19831010H1-FDIR

RFF-10 WORK FORM
(8 - 72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
RESEARCH FLIGHT FACILITY
MIAMI, FLORIDA

FLIGHT LOG

AIRCRAFT	FLIGHT NO.	FLIGHT ID	DATE
N42RF	Z-84	831010H	10 Oct 1983

TAKE OFF (City or airport)	LAND (City or airport)	ALTITUDE
Guadalajara, Mexico	Guadalajara, Mexico	Various 1105 1.0K 2.0K

PURPOSE

Eyewall or rainband experiment in T.S. Raymond

PROPOSED TAKEOFF TIME: 1400 Z	PROPOSED FLIGHT DURATION :
TIME IN: 2307	TIME ON: 2302
TIME OUT: 1331Z	TIME OFF: 1341
BLK. TIME: 9+36	FLIGHT TIME: 9+21

FLIGHT PERSONNEL

OPERATIONS CREW		WEATHER CREW			VISITORS
Ticknor		Parrish		Willoughby	Black
Gunnoe		Berles		Lord	
Adams		Tervi		Barnes	
Correll		Dunn		Willis	

PROPOSED MISSION

Fly to Raymond - do - HRD rainband experiment.

ACTUAL MISSION AND REMARKS

Knollenberg probe out. Possible radar problem (can record either tail or LF)
Using INE2
3 penetrations

DATA COLLECTED AND REMARKS

1 slow Tapo.
6 cloud phy
7 radar

OAO/ERSG FLIGHT PERFORMANCE LOG

TECH CREW: BERLES, JARVI FLIGHT ID: 831010H
AIRCRAFT: N42RF MISSION: HURR. RAYMOND
TIME: (PRE-FLIGHT) 1200Z (TAKE-OFF) 1341Z (LAND) 2300Z

SYSTEM		ALIGN PI	AID	PRE-FLIGHT	IN-FLIGHT	POST-FLIGHT LAT	LON	GS
N	INE1	5	α/DOP	✓		-1.1	+.6	0
A	INE2	3	α/DOP	✓		+.1	0	0
V	ONE			✓				
	DOPLR			✓				
R	INTEGRATION (PRI'S)							
A	NOSE	N/A		✓				
D	L/F	15		✓				
A	TAIL	63		✓				
R	DATA SYSTEM				(2)(3)	# TAPES: 7		

TEMP	CAL HI	CAL LO	AMBIENT		CAL HI	CAL LO
TEMP #1	+31.2	-29.0	+17.8			
TEMP #2	+30.7	-29.5	+17.5			

DEW POINT (CLEANED: Y/(N))	✓		
ATTACK ANGLE	✓		
SLIP ANGLE	✓		
ABSOLUTE PRESSURE	✓		
DIFFERENTIAL PRESSURE	✓		
RADAR ALTIMETER S/N: SW71-02	✓		
J&W	✓		
SURFACE RADIOMETER	✓		
CO2 RADIOMETER	✓		
P OAP2D-C	(1)		
M OAP2D-P	✓		
S FSSP-100	✓		
DATA SYSTEM	✓		# TAPES: 6
MICROWAVE RADIOMETER	NI		
ICE RATE DETECTOR	✓		
NIMBIOMETER	✓		
RAMS DATA SYSTEM	see DATA TECH LOG	(4)(5)(6)	# TAPES(SLO): 1
CLEAN MAG TAPE HEADS	✓		# TAPES(FAST):
EXTERIOR WALK-AROUND	✓		
ASDL	✓		# MESSAGES: 13
HARDCOPY	✓		OFF (Y)/N)
.			
.			

