

FLT ID: <i>N991013</i>	FM: <i>KMCF</i>	TO: <i>KMCF</i>
FLT NO: <i>00-03</i>	BLK IN: <i>0150Z</i>	RTA: <i>0141Z</i>
ETD: <i>1730Z</i>	BLK OUT: <i>1713Z</i>	RTD: <i>1724Z</i>
ETE:	BLK TIME: <i>8:37</i>	FLT TIME: <i>8:17</i>
SPONSOR ORG: <i>NHC</i>	PROGRAM: <i>HURRI SURV</i>	PURPOSE: <i>T.S. IRENE</i>

DAO PERSONNEL

AC <i>MAXSON</i>	SYS ENG <i>GOLDSTEIN</i>
CP <i>FINKE/MCCANN</i>	DATA SYS <i>LINO</i>
NAV	RADAR
FE	BT/ODW <i>SMITH</i>
RADIO	CLD PHYS
FD <i>DAMIANO</i> ✓	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/DAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
<i>LANDSEA</i> ✓	<i>HAPS</i>	<i>HRD</i>
<i>GOLDENBERG</i>	<i>HAPS</i>	<i>HRD</i>

PROPOSED/ACTUAL MISSION/REMARKS (RECCO, FIXES, STORM, PENET, NHOP #)

NDA9 0313A IRENE TEAL 23

Drop 7+10 Direct for weather

18327 ROEM CB

202850 + TURB

2041Z CB

205620 CB

*0055Z
28 29.96
20*

(24)

U.S. DEPT. COMM./NOAA/OAO - DATA SECTION WORK FORM NO.2 DROWF2 FILE

FLT ID: *N991013* TIME OFF: *1724Z* TIME ON: *0141Z*

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	<i>1015.1</i>	<i>30.00</i>	<i>1014.0</i>	<i>29.98</i>

