NOAA P-3 N42RF
H. Rita

Flight ID: 050923H

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: 1454Z
Land: 0028Z

The RA-232 was substituted for the RA-159 during take off and landing due to spiking (T.O. 145101-145430; 001823-003100 Land).

Dew pointer #1 was substituted for dew pointer #2 001831-002359 with a 3.0 °C offset.

All other instruments functioned normally during the flight.

There were data gaps noted: 145841-145846; 152842-152857; 153117-153121; 153545-153553; 153635-153640; 175399-175307; 183257-183301; 185601- 185610; 192151-195820. NOTE: The large time gap 192151-195820 was due to a data system crash and restart.

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: These data have not had Dr. Dave Jorgensen's vertical wind algorithm applied to them. Only the Aircraft Operations Center standard vertical wind algorithm has been applied. A new post-flight data processing algorithm was employed which currently lacks the Jorgensen method. The data can and will be rerun if required by the investigator.

	Take off	Land
Aircraft Static Pressure	1014.5 mb	1013.4 mb
Corrected Tower Pressure	1013.9 mb	1013.9 mb

Flight Director: Tom Shepherd
813-828-3310 x3053

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

FLT ID: 050923H	From: KMCF	To: KMCF
Flt No: 05	In: 0039Z	On: 0028Z
ETD: 1500Z	Out: 1442	Off: 1454Z
ETE: 8+30	Blk Time: 9+57 10.0 Hrs	Flt Time: 9+34 9.6 Hrs
Sponsoring Org: NOAA/NESDIS	Program: HURRO5	Purpose: H. RITA

AOC Flight Crew

Aircraft Commander: KENNEDY, P	Data System: McMillan, S
Co-Pilot: STRONG, T	AVAPS:
Navigator: GALLAGHER, T	System Engineer: KERR, B
Flight Eng: BAST, G	AA:
Flight Director: SHEPHERD, T	AA:
Avionics: OLNEY, B	Crew Chief:

Participating Scientists / Visitors

Name (Last, First)	Activity on Aircraft	Affiliation
CHANG, P	PI	NESDIS
ESTEBAN, D	IWRAP/SFMR	
ASUZU, P		
CONTRERAS, R		
JALANEK, Z		
BROCK, S	OBS	
MAYOR, T		
STENGEL, ERIC		
BLACK, M	HAPS/RADAR	HRD
DESFLOTS, M		U. WASH

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

Storm Name:

Mission ID: NOAA2 WX18A RITA

27.96
92.49

(See reverse for additional remarks)

Recco Times	Fix #	Fix Time
1	1700	6	1922
2	1739	7	2011
3	1809	8	2031
4	1828	9	2100
5	1907	10	2151

U.S. DEP'T OF COMMERCE / NMAO / NOAA / AIRCRAFT OPERATIONS CENTER				
FLT ID: 050923H	TIME OFF: 1454 Z		TIME ON: 0028 Z	
	A/C - Takeoff	WX Station - Takeoff	A/C - Land	WX Station - Land
Pressure	1014.5	29.94	1013.4	29.94
ATIS - Takeoff				
ATIS - Land				

Data Source	Number	Data Disposition / Date / Quality
Flight Level Tapes	4	
Radar Tapes	1	
Cloud Physics Tapes / Cds		
Video ~~Tapes~~ DVD's		
Dropsondes	33	Good: 30 Bad: 3 Total: 17 NESDIS / 16 RAINEX
AXBT		
AXCP		
AXCTD		
SONOBUOY		

REMARKS: ~1504 Bal DP#1

NOAA FORM 56-49
(2-95)

MISSION PREFLIGHT LOG

DESTINATION	MISSION	NAVIGATOR	AIRCRAFT COMMANDER	FLIGHT DIRECTOR	SCHEDULED / ACTUAL TAKEOFF Z	DATE OF TAKEOFF
KMCF	RITA – OCEANWIDE	LT GALLAGHER	CDR KENNEDY	SHEPPARD	15⁰⁰ / 14³⁴	23 SEP 05

