

FLT ID: <i>N991116</i>	FM: <i>TFSX</i>	TO: <i>KMCF</i>
FLT NO: <i>00-11</i>	BLK IN: <i>0212Z</i>	RTA: <i>0204Z</i>
ETD: <i>1730Z</i>	BLK OUT: <i>1734Z</i>	RTD: <i>1741Z</i>
ETE:	BLK TIME: <i>8:38</i>	FLT TIME: <i>18:23</i>
SPONSOR ORG: <i>NHC</i>	PROGRAM: <i>HURR. SURV</i>	PURPOSE: <i>H. LENNY</i>

DAO PERSONNEL

AC <i>MAXSON</i>	SYS ENG <i>LINO</i>
CP <i>MCCANN / FINKE</i>	DATA SYS <i>PRADAS-BERGNES</i>
NAV	RADAR
FE <i>ROTTEVEEL</i>	BT/ODW <i>MCMILLAN</i>
RADIO	CLD PHYS
FD <i>DAMIANO</i>	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/DAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
<i>GOLDENBERG</i>	<i>NAPS</i>	<i>AOC</i>
<i>KAPLAN</i>	<i>HAPS</i>	<i>AOC</i>

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

1940Z WINDSHEFT
AF 1821Z
15°30' 967mb Dropsonde
68°53' open S
81-KTS W 91KTS NE
1946Z
15°35' 960mb ethrop
68°34' 106 KTS
2126Z
15°44' 962 drop
68°06' 119 KTS SE

Get ST sounding
2330-2336
chk TTI
0600-0110
Turb.

U.S. DEPT. COMM./NOAA/ORA - DATA SECTION WORK FORM NO.2 OROWFZ FILE

FLT ID: *N991116* TIME OFF: *1741Z* TIME ON: *0204Z*

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	<i>1004.4</i>	<i>29.70</i>	<i>1012.0</i>	<i>29.91</i>

