

TROPICAL PREDICTION CENTER NATIONAL HURRICANE CENTER

1998082711-FDA



FAX NUMBER: (305) 553-1901

DATE: 8/22/98

TO: Sim Aberson
FROM: John Kaplan

PHONE:

PHONE: (305) 229-4470

REMARKS:

Sim;

Here is today's fax package

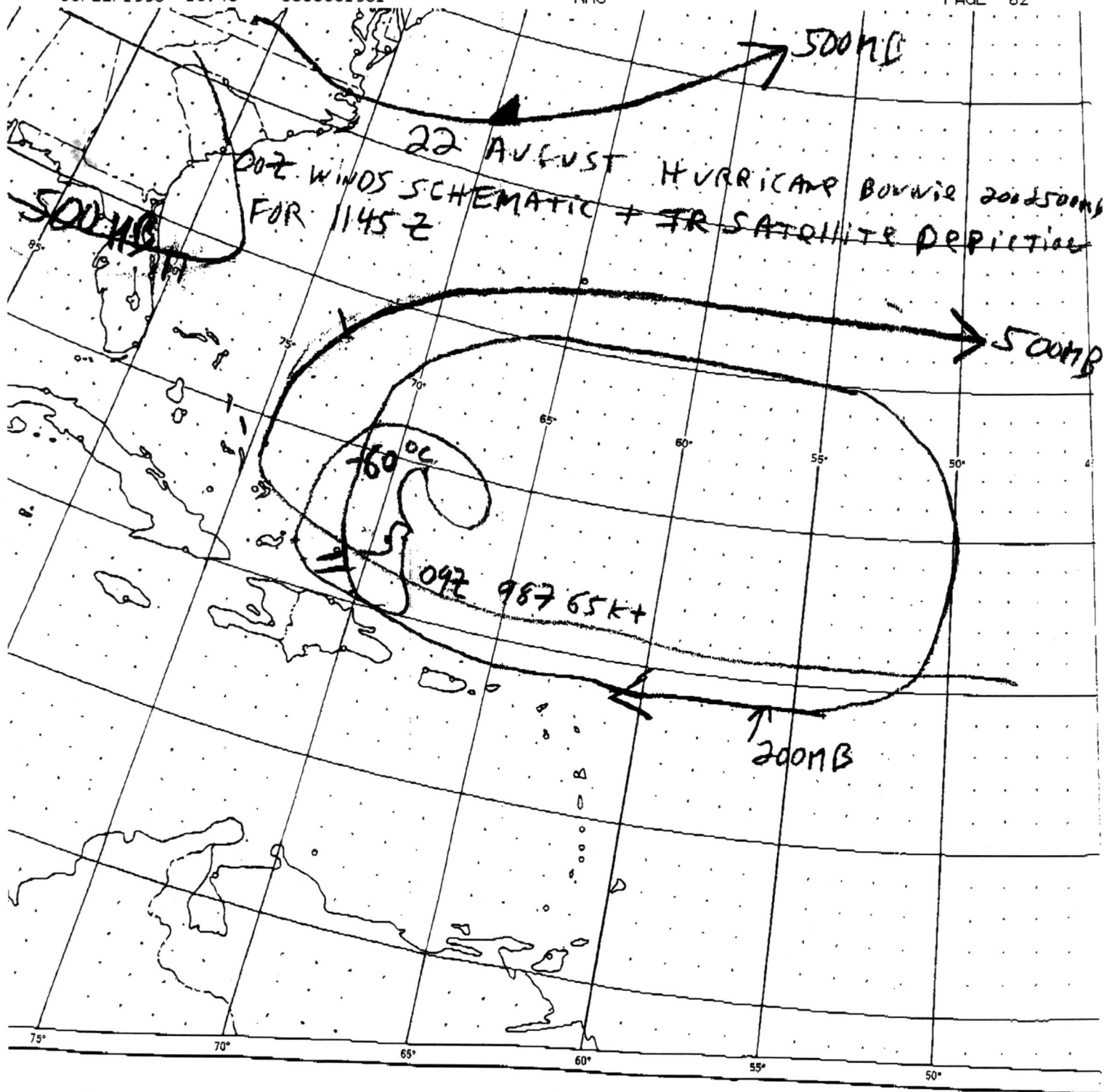
John

TRANSMITTING PAGES 11 (INCLUDING THIS COVER SHEET)
IF YOU DO NOT RECEIVE THE TOTAL NUMBER OF PAGES,
PLEASE CALL (305) 229-4470 FOR ASSISTANCE.