P		RATE	(COUNTS)	ON TIME	OFF	(COUNTS)
H	1) FORWARD	1/5	✓ Φ	1342Z	2040Z	4972
O	2) VERTICAL	N/A	NI	----------		--------
T	3) LEFT SIDE	1/5	✓ Φ	1342Z	2040Z	4974
O	4) RIGHT SIDE	1/5	✓ Φ	1342Z	2040Z	4975

AXBT SYSTEM	NU			
ODW SYSTEM	NU			
AXBT EXPENDABLES:	# ON BOARD: Φ	# DROPPED:		# GOOD:
DROPSONDES:	# ON BOARD: Φ	# DROPPED:		# GOOD:

CUMMULATIVE ACCEL. (MELC) (LOG AT END OF FLIGHT)	#1 (2G)	#2 (2.5G)	#3 (3G)	#4 (3.5G)

CODE: - OPERATIONAL; X(#)(TIME) - FAILURE (NOTE);
NI - NOT INSTALLED; NU - NOT USED
USE REVERSE SIDE FOR NOTES.
REPORT COMPLETION OF PRE-FLIGHT AND INSTRUMENT STATUS TO FLIGHT DIRECTOR.

(1). CLOUD PROBE HAS INTERMITTANT STUCK ELEMENTS. MISS THE PROBE #3107CH
CONTINUES TO UPDATE IN CLEAR AIR CONDITIONS.

(2). JUST AFTER TAKEOFF DSC-RCP AT STATION 3, ZOOM/CURSOR FUNCTION FAILED. CURSOR WOULD ONLY GO TO THE TOP LEFT OF THE SCREEN & OPERATOR HAD NO CONTROL. SWAPPED DSC-RCP'S BETWEEN FD STATION & STATION 3 TO GIVE HRD SCIENTISTS A GOOD DSC-RCP.

(3) 1448Z DSC #2 DISPLAYING A WIDE RANGE RING AT THE FURTHEST RING. (TAIL RADAR) PROBLEM DISAPPEARS WHEN LF & TAIL SWITCH BETWEEN DSC'S.

(4) 1605Z RAYTEK DOWN - NO COMMUNICATION WITH CPU2,
1615Z RAYTEK UP AFTER DATA TECH CLEANED & RESEATED CONTROLLER PCB'S.

(5) 1859Z VIDEO MONITOR (5") AT C3X INOP - NO HI VOLTAGE?

(6) 1930Z LINE PRINTER ERRORS - FOUND MAIN POWER BREAKER TRIPPED - PROBABLY CAUSED BY EXCESSIVE VERTICAL "G" FORCES DURING EYEWALL PENETRATIONS.

A/C COMMANDER	NAVIGATOR	A/C NO.	MISSION NO.	TIME AIRBORNE	LOCATION	DATE	PROJ. NAME
TICKNOR	ADAMS	NAZEF	831040	13 41	GDC 20-31.0N 103-18.8W	10 Oct 1983	Raymond J Poly

TIME OF ENTRY	POSITION	TYPE	INERTIAL POSITION	LAT LON COR'S	POSITION	LAT LON COR'S	REMARKS
133230	20-31.0N 103-18.8W	4	20-31.0 103-18.7	+.1 +.1	20-31.0 103-18.7	+.1 +.1	Block out
1341	20-30.9 103-19.0	4	20-30.7 103-19.0	+.2 0	20-30.8 103-19.0	+.1 0	TOFF
140830	19-09.0 104-34.1	4	19-08.8 104-29.8	+5.2 +4.3	19-08.9 104-35.0	+.1 -.9	MOT ZLO UPDATED INE's over
141530	18-50 105-05.5	2	18-50.5 104-59.4	-.5 +6.1	18-52.0 105-01.3	-2.0 +4.2	ZLO 238/37.5
143630	17-55 105-44.5	~	17-47.3 106-37.7	+7.7 +6.8	17-49.1 106-39.9	+5.8 +4.6	ZLO 239/143 INE 2
1531			14-59.8 110-35.8		15-01.5 110-38.2		Heading 232 TK 233
1610			13-11.6 113-34.7		13-13.3 113-37.4		
1728			12-24.9 114-43.4		12-24.8 114-43.5		~~ST~~
1842			12-26.8 115-15.7		12-26.1 115-15.6		
1917			11-58.8 116-57.2		11-58.1 116-58.6		~~S~~ 2
1923							~~S~~ 3
2145			17-11.9 108-06.0		17-10.3 108-06.5		Wiskey Compass 05 HSI -053