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES

FAST FLT LVL TAPES

RADAR TAPES

DOPPLER TAPES

ODW CASSETTES

HARD COPIES

AXBT

AXCP

DATA

GPS : *24* : *22 good ; 22 XMIT ; 1 test ; 1 bad*

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON				
OFF				
RATE				

REMARKS

1607 31
22

1832Z ABeam CB

N9901013

m/s

DPLC

TIME	LAT	LONG	TRK	HD	WD	WS	TA	TD	PA	GA	PS		PQ
175900	2519	8012	142	144	222	22	-57.3	-59.7	12679	12692	189.6	CLD TOP	90.8
181500	2344	7902	175	177	212	11	-61.9	-65.0	12571	13184	175.5	CLD TOP	88.0
181920	2314	7856	137	138	252	10	-61.6	-65.1	12572	13149	175.4	23 DROP	90.2
183533	2200	7710	111	108	312	18	-61.5	-65.2	12567	13262	175.5	27 DROP	91.8
184924	2125	7520	114	113	313	8	-61.3	-64.1	12568	13145	175.6	32 DROP	93.3
185600	2059	7433	119	117	333	12	-62.1	-63.1	12567	13176	175.6	CLD TOP	88.9
190432	2026	7334	124	128	302	14	-62.3	-63.4	12580	13096	175.3	30 DROP	87.9
192435	1930	7530	270	271	279	8	-62.0	-65.5	12580	13271	175.2	34 DROP	89.9
193500	1930	7646	270	272	297	18	-61.3	-66.2	12577	13228	175.3	BTN CLD	88.4
194502	1931	7800	288	288	282	16	-60.6	-63.5	12554	13074	176.0	27 DROP	88.4
200200	2026	7949	290	287	243	20	-60.7	-53.2	12553	13179	176.1	IN CLD	87.9
200805	2041	8034	266	261	199	16	-60.5	-46.1	12557	13172	176.0	28 DROP	90.9
201800	1946	8113	209	208	194	15	-66.0	-53.3	13134	13732	159.7	IN CLD	80.7
202800	1844	8149	209	207	152	11	-66.1	-61.2	13130	13735	159.7	IN CLD	83.5
203945	1731	8233	240	240	193	4	-66.0	-63.9	13128	13715	159.8	29 DROP	78.5
205336	1715	8415	225	274	198	6	-65.9	-63.6	13129	13712	159.8	31 DROP	77.2
211000	1759	8612	288	286	164	7	-65.6	-63.4	13130	13663	159.7	25 DROP	78.6
213400	1833	8915	272	267	176	21	-66.0	-66.7	13130	13813	159.8	LAND	80.2
215508	1848	9151	338	335	212	15	-65.9	-68.7	13135	13700	159.6	31 DROP	79.2
220836	2024	9226	341	340	202	10	-65.8	-69.1	13132	13660	159.7	33 DROP	80.0
222228	2159	9251	61	62	24	4	-65.5	-69.6	13133	13653	159.7	35 DROP	78.7
223200	2200	9138	90	90	80	3	-69.5	-72.3	13702	14229	145.0	ARV CLD	71.4
224039	2205	9033	35	32	240	10	-70.4	-73.2	13707	14241	144.8	23 DROP	73.5
225600	2358	9030	0	359	313	6	-68.1	-73.0	13703	14246	145.0	ARV CLD	72.1
230025	2428	9037	299	295	220	9	-68.5	-73.1	13703	14243	144.9	30 DROP	71.7
231100	2430	9158	270	268	220	9	-68.2	-74.1	13704	14255	144.9	ARV CLD	73.4
231845	2435	9257	325	324	250	9	-68.5	-74.1	13708	14243	144.9	32 DROP	73.9
233932	2659	9250	74	75	259	2	-67.8	-74.5	13703	14229	144.9	30 DROP	72.0
235833	2700	9015	90	89	349	3	-69.0	-76.2	13698	14240	145.1	35 DROP	71.7
001842	2654	8732	151	148	271	9	-69.3	-76.8	13697	14242	145.1	36 DROP	72.4
003942	2432	8724	121	122	184	11	-69.7	-75.6	13704	14270	144.9	NO W	72.6
004114	2430	8712	89	91	209	11	-70.0	-75.5	13700	14267	145.0	35 DROP	71.6
005747	2436	8501	22	17	238	25	-70.8	-74.4	13702	14282	145.0	36 DROP	73.1
011629	2700	8455	50	50	250	18	-71.0	-73.8	13705	14269	144.9	54 DROP	72.1

012412 2721 8346

TEST DROP

N49RF AVAPS DropSonde Log

N49RF Project: HURRICANE 99 - IRENE Flight ID 991013N

Mission: _____ Flight #: 20 System Status: CH 1, 5-7 MW 2.05
CH 2-4, 8 MW 2.01

Drop #	Sonde Serial Number	Chn. #	Time (Zulu)	Press. offset	Winds time	Operator Initials	Comments / Drop Status / Failure Reason	GOOD ☒ / B
1	990415246	5/1	1819	.6	23	JAS/ASG	DATA DROPOUT @ 850 mb	✓
2	990415209	6/1	1835	.4	72		CH #6 DATA DROPOUT	✓
3	984715263	5/2	1849	Ø	32			✓
4	990838022	6/1	1904	Ø.3	20			✓
5	990845161	1/5	1924	Ø.3	24			✓
6	990415335	1/5	1945	0.5	37			✓
7	990415015	1/5	2008	0.7	28			✓
8	990415377	1/5	2039	1.1	61	ASG		✓
9	990215019	2/6	2053	.5	31	ASG		✓
10	990415121	1/5	2110	.5	25	ASG		✓
11	990415100	1/5	2155	.5	21	ASG		✓
12	990148057	2/6	2208	.6	13	ASG		✓
13	990415255	1/5	2222	.8	25	ASG		✓
14	990415057	2/5	2240	.5	25	ASG		✓
15	991018033	1/5	2300	.4	24	ASG		✓
16	990415262	2/5	2318	.9	18	DTL		✓
17	990148060	1/5	2339	.6	50	DTL		✓
18	990415128	2/5	2358	.6	25	DTL		✓
19	990415381	3/5	0018	.9	26	DTL		✓
20	990415122	4/5	0039	0.6	—	DTL	PI DATA COLLECTED NO WINDS	
21	985035220	2	0041	.7	45	DTL	Back-up	✓
22	985035159	3/5	0057	.6	16	DTL		✓
23	985035230	4/6	0116	—	54	DTL		✓
24	993645223	5	0123	—	—	JAS	REV C SATS 7/7 BUT NO WINDS	B
25								
26								
27								
28								
29								
30								
31								
32								
33								