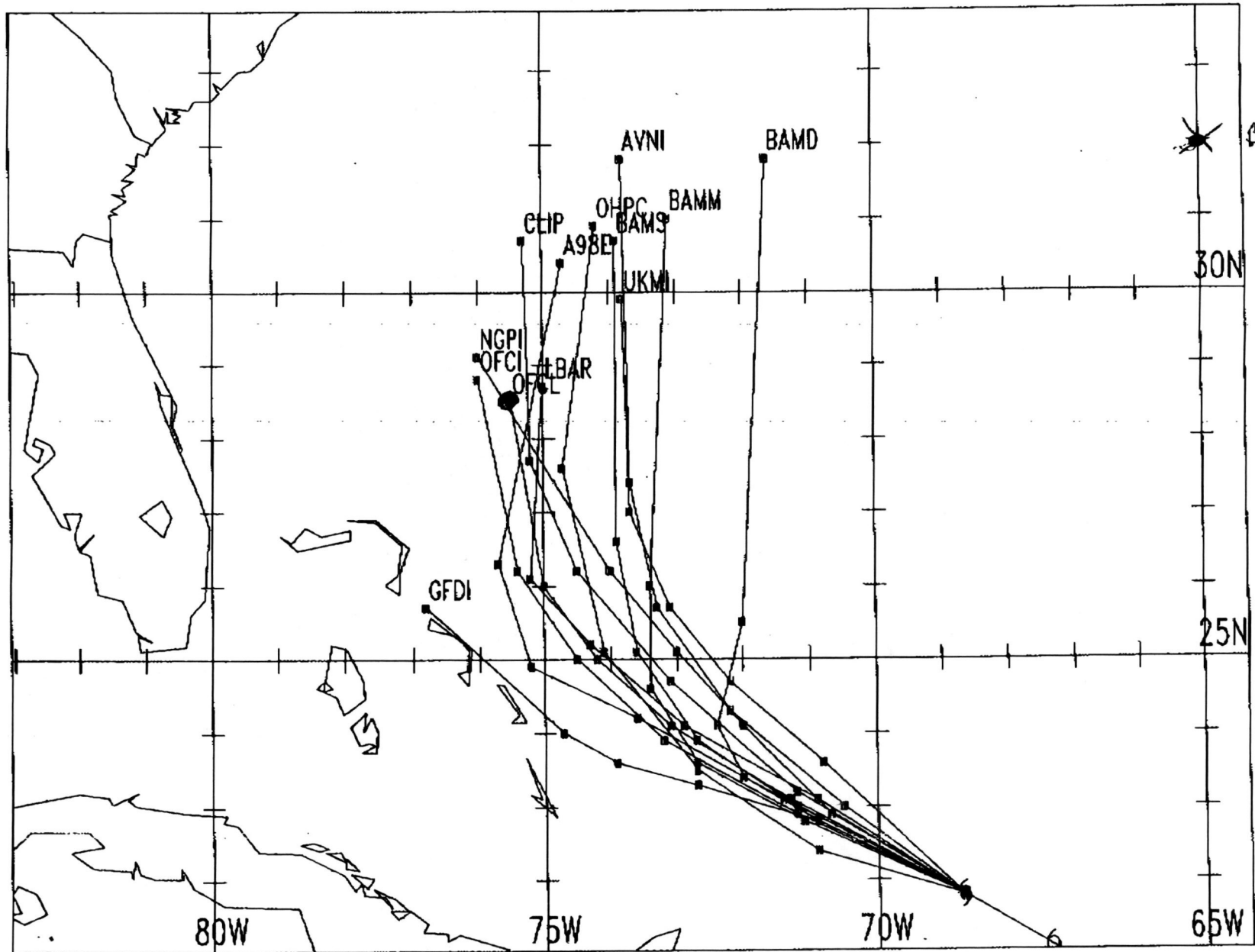


100808511-100

1



Bonne 22/068



THIS CHART (126) IS A REPLACEMENT FOR THE ATLANTIC
200MB WIND & STREAMLINES

Δ IR-SATUND * VIS-SATUND + MV-SATUND
x RADAR-FIXED □ AIREP

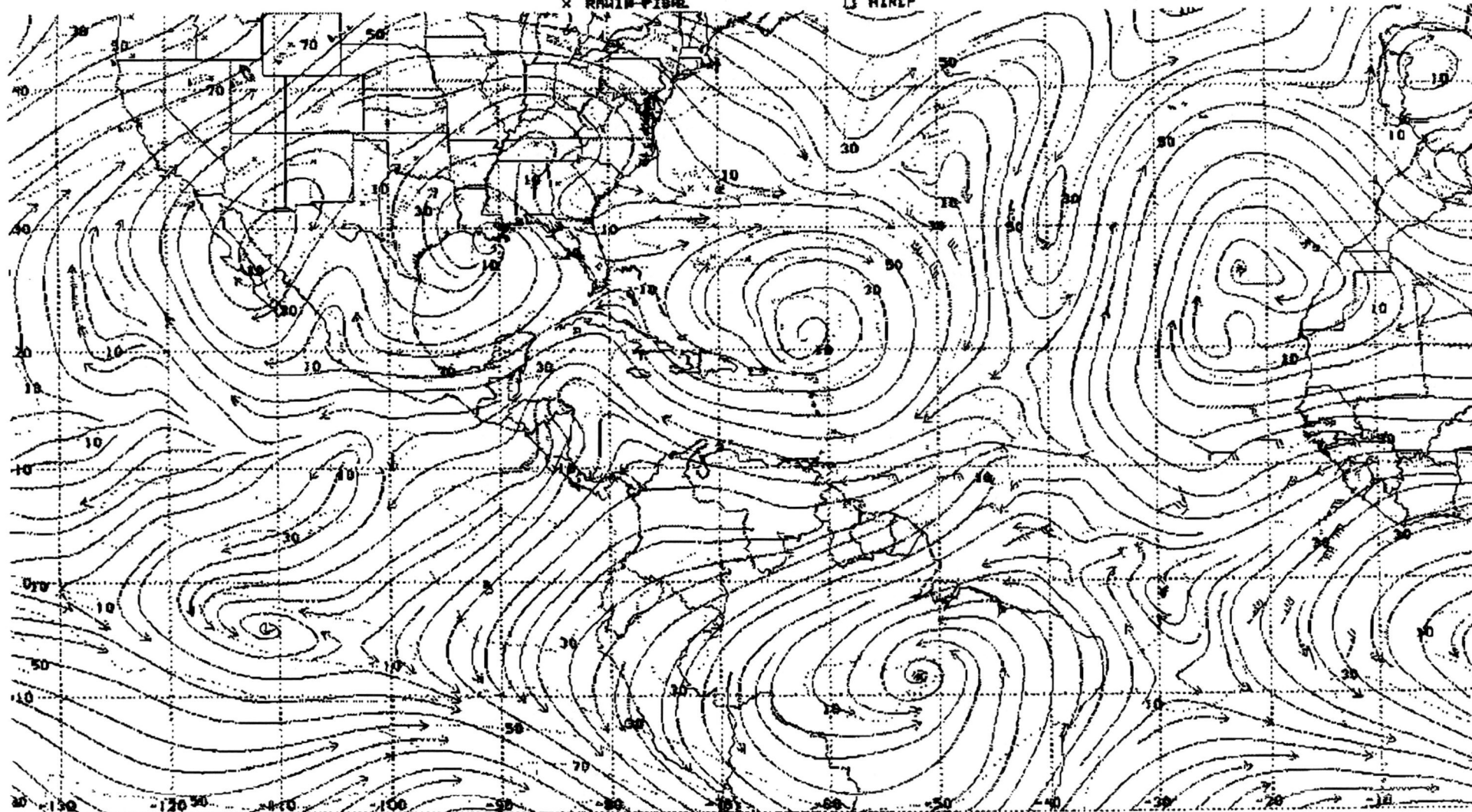


CHART 126 AVIATION TOWNS FIRST-GUESS ANALYSIS
AUG 22 1998 0000 GMT STREAMLINES... ISOBARS... DATA TPC MIAMI FL

ZCZC MIATCDAT2
TTAA00 KNHC 220843
HURRICANE BONNIE DISCUSSION NUMBER 11
NATIONAL WEATHER SERVICE MIAMI FL
5 AM EDT SAT AUG 22 1998

ON THEIR LAST PASS THROUGH BONNIE NEAR 0530Z...THE HURRICANE HUNTERS FOUND THAT A NEARLY COMPLETE EYEWALL HAD FORMED. THEY ALSO REPORTED A CENTRAL PRESSURE OF 987 MB WITH FLIGHT-LEVEL WINDS OF 76 KT. SUSTAINED SURFACE WINDS ARE CURRENTLY ESTIMATED AT 65 KT. THE MOTION HAS EDGED OVER TO 300 DEGREES...STILL AT 15 KNOTS.