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES

2

FAST FLT LVL TAPES

RADAR TAPES

DOPPLER TAPES

ODW CASSETTES

HARD COPIES

AXBT

AXCP

ODW

GPS

27

24 good; 3 bad; 25 XMIT

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON				
OFF				
RATE				

REMARKS

1641Z

2355Z

0055Z

29.88

*25
26*

*17
13*

*16
11*

N991116

M/S

DPL

TIME	LAT	LONG	TRK	HD	WD	WS	TA	TD	PA	GA	PS		PA
180121	1600	6400	171	174	237	22	-22.9	-32.5	8366	8772	336.5	⑥ DROP	156.6
180700	1519	6400	180	179	222	17	-35.5	-39.9	9882	10357	268.1	INTN CLD	124.4
181500	1420	6400	179	181	275	19	-48.7	-50.1	11510	12044	207.9	INTN CLD	100.5
182210	1331	6409	255	258	282	19	-59.1	-61.0	12562	13118	175.6	②③ DROP	83.7
182807	1330	6450	270	269	266	24	-59.5	-60.5	12564	13127	175.6	②③ DROP	89.0
183400	1330	6530	270	268	252	23	-60.2	-59.7	12562	13120	175.7	INTN CLD	89.7
184234	1330	6630	270	268	252	23	-58.5	-56.8	12561	13116	175.7	④⑦ DROP	90.4
184900	PASSING AHEAD OF SPIRAL BAND (SOUTH)												
190414	1330	6900	270	271	284	15	-59.1	-58.8	12558	13113	175.8	③② DROP	88.2
191800	1330	7040	271	272	298	9	-59.0	-59.0	12551	13105	175.9	INTN CLD	89.4
192446	1330	7130	268	269	307	8	-60.3	-61.2	12553	13107	176.0	②③ DROP	90.1
194439	1333	7401	300	301	86	7	-58.8	-63.3	12552	13103	176.0	②③ DROP	
195804	1446	7515	317	315	177	10	-58.5	-67.9	12553	13097	176.0	②③ DROP	88.8
201137	1559	7632	287	281	185	22	-59.0	-69.2	12547	13084	176.1	③① DROP	87.9
203053	1605	7858	329	326	213	19	-58.3	-68.7	12551	13084	176.0	③② DROP	88.4
203700	1652	7900	0	356	223	24	-58.5	-69.1	12548	13087	176.0	CAT	87.1
204342	1746	7857	35	36	218	19	-58.5	-69.1	12548	13086	176.0	④⑥ DROP	88.4
205800	1854	7722	53	51	261	18	-63.2	-70.7	13130	13670	159.7	INTN CLD	80.4
210551	1929	7628	77	77	260	14	-63.3	-72.6	13138	13667	159.6	④⑥ DROP	80.1
211800	1930	7448	90	91	252	15	-63.2	-72.5	13134	13674	159.6	CLR	80.7
212352	1935	7402	31	25	262	21	-63.2	-71.9	13138	13675	159.6	⑦⑩ DROP	80.5
212626	1954	7400	0	354	248	22	-63.3	-71.1	13136	13676	159.5	⑤③ DROP	81.0
213444	2057	7356	51	51	246	21	-63.5	-71.1	13142	13665	159.5	⑤③ DROP	80.7
215226	2100	7130	90	92	227	16	-63.4	-71.7	13140	13676	159.5	⑤③ DROP	
221037	2100	6900	90	93	214	18	-63.4	-70.8	13137	13677	159.4	④② DROP	80.2
222842	2100	6630	90	94	207	22	-64.8	-71.7	13142	13670	159.6	⑤② DROP	77.8
224629	2109	6409	339	325	248	41	-68.4	-71.5	13719	14245	144.7	⑤⑥ DROP	73.8
225954	2216	6514	317	310	258	34	-68.1	-72.7	13719	14243	144.6	⑤⑥ DROP	73.3
230238	2229	6528	317	309	258	38	-68.6	-72.7	13717	14240	144.6	⑤⑥ DROP	73.5
231515	2328	6631	288	280	247	43	-69.5	-73.7	13721	14222	144.5	⑤⑥ DROP	72.2
233736	2330	6900	270	266	244	37	-69.7	-73.4	13721	14248	144.4	⑤⑦ DROP	72.6
000005	2330	7130	270	267	251	36	-70.2	-73.4	13719	14239	144.5	⑤⑧ DROP	73.1
002246	2330	7400	270	266	251	39	-70.0	-72.7	13716	14211	144.6	⑤⑧ DROP	73.0
004529	2330	7630	270	264	231	35	-70.4	-73.4	13714	14197	144.7	⑤⑧ DROP	72.0
010717	2333	7901	311	303	222	39	-67.6	-73.6	13708	14201	144.9	⑤⑧ DROP	72.9

G4 Hurricane Surveillance

N991116 H. Lenny (Central 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	1004.4mb	1012.0mb
Corrected tower pressure	1005.0mb	1012.4mb

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

N49RF AVAPS DropSonde Log

N49RF Project: Hurricane 99

Flight ID 991116N

Mission: Lenny 2

Flight #: 27

System Status: Operational

Drop #	Sonde Serial Number	Chn. #	Time (Zulu)	Press. offset	Winds time	Operator Initials	Comments / Drop Status/ Failure Reason	GOOD ✓/B
1	991845211	2	1801	+2	16	STM	Winds in and out	✓
2	991037125	2	1822	+8	37	STM	Poor Winds	✓
3	992538021	4	1828	+2	21	STM	OK Winds	✓
4	991515233	2	1842	+6	47	STM		✓
5	991515190	2	1904	+2	32	STM		✓
6	991845196	2	1924	+5	29	STM		✓
7	991515167	2	1944	+5	29	STM		✓
8	991515274	4	1958	+7	22	STM		✓
9	992615047	2	2011	+6	31	STM	No Winds at end of Drop	—
10	991515236	4	2030	+8	24	DTL		✓
11	991515018	2	2043	.4	26	DTL		✓
12	992615009	2	2106	.7	46	DTL		✓
13	992645003	4	2123	.7	84	DTL	Late & Intermittent Winds	—
14	990935147	3	2126	—	53	DTL	Backup - Fast Fall	—
15	991515158	2	2134	—	20	DTL		✓
16	990415195	4	2152	.6	23	DTL		✓
17	991515160	2	2210	—	42	DTL		✓
18	992515771	4	2228	.7	52	DTL		✓
19	991515163	2	2246	—	56	DTL		✓
20	991515196	4	2259	.5	32	JCPB	LATE WINDS	✓
21	992435008	1	2302	.5	18	JCPB		✓
22	991845136	2	2315	-.9	46	JCPB		✓
23	990148017	4	2337	-.9	17	JCPB		✓
24	991515159	4	0000	.5	48	JCPB		✓
25	990935152	4	0022	.4	45	JCPB		✓
26	990845029	4	0045	.8	34	JCPB		✓
27	990148022	4	0107	.4	23	JCPB		✓
28								
29								
30								
31								
32								
33								