PI data collection from CH #5

G4 Hurricane Surveillance

N991013 TS Irene (NW Caribbean)

<u>DATA TYPE</u>	<u>SENSOR or OPTION</u>
INE	VEW, VNS
Accelerometer	ACINS
Temperature Probe	AT2
Altitude (for vertical wind)	PALT
Static Pressure	PS1M
Dynamic Pressure	QC1M
Dewpoint Probe	DPLC

Notes:

There were no time gaps.

No dynamic corrections were applied to the measured static and dynamic pressures. Thus wind direction and wind speed may not be representative of actual flight level conditions.

	<u>Takeoff</u>	<u>Landing</u>
Aircraft static pressure	1015.1mb	1014.0mb
Corrected tower pressure	1015.4mb	1014.8mb

Flight Meteorologist: A. Barry Damiano, (813) 828-3310 ext. 3073

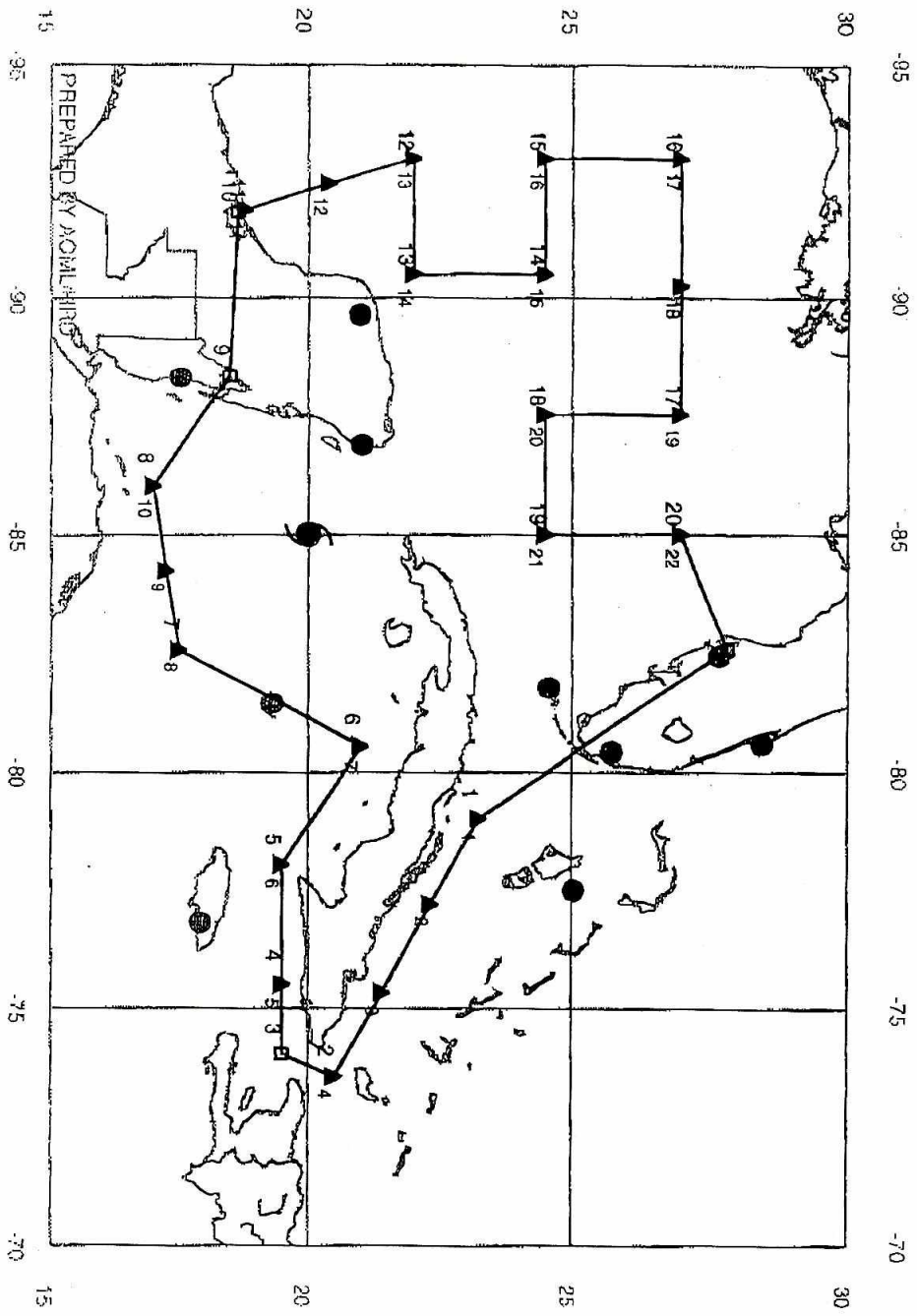
FLIGHT TRACKS XXXX/SYNOPTIC

991013np.fk

RAWINSONDES 9909

- Regular
- 12Z only
- 00Z only
- infrequent
- infrequent - 00Z
- infrequent - 12Z

▲ DROP LOCATIONS



PREPARED BY JOML/HHS

FROM :

FAX NO. : 3053614402

Oct. 12 1999 12:17PM P4

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

Prepared by the Hurricane Research Division at 12:06:07 PM on 10/12/99.
File: 991013np.ftk

Aircraft: N49RF Altitude: FL410-450 Proposed takeoff: 13/1730Z
=====

DROP LOCATIONS

0145Z

#	LAT (d m)	LON (d m)	RAD/AZM (nm/dg)	TIME (h:mm)
1	23 15	79 00		0:56
2	22 20	77 10		1:11
3	21 25	75 20		1:27
4	20 30	73 30		1:43
5	19 30	71 30		2:03
6	19 30	70 00		2:23
7	21 00	80 30		2:45
8	17 30	82 30		3:18
9	17 15	84 15		3:32
10	17 00	86 00		3:45
11	18 48	91 51		4:35
12	20 24	92 26		4:49
13	22 00	93 00		5:03
14	22 00	90 30		5:22
15	24 30	90 30		5:42