NOAA AIRCRAFT HAVE ONCE AGAIN PROVIDED THE NUMERICAL MODELS NUMEROUS VERTICAL SOUNDINGS OF BONNIE/S ENVIRONMENT TO IMPROVE FORECASTS OF TRACK AND INTENSITY. THE RESULTING GUIDANCE AND OUR CONCERNS ARE LITTLE CHANGED. THE LARGE-SCALE MODELS SHOW A WEAKENING OF STEERING CURRENTS DURING THE NEXT TWO DAYS...FOLLOWED BY THE APPROACH OF A SHORT-WAVE TROUGH IN THE WESTERLIES WHICH COULD INDUCE A GREATER NORTHWARD COMPONENT OF MOTION. THE TRACK GUIDANCE IS SIMILAR TO 6 HOURS AGO SHOWING A GRADUAL TURN FROM WNW TO NW AND DECELERATION THROUGH THE WEEKEND. THE GFDL TRACK AGAIN FORMS THE LEFT EDGE OF THE ENSEMBLE...BUT ALL THE GFDL 72-HOUR FORECAST POSITIONS FOR BONNIE HAVE ENDED UP LEFT OF THE ACTUAL TRACK. THE NHC FORECAST IS TO THE RIGHT OF GFDL...NEAR LBAR WHICH HAS HAD LITTLE LATERAL BIAS...AND CONSISTENT WITH OUR PREVIOUS TRACK.

THE GOVERNMENT OF THE BAHAMAS HAS ISSUED A HURRICANE WARNING FOR THE CENTRAL BAHAMAS.

THE UPPER-LEVEL AND OCEAN ENVIRONMENT APPEAR FAVORABLE FOR ADDITIONAL STRENGTHENING.

RAPPAPORT

FORECAST POSITIONS AND MAX WINDS

INITIAL	22/0900Z	22.1N	69.4W	65 KTS
12HR VT	22/1800Z	23.1N	71.3W	70 KTS
24HR VT	23/0600Z	24.1N	73.1W	80 KTS
36HR VT	23/1800Z	25.0N	74.2W	90 KTS
48HR VT	24/0600Z	26.0N	75.0W	95 KTS
72HR VT	25/0600Z	28.5N	75.5W	100 KTS

NNNN

ZCZC MIATCPAT2
TTAA00 KNHC 220840
BULLETIN
HURRICANE BONNIE ADVISORY NUMBER 11
NATIONAL WEATHER SERVICE MIAMI FL
5 AM AST SAT AUG 22 1998

...HURRICANE BONNIE THREATENS THE BAHAMAS...

A HURRICANE WARNING REMAINS IN EFFECT FOR THE TURKS AND CAICOS ISLANDS...AND THE SOUTHEASTERN BAHAMAS. AT 5 AM AST...0900Z...THE GOVERNMENT OF THE BAHAMAS HAS ISSUED A HURRICANE WARNING FOR THE CENTRAL BAHAMAS. A HURRICANE WATCH COULD BE ISSUED FOR THE NORTHWESTERN BAHAMAS LATER TODAY.

PREPARATIONS TO PROTECT LIFE AND PROPERTY SHOULD BE RUSHED TO COMPLETION IN THE HURRICANE WARNING AREA.

BONNIE COULD THREATEN THE EAST COAST OF THE UNITED STATES WITHIN THE NEXT FEW DAYS. RESIDENTS ALONG THE COAST SHOULD CONTINUE TO MONITOR THE PROGRESS OF THE HURRICANE.

AT 5 AM AST...0900Z...THE CENTER OF HURRICANE BONNIE WAS LOCATED NEAR LATITUDE 22.1 NORTH...LONGITUDE 69.4 WEST OR ABOUT 120 MILES...195 KM...EAST-NORTHEAST OF TURK ISLAND.

BONNIE IS MOVING TOWARD THE WEST NORTHWEST NEAR 17 MPH...28 KM/HR. BONNIE IS EXPECTED TO SLOW DOWN AND MAKE A GRADUAL TURN TOWARD THE NORTHWEST DURING THE NEXT 12 TO 24 HOURS. ON THIS TRACK...THE CENTER OF THE HURRICANE WILL BE PASSING NEAR OR A LITTLE NORTH OF THE TURKS AND CAICOS ISLANDS AND THE SOUTHEASTERN BAHAMAS TODAY.

MAXIMUM SUSTAINED WINDS ARE NEAR 75 MPH...120 KM/HR...WITH HIGHER GUSTS. SOME STRENGTHENING IS FORECAST DURING THE NEXT 24 HOURS.

HURRICANE FORCE WINDS EXTEND OUTWARD UP TO 35 MILES... 55 KM... FROM THE CENTER...AND TROPICAL STORM FORCE WINDS EXTEND OUTWARD UP TO 175 MILES...280 KM...MAINLY NORTH OF THE CENTER.

ESTIMATED MINIMUM CENTRAL PRESSURE IS 987 MB...29.15 INCHES.

A STORM SURGE OF 3 TO 7 FEET ABOVE NORMAL TIDE LEVELS COULD OCCUR IN THE WARNED AREA.

RAINBANDS ASSOCIATED WITH BONNIE ARE BEGINNING TO SPREAD INTO THE WARNED AREA...PRODUCING LOCALLY HEAVY SHOWERS AND STRONG GUSTY WINDS.

REPEATING THE 5 AM AST POSITION...22.1 N... 69.4 W. MOVEMENT TOWARD...WEST NORTHWEST NEAR 17 MPH. MAXIMUM SUSTAINED WINDS... 75 MPH. MINIMUM CENTRAL PRESSURE... 987 MB.

AN INTERMEDIATE ADVISORY WILL BE ISSUED BY THE NATIONAL HURRICANE CENTER AT 8 AM AST FOLLOWED BY THE NEXT COMPLETE ADVISORY AT 11 AM AST.