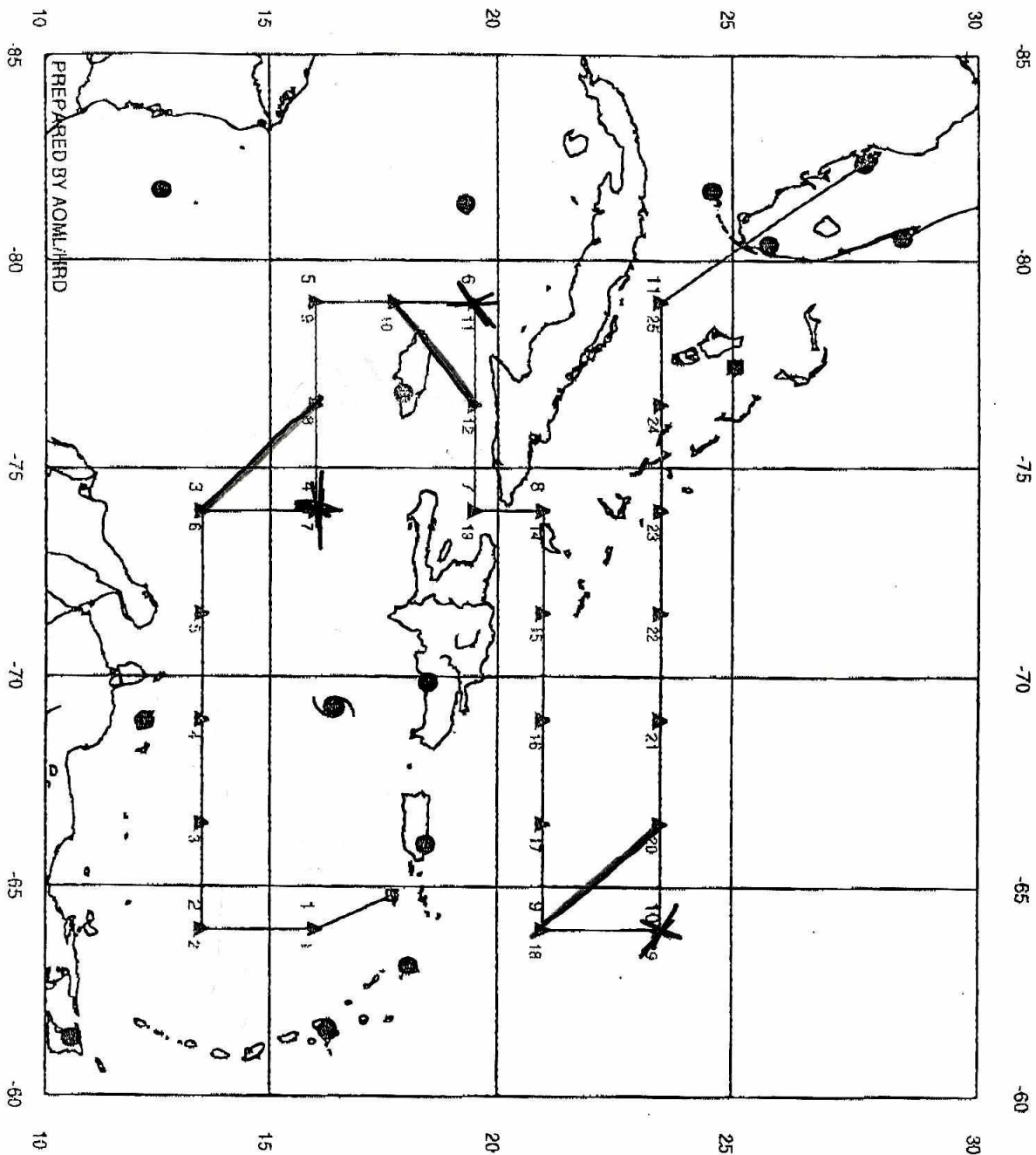
FLIGHT TRACKS LENNY/SYNFLOW

991116np2.flk

RAWINSONDES 9809

- Regular
- 12Z only
- 00Z only
- Infrequent
- Infrequent - 00Z
- Infrequent - 12Z