1441
1442
2412 8138 1410

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
KMCF	27-51.0 082-31.3														15⁰⁰	14³⁴		
BOOA	27-35.5 085-20.7		269	4W	265	–	265	270	L	V	8000	270	151 151	+24 +34	15³⁴	15⁰⁰	15²⁵	
IP	27-34.3 089-21.2		273	2W	271	–	271						214 365	+47 1+21	16²¹	16¹⁵	16²³	
RITA	27-36.0 092-10.0		271	–	271	–	271	250		100+	7000	250	150 515	+36 1+57	16³⁷	16⁵¹	17⁰⁰	
1	27-35.3 093-06.3		268	2E	270	–	270						150 565	+12 2+09	17⁰⁷	17⁰³		
2	26-45.8 092-10.0		132	3E	135	–	135						71 636	+17 2+26	17²⁶	17²⁰		
RITA	27-36.0 092-10.0		350	2E	360	–	360						50 686	+12 2+38	17³⁸	17³²		
3	26-26.1 092-10.0		358	2E	360	–	360						50 736	+12 2+50	17⁵⁰	17⁴⁴		
RITA	27-36.0 092-10.0		178	2E	180	–	180						50 786	+12 3+02	18⁰²	17⁵⁶		
Relay											5000			3+00 6+02	21⁰²	20⁵⁶		
CIGAR	27-29.6 089-47.0		087	2E	089	–	089	290	L	V	17000	290	394 1180	+21 7+23	22²³	22¹²		
MILLE	27-39.5 088-40.7		082	3W	084	–	084						113 1293	+24 7+47	22⁴⁷	22⁴¹		
KMCF	27-51.7 082-30.8		040	4W	036	–	036						15 1308	+10 7+57	22⁵⁷	22⁵¹		

INS PERFORMANCE	INS 1	INS 2
BEGIN ALIGN TIME	13⁰⁰	13⁰⁰
ALIGN STATUS (0-5)	0	0
END NAV TIME	00⁴⁴	00⁴⁴
START NAV TIME	14³⁴	14³⁴
DELTA T	10+¹⁰	10+¹⁰

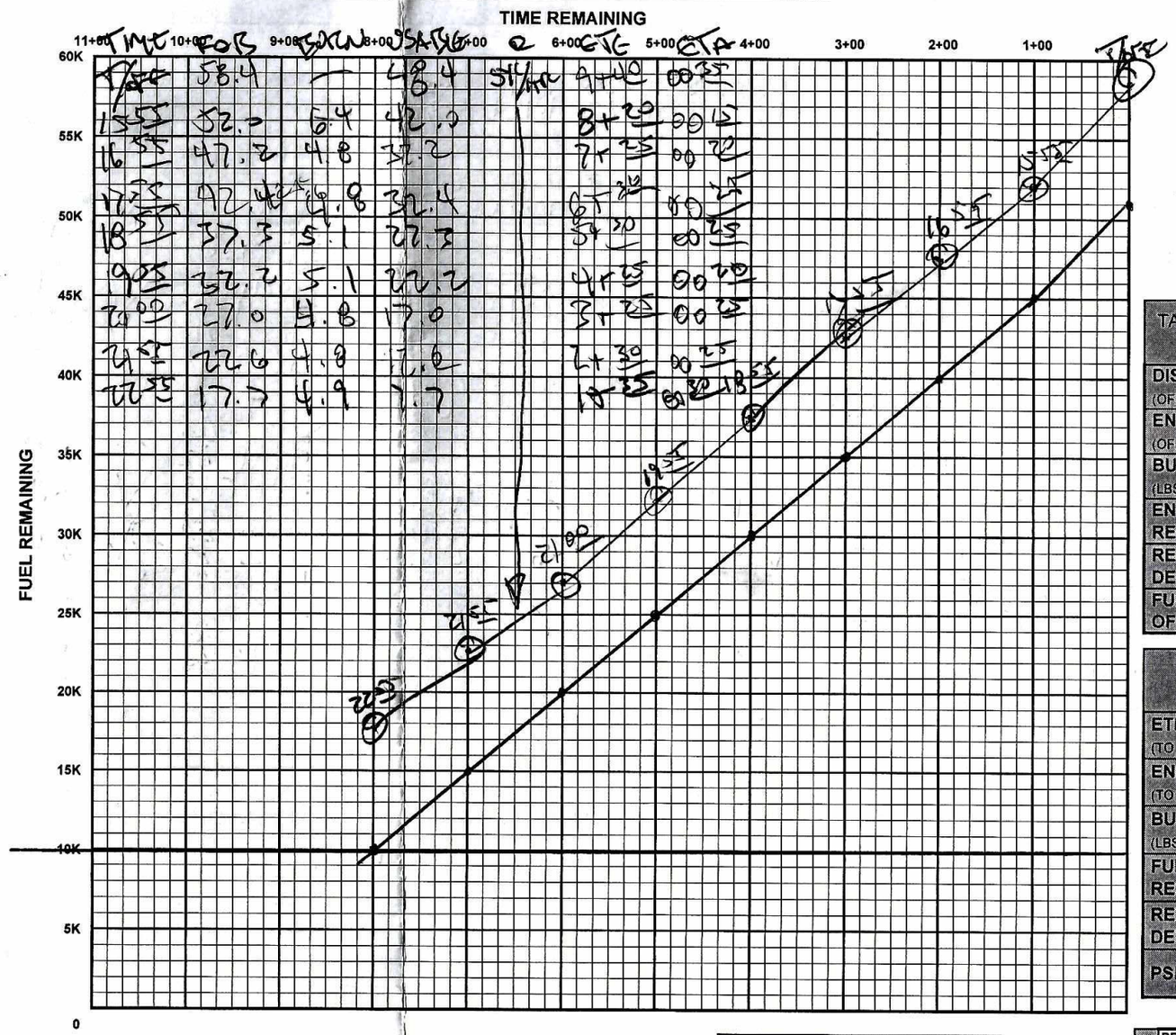
TERMINAL ERRORS	INS 1	INS 2
DELTA LAT	+21.4	+4.1
DELTA LON	-16.3	-5.7
RGS	2	4
RADIAL ERROR	27	7