RAPPAPORT

STRIKE PROBABILITIES ASSOCIATED WITH THIS ADVISORY NUMBER CAN BE FOUND UNDER AFOS HEADER MIASPFAT2 AND WMO HEADER WTNT72 KNHC.

CZC MIATWOAT
TAA00 KNHC 220936 COR
TROPICAL WEATHER OUTLOOK
NATIONAL WEATHER SERVICE MIAMI FL
30 AM EDT SAT AUG 22 1998
...CORRECTION TO INDICATE BONNIE IS A HURRICANE
FOR THE NORTH ATLANTIC...CARIBBEAN SEA AND THE GULF OF MEXICO...

THE NATIONAL HURRICANE CENTER IS ISSUING ADVISORIES ON HURRICANE
BONNIE CENTERED ABOUT 120 MILES TO THE EAST-NORTHEAST OF THE
TURKS AND CAICOS ISLANDS...AND ON TROPICAL STORM CHARLEY LOCATED
ABOUT 25 MILES EAST-SOUTHEAST OF PORT ARANSAS TEXAS.

SATELLITE IMAGES INDICATE THAT THE TROPICAL WAVE LOCATED ABOUT 700
MILES EAST OF THE WINDWARD ISLANDS CONTINUES TO SHOW SIGNS OF
ORGANIZATION. THIS SYSTEM IS MOVING WESTWARD AT 15 MPH AND COULD
BECOME A TROPICAL DEPRESSION LATER TODAY OR TONIGHT.

ELSEWHERE...TROPICAL STORM FORMATION IS NOT EXPECTED THROUGH
SUNDAY.

PUBLIC ADVISORIES ON TROPICAL STORM CHARLEY CAN BE FOUND UNDER
WMO HEADER WTNT33 AND AFOS HEADER MIATCPAT3. FORECAST/ADVISORIES
ARE FOUND UNDER WMO HEADER WINT23 AND AFOS HEADER MIATCMAT3.

RAPPAPORT

NNNN

 * TPC/HRD INTENSITY FORECAST (SHIPS) *
 * ATLANTIC VERSION *

BONNIE 08/22/98 06 UTC

TIME (HR)	0	12	24	36	48	60	72
MAXIMUM WIND (KTS)	65	73	78	80	82	84	86
FORECAST SHEAR (KTS)	10	11	22	28	25	N/A	N/A
FORECAST MO. FLUX (M/S/D)	0	1	N/A	N/A	N/A	N/A	N/A
SST ALONG TRACK (C)	29.2	29.7	29.7	30.2	30.4	30.2	29.9
POTENTIAL INTENSITY (KTS)	160	165	165	165	165	165	165
FORECAST 200 MB T (C)	-54.6	-54.8	-54.6	-54.8	-54.8	N/A	N/A
DISTANCE TO LAND (KM)	264	366	435	485	495	496	535
LATITUDE (DEG N)	21.8	23.1	24.1	25.2	26.1	27.4	28.7
LONGITUDE (DEG W)	68.7	70.9	72.9	74.3	75.2	75.1	75.0

STORM SPEED/HEADING (KTS/DEG) 15/300
 EAST/NORTH STORM MOTION COMPONENTS -12/ 8
 T-12 MAXIMUM WIND (KTS) 55

850 MB ENV. VORTICITY PARAMETER=	50.0	STD. DEV. FROM NORMAL:	0.5
200 MB ENV. DIVERG. PARAMETER=	15.0	STD. DEV. FROM NORMAL:	-0.1
200 MB ZONAL WIND (KT)=	-3.1	STD. DEV. FROM NORMAL:	-0.7

INDIVIDUAL CONTRIBUTIONS TO INTENSITY CHANGE

	12	24	36	48	60	72
SAMPLE MEAN CHANGE	2.	3.	5.	6.	7.	8.
SST POTENTIAL	3.	6.	8.	11.	14.	15.
VERTICAL SHEAR	-1.	-2.	-2.	-3.	-3.	-4.
PERSISTENCE	3.	4.	4.	4.	3.	2.
200 MB ZONAL WIND	1.	2.	2.	3.	3.	3.
200 MB TEMP.	-1.	-2.	-3.	-5.	-6.	-7.
200 MB MOM. FLUX	0.	0.	0.	-1.	-1.	-1.
850 MB ENV. VORT.	0.	1.	1.	1.	1.	1.
200 MB ENV. DIV.	0.	0.	0.	0.	0.	0.
DAYS FROM CLIM. PEAK	0.	0.	0.	0.	0.	0.
ZONAL STORM MOTION	-1.	-1.	0.	0.	1.	3.
TOTAL CHANGE	8.	13.	15.	17.	19.	21.

 * TPC/HRD INTENSITY FORECAST (SHIPS) *
 * ATLANTIC VERSION *

08/22/98 06 UTC

TIME (HR)	0	12	24	36	48	60	72
MAXIMUM WIND (KTS)	30	38	48	57	64	71	74
FORECAST SHEAR (KTS)	6	12	8	16	21	N/A	N/A
FORECAST MO. FLUX (M/S/D)	0	1	N/A	N/A	N/A	N/A	N/A
SST ALONG TRACK (C)	29.1	29.2	29.5	29.7	29.6	29.2	29.3
POTENTIAL INTENSITY (KTS)	159	160	165	165	165	160	162
FORECAST 200 MB T (C)	-55.8	-55.7	-55.9	-56.2	-56.1	N/A	N/A
DISTANCE TO LAND (KM)	845	704	663	377	238	275	227
LATITUDE (DEG N)	11.2	11.4	11.9	12.5	12.9	13.1	13.3
LONGITUDE (DEG W)	48.1	51.2	54.4	58.0	61.5	64.7	67.8

STORM SPEED/HEADING (KTS/DEG) 17/275
 EAST/NORTH STORM MOTION COMPONENTS -16/ 1
 T-12 MAXIMUM WIND (KTS) 25

850 MB ENV. VORTICITY PARAMETER=	31.0	STD. DEV. FROM NORMAL:	0.1
200 MB ENV. DIVERG. PARAMETER=	26.0	STD. DEV. FROM NORMAL:	0.4
200 MB ZONAL WIND (KT)=	-12.2	STD. DEV. FROM NORMAL:	-1.5