16	24 30	93 00		6:01
17	27 00	93 00		6:21
18	27 00	90 30		6:41
19	27 00	87 30		7:01
20	24 30	87 30		7:22
21	24 30	85 00		7:40
22	27 00	85 00		8:01

1928Z 1st OB out
 1937Z 2 OB out
 194500 3 OB
 2013 OB 4 out

AF 1931Z

20.1 1002

83.7 47 KTS
E (QUAD)

N (360)

E 1849

8325

OK

1933

8310

NEW ORLEAN

13/
Spm
Forecast

2136Z

20.3 999

83.6 47 KTS

1-9

(OB 8)

fury??

14/6Z 21.2 83.8 55

14/18Z 22.5 83.8 55

15/6Z 23.5 83.5 75 KTS

15/18Z 24.5 83.5 80 KTS

16/18Z 27.0 83.0 80 KTS

FROM :

FAX NO. : 3053614402

Oct. 12 1999 12:17PM P3

=====

HURRICANE SYNOPTIC SURVEILLANCE MISSION PLAN: XXXX/SYNOPTIC

Prepared by the Hurricane Research Division at 12:06:07 PM on 10/12/99.
File: 991013np.ftk

Aircraft: N49RF Altitude: FL410-450 Proposed takeoff: 13/1730Z

=====

TRACK DISTANCE TABLE

=====

#	LAT (d m)	LON (d/m)	RAD/AZM (nm/dg)	LEG (nm)	TOTAL (nm)	TIME (h:mm)
0	MACDILL			0.	0.	0:00
1	23 15	79 00		336.	336.	0:56
2	20 30	73 30		348.	684.	1:43
3	19 30	74 00		66.	751.	1:52
4	19 30	75 30		85.	836.	2:03
5	19 30	78 00		142.	977.	2:23
6	21 00	80 30		167.	1145.	2:45
7	17 30	82 30		239.	1384.	3:18
8	17 00	86 00		203.	1587.	3:45
9	18 30	88 20		161.	1748.	4:07
10	18 39	91 48		198.	1946.	4:34
11	18 48	91 51		9.	1955.	4:35
12	22 00	93 00		203.	2158.	5:03
13	22 00	90 30		139.	2298.	5:22
14	24 30	90 30		150.	2448.	5:42
15	24 30	93 00		137.	2585.	6:01
16	27 00	93 00		150.	2735.	6:21
17	27 00	87 30		295.	3029.	7:01
18	24 30	87 30		150.	3180.	7:22
19	24 30	85 00		137.	3316.	7:40
20	27 00	85 00		150.	3467.	8:01
21	MACDILL			142.	3609.	8:30