SYS	BEGIN ALIGN TIME	NCS CONN	Ω AID	TIME OUT OF COARSE / ELAPSE ALIGN POST TIME	ALIGN STS 0-5	(1) TIME INTO NAV.	(2) TIME OUT NAV.	ΔT (2)(1)	TERMINAL ERROR LAT	LONG	G
INS 1	~~13~~ 1300	✓	✓	—	5	1325	2307	9.7	+1.1	+.6	
INS 2 or IMU	1300	✓	✓	—	3	1325	2307	9.7	+.1	0	

ALIGN REMARKS:

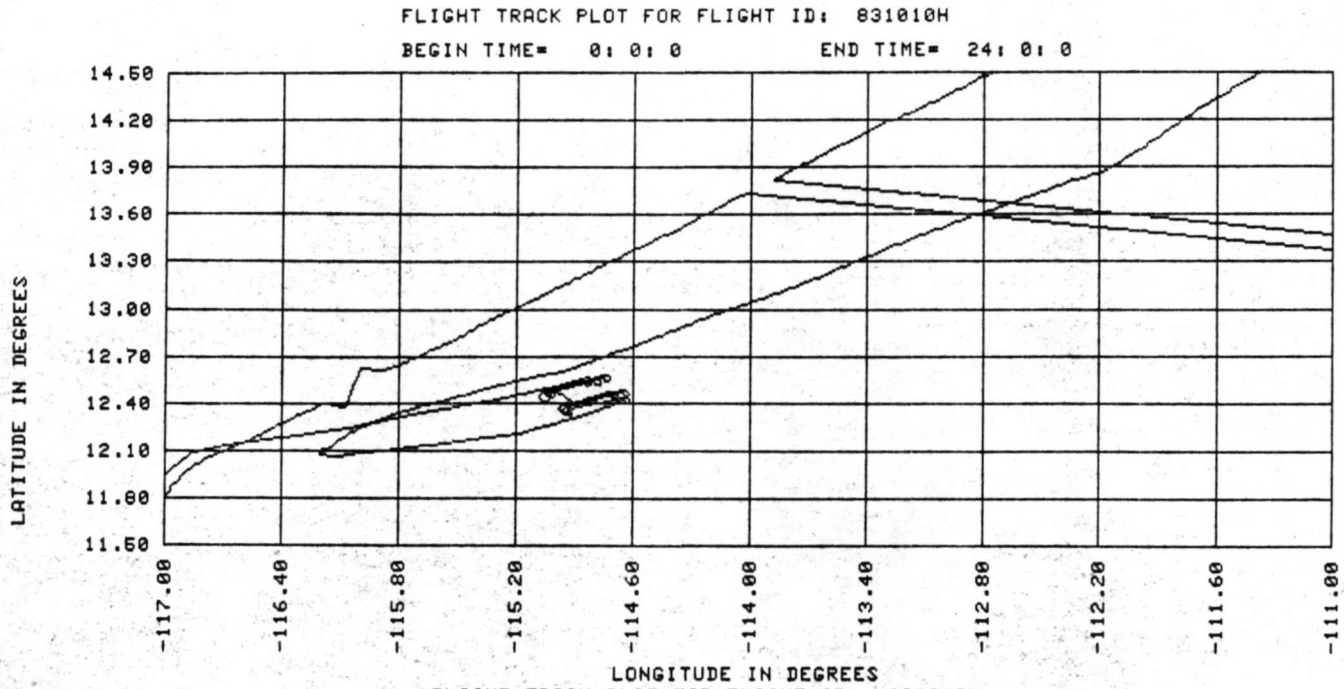
OTHER REMARKS:

