

Flt ID: 011102N	From: KMCF	To: KMCF
Flt No: 02-011	Blk In: 0153Z	ATA: 0146Z
ETD: 1730	Blk Out: 1716Z	ATD: 1731Z
ETE: 0200	Blk Time: 8.37 8.6	Flt Time: 8:15 8.3
Sponsor Org: NHC	Program: HURR. SURV.	Purpose: HURR. MICHELE SURV.

AOC Personnel

AC: MCCANN, B ✓	Sys Eng: LYNCH, T ✓
CP: YATES, G ✓ / POSTON, R ✓	Data Sys: ROLES, J ✓
Nav:	Radar:
FE:	GPS/BT: SMITH, J ✓
FD: CZYZK, S ✓	Cld Phys:
Avionics:	

Participating Scientists / Visitors / AOC

Name (Last, First)	Activity on Aircraft	Affiliation
GAMACHE, J ✓	HAPS.	HRD
KAPLAN, J ✓	"	"
DANIEL, J ✓	MIOAS	NOAA/AL
MILLER, R ✓	"	"

Proposed/Actual Mission Remarks (Recco, Fixes, Storm, PENET, NHOP #)

925mb 19.7 15.6 84 14.9
 700mb 7.9 0.2 100 7.4
 500mb -8.4 -35.0 240 2.8
 250mb -41.3 -55.1 290 20.7

 BAL DPTLS 1806:42
 20154 PSim, Qcm, AT
 1811Z 18.01 1804
 84.04 84.06
 969
 340
 15 NM ENE
 DNOP #15 2452

Flt ID: 011162N		Time Off: 1731Z		Time On: 0146Z	
Wx Lake Off: 1018.7		Wx Station (Lake Off): 30.09		Wx Lake On: 1018.7	
Wx Station (Lake On): 30.08					

	Number	Data Disposition / Date / Quality	
Flt Lvl Tapes			
Radar Tapes			
Cloud Physics Tapes			
Video Tapes			
AXBT			
AXCP			
AXCTD			
Dropsondes	28	26 x m T	2 BAD (NO WINDS)

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

Remarks

Flight ID:

011102N

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

Form 413-50

TIME	LAT	LONG	TK	HD	TA	TD	WD	WS	PA	GA	PS	REMARKS
181130	24 06	80 22	151	154	-62.3	-68.7	243	20.8	12777	13441	169.5	LEVEL 42K
181710	23 30	79 59			-62.5	-67.4	244	17.8	12783	13433	169.4	DROP #1 1012
4819												Climb
183332	22 30	78 00	118	121	-62.9	-70.3	253	23.9	12927	13588	165.3	DROP #2 1011
184944	21 30	76 00	118	120	-63.1	-67.8	270	24.6	12921	13587	165.5	DROP #3 1010
190555	20 27	74 02	1		-63.3	-73.5	281	22.3	12919	13569	165.5	DROP #4 1010
191129	19 48	74 04	2		-64.9	-69.7	268	20.6	13066	13731	161.5	DROP #5 1009
192745	19 45	76 00	270	270	-65.9	-70.6	281	13.5	13176	13860	158.5	DROP #6 1009
194431	19 44	78 00			-65.6	-69.9	257	15.6	13182	13867	158.4	DROP #7 1008
1953	19 15	78 58										in cirrus
195754	19 08	79 27			-65.4	-72.1	266	11.1	13201	13878	157.9	DROP #8 1006
201743	21 27	79 34			-65.8	-71.4	248	20.7	13200	13875	157.9	DROP #9 1008
203013	21 45	81 00	281	271	-67.3	-71.7	247	17.6	13341	14015	154.2	DROP #10 1008
204210	21 53	82 25			-68.0	-74.5	206	17.4	13487	14159	150.4	DROP #11 1008
210420	19 28	81 30			-69.1	-71.6	186	8.7	13617	14327	147.1	DROP #12 1004
212542	17 00	81 31			-69.4	-69.9	236	7.6	13616	14328	147.1	in cirrus DROP #13 1006
214240	15 37	83 01			-69.4	-73.1	325	6.1	13619	14326	147.1	DROP #14 1004
215631	16 55	83 50			-68.7	-73.6	299	22.0	13620	14305	147.0	in cirrus DROP #15
220731	16 19	85 01			-69.1	-69.7	357	22.8	13616	14314	147.1	DROP #16
222403	17 26	86 31			-69.6	-70.7	76	11.4	13617	14304	147.1	DROP #17
223757	16 25	87 56			-69.1	-74.8	88	14.8	13619	14312	147.1	DROP #18
225805	18 39	87 14			-69.7	-73.2	110	7.8	13620	14317	147.0	DROP #19
231810	21 01	86 32			-68.2	-74.7	176	14.9	13612	14301	147.2	DROP #20
233610	23 00	89 45			-68.4	-74.5	211	18.7	13616	14306	147.1	DROP #21
235421	24 59	88 50			-69.7	-72.8	203	23.5	13618	14289	147.1	DROP #22
001125	24 56	86 29			-68.8	-74.1	215	23.0	13614	14286	147.2	DROP #23
003522	22 38	84 57			-69.7	-75.7	198	15.5	13619	14295	147.3	DROP #24
005300	24 31	83 33			-67.8	-75.5	26					DROP #25 no wind
005503	24 45	83 39			-68.3	-75.4	26	24.3	13612	14295	147.3	DROP #25A no wind
005859	25 19	83 53			-68.5	-75.4	245	24.2	13606	14291	147.4	DROP #25B
011609	26 58	84 54			-69.4	-72.9	239	27.3	13612	14269	147.2	DROP #26

