



NOAA G-IV ERROR SUMMARY
HURRICANE 2005
TS DENNIS IN CENTRAL CARIBBEAN



Flight ID: N050706

<u>Sensor or system</u>	<u>Number or Name</u>
INE (for wind derivation)	VEW, VNS
Accelerometer	ACINS
Temperature Probe	AT3
Dew Point Probe	DPRC
Static Pressure	PS2C
Dynamic Pressure	QC2C
Attack Angle	AKRD1
Slip Angle	SSRD2
Vert. Wind	PALT
Constants File	49cal041
Project Directory	/proj/506

Local surface observation not current or unavailable.

Notes:

There were no data gaps.

The Total Temperature #2 (TT2) probe was not available for this mission.

The radar altimeter, HGM232, failed at takeoff and did not start working until 0023Z.

Both dynamic sideslip pressures had problems during the flight. Dynamic sideslip pressure #1, DBP1, had erroneous output from 2222Z – 0226Z. Dynamic sideslip pressure #2, DBP2, had erroneous output from 0006Z – 0226Z. Because the time frame is less for DBP2 than DBP1 during the flight, DBP2 was selected. This did affect horizontal wind speed and direction (WD and WS), and vertical wind (WI) values.

All other instruments worked optimally during the brief flight.

	Takeoff	Landing
Aircraft Static Pressure	1015.7mb	1015.4mb
Corrected Tower Pressure	1015.7mb	1015.7mb
Flight Director:	A. Barry Damiano	(813) 828-3310 ext. 3073

AOCWF1

AOC Personnel

Participating Scientists / Visitors / AOC

	Proposed	Actual	Mission Remarks (Recco, Fixes, Storm, PENET, NHOP #)
01	01	01	
02	02	02	
03	03	03	
04	04	04	
05	05	05	
06	06	06	
07	07	07	
08	08	08	
09	09	09	
10	10	10	
11	11	11	
12	12	12	
13	13	13	
14	14	14	
15	15	15	
16	16	16	
17	17	17	
18	18	18	
19	19	19	
20	20	20	
21	21	21	
22	22	22	
23	23	23	
24	24	24	
25	25	25	
26	26	26	
27	27	27	
28	28	28	
29	29	29	
30	30	30	
31	31	31	
32	32	32	
33	33	33	
34	34	34	
35	35	35	
36	36	36	
37	37	37	
38	38	38	
39	39	39	
40	40	40	
41	41	41	
42	42	42	
43	43	43	
44	44	44	
45	45	45	
46	46	46	
47	47	47	
48	48	48	
49	49	49	
50	50	50	
51	51	51	
52	52	52	
53	53	53	
54	54	54	
55	55	55	
56	56	56	
57	57	57	
58	58	58	
59	59	59	
60	60	60	
61	61	61	
62	62	62	
63	63	63	
64	64	64	
65	65	65	
66	66	66	
67	67	67	
68	68	68	
69	69	69	
70	70	70	
71	71	71	
72	72	72	
73	73	73	
74	74	74	
75	75	75	
76	76	76	
77	77	77	
78	78	78	
79	79	79	
80	80	80	
81	81	81	
82	82	82	
83	83	83	
84	84	84	
85	85	85	
86	86	86	
87	87	87	
88	88	88	
89	89	89	
90	90	90	
91	91	91	
92	92	92	
93	93	93	
94	94	94	
95	95	95	
96	96	96	
97	97	97	
98	98	98	
99	99	99	
100	100	100	

NO FD Logger

20407 Grot 3

~~SECRET~~

0204A DENNIS

N43 P in store

~ 23 ~

TEAL 13 237 depart

N42F 197 inner
peripete stolen

AF Fy

21204

16.00

7224

900-1-2 NW

72

NF

21407

Lat 41

Rob had tilt -3 at 10 AM + saw ~~cell~~ visually
growing ~~cell~~ cell, I saw nothing at -11 @ 500m