REMARKS

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

23-38.8 092-43.4

RANGE CONTROL GRAPH



ETP = .5(TOTAL DISTANCE x OUTBOUND WIND FACTOR)

ENROUTE FUEL	
ENROUTE TIME	8+00
ENROUTE FUEL (6K, 5K 4.5K RULE)	41.0
RESERVE AT DESTINATION	10.0
REQUIRED RAMP	51.0
ACTUAL RAMP FUEL	58.4

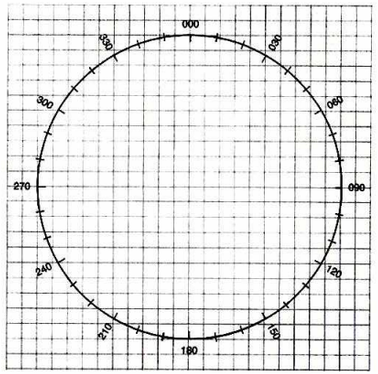
TACTICAL (OFFSTA TO DESTINATION)	4 ENG	3 ENG
DISTANCE (OFFSTA TO DEST)		
ENROUTE TIME (OFFSTA TO DEST)		
BURN RATE (LBS/HR)	4500	5500
ENROUTE FUEL REQUIRED		
RESERVE AT DESTINATION		
FUEL AT OFFSTA		

POINT OF SAFE RETURN	4 ENG	3 ENG
ETP DISTANCE (TO DEPARTURE)		
ENROUTE TIME (TO DEPARTURE)		
BURN RATE (LBS/HR)	4500	5500
FUEL REQUIRED		
RESERVE AT DEPARTURE		
PSR FUEL		

CEX - TRUE BEARING METHOD	INS1	INS2	WET
COMPASS TYPE			
MCH (READING)			
- MTH (SEXTANT)			
CE			
- VAR			
DEV			

CEX - ERB METHOD	INS1	INS2	WET
COMPASS TYPE			
MERB (DIAL 000)			
+ ZN			
= MTH			
MCH (READING)			
CE			
- VAR			
= DEV			

CEX SIGHT	
GMT	
GHA	
CORR	
GHA	
LONG +W -E	
EXACT LHA	
LAT	
BODY	
DEC	
HC / D	
CORR	
HC	
Z	
ZN	



WIND FACTOR		
WINDSPEED	HEADWIND	TAILWIND
10	1.03	.97
20	1.06	.94
30	1.10	.92
40	1.14	.89
50	1.18	.87
60	1.22	.85

"F" FACTOR				
PRESS ALT	200	250	300	350
10,000	1.0	1.0	.99	.99
20,000	.99	.98	.97	.97
30,000	.97	.96	.95	.94
40,000	.96	.94	.92	.90

