NASA TECHNICAL MEMORANDUM NASA TM-X-69364(I)

AN ATLAS OF 1975 GEOS-3 RADAR ALTIMETER DATA FOR HURRICANE/TROPICAL DISTURBANCE STUDIES

Volume I

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April 1977

National Aeronautics and
Space Administration

Wallops Flight Center
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JUN 10 1977

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Subject: Document Release for NASA TM X-69364

Document Release Authorization Form FF 427 and one (1) copy each of Volumes I and II of the following report are forwarded:

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1 Report No NASA TM-X-69364	2 Government Accession No	3 Recipient's Catalog No
4 Title and Subtitle An Atlas of 1975 GEOS-3 Radar Altimeter Data for Hurricane/ Tropical Disturbance Studies (Volumes I and II)		5 Report Date April 1977 6 Performing Organization Code
7 Author(s) H. Ray Stanley, NASA Wallops Flight Center Barbara Chan, John R. Munson, Wolf Research and Development Group		8 Performing Organization Report No 10 Work Unit No
9 Performing Organization Name and Address EG&G/Washington Analytical Services Center, Inc. Wolf Research and Development Group P.O. Box 476 Pocomoke City, Maryland 21851		11 Contract or Grant No NAS6-2639 13 Type of Report and Period Covered
12 Sponsoring Agency Name and Address National Aeronautics and Space Administration Wallops Flight Center Wallops Island, Virginia 23337		14 Sponsoring Agency Code
15 Supplementary Notes		

16 Abstract

This document's primary purpose is to provide the means for locating and extracting GEOS-3 altimeter data acquired for the analysis of specific hurricanes, tropical storms and other disturbances. This data is also expected to be extremely useful in the analysis of the behavior of the altimeter instrument in the presence of severe meteorological disturbances as well as provide a data base which can be useful in the resolution of apparently anomalous geoid or sea surface characteristics. Geographic locations of 1975 hurricanes and other tropical disturbances have been correlated with the closest approaching orbits of the GEOS-3 satellite and its radar altimeter. The disturbance locations and altimeter data were gathered for a seven-month period beginning with GEOS-3 launch in mid-April 1975 Areas of coverage were the Atlantic Ocean, the Carribean, the Gulf of Mexico, the west coast of the continental United States, and the central and western Pacific Ocean. Volume I contains disturbance coverage data for the Atlantic Ocean, Gulf of Mexico, and Eastern Pacific Ocean. Central and Western Pacific coverage is documented in Volume II

17 Key Words (Suggested by Author(s)) Hurricane, Tropical Disturbance, GEOS-3, Altimetry	18 Distribution Statement Unclassified - unlimited STAR category 47

19 Security Classif (of this report) Unclassified	20 Security Classif (of this page) Unclassified	21 No of Pages 480	22 Price*

*For sale by the National Technical Information Service, Springfield, Virginia 22151

FOREWORD

This document is made possible through the cooperative efforts of Dr. Clifford L. Rufenach of the Atlantic Oceanographic and Meteorological Laboratory of NOAA and the GEOS-3 Project Team of the NASA Wallops Flight Center. The information regarding the Western Pacific storms was extracted from the document entitled "1975 Annual Typhoon Report" of the Joint Typhoon Warning Center.

This document's primary purpose is to provide the means for locating and extracting GEOS-3 altimeter data acquired for the analysis of specific hurricanes, tropical storms and other disturbances. This data may also be extremely useful in the analysis of the behavior of the altimeter instrument in the presence of severe meteorological disturbances as well as provide a data base which can be useful in the resolution of apparently anomalous geoid or sea surface characteristics.

For presentation purposes, and to enhance the usefulness of this document, the source materials were put into a "standardized" format. This "standard" format was devised, in part, to provide for the later inclusion of missing information or data which are currently unavailable. The format provides for the addition of such data as updates to the GEOS data, meteorological data, etc., with a minimum of impact on the document as it is currently structured. This is particularly true for the GEOS data due to the fact that only scheduled information was used and no attempt has been made to correlate this information with the actual existence of data.

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1.0 INTRODUCTION

This document is the result of recent efforts to correlate 1975 preliminary best tracks of hurricanes and other tropical disturbances with the closest approaching orbits of the GEOS-3 satellite and its radar altimeter. The material presented herein is a compilation of all the tracking data available at the time this document was prepared plus geographical plots of the various storms showing their proximity to GEOS-3 orbits.

The data contained herein were gathered over a seven-month period beginning with GEOS-3 launch in mid-April 1975. Areas of coverage were the Atlantic Ocean, the Carribean, the Gulf of Mexico, the west coast of the continental United States, and the central and western Pacific Ocean. For presentation purposes, and to enhance the useability of this document, much of the source data were re-formatted. However, a large portion of the raw data for the western Pacific could not be used because the coding system used for recording the data could not be interpreted; hence this material has been presented in its original form in Appendix A.

The geographic plots (storm versus GEOS-3 orbit) were based on data received from NOAA and data concerning the GEOS-3 orbital information. A plot was made on a day-by-day basis for each particular disturbance. Storm position (latitude, longitude) was tabulated as reported either at regular intervals (up to a maximum of four times per day) or at random intervals (1 to 3 times) during each 24-hour period. In addition, each plot lists the GEOS-3 orbit numbers of interest, the longitude at which the satellite's orbits crossed the equator, the time of equator crossing, and the time of the PCA (the point of closest approach of each orbit to the storm).

From the plots a determination was made of the orbits during which the radar altimeter was actually schedule to collect data at points close enough to make the data useful for the study of storm characteristics. For those orbits, the altimeter on-off times, mode, and unique number were recorded. It should be pointed out that the GEOS-3 altimeter schedule information is just that - the schedule. No attempt has been made to correlate this schedule information with the actual existence of data.

In addition to the information presented on the charts, other data received from NOAA are presented in tabular or graphic form. Where available, the following types of data are provided:

- wind velocity
- plots of preliminary best tracks
- storm pressure profiles
- storm stage (classification or status at a particular point in time).

The altimeter mode information indicated on the daily GEOS/storm plots can be decoded as follows:

Mode #	Mode
702	. Altimeter Intensive Mode . Data Rate - Lo (TM Form 1) . Altitude Data Rate - 10/sec. . Waveform Data and Rate - 16 averaged waveform samples at one per ≈ 2.2 seconds each . Both pre and post bit-cal performed.
703	. Global Mode Data . Lo Data Rate (TM Form 1) . Both pre and post bit-cal performed.
711	. Altimeter Intensive Mode . Data Rate - Hi (TM Form 3) . Altitude Data Rate - 100/sec. . Waveform Data and Rate - 8 even numbered instantaneous waveform samples at 100/sec. each. 16 averaged waveform samples at one per ≈3.2 seconds each. . Both pre and post bit-cal performed.
708	. Altimeter Intensive Mode . Data Rate - Hi (TM Form 2) . Altitude Data Rate - 10/sec.

Mode #	Mode
	. Waveform Data and Rate - 16 instantaneous waveform samples at 100/sec. each. . Both pre and post bit-cal performed. . 16 averaged waveform samples at one per $\approx$ 3.2 seconds each.
802	. Altimeter Intensive Mode . Data Rate Lo (TM Form 1) . 16 averaged waveform samples at one per $\approx$ 2.2 seconds each.
803	. Global Mode Data . Lo Data Rate (TM Form 1)
808	. Altimeter Intensive Mode . Data Rate Hi (TM Form 2) . 16 instantaneous waveform samples at 100/sec. each. . 16 averaged waveform samples at one per 3.2 seconds each.

Table 1-1 lists those GEOS tracks which show the best possibility of correlation with storm activity. This summary list was compiled from all of the daily GEOS/storm plots and is listed in time order showing the GEOS rev., storm name and the page number of the corresponding GEOS/storm ground track plot.

TABLE 1-1

SUMMARY LISTING OF SCHEDULED GEOS REVS VS STORMS

ORBIT #	STORM	PAGE #	ORBIT #	STORM	PAGE #
1113	Amy	2.2-3	1250	Denise	3.6-6
1121	Amy	2.2-4	1256	Denise	3.6-6
1137	Bridgett	3.3-4	1265	Carlotta	3.5-9
1141	Amy	2.2-5	1271	Carlotta	3.5-9
1142	Amy	2.2-5	1271	Denise	3.6-7
1150	Amy	2.2-6	1278	Denise	3.6-10
1150	Bridgett	3.3-5	1279	Carlotta	3.5-10
1155	Amy	2.2-6	1279	Denise	3.6-8
1156	Amy	2.2-6	1280	Carlotta	3.5-10
1164	Amy	2.2-7	1293	Eleanor	3.7-2
1165	Bridgett	3.3-6	1299	Denise	3.6-9
1170	Amy	2.2-7	1299	Eleanor	3.7-2
1178	Amy	2.2-8	1307	Eleanor	3.7-3
1181	Bridgett	3.3-7	1321	Denise	3.6-11
1184	Amy	2.2-8	1321	Eleanor	3.7-4
1185	Carlotta	3.5-3	1322	Denise	3.6-11
1186	Bridgett	3.3-7	1322	Eleanor	3.7-4
1186	TD4	3.4-2	1328	Denise	3.6-11
1186	Carlotta	3.5-3	1328	Eleanor	3.7-4
1194	Carlotta	3.5-4	1335	Denise	3.6-12
1198	Amy	2.2-9	1491	Blanche	2.3-6
1201	Bridgett	3.3-8	1495	No Name-A	4.3-15
1201	TD4	3.4-3	1505	Blanche	2.3-7
1206	Denise	3.6-3	1511	Blanche	2.3-7
1213	Denise	3.6-3	1519	Blanche	2.3-8
1229	Carlotta	3.5-6	1535	Francene	3.8-2
1229	Denise	3.6-4	1549	Francene	3.8-3
1235	Denise	3.6-5	1555	Francene	3.8-3
1237	Carlotta	3.5-7	1568	Mamie	4.4-5
1243	Carlotta	3.5-7	1582	Mamie	4.4-6

TABLE 1-1

SUMMARY LISTING OF SCHEDULED GEOS REVS VS STORMS (Cont.)

ORBIT #	STORM	PAGE #	ORBIT #	STORM	PAGE #
1587	Nina	4.5-4	1886	Rita	4.10-9
1601	Nina	4.5-5	1889	Ilsa	3.11-6
1602	Nina	4.5-5	1894	Rita	4.10-9
1616	Nina	4.5-6	1903	Ilsa	3.11-7
1625	Nina	4.5-6	1909	Rita	4.10-10
1630	Nina	4.5-7	1923	Rita	4.11-11
1724	Ora	4.7-4	1931	Caroline	2.4-6
1763	Georgetta	3.9-3	1936	Susan	4.11-2
1767	Ora	4.7-7	1937	Susan	4.11-2
1767	Phyllis	4.8-4	1943	Susan	4.11-3
1781	Phyllis	4.8-5	1948	Ilsa	3.11-10
1787	Phyllis	4.8-6	1960	Caroline	2.4-8
1795	Phyllis	4.8-6	1962	Ilsa	3.11-11
1795	No Name-B	4.9-3	1966	Caroline	2.4-8
1801	Phyllis	4.8-7	1974	Caroline	2.4-9
1809	Phyllis	4.8-7	1979	Susan	4.11-4
1809	No Name-B	4.9-4	1980	Susan	4.11-4
1815	Phyllis	4.8-8	1988	Caroline	2.4-10
1815	Rita	4.10-4	1988	Katrina	3.13-3
1824	Phyllis	4.8-8	1993	Susan	4.11-5
1824	Rita	4.10-4	1994	Susan	4.11-5
1826	Hilary	3.10-7	2005	Jewel	3.12-8
1838	Phyllis	4.8-9	2007	Susan	4.11-6
1838	Rita	4.10-5	2008	Susan	4.11-6
1844	Rita	4.10-6	2017	Caroline	2.4-12
1846	Ilsa	3.11-3	2017	Katrina	3.13-5
1852	Rita	4.10-6	2019	Jewel	3.12-9
1858	Rita	4.10-7	2022	Doris	2.5-7
1860	Ilsa	3.11-4	2023	Caroline	2.4-12
1866	Rita	4.10-7	2023	Susan	4.11-7
1867	Ilsa	3.11-4	2024	Katrina	3.13-6
1872	Rita	4.10-8	2028	Tess	4.12-4

TABLE 1-1

SUMMARY LISTING OF SCHEDULED GEOS REVS VS STORMS (Cont.)

ORBIT #	STORM	PAGE #	ORBIT #	STORM	PAGE #
2031	Caroline	2.4-13	2149	Winnie	4.14-5
2031	Doris	2.5-8	2150	Tess	4.12-12
2033	Jewel	3.12-10	2150	Winnie	4.14-5
2037	Susan	4.11-8	2155	Tess	4.12-13
2037	Tess	4.12-4	2155	Winnie	4.14-6
2045	Caroline	2.4-14	2184	Winnie	4.14-8
2045	Doris	2.5-9	2205	Winnie	4.14-9
2051	Doris	2.5-9	2208	Eloise	2.6-9
2051	Susan	4.11-9	2222	Eloise	2.6-10
2051	Tess	4.12-5	2230	Eloise	2.6-10
2057	Tess	4.12-6	2236	Eloise	2.6-11
2065	Doris	2.5-10	2241	Alice	4.15-4
2065	Tess	4.12-6	2244	Eloise	2.6-11
2071	Tess	4.12-7	2249	Alice	4.15-4
2076	Katrina	3.13-9	2264	Alice	4.15-6
2078	Tess	4.12-7	2264	Betty	4.16-6
2084	Tess	4.12-8	2264	Eloise	2.6-13
2085	Tess	4.12-8	2265	Eloise	2.6-13
2085	Viola	4.13-2	2269	Betty	4.16-6
2088	Doris	2.5-12	2273	Eloise	2.6-13
2090	Katrina	3.13-10	2285	Faye	2.7-5
2094	Tess	4.12-8	2287	Eloise	2.6-14
2094	Viola	4.13-2	2287	Lily	3.15-4
2099	Tess	4.12-9	2308	Eloise	2.6-16
2099	Viola	4.13-3	2315	Eloise	2.6-16
2108	Tess	4.12-9	2315	Faye	2.7-7
2108	Viola	4.13-3	2318	Lily	3.15-6
2114	Viola	4.13-4	2320	Betty	4.16-9
2122	Tess	4.12-10	2320	Faye	2.7-7
2122	Viola	4.13-4	2321	Eloise	2.6-17

TABLE 1-1

SUMMARY LISTING OF SCHEDULED GEOS REVS VS STORMS (Cont.)

ORBIT #	STORM	PAGE #	ORBIT #	STORM	PAGE #
2321	Faye	2.7-8	2435	Faye	2.7-16
2326	Betty	2.16-10	2435	Gladys	2.8-14
2335	Faye	2.7-9	2443	Faye	2.7-16
2336	Eloise	2.6-18	2443	Gladys	2.8-14
2336	Faye	2.7-9	2449	Gladys	2.8-15
2343	Faye	2.7-9	2457	Gladys	2.8-15
2344	Eloise	2.6-18	2463	Gladys	2.8-16
2349	Faye	2.7-10	2464	Gladys	2.8-16
2349	Gladys	2.8-8	2478	Gladys	2.8-17
2350	Eloise	2.6-19	2486	Gladys	2.8-17
2358	Eloise	2.6-19	2488	Nanette	3.17-6
2358	Faye	2.7-10	2492	Gladys	2.8-18
2372	Eloise	2.6-20	2502	Nanette	3.17-7
2372	Faye	2.7-11	2519	Cora	4.17-8
2378	Faye	2.7-12	2538	Cora	4.17-9
2392	Faye	2.7-13	2562	Elsie	4.19-4
2392	Gladys	2.8-11	2582	Elsie	4.19-5
2406	Faye	2.7-14	2590	Elsie	4.19-6
2406	Gladys	2.8-12	2605	Elsie	4.19-7
2407	Faye	2.7-14	2619	Elsie	4.19-8
2407	Gladys	2.8-12	2690	TD18	4.20-5
2415	Faye	2.7-14	2706	Seventeen	3.18-4
2421	Faye	2.7-15	2739	Flossie	4.21-3
2421	Gladys	2.8-13	2763	Olivia	3.19-2
2429	Faye	2.7-15	2777	Olivia	3.19-3
2429	Gladys	2.8-13	2785	Olivia	3.19-3
2429	Nanette	3.17-2	2832	Grace	4.22-5
2431	Monica	3.16-2	2904	Grace	4.22-10
2431	Nanette	3.17-2	3022	Ida	4.24-7
			3150	June	4.25-6

2.0 ATLANTIC, CARIBBEAN AND GULF OF MEXICO AREAS

2.1 General

This section contains: preliminary meteorological reports on the storms; plots of preliminary best tracks (where available); preliminary track data; pressure profiles (where available); and the GEOS-3 orbit plots. Names of the storms and their periods of activity are given below.

- Tropical Storm "Amy" (6/27/75-7/4/75)
- Hurricane "Blanche" (7/24/75-7/28/75)
- Hurricane "Caroline" (8/24/75-9/1/75)
- Hurricane "Doris" (8/28/75-9/4/75)
- Hurricane "Eloise" (9/13/75-9/24/75)
- Hurricane "Faye" (9/18/75-9/29/75)
- Hurricane "Gladys" (9/22/75-10/3/75)

Storms tracked in the Atlantic area occurred between June 27, 1975 and October 3, 1975.

The meteorological reports contained in this section were available only for the Atlantic storms. These reports contain useful meteorological information on the history of the storm and its movements, atmospheric conditions, wind velocity, tides, forecasts and warnings, and damage estimates.

TROPICAL STORM AMY

June 27 - July 4, 1975

Meteorological History

During most of its life Amy had many of the characteristics of a subtropical storm. The region of maximum winds was well removed from the center and mid-tropospheric temperatures were not as warm as might be expected in a tropical storm. The minimum pressure was 981 mb, but the maximum sustained winds of 70 mph were less than might be expected with this pressure. However, when the low attained winds of gale force, data indicated that it was more tropical than subtropical; therefore it was named Amy. Because of the close proximity of the coast the name was retained throughout to avoid confusion in public releases.

Meteorological Data

During the period June 24-26th, a weak surface trough of low pressure persisted over Florida and the adjacent Atlantic waters. A weak circulation formed off the Florida east coast just north of the Bahamas by the evening of June 26th. The tropical depression moved northward about 10 mph during June 27th, with lowest pressure around 1012 mb and highest winds of 25 to 30 mph. The development of a well organized warm anticyclone in the upper atmosphere during the early stages of this system contributed to its rather rapid strengthening into a tropical storm on the 28th and 29th. The storm skirted the North Carolina coast and the area of maximum winds and heaviest rainfall remained over the open waters of the Atlantic.

From June 29th to July 3rd, Amy moved on a meandering, east-northeast course with an average forward speed of less than 10 mph. On both July 1st and 2nd, minor troughs in the westerlies caused Amy to slow and turn to a more northerly course with brief threats to the Canadian Maritime Provinces. On July 3rd, a major trough developing over southeastern Canada produced a rapid northeasterly acceleration with the center of Amy passing some 150 miles southeast of Cape Race, Newfoundland on July 4th. The high winds and rains associated with the storm did not affect Newfoundland. The system gradually lost all its tropical characteristics over the cold waters of the far north Atlantic after passing Newfoundland.

Damage Estimates

Damage produced by Tropical Storm Amy was light and confined to erosion along the outer banks of North Carolina. Tides of 2 to 4 feet above normal caused by prolonged northeasterly winds, combined with large swells associated with the circulation of Amy, damaged many of the beaches. Some state highways near the beach were temporarily under water. Rainfall of 2 to 4 inches occurred along the immediate coast of North Carolina but was much lighter inland.

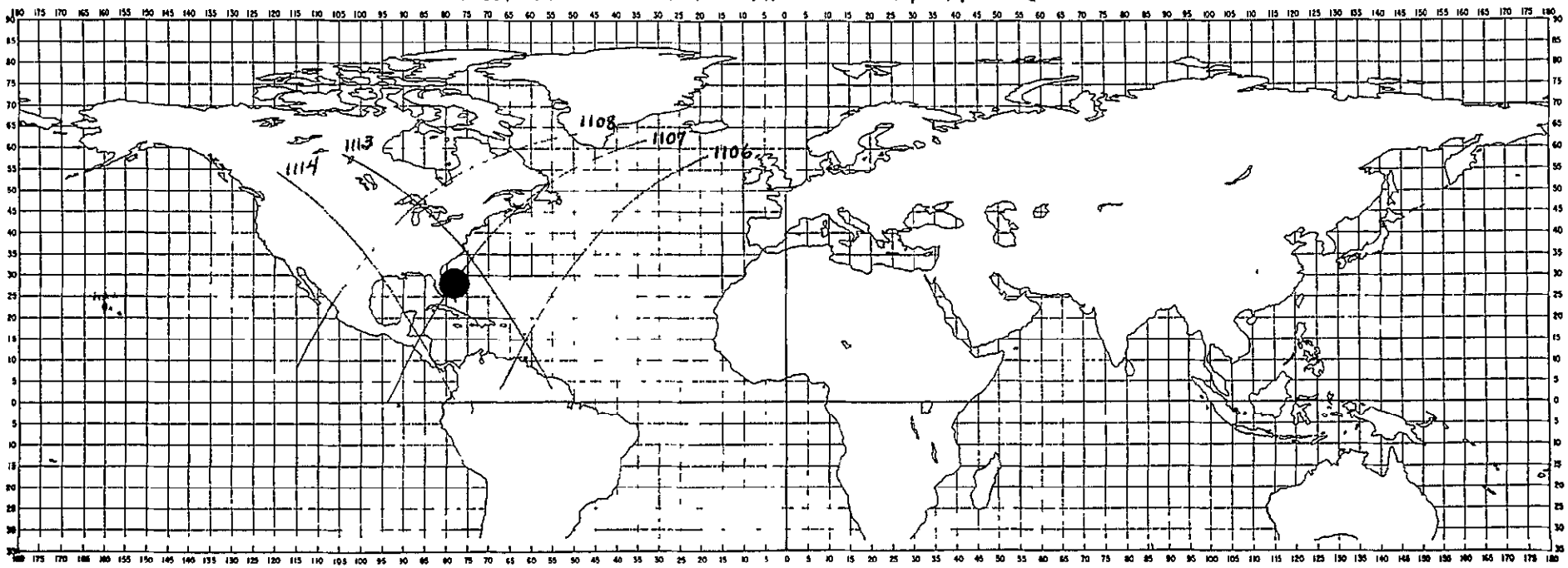
STORM: TROPICAL STORM AMY

DATE: JUNE 27 - JULY 4, 1975

Date	Time GMT	Position		Pressure* (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
6/27	0000Z	27.5N	79.0W	1013	25	Tropical Depression
	0600Z	28.5	79.0	1013	25	
	1200Z	29.5	79.0	1013	25	
	1800Z	30.5	79.0	1013	25	
6/28	0000Z	31.5N	78.8W	1012	25	Tropical Depression
	0600Z	32.4	78.7	1012	25	
	1200Z	33.3	78.0	1011	25	
	1800Z	34.0	77.0	1006	30	
6/29	0000Z	34.4N	75.8W	1004	35	Tropical Storm
	0600Z	34.0	74.8	1002	40	
	1200Z	33.8	73.8	1000	45	
	1800Z	33.8	72.8	998	50	
6/30	0000Z	34.3N	71.6W	998	--	Tropical Storm
	0600Z	35.6	70.8	998	55	
	1200Z	35.9	70.5	987	60	
	1800Z	36.2	70.2	987	60	
7/1	0000Z	36.2N	69.8W	984	60	Tropical Storm
	0600Z	36.2	69.4	984	60	
	1200Z	36.2	68.3	984	60	
	1800Z	36.7	67.2	984	60	
7/2	0000Z	37.4N	66.7W	984	60	Tropical Storm
	0600Z	37.3	65.9	984	60	
	1200Z	37.3	65.1	981	60	
	1800Z	37.3	64.1	986	60	
7/3	0000Z	37.7N	62.8W	986	55	Tropical Storm
	0600Z	38.2	61.2	986	55	
	1200Z	39.3	59.6	986	55	
	1800Z	40.5	58.0	986	50	
7/4	0000Z	42.5N	54.8W	986	50	Tropical Storm
	0600Z	44.5	51.6	986	50	
	1200Z	47.0	48.0	995	45	Extratropical

* Minimum Sea Level Pressure

TROPICAL STORM "AMY" - 6/27/75 (0000 Z - 2400 Z)

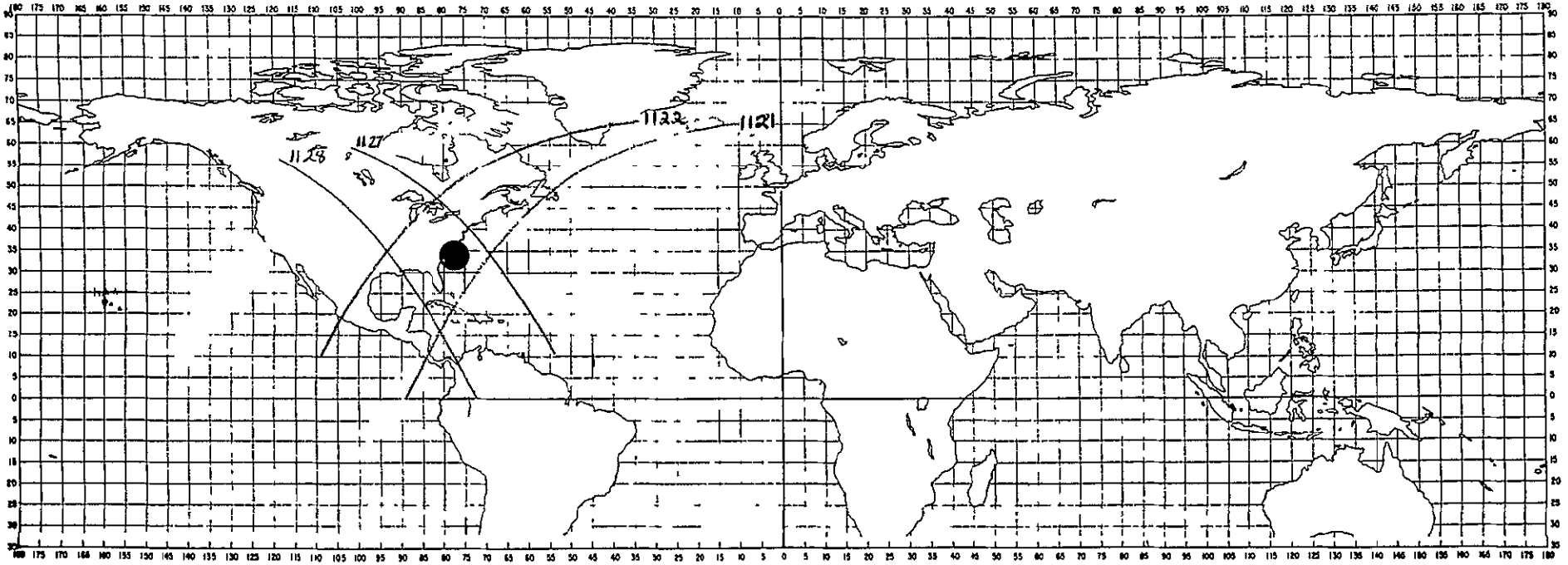


LOCATION
TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	27.5N	79.0W
0600Z	28.5	79.0
1200Z	29.5	79 0
1800Z	30.5	79.0
2400Z	31.5	78.8

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
1106	+ 124.00	03 33 38	0418 Z	No			
1107	+ 98.68	05 15 25	0558 Z	054925	060330	802	
1108	+ 73.25	06 57 12	0732 Z	No			
1113	- 53 26	15 26 07	1536 Z	155012	155222	803	
1114	- 78.54	17 07 54	1714 Z	No			

TROPICAL STORM "AMY" - 6/28/75 (0000Z - 2400Z)



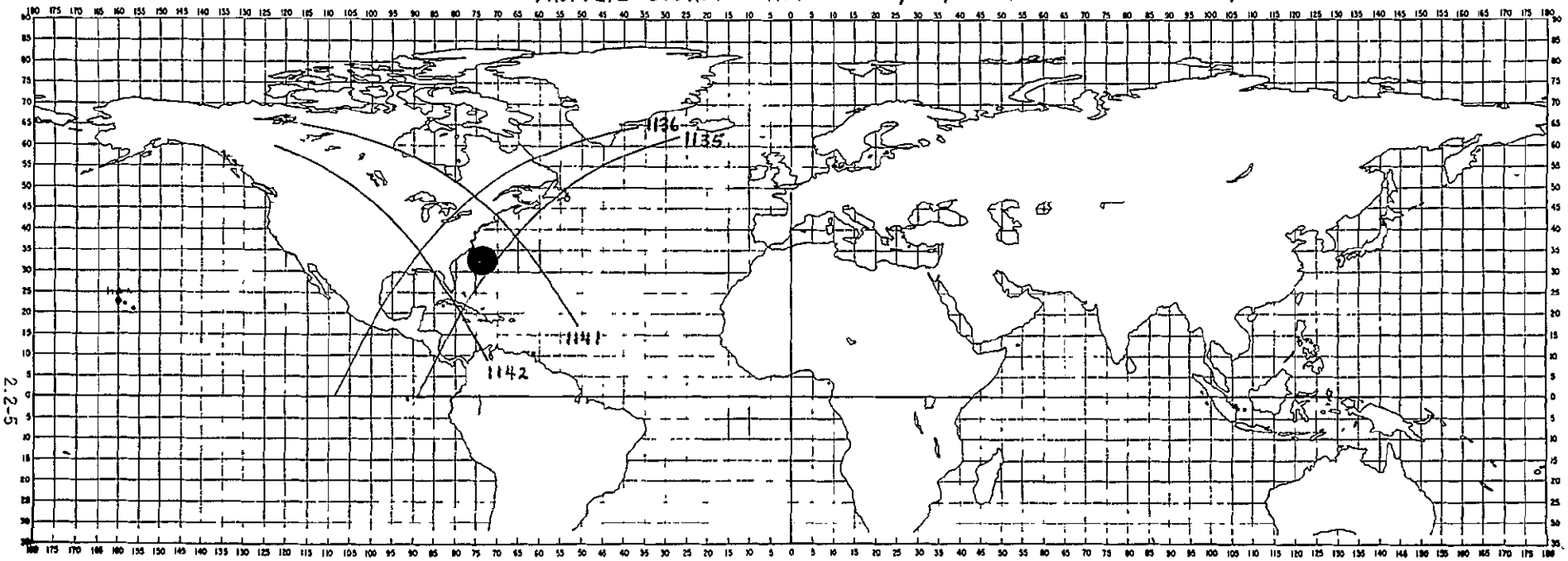
2.2-4

LOCATION
TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	31.5N	78.8W
0600Z	32.4	78.7
1200Z	33.3	78.0
1800Z	34.0	77.0
~~2400Z~~	~~34.4~~	75.8

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
1121	+104.15	05 00 24	0542Z	053840	054646	802	—
1122	+ 78.83	06 42 11	0720Z	No			
1127	- 47.73	15 11 06	1523Z	No			
1128	- 73 11	16 52 54	1701Z	No			

TROPICAL STORM "AMY" - 6/29/75 (0000 Z - 2400 Z)