1718

51

U.S. Dept. of Commerce / NOAA / Aircraft Operations Center

AOCWF2

Flt ID: *N050706* Time Off: *1837Z* Time On: *0245Z*

	A/C (Take Off)	Wx Station (Take Off)	A/C (Land)	Wx Station (Land)
Pressure	<i>1016.2</i>	<i>30.04 / 1015.7</i>	<i>1015.4</i>	<i>30.01 / 1015.7</i>

	Number	Data Disposition / Date / Quality
Flt Lvl Tapes	<i>1</i>	
Radar Tapes		
Cloud Physics Tapes		
Video Tapes		
AXBT		
AXCP		
AXCTD		
Dropsondes	<i>25</i>	<i>23 good; 24 messages sent 1 flat fall; 1 winds failed</i>

Video

	Forward	Left Side	Right Side	Down	Remarks
Time On					
Time Off					
Rate					

Remarks

Flight ID: N050706

Page 1 of 1

U.S. Dept. of Commerce / NOAA / Aircraft Operations Center

Form 413-50

Time	Lat	Long	Trk	Hdg	Wind Dir	Wind Spd	T _a	T _d	Press. Alt	Geo. Alt	Sfc Press.	Press. Sfc	Dyn. Press	Remarks
192542	2446	7735	122	116	56	18	-60.2	-66.5	12490	13178	/	177.9		DROP#1 (145)
194307	2340	7540	121	118	84	10	-59.4	-66.7	12489	13174	/	177.8		DROP#2 (385)
200415	2220	7320	121	120	144	7	-59.6	-68.2	12507	13176	/	177.3		DROP#3 (405)
202548	2105	7057	64	63	159	7	-59.1	-66.0	12515	13178	/	177.0		DROP#4 (485)
203830	2213	6946	43	42	236	3	-62.0	-67.2	12803	13450	/	168.8		at 92K
204920	2257	6855	93	94	229	7	-62.5	-68.9	12795	13441	/	169.0		DROP#5 (485)
211036	2152	6615	242	243	264	15	-62	-68.9	12777	13452	/	169.0		DROP#6 (465)
2119	2122	6710	247	247	275	15	-65	-57	13075	13760	/	161.0		LGT TURB
212702	2100	6800	232	230	235	17	-63.8	-70.0	13063	13751	/	161.6		DROP#7 (825)
214455	1935	6926	148	146	216	12	-63.6	-63.9	13066	13774	/	161.4		DROP#8 (405)
220308	1759	6867	235	237	293	13	-64.2	-65.8	13060	13758	/	161.6	WS FAILED	DROP#9 (605)
220601	1752	6827	253	253	285	11	-64.3	-64.7	13066	13762	/	161.5		Backup#9 (235)
221936	AVOIDING CELL													
222515	1709	7041	212	209	150	5	-63.5	-59.7	13060	13769	/	161.5		DROP#10 (545)
224012	1526	7118	221	222	309	3	-63	-64.6	13075	13770	/	161.3		DROP#11 (255)
225456	1421	7246	248	252	4	6	-63.7	-65.1	13062	13750	/	161.5		DROP#12 (405)
230954	1418	7440	235	232	60	14	-66.3	-69.3	13341	14036	/	154.3		DROP#13 (275)
232432	1304	7607	288	290	50	19	-66.8	-70.4	13335	14034	/	154.3		DROP#14 (345)
234122	1407	7751	50	52	68	21	-66.1	-71.7	13343	14052	/	154.2		DROP#15 (515)
000114	1533	7616	349	350	63	17	-65.8	-71.3	13339	14057	/	154.3	WS	DROP#16 (FF)
000303	1546	7614	342	345	62	15	-65.9	-70.3	13340	14061	/	154.2		Backup#16 (305)
001539	1713	7641	4	8	98	14	-65.9	-71.1	13343	14074	/	154.0		DROP#17 (295)
003106	1858	7606	46	47	98	5	-68.9	-70.8	13622	14363	/	147.0		DROP#18 (275)
004138	1940	7433	84	83	170	3	-68.4	-73.1	13625	14371	/		NO GPS	DROP#19 (20)
004655	1941	7419	82	81	91	4	-67.9	-72.6	13626	14372	/	146.7		Backup#19 (245)
010016	2023	7259	296	294	257	3	-69.3	-71.3	13626	14353	/	146.8		DROP#20 (305)
013102	2200	7630	306	307	131	2	-66.8	-74.4	13626	14372	/	146.8		DROP#21 (855)
015620	2400	7900	317	319	43	10	-67.5	-73.6	13630	14371	/	146.8		DROP#22 (405)