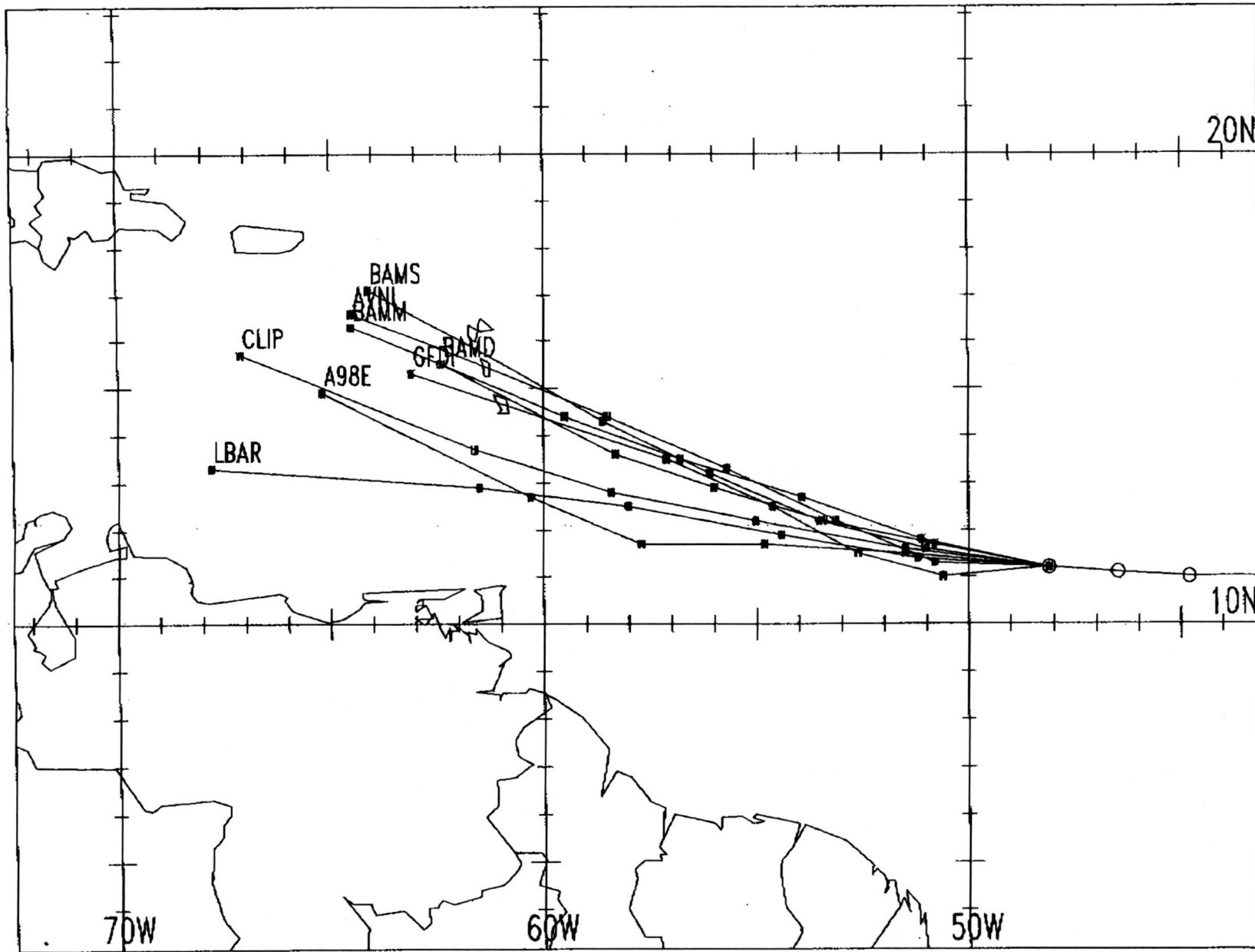
INDIVIDUAL CONTRIBUTIONS TO INTENSITY CHANGE

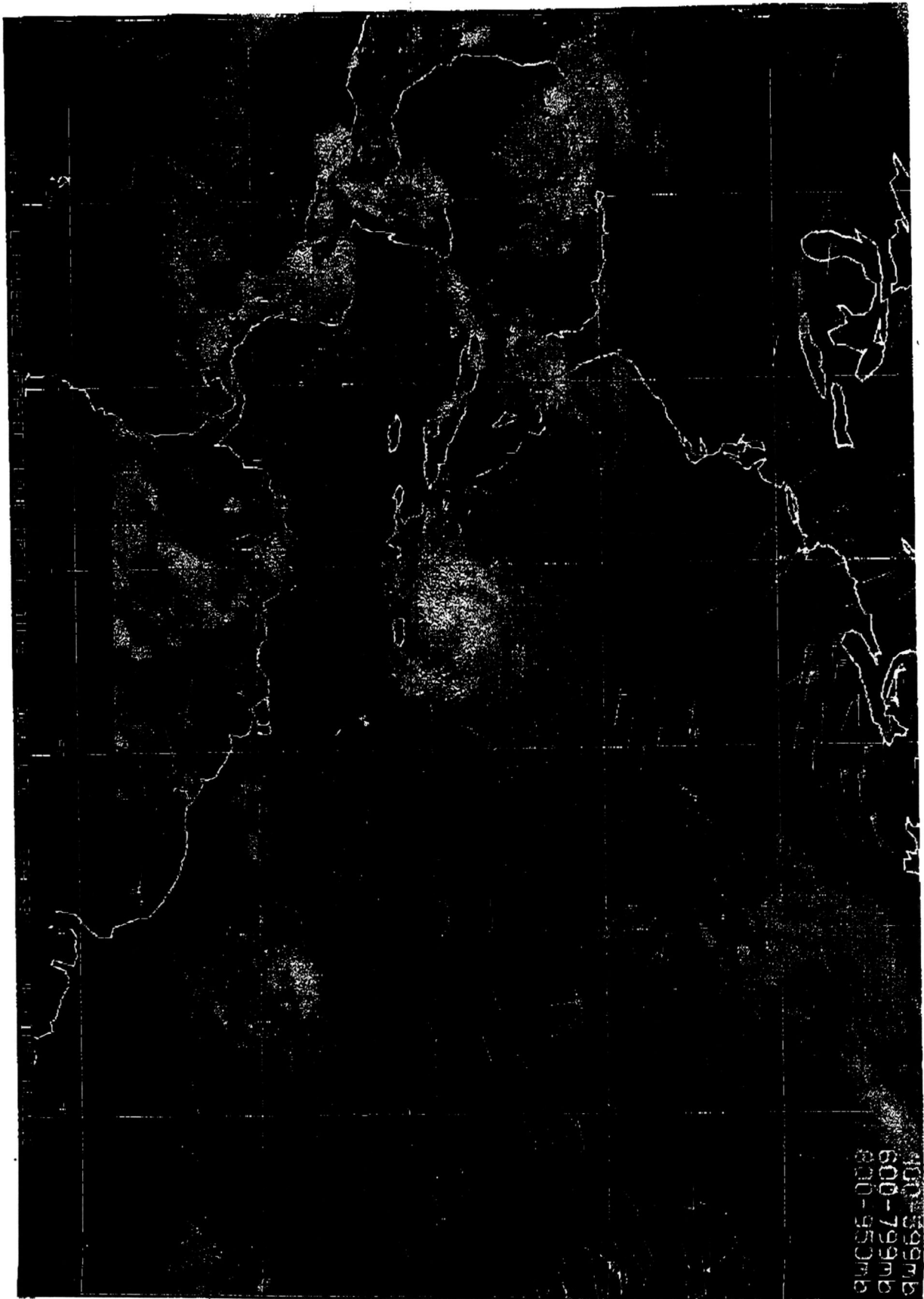
	12	24	36	48	60	72
SAMPLE MEAN CHANGE	2.	3.	5.	6.	7.	8.
SST POTENTIAL	3.	8.	14.	18.	23.	24.
VERTICAL SHEAR	-1.	-1.	+1.	-1.	-2.	-3.
PERSISTENCE	1.	1.	1.	1.	1.	1.
200 MB ZONAL WIND	2.	4.	5.	7.	8.	7.
200 MB TEMP.	0.	1.	1.	1.	2.	2.
200 MB MOM. FLUX	0.	0.	0.	-1.	-1.	-1.
850 MB ENV. VORT.	0.	0.	0.	0.	0.	0.
200 MB ENV. DIV.	0.	0.	1.	1.	1.	1.
DAYS FROM CLIM. PEAK	0.	0.	0.	0.	0.	0.
ZONAL STORM MOTION	-1.	-2.	-1.	0.	2.	5.
TOTAL CHANGE	8.	18.	27.	34.	41.	44.