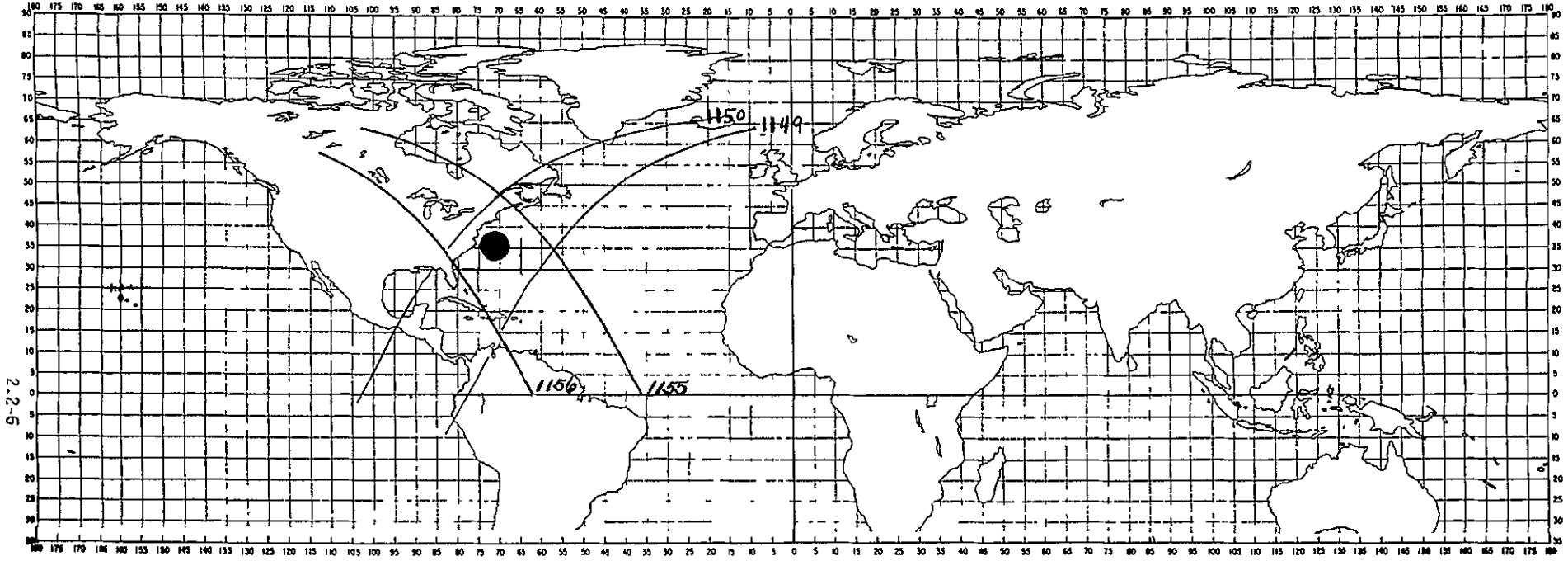
2.2-5

LOCATION
TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000 Z	34.4 N	75.8 W
0600 Z	34 c	74 8
1200 Z	33.8	73.8
1800 Z	33.8	72.8
2400 Z	34.3	71.6

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	Off	Mode	Unig#
1135	+ 103 63	04 45 23	0526 Z	No			
1136	+ 84.31	06 37 10	0705 Z	No			
1141	- 42.31	14 56 06	1508 Z	150428	150941	708	100
1142	- 67.64	16 37 53	1645 Z	164220	164737	803	-- --

TROPICAL STORM "AMY" - 6/30/75 (0000Z - 2400Z)



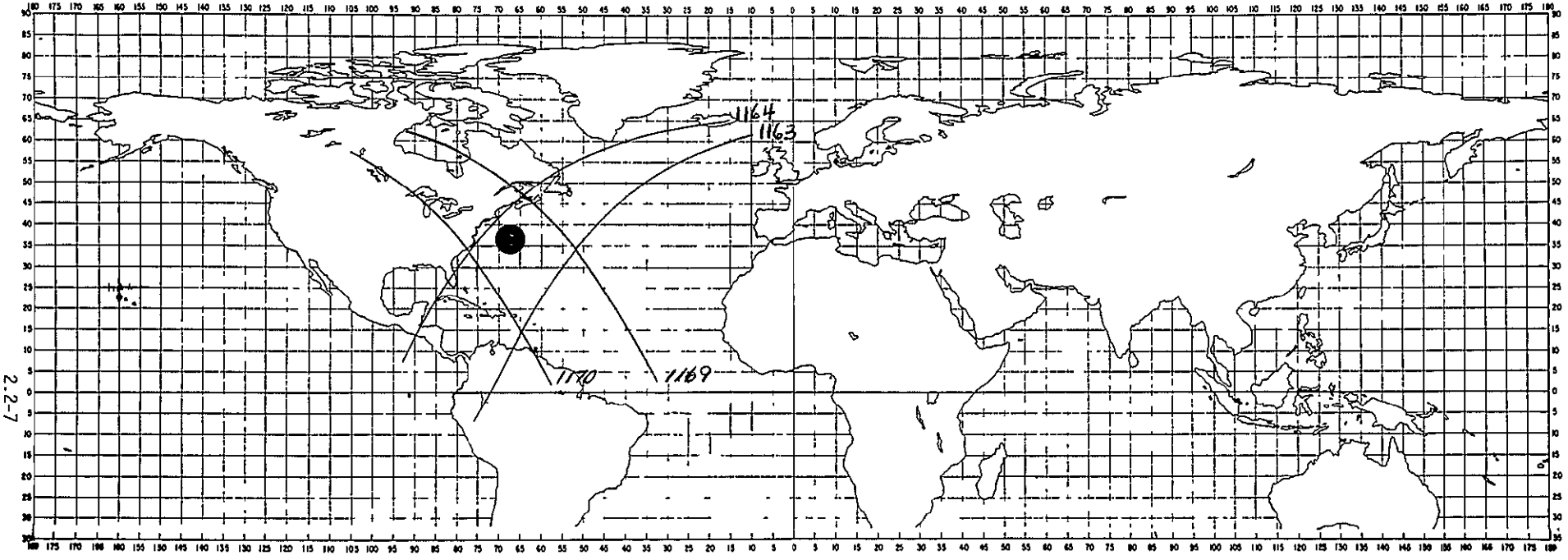
2.2-6

LOCATION
TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	34.3N	71.6W
0600Z	35.6	70.8
1200Z	35.9	70.5
1800Z	36.2	70.2
2400Z	36.2	69.8

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	On	Off	Mode	Unit#
1149	+115.10	04 30 23	0513Z	No			
1150	+ 89.75	06 12 10	0650Z	065012	070014	803	
1155	- 35.84	14 41 05	1455Z	145234	145701	802	
1156	- 62.16	16 22 52	1632Z	162453	163751	803	

TROPICAL STORM "AMY" - 7/1/75 (0000Z - 2400Z)



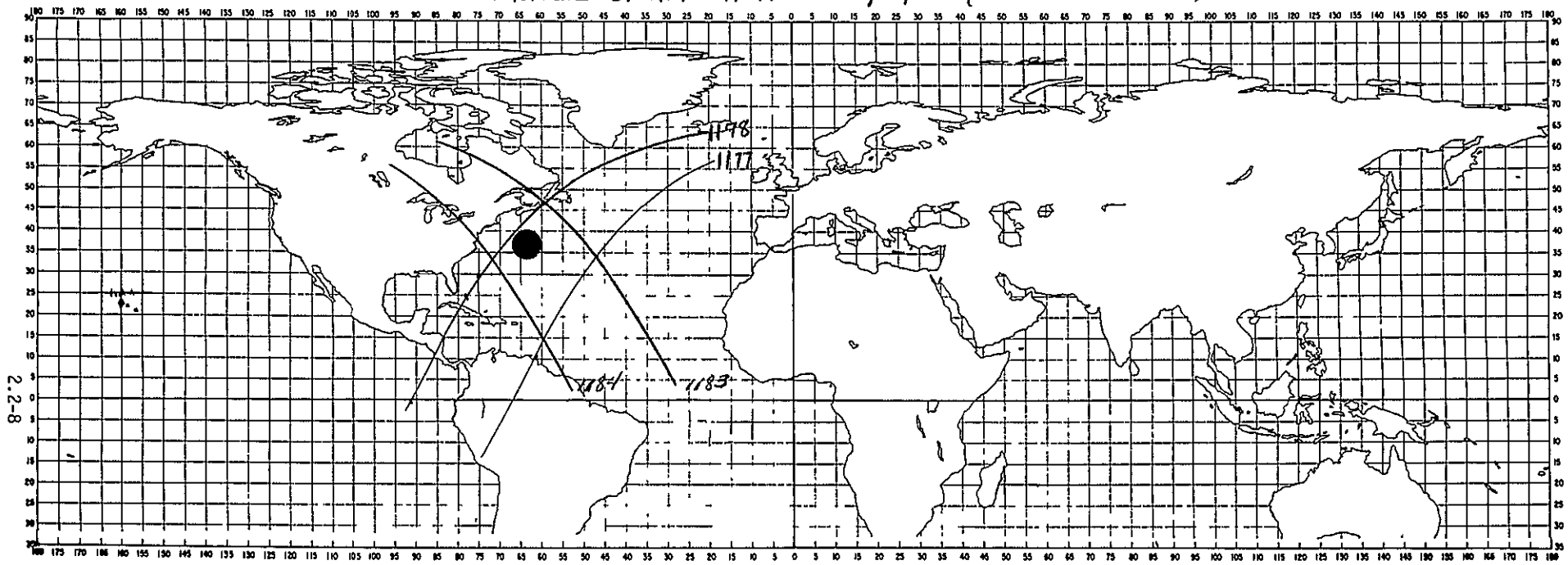
2.2-7

LOCATION:
TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	36.2 N	69.8 W
0600Z	36.2	69 4
1200Z	36.2	68.3
1800Z	36.7	67.2
~~2400Z~~	37 4/	66.7

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
1163	+ 120.58	04 15 22	0458Z	No			
1164	+ 95.25	05 57 09	0635Z	063510	064452	802	—
1169	- 31.36	14 26 05	1440Z	No			
1170	- 56.69	16 07 52	1617Z	161629	161858	802	

TROPICAL STORM "AMY" - 7/2/75 (0000Z - 2400Z)



2.2-8

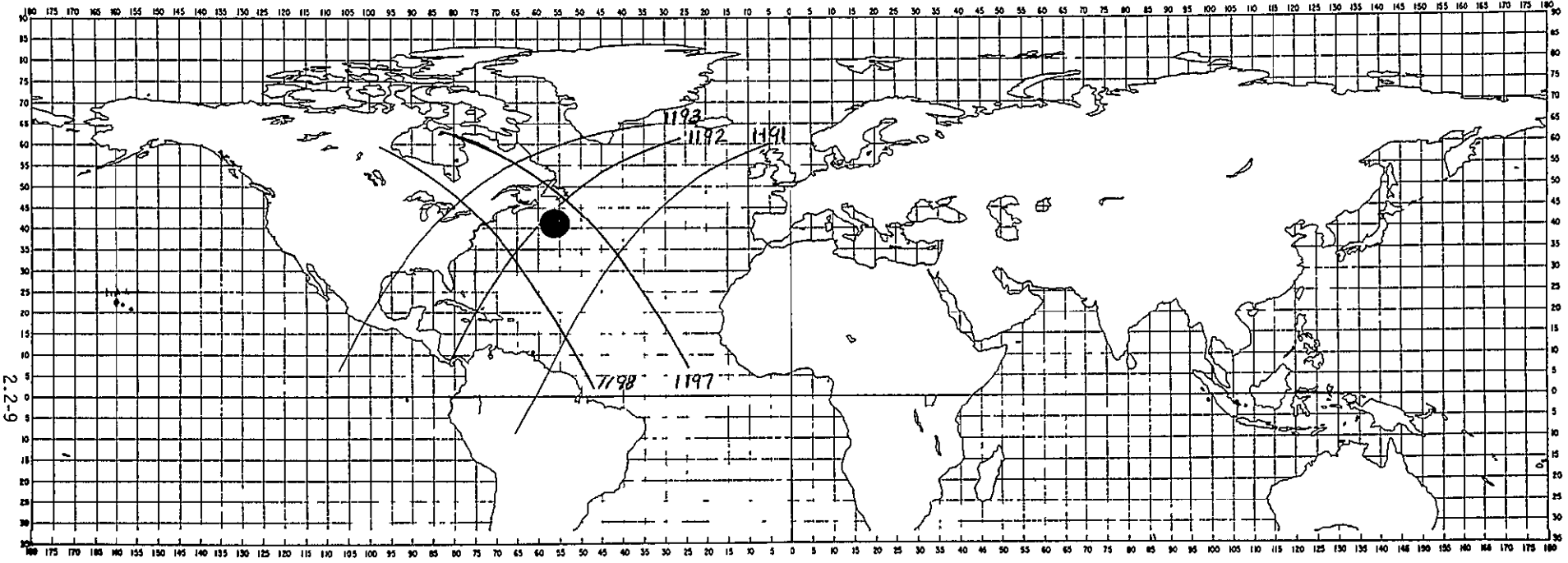
LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	37.4N	66.7W
0600Z	37.3	65.9
1200Z	37.3	65.1
1800Z	37.3	64.1
2400Z	37.7	62.8

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
1177	+126.05	04 00 21	0443Z	No			
1178	+100.73	05 42 09	0625Z	062027	062905	802	
1183	- 25.89	14 11 04	1425Z	No			
1184	- 51.21	15 52 51	1602Z	160109	160452	708	117

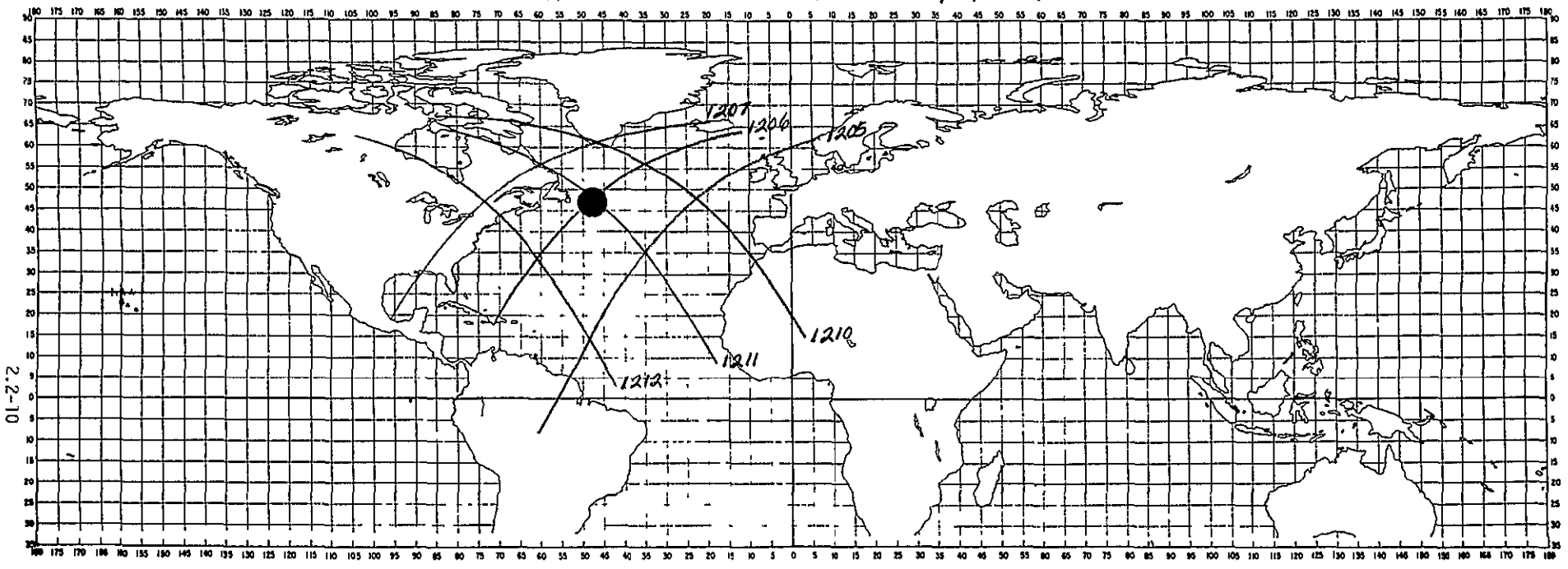
TROPICAL STORM "AMY" - 7/3/75 (0000Z - 2400Z)



TIME	LOCATION TROPICAL STORM LATITUDE	LONGITUDE
0000Z	37.7N	62.8W
0600Z	38.2	61.2
1200Z	39.3	59.6
1800Z	40.5	58.0
2400Z	42.5	54.8

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	On	Off	Mode	Vaug#
1191	+131.52	03 45 21	0426Z	No			
1192	+106.20	05 27 08	0605Z	No			
1193	+ 80.88	07 08 55	0741Z	No			
1197	- 20.42	13 56 04	1411Z	No			
1198	- 45.75	15 37 51	1548Z	154723	155059	802	131

TROPICAL STORM "AMY" - 7/4/75 (0000Z - 1200Z)



2.2-10

LOCATION
EXTRA-TROPICAL

TIME	LATITUDE	LONGITUDE
0000Z	42.5N	54.8W
0600Z	44.5N	51.6
1200Z	47.0N	48.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit
1205	+137.00	03 30 20	0410Z	No			
1206	+111.68	05 12 07	0548Z	No			
1207	+ 86.35	06 53 55	0725Z	No			
1210	+ 10.38	11 59 16	1218Z	No			
1211	- 14.94	13 41 03	1356Z	No			
1212	- 40.26	15 22 50	1534Z	No			

HURRICANE BLANCHE

July 24-28, 1975

Meteorological History/Data/Warnings

Blanche, the season's first hurricane, had its beginnings as a tropical wave which moved off the coast of Africa on July 14. As the wave entered the Caribbean region, it appeared to elongate and then divide into two systems. One part tracked northwestward as a cloud mass from which a depression formed about 500 miles north of the eastern tip of the Dominican Republic on July 24. The southern part continued westward across the Caribbean Sea and the Yucatan Peninsula, and formed a tropical depression in the southwestern Gulf of Mexico on July 25.

The first depression gradually turned toward the north and north-northeast during the next two days. In this interval, reconnaissance and satellite data indicated that it hovered on the brink of becoming a tropical storm. The threshold was probably crossed during the early hours of July 26, when a reconnaissance aircraft found a central pressure of 1004 mb. This point marked the beginning of Tropical Storm Blanche on the official track. Meanwhile, the second depression intensified as it crossed the southwestern Gulf of Mexico, and was on the verge of becoming a tropical storm when it passed over Tampico, Mexico, later the same day.

As Blanche turned toward the northeast, its potential for further intensification was dependent upon the impact of an approaching cold front moving off the North Carolina coast. However, the front rapidly weakened before cooler air could penetrate the storm's inner core, and Blanche steadily deepened, partly in response to the baroclinic effect of an upper trough to the west. Blanche reached hurricane strength as the central pressure fell to 987 mb during the early hours of July 27. At this time the hurricane was at the same location crossed by Tropical Storm Amy two weeks earlier.

Whereas Amy followed a meandering track toward the northeast, Blanche moved north-northeastward toward Nova Scotia. As a deepening upper trough moved through eastern Canada, Blanche accelerated to a forward speed of about 30 mph at the time of landfall at Cape Sable, Nova Scotia about daybreak on July 28.

During the twelve hours prior to landfall the hurricane reached its maximum intensity. Highest sustained winds were about 85 mph and the lowest pressure was 980 mb. In view of the strengthening and acceleration, gale warnings were issued for the eastern portion of the Maine coast, from Rockland to Eastport at midnight July 27. Meanwhile the Canadian Weather Service issued a hurricane warning for Nova Scotia.

The lowest pressures at land stations were 987.0 mb at Western Head, near Cape Sable, at 1330 GMT following a three-hour pressure fall of 16 mb; and 988.7 mb at near-by Shelburne at 1200 GMT after a three-hour fall of 18 mb. Some maximum wind measurements on July 28 were: Halifax, sustained winds of 52 mph with gusts to 80 mph at 1422 GMT; Western Head, sustained winds of 54 mph at 1200 GMT; and Gridstone Island, sustained winds of 70 mph at 1800 GMT.

Damage Estimates

There was no loss of life due to Blanche. Considerable minor damage occurred, mostly in eastern Nova Scotia, consisting mainly of small boats washed ashore, and trees blown down. Rainfall was not excessive. The greatest accumulation was 3.1 inches in Chatham, New Brunswick. The rains proved beneficial, bringing an end to a prolonged dry period over the region.

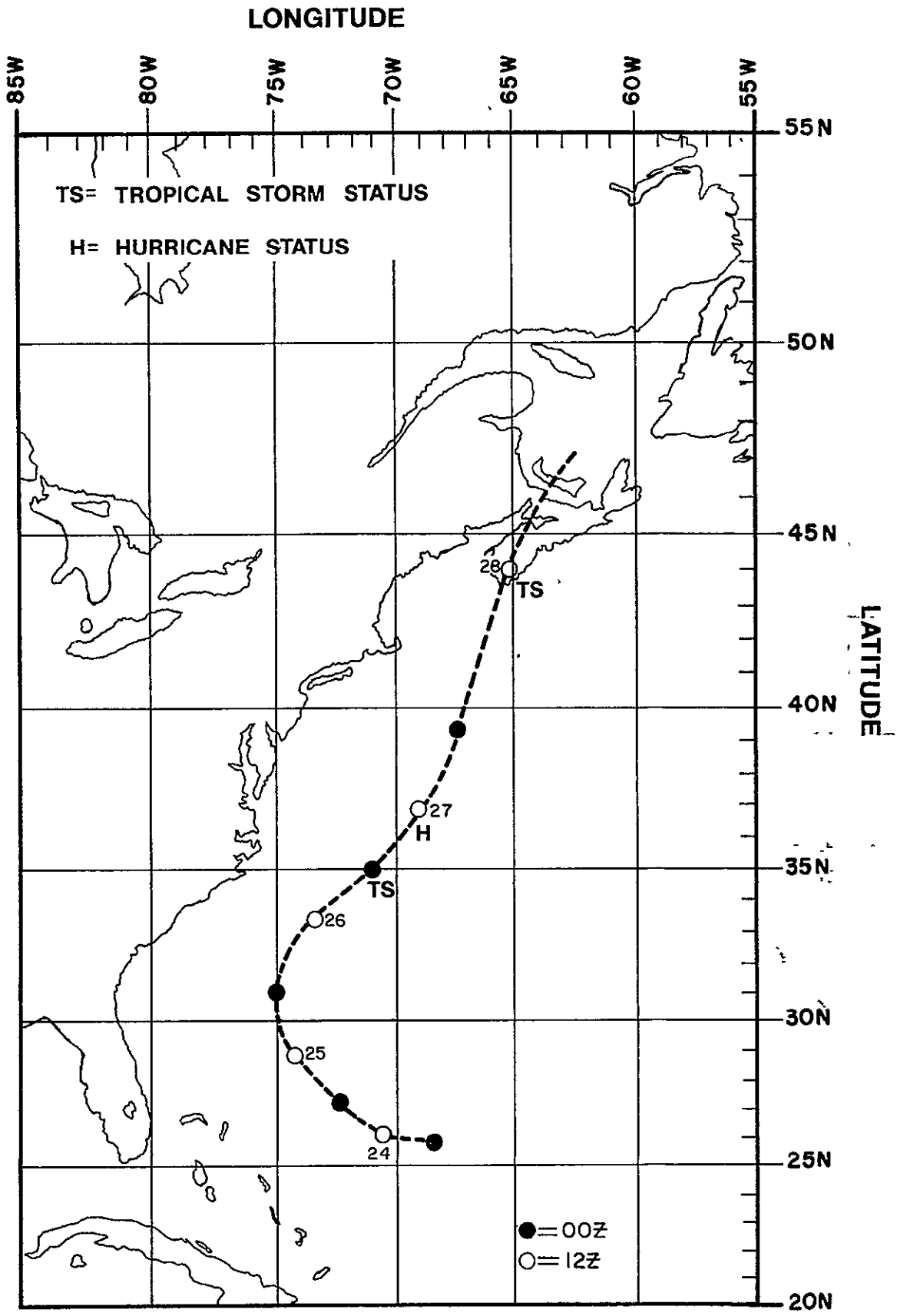


FIGURE 1 PRELIMINARY BEST TRACK FOR HURRICANE BLANCHE

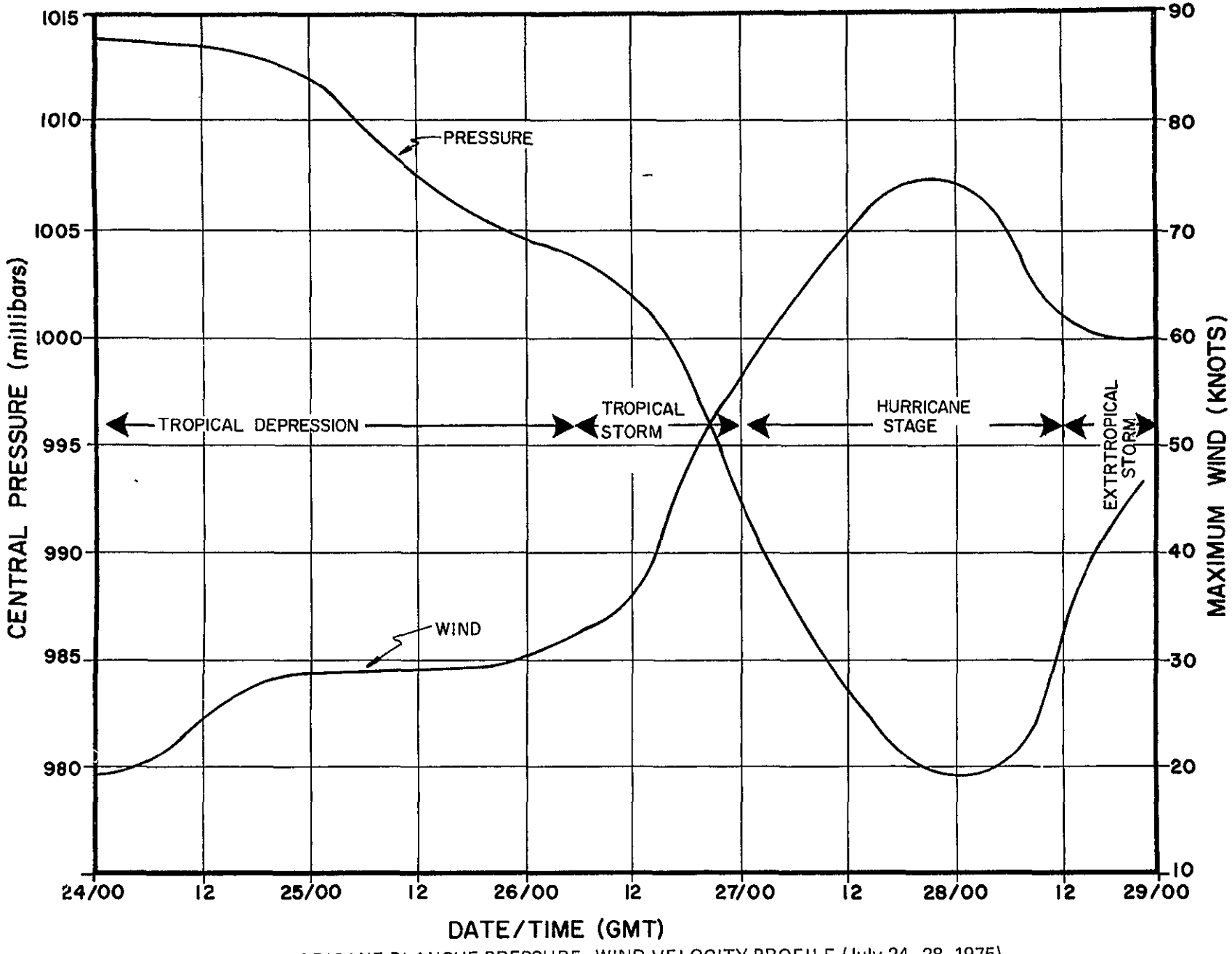


FIGURE 2 HURRICANE BLANCHE PRESSURE–WIND VELOCITY PROFILE (July 24–28, 1975)

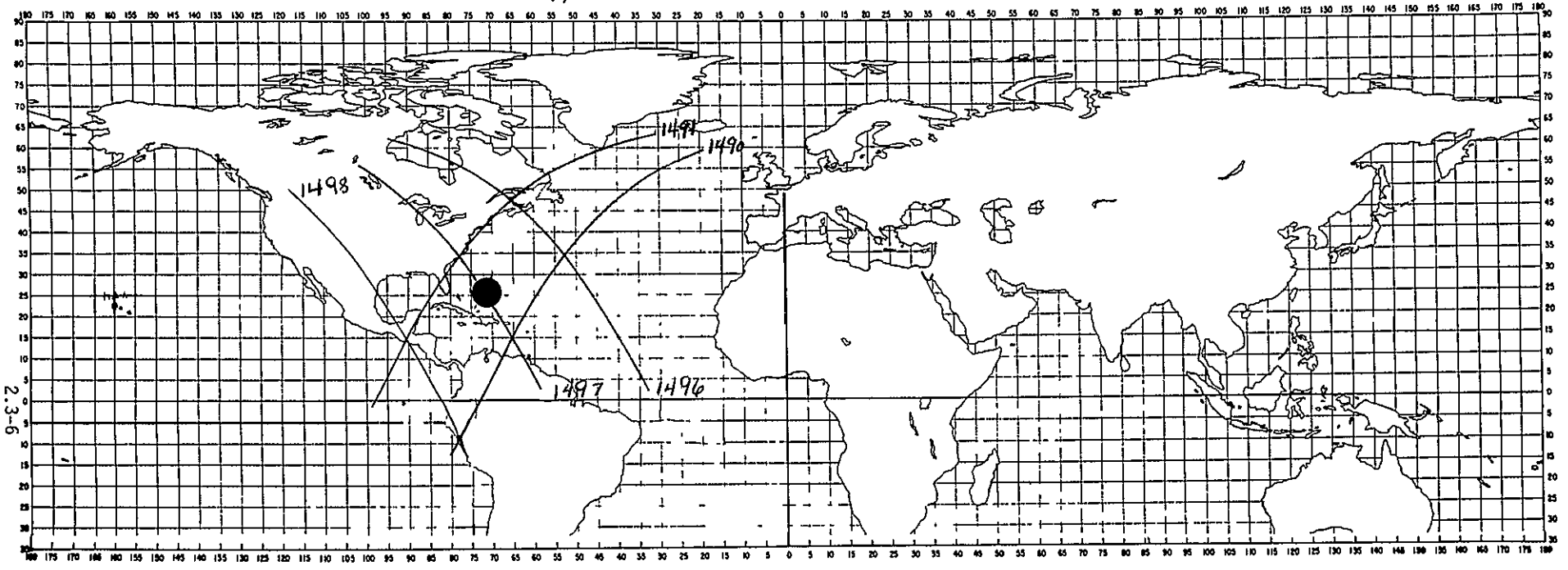
STORM: HURRICANE BLANCHE

DATE: JULY 24 - JULY 28, 1975

Date	Time GMT	Position		Pressure* (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
7/24	0000Z	26.0N	68.4W	1014	20	Tropical Depression
	0600Z	26.0	69.5	1014	20	
	1200Z	26.1	70.5	1014	25	
	1800Z	26.5	71.5	1013	30	
7/25	0000Z	27.2N	72.5W	1012	30	Tropical Depression
	0600Z	28.0	73.6	1010	30	
	1200Z	28.9	74.3	1007	30	
	1800Z	29.9	74.9	1006	30	
7/26	0000Z	31.0N	75.0W	1005	30	Tropical Depression
	0600Z	32.2	74.6	1004	35	Tropical Storm
	1200Z	33.4	73.5	1003	35	
	1800Z	34.2	72.2	998	50	
7/27	0000Z	35.0N	71.0W	992	60	Tropical Storm
	0600Z	35.9	70.0	987	65	Hurricane
	1200Z	36.9	69.0	984	70	
	1800Z	37.9	68.0	981	75	
7/28	0000Z	39.3N	67.2W	980	75	Hurricane
	0600Z	41.2	66.4	980	70	
	1200Z	44.0	65.2	988	60	Extratropical Storm
	1800Z	47.2	62.4	992	60	

