



NOAA P-3 N42RF

T.S. Erin

8/15/2007



Flight ID: 070815H

Sensor or system

INE

Accelerometer

Temperature Probe

Dew Point Probe

Altitude (for vertical wind)

Static Pressure

Dynamic Pressure

Time Source

Number or Name

2

2

1

2 (Edgetech)

RA159

Rosemount Fuselage psf

Rosemount Fuselage pqfl

Micro 99

Local Met Data:

Takeoff (0945Z)

Landing (1737Z)

Aircraft Static Pressure

1012.3 mb

1013.6 mb

Tower Pressure

1012.9 mb

1014.9 mb

Notes:

There were no errors noted in the selected sensors. Total temperature probe #2 was in error for most of the flight.

There were times during heavy precipitation events (e.g. eye wall penetrations) when the dew point exceeded ambient temperature yielding a RH 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, 070815H_RC.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 Director:

Tom Shepherd

Phone #:

(813) 828-3310 ext. 3053

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

FLT ID: 070815H	From: KMCF	To: KMCF
Flt No: —	In: 1743Z	On: 1737 Z
ETD: 0930 Z	Out: 0936 Z	Off: 0945Z
ETE: 9+00	Blk Time: 8+07 8.1 Hrs	Flt Time: 7+52 7.9 Hrs
Sponsoring Org: NOAA	Program: Hur07	Purpose: TDS

PRX AOC Flight Crew

Aircraft Commander: STRONG	Data System: PEEK, B
Co-Pilot: NELSON, M' GIRMONT, A	AVAPS: CARPENTER, D
Navigator: SIEGEL, P'	System Engineer:
Flight Eng: WADE, S' BAST, G	AA:
Flight Director: SHERWOOD, T'	AA:
Avionics: OLNEY, B	Crew Chief:

Participating Scientists / Visitors

Name (Last, First)	Activity on Aircraft	Affiliation
GAMACHE, J	PI - RADAR	NOAA/HRD
LEIGHTON, P	CO PI "	"
Philips, T	OBS	"
CHU, TAD	SFMR	UMASS
CONTRERAS, R	PI - SFMR/IWRAP	"
M ^c MANUS, JOE	SFMR	"
SPINLER, NICK	OBS	AOC

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

Recco Times

Fix #

Fix Time

Storm Name:

Mission ID: NOAA2 0205A Cyclone

2448N

9224W

020

0405A Erin

97

45

52

(See reverse for additional remarks)

U.S. DEPT OF COMMERCE / NMAO / NOAA / AIRCRAFT OPERATIONS CENTER

FLT ID: 070815H		TIME OFF: 0945 Z		TIME ON: 1737 Z	
A/C - Takeoff		WX Station - Takeoff		A/C - Land	
Pressure		29.91		29.97	
1012.3		1013.6			
ATIS - Takeoff		0855 V3 26/25 29.91			
ATIS - Land					
Data Source	Number	Data Disposition / Date / Quality			
Flight Level Tapes					
Radar Tapes					
Cloud Physics Tapes / Cds					
Video Tapes/DVDs					
Dropsondes		Good:	Bad:		
AXBT					
AXCP					
AXCTD					
SONOBUOY					
REMARKS:					
IP 2602		TT2 INDP		RECCO	
9102				0951	
				1015	
				1043	
				1111	
				1130	
				1147	
				1212	
				1238	
				1318	
				10-1356	
				11-1425	
2515					
9325					
				VMSG -12	
				13-1535	
				14-1556	

275
225
18045 **VORTEX DATA MESSAGE**

Date	7/15/07	Scheduled Fix Time	15Z	Aircraft Number	N42RF	Flight Director	Shepherd
Mission Identifier: NOAA 2 0205A CYCLONE						OB Number: 12	
A	151 1444 Z		Date and Time of Fix				
B	25 DEG 37 MIN (N)		Latitude of Fix (If in Southern Hemisphere, use "S")				
	93 DEG 24 MIN (W)		Longitude of Fix (If in Eastern Hemisphere, use "E")				
C	MB NA M		Minimum Height of Standard Level				
D	35 KT		Estimate of Maximum Surface Wind Observed (visually)				
E	045 DEG 35 NM		Bearing and Range From Center of Maximum Surface Wind				
F	119 DEG 44 KT		Maximum Flight Level Wind Near Center				
G	047 DEG 36 NM		Bearing and Range From Center of Maximum Flight Level Wind				
H	EXTRAP 1005 MB		Minimum Sea Level Pressure computed from Dropsonde or Extrapolated from flight level. If extrapolated, clarify in remarks.				
I	25 CI 483 M		Maximum Flight Level Temp / Pressure Altitude Outside Eye				
J	27 CI 483 M		Maximum Flight Level Temp / Pressure Altitude Inside Eye				
K	24 CI 29 C		Dewpoint Temp / Sea Surface Temp Inside Eye				
L	Poorly defined		Eye Character (Closed wall, poorly defined, open SW, etc.)				
M	NA		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. Examples: 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	13 11		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; 9 – 925 mb; 8 – 850 mb; 7 – 700 mb; 5 – 500 mb; 4 – 400 mb; 3 – 300 mb; 2 – 200 mb; NA - Other				
O	11 / NM		Navigation Fix Accuracy / Meteorological Accuracy				
P	REMARKS: MAX FL WIND 44 KT NE QUAD 1433Z SLP EXTRAPOLATED FROM 1500 FEET						

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.

