1/PQ2/PQ3)		✓ TL				
	Absolute (PS1/PS2)		✓ TL				
S	Radome Transducers		Plugs Out ② ✓ TL				
	Cabin Transducer (Station 5)		✓ TL				
	Apn-159	SN: 66-024	✓ TL				
FLTLVL	Apn-232	SN: 1699	✓ TL				
	King Liquid Water		NI				
	J&W Liquid Water		✓ TL				
	Down PRT-5 (SST)		✓ TL				
	Side PRT-5 (CO ²)		✓ TL				
MISC	RAMS Data System		JCPB ③		# DATs : 2		
	ASDL		✓ JCPB				
	Exterior Walk Around		✓ TL				
	Video	① ② ③ D	✓ JCPB				
	AXBT	② # on Board		# Dropped:		# Good	
USE	ODW	28 # on Board : ✓ STM		# Dropped : 6		# Good : 6	
	FCU	-A-B-C-	✓ STM				
	Charge Probe		NU		Accelerometers		
R	Formvar		NU		#1 (2 G) :	8150	
	Field Mills	① ② ③ ④	✓ TL		#2 (2.5 G) :	6684	
	Lawrence Water Collector		NI		#3 (3 G) :	5967	
	HRD Workstation				#4 (3.5 G) :	2892	

Please Note any Discrepancies

[illegible]

H. LUIS

FLIGHT #02 I950907

TYPE OF DATA

SENSOR OR OPTION

INE	2
Accelerometer	2
Temperature probe	1
Altitude change option (for vertical winds)	RA159
Static pressure	Rosemount fuselage
Dynamic pressure	Rosemount fuselage
Time source	Micro 99
Constants file	CO3958.CON

Notes:

There were two time/data gaps: 165016Z - 165030Z
195102Z - 195120Z

Dewpoint temperature #1, DW1, exceeded ambient temperature several times throughout the flight. During the following time frames:

1638Z - 1645Z
1659Z - 1703Z
1924Z - 1927Z

These extremes were removed and patched.

Downward spikes in radar altimeter output are a result of overflying land.

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	1007.0mb	1010.9mb
Corrected tower pressure	1007.5mb	1010.5mb

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

I950907

RENAV INE 2

143000, .4, .8
153000, 3.1, .7
163000, 6.1, 1.6
170000, 8.2, +1.1
173000, 9.4, +.1
183000, 12.2, ~~1.3~~ -1.3
193000, ~~13.6~~, -2.7
~~193000~~, 13.6, -2.7
203000, 15.7, -4.1
213000, 16.2, -4.4
223000, 16.6, -5.9
190000, 13.0, -1.6

DW1 Fix

~~1925-1927~~

1925

1638-1645 (18,48 patch.1)
1659-1703 (27,49, patch.1)
1924-1927 (24.45)

DATA GAPS

165016-165030
195102-195120

PC+RL

INE 2

211800

DAP

OK no fixes

1402-1412, 1415-1425, 1548-15603,
1605-1612, 1616-1626, 1627-1637, (R)
1637-1642, (R) 1658-1703(R), 1742, 1909, 1925-1928
1932-1937, 2002, 1918-1928 (R)