*Lowest Pressure

HURRICANE "BLANCHE" - 7/24/75 (0000Z - 2400Z)

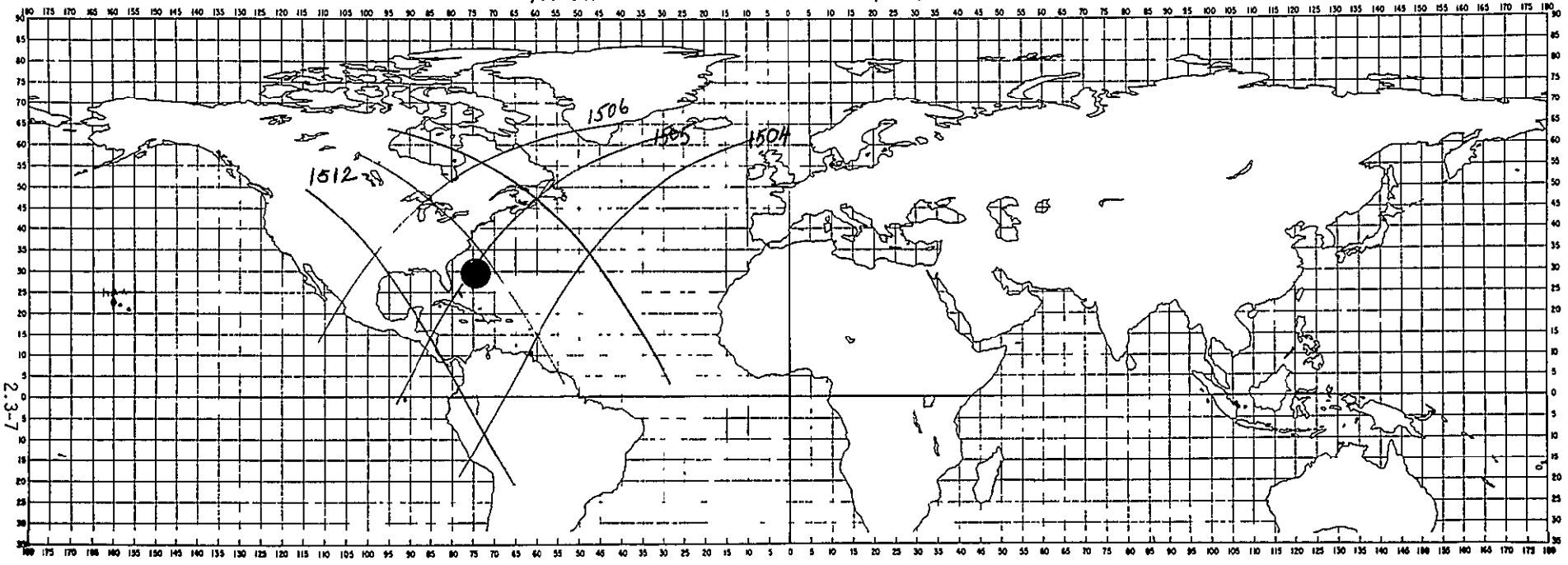


2.3-6

TIME	LOCATION TROPICAL DERRESSION LATITUDE	LONGITUDE
0000Z	26.0N	68 4W
0600Z	26.0	69.5
1200Z	26.1	70.5
1800Z	26.5	71.5
~~2400Z~~	27.2	72.5

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
1490	+ 119 85	06 54 04	0744Z	No			
1491	+ 94.53	08 40 51	0922Z	091524	092616	802	390
1496	- 32.08	17 09 46	1722Z	No			
1497	- 57.41	19 51 33	1959Z	No			
1498	- 82.73	20 33 21	2038Z	No			

HURRICANE "BLANCHE" - 7/25/75 (0000Z - 2400Z)



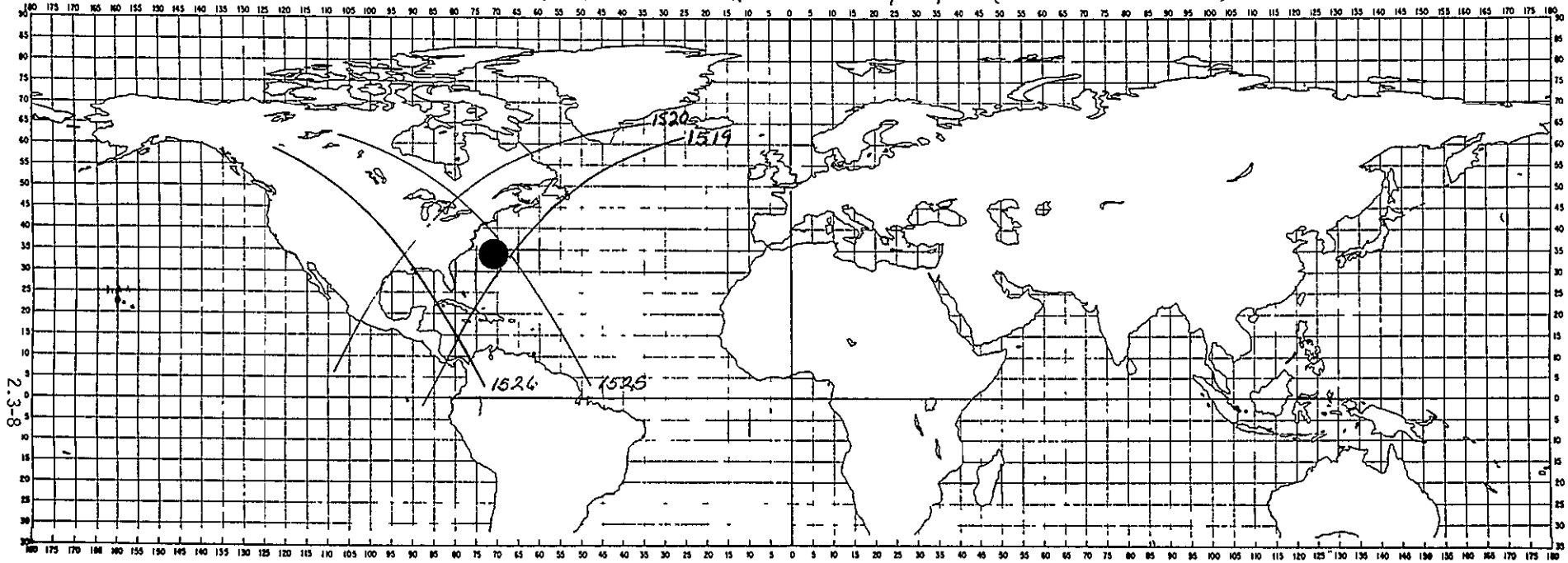
2.3-7

LOCATION
TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	27.2N	72.5W
0600Z	28.0	73.6
1200Z	28.9	74.3
1800Z	29.9	74.9
2400Z	31.0	75 0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit
1504	+125.33	06 44 03	0729Z	No			
1505	+ 100.01	08 25 50	0907Z	090120	091156	802	402
1506	+ 74.68	10 07 37	1043Z	No			
1510	- 26.61	16 54 46	1610Z	No			
1511	- 51.94	18 36 33	1846Z	184447	184840	802	405
1512	- 77.26	20 18 20	2024Z	No			

HURRICANE "BLANCHE" - 7/26/75 (0000Z - 2400Z)

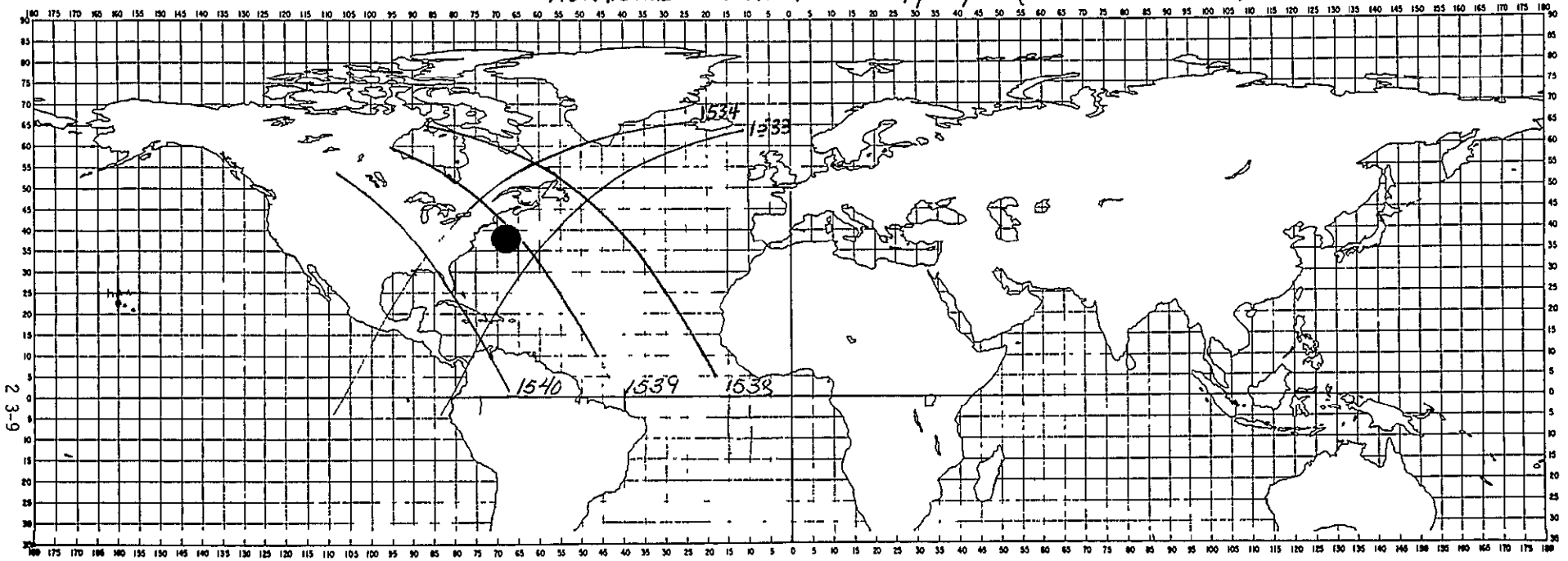


LOCATION
TROPICAL STORM (AT 0600)

TIME	LATITUDE	LONGITUDE
0000 Z	31.0 N	75.0 W
0600 Z	32.2	74.6
1200 Z	33.4	73.5
1800 Z	34.2	72.2
~~2400 Z~~	~~35.0~~	71.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Umig#
1519	+ 105.48	08 10 50	0852Z	085546	085656	802	409
1520	+ 80.18	09 52 37	1029Z	No			
1525	- 46.46	18 21 32	1842Z	No			
1526	- 71.78	20 03 18	2011Z	No			

HURRICANE "BLANCHE" - 7/27/75 (0000Z - 2400Z)



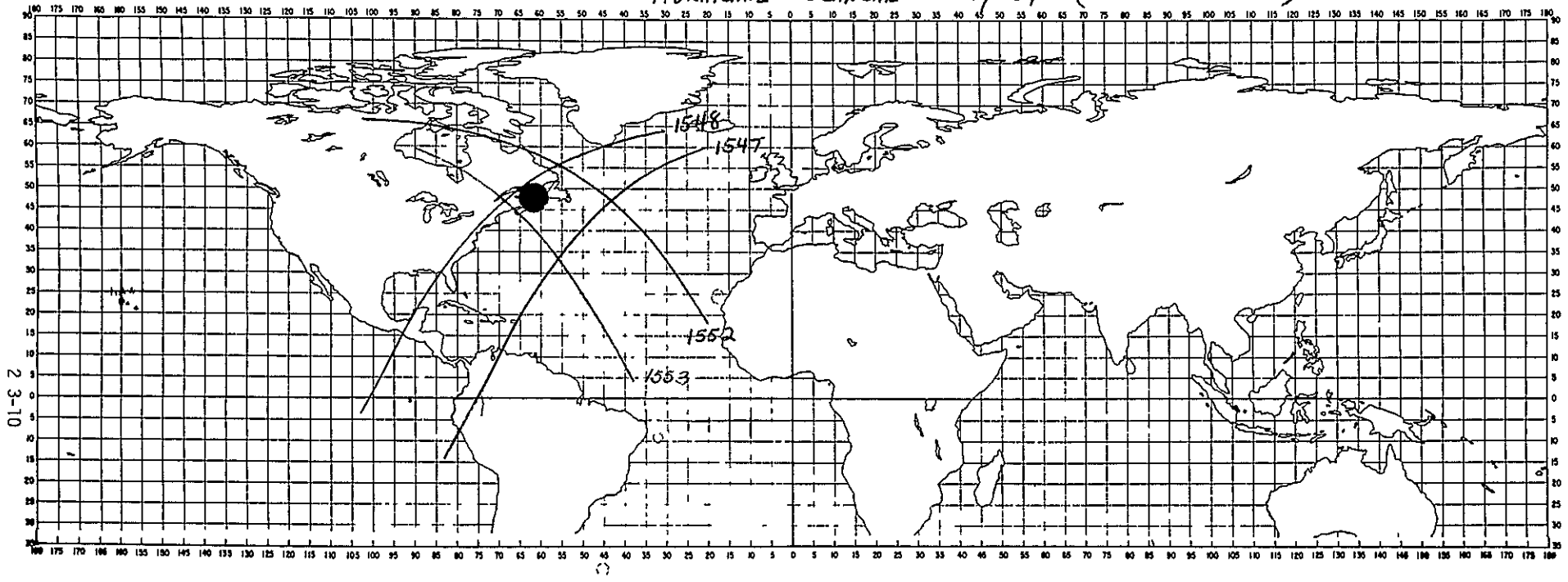
2 3-9

LOCATION
HURRICANE (AT 0600)

TIME	LATITUDE	LONGITUDE
0000Z	35.0N	71.0W
0600Z	35.9	70.0
1200Z	36.9	69.0
1800Z	37.9	68.0
2400Z	39.3	67.2

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq#
1533	+110.95	07 55 49	0836Z	No			
1534	+ 85.63	09 37 36	1014Z	No			
1538	- 15.67	16 24 45	1642Z	No			
1539	- 40.99	18 06 32	1819Z	No			
1540	- 66.31	19 48 19	1957Z	No			

HURRICANE "BLANCHE" - 7/28/75 (0000Z - 1800Z)



2 3-10

LOCATION

HURRICANE/EXTRA-TROPICAL (AT 1200Z)

TIME	LATITUDE	LONGITUDE
0000Z	39.3 N	67.2 W
0600Z	41.2	66.4
1200Z	44.0	65.2
1800Z	47.2	62.4

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unq #
1547	+116.43	07 40 44	0820Z	No			
1548	+ 91.11	09 22 35	0958Z	No			
1552	- 10.19	16 09 44	1628Z	No			
1553	- 35.51	17 51 31	1805Z	No			

HURRICANE CAROLINE

August 24 - September 1, 1975

Meteorological History/Data/Warnings

Caroline originated as a tropical disturbance which crossed the west coast of Africa on August 15, 1975. The disturbance then moved towards the west-southwest at 15 kts or slightly faster along the Intertropical Convergence (ITC) Zone. On August 18th, the system turned toward the northwest, breaking away from the ITC zone and gradually slowed its forward speed. By the time it reached a point about 600 miles northeast of Puerto Rico, on the 22nd, the speed of movement was 10 to 12 kts.

A second marked change in direction occurred on the 22nd and 23rd when the disturbance began heading towards the southwest. By midday on the 24th, satellite pictures showed that a closed circulation had been established at the surface with maximum winds of 25 knots and a central pressure of 1011 mb. At this time, the system was identified as Tropical Depression No. 5 of the 1975 Atlantic hurricane season.

The depression proceeded through the extreme southeastern Bahamas and across the mountainous terrain of eastern Cuba where it briefly lost tropical depression status.

By the 27th, a closed surface circulation was re-established and the depression had passed south of western Cuba. It was now moving in a direction just north of west and early on the 28th had passed through the Yucatan channel and moved into the southwest Gulf of Mexico.

The depression was located about 150 miles northwest of Merida and moving west-northwestward at about 8 kts by the afternoon of the 28th. Satellite-observed cloud motions indicated that an upper level anticyclone had become established over the depression; this resulted in a more favorable situation for intensification. Caroline was named a tropical storm early on the 29th as surface winds reached 35 kts and the central pressure dropped to near 1000 mb. This occurred with the storm a little less than 400 miles east-southeast of Brownsville, Texas. At this time, because of the slowing of Caroline's forward speed and because of some indications of the possibility of a more northerly course, public statements were issued to interests along the south Texas coast as well as for northeast Mexico. These statements advised persons planning Labor Day holiday weekends along the seashore to keep in touch with future releases.

However, the storm proceeded to move just north of west and slowed to about 5 kts while continuing to intensify, and was upgraded to hurricane status on the 29th. A hurricane watch was announced for the Brownsville area on Saturday morning, August 30th, as well as warning the northeast coast of Mexico, that the path of Carolina would project a landfall midway between Tampico and Brownsville.

Landfall actually occurred on Sunday morning, August 31, about 100 miles south of Brownsville on the Mexican coast. Caroline's central pressure dropped four millibars per hour for about a six-hour period just prior to landfall. Maximum surface winds measured by Air Force reconnaissance aircraft were 100 kts and minimum measured sea level pressure was 963 millibars, both of these measurements within several hours prior to landfall.

Damage Estimates

The maximum wind reported by a land station was 42 kts at Brownsville on August 30, 1642 GMT. Some minor flooding occurred in southeast Texas from heavy rain. No official reports have been received from Mexico. An air tour of the Mexican coast, by Mr. Dreumont of the Brownsville Weather Office, from Brownsville to the point of landfall approximately 100 miles south, indicated that some rather significant flooding occurred with several small communities destroyed, presumably from the storm surge effect.

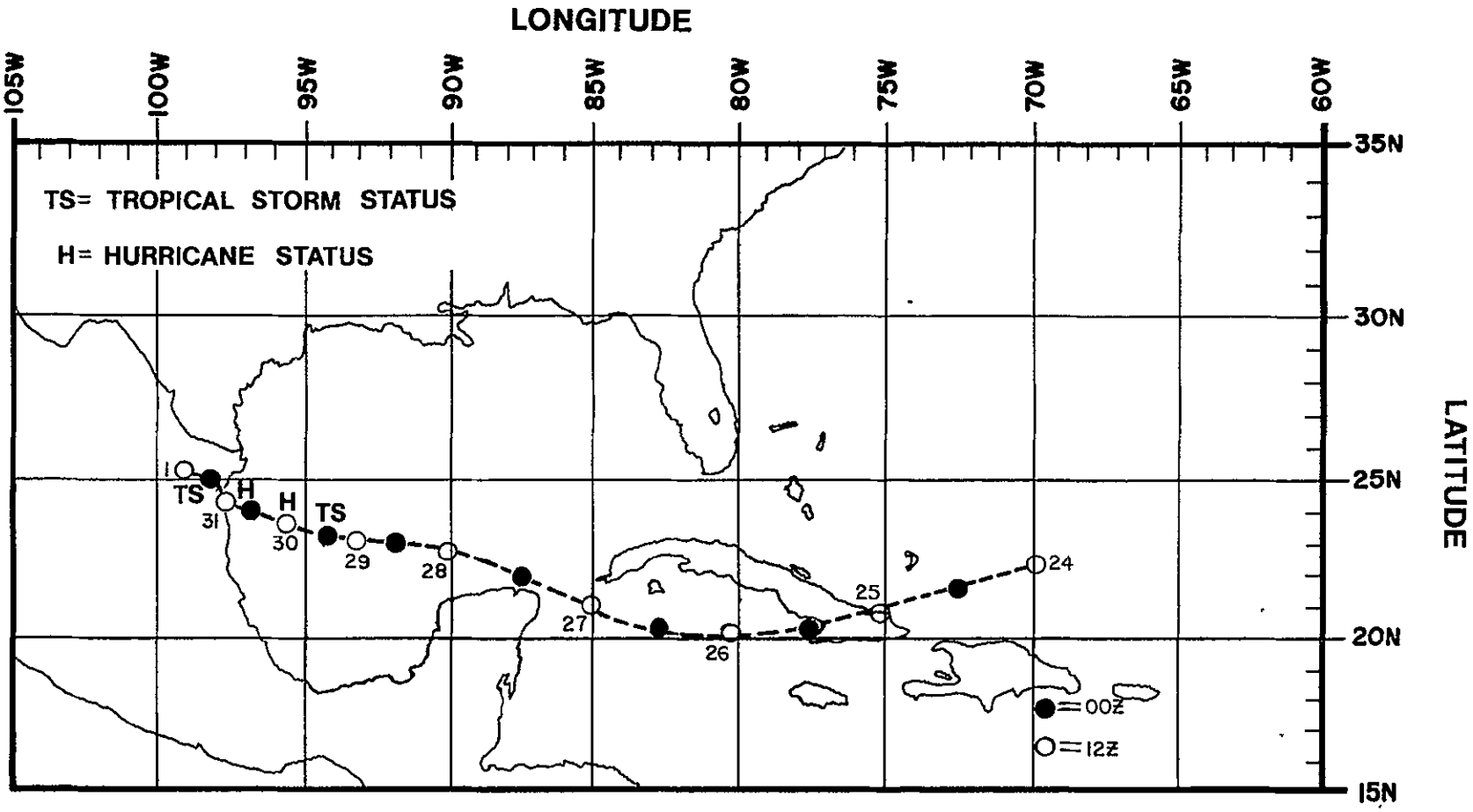


FIGURE 3. PRELIMINARY BEST TRACK FOR HURRICANE CAROLINE

STORM: HURRICANE CAROLINE

DATE: AUG 24 - SEPT 1, 1975

Date	Time GMT	Position		Pressure* (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
8/24	1200Z	22.4N	69.8W	1011	25	Tropical Depression
	1800Z	21.9	71.1	1011	25	
8/25	0000Z	21.6N	72.5W	1010	25	Tropical Depression
	0600Z	21.2	73.8	1010	25	
	1200Z	20.9	75.1	1011	25	
	1800Z	20.6	76.4	1011	25	
8/26	0000Z	20.4N	77.7 W	1011	25	Tropical Depression
	0600Z	20.3	79.0	1011	25	
	1200Z	20.2	80.3	1012	25	
	1800Z	20.2	81.6	1012	25	
8/27	0000Z	20.4N	82.8 W	1013	25	Tropical Depression
	0600Z	20.8	84.0	1013	25	
	1200Z	21.1	85.1	1014	25	
	1800Z	21.5	86.3	1014	25	
8/28	0000Z	22.0N	87.5 W	1014	25	Tropical Depression
	0600Z	22.4	88.8	1014	25	
	1200Z	22.8	90.1	1013	25	
	1800Z	22.9	91.0	1010	25	
8/29	0000Z	23.0N	91.9W	1007	30	Tropical Depression
	0600Z	23.1	92.6	1003	35	Tropical Storm
	1200Z	23.2	93.2	999	40	
	1800Z	23.2	93.6	994	50	
8/30	0000Z	23.3N	94.2W	990	65	Hurricane
	0600Z	23.5	94.9	990	65	
	1200Z	23.7	95.6	989	65	
	1800Z	23.8	96.3	987	70	
8/31	0000Z	24.0N	97.0W	973	100	Hurricane
	0600Z	24.1	97.5	963	100	
	1200Z	24.3	97.8	963	90	Landfall
	1800Z	24.8	98.0	993	55	Tropical Storm

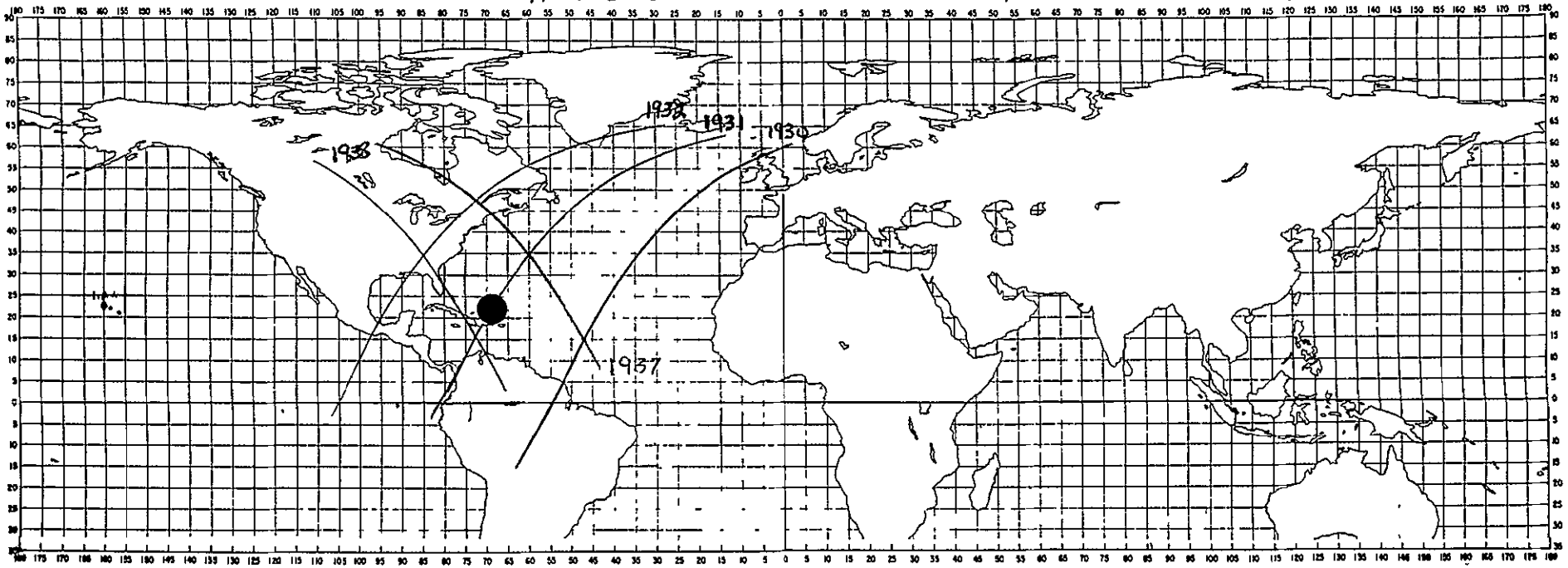
*Lowest Pressure

STORM: HURRICANE CAROLINE (Cont.)