02	2H	18.2	84.1
03	06	18.8	84.3
03	18	19.7	84.4
04	06	20.8	84.1
04	18	22.0	83.5
05	18	24.5	79.0

055

2300Z

18 23N
84 01W
960 mb
88 KTS

1955

18 07 18 13
83 58W
967

85-95

2143 18 18
83 58

N49RF AVAPS DropSonde Log

N49RF Project: Hurr 2001

Flight ID 011102N

Mission: _____

Flight #: 13

System Status: _____

Drop #	Sonde Serial Number	Chn. #	Time (Zulu)	Press. offset	Winds time	Operator Initials	Comments / Drop Status / Failure Reason	GOOD ☒
1	003115291	1	18:17	0	51	TL		✓
2	003 135 188	5	18:33	0	52	JAS		✓
3	003 135 067	1	18:50	0	26	TL		✓
4	003 115 415	5	19:00	0	17	TL		✓
5	003 135 186	1	19:11	.5	19	TL		✓
6	003 135 184	5	19:27	0	14	JAS		✓
7	011 345 039	4	19:44	.5	16	TL		✓
8	003 135 356	5	19:58	0	20	JAS		✓
9	003 115 259	1	20:17	0	16	TL/JAS		✓
10	003 148 125	5	20:30	0	12	↓		✓
11	003 115 395	1	20:42	0	75	↓		✓
12	003 135 187	5	21:04	.6	25	↓		✓
13	003 115 294	1	21:25	.4	22	JR		✓
14	003 135 040	5	21:42	.7	32	TL		✓
15	003 115 293	1	21:56	0	31	JR	Splash 2211	✓
16	003 115 424	5	22:07	.5	31	TL		✓
17	003 115 289	1	22:24	.1	23	JR	Splash 2239	✓
18	003 148 114	5	22:38	0	60	TL		✓
19	003 148 113	1	22:58	.2	30	JR	Splash 2312	✓
20	003 115 264	5	23:18	.7	41	TL		✓
21	003 135 074	1	23:36	0	31	JR		✓
22	003 135 190	5	23:54	0	26	TL		✓
23	003 115 262	1	00:11	0	47	JS		✓
24	003 135 000	5	00:35	.9	20	TL		✓
25	003 115 292	1	00:53	0	—	JS	5/7 SATS - No winds	R
26	003 115 298	6	00:55	.6	—	TL	6/8 " " "	R
27	003 135 130	2	00:59	0	18	JS		✓
28	003 115 201	5	01:16	0	50	TL		✓
29								
30								
31								
32								
33								



NOAA Gulfstream-IV Hurricane Surveillance 2001 Hurricane Michelle



Flight Name: 011102n

<u>Instrument/System</u>	<u>Variable Name</u>			
Attack Pressure	AP1	☐	AP2	☒
Sideslip Pressure	BP1	☐	BP2	☒
Dynamic Attack Pressure	DAP1	☐	DAP2	☒
Dynamic Sideslip Pressure	DBP1	☐	DBP2	☒
Static Pressure	PS1M	☐	PS2M	☒
Dynamic Pressure	QC1M	☐	QC2M	☒
True Airspeed	TAS1	☐	TAS2	☒
Latitude	LAT	☐	LAT_PITR	☒
Longitude	LON	☐	LON_PITR	☒
E-W Ground Speed	VEW	☐	VEW_PITR	☒
N-S Ground Speed	VNS	☐	VNS_PITR	☒
Vertical Velocity	VSPD	☒	VSPD_PITR	☐
Pitch	PITCH	☒	PITCH_PITR	☐
Roll	ROLL	☒	ROLL_PITR	☐
True Heading	THDG	☒	THDG_PITR	☐
Dewpoint Temperature	DPRC	☒	DPLC	☐
Total Temperature	TT1	☐	TT2	☒
Ambient Temperature	AT1	☐	AT2	☒
			AT3	☐
			AT4	☐
			CRYOC	☐

