ANNEX A

SUMMARY OF TROPICAL CYCLONES IN THE EASTERN NORTH PACIFIC

1. EASTERN PACIFIC RESUME

During the 1972 EASTPAC tropical cyclone season, Fleet Weather Facility, Alameda, issued a total of 347 tropical warnings on eight hurricanes, three tropical storms, and three tropical depressions. Three of these tropical disturbances moved out of Alameda's area of responsibility.

The 1972 total of fourteen tropical cyclones was the lowest in more than five years. Of the eight hurricanes during the 1972 season, six occurred in August.

On 1 November 1972, Fleet Weather Central, Pearl Harbor, assumed forecasting responsibility for the United States Navy in the Eastern Pacific. Two short-lived cyclones, Liza and Tropical Depression #16, developed and dissipated in the Eastern Pacific without making landfall.

In accordance with the National Hurricane Operations Plan, tropical cyclone issuances for the Eastern Pacific Ocean east of longitude 140°W and north of the Equator are prepared by the National Weather Service's Eastern Pacific Hurricane Center, San Francisco (EPHC-SFO).

Fleet Weather Facility, Alameda, relayed these tropical cyclone forecasts to the Department of Defense.

Information provided regarding tropical cyclones of the 1972 season is based upon data provided by EPHC-SFO.

TABLE A-1. COMPARISON OF EAST PACIFIC ANNUAL WARNING AND CLIMATOLOGY DATA

	1968	1969	1970	1971	1972
TOTAL NUMBER OF WARNINGS	531	219	350	410	347
CALENDAR DAYS OF WARNING	126	67	98	89	85
TROPICAL DEPRESSIONS	6	5	3	3	3
TROPICAL STORMS	13	6	15	8	3
HURRICANES	6	4	3	11	8
TOTAL	25	15	21	22	14

2. CENTRAL PACIFIC RESUME

Fleet Weather Central, Pearl Harbor, issued warnings on six tropical cyclones in 1972.

Total Number of Warnings....99
Calendar Days of Warnings...25
Tropical Depressions..... 1
Tropical Storms..... 4
Hurricanes..... 1
Total Tropical Cyclones..... 6

All warnings were coordinated with the Central Pacific Hurricane Center, Honolulu, and the Eastern Pacific Hurricane Center, San Francisco, in accordance with the National Hurricane Operations Plan.

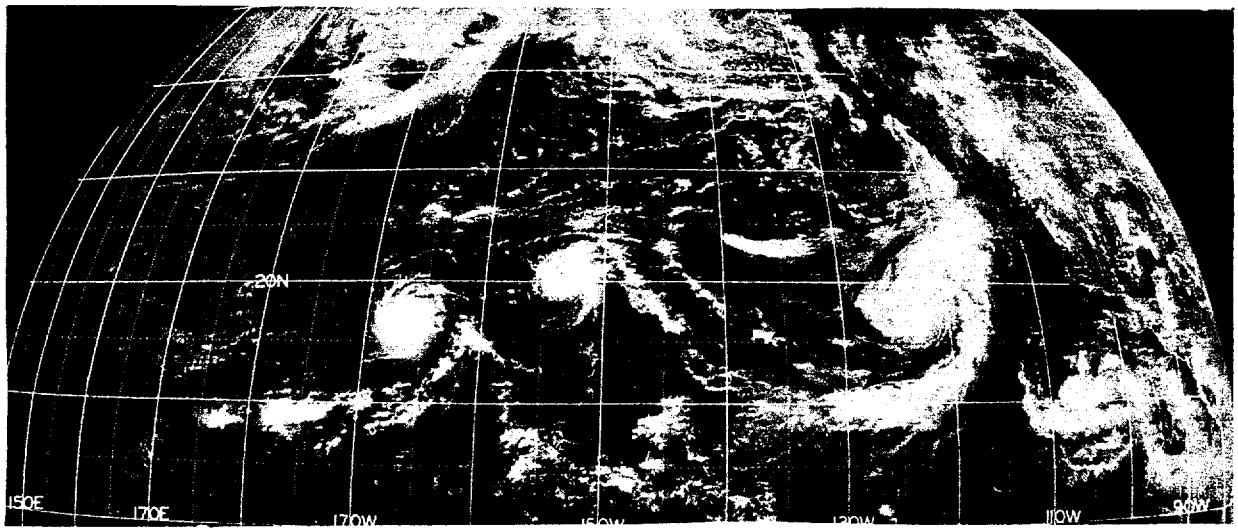


FIGURE A-1. *ATS-1 satellite picture of the eastern North Pacific, 18 August 1972, depicting hurricanes Celeste, Diana, Tropical Storm Estelle and a tropical depression which became Fernanda the following day.*

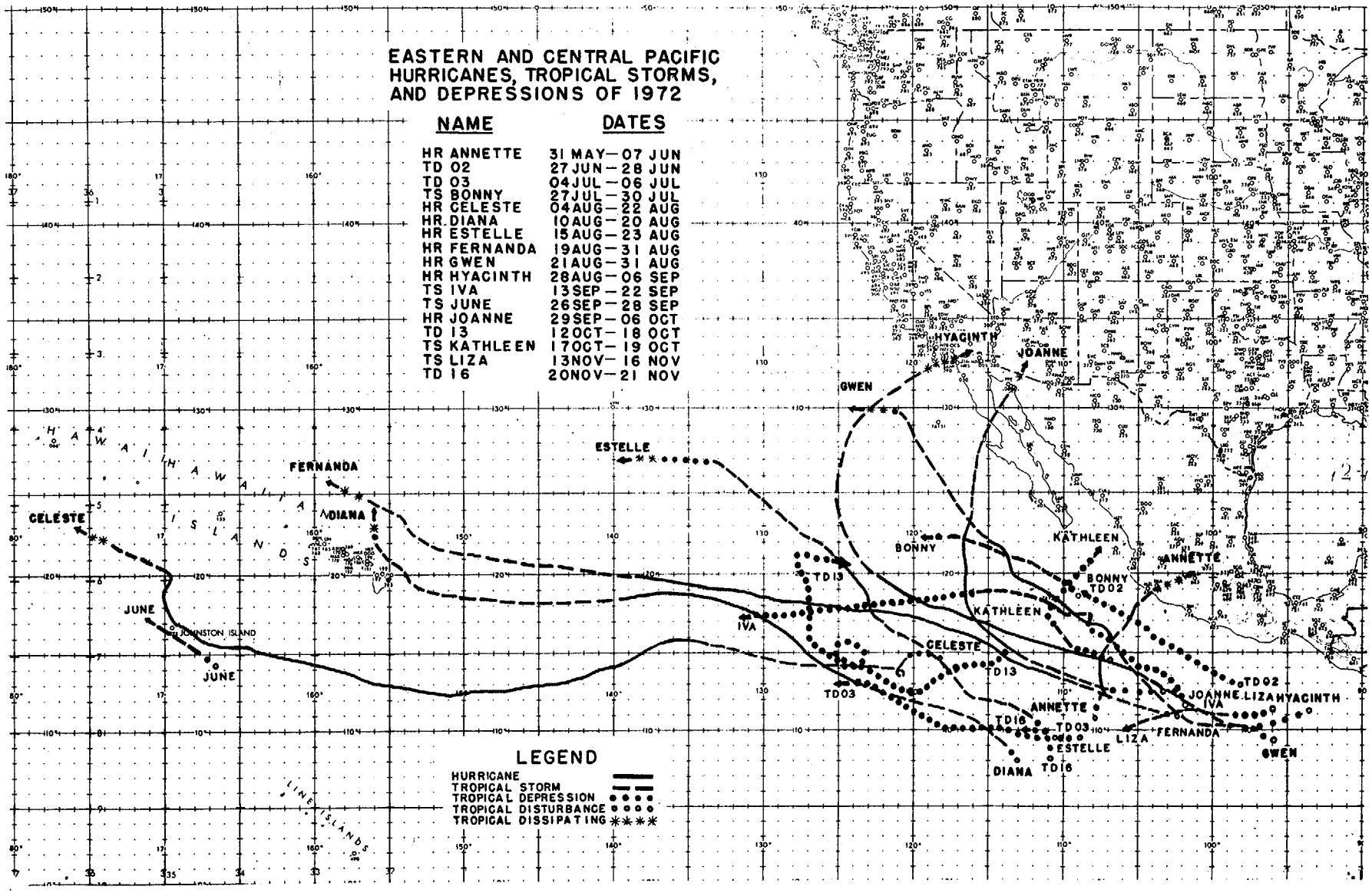

EASTERN AND CENTRAL PACIFIC HURRICANES, TROPICAL STORMS, AND DEPRESSIONS OF 1972
NAME DATES
HR ANNETTE 31 MAY—07 JUN
TD 02 27 JUN—28 JUN
TD 03 04 JUL—06 JUL
TS BONNY 27 JUL—30 JUL
HR CELESTE 04 AUG—22 AUG
HR DIANA 10 AUG—20 AUG
HR ESTELLE 15 AUG—23 AUG
HR FERNANDA 19 AUG—31 AUG
HR GWEN 21 AUG—31 AUG
HR HYACINTH 28 AUG—06 SEP
TS IVA 13 SEP—22 SEP
TS JUNE 26 SEP—28 SEP
HR JOANNE 29 SEP—06 OCT
TD 13 12 OCT—18 OCT
TS KATHLEEN 17 OCT—19 OCT
TS LIZA 13 NOV—16 NOV
TD 16 20 NOV—21 NOV
HAWAIIAN ISLANDS
LINE ISLANDS
JOHNSTON ISLAND
LEGEND
HURRICANE
TROPICAL STORM
TROPICAL DEPRESSION
TROPICAL DISTURBANCE
TROPICAL DISSIPATING

TABLE A-2. 1972 EASTERN PACIFIC TROPICAL CYCLONES

CYCLONE	TYPE	NAME	INCLUSIVE DATES	MAX SFC WIND	MIN OBS SLP	WARNINGS TOTAL	WARNINGS NO. AS HURRICANE	WARNINGS DISTANCE TRAVELED
01	HR	ANNETTE	31 MAY - 07 JUN	75	993	31	5	795
02	TD	TD 02	27 JUN - 28 JUN	---	---	--	--	615
03	TD	TD 03	04 JUL - 06 JUL	---	---	--	--	930
04	TS	BONNY	27 JUL - 30 JUL	---	---	--	--	570
05	HR	CELESTE	04 AUG - 22 AUG	120	943	71	42	3600
(a) 06	HR	DIANA	10 AUG - 20 AUG	100	968	24	16	1680
07	HR	ESTELLE	15 AUG - 23 AUG	75	---	32	4	1884
(b) 08	HR	FERNANDA	19 AUG - 31 AUG	100	950	29	18	2040
09	HR	GWEN	21 AUG - 31 AUG	110	962	39	18	1980
10	HR	HYACINTH	28 AUG - 06 SEP	110	962	36	16	2640
11	TS	IVA	13 SEP - 22 SEP	---	---	--	--	1900
(c) 23	TS	JUNE	26 SEP - 28 SEP	---	---	--	--	280
12	HR	JOANNE	29 SEP - 06 OCT	85	971	28	14	1500
13	TD	TD 13	12 OCT - 18 OCT	---	---	--	--	1440
14	TS	KATHLEEN	17 OCT - 19 OCT	---	---	--	--	600
15	TS	LIZA	13 NOV - 16 NOV	---	---	--	--	510
16	TD	TD 16	20 NOV - 21 NOV	---	---	--	--	110

(a) TS from 16 AUG - 20 AUG - data not available
(b) TS from 27 AUG - 31 AUG - data not available
(c) Name and number given by FWC/JTWC Guam

3. CENTRAL PACIFIC - INDIVIDUAL CASES[1]

1972 was the Central Pacific's most active hurricane season in recorded history. In all, one hurricane (Celeste), three tropical storms (Diana, Fernanda, and June) and an unnamed tropical cyclone of lesser intensity entered or formed within an area bounded by latitudes 10° and 20°N, and by longitudes 140° and 170°W. Of these, three straddled the Hawaiian Islands, while two took more southerly paths and came very close to Johnston Island. All occurred during the period August through October.

