

U.S. Dep't. of Commerce / NMAO / NOAA / Aircraft Operations Center

FLT ID: 070902H	From: TISX	To: TISX
Flt No: 07-046	In: 0141 Z	On: 0137 Z
ETD: 2000 Z	Out: 1958 2046 Z	Off: 2057 Z
ETE: 8+00	Blk Time: 4+55 4.9 Hrs	Flt Time: 4+40 4.7 Hrs
Sponsoring Org: NOAA/NCEP	Program: HUR 07	Purpose: H. FELIX

AOC Flight Crew

Aircraft Commander: STRONG, T	Data System: MC MILLAN, S
Co-Pilot: NEWMAN, C	AVAPS: HILL, J
Navigator: GALLAGHER, T	System Engineer:
Flight Eng: WADE, S BAST, G	AA:
Flight Director: SHEPHERD, T	AA:
Avionics: OLNEY, B	Crew Chief:

Participating Scientists / Visitors

Name (Last, First)	Activity on Aircraft	Affiliation
ROGERS, R	PI	NOAA/HRD
ABERSON, S	1	1
ESTEBAN, D	UMASS SFMR	UMASS
JELENAK, Z	1	1
MC MANUS, J		

Remarks (Storm Name, Mission ID, Recco Times, Fix Times)

Storm Name: FELIX

Mission ID: NOAA2 0906A FELIX

Recco Times

Fix #

Fix Time

2106

2134

2209

2232-4

2358-11

0022-12

0048-13

(See reverse for additional remarks)

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FLT ID: 0709024		TIME OFF: 2057 Z		TIME ON: 0137 Z	
	A/C - Takeoff	WX Station - Takeoff	A/C - Land	WX Station - Land	
Pressure	1012.4	30.00 29.99	1015.5	30.04	
ATIS - Takeoff					
ATIS - Land					
Data Source	Number	Data Disposition / Date / Quality			
Flight Level Tapes					
Radar Tapes					
Cloud Physics Tapes / Cds					
Video Tapes/DVDs					
Dropsondes	5	Good: 5 Bad: 1 NHC 4 HRD			
AXBT					
AXCP					
AXCTD					
SONOBUOY					

REMARKS:

T.O. delay due to inertial probs

Abort mission - took 4G hit NE eyewall



NOAA P-3 N42RF
Hurricane 2007
H. Felix

Flight ID: 070902H

Sensor or system

Number or Name

INE.....	2
Accelerometer.....	2
Temperature Probe.....	1
Dew Point Probe.....	2
Altimeter (for vertical wind).....	RA-159
Static Pressure.....	Rosemount (fuselage)
Dynamic Pressure.....	Rosemount (fuselage)
Time Source.....	Micro 99

Local Met. Data: Not copied at takeoff

Take off: 2057Z

Land: 0137Z

The dynamic fuselage pressure (pqf1) was substituted for the fuselage dynamic attack pressure (pqaf) on two occasions: 225207-225230 (0.0 offset applied) and 230858-230943 (0.0 offset applied).

There were data gaps noted: 230121-230130.

There were times during heavy precipitation events (e.g. eye wall penetrations) when the dew point exceeded ambient temperature yielding a RH of greater than 100%. This is probably due to a wet bulb effect on the total temperature probe and/or the dew pointer over heating while trying to remove excess moisture. In these instances, no corrections were attempted.

SPECIAL NOTE: In the netCDF file, 070902H_RXC.nc, vertical ground speed (dpj_wgs), vertical air speed (dpj_was), and vertical wind speed (dpj_wz) were computed using Dr. Dave Jorgensen's vertical wind algorithm. It is recommended that these values be used for vertical wind analysis.

Flight was aborted and returned to St. Croix after initial eye penetration due to over stress of air frame.

	Take off	Land
Aircraft Static Pressure	1012.4 mb	1015.5 mb
Corrected Tower Pressure	1015.6 mb	1017.3 mb