Constants File: header01a

	Takeoff	Landing
Aircraft Static Pressure	1018.7 mb	1018.7 mb
Corrected Tower Pressure	1019.0 mb	1018.6 mb

Flight Director:	Stan Czyzyk
E-mail:	Stanley.Czyzyk@noaa.gov
Phone #:	(813) 828-3310
FAX #:	(813) 828-5061
Address:	P.O. Box 6829 MacDill AFB, FL 33608-0829

Mission Notes:

All scientific and aircraft sensors appeared to perform properly throughout the mission with the exception of the following parameters:

GPGALT - Several offsets, spikes and deviations (1811:30-1813:30, 1846:30-1847:00, 1854:00-1855:00, 1900:00-1901:00, 2012:30-2013:00, 2022:30-2023:30, 2052:30-2053:00, 2122:30-2123:30, 2126:30-2127:30, 2133:00-2134:00, 2220:00-2221:00, 2248:30-2249:00, 2330:30-2331:00 and 0020:30-0021:30).

HGM232 - Not functioning.

All_PITR - Dropout 0052:00-0057:00
variables

ADCBCALT - Jump 1743:00-1743:30.

ADCSAT - Incorrect data when temperature below -64C.

DPLC & - Balancing spike 1806:00-1811:00.
DPRC

Dropsondes: 28 Dropsondes released

011102N

1731-2545

ALT_P17N DRAPAT 0052-0057 OUT/aff ✓

CHOLT, SG2 ALL - P17N 1

ADCBALAT JUMP 1743-1743:30 ✓

ALT

AP2

AT2

BP2

DPRC

DAP2

DBP2

CPGACT JUMP 1811:30-1813:30, 1846:30-1847, 1854-1855, 1900:00-1901

✓ 2017:30-2018, 2022:30-2023:30, 2052:30-2053, 2122:30-2123:30,

2126:30-2127:30, 2133-2134, 2220-2221, 2248:30-2249,

2330:30-2331, 0020:30-0021:30,

~~LAT-P17P~~

~~GP2P~~

~~GP2P~~

pos GP 65 VIEW-P17N

~~LAT-P17P~~

~~GP2P~~

DPRC+DPRC BALANCE 1806-1811 ✓

NO H6232 ✓

USPD

PITCH

PS2M

Qc2m

ROLL

TAS2

TWDG

===== HURRICANE SYNOPTIC SURVEILLANCE MISSION PLAN: FIFTEEN/SYNOPTIC =====

NOAA/Hurricane Research Division Thursday, November 1, 2001 9:22:27 AM
 Aircraft: N49RF Proposed takeoff: 02/1730Z

 =====

DROP LOCATIONS

#	LAT (d m)	LON (d m)	RAD/AZM (nm/dg)	TIME (h:mm)
1	23 30	80 00		0:40
2	22 30	78 00		0:58
3	21 30	76 00		1:16
4	20 30	74 00		1:33
5	19 45	74 00		1:40
6	19 45	76 00		1:55
7	19 45	78 00		2:11
8	19 00	79 30		2:25
9	21 30	79 30		2:45
10	21 45	81 00		2:57
11	22 00	82 30		3:09
12	19 30	81 30		3:31
13	17 00	81 30		3:52
14	15 30	83 00		4:09
15	17 00	83 45		4:22
16	16 15	85 00		4:34
17	17 30	86 30		4:50
18	16 15	88 00		5:06
19	18 37	87 15		5:26
20	21 00	86 30		5:46
21	23 00	87 45		6:05
22	25 00	89 00		6:24
23	25 00	86 30		6:44
24	22 30	85 00		7:08
25	24 30	83 30		7:28
26	27 00	85 00		7:51

Drop Points

===== HURRICANE SYNOPTIC SURVEILLANCE MISSION PLAN: FIFTEEN/SYNOPTIC =====

NOAA/Hurricane Research Division Thursday, November 1, 2001 9:22:27 AM
Aircraft: N49RF Proposed takeoff: 02/1730Z
=====