=====

NOAA/AOC/SED N49RF Flight Performance log

N49RF Project: Hurr 99 Project No. 430 Flight No. 20 Flight ID: 991013N
 SED Crew: Goldstein, Smith, Lino Mission: Irene
 Pre-Flight: 1620 Z Take-Off: 1724 Z Landing: 0141 Z

SYSTEM			Pre-Flight Check	In-Flight	Post-Flight Check		
NAV	IRS #1		<u>✓</u>				
	IRS #2		<u>✓</u>				
	IRS #3		<u>✓</u>				
	GPS Honeywell #1		<u>✓</u>				
	GPS Honeywell #2		<u>✓</u>				
	GPS Collins		<u>DL</u>		Off? ☒		
Nose Radar -Collins					Off? ☒		
TEMP	Time	Temp °C			Time	Temp °C	
	Temp #1	<u>1649</u>	<u>36.2</u>	<u>✓</u>		<u>0145</u>	<u>27.9</u>
	Temp #2	<u>1649</u>	<u>38.2</u>	<u>✓</u>			<u>28.0</u>
	Temp #3	<u>1653</u>	<u>33.5</u>	<u>✓</u>			<u>27.3</u>
	Temp #4	<u>1654</u>	<u>40.0</u>	<u>✓</u>			<u>28.7</u>
	DP Left	<u>1654</u>	<u>21.5</u>	<u>✓</u>	Cal. Time:		<u>19.3</u>
	DP Right	<u>1654</u>	<u>22.1</u>	<u>✓</u>	Cal. Time:		<u>19.9</u>
PRES	Attack Angle (ADCAOA)		<u>✓</u>				
	Slip Angle (BPx/DxPx)		<u>✓</u>				
	Differential (PQ1/PQ2)		<u>✓</u>				
	Absolute (PS1/PS2)		<u>✓</u>				
	Check Radome Press. Lines ☐		Date: <u>9/8/99</u>				
SYSTEMS	DOWN PRT-5 ⇒ Open? ☐		Not USED		Closed? ☒		
	MADS (WINDS/DISCWIN)		<u>✓</u>		# DATs: <u>1</u>		
	MADS Printer ⇒ Paper? ☒		<u>✓</u>		Printer Power off? ☒		
	MADS Cal. Date: <u>8/26/99</u>		QC time: <u>1702</u>		QC time: <u>0143</u>		
	WINDS ⇒ NET BCAST ☒		<u>✓</u>				
	HAPS System / Time set? ☒		<u>ASS</u>		# Msg.: <u>22</u> # Fail: <u>5</u>		
	AVAPS System		<u>VJS</u>				
	K2 Printer ⇒ Paper? ☒		<u>✓</u>		Printer Power off? ☒		
Exterior Walk Around ☒			<u>JS</u>				
Inspect DropSonde Chute Bolts							
MISSION	Satcom (Flight Phone) ☒		<u>✓</u>		Off CB? ☒		
	Call COMSAT? ☒ (*292#)		<u>✓</u>				
	FCU/UPS/CB		CB's Checked? ☐		UPS off? ☐		
	AVAPS Sondes		# On Board: <u>144</u>	# Dropped: <u>24</u>	# Good: <u>22</u>		
	AXBT		# On Board: <u>0</u>	# Dropped: <u>—</u>	# Good: <u>—</u>		
	APN-232 Altimeter		<u>✓</u>				
	Modem Power On? ☒		<u>✓</u>				

1	DAT Tape #1	On: <u>1709 Z</u>	Type: <u>VERB 60m</u>	Off: <u>0151</u>
2	DAT Tape #2	On:	Type:	Off:
Comments:				