In life cycle and track, Hurricane Celeste and tropical storms Diana and Fernanda were reminiscent of Lorraine and Maggie in August 1970 and Denise and Elenor in July 1971. All formed off Mexico and Central America, failed to undergo the usual northward recurvature in the eastern Pacific, and then drifted thousands of miles westward toward Hawaii along the southern periphery of strong high pressure areas. Tropical Storm June, on the other hand, began her short-lived career in a very active equatorial trough about 600 miles south-southwest of Hawaii Island.

On the morning of August 19, Celeste passed about 25 miles northeast of Johnston Island, whose entire population had been evacuated as a precaution against the possible escape of stored toxic gases.

The weather station itself lost about a third of its roof and ceiling tiles, but interiors and equipment were virtually unscathed. Instruments that remained in operation throughout the storm recorded hurricane-force winds from 3:54 a.m. to 9:18 a.m. on the 19th, a fastest-mile of 105 miles an hour from the northwest (the gust recorder was inoperative), a minimum sea-level pressure of 29.04 inches and a total rainfall of 6.21 inches. Since the funnel of the gage was partially plugged with coral, the latter may be an underestimate.

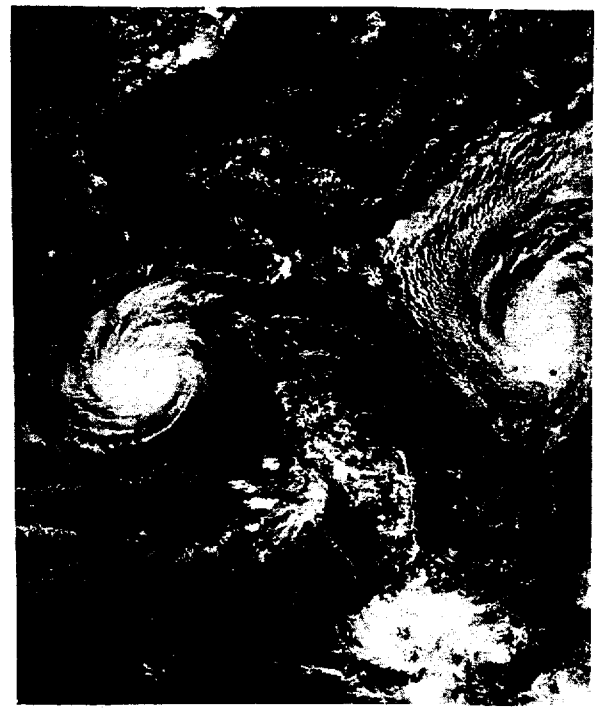


FIGURE A-2. *Hurricane Celeste (left) 400 nm south of Oahu, Hawaii. Tropical Storm Diana (right) some 700 nm east of Hilo, Hawaii, appears on edge of photo, 16 August 1972, 2059 GMT. (DAPP data)*

[1]Report submitted by Regional Climatologist, NWS Pacific Region, Honolulu, Hawaii.

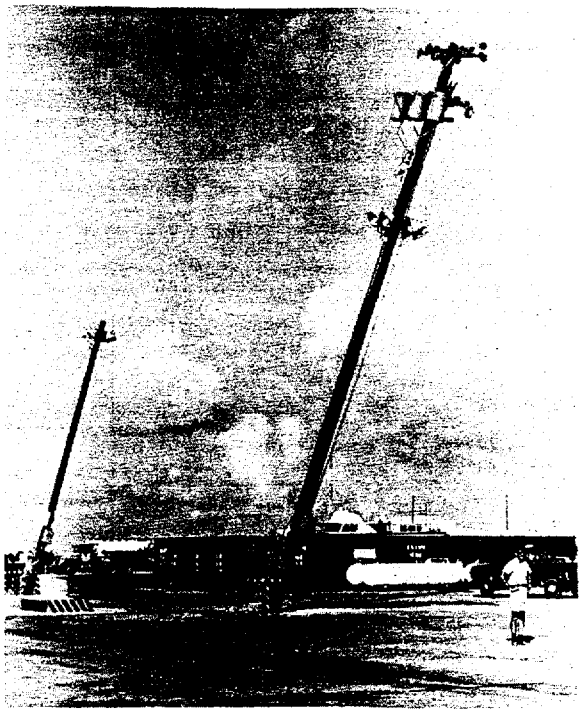


FIGURE A-3. *Effects of Celeste on Johnston Island.*

Celeste was the first true hurricane ever known to have affected Johnston. The Mariners Weather Log (January 1973) makes the following observations on this storm: "Celeste was of considerable meteorological interest. The central Pacific sees relatively few tropical storms each year. Much rarer is a hurricane that forms off Mexico and moves west across the central Pacific while maintaining hurricane intensity. Also interesting was the fact that Celeste moved with few sudden changes of direction, intensity or shape."

On the morning of August 18, waves judged to be up to 30 feet high from Tropical Storm Diana swept four homes off their foundations on Hawaii Island's Puna coast, extensively damaging one of them, for a loss estimated at $75,000, excluding furnishings. Continuing northwestward, the storm's center came within 60 miles northeast of Hilo before dissipating, her nearest landfall.

On the morning of August 29, Fernanda, moving northwestward and weakening rapidly, passed within 220 miles northeast of Hilo, her closest approach to the islands. While the state experienced no severe weather directly attributable to Fernanda, a possible aftermath was a flash flood from rains in Hawaii Island's Kohala Mountains that overtopped Waipio Stream on the afternoon of the 31st, damaging a farmer's pickup truck and destroying his load of taro.

Tropical Storm June passed within 50 miles to the south of Johnston Island on the morning of September 27, but was too weak to do any damage. The peak gust recorded at the weather station was 42 knots.