TRACK DISTANCES

=====
LAT LON RAD/AZM LEG TOTAL TIME
(d m) (d m) (nm/dg) (nm) (nm) (h:mm)
=====
0 MACDILL 0. 0. 0:00
1 23 30 80 00 298. 298. 0:40
2 20 30 74 00 391. 688. 1:33
3 19 45 74 00 45. 733. 1:40
4 19 45 78 00 233. 966. 2:11
5 19 00 79 30 98. 1065. 2:25
6 21 30 79 30 150. 1215. 2:45
7 22 00 82 30 176. 1391. 3:09
8 19 30 81 30 161. 1551. 3:31
9 17 00 81 30 150. 1701. 3:52
10 15 30 83 00 126. 1827. 4:09
11 17 00 83 45 100. 1928. 4:22
12 16 15 85 00 86. 2014. 4:34
13 17 30 86 30 116. 2129. 4:50
14 16 15 88 00 116. 2245. 5:06
15 21 00 86 30 298. 2543. 5:46
16 25 00 89 00 280. 2823. 6:24
17 25 00 86 30 143. 2966. 6:44
18 22 30 85 00 173. 3139. 7:08
19 24 30 83 30 148. 3287. 7:28
20 27 00 85 00 173. 3459. 7:51
21 MACDILL 149. 3608. 8:12
=====

NOAA/AOC/SED N49RF Flight Performance log

N49RF Project: Hurr 2001 Project No. 106 Flight No. H413 Flight ID: 011102NSED Crew: Roles, Smith, Lynch Mission: MicheliPre-Flight: 1620 Z Take-Off: 1731 Z Landing: 0147 Z

SYSTEM			Pre-Flight Check	In-Flight	Post-Flight Check		
N A V	IRS #1		✓	✓			
	IRS #2		✓	✓			
	GPS Honeywell #1		✓	✓✓			
	GPS Honeywell #2		✓	✓✓			
	GPS Collins		✓	✓✓	Off? ☒		
	Nose Radar - Collins				Off? ☒		
T E M P /		Time	Temp °C		Time	Temp °C	
	Temp #1	1650	29.5	✓	-69.3		
	Temp #2	1650	32.1	✓	-69.1		
	Temp #3	1651	28.7	✓	-67.5		
	Temp #4	1651	31.9	✓	-68.8		
	DP Left	1652	18.9	✓	Cal. Time: ✓ -73.2		
	DP Right	1652	19.9	✓	Cal. Time: ✓ -74.4		
	CRYO						
P R E S S	Attack Angle (ADCAOA)		✓	4.45			
	Angle of Attack (APx, DAPx)		✓	-7.6/-5.5			
	Sideslip (BPx, DBPx)		✓	✓ 48.4/51.8			
	Static Pressure (PS1M, PS2M)		✓	144.9 147.0			
	Dynamic Pressure (QCxM)		✓	74/73			
	Radome Press. Lines		Checked? ☒ Date: 9/12/01				
Mission Pitot/Static Iso. Valves		Valves: open ☒ closed ☐					
S Y S T E M	Satcom (Flight Phone) ☒				Off CB? ☒		
	Call COMSAT? ☒ (*292#)		CB's Checked? ☒ JS				
	FCU/UPS/CB		✓		UPS off? ☒		
	MADS (WINDS/DISCWIN)		✓	✓	# DATs: 1		
	Printer 1 (lp1)		Power? ☒ Paper? ☒		Printer Power off? ☒		
	MADS Cal. Date: 7/6/01		QC time:		QC time: 0155		
	HAPS System		Time set? ☒ JAS		# Msg.: # Fail:		
	AVAPS System		✓ JS/TL				
M I S C	Exterior Walk Around ☒		JAS/JR				
	Inspect DropSonde Chute Bolts		JAS				
M I S C	Down Port Door		Open? ☒ INOP		Closed? ☐ INOP		
	AVAPS Sondes		# On Board: 60	# Dropped: 20	# Good: 2		
	Sci. Power Monitor		JAS				
	APN-232 Altimeter		①				
	Modem		Power On? ☒				
	Crew Responsibilities Assigned		Roles FWD Lynch AFT				

1	DAT Tape #1	On: 170825	Type:	Off: 0156
Comments: ① APN 232 not being received by MADS				
② AFT DSM Dr connected 1 time 0056Z Forward Queue lengths 9				
8				
7				
etc				