▲ DROP LOCATIONS



FROM :

FAX NO. : 3053614402

Nov. 15 1999 12:04PM P4

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HURRICANE SYNOPTIC SURVEILLANCE MISSION PLAN: LENNY/SYNFLOW

Prepared by the Hurricane Research Division at 10:42:27 AM on 11/15/99.
File: 991116np2.ftk

Aircraft: N49RF Altitude: FL410-450 Proposed takeoff: 16/1730Z

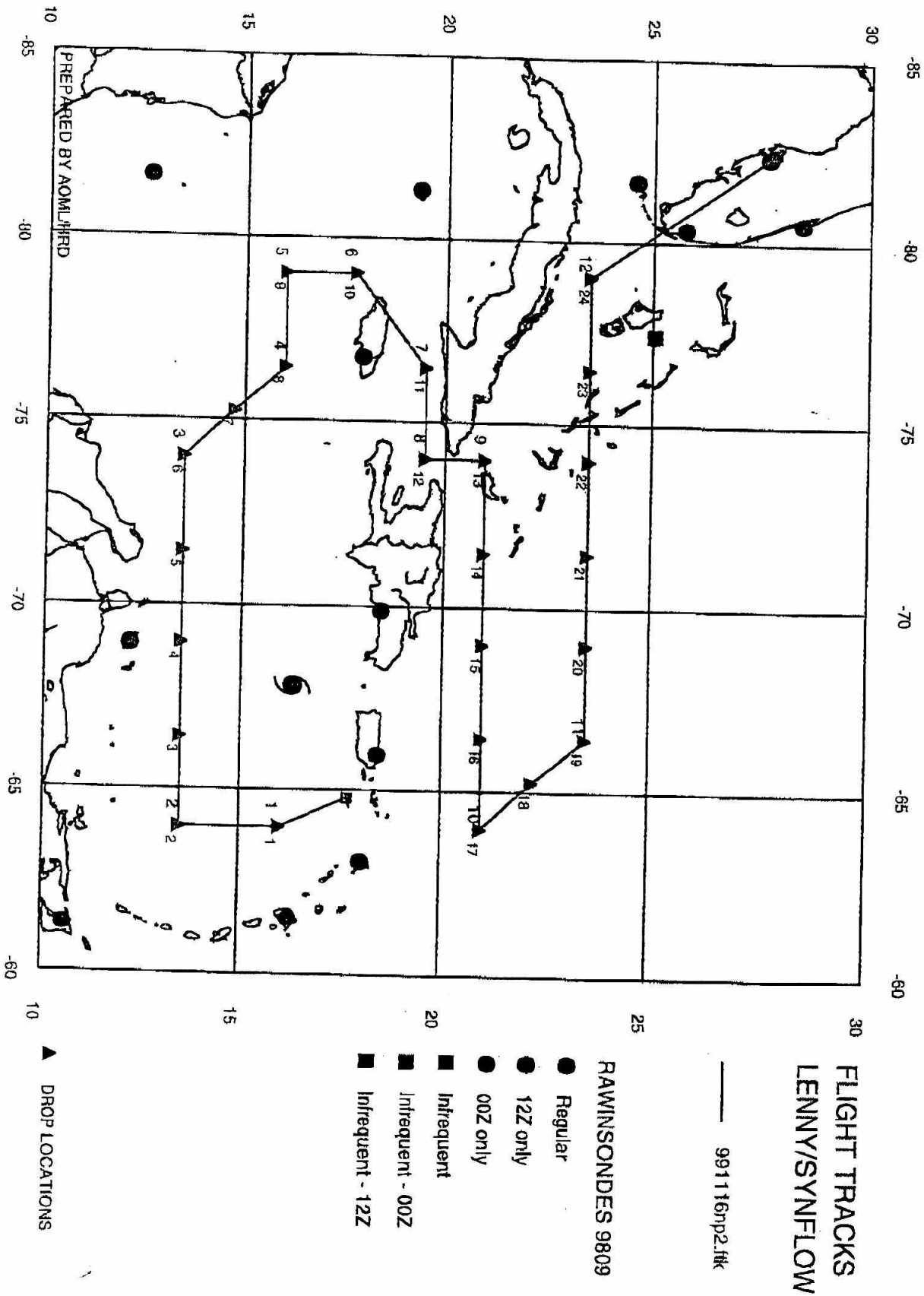
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DROP LOCATIONS