DATE: AUG 28 - SEPT 4, 1975

Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
9/1	0000Z	25.1N	98.3W	1000	30	Tropical Depression
	0600Z	25.2	98.7	1002	20	
	1200Z	25.3	99.0	1002	20	

HURRICANE "CAROLINE" - 8/24/75 (1200Z - 2400Z)



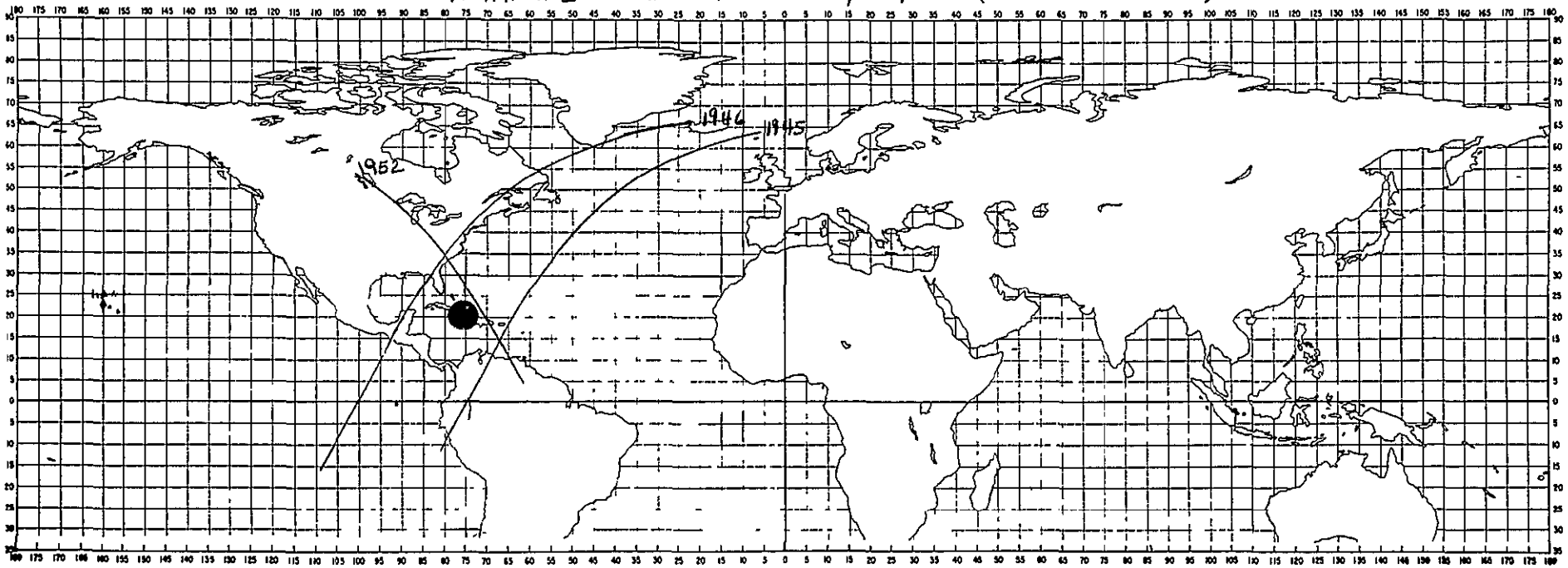
2.4-6

LOCATION
TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
1200Z	22.4N	69.8W
1800Z	21.9	71.1
2400Z	21.6	72.5

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ #
1930	+ 137.62	09 24 26	1011Z	No			
1931	+ 112.29	11 06 13	1150	114517	115609	802	261
1932	+ 86.97	12 45 00	1325Z	No			
1937	- 39.64	21 16 55	2127Z	No			
1938	- 64.97	22 58 42	2305Z	No			

HURRICANE "CAROLINE" - 8/25/75 (0000Z - 2400Z)



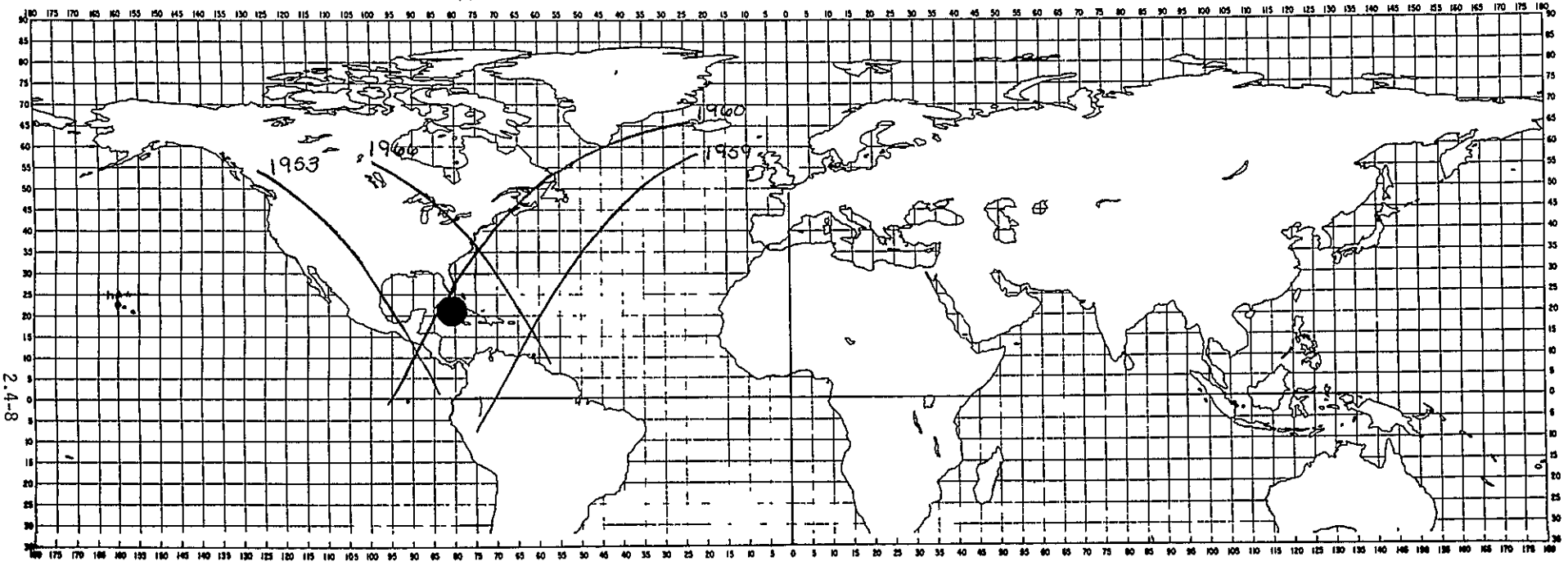
2.4-7

LOCATION
TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000 Z	21 6N	72.5W
0600 Z	21 2	73 8
1200 Z	20.9	75.1
1800 Z	20.6	76.4
2400 Z	20 4	77.7

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Wrap #
1945	+117.77	10 51 12	1138 Z	No			
1946	+ 92.45	12 32 59	1316 Z	No			
1952	- 59.50	22 43 42	2250Z	No			

HURRICANE "CAROLINE" — 8/26/75 (0000Z – 24/00Z)



2.4-8

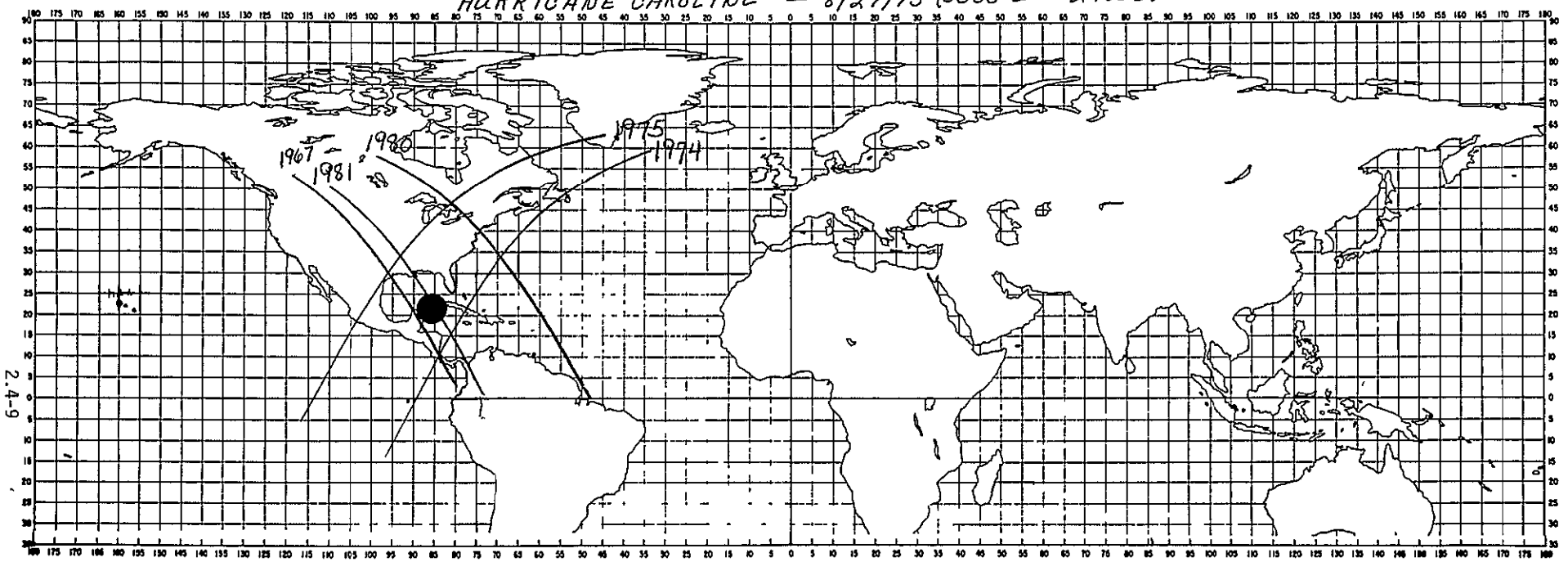
LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	20.4N	77.7W
0600Z	20.3	79.0
1200Z	20.2	80.3
1800Z	20.2	81.6
24/00Z	20.4	82.8

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Node	Incl.
1953	-84.82	00.39.39	0029E	No			
1959	+123.24	10.36.12	1124E	No			
1960	+97.92	12.17.59	1302E	125436	130343	80.3	28.2
1966	-54.02	23.25.41	2334E	223624	223951	80.2	28.9

HURRICANE 'CAROLINE' — 8/27/75 (0000 Z – 24/00 Z)



2.4-9

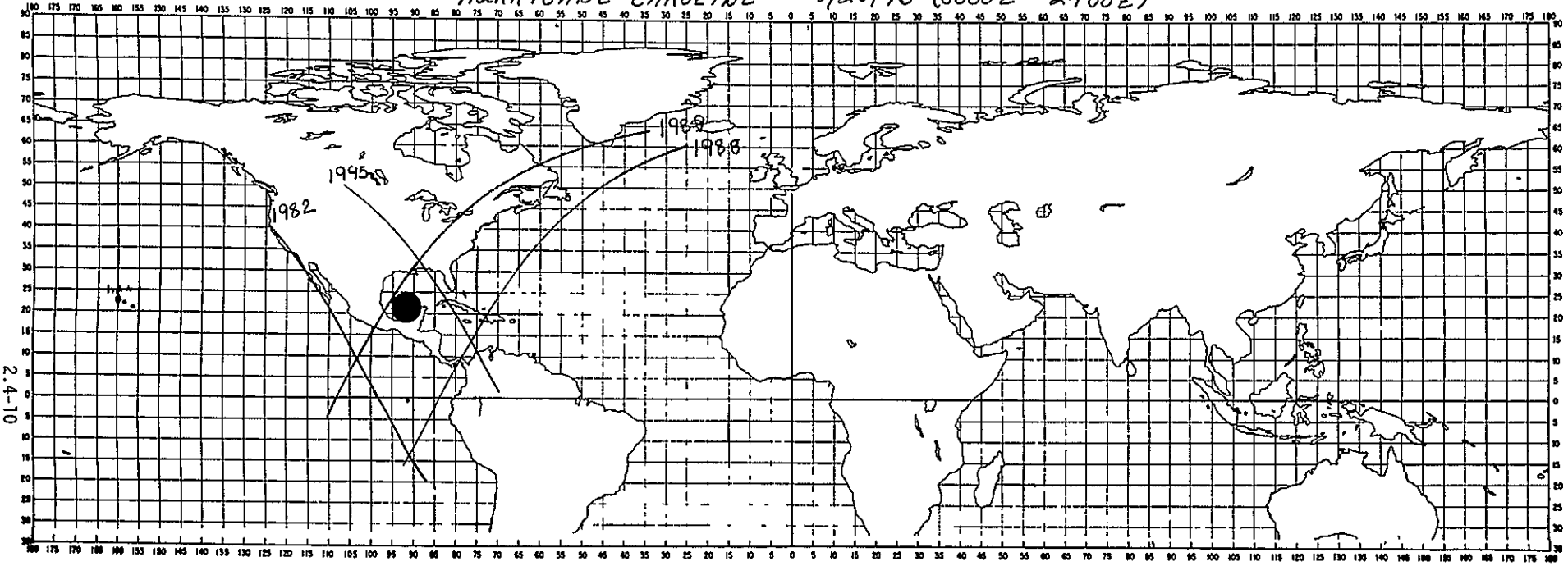
LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000 Z	20.4 N	82.8 W
0600 Z	20.8	84.0
1200 Z	21.1	85.1
1800 Z	21.5	86.3
24/00 Z	22.0	87.5

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq #
1967	- 79 54	00 06 20	0011 Z	No			
1974	+103 40	12 02 56	1248 Z	124016	124936	802	294
1975	+ 78 07	13 44 45	1427 Z	No			
1980	- 48 54	22 13 41	2224 Z	No			
1981	- 73 47	23 55 26	0002 Z (8/28)	No			

HURRICANE 'CAROLINE' – 8/28/75 (0000Z – 24/00Z)



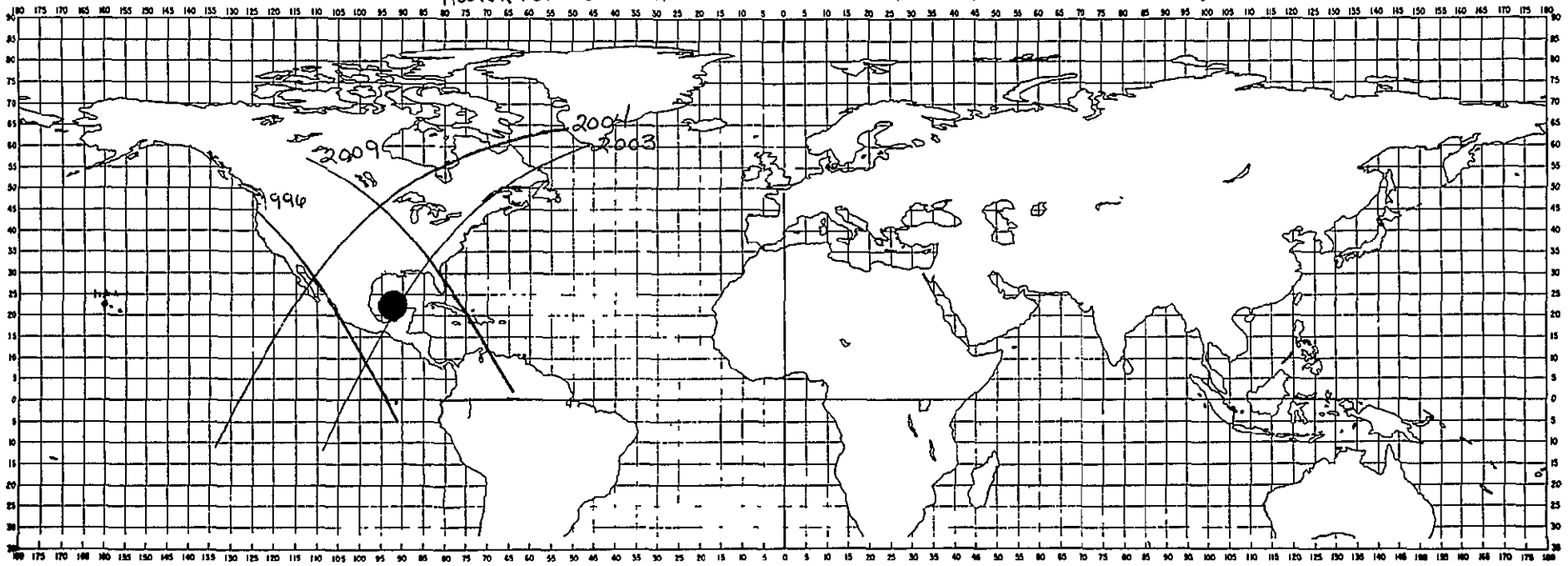
LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	22.0N	87.5W
0600Z	22.4	88.8
1200Z	22.8	90.1
1800Z	22.9	91.0
24/00Z	23.0	91.9

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Night
1982	- 99.19	01 37 15	0140 E	No			
1988	+108.37	11 47 57	1234 E	122608	123225	802	303
1989	+ 83.39	13 29 44	1413 E	No			
1995	- 68.39	23 40 27	2349 E	No			

HURRICANE 'CAROLINE' — 8/29/75 (0000Z – 2400Z)



2.4-11

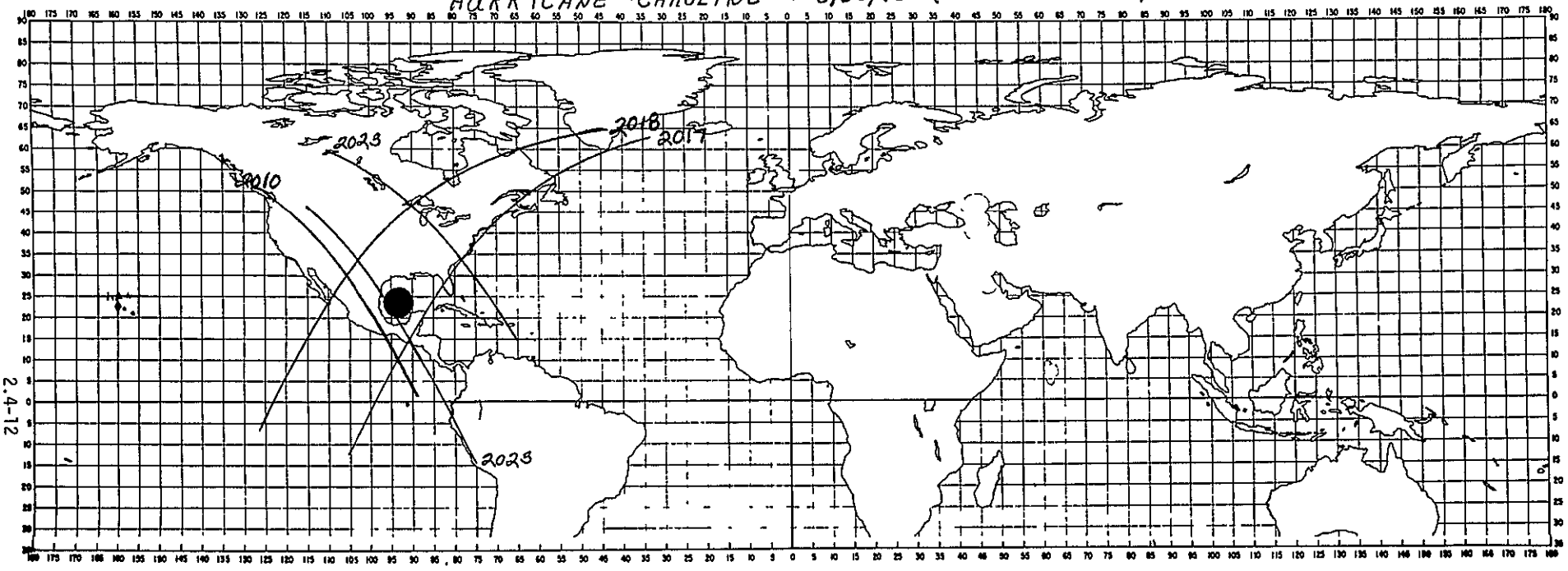
LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	23.0N	91.9W
0600Z	23.1	92.6
1200Z	23.2	93.2
1800Z	23.2	93.6
2400Z	23.3	94.2

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQUE
1996	- 93.71	01 22 14	0137E	No			
2003	+ 89.02	13 14 44	1359Z	No			
2004	+ 63.70	14 56 31	1536Z	No			
2009	- 62.92	23 35 36	2335Z	No			

HURRICANE 'CAROLINE' — 8/30/75 (0000Z — 24/00Z)



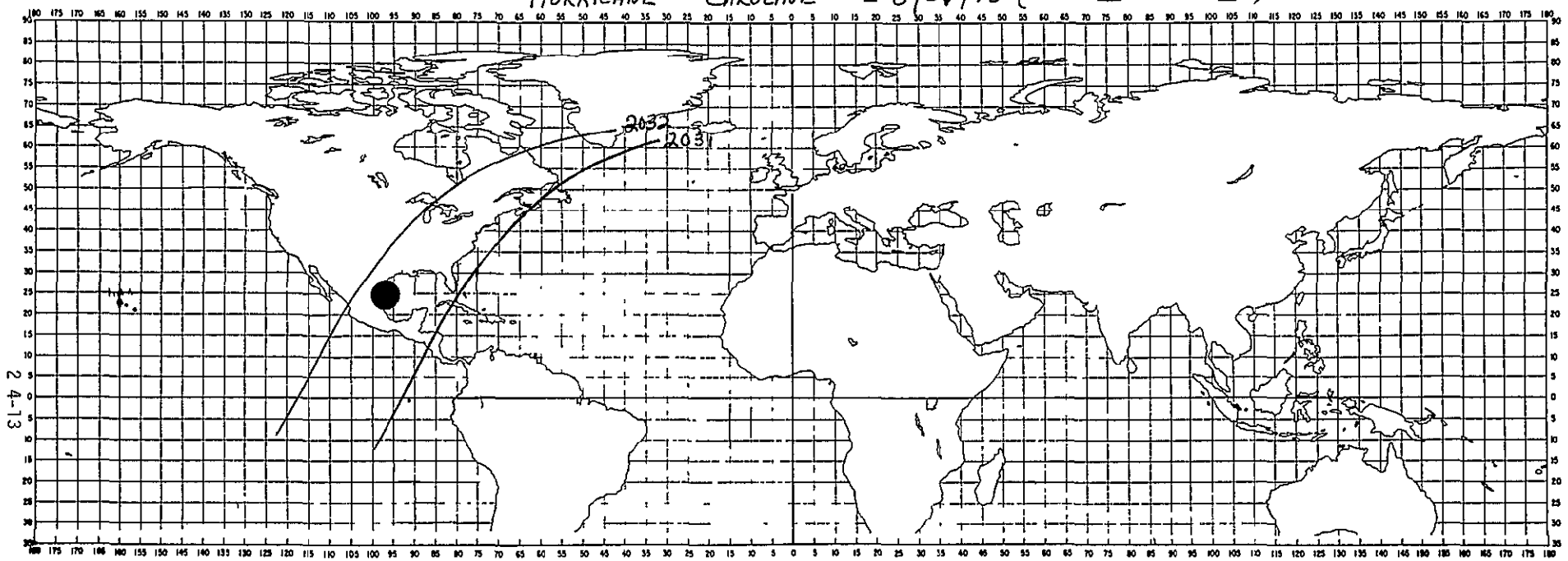
LOCATION

REACHED HURRICANE STATUS THIS DATE

TIME	LATITUDE	LONGITUDE
0000Z	23.3N	94/2W
0600Z	23.5	94/9
1200Z	23.7	95.6
1800Z	23.8	96.3
24/00Z	24/0	97.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Weight
2010	- 88 24	01 07 13	0113Z	No			
2017	+ 94 50	12 59 43	1345Z	1334/15	134731	802	325
2018	+ 69 17	14 41 30	1523Z	No			
2023	- 57 44	23 10 25	2311Z	No			
2023	-57 44	23 10 25	0059Z (8/31)	00/18 10	010136	802	332

HURRICANE "CAROLINE" - 8/31/75 (0000Z - 2400Z)



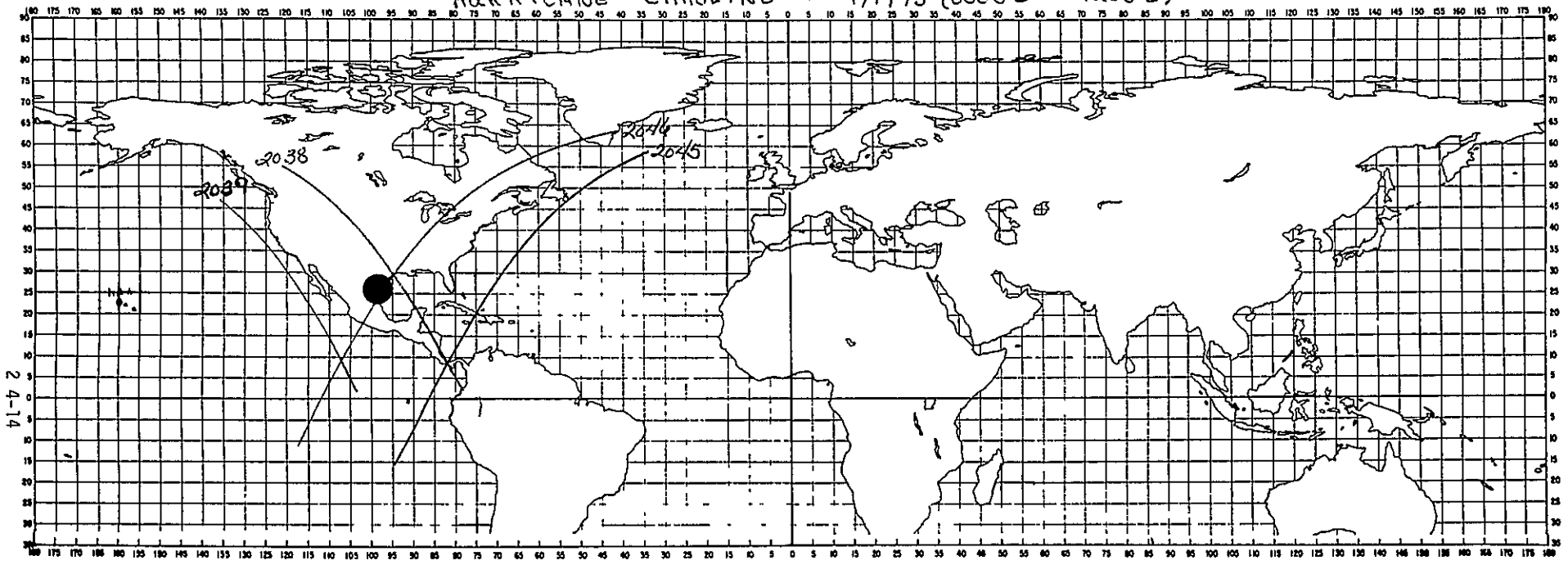
2 4-13

LOCATION
LAND FALL / TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	24.0N	97.0W
0600Z	24.1	97.5
1200Z	24.3	97.8
1800Z	24.8	98.0
2400Z	25.1	98.3

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Ung#
2031	+99.97	12 44 42	1329Z	132121	133203	802	334
2032	+74.65	14 26 29	1508Z	No			

HURRICANE "CAROLINE" — 9/1/75 (0000Z – 1200Z)



2-4-14

LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	25 1N	98 3W
0600Z	25.2	98.7
1200Z	25 3	99 0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit
2038	- 77 29	00 37 12	0046 Z	No			
2039	- 102 62	02 18 57	0224 Z	No			
2045	+ 105 45	12 29 41	1316 Z	1314/38	13.154/2	802	54/2
2046	+ 80 12	14 11 29	1453 Z	No			

HURRICANE DORIS

August 28 - September 4, 1975

Meteorological History/Data

Hurricane Doris developed from a subtropical system in the mid-Atlantic. On August 27, a front which had swept southeastward over the north Atlantic was becoming stationary from the Azores southwestward. Ship reports that day suggested development of a wave along the front around latitude 31°N, longitude 46°W, although surface pressures were no lower than 1016 mb, as satellite photographs showed broadening of the cloud band associated with the front in that area. The system deepened during the next two days while satellite photographs showed that the associated cloud mass was becoming circular and completely isolated from the original frontal band. Although the system was not designated a subtropical storm until August 29, post analysis suggests it reached that stage on August 28.

At the outset, the storm's structure was typical of many subtropical cyclones investigated by Hebert and Poteat in the development of their subtropical classification system. There was no central dense overcast (CDO), and a band of strong convection existed well southeast of the surface center. However, the CDO began gradually to appear and by August 30 there was a well-defined CDO nearly three degrees of latitude in diameter. An eye was in evidence by August 31, and the system was upgraded to hurricane status on the basis of satellite photograph evaluation. Further intensification ensued, the hurricane reaching its maximum strength on September 2 and 3 when its maximum winds were estimated at 95 kts. with a minimum sea level pressure of 965 mb. By September 4, the storm had become absorbed in a prefrontal trough, losing tropical structure and strength as it moved on a north northeastward course north of latitude 40°N.

Unfortunately there are little data available, apart from ship reports and satellite imagery, to monitor the transformation of Doris from an essentially cold-core system to a hurricane. However, on August 28, when storm strength was attained, the surface circulation center was situated directly beneath the upper level low (200mb). There was little change in their relative positions until August 31 when the 200-mb low became an open trough with the hurricane located slightly west of its axis. By September 1, the trough had disappeared and Doris was under weak upper anticyclonic flow until September 3 when it moved under cyclonically curved westerlies, after which it weakened rapidly.

The initial motion of the storm was toward the northwest. After two days it turned east-southeastward in response to a prefrontal trough extending to lower latitudes. Finally, it accelerated north-northeastward ahead of a deepening extratropical low off the Canadian Maritime provinces.

Damage Estimates

The hurricane was never a threat to any land area. It was monitored almost exclusively by ships and satellite, having been located beyond the authorized range of reconnaissance aircraft.

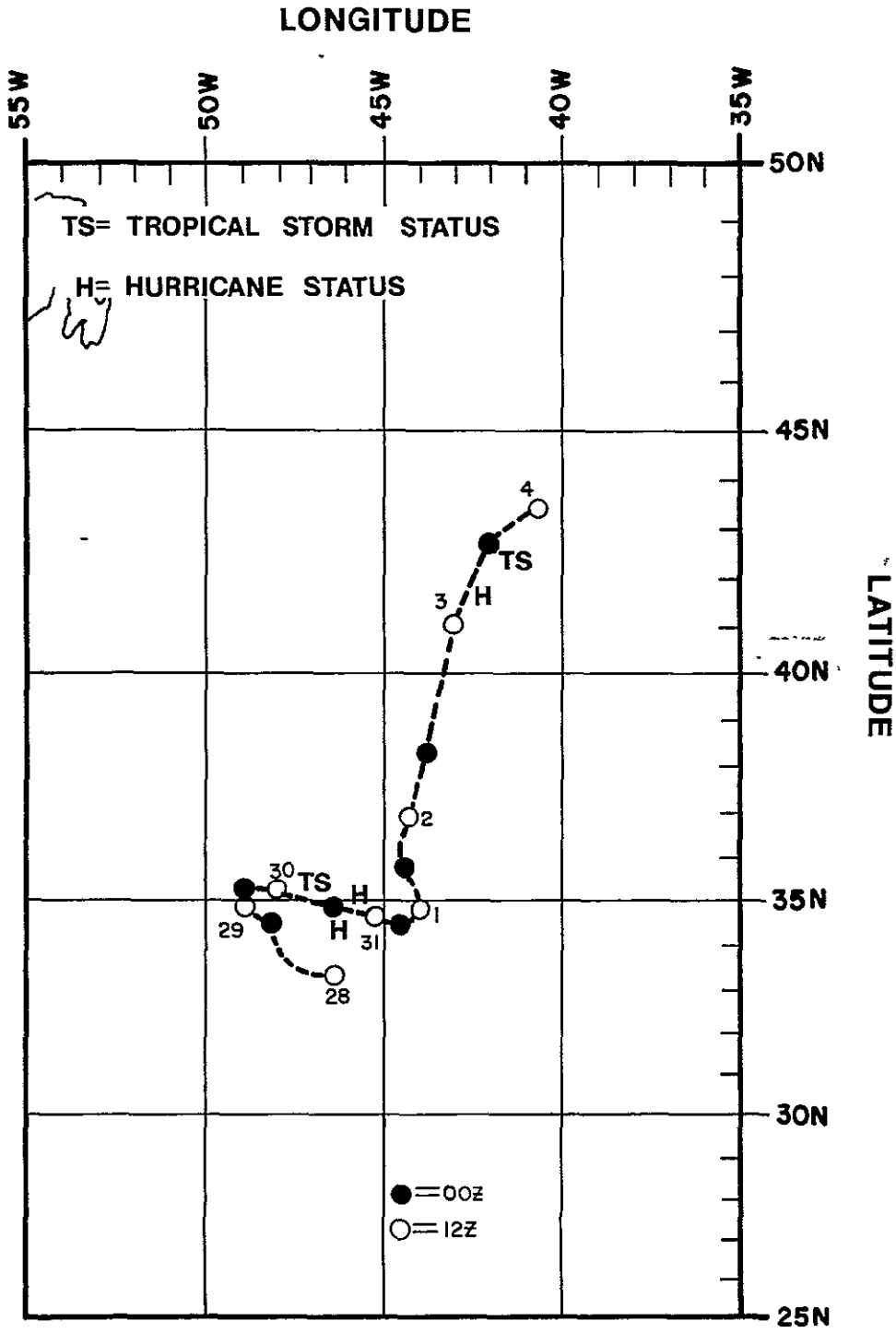


FIGURE 4. PRELIMINARY BEST TRACK FOR HURRICANE DORIS

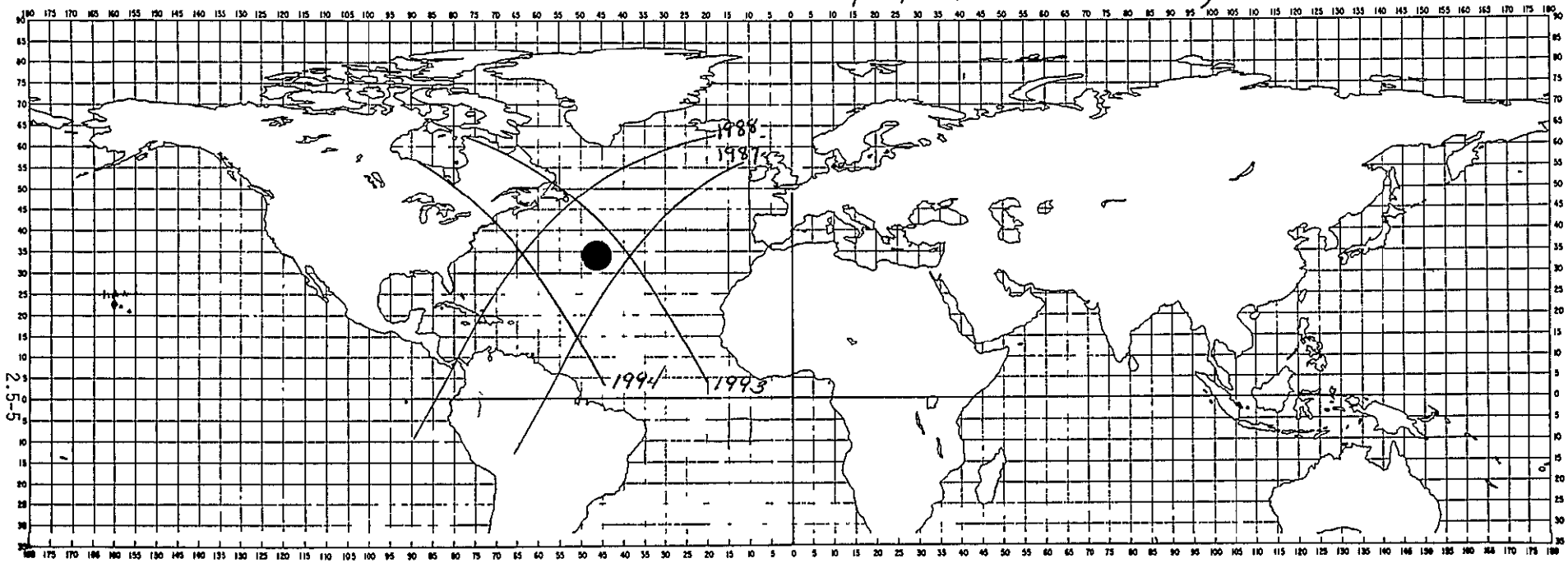
STORM: HURRICANE DORIS

DATE: AUG 28 - SEPT 4, 1975

Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
8/28	1200Z	33.3N	46.3W	1005	35	Subtropical
	1800Z	33.6	47.5	----	40	
8/29	0000Z	34.5N	48.1W	----	40	Tropical Storm
	0600Z	34.7	48.5	----	40	
	1200Z	34.9	48.9	----	40	
	1800Z	35.2	49.1	1000	50	
8/30	0000Z	35.3N	48.9W	997	55	Tropical Storm
	0600Z	35.3	48.5	----	55	
	1200Z	35.3	48.0	----	55	
	1800Z	35.0	47.1	----	55	
8/31	0000Z	34.9N	46.3W	990	65	Hurricane
	0600Z	34.8	45.7	----	65	
	1200Z	34.7	45.2	----	65	
	1800Z	34.6	44.9	----	65	
9/1	0000Z	34.5N	44.6W	984	75	Hurricane
	0600Z	34.6	44.2	----	75	
	1200Z	34.9	44.0	----	75	
	1800Z	35.4	44.0	----	75	
9/2	0000Z	35.8N	44.4W	970	90	Hurricane
	0600Z	36.4	44.5	965	95	
	1200Z	37.0	44.3	----	95	
	1800Z	37.7	44.2	----	95	
9/3	0000Z	38.4N	43.8W	----	95	Hurricane
	0600Z	39.7	43.6	----	95	
	1200Z	41.1	43.0	----	95	
	1800Z	42.0	42.5	970	90	
9/4	0000Z	42.8N	42.0W	995	60	Tropical Storm
	0600Z	43.2	41.4	1005	45	Extratropical
	1200Z	43.5	40.7	----	45	Extratropical