TT

1615-1625

1920

1906, 1911

2014-2020

2154-2204

TT 2 dropping
out

W7 check

19202

27,49

1848

I950907

TIME	LAT	LONG	TRK	HD	WD	WS	PA	CA	TA	TD	SD	PS		PG
140200	1305	5927	64	67	116	9	166	193	27	22.1	1014.3	584	CLR	73.8
142700	1440	6003	337	337	167	9	5204	5520	-2.6	-17.2	1010.3	525.7	CLR	72.5
144800	1613	6044	337	337	185	15	5201	5509	-3.2	-18.5	1012.1	525.9	CLR	74.9
150400	1727	6116	338	337	188	24	5198	5503	-2.7	-18.3	1010.0	526.2	CLR	75.1
152900	1927	6205	339	337	197	27	5197	5490	-3.1	-16.9	1009.7	526.3	CLR	77.2
154700	2055	6241	338	336	193	33	5194	5474	-2.2	-15.3	1006.0	526.3	CLR	78.4
155300	2124	6254	338	335	184	41	4286	4507	1.4	-11.3	1010.6	593.5	BTN CLDS	67.7
160742	2231	6330	272	262	181	54	4284	4500	2.9	-2.3	1009.3	593.4	Good (ODW)	81.2
162700	2242	6502	272	257	180	74	4281	4425	1.7	2.4	1000.5	594.2	CLD ABV	82.1
163900	2244	6557	276	258	173	90	4267	4294	3.8	6.5	983.8	594.7	CLDS	74.0
171500	2254	6857	269	282	4	56	4276	4400	3.2	3.4	995.2	594.4	CLDS	29.2
172500	2254	6946	270	282	2	53	4277	4443	3.0	2.3	1001.3	594.3	IN CLD	75.4
173724	2250	7039	135	131	3	30	4277	4466	3.9	-1.6	1001.8	594.4	Good (ODW)	78.6
175500	2146	6932	135	133	331	50	4282	4441	2.4	1.2	999.8	594.1	IN CLD	76.2
180800	2058	6839	135	138	306	46	4280	4440	2.6	-0.8	1000.8	594.1	BTN CLD	80.2
182300	2005	6740	133	140	263	34	4280	4459	1.6	0.9	1004.6	594.1	RW	73.7
183120	1948	6711	3	356	250	40	4281	4463	1.8	-5.4	1005.4	594.2	Good (ODW)	73.0
185500	2137	6712	358	346	253	64	4281	4381	3.8	1.2	991.4	594	RW	72.7
191622	2313	6724	2	5	78	17	4281	3941	10.9	8.1	932.5	594	EYE (ODW)	76.8
200436	2632	6738	261	261	84	45	4282	4486	3.2	-2.5	1004.8	594.1	Good (ODW)	73.6
204400	2504	7109	235	238	33	28	6423	6771	-9.8	-21.5	—	445.0	BTN CLDS	73.4
205305	2457	7200	270	275	28	24	6422	6775	-10.5	-23.2	—	445.1	Good (ODW)	80.6
211300	2455	7357	266	268	60	12	6423	6785	-11.1	-23.5	—	445.1	ABV CLD	83.1
212700	2450	7519	267	268	185	4	6424	6789	-10.6	-23.3	—	445.0	ABV CLD	83.4
214600	2517	7704	287	285	200	15	6422	6784	-9.5	-17.0	1002.9	445.1	BTN CLD	83.1
220300	2535	7834	277	275	188	16	4922	5177	-0.9	-11.4	1006.2	545.8	CLR	83.7
221800	2552	7943	274	273	202	6	1235	1290	19.8	13.5	1012.3	823.5	CLR	97.6

DATE : 9/7/95

TO : Chief, AOC Flight Operations

FROM : Pilot/Flight Director, Aircraft

ON 2341Z BLOCKTIME

OFF 1352Z 29:49

SUBJECT: Hazardous Duty

PURPOSE OF FLIGHT: HURRICANE RESEARCH ON H. LUIS

Hazardous Duty Pay is required for flight made on 9/7/95
(DATE)

Request based on FLYING INTO H. LUIS

Personnel on board authorized Hazard Pay:

BAST

MOORE

DAMIANO

SANS SOUCI

LYNCH

McMILLAN

PRADAS-BERGNES

CLOSSER

McFADDEN

PILOT/FLIGHT DIRECTOR:

A. Barry Damiano

APPROVED:

DISAPPROVED:

CHIEF, AOC FLIGHT OPERATIONS:

DATE 9/7/95		SCHEDULED FIX TIME		AIRCRAFT NUMBER N43RF		ARWO D ANDRANO	
MANOP/HEADING (PRECEDENCE IMMEDIATE)							
MISSION IDENTIFIER AND OBSERVATION NUMBER WXWX LUIS							
(ABBREVIATED) (DETAILED) VORTEX DATA MESSAGE							
A	07/1916 Z			DATE AND TIME OF FIX			
B	23 DEG 12 MIN N S			LATITUDE OF VORTEX FIX *			
	67 DEG 24 MIN E W			LONGITUDE OF VORTEX FIX *			
C	MB NA M			MINIMUM HEIGHT AT STANDARD LEVEL			
D	NA KT			ESTIMATE OF MAXIMUM SURFACE WIND OBSERVED			
E	DEG NA NM			BEARING AND RANGE FROM CENTER OF MAXIMUM SURFACE WIND			
F	250 DEG 115 KT			MAXIMUM FLIGHT LEVEL WIND NEAR CENTER			
G	180 DEG 35 NM			BEARING AND RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND			
H	938 MB			MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM WITHIN 1500 FT OF SEA SURFACE			
I	7 C/ 4180 M			MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE OUTSIDE EYE			
J	11 C/ 3939 M			MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE INSIDE EYE			
K	8 C/ NA C			DEWPOINT TEMP/SEA SURFACE TEMP INSIDE EYE			
L	CLOSED WALL			EYE CHARACTER: Closed wall, poorly defined, open SW, etc.			
M	C017-65			EYE SHAPE/ORIENTATION/DIAMETER. Code eye shape as: C - Circular; CO - Concentric; E - Elliptical. Transmit orientation of major axis in tens of degrees, i.e., 01-010 to 190; 17-170 to 350. Transmit diameter in nautical miles. Examples: C8 - Circular eye 8 miles in diameter. E09/15/5 - Elliptical eye, major axis 090-270, length of major axis 15NM, length of minor axis 5NM. CO8-14 - Concentric eye, diameter inner eye 8 NM, outer eye 14 NM.			
N	23 DEG 12 MIN N S			CONFIRMATION OF FIX: Coordinates and Time *			
	67 DEG 24 MIN E W						
	07/1916 Z						
O	12345 / 9			FIX DETERMINED BY/FIX LEVEL FIX DETERMINED BY: 1 - Penetration; 2 - Radar; 3 - Wind; 4 - Pressure; 5 - Temperature. FIX LEVEL (Indicate surface center if visible; indicate both surface and flight level centers only when same): 0 - Surface; 1 - 1500 ft; 8 - 850 mb; 7 - 700 mb; 5 - 500 mb; 4 - 400 mb; 3 - 300 mb; 2 - 200 mb; 9 - Other.			
P	2 / 2 NM			NAVIGATION FIX ACCURACY/METEOROLOGICAL ACCURACY			
Q	REMARKS FLT LVL 600 MB. MAX FLT WND 115 KTS S QUAD 1908Z EXCELLENT RADAR PRESENTATION. SEA LEVEL PRESSURE COMPUTED WIND 115 KTS 25NM NORTH OF CENTER FROM DROPSONDE.						

INSTRUCTIONS: Items A through G (and H when extrapolated) are transmitted from the aircraft immediately following the fix. The remainder of the message is transmitted as soon as available for scheduled fixes and at the ARWO's discretion for unscheduled (intermediate) fixes.

* CHECK SUM REQUIRED IN WESTPAC.