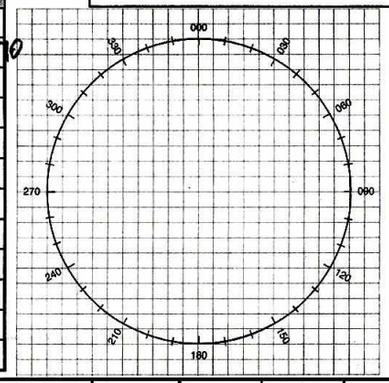
TRUE AIRSPEED CROSS-CHECK							
TIME	IAS	PRESS ALT	"F" FACTOR	EAS	OAT	TAS	ITAS

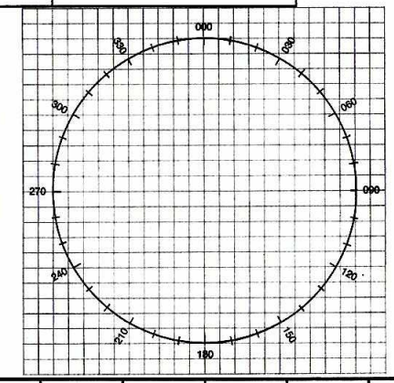
52.0

2306 92.33 27-59

CLEARANCES			
FREQ	ALT	HDG	OTHER
118.9	080	1600	LINCOLN FIGA ex 12000 080 1346
			LHT 111

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
1442 1452 1457	1459 1471 1505																				
1500	A	27-54.8 083-03.5	27-54.7 083-03.6	+.1 -.1	27-54.7 083-03.4	+.1 +.1	260	3W	257	1L	258	264	146	10	12000	232	BACCA	118	+30	15 31	9.2
1600	A	27-36.5 088-09.9	27-36.2 088-11.0	+.3 -1.1	27-36.1 088-10.4	+.4 -.5	258	—	258	11R	269	265	160	40	12000	259	1R	52	+12	16 23	8.3
1700	A	27-38-073 092-08-143	27-36.7 092-09.2	+1.4 -1.1	27-36.7 092-08.1	+1.4 —	267	1E	268	1R	269	249	232	31	7000	243	#1	50	+12	17 12	9.9 32 18.1 45.5
1822	A	28-09.1 092-47.3	28-06.1 092-50.2	+3.0 -.9	28-07.2 092-48.9	+1.9 -1.4	093	1E	094	25R	072	184	145	107	5000	228	RTA	34	+10	18 10	
1834	C	27-49.640 092-22.785																			
1900	A	27-14.3 092-23.1	27-08.7 092-25.7	-5.6 -2.6	27-11.3 092-24.3	+3.0 +1.2	341	1E	342	18R	000	239	258	75	5000	244	RTA	38	+09	19 01	
2000	A	28-03.4 092-23.4	27-55.0 092-27.3	+8.4 +3.4	27-58.6 092-24.4	+4.8 -1.0	177	1E	178	22L	155	36	213	63	5000	243	11	48	+12	20 12	
2100	A	28-16.7 092-43.0	28-07.0 092-47.7	+11.7 -4.7	28-12.8 092-43.5	+4.9 -.5	—				13	187	123	57	5000	243					
2116	C	28-13.476 092-39.323																			
2200	A	28-34.2 092-10.1	28-18.3 092-17.7	+15.9 -7.6	28-27.6 092-11.8	+6.6 -1.7	099	1E	100	23L	075	204	158	103	8000	253	KNCF	500	24 21	00 28	
2300	A	28-46.4 088-24.1	28-27.1 088-44.5	+19.7 -11.4	28-41.4 088-38.1	+5.0 -4.0	113	—	113	6L	107	283	173	36	17000	302	ROZEL	93	+18	23 19	
00 28	LINDA LINDA	27-51.0 082-29.6	27-28.6 082-45.9	+24.4 -16.3	27-46.9 082-35.3	+4.1 -5.7															

17.7

2745 92-15 1741 930 1912 27.96 92.49

NOAA · AOC · SED

N42RF AVAPS DROP LOG

Project : Hurricane '05 Mission : RITA O.W. / RX (+RD) Flight ID : 050923H

Take Off : Landing :