* Minimum Sea Level Pressure

HURRICANE "DORIS" – 8/28/75 (1200Z – 2400Z)



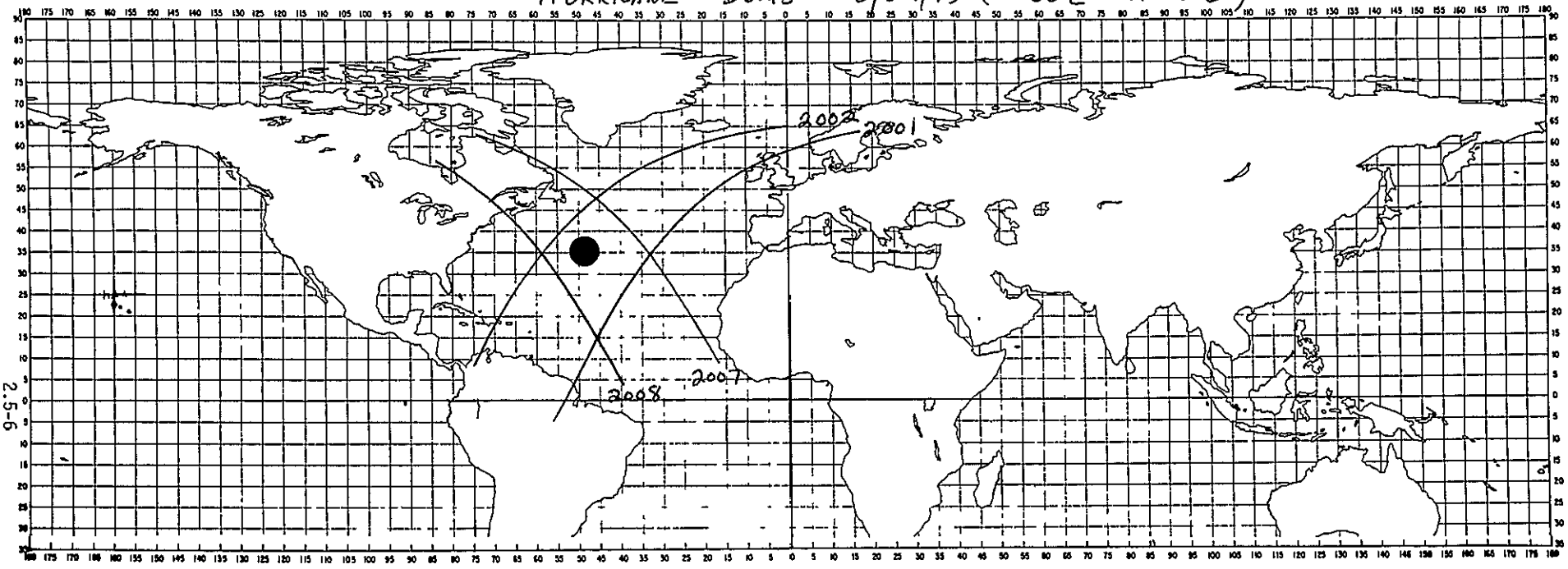
2.5-5

LOCATION
SUBTROPICAL STORM

TIME	LATITUDE	LONGITUDE
1200Z	33.3N	46.3W
1800Z	33.6	47.5
2400Z	34.5	48.1

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	OJ	Off	Mode	Unq#
1987	+134.20	10 06 10	1048Z	No			
1988	+108.37	11 47 57	1324Z	No			
1993	-17.75	20 16 53	2029Z	No			
1994	-43.07	21 58 40	2206Z	No			

HURRICANE "DORIS" - 8/29/75 (0000 Z - 2400 Z)

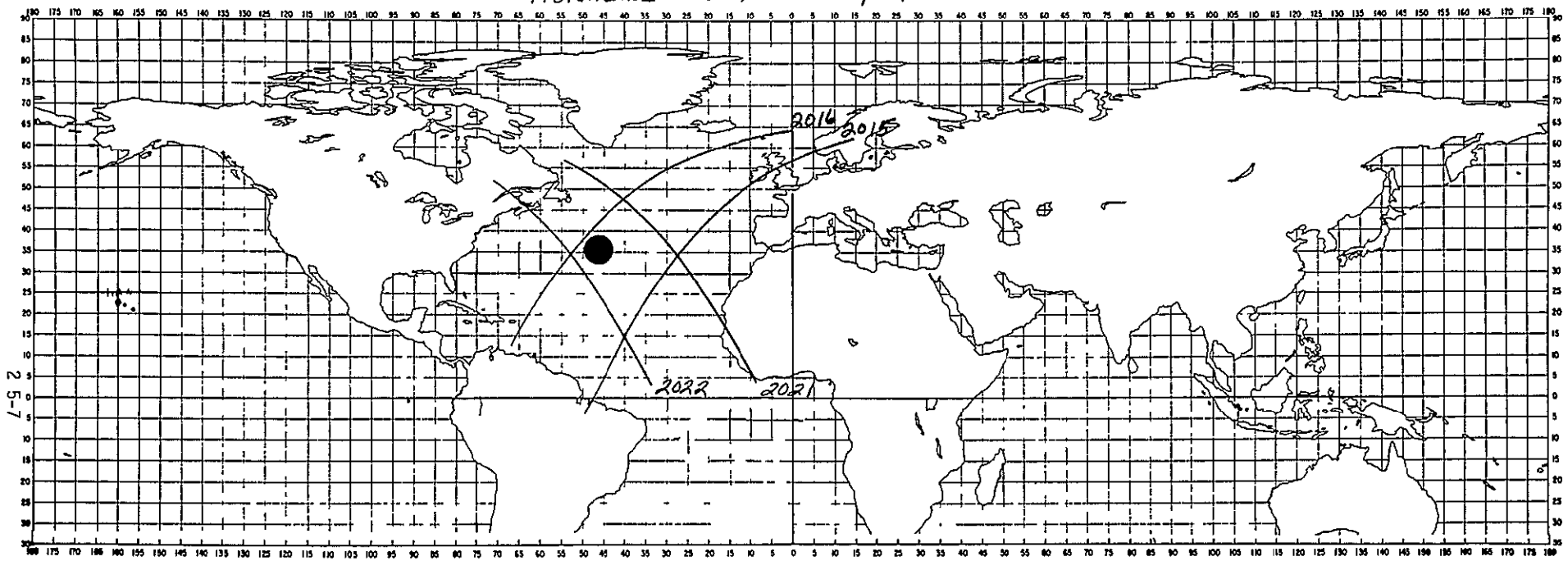


LOCATION
TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000 Z	34.5 N	48.1 W
0600 Z	34.7	48.5
1200 Z	34.9	48.9
1800 Z	35.2	49.1
2400 Z	35.3	48.9

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
2001	+ 139.67	09 51 09	1033 Z	No			
2002	+ 114.34	11 32 57	1211 Z	No			
2007	- 12.27	20 01 42	2015 Z	No			
2008	- 37.59	21 43 39	2153 Z	No			

HURRICANE "DORIS" - 8/30/75 (0000Z - 2400Z)



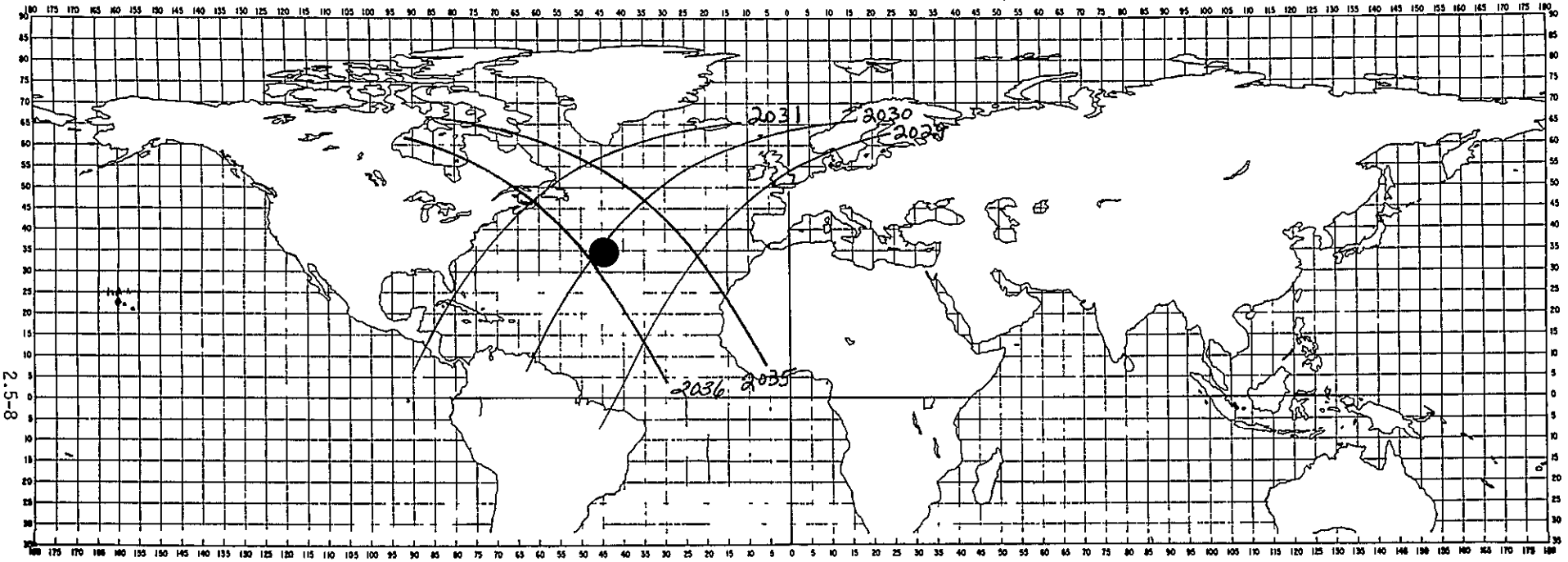
2-57

LOCATION
TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000 Z	35.3 N	48.9 W
0600 Z	35.3	48.5
1200 Z	35.3	48.0
1800 Z	35.0	47.1
2400 Z	34.9	46.3

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
2015	+ 145.14	09 36 09	1018 Z	No			
2016	+ 119.82	11 17 56	1157 Z	No			
2021	- 6.79	19 46 51	2001 Z	No			
2022	- 32.12	21 28 38	2138 Z	213757	214259	802	328

HURRICANE "DORIS" - 8/31/75 (0000 Z - 2400 Z)

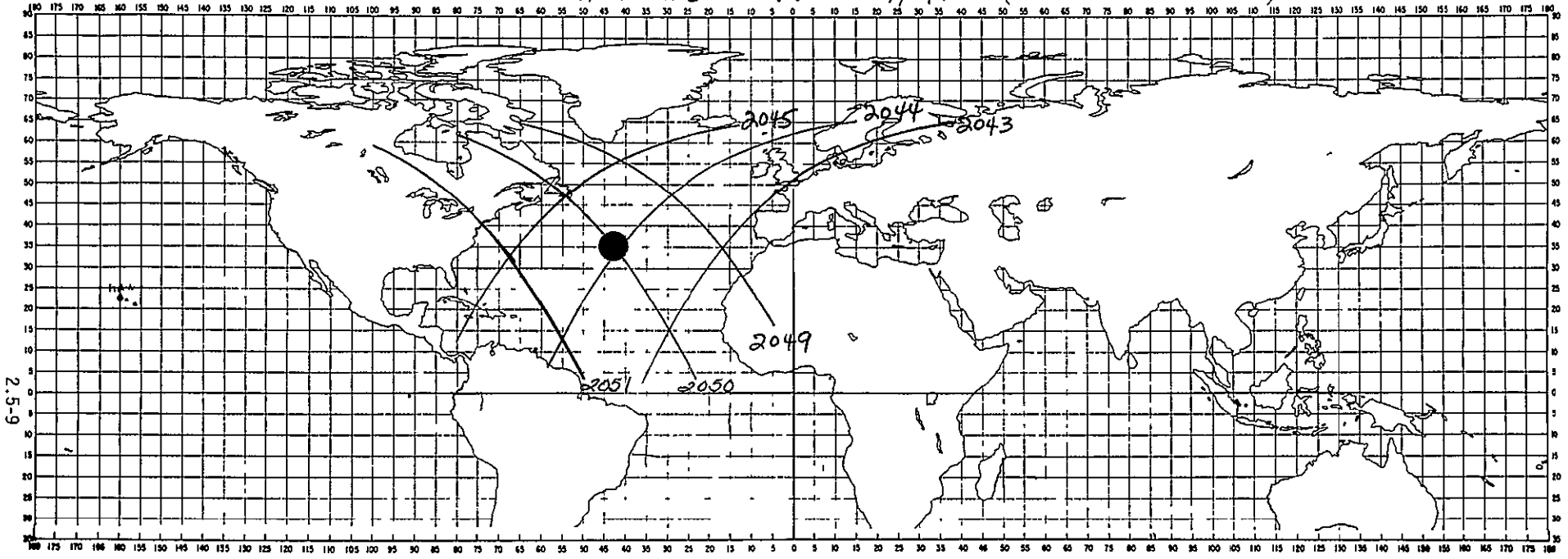


LOCATION
HURRICANE

TIME	LATITUDE	LONGITUDE
0000 Z	34.9 N	46.3 W
0600 Z	34.8	45.7
1200 Z	34.7	45.2
1800 Z	34.6	44.9
2400 Z	34.5	44.6

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	On	Off	Mode	Unit #
2029	+150.62	09 21 08	1005 Z	No			
2030	+125.29	11 02 55	1143 Z	No			
2031	+ 99.97	12 44 42	1329 Z	132121	133203	802	334
2035	- 1.32	19 31 51	1947 Z	No			
2036	- 26.65	21 13 38	2124 Z	No			

HURRICANE "DORIS" - 9/1/75 (0000 Z - 2400 Z)

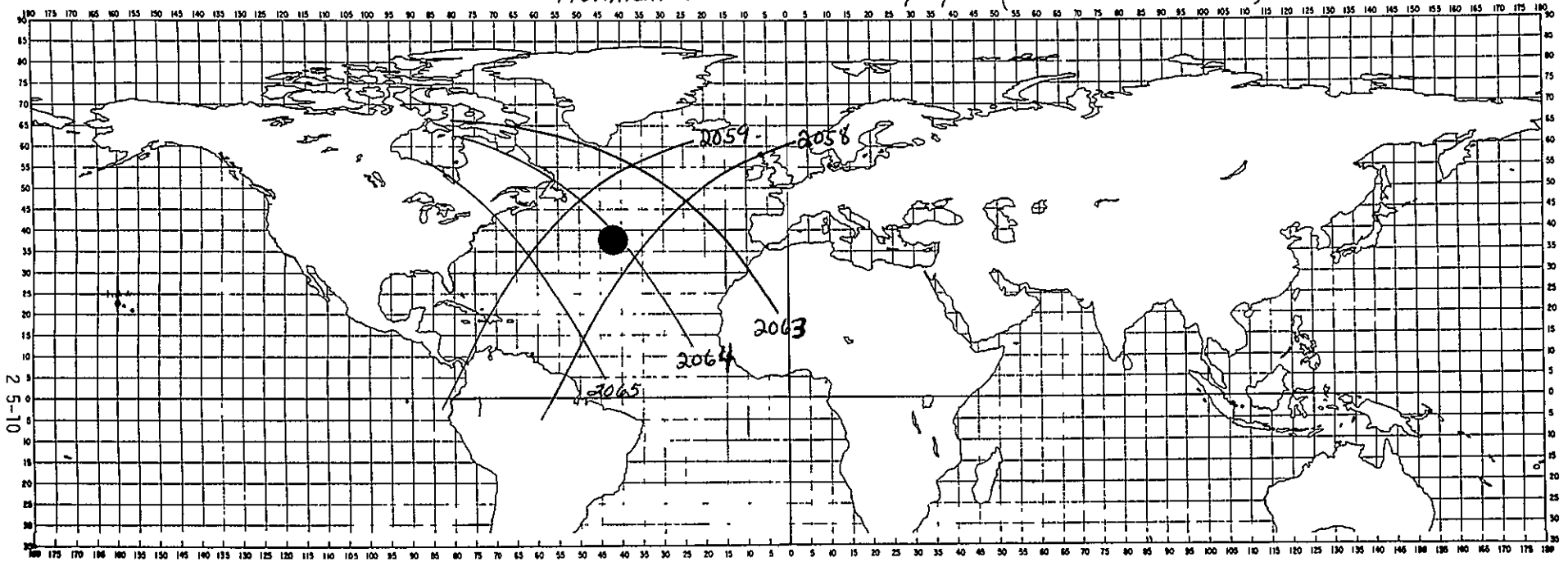


LOCATION
HURRICANE

TIME	LATITUDE	LONGITUDE
0000 Z	34.5 N	44.6 W
0600 Z	34.6	44.2
1200 Z	34.9	44.0
1800 Z	35.4	44.0
~~2400 Z~~	~~35.8~~	44.4

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
2043	+156.09	09 06 07	0950 Z	No			
2044	+130.77	10 47 54	1128 Z	No			
2046	+ 105.45	12 29 41	1305 Z	131458	131542	802	342
2049	+ 4.15	19 16 50	1932 Z	No			
2050	- 21.17	20 58 37	2110 Z	No			
2051	- 48.49	22 40 24	2248 Z	224946	225328	802	348

HURRICANE "DORIS" - 9/2/75 (0000 Z - 2400Z)

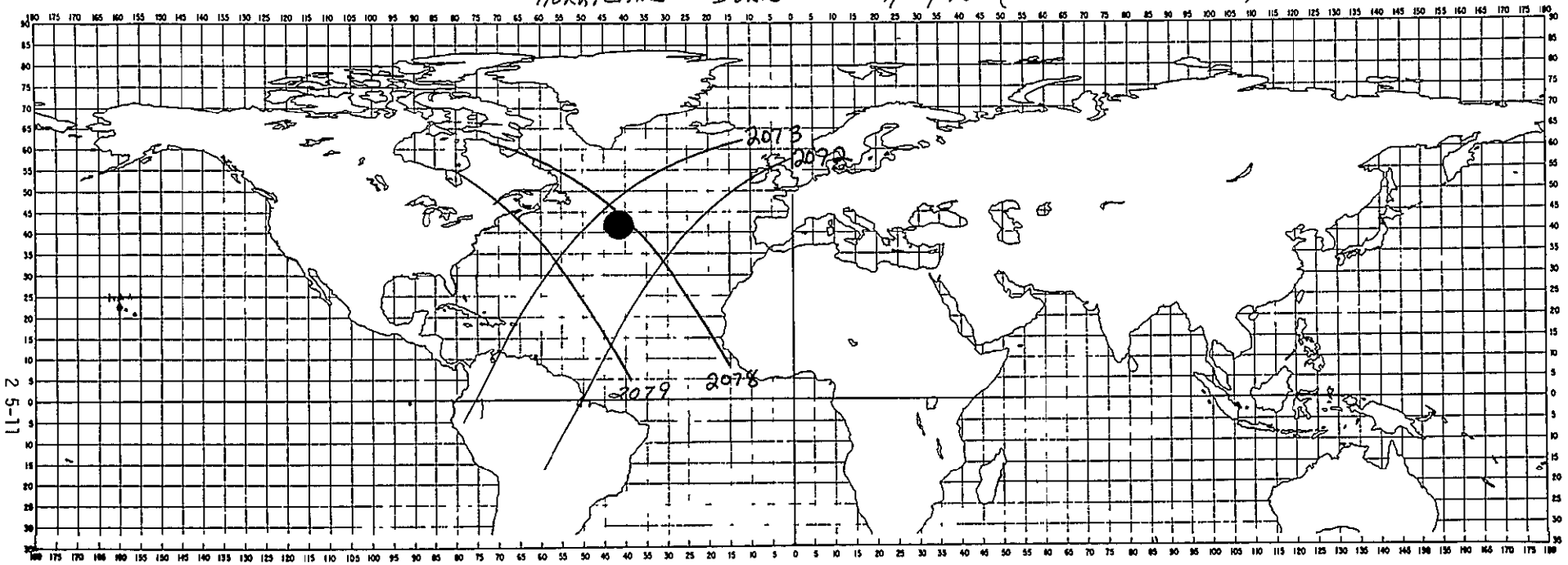


2-5-10

TIME	LOCATION HURRICANE LATITUDE	LONGITUDE
0000 Z	35.8 N	44.4 W
0600 Z	36.4	44.5
1200 Z	37.0	44.3
1800 Z	37.7	44.2
2400Z	38.4	43.8

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	Off	Mode	Unq#
2058	+136.24	10 32 54	1113 Z	No			
2059	+110.92	12 14 41	1251 Z	No			
2063	+ 9.63	19 01 49	1918 Z	No			
2064	- 15.60	20 43 38	2055 Z	No			
2065	- 41.02	22 25 23	2233 Z	223357	223914	802	359

HURRICANE "DORIS" – 9/3/75 (0000Z - 2400Z)



2 5-11

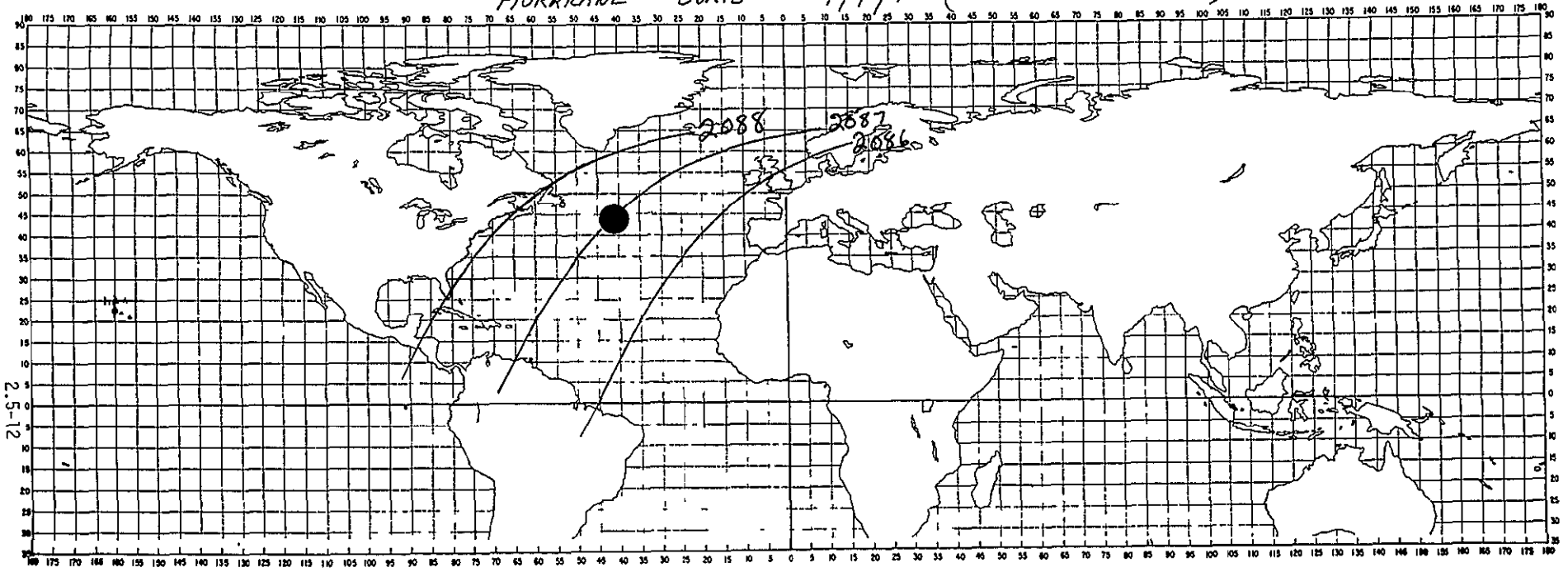
LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	38.4N	43.8W
0600Z	39.7	43 6
1200Z	41.1	43 0
1800Z	42.0	42.5
2400Z	42 8	42 0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
2072	+141.72	10 17 53	1059Z	No			
2073	+116.39	11 59 40	1237Z	No			
2078	- 10.22	20 23 35	2037Z	No			
2079	- 35.55	22 10 23	2220Z	No			

HURRICANE "DORIS" - 9/4/75 (0000Z - 1200Z)



LOCATION

TROPICAL STORM / EXTRATROPICAL (0600Z)

TIME	LATITUDE	LONGITUDE
0000Z	42.8 N	42.0 W
0600Z	43.2	41.4
1200Z	43.5	40.7

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
2086	+147.19	10 02 52	1045Z	No			
2087	+121.57	11 44 39	1221Z	No			
2088	+ 96.55	13 26 26	1359Z	135951	141406	802	327

HURRICANE ELOISE

September 13 - 24, 1975

Meteorological History

The disturbance which spawned Eloise left the African west coast on September 6 as a rather unimpressive system on satellite pictures, although the Dakar, Senegal, upper air sounding gave evidence of a fairly strong cyclonic circulation at lower levels. The disturbance moved westward at an average speed of 13 knots during the next six days with satellite pictures and ship reports giving evidence of a very gradual increase in convection and organization.

The first sign that a weak depression had formed came early on the 13th when the Netherlands tanker GULF HANSA (PELP)[1] reported northerly winds of 20 kt and seas up to 10 feet. Later that morning an Air Force reconnaissance aircraft located the center about 600 miles east of the Virgin Islands. Satellite pictures, and ship and reconnaissance reports during the following 48 hours confirmed a trend of slow intensification. A reconnaissance aircraft found that winds had reached tropical storm strength during the early morning hours of the 16th, and the first advisory on Eloise was issued by the San Juan Hurricane Warning Office at 6 AM AST. Previously, bulletins had been issued since the 13th warning the northern Leewards, Virgin Islands and Puerto Rico of heavy rains and gusty winds to gale force.

Eloise strengthened rapidly and NOAA aircraft reported winds reached minimal hurricane force prior to its striking the northeast coast of the Dominican Republic late on the 16th. For the next 36 hours the center and much of the circulation was over land. Falling pressures to the northwest of Eloise were expected to keep the center north of the Dominican Republic and Cuba. However, the center tracked westward across extreme southeastern Cuba into the northwestern Caribbean Sea north of Jamaica.

The mountainous terrain of Hispaniola and Cuba caused Eloise to weaken to a minimal tropical storm with a marked decrease in associated rainfall by the time the center finally emerged over open water.

A favorable upper level flow pattern continued over the storm, as it had since the 13th, with anticyclonic outflow enhanced by a cold low traveling westward about 500 miles in advance. The lower level circulation had been distorted by the encounter with land and was also somewhat adversely affected by an appraoching trough from the west. Even though the center was over the open, warm waters of the Caribbean Sea and rising

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[1] As an interesting footnote, the ship moved parallel to the track of Eloise from the African coast to the Gulf of Mexico at the same speed but managed to beat Eloise to port.

pressure to the north were contributing to more favorable low level conditions, Eloise remained poorly organized until it approached the northeast coast of Yucatan late on the 20th with winds of gale force mainly in squalls northeast of the center. From the time the center approached the Dominican Republic until it moved into the central Gulf of Mexico it varied from 40-60 miles in diameter. Reconnaissance reports and upper air soundings suggested a fairly large slope of the center with height from the surface prior to its reaching the Gulf of Mexico, and satellite pictures continually showed the heaviest convection well south and east of the center. Lack of reconnaissance and surface reports while the broad center was over the Dominican Republic, Cuba, and adjacent waters has led to more than normal uncertainty in the locations and intensities on the best track from September 17/00Z to 21/12Z.

An approaching upper level trough in the westerlies caused Eloise to turn to the north after crossing the Yucatan peninsula just north of Cozumel, Mexico. This enhanced an already favorable outflow pattern aloft, while rising pressures around the storm had made low level conditions more favorable for intensification. Eloise began a steady strengthening north of the Yucatan peninsula, regaining hurricane force in the central Gulf of Mexico about 350 miles south of New Orleans on the morning of the 22nd. The hurricane continued strengthening until landfall about midway between Fort Walton Beach and Panama City shortly after 8 AM EDT on the 23rd. At that time it was moving north-northeast at better than 20 knots, and had been monitored continuously by Air Force reconnaissance aircraft and National Weather Service radar at Pensacola, Apalachicola, and Slidell (New Orleans) during the last 12 hours prior to landfall.

The hurricane weakened rapidly after landfall as drier, colder air was drawn into its circulation. It was downgraded to a tropical storm by noon while over east central Alabama, a tropical depression by early evening while over eastern Tennessee, and lost all tropical characteristics by the time it reached extreme western Virginia on the morning of the 24th.

A low pressure center identifiable as the remnant of Eloise was no longer discernable by late on the 24th. However, the moisture brought northward by the hurricane combined with an old frontal system over the northeastern U.S. to produce heavy rainfall and serious flooding until skies cleared on the 27th.