25 2601

N49RF AVAPS DropSonde Log

N49RF Project: HURRICANE 2005 Flight ID 050706nMission: Dennis Flight #: 1 Launcher S/N: 02 Status: Sys 1 OK Sys 2 OK

Drop #	Sonde Serial Number	Chn. #	Time (Zulu)	Press. offset	Winds time	Operator Initials	Comments / Drop Status/ Failure Reason	GOOD ☒
1	044 415 176	1	1925	0	14	DWC	OK	✓
2	043 625 026	2	1943	0	32			✓
3	044 135 296	1	2004	0	28			✓
4	044 415 143	2	2025	0	35			✓
5	044 245 029	1	2047	0	37			✓
6	044 415 091	2	2110	0	46			✓
7	044 415 204	1	2127	0	72		Late winds	✓
8	044 415 179	2	2144	0	35		OK	✓
9	044 415 180	1	2203	0	59		Lost winds	
10	044 415 146	2	2206	0	23		B/U for drop #9	✓
11	044 415 131	1	2225	0	54		OK	✓
12	044 245 033	2	2240	0	25			✓
13	043 625 088	1	2255	.5	35			✓
14	044 415 178	2	2309	0	27			✓
15	044 135 158	3	2324	0	34			✓
16	044 415 205	1	2341	0	51			✓
17	044 415 147	2	0001	0	—		No winds / Fast fall	
18	044 415 152	1	0003	0	27		Drop #16 B/U	✓
19	044 415 175	2	0015	0	29		OK	✓
20	043 845 215	1	0031	0	27		OK	✓
21	043 625 019	2	0045	.7	—		Good on LS except Late winds	✓
22	044 415 153	3	0046	0	24		Drop #19 B/U	✓
23	043 845 131	1	0100	0	30		OK	✓
24	043 625 035	1	0131	0	75		Late winds	✓
25	043 845 251	1	0156	0	40			
26								
27								
28								
29								
30								
31								
32								
33								

From Lori Bast <Lori.Bast@noaa.gov>

Date Wednesday, July 6, 2005 9:48 am

To Jack.R.Parrish@noaa.gov

Subject Re: G-IV Tuesday Update

Jack,

Please ask Barry or Sims to ask for Saul Russel at the weather channel.

Lori

Barry - The WX channel would like a call 7:30 or 8:00 pm with some info of what you have observed. Please handle or hand off to Sim.
Jack

Lori Bast wrote:

> Jack,

> The Weather Channel phone number is 770-226-2119. I'll call them to give them a 'heads up.'

>

> Thanks Again, Lori

>

> Lori Bast wrote:

>

> > Jack,

> > The weather channel would like to talk to someone on the GIV while flying around Dennis. Would this be possible? If so, let me know who would make the phone call and about when.

> >

> > Thanks Bunches, Lori

> >

> > Jack.R.Parrish@noaa.gov wrote:

> >

> > > G-IV Interests...

> > >

> > > The G-IV surveillance mission for today, 7/5, is cancelled. TS Cindy has advanced too close to the northern Gulf coast to make the synoptic data of sufficient value. However...