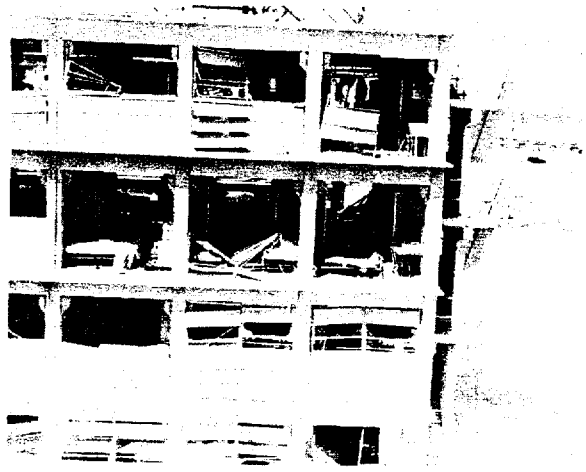
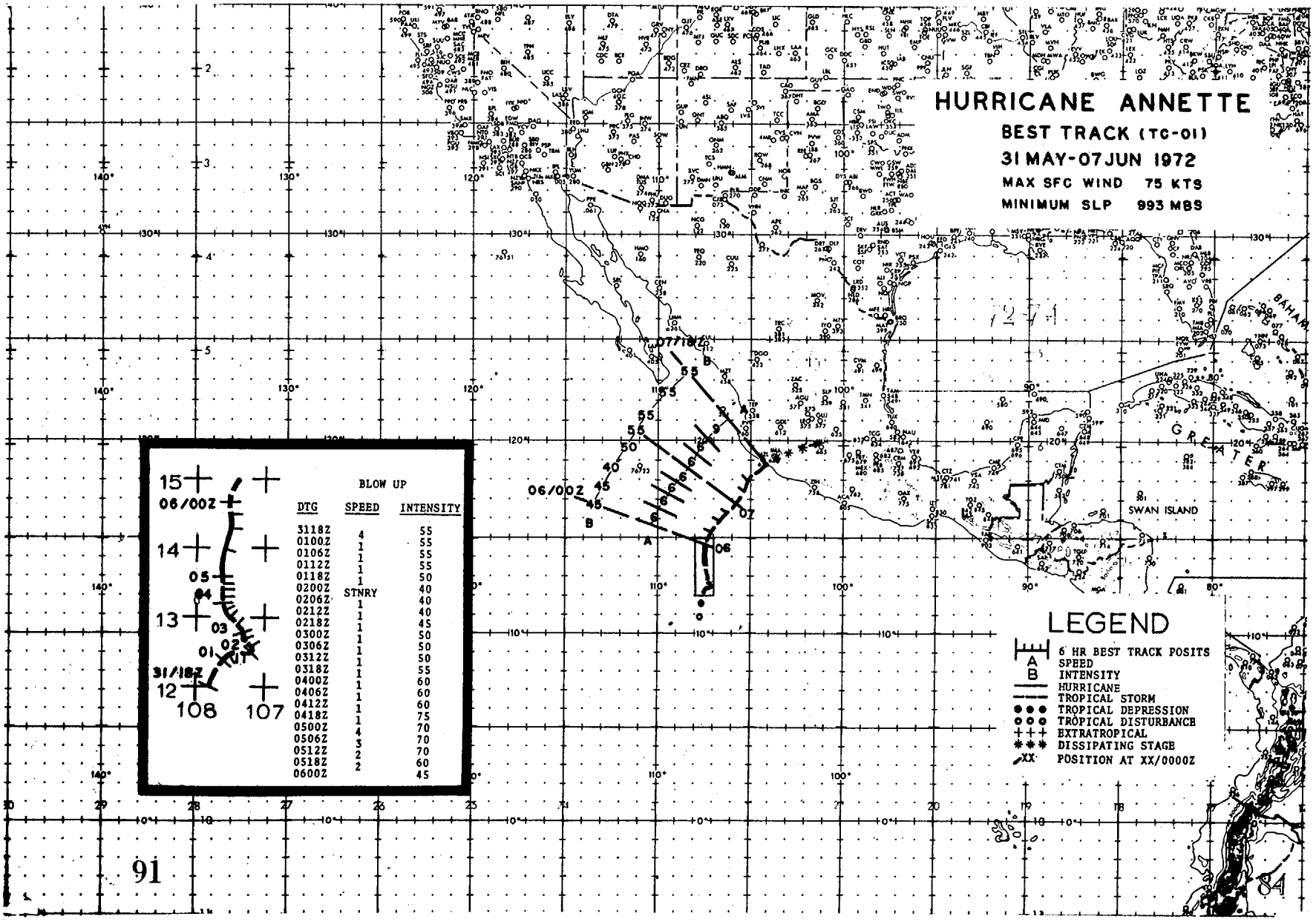
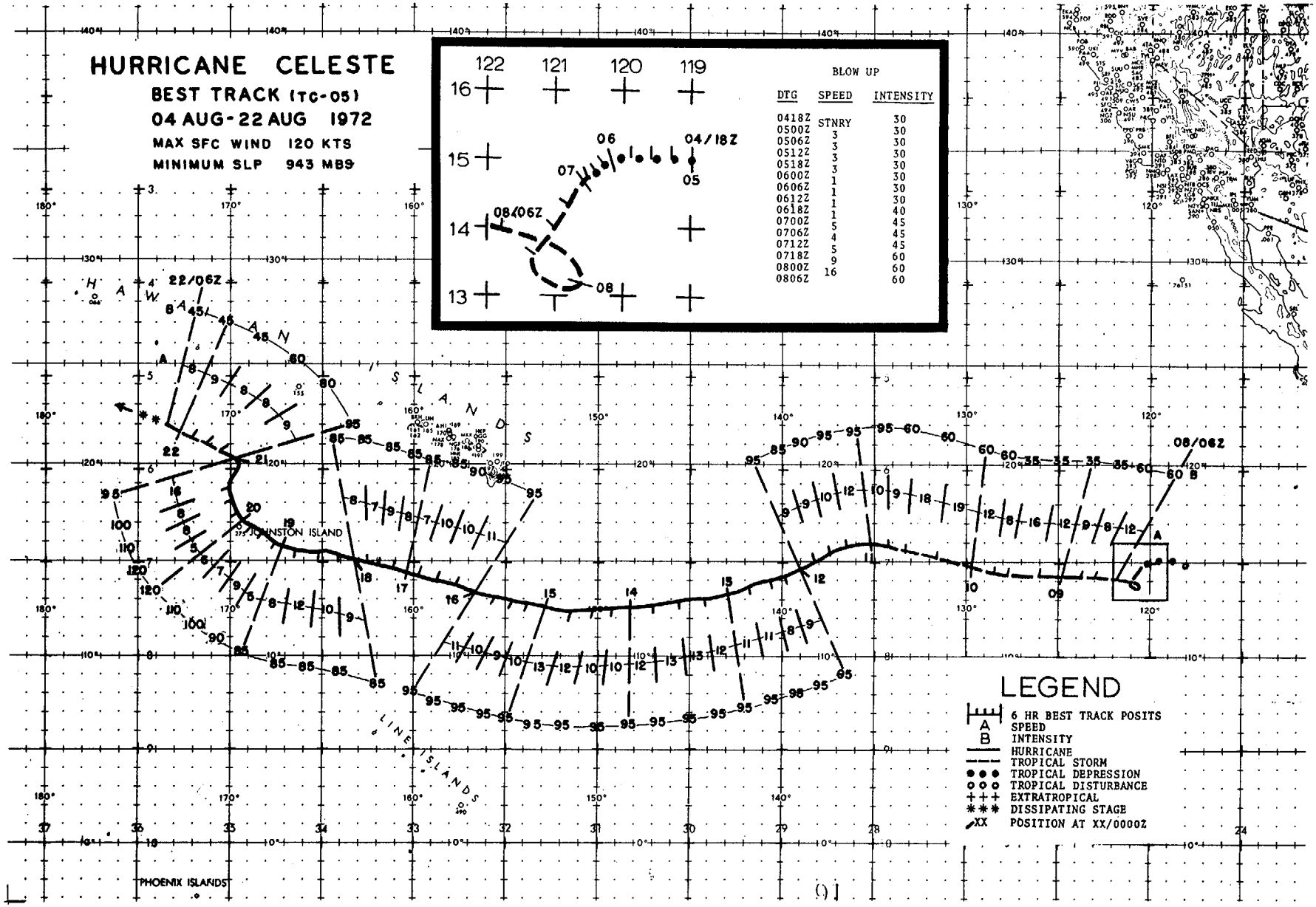
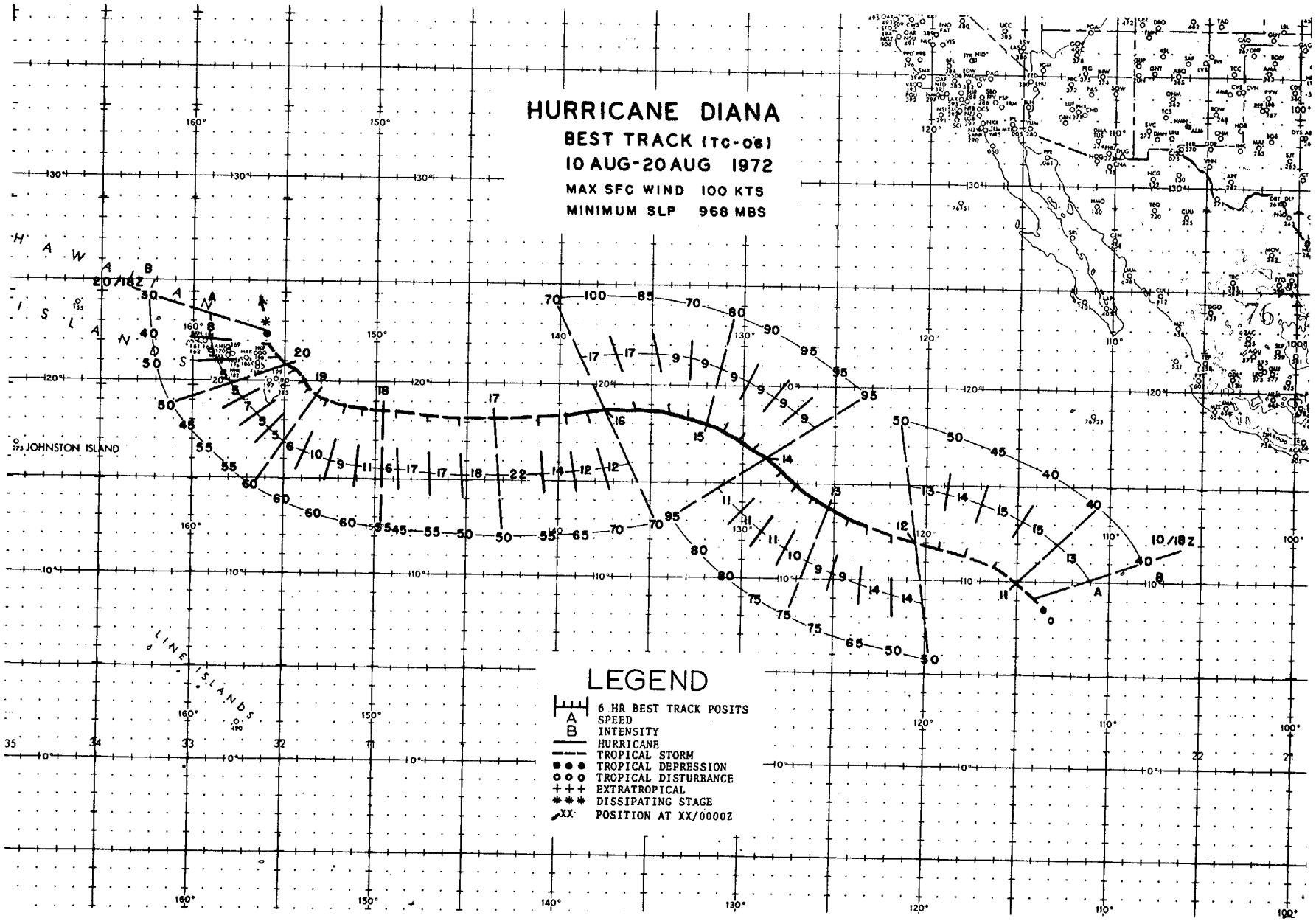


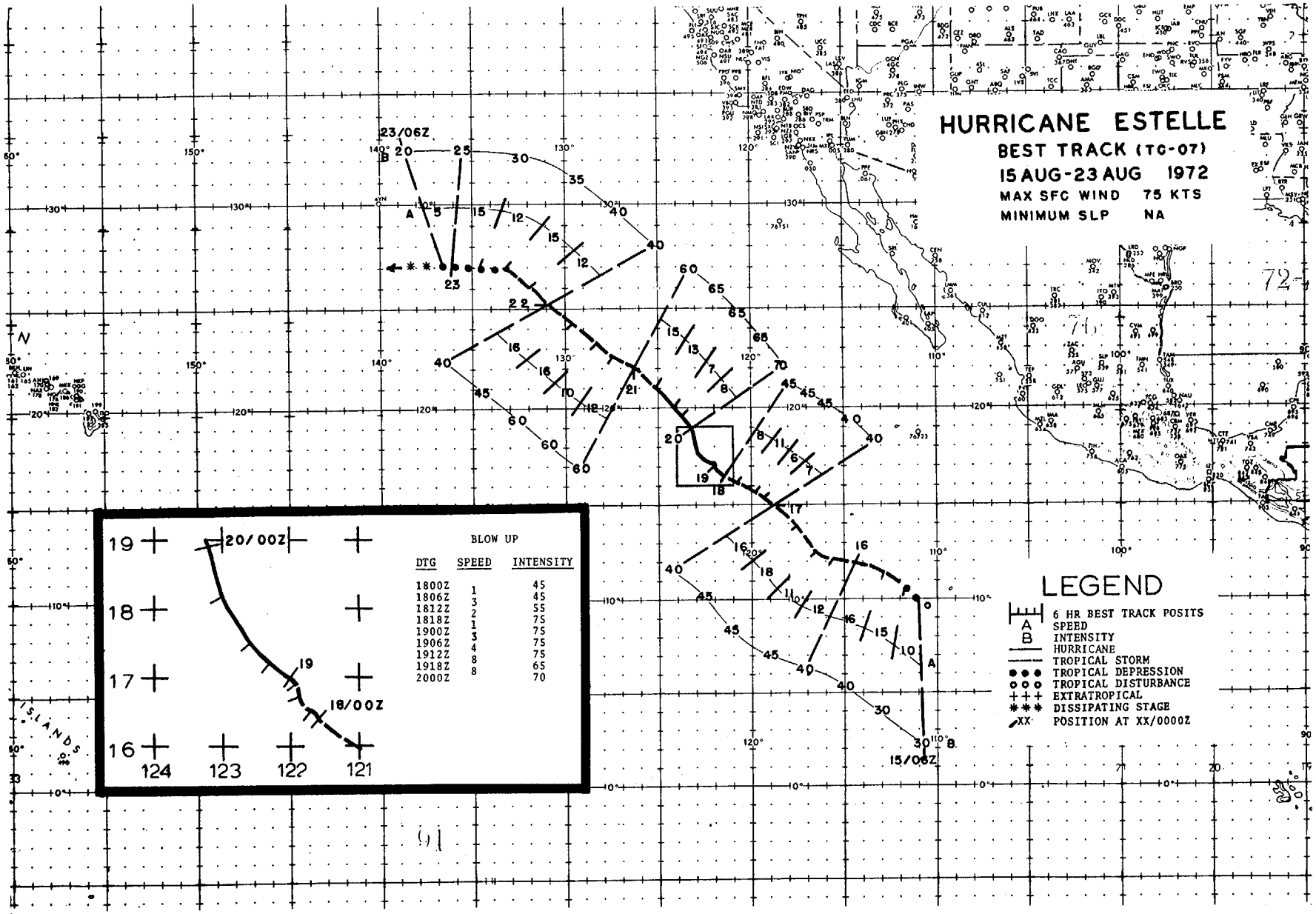
FIGURE A-4. *Celeste damage on Johnston Island.*