Meteorological Data/Deaths/Damage Estimates

Northern Leeward Islands, Virgin Islands, Puerto Rico, Dominican Republic, and Haiti. The primary effects of Eloise in these areas was flooding resulting from torrential rains and consequent deaths and damages. Total storm rainfall amounts ranged from 5 to 10 inches from St. Kitts and St. Martin westward across St. Croix to Puerto Rico with

amounts of 10 to 20 inches common over eastern and southwestern Puerto Rico. The greatest total reported was 26.7 inches near Sabana Grande in southwest Puerto Rico. Lesser amounts of 1 to 3 inches fell at St. Thomas and other northern Leeward Islands. No storm totals are available from Hispaniola; however, incomplete rainfall observations and satellite pictures indicate that torrential rains occurred over the eastern and southern portions of the Dominican Republic and southern Haiti.

River and flash floods and landslides caused most of the deaths in this area. Press accounts report 18 deaths in southern Haiti and 7 deaths in the Dominican Republic. As of late September there were 34 confirmed deaths in Puerto Rico with 29 people missing. Property damage in Puerto Rico is estimated in excess of $60 million with no estimates elsewhere.

The strongest winds were north of the center and remained offshore from Puerto Rico and the Dominican Republic. St. Croix had a gust to 45 knots. Ponce and Mayaguez in Puerto Rico, had gusts to 35 knots. The maximum sustained wind of 45 knots was reported from Cape Engano on the northeastern tip of the Dominican Republic.

Extreme Southeastern Bahamas, Cuba, Jamaica, Cayman Islands, Northeast Yucatan. Eloise weakened throughout most of the period it was affecting these areas. In addition, satellite pictures indicated most of the heavier rainfall missed the land areas. A squall of 45 knots occurred on Cayman Brac during the afternoon of the 19th. Sustained winds of 40 knots were reported along the southeast coast of Cuba on the 18th. There were no other reports of high winds, and no deaths or significant damage reports from this region.

United States.

Southeast. Eloise strengthened until reaching the coast with the minimum pressure of 955 mb observed at Destin, Florida. The maximum sustained surface winds during Eloise's lifetime were estimated to be 110 knots, also at landfall, although flight level winds reported by reconnaissance aircraft at 700 mb were somewhat higher.

The highest sustained winds along the coast were not measured as most wind measuring equipment failed. However, a gust to 135 knots was observed on a 38-foot tower in Panama City. Winds of hurricane force were reported from Fort Walton Beach to Panama City and northward into extreme southeastern Alabama. Gales were reported from the southeastern Louisiana delta to Cedar Key, Florida, and northward over most of Alabama and western Georgia to extreme southeastern Tennessee.

Preliminary measurements indicate hurricane tides of 12 to 16 feet above normal occurred from just east of Fort Walton Beach to south of Panama City. Tides of 6 to 12 feet were reported eastward to Port St. Joe with 3 to 5 feet elsewhere in the gale warning area, and 2 to 3 feet along the Florida west coast from Naples northward to Cedar Key.

Preliminary reports indicate 10 or more tornadoes occurred from northwestern Florida to western North Carolina, causing no deaths and only minor damage.

Rainfall amounts ranged from 4 to 8 inches from extreme southeastern Louisiana to the Panama City area and northeastward to the western Carolinas. The greatest total reported was 13 inches at Eglin Air Force Base, Florida.

There were 2 storm related deaths - a heart attack victim in a storm shelter in Panama City, and an electrocution in eastern Alabama. Most of the estimated 100 to 150 million dollars damage occurred along the 25 mile Panama City Beach strip, mainly as a result of the high tides undermining the beachfront structures.

Approximately 20,000 persons were evacuated along the northwest Florida coast and 30,000 over lower Plaquemines Parish and Grand Isle in extreme southern Louisiana.

Northeast. A low pressure center identifiable as the remnants of Eloise was no longer apparent late on the 24th. However, the combination of the moisture brought northward by Eloise and a stagnant frontal zone produced rainfall amounts of 4 to 10 inches over a large area from northern Virginia and Maryland through Delaware and New Jersey into the eastern two-thirds of Pennsylvania and New York.

Major flooding took place on the Chemung, Susquehanna, Potomac and Shenandoah rivers with flash floods along smaller rivers and streams.

As of September the death toll had reached 10. Damage estimates range between 100 to 200 million dollars with the bulk of it occurring as crop and road damage in Pennsylvania and New York.

Forecasts and Warnings

Warnings of flooding from heavy rains were given for Puerto Rico and the Virgin Islands 24 hours or more in advance. Hurricane warnings for the Dominican Republic were issued less than 12 hours in advance because of the rapid intensification of Eloise.

Although hurricane warnings were issued 24 hours in advance for the Gulf coast area devastated by Eloise, the forecast error for landfall was about the average for landfalling U.S. storms/hurricanes, the rather early mention of a landfall point led to some misinterpretation of the warnings, and a subsequent delay in action on evacuation.

Eloise generated hurricane tides somewhat higher than previous numerical and empirical techniques had indicated for a hurricane of this strength. The peak surge rose rapidly, lasting about 30 minutes. The presence of sand dunes in the landfall area may have contributed to some of these effects, but further study is needed before any definite conclusions can be made. There is little doubt, however, that the erosion of the sand dunes led to much of the destruction along the beaches.

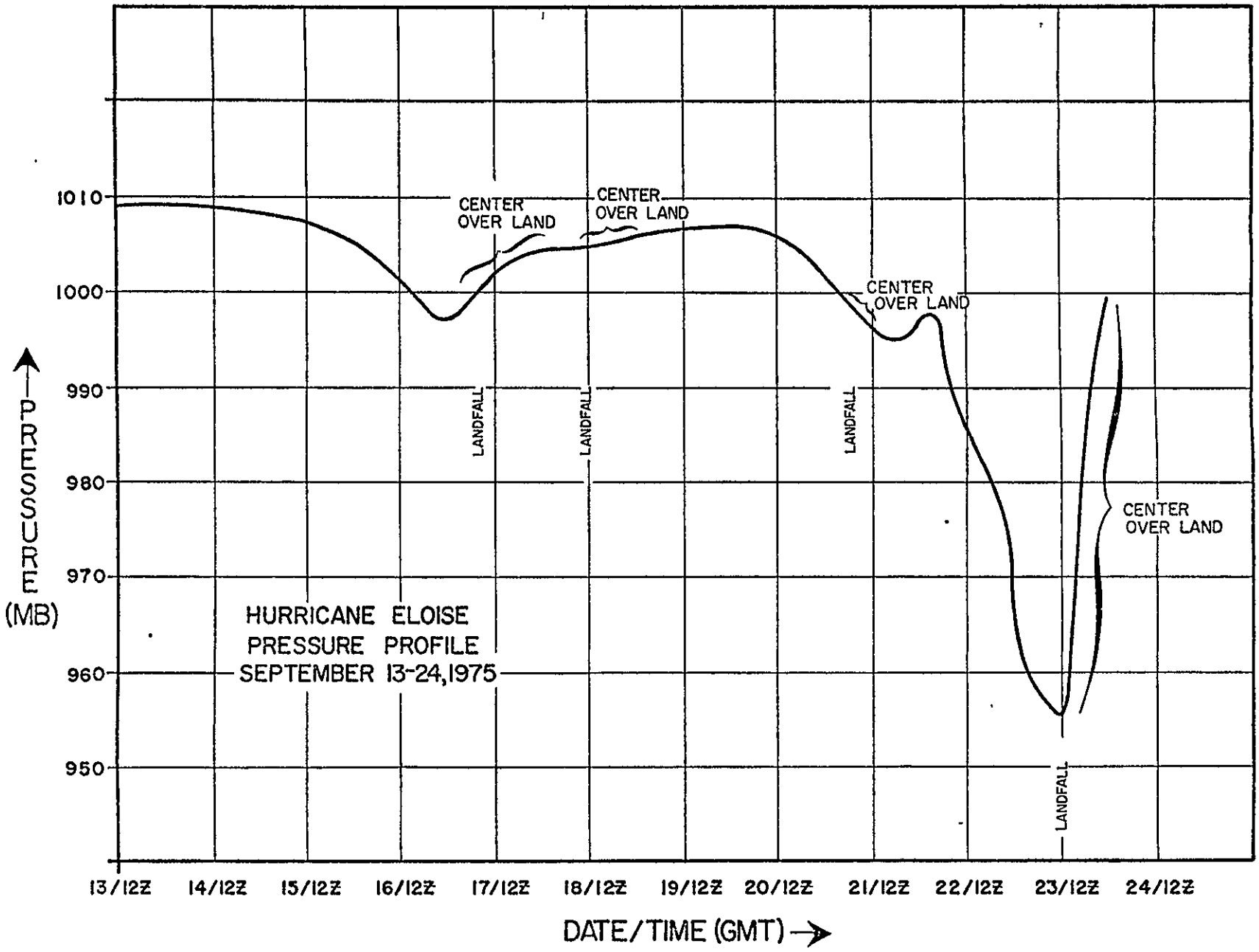


FIGURE 5. HURRICANE ELOISE PRESSURE PROFILE (September 13 -- 24, 1975)

STORM: HURRICANE ELOISE

DATE: SEPT 13 - SEPT 24, 1975

Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
9/13	0600Z	17.5N	54.1W	----	25	Tropical Depression
	1200Z	17.6	55.2	1009	25	
	1800Z	17.7	56.3	----	25	
9/14	0000Z	17.8N	57.3W	----	25	Tropical Depression
	0600Z	17.9	58.3	----	25	
	1200Z	18.0	59.4	1009	25	
	1800Z	18.1	60.5	----	25	
9/15	0000Z	18.3N	61.7W	----	25	Tropical Depression
	0600Z	18.5	62.8	----	25	
	1200Z	18.8	63.8	1007	30	
	1800Z	18.9	64.8	----	30	
9/16	0000Z	19.0N	65.6W	----	35	Tropical Storm
	0600Z	19.2	66.7	----	45	
	1200Z	19.4	67.5	1002	55	
	1800Z	19.5	68.4	----	65	Hurricane
9/17	0000Z	19.6N	69.2W	997	65	Hurricane
	0600Z	19.7	70.2	1000	60	Tropical Storm
	1200Z	19.7	71.2	----	55	
	1800Z	19.8	72.2	----	50	
9/18	0000Z	19.9N	73.3W	----	45	Tropical Storm
	0600Z	19.9	74.5	----	--	
	1200Z	19.9	75.7	----	40	
	1800Z	20.0	77.0	----	--	
9/19	0000Z	20.0N	78.2W	----	35	Tropical Storm
	0600Z	19.9	79.1	----	--	
	1200Z	19.9	79.8	----	--	
	1800Z	19.8	81.0	----	--	
9/20	0000Z	19.8N	82.2W	----	--	Tropical Storm
	0600Z	19.8	83.4	----	--	
	1200Z	19.9	84.6	1006	--	
	1800Z	20.0	85.5	----	--	

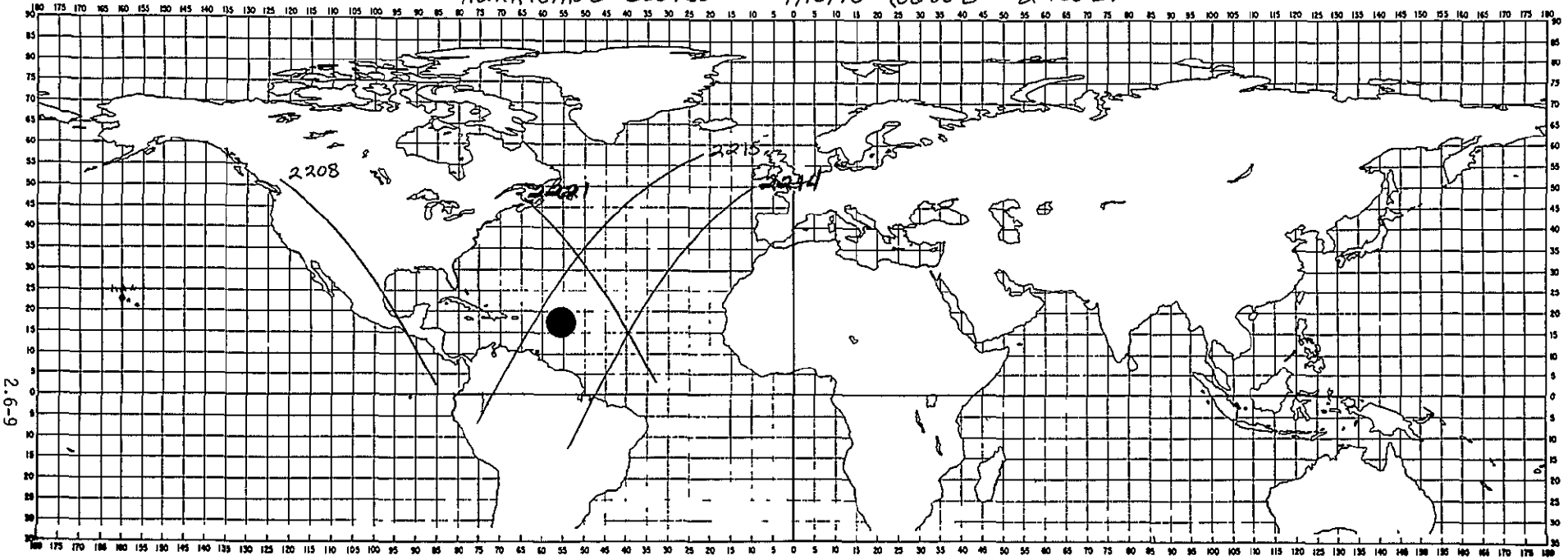
STORM: HURRICANE ELOISE (CONT.)

DATE: SEPT 13 - SEPT 24, 1975

Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
9/21	0000Z	20.2N	86.4W	1001	40	Tropical Storm
	0600Z	20.8	87.1	----	45	
	1200Z	21.4	87.8	----	50	
	1800Z	22.4	88.5	995	55	
9/22	0000Z	23.6N	88.9W	----	60	Tropical Storm
	0600Z	24.8	89.4	993	65	Hurricane
	1200Z	25.8	89.5	986	75	
	1800Z	26.5	89.4	980	85	
9/23	0000Z	27.3N	88.5W	968	95	Hurricane
	0600Z	28.4	87.3	958	105	
	1200Z	30.2	86.3	955	110	
	1800Z	33.0	85.7	982	55	Tropical Storm
9/24	0000Z	35.5N	84.3W	999	30	Tropical Depression
	0600Z	36.5	83.5	1004	20	Extratropical
	1200Z*	37.0	82.5	----	--	Extratropical
	1800Z	37.5	81.5	----	--	Extratropical

*Landfall - 30.4°N, 86.2°W at 23/1215Z

HURRICANE 'ELOISE' — 9/13/75 (0600 Z – 2400 Z)



2.6-9

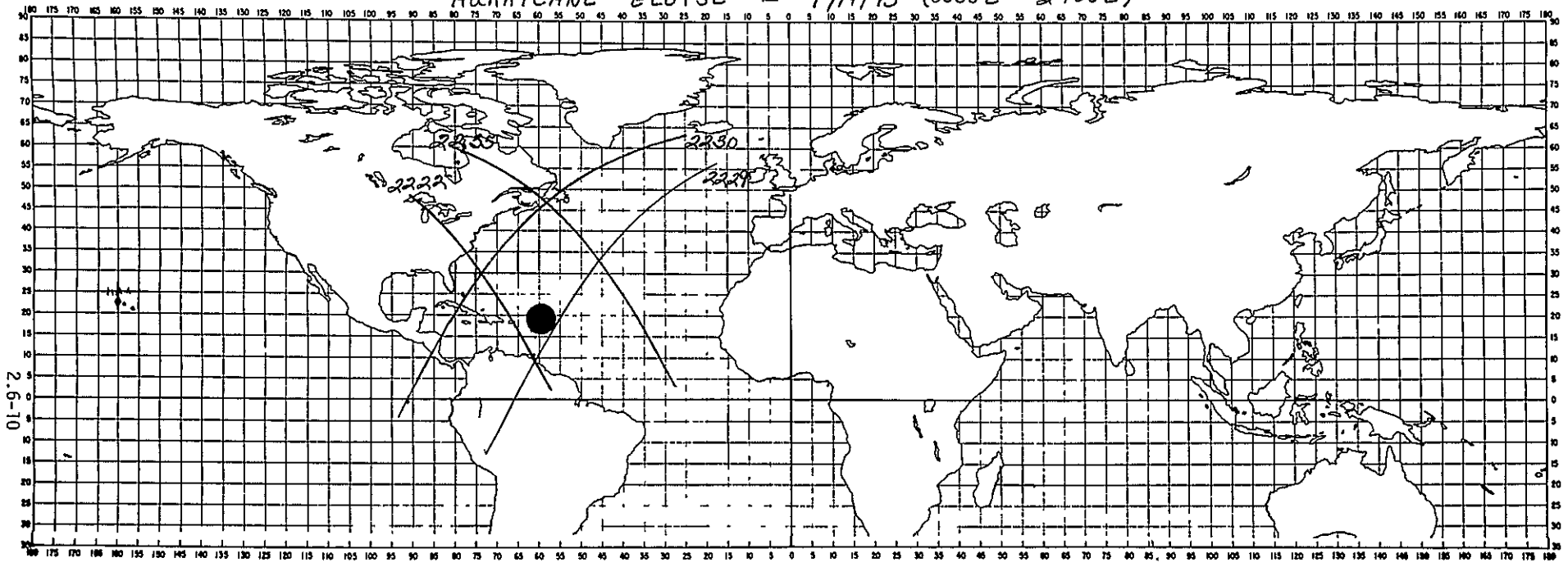
LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0600Z	17.5N	54.1W
1200Z	17.6	55.2
1800Z	17.7	56.3
2400Z	17.8	57.3

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ΔN	OFF	Mode	Uniq#
2208	-62.14	01 00 12	0103 Z	010331	011008	802	1165
2214	+145.81	11 11 20	1159 Z	No			
2219	+120 4/9	12 53 07	1338 Z	No			
2221	-31 4/5	23 03 19	2311 Z	No			

HURRICANE "ELOISE" – 9/14/75 (0000Z – 2400Z)



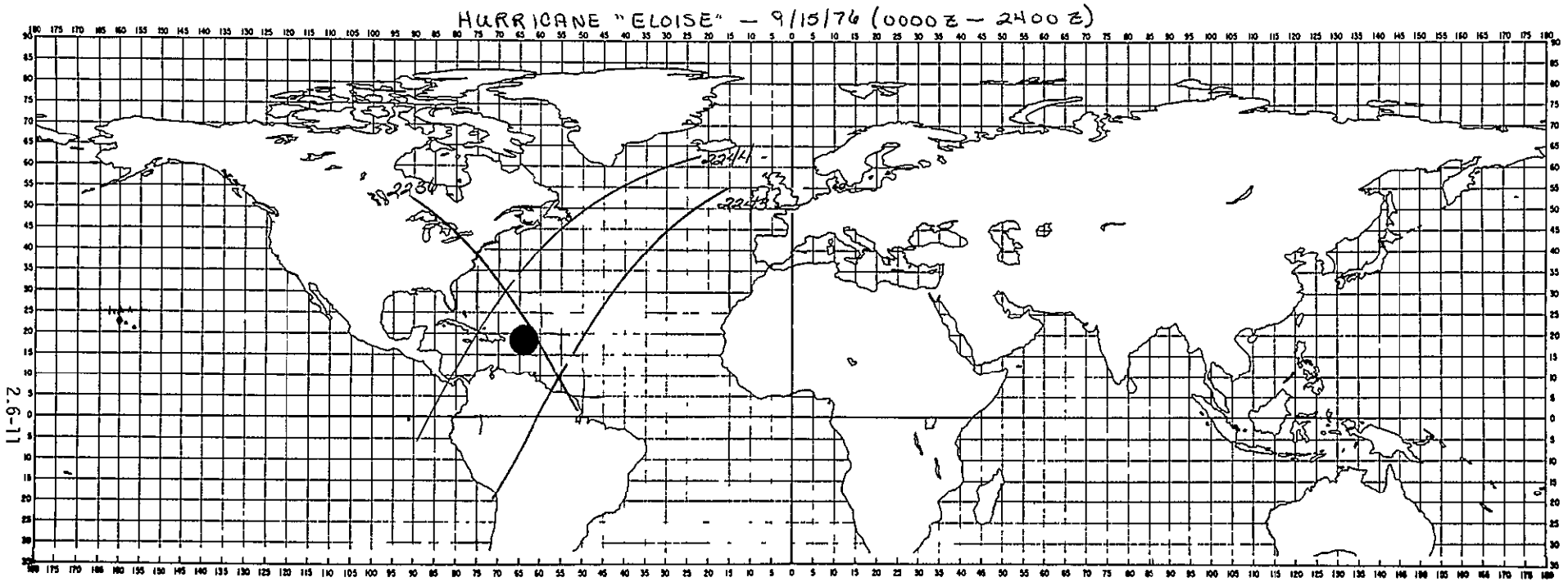
2.6-10

LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	17.8N	57.3W
0600Z	17.9	58.3
1200Z	18.0	59.4
1800Z	18.1	60.5
2400Z	18.3	61.7

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq#
2222	-5677	00 45 36	0050E	005255	005509	802	4/75
2229	+12596	12 38 06	1324E	No			
2230	+10064	14 19 53	1502E	145611	150641	802	4/78
2235	-2597	22 43 48	2254E	No			



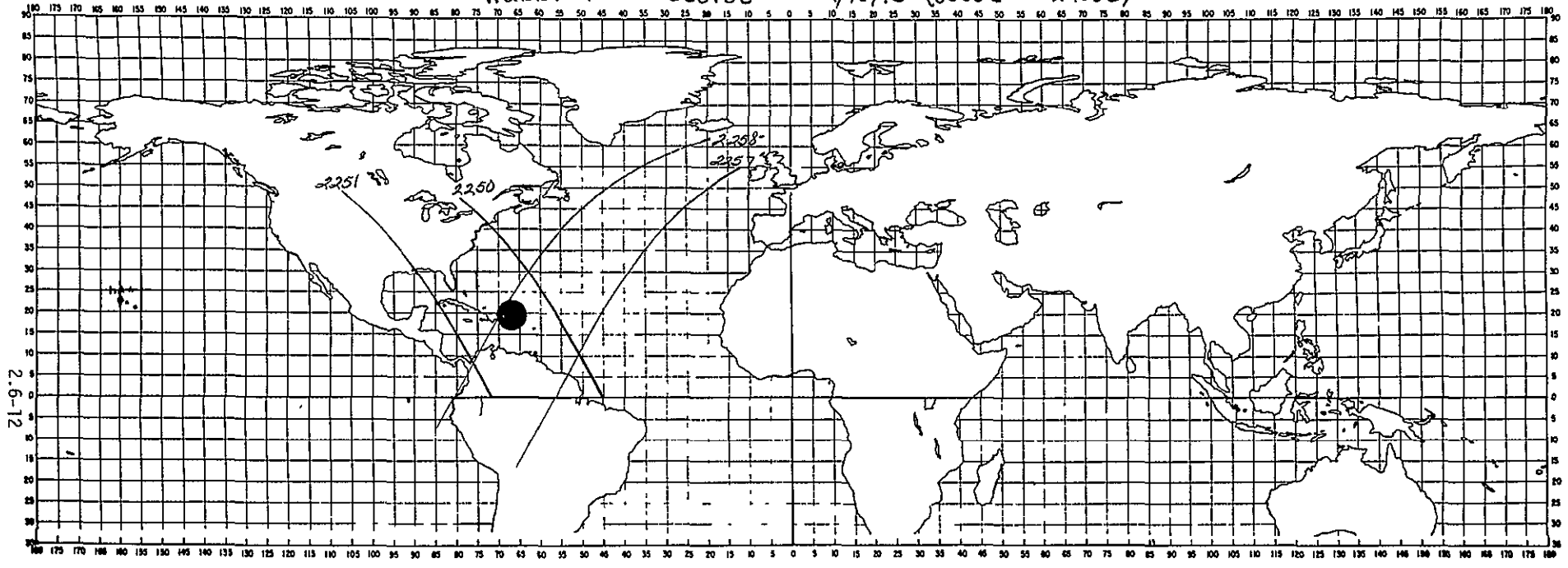
LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	18.3N	61.7W
0600Z	18.5	62.8
1200Z	18.8	63.8
1800Z	18.9	64.8
2400Z	19.0	65.6

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq#
22236	- 51.30	00 30 35	0036Z	003851	004621	802	482
22243	+131 44	12 23 05	1310Z	No			
22244	+106 12	14 01 52	1448Z	141229	145038	802	486

HURRICANE "ELOISE" — 9/16/75 (0000Z - 2400Z)



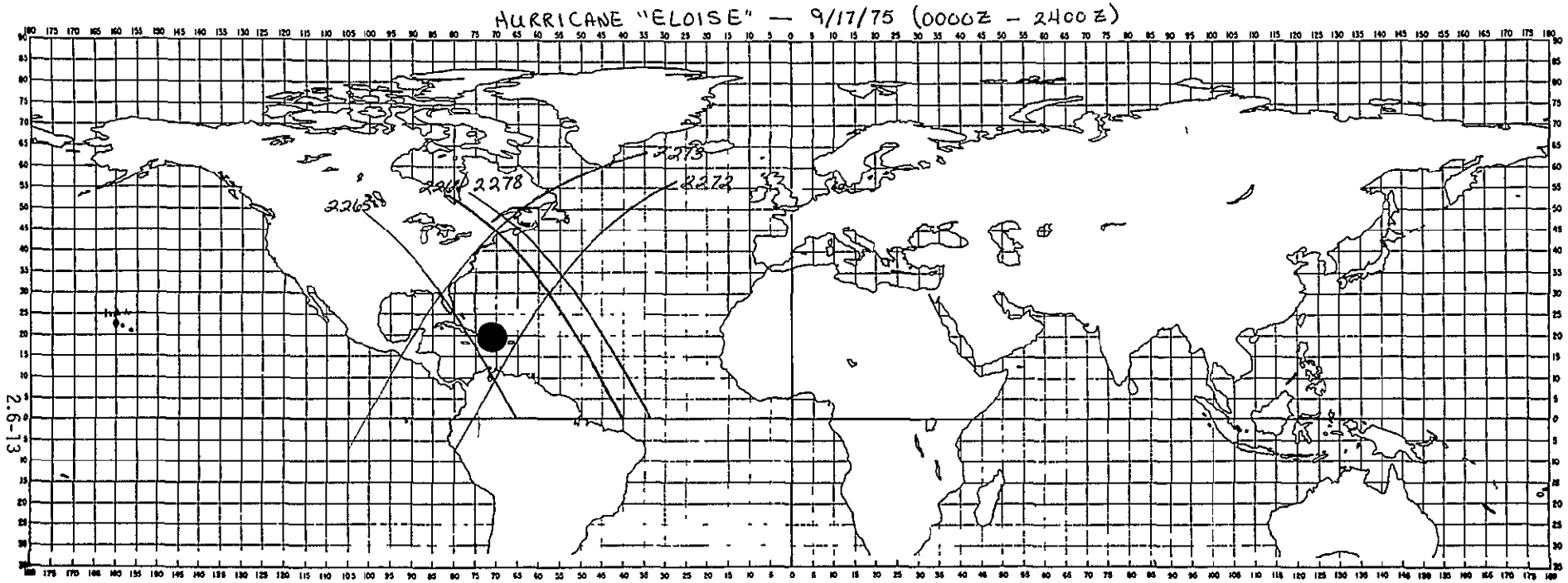
2.6-12

LOCATION

TROPICAL STORM/HURRICANE (1800)

TIME	LATITUDE	LONGITUDE
0000Z	19 0N	65 6 W
0600Z	19 2	66 7
1200Z	19 4	67.5
1800Z	19 5	68 4
2400Z	19 6	69 2

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq #
2250	- 45.83	00 15 33	0022Z	No			
2251	- 71 15	01 57 22	0200Z	No			
2257	+136.91	12 08 04	1256Z	No			
2258	+111.59	13 49 51	1435Z	No			



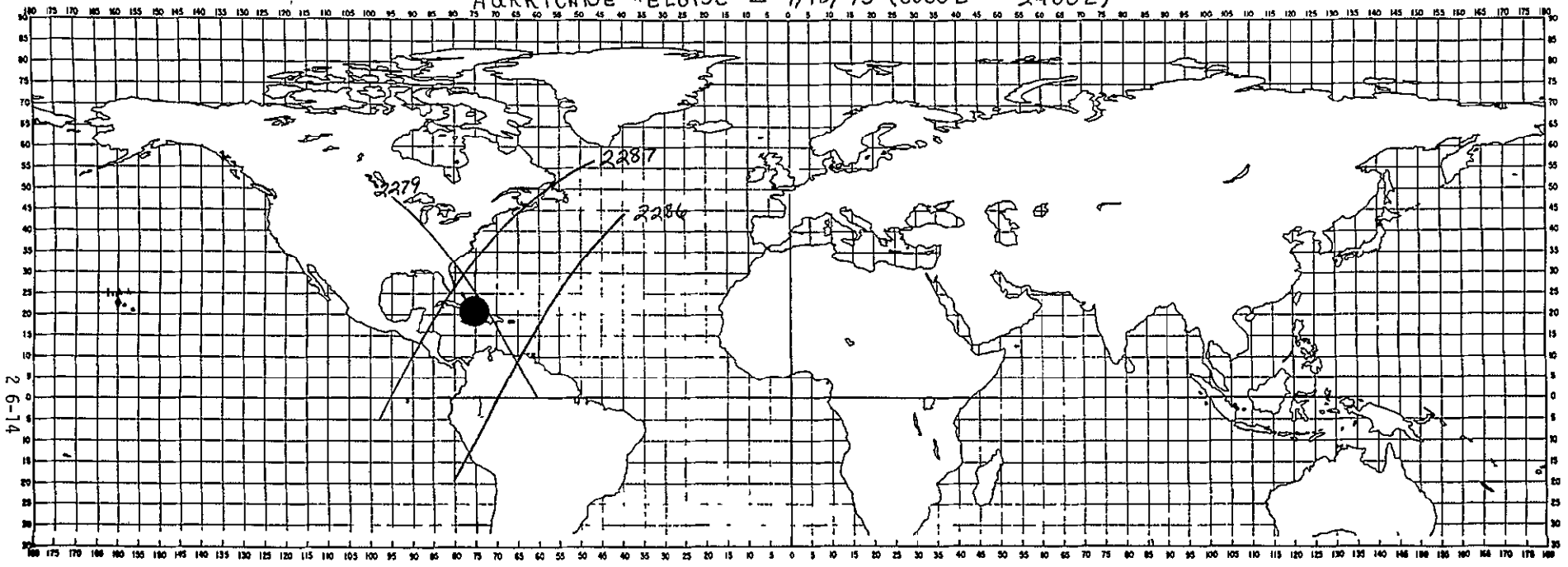
LOCATION

HURRICANE/TROPICAL STORM (0600)

TIME	LATITUDE	LONGITUDE
0000Z	19.6 N	69.2 W
0600Z	19.7	70.2
1200Z	19.7	71.2
1800Z	19.8	72.2
2400Z	19.9	73.3

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq #
2264	- 40 35	00 00 34	0009Z	001117	001432	802	502
2265	- 65.67	01 42 21	0147Z	014756	015019	802	504
2272	+117.06	13.34.51	1421Z	No			
2273	+ 91.74	15 16 58	1600Z	154803	160020	802	509
2278	- 34.87	23 45 33	2355Z	No			