AL9598

22/067

Postponed 26 42
PA 31 37

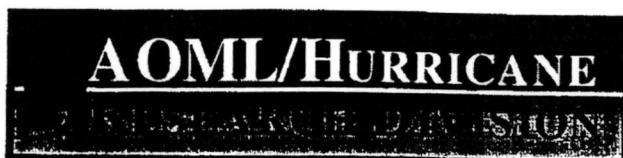




TRANSACTION REPORT

AUG-22-98 SAT 11:40 AM

DATE	START	SENDER	RX TIME	PAGES	TYPE	NOTE	M#	DP
AUG-22	11:35 AM	3055531901	4' 31"	11	RECEIVE	OK		



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

Environmental Research Laboratories
AOML/Hurricane Research Division
4301 Rickenbacker Causeway
Miami, FL 33149

FAX COVER SHEET

Date: 8/22

Time: 2 PM ET

Total # of pages: 9

From:

Name: James L. Franklin
Phone: 305-361-4435
Fax: 305-361-4402
E-mail: franklin@aoml.noaa.gov

To:

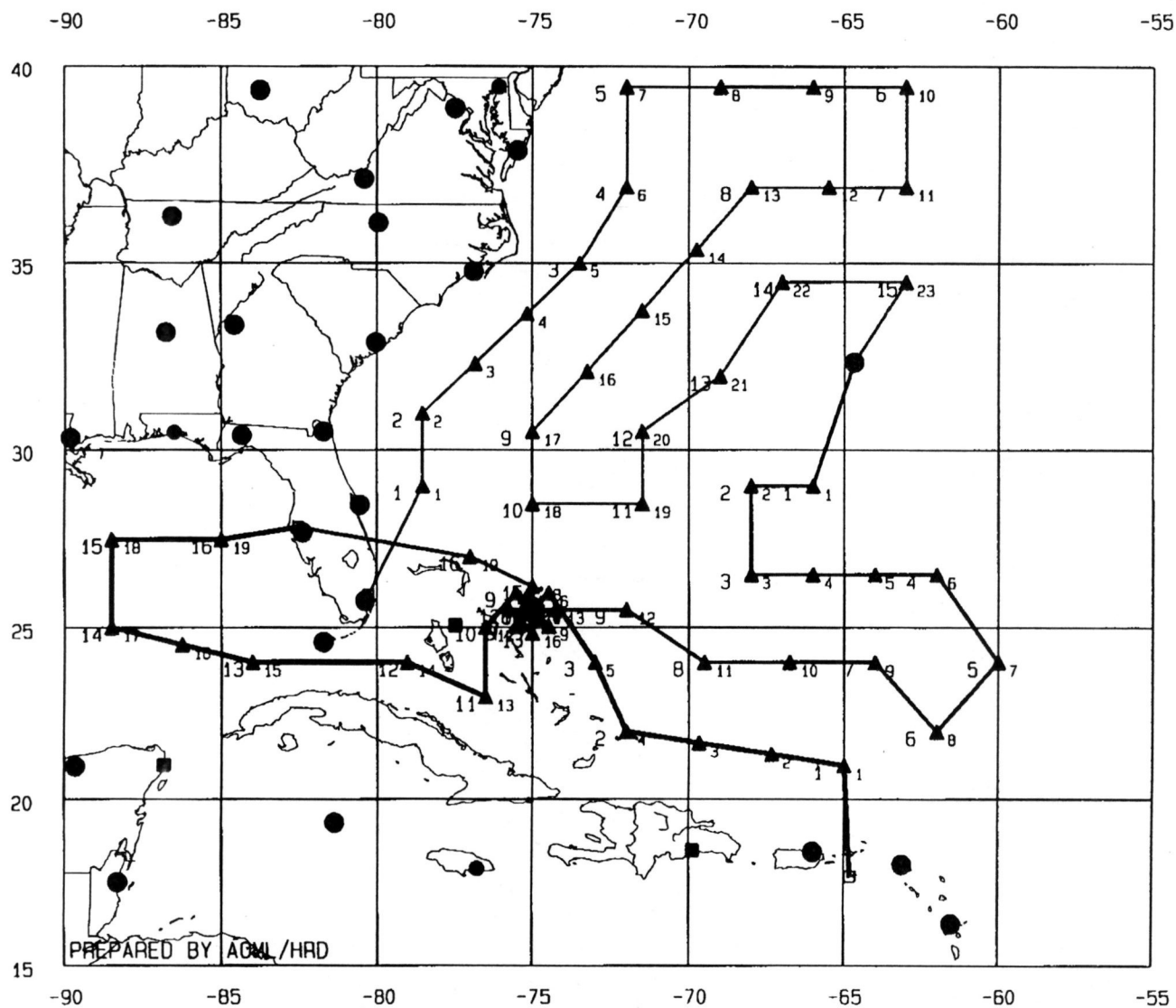
Name: JACK PARRISH

Phone:

Fax:

Remarks:

PLEASE GIVE TO JACK PARRISH
AS SOON AS POSSIBLE.