Flight Director:	Tom Shepherd
	813-828-3310 x3053

205401
start ~~204401~~
stop 014000

230121 - 230130
Data Gaps

TT1
TD2
INEZ
ACC2

sub pQ1 for pQat

225207 - 225230 0.0 offset ✓
230858 - 2309~~43~~ 0.0 offset
43

2250 2255

Double

Kristy
246-435-8920
Acra Beach

6 days

3 pilots
3 mt
2 F
1 NAV
3 SED
246-435-8920
16
12 unmass
4-11
fayer

4135 including

VORTEX DATA MESSAGE

Date	9/2/07	Scheduled Fix Time	NA	Aircraft Number	N42RF	Flight Director	Shepherd
Mission Identifier:						NDAAZ 0906A FELIX	
						OB Number: 10	
A	021 2307Z		Date and Time of Fix				
B	13 DEG 40 MIN N		Latitude of Fix (If in Southern Hemisphere, use "S")				
	72 DEG 43 MIN W		Longitude of Fix (If in Eastern Hemisphere, use "E")				
C	700 MB 2601 M		Minimum Height of Standard Level				
D	163 KT		Estimate of Maximum Surface Wind Observed (visually)				
E	045 DEG 12 NM		Bearing and Range <u>From</u> Center of Maximum Surface Wind				
F	142 DEG 152 KT		Maximum Flight Level Wind Near Center				
G	56 DEG 12 NM		Bearing and Range <u>From</u> Center of Maximum Flight Level Wind				
H	936 MB		Minimum Sea Level Pressure computed from Dropsonde or Extrapolated from flight level. <u>If</u> extrapolated, clarify in remarks.				
I	25 CI 2745 M		Maximum Flight Level Temp / Pressure Altitude <u>Outside</u> Eye				
J	26 CI 2806 M		Maximum Flight Level Temp / Pressure Altitude <u>Inside</u> Eye				
K	4 CI NA C		Dewpoint Temp / Sea Surface Temp <u>Inside</u> Eye				
L	CLOSED		Eye Character (Closed wall, poorly defined, open SW, etc.)				
M	C15		Eye Shape / Orientation / Diameter Code eye shape as: C – circular; CO – concentric; E – elliptical. Transmit orientation of the major axis in tens of degrees from 01 to 18, i.e., 01 => 010 to 190; 17 => 170 to 350. Transmit diameter in nautical miles. <u>Examples:</u> C8 = Circular eye 8 nm in diameter; E07/15/5 = Elliptical eye oriented 070 to 250, length of major axis is 15 nm, length of minor axis is 5 nm; CO18-30 = Concentric eye walls with diameter of inner eye 18 nm and diameter of outer eye 30 nm.				
N	1234517		Fix Determined By / Fix Level Fix determined by: 1 – Penetration; 2 – Radar; 3 – Wind; 4 – Pressure; 5 – Temperature. <u>Fix Level</u> (Indicate surface center if visible; indicate both surface and flight level centers ONLY when same): 0 – Surface; 1 – 1500 ft; 9 – 925 mb; 8 – 850 mb; 7 – 700 mb; 5 – 500 mb; 4 – 400 mb; 3 – 300 mb; 2 – 200 mb; NA - Other				
O	111- NM		Navigation Fix Accuracy / Meteorological Accuracy				
P	REMARKS: MAX FL WIND 152 KT NE QUAD 225Z LIGHTNING ALL QUADS EXTREME TURBULENCE NE QUAD SFMR WINDS 163 KTS NE EYE WALL SLP FROM DROPSONDE						

Instructions: Items A thru 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 Flight Director's discretion for unscheduled fixes.



ВУ = Ваккуп

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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 243.0 VHF/VOICE 121.5 MF/VOICE 2182 KHZ HF/CW 8384 KHZ MF/CW 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

POSITION REPORT

1. POSITION

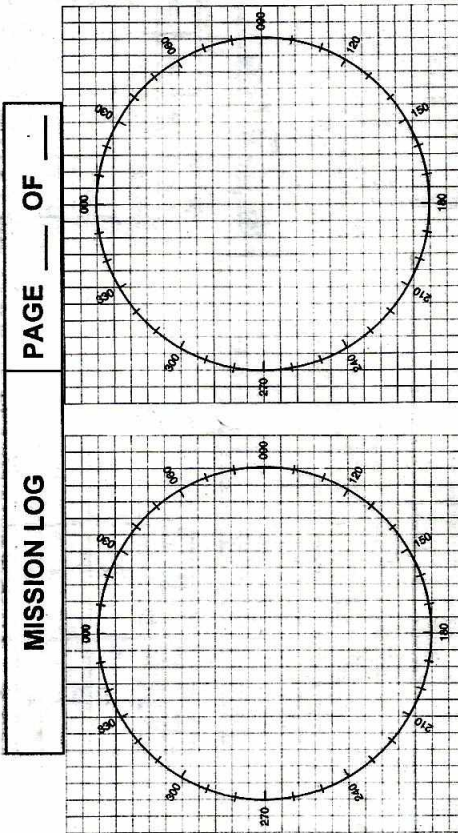
2. TIME

3. ALTITUDE

4. NEXT POSITION

5. ETA

6. NEXT POSITION



CLEARANCES				OTHER	
FREQ	ALT	HDG			
121.65	1000	105	105	6045	

TIME	FIX TYPE	POSITION	INS 1 POSITION	K ERR	INS 2 POSITION	K ERR	VAR +E=>	TH	DR +R=>	TRK	GS	WD	WS	ALT	TAS	NEXT PT	DIST	TIME	ETA	REMARKS
0600	A	17-21.7 065-17.6	17-21.6 065-17.8	+1.2	17-22.0 065-17.5	+1.3	11W	248	1L	247	285	086	15	1000	270	NAVA	105	124	21	
0600	A	17-21.7 065-17.6	17-21.6 065-17.8	+1.2	17-22.0 065-17.5	+1.3	11W	248	1L	247	285	086	15	1000	270	NAVA	105	124	21	
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