HURRICANE "ELOISE" — 9/18/75 (0000Z — 2400Z)



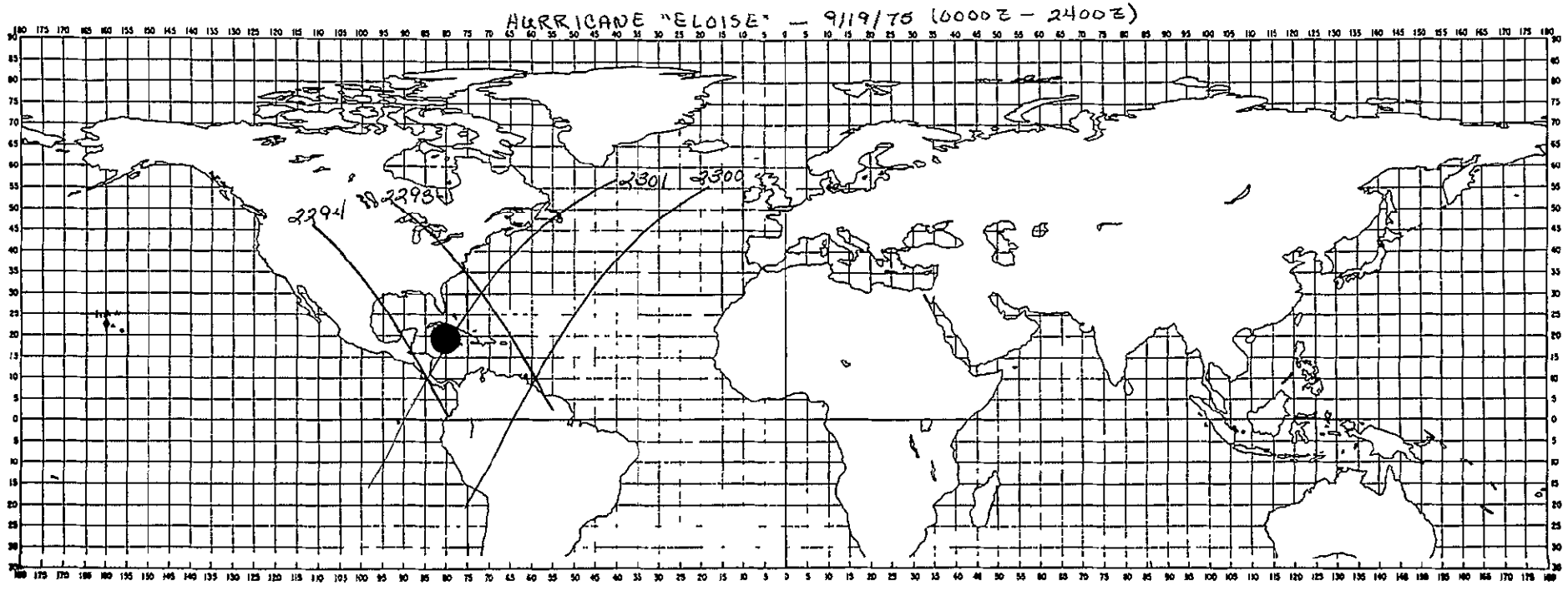
2 6-14

LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	19.9N	73.9W
0600Z	19.9	74.5
1200Z	19.9	75.7
1800Z	20.0	77.0
2400Z	20.0	78.2

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq #
2279	- 60.20	01 27 20	01.33Z	No			
2286	+ 122.54	13 19 30	14.07Z	No			
2287	+ 97.33	15 01 37	15.45Z	15/1600	15/2123	802	522

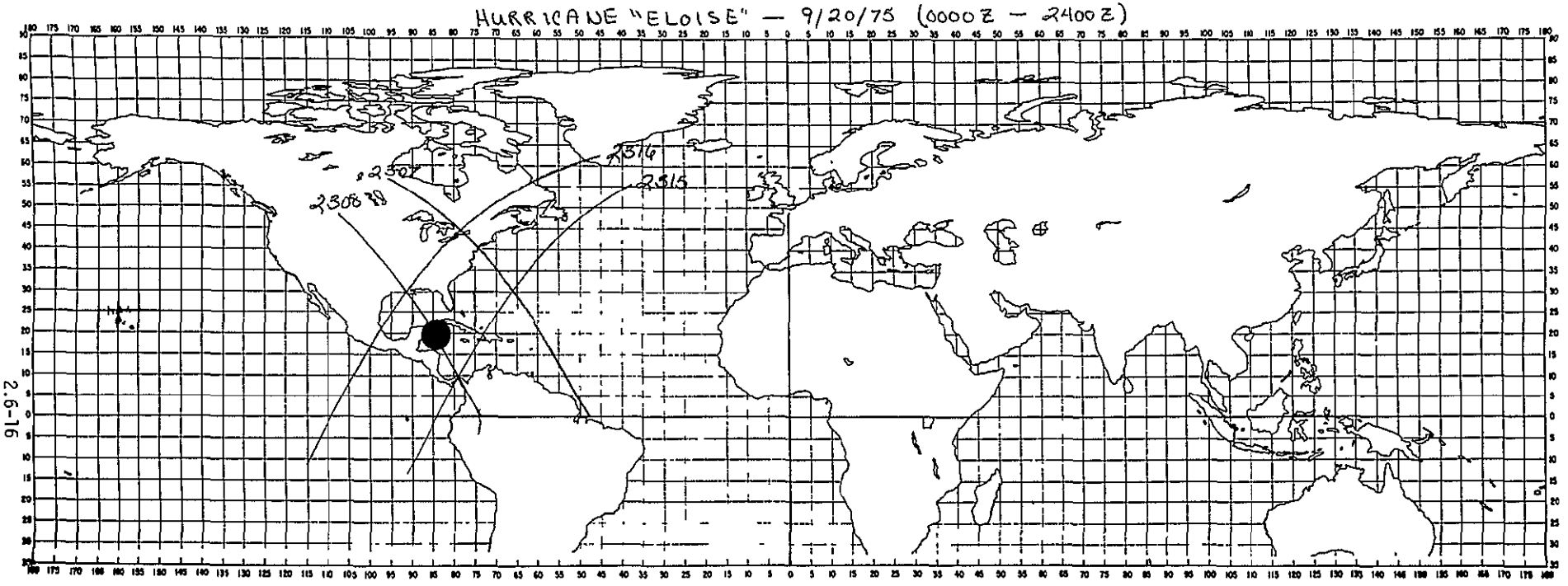


LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	20.0N	78.2W
0600Z	19.9	79.1
1200Z	19.9	79.8
1800Z	19.8	81.0
2400Z	19.8	82.2

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
2293	-54 73	01 12 20	0120Z	No			
2294	-80 05	02 54 07	0259Z	No			
2300	+128 01	13 04 49	1353Z	No			
2301	+102 69	14 46 36	1532Z	151125	154128	802	532



2.6-16

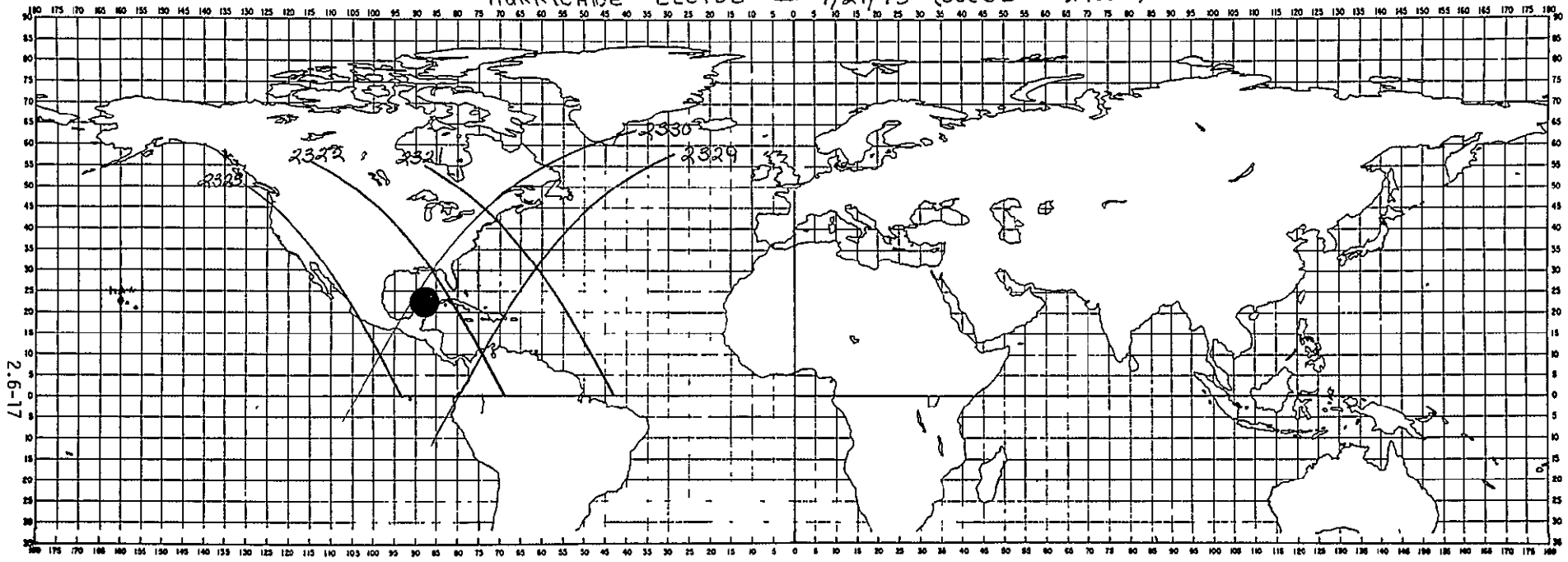
LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	19.8N	82.2W
0600Z	19.8	83.4
1200Z	19.9	84.6
1800Z	20.0	85.5
2400Z	20.2	86.4

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Orig #
2307	- 4/9.25	00 57 19	0107 E	010605	010747	802	538
2308	- 74/57	02 39 06	0245 E	024324	024625	802	539
2315	+ 108 14	14 31 36	1518 E	151627	151631	802	543
2316	+ 82 84	16 13 23	1656 E	No			

HURRICANE "ELOISE" — 9/21/75 (0000Z – 2400Z)



2.6-17

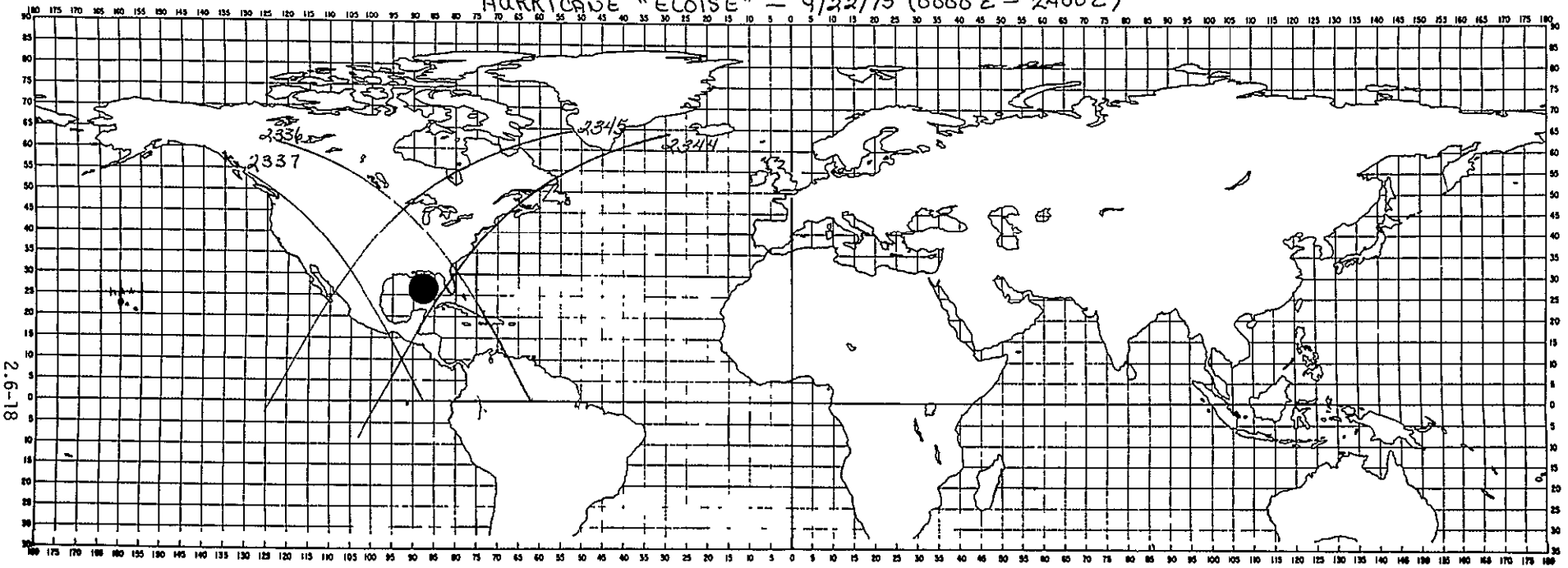
LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	20.2N	86.4W
0640Z	20.8	87.1
1200Z	21.4	87.8
1800Z	22.4	88.5
2400Z	23.6	88.9

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq#
2321	-21.73	00:42:18	0047Z	005221	005533	802	552
2322	-69.10	02:24:05	0231Z	No			
2323	-94.42	04:05:52	0409Z	No			
2329	+113.64	11:16:35	1504Z	No			
2330	+88.31	15:52:22	1636Z	No			

HURRICANE "ELOISE" — 9/22/75 (0000Z – 2400Z)



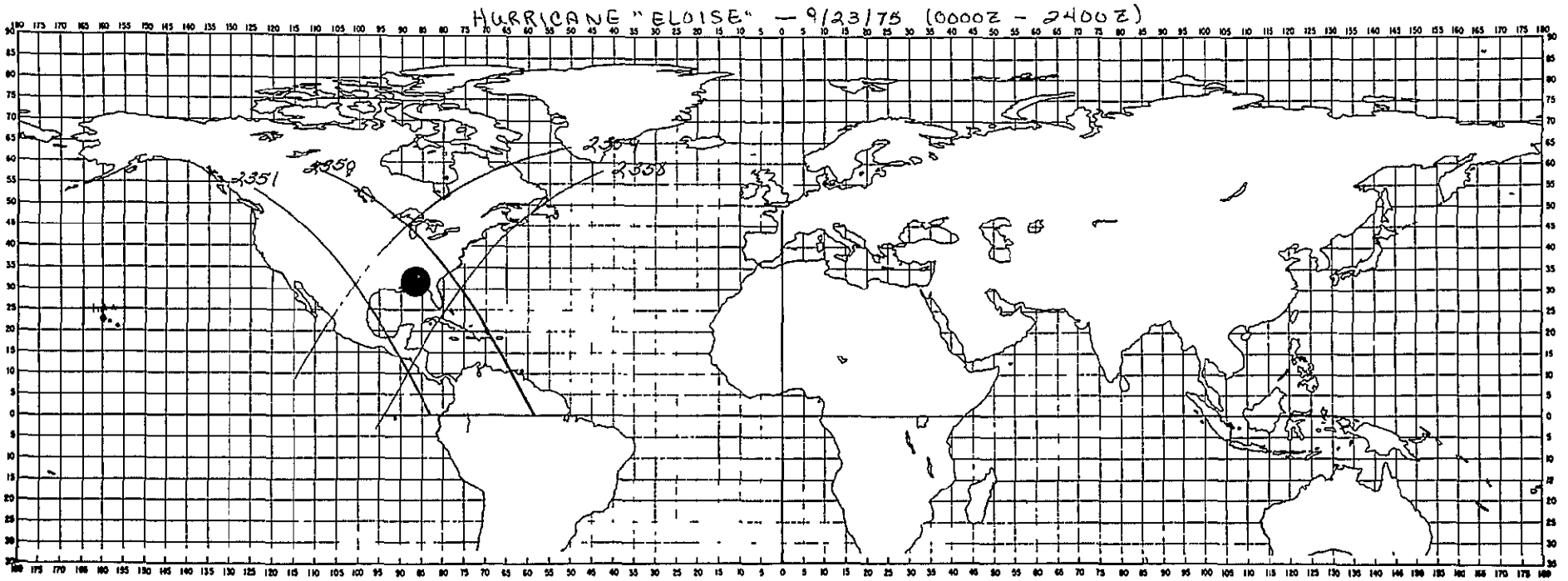
2.6-18

LOCATION

TROPICAL STORM/HURRICANE (0600Z)

TIME	LATITUDE	LONGITUDE
0000Z	23.6N	88.9W
0600Z	24.8	89.4
1200Z	25.8	89.5
1800Z	26.5	89.4
2400Z	27.3	88.5

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Data#
2336	- 63.62	02 09 04	0218Z	021501	021827	802	3
2337	- 88 95	03 50 51	0356Z	No			
2344	+93 79	15 43 21	1626Z	161604	162900	802	12
2345	+68.47	17 25 02	1805Z	No			



2.6-19

LOCATION

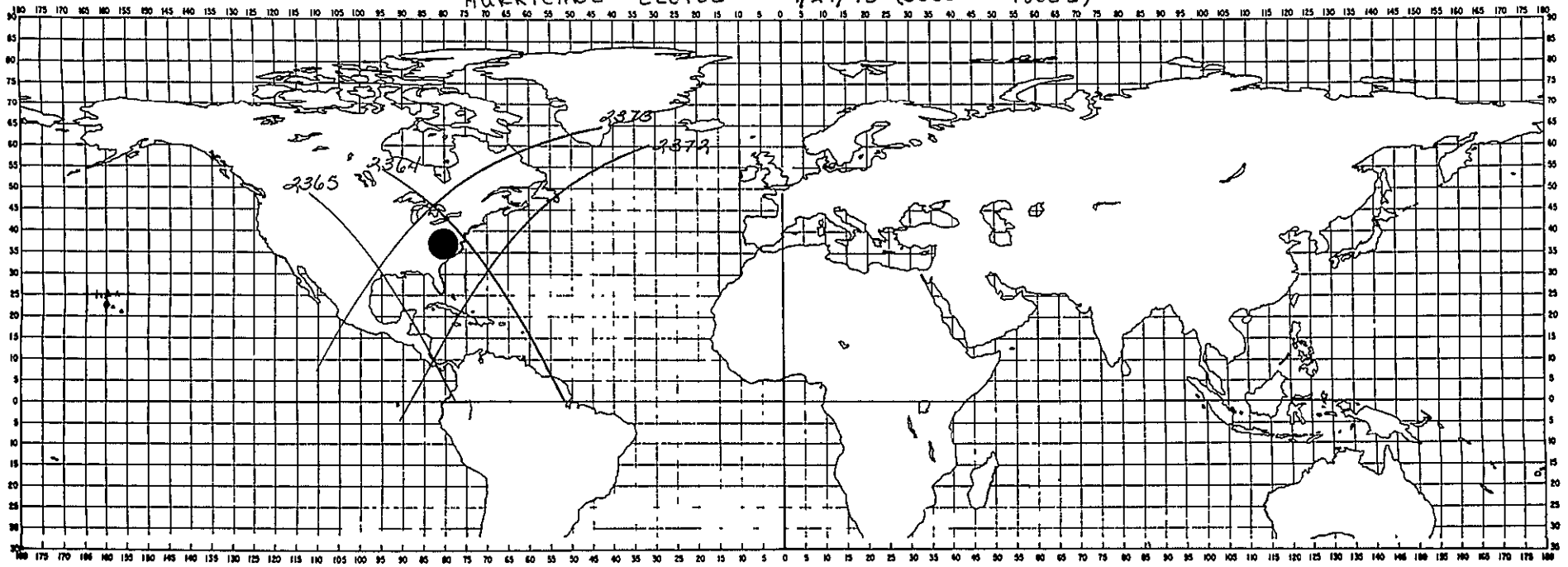
HURRICANE/TROPICAL STORM (1800Z)*

TIME	LATITUDE	LONGITUDE
0000Z	27.9N	88.5W
0600Z	28.4	87.3
1200Z	30.2*	86.3*
1800Z	33.0	85.7
2400Z	35.5	84.3

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq#
2350	- 38 16	01 54 04	0205Z	020059	020442	802	22
2351	- 83 18	03 35 51	0342Z	No			
2358	+ 99 26	15 28 20	1611Z	160351	161432	802	27
2359	+ 23 94	17 10 07	1749Z	No			

* Landfall at 23/1215Z (30.4°N 86.2°W)

HURRICANE "ELOISE" — 9/24/75 (0000Z – 1800Z)



2 6-20

LOCATION

TROPICAL DEPRESSION/EXTRATROPICAL (0600Z)

TIME	LATITUDE	LONGITUDE
0000Z	35 5N	84 3W
0600Z	36 5	83 5
1200Z	37 0	82 5
1800Z	37 5	81 5

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unig#
2364	- 52 68	01 39 03	0151Z	No			
2365	- 78 00	03 20 50	0329Z	No			
2372	+104 74	15 13 20	1555Z	155049	155938	802	4/3
2373	+ 79 41	16 55 07	1733Z	No			

HURRICANE FAYE

September 18 - 29, 1975

Meteorological History/Data

A tropical disturbance moved westward off the African coast on September 14th and during the next few days gradually developed the characteristics of a tropical depression. The center of the depression was first located by satellite pictures 500 miles off the Cape Verde Islands on September 18th.

On September 19th, satellite classification indicated that the system had attained winds of tropical storm strength and it was designated Faye. Tropical Storm Faye moved steadily westward until September 23rd when strong wind shear associated with an upper level trough began to weaken the storm's circulation and Faye was downgraded to a depression about 500 miles northeast of the Leeward Islands.

The depression turned northward temporarily on September 24th and began to move into a more favorable circulation pattern. Faye regained tropical storm status and then hurricane strength during the 25th and began a northwesterly movement that would continue until September 27th, with the center passing just east of Bermuda on the evening of September 26th.

Faye turned toward the north shortly after passing Bermuda and by the afternoon of September 27th came under the influence of strong westerly flow which dominated the North Atlantic north of latitude 40°N. Thereafter, Faye developed an east-northeast to east course with rapid acceleration. The storm gradually lost all tropical characteristics as it moved eastward at 40 knots some 200 miles north of the Azores.

Damage Estimates

Damage to Bermuda was minor since the island remained on the weak side of the storm. Faye was not a severe hurricane with reconnaissance aircraft indicating the highest winds were 90 knots and lowest pressure 977 mb.

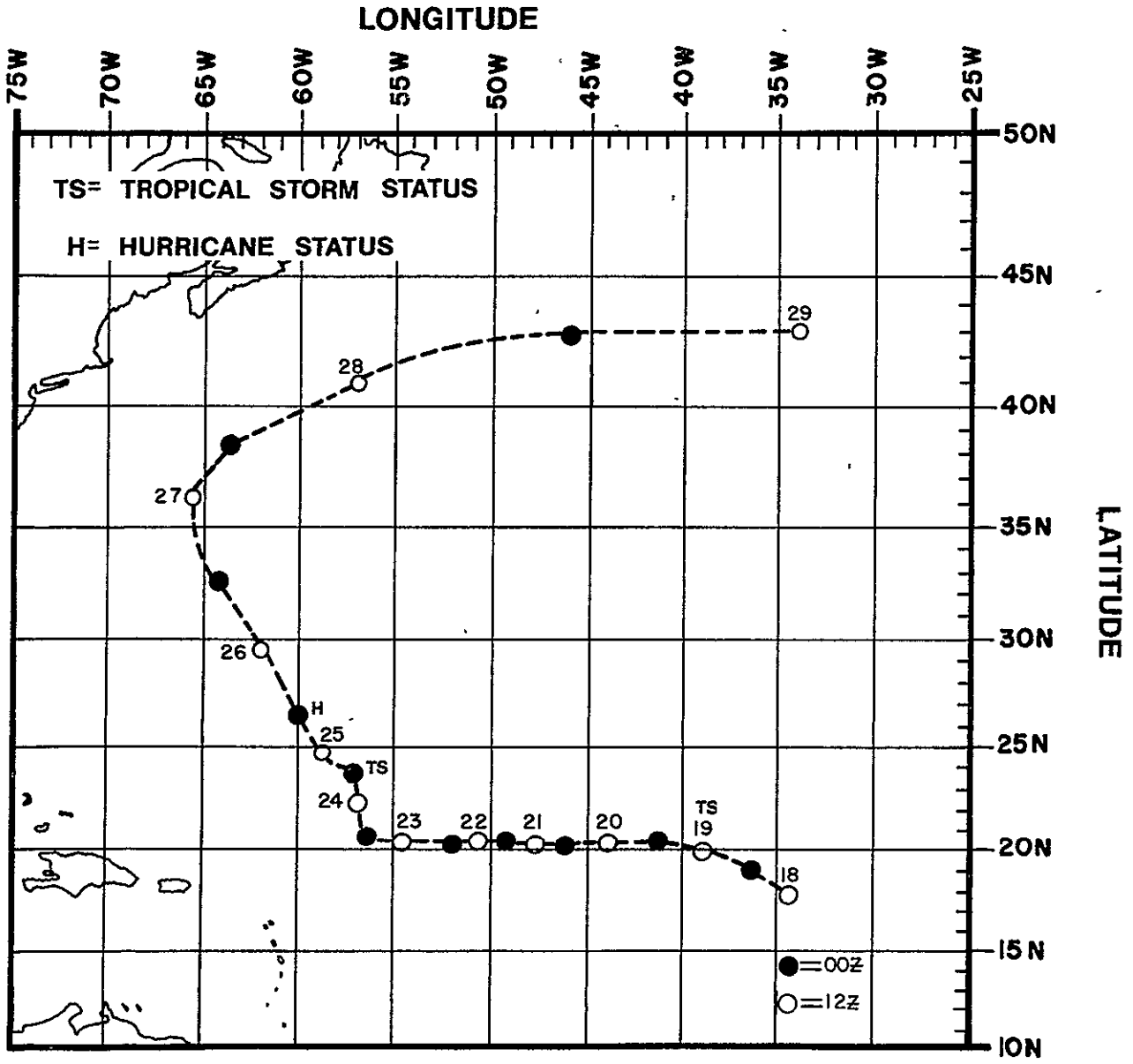


FIGURE 6. PRELIMINARY BEST TRACK FOR HURRICANE FAYE

STORM: HURRICANE FAYE

DATE: SEPT 18 - SEPT 29, 1975

Date	Time GMT	Position		Pressure* (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
9/18	0600Z	17.5N	33.5W	----	25	Tropical Depression
	1200Z	17.8	34.4	----	25	
	1800Z	18.3	35.3	----	25	
9/19	0000Z	19.0N	36.4W	----	25	Tropical Depression
	0600Z	19.6	37.6	----	30	
	1200Z	20.0	39.0	----	35	Tropical Storm
	1800Z	20.4	40.2	----	40	
9/20	0000Z	20.5N	41.3W	----	40	Tropical Storm
	0600Z	20.5	42.7	----	40	
	1200Z	20.3	44.0	----	40	
	1800Z	20.2	45.3	----	40	
9/21	0000Z	20.3N	46.2W	----	40	Tropical Storm
	0600Z	20.3	47.0	----	40	
	1200Z	20.3	47.8	----	40	
	1800Z	20.4	48.5	----	35	
9/22	0000Z	20.5N	49.3W	----	40	Tropical Storm
	0600Z	20.5	50.0	----	40	
	1200Z	20.4	50.8	----	40	
	1800Z	20.4	51.5	----	40	
9/23	0000Z	20.4N	52.2W	----	40	
	0600Z	20.3	53.4	----	40	
	1200Z	20.4	54.6	----	30	Tropical Depression
	1800Z	20.6	55.8	----	30	
9/24	0000Z	20.8N	56.5W	----	30	Tropical Depression
	0600Z	21.5	57.1	----	25	
	1200Z	22.4	57.0	----	25	
	1800Z	23.0	56.9	1005	25	
9/25	0000Z	23.8N	57.2W	----	30	Tropical Depression
	0600Z	24.2	58.1	----	35	Tropical Storm
	1200Z	24.8	58.8	999	45	
	1800Z	25.5	59.4	993	60	

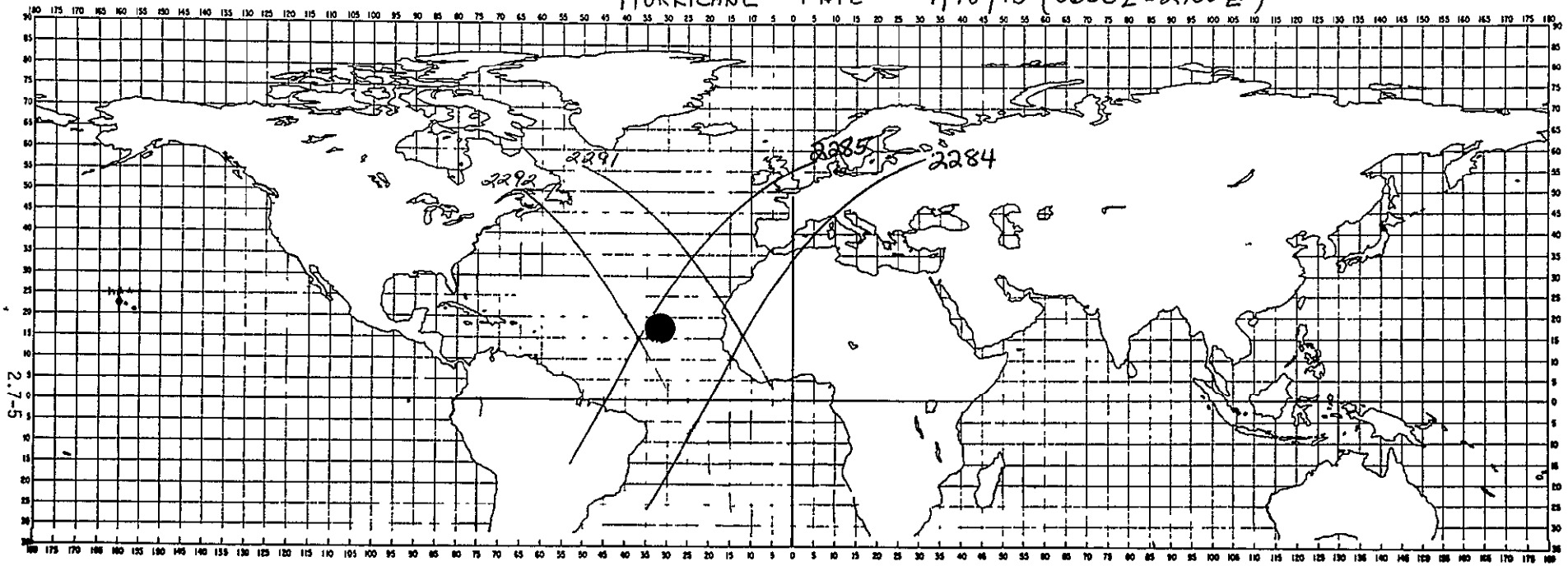
*Lowest Pressure

STORM: HURRICANE FAYE (CONT.)