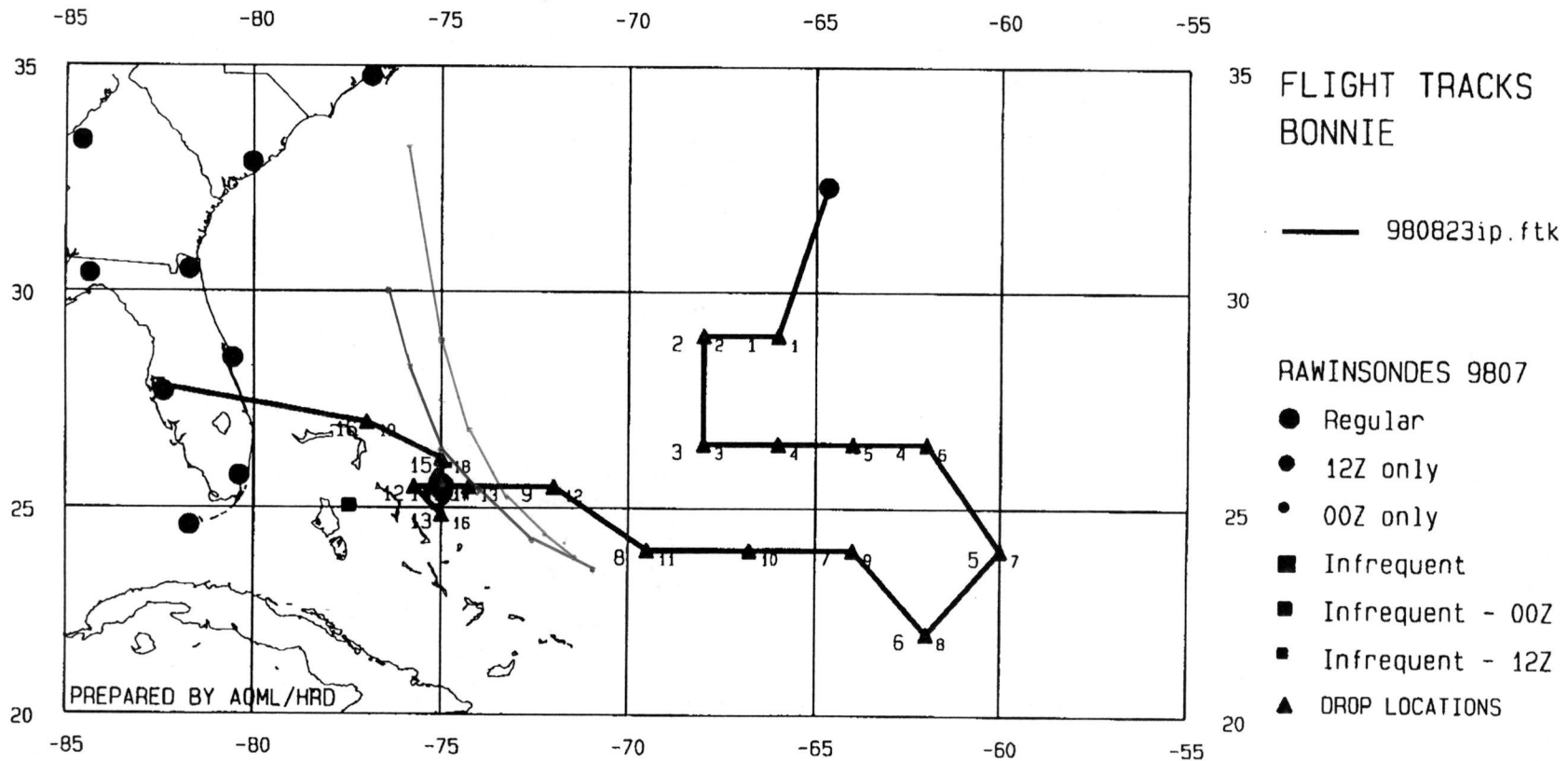
40 FLIGHT TRACKS BONNIE

— 980823hp.ftk
 — 980823ip.ftk
 — 980823np.ftk

30 RAWINSONDES 9807

● Regular
 ● 12Z only
 ● 00Z only
 ■ Infrequent
 ■ Infrequent - 00Z
 ■ Infrequent - 12Z

▲ DROP LOCATIONS



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HURRICANE SYNOPTIC SURVEILLANCE MISSION PLAN: BONNIE

Prepared by the Hurricane Research Division at 01:21:02 PM on 08/22/98.
File: /users/james/field_prgm/flight_tracks/980823ip.ftk

Aircraft: N43RF Altitude: FL180-250 Proposed takeoff: 23/1730Z

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TRACK DISTANCE TABLE (nm)

#	LAT	LON	LEG	TOTAL	TIME
0	BERMUDA		0.	0.	0:00
1	29 00	66 00	213.	213.	0:54
2	29 00	68 00	105.	318.	1:16
3	26 30	68 00	150.	469.	1:47
4	26 30	62 00	323.	791.	2:54
5	24 00	60 00	186.	977.	3:32
6	22 00	62 00	163.	1140.	4:06
7	24 00	64 00	163.	1304.	4:40
8	24 00	69 30	302.	1606.	5:42
9	25 30	72 00	164.	1769.	6:16
10S	25 30	74 16	123.	1892.	6:41
11S	25 30	75 00	40.	1932.	6:50
12S	25 30	75 44	40.	1972.	6:58
13S	24 50	75 00	57.	2029.	7:10
14S	25 30	75 00	40.	2069.	7:18
15S	26 10	75 00	40.	2109.	7:26
16	27 00	77 00	119.	2227.	7:51
17	MACDILL		299.	2526.	9:03

X 40 E of Center 24°N 72°W
figure 4

26° 75' continue

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HURRICANE SYNOPTIC SURVEILLANCE MISSION PLAN: BONNIE

Prepared by the Hurricane Research Division at 01:21:04 PM on 08/22/98.
File: /users/james/field_prm/flight_tracks/980823np.ftk