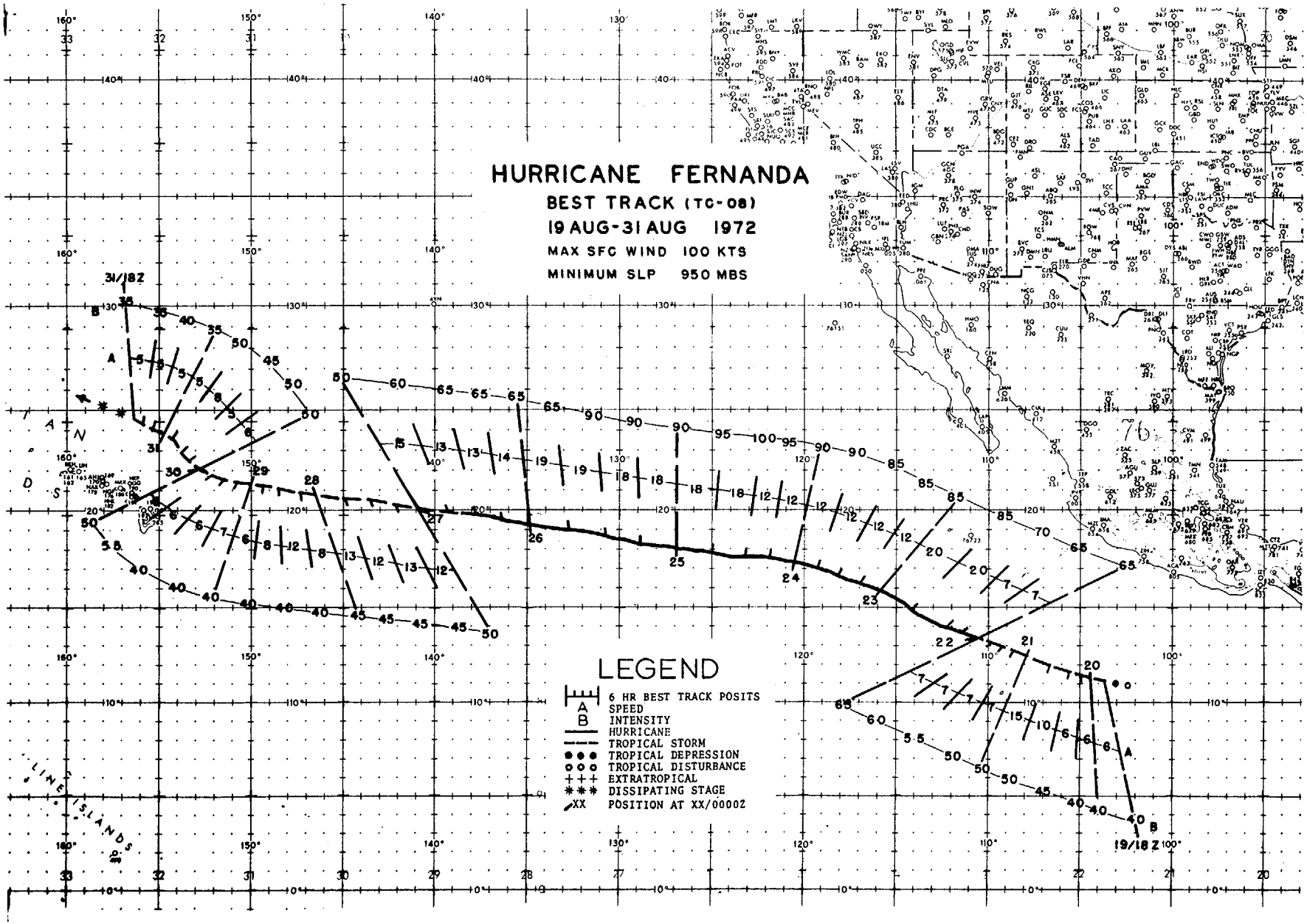
The final storm of the 1972 season was a tropical cyclone that formed near 16°N 130°W on September 28 and traveled westward to about 150 miles south of South Point, giving Hawaii Island's eastern slopes up to 10-1/2 inches of rain within the space of a few hours on the afternoon of October 3.

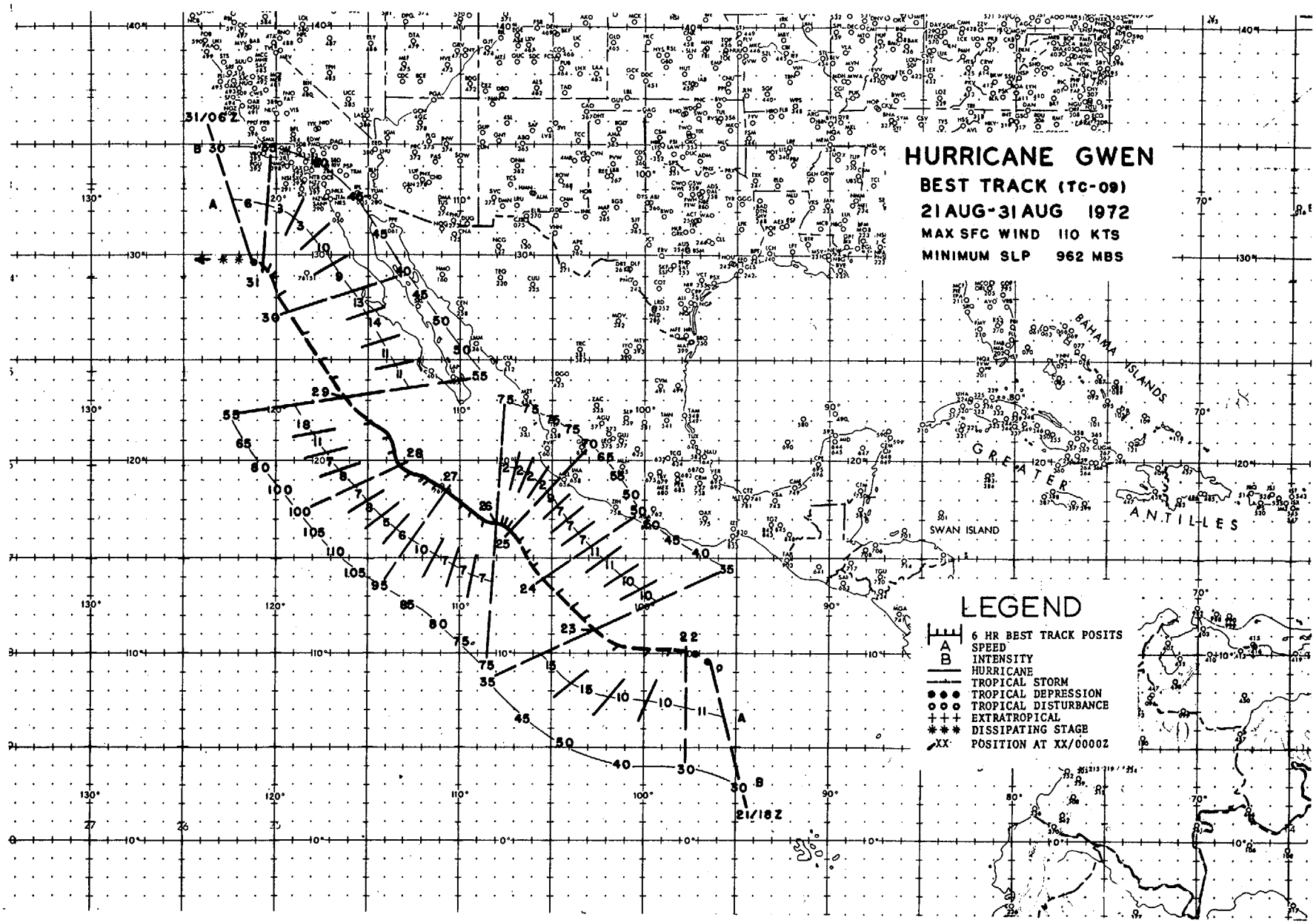

HURRICANE ANNETTE
BEST TRACK (TC-01)
31 MAY-07 JUN 1972
MAX SFC WIND 75 KTS
MINIMUM SLP 993 MBS
BLOW UP
DTG SPEED INTENSITY
3118Z 4 55
0100Z 1 55
0106Z 1 55
0112Z 1 55
0118Z 1 50
0200Z STNRY 40
0206Z 1 40
0212Z 1 40
0218Z 1 45
0300Z 1 50
0306Z 1 50
0312Z 1 50
0318Z 1 55
0400Z 1 60
0406Z 1 60
0412Z 1 60
0418Z 1 75
0500Z 4 70
0506Z 3 70
0512Z 2 70
0518Z 2 60
0600Z 45
06/00Z
31/18Z
07/18Z
LEGEND
6 HR BEST TRACK POSITS
A SPEED
B INTENSITY
HURRICANE
TROPICAL STORM
TROPICAL DEPRESSION
TROPICAL DISTURBANCE
EXTRATROPICAL
DISSIPATING STAGE
XX POSITION AT XX/0000Z
SWAN ISLAND
GREATER
BAHAMA
91
84

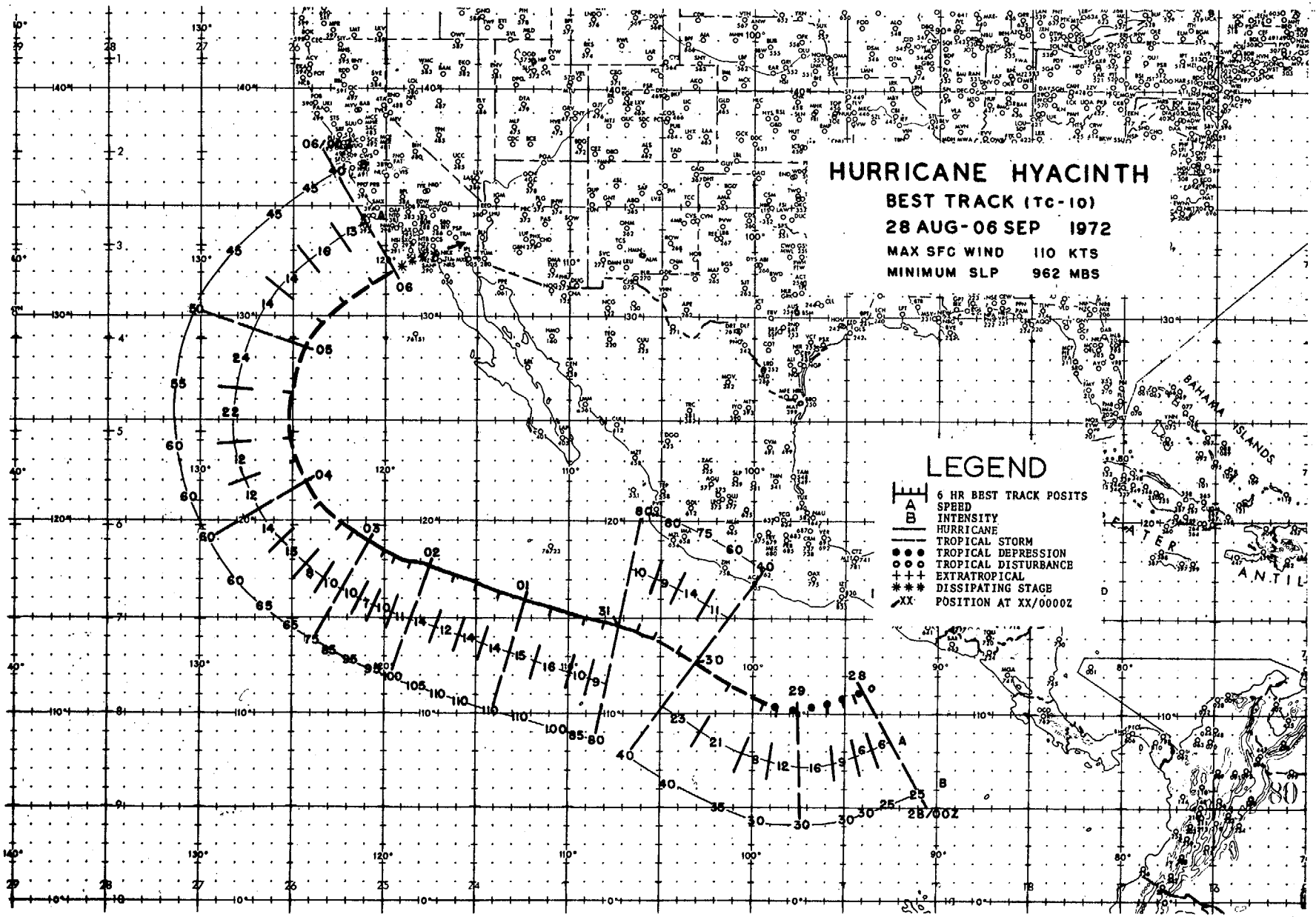

HURRICANE CELESTE
BEST TRACK (TC-05)
04 AUG-22 AUG 1972
MAX SFC WIND 120 KTS
MINIMUM SLP 943 MBS
BLOW UP
DTG SPEED INTENSITY
0418Z STNRY 30
0500Z 3 30
0506Z 3 30
0512Z 3 30
0518Z 3 30
0600Z 1 30
0606Z 1 30
0612Z 1 30
0618Z 1 40
0700Z 5 45
0706Z 4 45
0712Z 5 45
0718Z 9 60
0800Z 16 60
0806Z 60
04/18Z
08/06Z
22/06Z
JOHNSTON ISLAND
PHOENIX ISLANDS
LINE ISLANDS
LEGEND
6 HR BEST TRACK POSITS
A SPEED
B INTENSITY
HURRICANE
TROPICAL STORM
TROPICAL DEPRESSION
TROPICAL DISTURBANCE
EXTRATROPICAL
DISSIPATING STAGE
XX POSITION AT XX/0000Z