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Winds Time	Operator	Comments	Good ?
1	051 926 059	1	0	1645	03	Kerr	RX	✓
2	044 535 350	2	0	1655	03		RX	✓
3	044 535 419	1	0	1700	03		RX (see [illegible]	✓
4	044 535 297	2	0	1707	~90		RX; late winds	
5	044 135 152	1	-.4	1716	03		RX	✓
6	044 415 227	2	0	1725	09		RX; BT	✓
7	044 535 070	1	0	1733	03		RX	✓
8	051 926 062	2	0	1739	03		RX	✓
9	044 535 073	1	0	1746	03		RX	✓
10	044 535 078	2	0	1754	03		RX	✓
11	053 166 014	1	0	1807	✓		OW	✓
12	053 166 129	5	0	1808	✓		OW	✓
13	053166 139	6	0	1808	✓		OW	✓
14	044 535 079	2	-.4	1809	✓		RX	✓
15	044 535 075	1	0	1848	03	✓	RX	✓
16	053166134	2	0	1902	12	OWEx	OW	✓
17	053166 144	1	0	2011	10		OW	✓
18	044535575	1	0	2021			RX	
19	044 535573	2	0	2022	06		RX	
20	053166005	3	0	2026	10		OW	
21	053166141	4	0	2030	—		OW NO LAUNCH DET	
22	053166080	1	-.3	2030	—		OW NO WINDS	
23	053166081	5	0	2038			OW CHS NO LAUNCH BUT WINDS	
24	044535568	6	0	2049			RX	
25	053 166 137	1	0	2138	✓		OW	✓
26	053 166 136	2	0	2138	✓		OW	✓
27	053 166 133	7	0	2139	✓		OW	✓
28	044535 003	8	0	2139	✓		RX	✓
29	053 166 049	1	0	2151	✓		OW	✓
30	053166 140	5	0	2157	✓		OW	✓
31	053 166 135	3	0	2158	✓		OW	✓
32	044 535 076	1	0	2213	10	✓	BT RX	✓
33	044 535 570	1	0	2245	10		BT RX	