Aircraft: N49RF Altitude: FL410-450 Proposed takeoff: 23/1730Z

=====

TRACK DISTANCE TABLE (nm)

#	LAT	LON	LEG	TOTAL	TIME
0	OPA LOCKA		0.	0.	0:00
1	29 00	78 30	209.	209.	0:38
2	31 00	78 30	120.	329.	0:55
3	35 00	73 30	348.	677.	1:42
4	37 00	72 00	141.	818.	2:01
5	39 30	72 00	150.	968.	2:21
6	39 30	63 00	417.	1385.	3:18
7	37 00	63 00	150.	1535.	3:38
8	37 00	68 00	240.	1775.	4:11
9	30 30	75 00	524.	2300.	5:22
10	28 30	75 00	120.	2420.	5:38
11	28 30	71 30	185.	2605.	6:04
12	30 30	71 30	120.	2725.	6:20
13	32 00	69 00	157.	2882.	6:41
14	34 30	67 00	181.	3063.	7:06
15	34 30	63 00	198.	3261.	7:33
16	BERMUDA		154.	3414.	8:04

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HURRICANE SYNOPTIC SURVEILLANCE MISSION PLAN: BONNIE

Prepared by the Hurricane Research Division at 01:21:04 PM on 08/22/98.
File: /users/james/field_prgrm/flight_tracks/980823np.ftk

Aircraft: N49RF Altitude: FL410-450 Proposed takeoff: 23/1730Z

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DROP LOCATIONS

#	LAT	LON	TIME
1	29 00	78 30	0:38
2	31 00	78 30	0:55
3	32 20	76 50	1:11
4	33 40	75 10	1:26
5	35 00	73 30	1:42
6	37 00	72 00	2:01
7	39 30	72 00	2:21
8	39 30	69 00	2:40
9	39 30	66 00	2:59
10	39 30	63 00	3:18
11	37 00	63 00	3:38
12	37 00	65 30	3:55
13	37 00	68 00	4:11
14	35 23	69 45	4:29
15	33 45	71 30	4:46
16	32 08	73 15	5:04
17	30 30	75 00	5:22
18	28 30	75 00	5:39
19	28 30	71 30	6:04
20	30 30	71 30	6:20
21	32 00	69 00	6:41
22	34 30	67 00	7:06
23	34 30	63 00	7:33

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HURRICANE SYNOPTIC SURVEILLANCE MISSION PLAN: BONNIE

Prepared by the Hurricane Research Division at 01:21:00 PM on 08/22/98.
File: /users/james/field_prgm/flight_tracks/980823hp.ftk

Aircraft: N42RF Altitude: FL180-250 Proposed takeoff: 23/1730Z

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TRACK DISTANCE TABLE (nm)

#	LAT	LON	LEG	TOTAL	TIME
0	ST CROIX		0.	0.	0:00
1	21 00	65 00	199.	199.	0:51
2	22 00	72 00	396.	595.	2:13
3	24 00	73 00	132.	727.	2:40
4S	25 58	74 29	143.	870.	3:10
5S	25 30	75 00	40.	910.	3:18
6S	25 02	75 31	40.	950.	3:27
7S	25 02	74 29	57.	1007.	3:38
8S	25 30	75 00	40.	1047.	3:47
9S	25 58	75 31	40.	1087.	3:55
10	25 00	76 30	79.	1166.	4:11
11	23 00	76 30	120.	1286.	4:36
12	24 00	79 00	150.	1437.	5:07
13	24 00	84 00	275.	1711.	6:04
14	25 00	88 30	253.	1964.	6:56
15	27 30	88 30	150.	2115.	7:28
16	27 30	85 00	187.	2301.	8:06
17	MACDILL		134.	2435.	8:44

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HURRICANE SYNOPTIC SURVEILLANCE MISSION PLAN: BONNIE

Prepared by the Hurricane Research Division at 01:21:00 PM on 08/22/98.
File: /users/james/field_prm/flight_tracks/980823hp.ftk

Aircraft: N42RF Altitude: FL180-250 Proposed takeoff: 23/1730Z

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DROP LOCATIONS

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#	LAT	LON	TIME
1	21 00	65 00	0:51
2	21 20	67 20	1:19
3	21 40	69 40	1:46
4	22 00	72 00	2:13
5	24 00	73 00	2:40
6S	25 58	74 29	3:10
7S	25 30	75 00	3:18
8S	25 02	75 31	3:27
9S	25 02	74 29	3:38
10S	25 30	75 00	3:47
11S	25 58	75 31	3:55
12	25 00	76 30	4:11
13	23 00	76 30	4:36
14	24 00	79 00	5:07
15	24 00	84 00	6:04
16	24 30	86 15	6:30
17	25 00	88 30	6:56
18	27 30	88 30	7:28
19	27 30	85 00	8:06

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HURRICANE SYNOPTIC SURVEILLANCE MISSION PLAN: BONNIE

Prepared by the Hurricane Research Division at 01:21:02 PM on 08/22/98.
File: /users/james/field_prgm/flight_tracks/980823ip.ftkAircraft: N43RF Altitude: FL180-250 Proposed takeoff: 23/1730Z
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DROP LOCATIONS

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#	LAT	LON	TIME
1	29 00	66 00	0:54
2	29 00	68 00	1:16
3	26 30	68 00	1:47
4	26 30	66 00	2:09
5	26 30	64 00	2:31
6	26 30	62 00	2:54
7	24 00	60 00	3:32
8	22 00	62 00	4:06
9	24 00	64 00	4:40
10	24 00	66 45	5:11
11	24 00	69 30	5:42
12	25 30	72 00	6:16
13S	25 30	74 16	6:41
14S	25 30	75 00	6:50
15S	25 30	75 44	6:58
16S	24 50	75 00	7:10
17S	25 30	75 00	7:18
18S	26 10	75 00	7:26
19	27 00	77 00	7:51

40E 2 in Eye wall, 1 in Wey wall
40W to 40S, 1 in Seye wall, 1 in eye, 2 in Eye wall

TRANSACTION REPORT

P. 01

AUG-22-98 SAT 03:03 PM

RECEIVE

DATE	START	SENDER	RX TIME	PAGES	TYPE	NOTE	M#	DP
AUG-22	03:00 PM	305 361 4392	2' 52"	9	RECEIVE	OK		