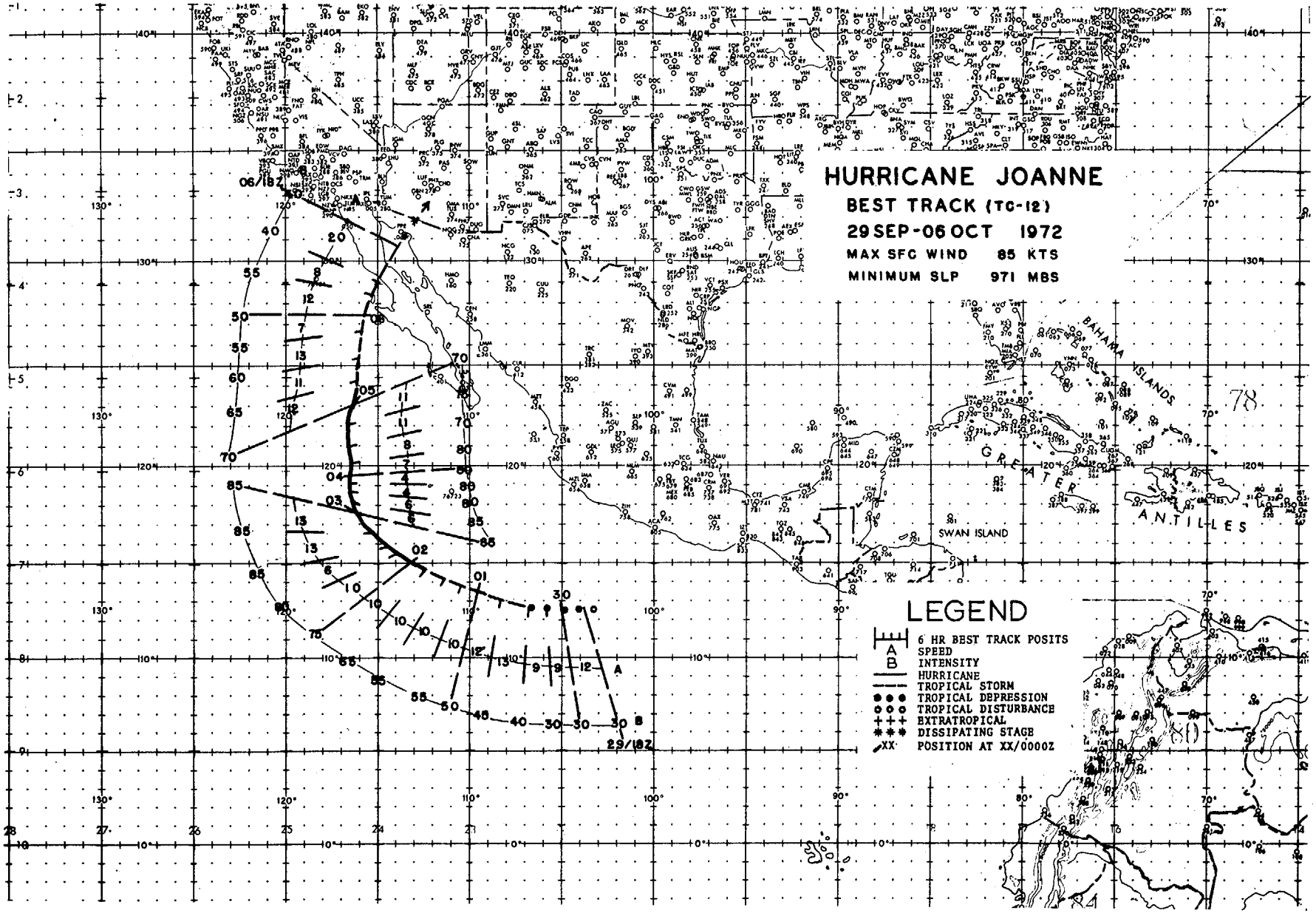

HURRICANE DIANA
BEST TRACK (TC-06)
10 AUG-20 AUG 1972
MAX SFC WIND 100 KTS
MINIMUM SLP 968 MBS
HAWAIIAN ISLANDS
JOHNSTON ISLAND
LINE ISLANDS
20/18Z
10/18Z
LEGEND
6 HR BEST TRACK POSITS
A SPEED
B INTENSITY
HURRICANE
TROPICAL STORM
TROPICAL DEPRESSION
TROPICAL DISTURBANCE
EXTRATROPICAL
DISSIPATING STAGE
XX POSITION AT XX/0000Z


HURRICANE ESTELLE
BEST TRACK (TC-07)
15 AUG-23 AUG 1972
MAX SFC WIND 75 KTS
MINIMUM SLP NA
LEGEND
6 HR BEST TRACK POSITS
A SPEED
B INTENSITY
HURRICANE
TROPICAL STORM
TROPICAL DEPRESSION
TROPICAL DISTURBANCE
EXTRATROPICAL
DISSIPATING STAGE
XX POSITION AT XX/0000Z
23/06Z
15/06Z
BLOW UP
20/00Z
18/00Z
DTG SPEED INTENSITY
1800Z 1 45
1806Z 3 45
1812Z 2 55
1818Z 1 75
1900Z 3 75
1906Z 4 75
1912Z 8 75
1918Z 8 65
2000Z 70
ISLANDS


HURRICANE FERNANDA
BEST TRACK (TC-08)
19 AUG-31 AUG 1972
MAX SFC WIND 100 KTS
MINIMUM SLP 950 MBS
31/18Z
19/18Z
LEGEND
6 HR BEST TRACK POSITS
A SPEED
B INTENSITY
HURRICANE
TROPICAL STORM
TROPICAL DEPRESSION
TROPICAL DISTURBANCE
EXTRATROPICAL
DISSIPATING STAGE
XX POSITION AT XX/0000Z
LINE ISLANDS


HURRICANE GWEN
BEST TRACK (TC-09)
21 AUG-31 AUG 1972
MAX SFC WIND 110 KTS
MINIMUM SLP 962 MBS
31/06Z
21/18Z
BAHAMA ISLANDS
GREATER ANTILLES
SWAN ISLAND
LEGEND
6 HR BEST TRACK POSITS
A SPEED
B INTENSITY
HURRICANE
TROPICAL STORM
TROPICAL DEPRESSION
TROPICAL DISTURBANCE
EXTRATROPICAL
DISSIPATING STAGE
XX POSITION AT XX/0000Z


HURRICANE HYACINTH
BEST TRACK (TC-10)
28 AUG-06 SEP 1972
MAX SFC WIND 110 KTS
MINIMUM SLP 962 MBS
LEGEND
A 6 HR BEST TRACK POSITS
SPEED
B INTENSITY
HURRICANE
TROPICAL STORM
TROPICAL DEPRESSION
TROPICAL DISTURBANCE
EXTRATROPICAL
DISSIPATING STAGE
XX POSITION AT XX/0000Z
BAHAMA ISLANDS
28/00Z


HURRICANE JOANNE
BEST TRACK (TC-12)
29 SEP-06 OCT 1972
MAX SFC WIND 85 KTS
MINIMUM SLP 971 MBS
LEGEND
6 HR BEST TRACK POSITS
A SPEED
B INTENSITY
HURRICANE
TROPICAL STORM
TROPICAL DEPRESSION
TROPICAL DISTURBANCE
EXTRATROPICAL
DISSIPATING STAGE
XX POSITION AT XX/0000Z
06/18Z
29/18Z
SWAN ISLAND
BAHAMA ISLANDS
GREATER ANTILLES
78

5. CENTER FIX DATA - HURRICANES

EYE FIXES, HURRICANE ANNETTE 31 MAY - 06 JUN 72

FIX NO.	TIME	POSIT	FIX CAT	ACC	OBS (EST) SFC WND	EYE FORM	EYE DIAM
1	312217Z	12.0N 106.0W	SAT	STG C	---------	----	----
2	012125Z	12.5N 106.5W	SAT	STG B	---------	----	----
3	021815Z	13.4N 107.9W	P	30NM	30	CIRC	22
4	022219Z	13.5N 107.3W	SAT	STG X	DIA 3.0 CAT 2.0		----
5	032127Z	12.5N 108.3W	SAT	STG X	DIA 2.0 CAT 3.0		----
6	042221Z	12.8N 109.0W	SAT	STG X	DIA 2.0 CAT 2.5		----
7	051710Z	13.5N 110.0W	P	20NM	30	CIRC	15
8	052129Z	14.5N 108.5W	SAT	STG X	DIA 2.0 CAT 2.0		----
9	061805Z	15.3N 106.3W	P	5NM	55	CIRC	25
10	062227Z	17.0N 106.0W	SAT	STG X	DIA 2.0 CAT 2.0		----

EYE FIXES, HURRICANE CELESTE 12 AUG - 22 AUG 72

FIX NO.	TIME	POSIT	FIX CAT	FLT LVL	FLT LVL WND	OBS SFC WND	OBS MIN SLP	MIN 700MB HGT	FLT LVL TI/TO	EYE FORM	EYE DIA
1	042231Z	14.5N 119.5W	SAT	STG C	---	---	---	-----	-----	----	----
2	052329Z	14.0N 119.5W	SAT	STG C	---	---	---	-----	-----	----	----
3	062233Z	14.0N 120.5W	SAT	STG X	DIA 2.5	CAT 2.5	-----		-----	----	----
4	072327Z	14.0N 122.5W	SAT	STG X	DIA 3.0	CAT 3.0	-----		-----	----	----
5	082234Z	14.5N 125.5W	SAT	STG X	DIA 1.5	CAT 2.0	-----		-----	----	----
6	092333Z	15.0N 129.0W	SAT	STG X	DIA 1.5	CAT 3.0	-----		-----	----	----
7	110027Z	15.0N 133.4W	SAT	STG X	DIA 3.0	CAT 3.5	-----		-----	----	----
8	112015Z	15.2N 137.2W	---	-----	---	90	---	-----	-----	CIRC	11
9	112334Z	15.0N 138.0W	SAT	STG X	DIA 1.0	CAT 3.0	-----		-----	----	----
10	130034Z	15.0N 143.5W	SAT	STG X	DIA 2.5	CAT 3.5	-----		-----	----	----
11	140040Z	12.6N 148.1W	P-10	700MB	95	95	967	2786	16/8	CIRC	30
12	180131Z	15.1N 163.8W	P-1	700MB	---	85	950	2646	16/11	CIRC	23
13	190605Z	15.9N 167.6W	P-5	700MB	---	---	943	2594	17/--	CIRC	22
14	200310Z	17.5N 169.2W	P-10	700MB	100	130	---	2585	20/13	CIRC	30
15	210240Z	20.0N 170.3W	P-10	700MB	90	110	981	2911	18/9	----	----
16	211837Z	21.2N 171.8W	P-15	700MB	45	45	994	3054	14/10	----	----