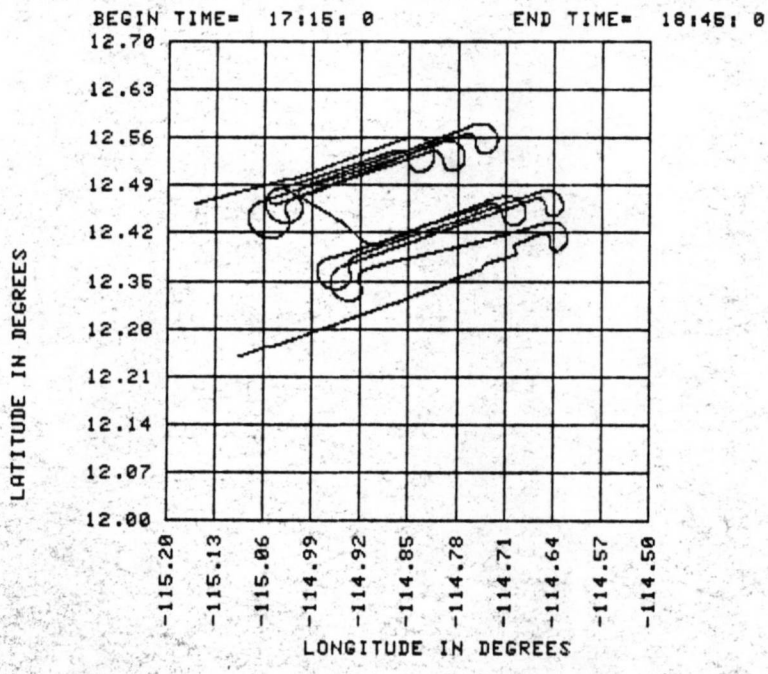
TYPE OF FIX: (1) DR (2) RADIO (3) CELESTIAL (4) VISUAL (5) LORAN (6) RADAR (7) DOPPLER (8) OMEGA (9) INERTIAL (10) OMEGA - INERTIAL

245 150 153

1st Head 135 from S

TIME OF ENTRY	POSITION	TYPE	INERTIAL POSITION	LAT LON COR'S	POSITION	LAT LON COR'S	REMARKS
2229	18-56 104-51	2	18-57.7 104-56.3	-1.7 -5.3	18-55.1 104-56.8	+.9 -5.8	ZLO Updated 237/22.5 INE's
2234	19-09.0 104-34.1	2/4	19-11.8 104-34.2	-2.8 -.1	19-09.5 104-34.6	-.5 -.5	MOT ZLO Updated INE's
2302	20-31.0 103-19.0	4	20-32.1 103-18.8	-1.1 +.2	20-32.0 103-19.0	-1.0 -0	Land
2306	20-31.1 103-18.8	4	20-32.2 103-18.2	-1.1 +.6	20-31.0 103-18.8	+.1 0	Block in
			18-55 104-51				
					2300		
					060 2nd		15
					105 15 1st		
					105		
					060		


FLIGHT TRACK PLOT FOR FLIGHT ID: 831010H
BEGIN TIME= 0: 0: 0
END TIME= 24: 0: 0
LATITUDE IN DEGREES
14.50
14.20
13.90
13.60
13.30
13.00
12.70
12.40
12.10
11.80
11.50
-117.00
-116.40
-115.80
-115.20
-114.60
-114.00
-113.40
-112.80
-112.20
-111.60
-111.00
LONGITUDE IN DEGREES


FLIGHT TRACK PLOT FOR FLIGHT ID: 831010H
BEGIN TIME= 17:15: 0
END TIME= 18:45: 0
LATITUDE IN DEGREES
12.70
12.63
12.56
12.49
12.42
12.35
12.28
12.21
12.14
12.07
12.00
-115.20
-115.13
-115.06
-114.99
-114.92
-114.85
-114.78
-114.71
-114.64
-114.57
-114.50
LONGITUDE IN DEGREES