050923H

Time	Lat	Lon	TA	TD	Trk	Hdg	RA	PS	SP	WD	WS	WZ	Comments
144214	27.50.94	-82.29.58	27.9	19.9	134.8	135.0	12.0	1014.6	1016.0	124.9	4.6	96.3	Block out
145342	27.50.82	-82.31.38	27.6	18.2	40.4	41.6	-4.0	1015.3	1014.9	137.3	3.6	1.2	Take off
151915	27.46.68	-84. 2.40	4.6	1.3	261.8	260.3	4045.0	632.3	1014.5	130.4	5.1	.0	Sct blo, Ci abv; 12.5k PA
154340	27.35.52	-86. 2.76	5.8	.0	258.5	251.5	4021.0	632.9	1011.0	160.4	17.3	-.5	Just went thru first outer band
162357	27.36.48	-89.24.84	7.0	2.3	272.8	260.3	3920.0	634.8	1000.5	171.6	29.5	.4	Descend 7K RA
162928	27.37.02	-89.51.48	16.0	13.2	270.3	252.7	2128.0	782.5	998.3	170.6	38.1	-.1	7K RA; 115 nm out , inbound
164516	27.37.38	-91. 3.18	16.2	14.8	268.9	247.5	2121.0	770.5	981.8	169.2	47.0	.3	D1 R (R=Rainex, N = NESDIS for today) –
165529	27.38.34	-91.48.36	17.3	14.7	269.8	241.6	2121.0	743.1	946.1	181.4	60.4	3.5	D2 R east eyewall –
170025	27.37.68	-92. 9.48	19.3	13.8	248.4	247.7	2131.0	731.9	931.4	255.5	2.1	.3	D3 cntr NHC PEN 1 –
170724	27.38.04	-92.21.96	20.8	13.9	269.5	289.6	2101.0	741.4	939.2	354.8	43.6	-1.2	D4 R west eyewall –
171703	27.35.34	-93. 5.16	16.4	11.5	213.1	218.2	2152.0	766.0	979.7	15.6	38.3	-1.8	D5 R 50 mi W cntr –
172446	27. 9.66	-92.39.12	16.7	.1	114.2	110.6	2133.0	764.1	975.9	310.6	31.5	.2	D6 R; BT1 (one misfire) –
173353	27.11.52	-92. 5.28	19.5	8.9	.6	345.1	1526.0	816.4	971.6	244.6	37.5	.5	D7 R abt 30 mi S of cntr –
173932	27.34.44	-92. 8.94	22.7	13.0	347.5	326.8	1510.0	792.2	939.1	251.4	46.3	4.9	D8 R; S eyewall PEN 2 –
174558	28. 1.20	-92.12.42	19.7	13.0	1.9	36.9	1550.0	790.2	942.5	110.1	71.6	-2.1	D9 R N eyewall –
175422	28.32.64	-92.16.32	18.9	4.7	293.6	300.0	1526.0	821.9	978.7	99.2	54.3	-.2	D10 R 50 mi N 0f cntr –
180051	28.15.12	-92.49.68	18.8	4.4	226.0	222.6	1507.0	821.5	976.3	53.2	51.1	.9	Turn to trk 135 inbound
180730	28. 0.42	-92.33.48	19.5	-12.2	119.7	93.4	1513.0	801.6	953.3	42.9	58.3	1.7	D11 N
180751	27.59.88	-92.32.40	19.3	-14.3	120.0	93.0	1519.0	799.1	951.1	41.0	56.7	1.1	D12 N
180835	27.58.80	-92.30.12	19.7	-4.7	117.6	91.7	1504.0	795.4	944.8	42.4	61.1	8.3	D13 N
180845	27.58.50	-92.29.58	20.8	-2.6	120.1	98.0	1508.0	794.7	943.7	46.5	50.7	-.6	
180911	27.57.84	-92.28.20	21.3	-1.0	118.9	98.9	1496.0	793.1	940.2	36.2	45.6	2.6	D14 R PEN 3 –
181443	27.56.22	-92.31.32	20.1	3.6	285.6	307.1	1527.0	790.6	940.9	29.4	45.4	-2.3	Ovr fly splash
182742	27.53.58	-92.31.98	23.3	-24.1	89.9	76.4	1425.0	796.6	936.2	4.1	29.6	-1.7	Back in the eye for mx on dropsonde chute; will orbit
some.....	PEN 4												
184604	27.49.98	-92.26.40	20.9	13.9	223.7	226.9	1515.0	785.6	932.7	308.8	5.2	-.5	Mx complete; B.O. "engineering" did it
184833	27.42.96	-92.33.96	21.8	15.4	223.2	246.9	1518.0	796.3	945.1	312.1	47.6	-5.2	D15 R SW eyewall – 12
190646	27.43.62	-92.22.26	22.8	1.7	354.8	329.5	1513.0	793.9	942.0	261.2	55.2	-4.1	D16 N South eyewall PEN 5
191252	27.44.46	-92.19.44	20.6	7.3	173.3	200.0	1545.0	793.1	945.5	245.9	56.0	-.9	Mark spl drop16
191545	27.35.64	-92.18.90	20.1	6.0	236.0	242.6	1541.0	806.4	961.2	248.2	44.9	-.2	Turn to trk 360 back inbound
192143	27.56.46	-92.26.52	21.0	-45.1	331.1	327.5	1512.0	785.3	933.2	225.1	7.9	.6	Shut down MDS - ASDL troubleshooting
192151	27.56.94	-92.26.82	21.3	-63.3	328.4	326.0	1511.0	785.6	933.3	228.0	7.0	1.0	In eye orbitting - PEN 6 (TomS's 200th)
200752	27.42.96	-92.18.18	20.9	1.2	64.7	68.4	1530.0	808.8	962.6	233.8	44.7	-8.1	No ASDL now; went out, hdg back in
201103	27.55.80	-92.21.00	20.7	-19.9	334.6	312.5	1511.0	794.5	944.1	223.3	51.3	2.3	D17 N SE eyewall PEN 7
202125	28.14.34	-92.17.40	19.7	-28.0	50.0	79.0	1530.0	794.2	946.3	152.2	60.3	.9	D18 N
202216	28.16.44	-92.14.58	19.0	-53.4	50.2	78.8	1503.0	802.2	953.4	146.7	58.5	-.4	D19 R outbound –
203025	28.19.74	-92.10.98	18.4	9.5	233.8	205.3	1521.0	805.5	958.7	144.2	59.0	1.2	D20 N
203045	28.19.02	-92.12.06	19.1	10.6	234.8	207.8	1501.0	806.0	956.7	144.9	57.6	.0	D21 N
203056	28.18.66	-92.12.66	19.3	10.2	234.6	205.6	1519.0	803.8	956.0	146.1	59.1	.7	D22 N no launch Pen 8
203843	28.21.84	-92.15.12	18.8	-39.0	50.2	79.6	1531.0	802.2	956.5	144.7	57.8	-1.2	D23 N NE eyewall
203907	28.22.80	-92.13.92	18.8	-57.3	50.9	77.2	1504.0	806.7	959.0	140.4	55.8	-.1	Mark spl drop20
204556	28.41.88	-91.58.44	19.5	-31.0	315.5	316.8	1517.0	821.2	977.2	134.5	52.3	.4	BT2
205725	28.32.64	-92.40.62	19.0	-37.7	174.9	148.7	1508.0	803.4	955.3	85.5	57.1	.3	D24 N North eyewall - no launch det.
205952	28.24.36	-92.39.72	20.5	-115.	172.4	157.9	1512.0	789.0	937.9	78.2	33.0	2.2	In eye again - PEN 9
213805	28.34.08	-92.40.92	19.9	-29.9	2.0	29.0	1515.0	792.0	942.1	115.1	58.7	1.5	D25 ~~D24~~ N
213835	28.36.24	-92.40.86	20.2	-30.3	358.5	32.1	1566.0	791.9	947.1	110.4	69.5	-.3	26 D26 ~~D25~~ N
213912	28.38.58	-92.40.80	19.0	-44.7	2.6	33.2	1557.0	796.9	952.9	100.2	61.0	-3.4	27 D27 ~~D26~~ N
213939	28.40.20	-92.40.74	19.7	-98.7	.8	31.0	1524.0	802.6	955.7	98.3	59.1	-1.9	28 D28 ~~D27~~ R outbound N eyewall – 14
214517	28.59.04	-92.39.06	18.7	9.2	134.7	121.9	1521.0	817.7	973.1	103.0	58.1	-.1	Turn back inbound