EYE FIXES, HURRICANE DIANA 10 AUG - 15 AUG 72

FIX NO.	TIME	POSIT	FIX CAT	ACC	OBS (EST) SFC WND	EYE FORM	EYE DIAM
1	102232Z	10.0N 116.5W	SAT	STG B	--------	----	----
2	112040Z	12.0N 119.3W	---	3NM	45	CIRC	7
3	112330Z	12.9N 120.5W	SAT	STG X	DIA 1.0 CAT 3.0		----
4	122238Z	13.8N 124.9W	---	2NM	74	CIRC	11
5	122353Z	14.0N 125.0W	SAT	STG X	DIA 1.5 CAT 3.5		----
6	132337Z	15.5N 129.9W	SAT	STG X	DIA 2.0 CAT 3.5		----
7	141810Z	17.5N 130.9W	---	2NM	UNK	CIRC	30
8	142245Z	17.0N 132.8W	SAT	STG X	DIA 4.0 CAT 4.0		----
9	152335Z	18.9N 137.2W	---	5NM	45	ELIP	060/23/17
10	152339Z	17.9N 137.4W	SAT	STG X	DIA 2.0 CAT 3.0		----

EYE FIXES, HURRICANE ESTELLE 14 AUG - 21 AUG 72

FIX NO.	TIME	POSIT	FIX CAT	ACC	OBS (EST) SFC WND	EYE FORM	EYE DIAM
1	142241Z	09.5N 111.0W	SAT	STG B	---------	----	----
2	152144Z	12.0N 114.5W	SAT	STG B	---------	----	----
3	162242Z	16.0N 117.0W	SAT	STG C	---------	----	----
4	172341Z	16.5N 121.8W	SAT	STG C+	---------	----	----
5	182244Z	17.2N 122.0W	SAT	STG X	DIA 3.0 CAT 2.0		----
6	192343Z	19.0N 123.0W	SAT	STG X	DIA 3.0 CAT 3.0		----
7	201743Z	20.9N 123.4W	P	12NM	UNK	ELIP	180/30/25
8	202247Z	22.0N 126.5W	SAT	STG C	---------	----	----
9	212127Z	24.7N 130.8W	P	20NM	UNK	CIRC	15

EYE FIXES, HURRICANE FERNANDA 19 AUG - 25 AUG 72

FIX NO.	TIME	POSIT	FIX CAT	ACC	OBS (EST) SFC WND	EYE FORM	EYE DIAM
1	191554Z	09.5N 104.0W	SAT	STG C	---------	----	----
2	202242Z	12.9N 108.0W	SAT	STG X	DIA 4.0 CAT 2.0		----
3	221801Z	15.5N 114.8W	P	10NM	85	CIRC	24
4	232347Z	16.8N 121.2W	SAT	STG X	DIA 5.0 CAT 4.0		----
5	241700Z	17.9N 124.8W	P	20NM	90	CIRC	25
6	242250Z	17.4N 127.4W	SAT	STG X	DIA 2.0 CAT 3.0		----
7	252349Z	19.2N 134.5W	SAT	STG X	DIA 2.0 CAT 3.5		----

EYE FIXES, HURRICANE GWEN 23 AUG - 30 AUG 72

FIX NO.	TIME	POSIT	FIX CAT	ACC	OBS (EST) SFC WND	EYE FORM	EYE DIAM
1	232152Z	14.2N 106.1W	SAT	STG B	---------	----	----
2	242125Z	16.9N 106.8W	P	20NM	40	CIRC	20
3	242250Z	15.9N 106.7W	SAT	STG X	DIA 3.0 CAT 2.0		----
4	262253Z	18.0N 110.5W	SAT	STG X	DIA 2.0 CAT 4.0		----
5	271758Z	19.5N 111.9W	P	5NM	UNK	CIRC	35
6	272156Z	19.0N 113.0W	SAT	STG X	DIA 3.0 CAT 4.0		----
7	281730Z	22.4N 114.8W	P	3NM	55	CIRC	5
8	282259Z	23.2N 115.6W	---	STG X	DIA 4.0 CAT 2.0		----
9	300600Z	28.2N 119.6W	P	5NM	UNK	CIRC	25
10	301405Z	28.7N 120.5W	P	5NM	UNK	CIRC	30
11	302300Z	29.2N 120.7W	SAT	STG C-	---------	----	----
12	302330Z	29.4N 121.5W	P	4NM	35	----	----

EYE FIXES, HURRICANE HYACINTH 29 AUG - 05 SEP 72

FIX NO.	TIME	POSIT	FIX CAT	ACC	OBS (EST) SFC WND	EYE FORM	EYE DIAM
1	292157Z	11.5N 101.8W	SAT	STG C	---------	----	----
2	301923Z	14.3N 106.5W	P	5NM	80	CIRC	30
3	311712Z	15.7N 111.2W	P	5NM	110	CIRC	60
4	012302Z	17.5N 116.5W	SAT	STG X	---------	----	----
5	022150Z	19.1N 119.9W	P	1NM	65	CIRC	25
6	022207Z	18.5N 121.0W	SAT	STG X	---------	----	----
7	030156Z	16.0N 122.5W	SAT	STG C	---------	----	----
8	032309Z	22.5N 123.8W	SAT	STG X	---------	----	----
9	041800Z	28.9N 125.0W	SAT	STG C	---------	----	----
10	042208Z	27.4N 124.5W	P	1NM	50	MISG	MISG
11	051513Z	30.8N 122.1W	P	5NM	35	CIRC	20
12	051830Z	31.3N 120.9W	P	5NM	30	UNK	UNK

EYE FIXES, HURRICANE JOANNE 29 SEP - 05 OCT 72

FIX NO.	TIME	POSIT	FIX CAT	ACC	OBS (EST) SFC WND	EYE FORM	EYE DIAM
1	292136Z	11.7N 105.1W	SAT	STG B	---------	----	----
2	302228Z	13.6N 109.3W	SAT	STG C	---------	----	----
3	011731Z	14.8N 111.7W	P	3NM	65	CIRC	20
4	012137Z	15.1N 113.6W	SAT	STG X	DIA 2.0 CAT 3.0		----
5	020126Z	15.1N 114.0W	SAT	STG C-	---------	----	----
6	022233Z	17.5N 116.0W	SAT	STG X	DIA 3.0 CAT 3.0		----
7	031750Z	18.9N 116.5W	P	10NM	80	CIRC	40
8	032141Z	19.0N 116.7W	SAT	STG X	DIA 2.0 CAT 3.0		----
9	042241Z	23.0N 116.8W	SAT	STG X	DIA 1.5 CAT 2.5		----
10	050152Z	23.2N 116.6W	P	15NM	45	CIRC	60

6. POSITION DATA - TROPICAL STORMS AND DEPRESSIONS

TROPICAL DEPRESSION TWO
27 - 28 JUNE

DTG	LAT	LONG	DTG	LAT	LONG
270000Z	13.0N	98.0W	280000Z	16.5N	104.4W
270600Z	13.7N	99.8W	280600Z	17.7N	105.5W
271200Z	14.7N	101.7W	281200Z	17.8N	106.8W
271800Z	16.0N	104.0W	281800Z	18.3N	107.7W

TROPICAL DEPRESSION THREE
04 - 06 JULY

DTG	LAT	LONG	DTG	LAT	LONG
040000Z	9.5N	109.5W	050600Z	10.2N	118.0W
040600Z	9.5N	111.1W	051200Z	11.5N	120.3W
041200Z	9.7N	112.4W	051800Z	13.9N	123.9W
041800Z	10.0N	114.0W	060000Z	13.0N	124.0W
050000Z	10.0N	115.5W			

TROPICAL STORM BONNY
27 - 30 JULY

DTG	LAT	LONG	DTG	LAT	LONG
271800Z	19.0N	109.5W	290000Z	21.7N	115.0W
280000Z	19.6N	110.0W	290600Z	22.0N	116.0W
280600Z	20.0N	111.0W	291200Z	22.3N	117.0W
281200Z	20.6N	112.0W	291800Z	22.2N	117.8W
281800Z	21.2N	114.2W	300000Z	22.2N	118.1W

TROPICAL STORM DIANA
16 - 20 AUGUST

DTG	LAT	LONG	DTG	LAT	LONG
161800Z	18.3N	141.1W	190000Z	19.2N	153.2W
170000Z	18.2N	143.7W	190600Z	19.6N	153.6W
170600Z	18.3N	145.4W	191200Z	20.0N	153.9W
171200Z	18.4N	147.1W	191800Z	20.5N	154.4W
171800Z	18.5N	148.9W	200000Z	20.8N	154.9W
180000Z	18.7N	149.7W	200600Z	21.2N	155.3W
180600Z	18.8N	150.8W	201200Z	21.7N	155.7W
181200Z	18.9N	151.7W	201800Z	22.4N	156.0W
181800Z	19.0N	152.7W			

TROPICAL STORM FERNANDA
27 - 31 AUGUST

DTG	LAT	LONG	DTG	LAT	LONG
270000Z	20.0N	140.9W	291200Z	21.4N	151.5W
270600Z	20.2N	142.2W	291800Z	21.5N	152.2W
271200Z	20.4N	143.6W	300000Z	21.8N	153.0W
271800Z	20.6N	145.0W	300600Z	22.4N	153.4W
280000Z	20.6N	146.6W	301200Z	22.9N	153.8W
280600Z	20.8N	147.3W	301800Z	23.5N	154.2W
281200Z	21.0N	148.4W	310000Z	23.7N	154.7W
281800Z	21.2N	149.3W	310600Z	23.9N	155.3W
290000Z	21.2N	150.1W	311200Z	24.2N	155.8W
290600Z	21.3N	150.7W	311800Z	24.6N	156.3W

TROPICAL STORM JUNE
26 - 28 SEPTEMBER

DTG	LAT	LONG
261800Z	14.2N	166.0W
270000Z	14.7N	166.8W
270600Z	15.3N	167.8W
271200Z	15.9N	168.7W
271800Z	16.3N	169.2W
280000Z	16.8N	170.3W