070815H
TS Erw

TDZ

TT1

INEZ

ACCZ

TTZ prob entire flight
RA159 no spikes

no data gaps

$$\begin{array}{r} 393 \\ 90 \\ \hline 300 \end{array}$$

33



$$\begin{array}{r} 33 \\ 90 \\ \hline 123 \end{array}$$

26

1420

FIX
1444

2530

1325

x



1335

25

1308

122

1409

1300

1215

24

1253

1251

1227

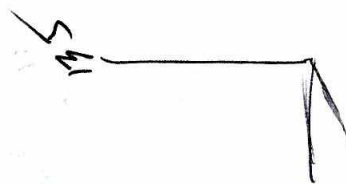
94

93

92

$$\begin{array}{r} 225 \\ 90 \\ \hline 135 \end{array}$$

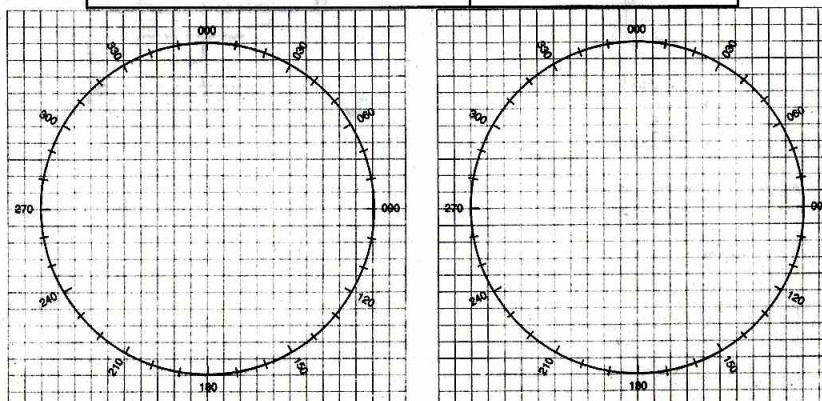
$$\begin{array}{r} 135 \\ -90 \\ \hline 45 \end{array}$$



CLEARANCES			
FREQ	ALT	HDG	
		132.65	OTHER (035)
		135.77	HOU C MINOW
		130.7	NY AVINC
			133
			SQ 5044
			hunkcs 253 982 4208
			5560
			HOU 281 230 5552
			MIA 305 716 1781

MISSION LOG

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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 243.0 VHF/VOICE 121.5 MF/VOICE 2182 KHZ HF/CW 8364 KHZ MF/CW 500 KHZ

MAYDAY, MAYDAY, MAYDAY
THIS IS NOAA _____, NOAA _____, NOAA 42

- 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 16 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
0930	START																				
0936	TAXI																				
0936	BLOCK																				
0945	T/O																				
0950	XV	N 2742.9 W 8244.1	27 42.9 82 44.2	0 -1	27 42.9 82 44.1	0 0	265	4W	261	1L	260	235	060	10	170	230	GIGANT				
1100	△	26 03.0 88 08.0	26 03.4 88 08.6	-4 -6	26 03.7 88 08.7	-3 -7	271	0	271	0	271	283	091	32	160	250	IP				
1200	△	25 09.2 92 29.0	25 09.7 92 30.0	-5 -1.0	25 08.4 92 29.6	+1.8 -1.6	220	3E	223	6R	229	210	190	33	015	228					
1300	△	24 38.5 94 05.1	24 39.1 94 05.2	-6 -1	24 37.0 94 05.7	+2.1 -2.6	058	4E	002	14	001	213	015	18	015	232					
1400	△	24 10.3 92 22.2	25 02.5 92 12.6	-12.2 -10.4	24 59.3 92 12.9	+2.2 -0.7	093	2E	095	8L	087	215	150	35	015	234					
1500	△	25 01.7 94 06.9	25 02.5 94 07.1	-0.8 -0.2	24 59.3 94 08.4	+2.4 -1.5	221	4E	225	1L	224	230	311	8	015	231					
1600	△	26 22.3 91 23.1	26 25.0 91 22.1	-2.7 -1.0	26 18.4 91 24.1	+3.6 -1.0	076	2E	078	4L	074	295	218	32	175	274					
1700	△	27 28.1 85 13.1	27 32.7 85 12.1	-4.6 +1.0	27 23.6 85 15.1	+8.5 -2.0	078	3W	075	1R	076	302	273	18	210	284					
1737	LAND	KMCF																			
1743	BLOCK	27 21.0 82 29.6	27 22.8 82 26.4	-1.8 -3.2	27 16.8 82 32.2	+4.2 -2.6															

0950NM

✓

✓

✓

✓