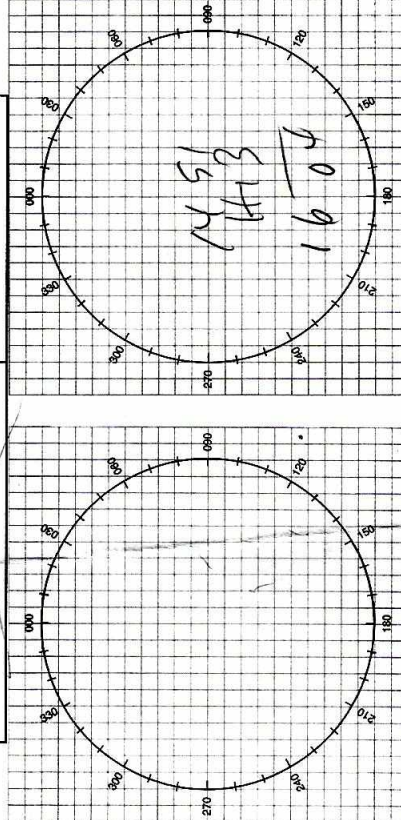
DATE 9/7/95		SCHEDULED FIX TIME		AIRCRAFT NUMBER N43RF		ARWO DAMIANO	
MANOP HEADING (PRECEDENCE IMMEDIATE)							
MISSION IDENTIFIER AND OBSERVATION NUMBER							
(ABBREVIATED) (DETAILED) VORTEX DATA MESSAGE							
A	07/1652		Z	DATE AND TIME OF FIX			
B	22 DEG 46 MIN ^N S			LATITUDE OF VORTEX FIX *			
	67 DEG 06 MIN ^E W			LONGITUDE OF VORTEX FIX *			
C	MB	NA	M	MINIMUM HEIGHT AT STANDARD LEVEL			
D		NA	KT	ESTIMATE OF MAXIMUM SURFACE WIND OBSERVED			
E	DEG	NA	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM SURFACE WIND			
F	170 DEG	103	KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER			
G	090 DEG	40	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND			
H		NA	MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM WITHIN 1500 FT OF SEA SURFACE			
I	C/		M	MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE OUTSIDE EYE			
J	C/		M	MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE INSIDE EYE			
K	C/		C	DEWPOINT TEMP/SEA SURFACE TEMP INSIDE EYE			
L	EYE CHARACTER: Closed wall, poorly defined, open SW, etc.						
M	EYE SHAPE/ORIENTATION/DIAMETER. Code eye shape as: C - Circular; CO - Concentric; E - Elliptical. Transmit orientation of major axis in tens of degrees, i.e., 01-010 to 190; 17-170 to 350. Transmit diameter in nautical miles. Examples: C8 - Circular eye 8 miles in diameter. E09/15/5 - Elliptical eye, major axis 090-270, length of major axis 15 NM, length of minor axis 5 NM. CO8-14 - Concentric eye, diameter inner eye 8 NM, outer eye 14 NM.						
N	DEG		MIN N S	CONFIRMATION OF FIX: Coordinates and Time *			
	DEG		MIN E W				
			Z				
O	/			FIX DETERMINED BY/FIX LEVEL FIX DETERMINED BY: 1 - Penetration; 2 - Radar; 3 - Wind; 4 - Pressure; 5 - Temperature. FIX LEVEL (Indicate surface center if visible; indicate both surface and flight level centers only when same): 0 - Surface; 1 - 1500 ft; 8 - 850 mb; 7 - 700 mb; 5 - 500 mb; 4 - 400 mb; 3 - 300 mb; 2 - 200 mb; 9 - Other.			
P	/		NM	NAVIGATION FIX ACCURACY/METEOROLOGICAL ACCURACY			
Q	REMARKS FLT LVL 600 MB. EXCELLENT RADAR PRESENTATION. DOUBLE EYE STRUCTURE. PEAK WIND 110 KTS E QUAD.						

INSTRUCTIONS: Items A through G (and H when extrapolated) are transmitted from the aircraft immediately following the fix. The remainder of the message is transmitted as soon as available for scheduled fixes and at the ARWO's discretion for unscheduled (intermediate) fixes.

* CHECK SUM REQUIRED IN WESTPAC.

MISSION LOG PAGE ____ OF ____

FREQ	ALT	HDG	OTHER
			22-18 6325 F102
			180
			180 7243
			MIAG WINCO



1. POSITION
2. TIME
3. ALTITUDE
4. NEXT POSITION
5. ETA
6. NEXT POSITION

TRANSMIT THE FOLLOWING MESSAGE TO PART AGENCY ON THE AIRGROUND
FREQUENCY IN USE. IF UNABLE TO ESTABLISH COMM, 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

THIS IS NOAA _____, NOAA _____, NOAA _____

DAYDAY, MAYDAY, MAYDAY

- 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

[illegible]