TROPICAL STORM IVA
13 - 22 SEPTEMBER

DTG	LAT	LONG	DTG	LAT	LONG
131800Z	12.0N	102.0W	180600Z	17.8N	110.1W
140000Z	13.0N	102.5W	181200Z	18.0N	110.5W
140600Z	13.4N	103.3W	181800Z	18.3N	111.0W
141200Z	13.8N	104.0W	190000Z	18.4N	111.8W
141800Z	14.9N	104.8W	190600Z	18.7N	112.9W
150000Z	15.3N	106.5W	191200Z	18.8N	114.1W
150600Z	15.8N	107.2W	191800Z	18.8N	115.6W
151200Z	16.2N	108.0W	200000Z	18.8N	116.8W
151800Z	16.7N	108.6W	200600Z	18.6N	118.3W
160000Z	16.9N	108.6W	201200Z	18.4N	119.7W
160600Z	17.0N	108.5W	201800Z	18.1N	121.0W
161200Z	17.2N	108.3W	210000Z	18.0N	122.5W
161800Z	17.4N	108.2W	210600Z	18.0N	124.0W
170000Z	17.4N	108.4W	211200Z	17.8N	126.0W
170600Z	17.4N	108.5W	211800Z	17.5N	127.5W
171200Z	17.3N	108.8W	220000Z	17.5N	128.5W
171800Z	17.3N	109.1W	220600Z	17.5N	129.5W
180000Z	17.4N	109.6W	221200Z	17.5N	130.5W

TROPICAL DEPRESSION THIRTEEN
12 - 18 OCTOBER

DTG	LAT	LONG	DTG	LAT	LONG
121800Z	14.5N	114.5W	160000Z	14.7N	123.1W
130000Z	14.2N	115.5W	160600Z	14.1N	124.0W
130600Z	14.1N	116.3W	161200Z	14.6N	124.9W
131200Z	13.7N	118.0W	161800Z	14.9N	125.5W
131800Z	12.5N	120.0W	170000Z	15.2N	126.1W
140000Z	13.0N	121.5W	170600Z	15.7N	126.9W
140600Z	13.9N	122.9W	171200Z	17.1N	127.0W
141200Z	14.1N	123.5W	171800Z	18.1N	127.0W
141800Z	14.2N	124.0W	180000Z	19.2N	127.1W
150000Z	14.4N	124.5W	180600Z	20.3N	127.6W
150600Z	15.0N	125.1W	181200Z	21.2N	127.8W
151200Z	15.5N	124.9W	181800Z	21.0N	126.0W
151800Z	15.1N	123.4W			

TROPICAL STORM KATHLEEN
17 - 19 OCTOBER

DTG	LAT	LONG	DTG	LAT	LONG
171200Z	14.5N	107.0W	181800Z	16.8N	110.8W
171800Z	15.0N	108.1W	190000Z	17.5N	111.0W
180000Z	15.6N	109.5W	190600Z	18.8N	110.1W
180600Z	15.9N	109.8W	191200Z	20.0N	109.0W
181200Z	16.0N	110.1W			

TROPICAL STORM LIZA
13 - 16 NOVEMBER

DTG	LAT	LONG	DTG	LAT	LONG
131200Z	11.0N	97.0W	150000Z	11.0N	100.2W
131800Z	10.0N	97.5W	150600Z	11.1N	100.7W
140000Z	10.5N	97.0W	151200Z	11.2N	101.4W
140600Z	11.0N	97.5W	151800Z	10.8N	104.7W
141200Z	11.0N	98.0W	160000Z	10.8N	104.8W
141800Z	10.0N	99.0W			

TROPICAL DEPRESSION SIXTEEN
20 - 21 NOVEMBER

DTG	LAT	LONG	DTG	LAT	LONG
200000Z	13.5N	111.0W	210000Z	15.0N	112.0W
200600Z	14.0N	111.0W	210600Z	15.0N	112.0W
201200Z	14.2N	110.8W	211200Z	15.0N	112.0W
201800Z	15.0N	112.0W	211800Z	15.0N	112.0W

7. POSITION AND VERIFICATION DATA - HURRICANES

HURRICANE DIANA

POSITION FROM BEST TRACK AND VERIFICATION DATA
101800Z to 161200Z AUG 1972

TIME	STORM POSITION LAT	STORM POSITION LONG	24 HR ERROR DEG/DIST	48 HR ERROR DEG/DIST	TIME	STORM POSITION LAT	STORM POSITION LONG	24 HR ERROR DEG/DIST	48 HR ERROR DEG/DIST
101800Z	09.0N	114.0W	-	-	131800Z	15.6N	127.9W	103/120	080/100
110000Z	09.9N	115.0W	-	-	140000Z	16.2N	128.7W	038/110	083/162
110600Z	10.7N	116.3W	-	-	140600Z	16.8N	129.3W	048/156	080/195
111200Z	11.2N	117.9W	-	-	141200Z	17.1N	130.1W	025/120	081/222
111800Z	11.6N	119.3W	328/145	-	141800Z	17.5N	131.0W	057/90	084/300
120000Z	11.9N	120.6W	060/65	-	150000Z	18.0N	132.0W	060/90	040/222
120600Z	12.3N	121.9W	070/80	-	150600Z	18.2N	133.0W	063/90	052/228
121200Z	12.8N	123.3W	060/60	-	151200Z	18.4N	134.0W	060/90	028/210
121800Z	13.2N	124.2W	000/02	321/220	151800Z	18.7N	135.7W	060/90	035/130
130000Z	13.7N	125.3W	100/25	070/120	160000Z	18.7N	137.5W	270/72	090/30
130600Z	14.2N	126.1W	095/75	072/175	160600Z	18.6N	138.6W	260/110	0901/24
131200Z	14.9N	127.1W	098/90	077/200	161200Z	18.5N	139.7W	260/120	085/50

24 HR FORECAST ERROR = 90.0NM
48 HR FORECAST ERROR = 161.7NM

HURRICANE ANNETTE

POSITION FROM BEST TRACK AND VERIFICATION DATA
311800Z MAY to 071800Z JUNE 1972

STORM POSIT			24 HR ERROR	48 HR ERROR
TIME	LAT	LONG	DEG/DIST	DEG/DIST
311800Z	12.0N	107.8W		
010000Z	12.4N	107.6W		
010600Z	12.5N	107.5W		
011200Z	12.5N	107.4W		
011800Z	12.5N	107.3W	093/245	
020000Z	12.5N	107.2W	090/220	
020600Z	12.5N	107.2W	092/200	
021200Z	12.6N	107.2W	092/310	
021800Z	12.7N	107.3W	277/72	093/490
030000Z	12.8N	107.3W	080/70	091/430
030600Z	12.9N	107.4W	085/95	092/460
031200Z	13.0N	107.5W	083/120	092/480
031800Z	13.1N	107.6W	072/120	293/110
040000Z	13.2N	107.6W	053/30	080/300
040600Z	13.3N	107.6W	083/112	085/210
041200Z	13.4N	107.6W	082/125	085/230
041800Z	13.5N	107.6W	070/80	083/230
050000Z	13.6N	107.6W	062/132	083/150
050600Z	14.0N	107.6W	058/170	086/215
051200Z	14.3N	107.5W	057/192	087/245
051800Z	14.5N	107.5W	052/150	061/170
060000Z	14.7N	107.5W	060/185	057/230
060600Z	15.4N	107.0W	056/252	055/300
061200Z	15.9N	106.8W	046/336	055/355
061800Z	16.4N	106.2W	063/320	050/330
070000Z	16.8N	105.9W	065/302	056/410
070600Z	17.4N	105.5W	DISSIPATING	053/460
071200Z	18.0N	105.2W	076/372	053/492
071800Z	18.8N	104.0W	327/78	DISSIPATING

24 HR FORECAST ERROR = 171.5NM
48 HR FORECAST ERROR = 299.8NM

HURRICANE ESTELLE

POSITION FROM BEST TRACK AND VERIFICATION DATA
150600Z to 230600Z AUG 1972

STORM POSITION			24 HR ERROR	48 HR ERROR
TIME	LAT	LONG	DEG/DIST.	DEG/DIST.
150600Z	10.0N	111.0W	-	-
151200Z	10.6N	111.4W	-	-
151800Z	11.2N	112.9W	-	-
160000Z	11.9N	114.3W	-	-
160600Z	12.0N	115.5W	000/120	-
161200Z	12.4N	116.6W	355/138	-
161800Z	13.8N	117.8W	297/330	-
170000Z	15.0N	118.8W	352/145	-
170600Z	15.3N	119.4W	002/145	-
171200Z	15.6N	119.9W	014/150	-
171800Z	15.9N	120.9W	010/115	-
180000Z	16.4N	121.6W	320/48	050/85
180600Z	16.5N	121.7W	120/96	032/200
181200Z	16.7N	121.9W	112/140	053/210
181800Z	16.9N	121.9W	110/195	057/210
190000Z	17.0N	122.0W	095/240	230/80
190600Z	17.2N	122.3W	093/276	103/282
191200Z	17.5N	122.6W	092/324	097/340
191800Z	18.2N	123.0W	110/70	092/360
200000Z	18.9N	123.2W	070/60	082/408
200600Z	19.5N	123.7W	355/150	079/440
201200Z	20.0N	124.1W	001/408	068/510
201800Z	20.9N	125.2W	305/90	025/100
210000Z	21.9N	126.3W	303/160	025/100
210600Z	22.5N	127.3W	300/150	015/245
211200Z	23.2N	128.2W	296/306	324/312
211800Z	24.1N	129.5W	000/61	342/162
220000Z	25.0N	130.8W	301/72	298/380
220600Z	25.9N	131.9W	310/90	295/354
221200Z	26.7N	133.2W	016/08	288/510
221800Z	26.9N	134.5W	002/45	350/265
230000Z	27.9N	136.0W	022/45	301/162
230600Z	27.0N	136.4W	190/90	295/118

24 HR ERROR = 151.6NM
48 HR ERROR = 233.3NM

HURRICANE CELESTE

POSITION FROM BEST TRACK AND VERIFICATION DATA
041800Z to 220600Z AUG 1972

STORM POSIT			24 HR ERROR	48 HR ERROR
TIME	LAT	LONG	DEG/DIST	DEG/DIST
041800Z	15.0N	119.0W	-	-
050000Z	15.0N	119.0W	-	-
050600Z	15.0N	119.3W	-	-
051200Z	15.0N	119.6W	-	-
051800Z	15.0N	119.9W	270/54	-
060000Z	15.0N	120.2W	270/12	-
060600Z	14.9N	120.3W	245/18	-
061200Z	14.8N	120.4W	250/24	-
061800Z	14.7N	120.5W	248/60	-
070000Z	14.7N	120.6W	242/42	-
070600Z	14.3N	120.8W	231/66	-
071200Z	14.0N	121.0W	225/90	-
071800Z	13.6N	121.3W	221/120	-
080000Z	13.2N	120.6W	127/126	-
080600Z	14.0N	121.8W	090/70	-
081200Z	14.2N	123.0W	072/40	-
081800Z	14.2N	123.8W	295/50	-
090000Z	14.3N	124.7W	318/20	343/18
090600Z	14.3N	126.0W	288/60	288/60
091200Z	14.3N	127.7W	282/100	285/85
091800Z	14.4N	128.4W	265/150	272/200
100000Z	14.7N	129.7W	272/180	328/80
100600Z	15.1N	131.5W	276/260	284/270
101200Z	15.4N	133.3W	278/336	285/350
101800Z	15.7N	134.2W	087/230	279/372
110000Z	15.8N	135.2W	274/150	279/390
110600Z	15.7N	136.4W	264/115	278/432
111200Z	15.4N	137.4W	270/162	275/456
111800Z	15.0N	138.2W	230/192	268/240
120000Z	14.8N	139.0W	228/132	220/162
120600Z	14.5N	139.8W	215/150	221/180