> > >

> > > TD 4 in the western Caribbean shows a fair amount of potential, and don't be surprised if it becomes TS Dennis before the end of the day. The 5-day forecast track (notoriously inaccurate) has the storm about 100 miles west of Key West about midnight Saturday night. We anticipate the possibility of surveillance missions beginning Wednesday on this system. Due to the forecast track moving this system into the Gulf (and developing it into at least a minimal hurricane), don't be surprised if NHC begins calling for the two-crew option on the G-IV, probably as early as Thursday night.

> > >

> > > More updates as they arrive. Again, we're cancelled for today, but keep looking east...

> > >

> > > Best regards, and thanks for the super holiday weekend response from all involved.

> > >

> > > Jack

> > >

> > > Jack R. Parrish

> > > NOAA G-IV Project Manager

> > > Ph: (813) 828-3310 Ex 3077

25
23
16
12
11
10
9
8
7
6
5
4
3
2
1

NE

> > > Cell: (813) 368-9722
> > > Email: jack.r.parrish@noaa.gov

=====

HURRICANE SYNOPTIC SURVEILLANCE MISSION PLAN: DENNIS

Prepared by the Hurricane Research Division File: current1.ftk

Aircraft: N49RF Altitude: FL410-450 Proposed takeoff: 06/1830Z

=====

DROP LOCATIONS

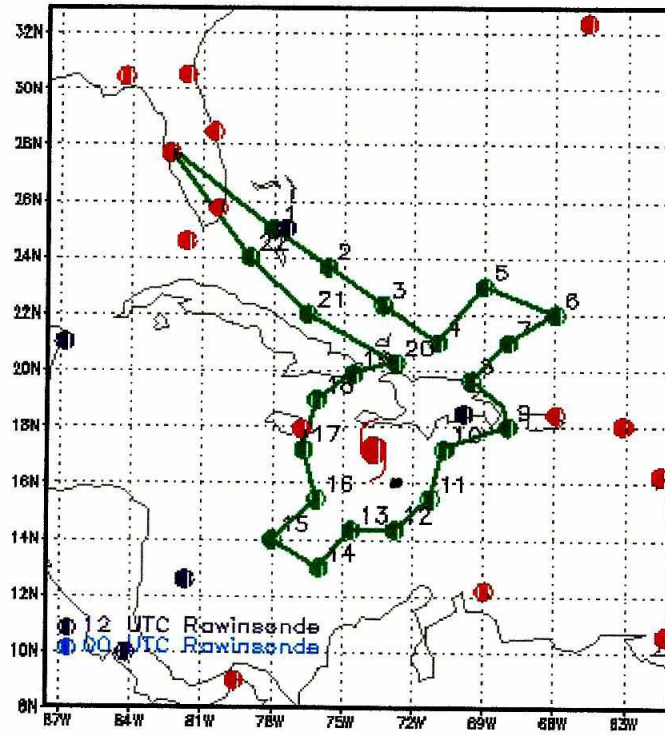
=====

#	LAT (d m)	LON (d m)	RAD/AZM (nm/dg)	TIME (h:mm)
---	--------------	--------------	--------------------	----------------

30.04

1	25 00	78 00		0:50
2	23 40	75 40		1:11
3	22 20	73 20		1:32
4	21 00	71 00		1:52
5	23 00	69 00		2:15
6	22 00	66 00		2:39
7	21 00	68 00		2:56
8	19 39	69 34		3:12
9	18 00	68 00		3:21
10	17 12	70 42		3:53
11	15 26	71 16		4:08
12	14 21	72 46		4:23
13	14 21	74 58		4:38
14	13 00	76 00		4:59
15	14 00	78 00		5:11
16	15 26	76 08		5:30
17	17 12	76 42		5:45
18	18 58	76 08		6:00
19	19 54	74 33		6:14
20	20 16	72 45		6:28
21	22 00	76 30		7:00
22	24 00	79 00		7:25

8/2



GRADS: COLA/IBES

2005-07-05-08:34