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#	LAT (d m)	LON (d m)	RAD/AZM (nm/dg)	TIME (h:mm)
1	16 00	64 00		0:25
2	13 30	64 00		0:46
3	13 30	66 30		1:05
4	13 30	69 00		1:25
5	13 30	71 30		1:45
6	13 30	74 00		2:05
7	16 00	74 00		2:25
8	16 00	76 30		2:45
9	16 00	79 00		3:05
10	17 45	79 00		3:19
11	19 30	79 00		3:33
12	19 30	76 30		3:52
13	19 30	74 00		4:12
14	21 00	74 00		4:24
15	21 00	71 30		4:43
16	21 00	69 00		5:02
17	21 00	66 30		5:21
18	21 00	64 00		5:40
19	23 30	64 00		6:00
20	23 30	66 30		6:19
21	23 30	69 00		6:38
22	23 30	71 30		6:57
23	23 30	74 00		7:15
24	23 30	76 30		7:34
25	23 30	79 00		7:53

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HURRICANE SYNOPTIC SURVEILLANCE MISSION PLAN: LENNY/SYNFLOW

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Prepared by the Hurricane Research Division at 10:37:31 AM on 11/16/99.
File: 991116np2.ftk

Aircraft: N49RF Altitude: FL410-450 Proposed takeoff: 16/1730Z

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2116 08 1+2 out
2139 6 out

DROP LOCATIONS

#	LAT (d m)	LON (d m)	RAD/AZM (nm/dg)	TIME (h:mm)
1	16 00	64 00		0:25
2	13 30	64 00		0:46
3	13 30	66 30		1:05
4	13 30	69 00		1:25
5	13 30	71 30		1:45
6	13 30	74 00		2:05
7	14 45	75 45		2:19
8	16 00	76 30		2:33
9	16 00	79 00		2:53
10	17 45	79 00		3:07
11	19 30	76 30		3:31
12	19 30	74 00		3:50
13	21 00	74 00		4:03
14	21 00	71 30		4:22
15	21 00	69 00		4:41
16	21 00	66 30		5:00
17	21 00	64 00		5:19
18	22 15	65 15		5:33
19	23 30	66 30		5:47
20	23 30	69 00		6:05
21	23 30	71 30		6:24
22	23 30	74 00		6:43
23	23 30	76 30		7:02
24	23 30	79 00		7:20

25

963

967

18 10K

50

15° 35'

68° 34'

1946Z

960 EXTRAP

AF 2126Z

15° 44'
68° 06'

962 dropsonde
119 KT SE

24 good

174Z

29.85

29
26 29.69

16/21Z	15.8	68.2	100 KTS
17/06Z	17.3	66.3	100 KTS
17/18Z	18.8	64.3	100 KTS
18/06Z	20.5	62.0	95 KTS
18/18Z	22.0	60.0	85
18/24Z	26.0	56.0	75 KTS

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HURRICANE SYNOPTIC SURVEILLANCE MISSION PLAN: Lenny/SYNFLOW

Prepared by the Hurricane Research Division at 10:37:31 AM on 11/16/99.
File: 991116np2.ftk

Aircraft: N49RF Altitude: FL410-450 Proposed takeoff: 16/1730Z
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TRACK DISTANCE TABLE

#	LAT (d m)	LON (d/m)	RAD/AZM (nm/dg)	LEG (nm)	TOTAL (nm)	TIME (h:mm)
0	ST CROIX			0.	0.	0:00
1	16 00	64 00		112.	112.	0:25
2	13 30	64 00		150.	262.	0:46
3	13 30	74 00		584.	847.	2:05
4	16 00	76 30		209.	1056.	2:33
5	16 00	79 00		144.	1200.	2:53
6	17 45	79 00		105.	1305.	3:07
7	19 30	76 30		177.	1482.	3:31
8	19 30	74 00		142.	1624.	3:50
9	21 00	74 00		90.	1714.	4:03
10	21 00	64 00		561.	2275.	5:19
11	23 30	66 30		205.	2480.	5:47
12	23 30	79 00		689.	3169.	7:20
13	MACDILL			324.	3492.	8:14