24 HR FORECAST ERROR = 111.4NM
48 HR FORECAST ERROR = 235.3NM

* FOR ADDITIONAL DATA REFER
FLEWEACEN PEARL HARBOR

HURRICANE CELESTE

POSITION FROM BEST TRACK AND VERIFICATION DATA
041800Z to 220600Z AUG 1972

STORM POSIT			24 HR ERROR	48 HR ERROR	72 HR ERROR
TIME	LAT	LONG	DEG/DIST	DEG/DIST	DEG/DIST
120600Z	14.5N	139.8W	010/90	060/110	070/80
121200Z	14.1N	140.6W	090/70	080/100	110/110
121800Z	13.8N	141.8W	020/70	360/90	340/80
130000Z	13.3N	142.8W	030/50	020/50	300/10
130600Z	13.1N	144.2W	100/30	170/20	-
131200Z	12.9N	145.6W	230/40	230/90	230/140
131800Z	12.7N	147.0W	220/50	220/90	240/150
140000Z	12.6N	148.2W	340/40	290/90	290/160
140600Z	12.6N	149.3W	210/100	220/180	-
141200Z	12.5N	150.3W	250/90	250/150	280/230
141800Z	12.4N	151.5W	240/50	230/80	270/140
150000Z	12.6N	152.8W	220/80	240/170	250/220
150600Z	12.8N	153.8W	230/100	250/190	250/300
151200Z	12.9N	154.7W	190/70	220/100	290/100
151800Z	13.1N	155.6W	180/50	270/70	300/40
160000Z	13.4N	156.7W	350/30	360/140	020/360
160600Z	13.7N	157.7W	020/40	020/170	020/390
161200Z	14.0N	158.8W	300/70	310/130	310/200
161800Z	14.3N	159.7W	250/70	340/80	350/240
170000Z	14.5N	160.3W	330/70	010/220	010/440
170600Z	14.6N	161.1W	350/140	010/340	020/580
171200Z	14.8N	161.8W	360/40	360/50	270/110
171800Z	14.9N	162.6W	330/50	290/140	280/280
180000Z	15.1N	163.3W	010/30	290/100	270/300
180600Z	15.3N	164.2W	060/30	270/90	270/290
181200Z	15.4N	165.2W	320/20	260/190	250/430
181800Z	15.5N	166.4W	250/70	230/260	240/450
190000Z	15.7N	167.1W	240/80	240/340	240/450
190600Z	16.0N	167.6W	230/100	220/330	220/340
191200Z	16.4N	168.2W	220/130	220/290	-
191800Z	16.8N	168.7W	230/140	210/250	-
200000Z	17.1N	169.3W	240/170	250/180	-
200600Z	17.6N	169.5W	250/70	020/20	-
201200Z	18.2N	169.8W	040/160	-	-
201800Z	18.8N	170.0W	060/160	-	-
210000Z	20.3N	169.7W	030/260	-	-
210600Z	20.6N	170.4W	040/250	-	-
211200Z	20.9N	171.2W	-	-	-
211800Z	21.2N	172.0W	-	-	-
220000Z	21.5N	172.8W	-	-	-
220600Z	21.9N	173.5W	-	-	-

24 HOUR FORECAST ERROR = 85 NM
48 HOUR FORECAST ERROR = 146 NM
72 HOUR FORECAST ERROR = 245 NM

HURRICANE FERNANDA

POSITION FROM BEST TRACK AND VERIFICATION DATA
191800Z to 261800Z AUG 1972

STORM POSITION			24 HR ERROR	48 HR ERROR
TIME	LAT	LONG	DEG/DIST.	DEG/DIST.
191800Z	11.0N	104.0W	-	-
200000Z	11.2N	104.5W	-	-
200600Z	11.2N	105.2W	-	-
201200Z	11.5N	105.7W	-	-
201800Z	11.7N	106.9W	040/18	-
210000Z	12.2N	108.1W	287/114	-
210600Z	12.5N	108.9W	287/108	-
211200Z	12.8N	109.4W	300/90	-
211800Z	13.0N	110.1W	030/45	013/36
220000Z	13.2N	110.8W	010/102	288/170
220600Z	13.5N	111.8W	040/48	285/144
221200Z	13.9N	112.4W	165/143	295/144
221800Z	14.9N	114.3W	040/60	286/84
230000Z	15.8N	116.0W	324/132	282/162
230600Z	16.2N	117.1W	304/198	280/206
231200Z	16.6N	118.2W	305/192	236/180
231800Z	16.9N	119.4W	215/45	325/130
240000Z	17.2N	120.8W	185/72	310/162
240600Z	17.4N	122.0W	202/72	287/288
241200Z	17.6N	123.2W	213/102	291/276
241800	17.8N	125.0W	300/90	230/108
250000Z	18.0N	127.0W	290/60	216/186
250600Z	18.4N	128.9W	300/132	237/234
251200Z	18.8N	130.8W	288/252	242/294
251800Z	19.1N	132.6W	310/102	320/282
260000Z	19.4N	134.8W	296/198	300/246
260600Z	19.7N	136.3W	040/78	295/330
261200Z	19.9N	137.8W	335/162	291/402
261800Z	20.0N	139.1W	132/96	304/216

24 HR FORECAST ERROR = 108.4NM
48 HR FORECAST ERROR = 203.8NM

HURRICANE GWEN

POSITION FROM BEST TRACK AND VERIFICATION DATA
211800Z to 310600Z AUG 1972

STORM POSITION			24 HR ERROR	48 HR ERROR
TIME	LAT	LONG	DEG/DIST.	DEG/DIST.
211800Z	09.6N	96.4W	-	-
220000Z	10.1N	97.5W	-	-
220600Z	10.1N	98.5W	-	-
221200Z	10.1N	99.5W	-	-
221800Z	10.2N	101.1W	174/66	-
230000Z	11.0N	102.5W	267/102	-
230600Z	11.6N	103.2W	270/102	-
231200Z	12.1N	104.0W	282/90	-
231800Z	13.0N	104.9W	004/144	322/60
240000Z	13.9N	105.8W	021/108	320/132
240600Z	14.4N	106.2W	031/138	322/132
241200Z	15.1N	106.6W	036/152	337/150
241800Z	15.6N	106.9W	060/168	033/282
250000Z	16.2N	107.3W	087/168	056/212
250600Z	16.4N	107.5W	083/180	040/228
251200Z	16.6N	107.8W	103/270	060/312
251800Z	16.7N	107.9W	110/162	085/315
260000Z	16.8N	108.0W	121/198	087/342
260600Z	17.0N	108.8W	135/330	090/331
261200Z	17.5N	109.4W	122/378	117/384
261800Z	17.9N	110.0W	265/108	115/336
270000Z	18.4N	110.8W	310/42	111/252
270600Z	18.6N	111.2W	308/42	126/342
271200Z	18.9N	111.9W	325/30	114/553
271800Z	19.3N	112.5W	236/112	258/192
280000Z	19.7N	113.2W	257/55	308/42
280600Z	20.3N	113.6W	260/50	004/66
281200Z	21.2N	113.8W	248/114	030/102
281800Z	21.9N	115.0W	292/84	248/112
290000Z	23.0N	116.2W	331/108	283/126
290600Z	24.0N	116.9W	293/120	290/133
291200Z	25.0N	117.5W	277/120	283/210
291800Z	26.2N	118.6W	305/210	298/246
300000Z	27.3N	119.4W	070/210	336/243
300600Z	28.2N	120.0W	034/130	020/120
301200Z	29.0N	120.2W	202/228	285/300
301800Z	29.3N	120.3W	200/192	312/288
310000Z	29.5N	120.8W	122/168	105/510
310600Z	29.5N	121.3W	144/120	DISSIPATING

24 HR FORECAST ERROR = 142.8MI
48 HR FORECAST ERROR = 227.5MI

HURRICANE HYACINTH

POSITION FROM BEST TRACK AND VERIFICATION DATA
281200Z AUG to 060600Z SEP 1972

STORM POSITION			24 HR ERROR	48 HR ERROR
TIME	LAT	LONG	DEG/DIST.	DEG/DIST.
281200Z	10.7N	94.9W	-	-
281800Z	10.4N	95.8W	-	-
290000Z	10.1N	97.5W	-	-
290600Z	10.3N	98.6W	-	-
291200Z	10.6N	99.3W	226/84	-
291800Z	11.3N	101.2W	207/108	-
300000Z	12.6N	103.2W	315/198	-
300600Z	13.1N	104.1W	317/210	-
301200Z	13.8N	105.3W	318/240	-
301800Z	14.0N	106.3W	008/150	-
310000Z	14.5N	107.2W	330/24	-
310600Z	14.8N	108.1W	146/45	-
311200Z	15.0N	109.1W	112/90	318/318
311800Z	15.3N	110.9W	170/24	015/204
010000Z	15.8N	112.6W	223/120	310/90
010600Z	16.2N	113.8W	225/162	318/138
011200Z	16.8N	115.0W	228/162	142/90
011800Z	17.1N	116.2W	158/126	214/210
020000Z	17.5N	117.5W	225/48	207/240
020600Z	17.8N	118.5W	140/90	310/252
021200Z	18.0N	119.5W	148/60	195/252
021800Z	18.4N	120.1W	120/90	165/224
030000Z	18.8N	120.8W	090/84	150/210
030600Z	19.4N	121.7W	092/112	177/132
031200Z	19.8N	122.5W	096/141	092/141
031800Z	20.8N	123.5W	020/72	268/204
040000Z	22.9N	124.2W	000/90	072/204
040600Z	23.0N	124.9W	003/120	071/192
041200Z	24.1N	125.2W	025/210	055/330
041800Z	26.3N	125.2W	025/90	035/342
050000Z	28.5N	124.6W	048/240	028/348
050600Z	29.7N	123.5W	060/360	037/402
051200Z	30.6N	122.3W	055/354	045/690
051800Z	31.4N	120.7W	092/186	065/224
060000Z	32.3N	119.6W	095/258	070/780
060600Z	32.5N	118.5W	100/150	075/878

24 HR FORECAST ERROR = 140.5 MI
48 HR FORECAST ERROR = 295.4 MI

HURRICANE JOANNE

POSITION FROM BEST TRACK AND VERIFICATION DATA
291800Z SEP to 161800Z OCT 1972

STORM POSITION			24 HR ERROR	48 HR ERROR
TIME	LAT	LONG	DEG/DIST.	DEG/DIST.
291800Z	12.4	103.7	-	-
300000Z	12.5	105.0	-	-
300600Z	12.5	105.8	-	-
301200Z	12.6	106.7	-	-
301800Z	12.9	108.0	-	-
010000Z	13.5	109.6	245/45	-
010600Z	13.8	110.6	250/45	-
011200Z	14.1	111.5	260/126	-
011800Z	14.7	112.3	080/45	-
020000Z	15.0	113.2	098/84	-
020600Z	15.5	114.0	095/120	-
021200Z	15.8	114.6	086/138	270/90
021800Z	16.6	115.5	045/48	060/75
030000Z	17.4	116.2	030/108	070/165
030600Z	18.1	116.5	038/162	072/228
031200Z	18.6	116.6	045/222	085/315
031800Z	19.1	116.6	085/228	048/288
040000Z	19.5	116.6	110/150	057/384
040600Z	20.2	116.6	105/192	055/408
041200Z	20.9	116.7	103/240	056/524
041800Z	22.0	116.7	270/96	074/540
050000Z	23.0	116.5	323/48	090/204
050600Z	24.3	116.3	358/72	086/168
051200Z	25.3	116.2	330/105	090/390
051800Z	26.5	115.9	300/78	320/132
060000Z	27.3	115.7	280/102	312/162
060600Z	28.4	115.5	320/96	325/150
061200Z	29.0	115.0	310/102	327/142
061800Z	30.7	113.9	DISSIPATED	DISSIPATED

24 HR FORECAST ERROR = 115.3 MI.
48 HR FORECAST ERROR = 242.5 MI.