215114	28.38.28	-92.44.16	19.7	-.9	192.1	162.9	1490.0	800.5	949.2	88.8	58.8	1.2	D29 ~~D28~~ N north eyewayy inbound PEN 10
215130	28.37.26	-92.44.46	18.8	.2	194.2	165.9	1486.0	798.8	947.2	88.4	61.0	-.3	Mark spl drop25
215749	28.34.92	-92.48.66	20.6	9.7	8.2	29.3	1528.0	790.4	940.3	90.5	44.9	-2.4	D30 ~~d28~~ n
215843	28.38.04	-92.48.24	18.2	9.9	7.1	36.5	1655.0	783.4	946.6	84.0	65.1	-2.6	D31 ~~D29~~ N north eyewall Over stresed AC
220431	28.54.96	-92.42.66	19.3	15.5	55.0	70.6	1510.0	814.7	967.5	98.8	48.1	.8	RTB at this time
220938	28.55.98	-92.30.12	19.3	15.5	106.5	109.9	1506.0	816.9	969.7	117.8	50.5	1.0	BT 3 no good
221339	28.52.98	-92.20.94	18.8	15.4	119.3	122.4	1521.0	816.0	970.6	126.4	55.2	.7	D32 ~~D30~~ R; BT 4
222648	28.34.98	-91.58.26	16.4	12.5	77.5	101.0	2261.0	752.3	973.8	159.7	51.2	.1	Now 8K PA
224200	28.37.74	-91. 1.92	14.1	9.4	52.4	70.8	2429.0	751.8	994.1	162.8	43.1	.6	Picking thru another line.....
224415	28.40.74	-90.52.62	14.9	9.6	80.1	98.5	2432.0	752.8	994.9	160.1	39.3	-.5	BT 5
224422	28.40.80	-90.52.14	14.2	10.4	80.0	98.2	2435.0	752.8	995.7	157.6	38.8	-1.0	D33 ~~D31~~ R; end science 16
225828	28.46.38	-89.48.06	2.4	-17.5	74.3	88.9	4819.0	569.5	1001.5	165.9	33.1	.3	Climb FL175
233652	28.15.12	-86.28.44	-3.5	-17.7	110.0	112.2	5682.0	515.6	1010.3	172.9	7.0	.5	
002824	27.50.46	-82.31.74	28.9	-119.	38.9	41.9	-4.0	1014.8	1014.4	163.0	3.5	.5	Land
003838	27.50.94	-82.29.58	-.3	10.8	131.7	133.9	-3.0	250.1	250.0	135.2	27.1	-10.8	Block in