DATE: SEPT 18 - SEPT 29, 1975

Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
9/26	0000Z	26.5N	60.0W	990	65	Hurricane
	0600Z	27.9	60.9	988	70	
	1200Z	29.6	62.0	985	75	
	1800Z	31.0	63.1	----	85	
9/27	0000Z	32.7N	64.2W	----	90	Hurricane
	0600Z	34.4	65.2	979	--	
	1200Z	36.1	65.7	982	--	
	1800Z	37.4	65.0	985	--	
9/28	0000Z	38.4N	63.7W	----	85	Hurricane
	0600Z	39.8	60.5	----	80	
	1200Z	41.0	57.1	979	75	
	1800Z	42.3	52.0	977	--	
9/29	0000Z	42.8N	46.0W	----	70	Hurricane
	0600Z	42.9	40.0	----	--	
	1200Z	43.0	34.0	----	60	Extratropical

HURRICANE "FAYE" - 9/18/75 (0600Z - 2400Z)



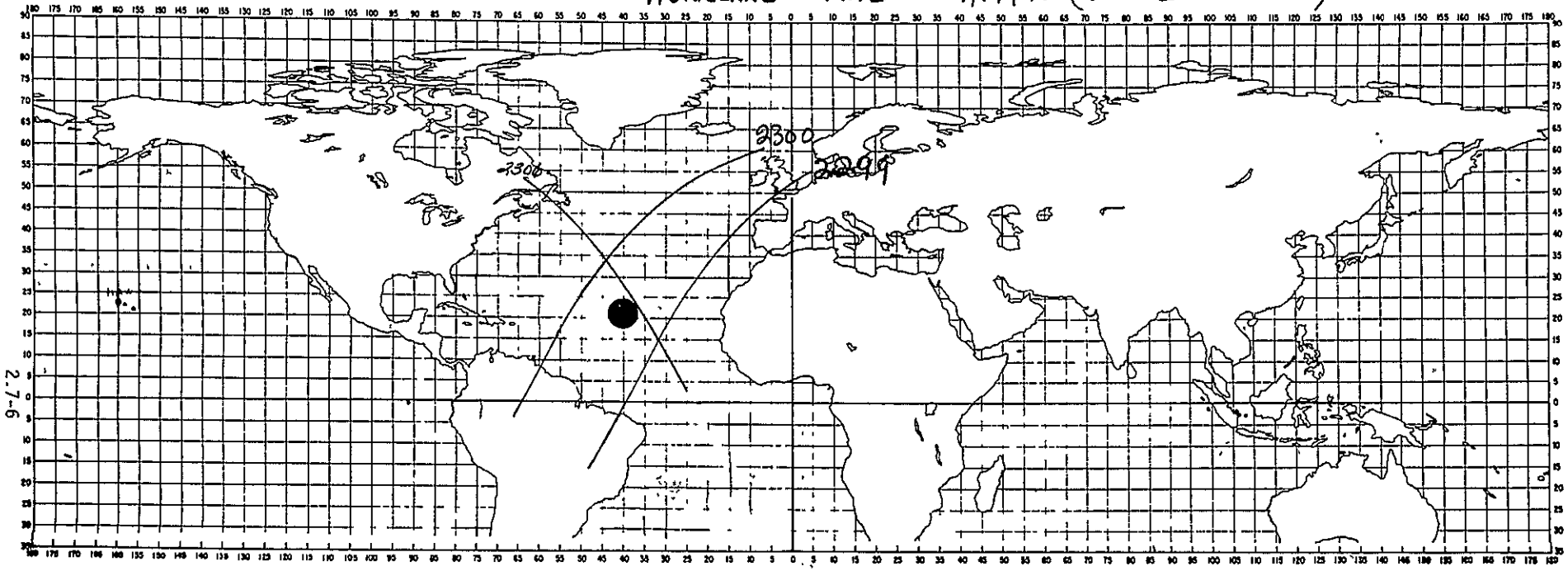
2.7-5

LOCATION
TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0600Z	17.5N	33.5W
1200Z	17.8	34.4
1800Z	18.3	35.3
2400Z	19.0	36.4

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Orig.
2284	+173.19	09 56 15	1044Z	No			
2285	+147.85	11 38 03	1223Z	121612	122052	802	520
2291	- 4.07	21 48 45	2156Z	No			
2292	- 29.39	23 30 32	2335Z	No			

HURRICANE "FAYE" - 9/19/75 (0000 Z - 2400 Z)

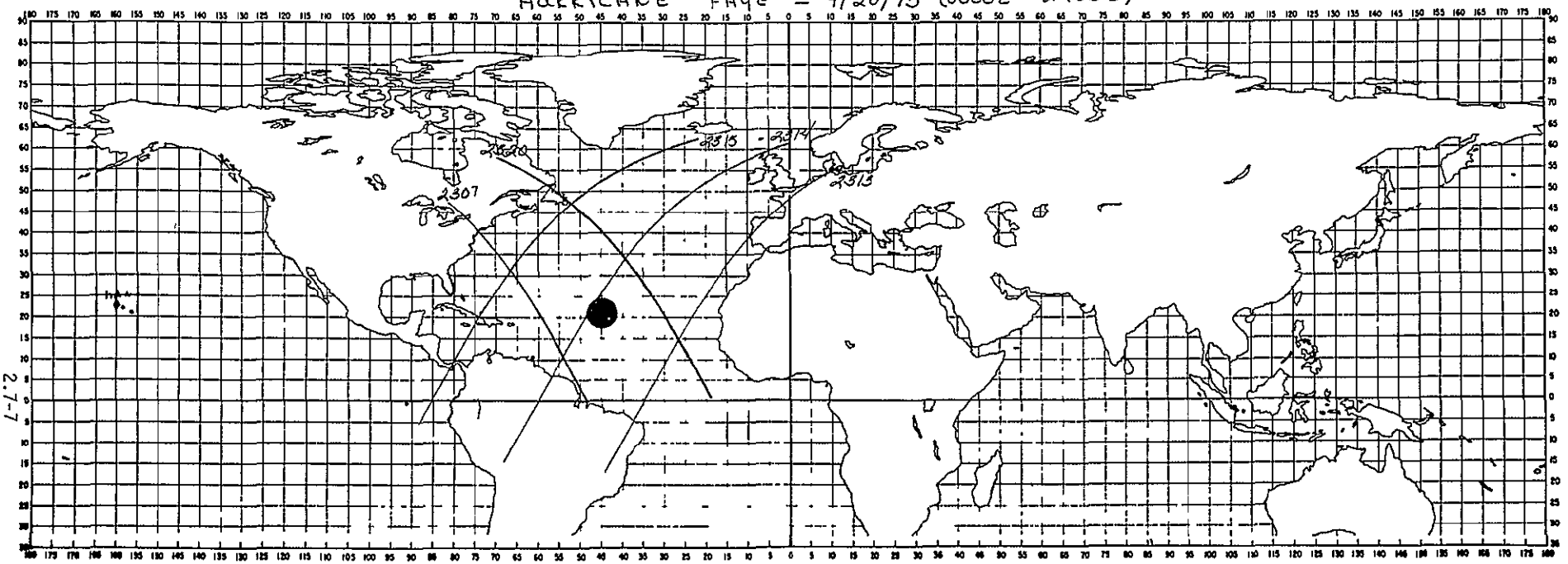


TROPICAL DEPRESSION / TROPICAL STORM (1200 Z) LOCATION

TIME	LATITUDE	LONGITUDE
0000 Z	19.0 N	36.4 W
0600 Z	19.6	37.6
1200 Z	20.0	39.0
1800 Z	20.4	40.2
2400 Z	20.5	41.3

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Prog. #
2299	+ 153.34	11 23 02	1209 Z	No			
2300	+ 128.01	13 04 49	1348 Z	No			
2306	- 23.93	23 15 31	2323 Z	No			

HURRICANE "FAYE" – 9/20/75 (0000Z – 2400Z)



2.7-7

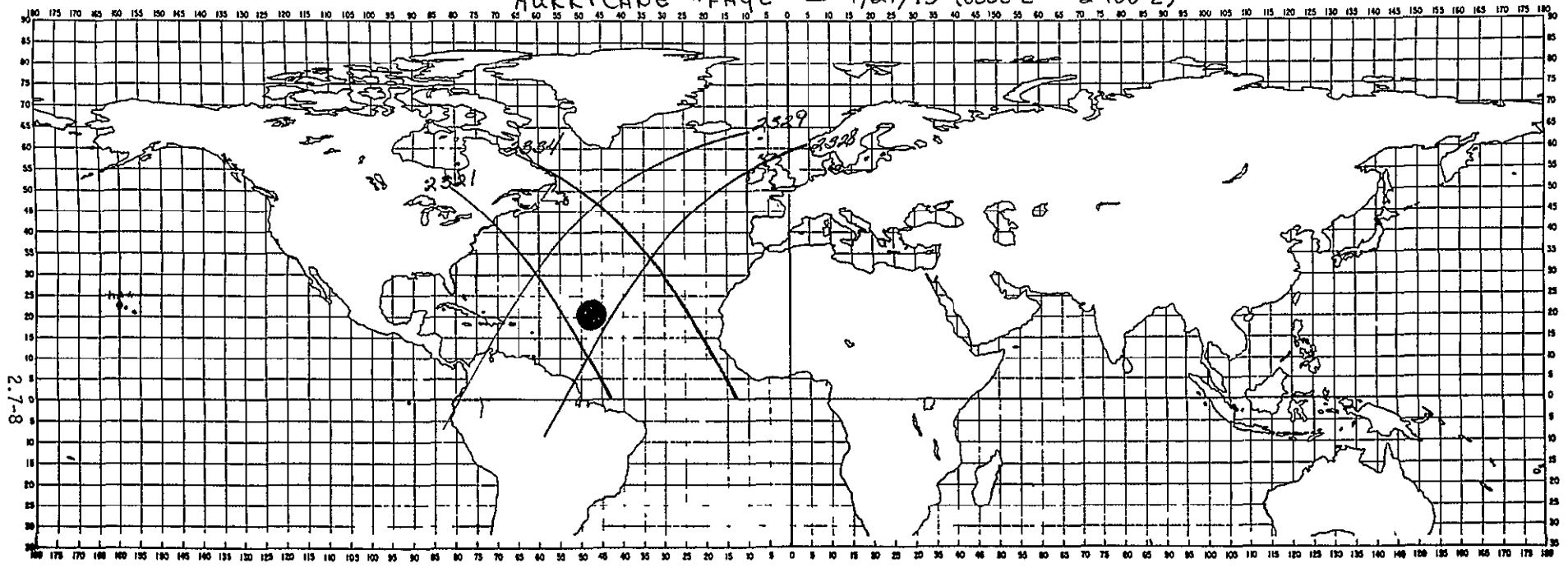
LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	20.5N	11.3W
0600Z	20.5	12.7
1200Z	20.3	14.0
1800Z	20.2	15.3
2400Z	20.3	16.2

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq #
2307	– 19.25	00 57 18	0101E	010605	010947	802	538
2313	+ 158.81	11 08 01	1155Z	No			
2314	+ 133.19	12 49 48	1334Z	No			
2315	+ 108.16	14 31 36	1518Z	151627	151631	802	543
2320	– 18.15	23 00 31	2329Z	233142	233146	802	551

HURRICANE "FAYE" — 9/21/75 (0000 Z — 2400 Z)



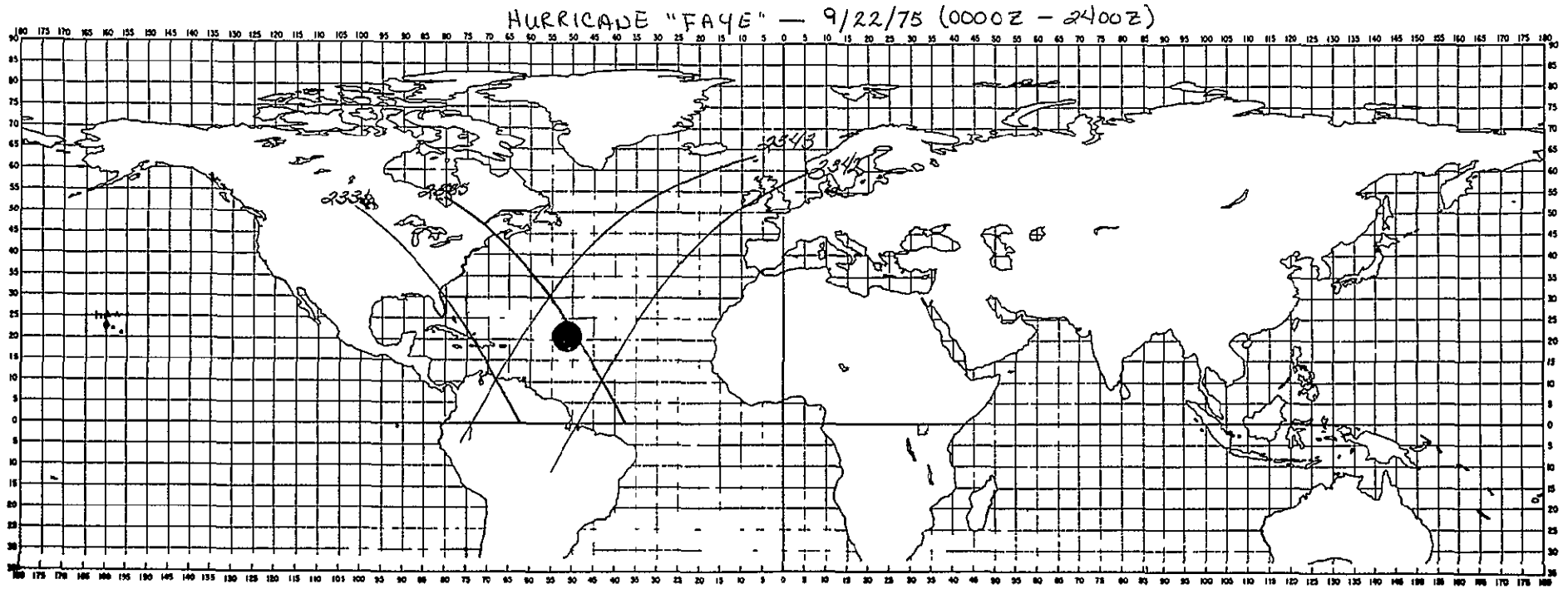
2.7-8

LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	20.3N	46.2W
0600Z	20.3	47.0
1200Z	20.3	47.8
1800Z	20.4	48.5
~~2400Z~~	20.5	46.2

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unique
2321	-43.73	00 42 18	0047Z	005221	005533	802	552
2328	+138.96	12 34 47	1320Z	No			
2329	+113.64	14 16 34	1459Z	No			
2334	-12.93	22 45 30	2255Z	No			



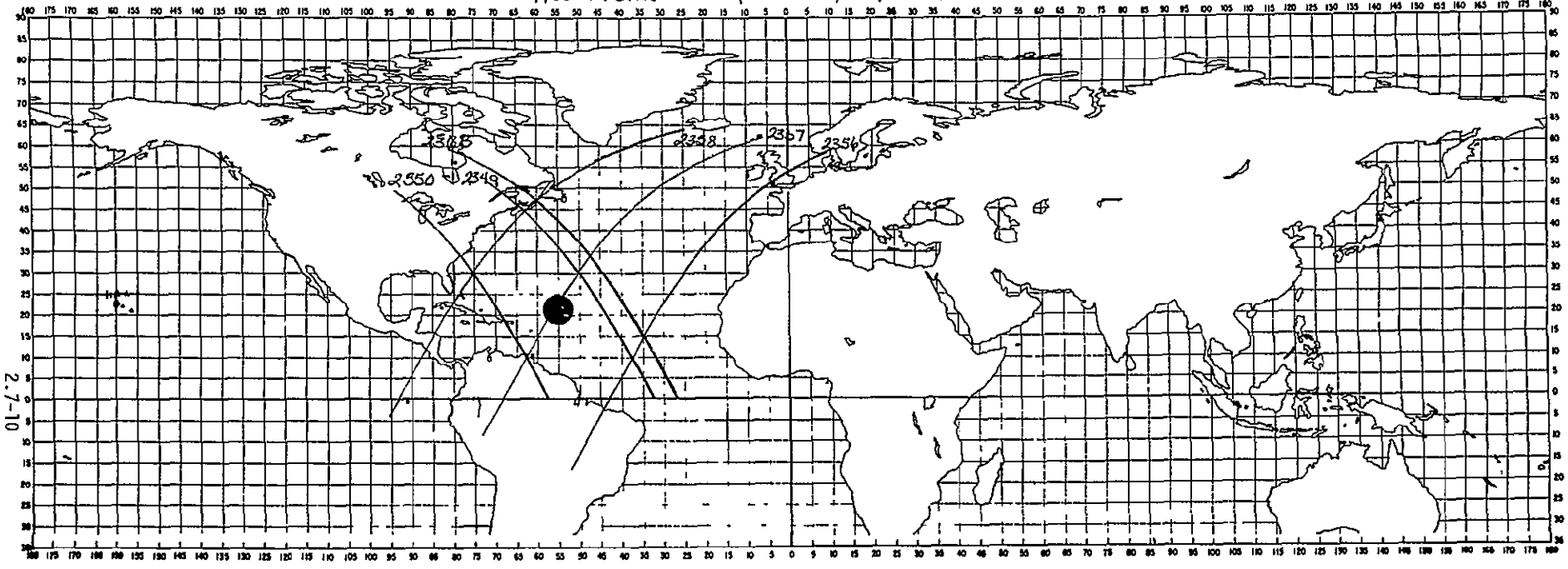
LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	20.5N	119.3W
0600Z	20.5	50.0
1200Z	20.4	50.8
1800Z	20.4	51.5
2400Z	20.4	52.2

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Orig #
2335	-38.30	00 27 17	0033Z	003827	004/130	802	1
2336	-63.62	02 09 04	0218Z	021501	021827	802	2
2342	+144.43	12 19 17	1327Z	Ve			
2343	+119.11	14 01 34	1444Z	143610	144914	802	11

HURRICANE "FAYE" – 9/23/75 (0000Z – 2400Z)



2.7-10

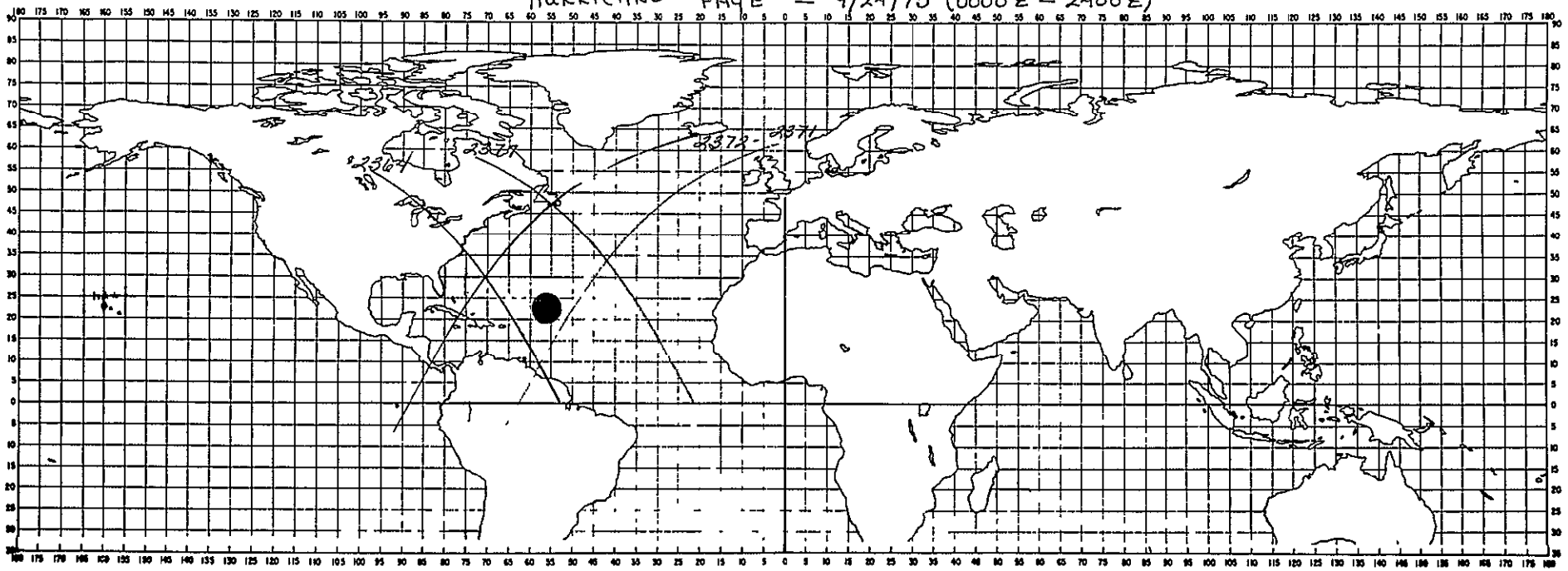
LOCATION

TROPICAL STORM/TROPICAL DEPRESSION (1200Z)

TIME	LATITUDE	LONGITUDE
0000Z	20.4N	52.2W
0600Z	20.3	53.4
1200Z	20.4	54.6
1800Z	20.6	55.8
2400Z	20.8	56.5

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Daig #
2349	- 32.83	00 12 16	0020Z	002120	002324	802	20
2350	-58.15	01 54 03	0158Z	No			
2356	+149.91	12 04 46	1251Z	No			
2357	+124.59	13 46 33	1330Z	No			
2358	+ 99.26	15 28 20	1608Z	160354	161422	802	27
2363	-27.35	23 57 15	0007Z (9/24)	No			

HURRICANE "FAYE" — 9/24/75 (0000Z – 2400Z)



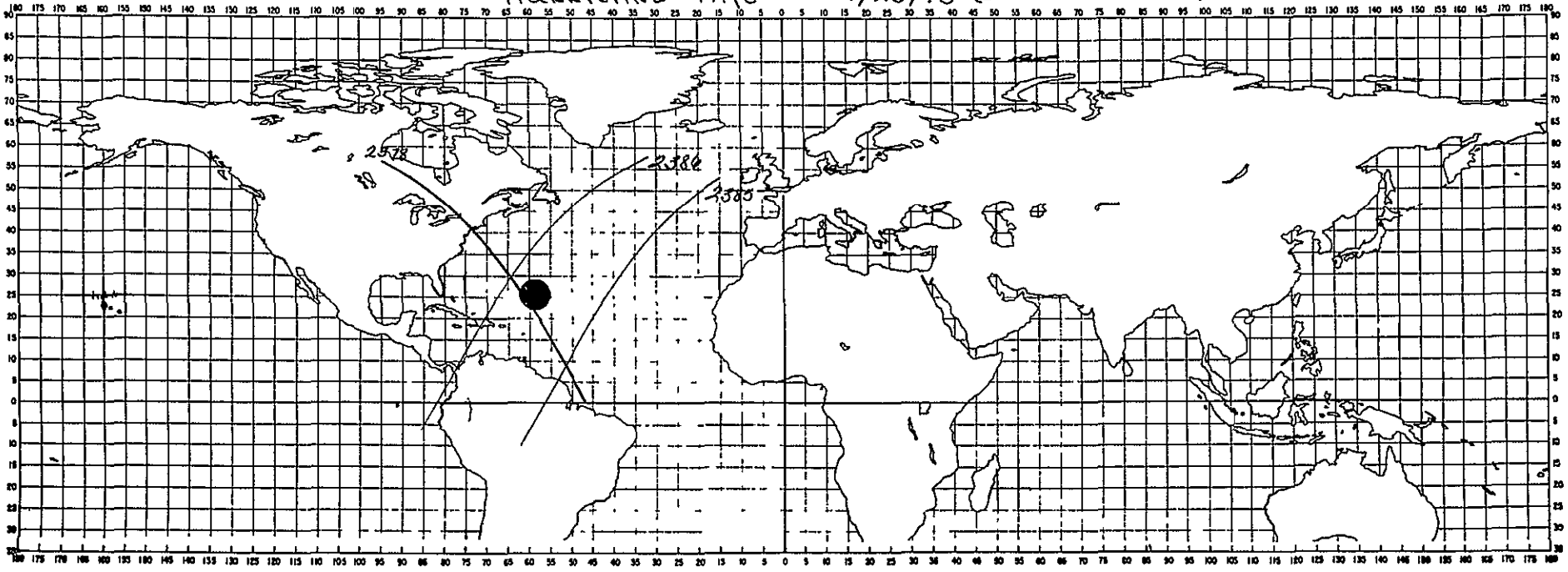
LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	20.8N	56.5W
0600Z	21.5	57.1
1200Z	22.4	57.0
1800Z	23.0	56.9
2400Z	23.8	57.2

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unig #
2364	-52.68	01 39 02	0144Z	No			
2371	+130.06	13 31 32	1417Z	No			
2372	+104.74	15 13 39	1554Z	1550 4/9	155938	802	1/3
2377	-21.88	23 42 15	2352Z	No			

HURRICANE "FAYE" — 9/25/75 (0000Z - 2400Z)



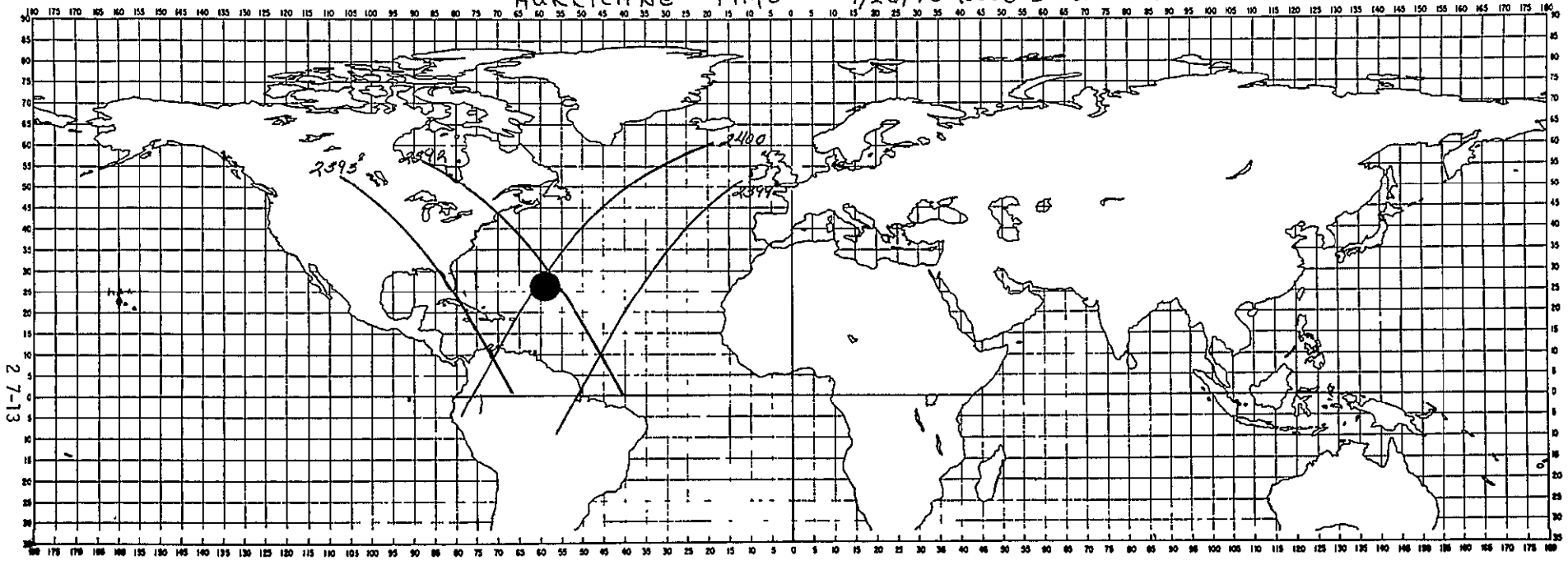
LOCATION

TROPICAL DEPRESSION/TROPICAL STORM (0600Z)

TIME	LATITUDE	LONGITUDE
0000Z	23.8N	57.2W
0600Z	24.2	58.1
1200Z	24.8	58.8
1800Z	25.5	59.4
2400Z	26.9	60.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Length
2378	-47.20	01 24 02	0130Z	01 08 42	013700	802	51
2385	+133.53	13 16 31	1402Z	No			
2386	+110.21	14 58 18	1540Z	No			

HURRICANE "FAYE" — 9/26/75 (0000 Z — 2400 Z)



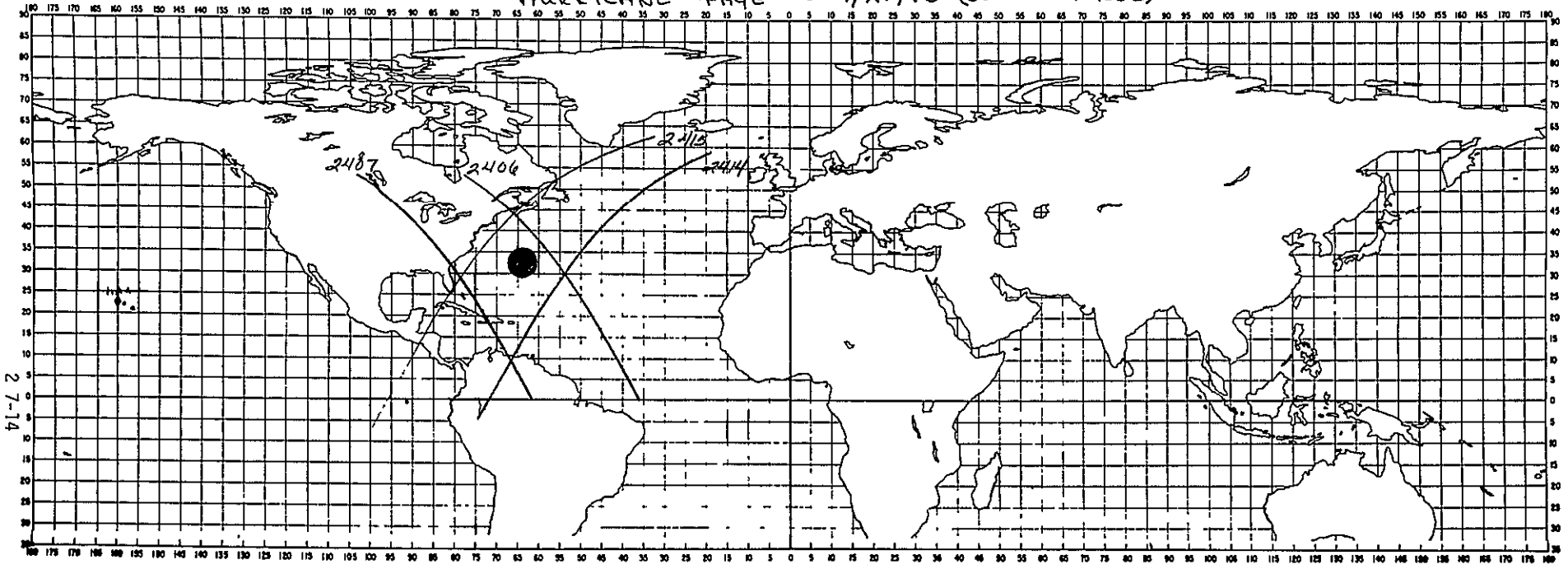
2-7-13

LOCATION
HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	26.5N	60.0W
0600Z	27.9	60.9
1200Z	29.6	62.0
1800Z	31.0	63.1
2400Z	32.7	64.2

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit #
2392	- 41 73	01 09 01	0117Z	011931	012241	802	66
2393	- 67 03	02 50 48	0256Z	No			
2399	+141 01	13 01 31	1341Z	No			
2400	+116 68	14 43 18	1526Z	No			

HURRICANE "FAYE" – 9/27/75 (0000Z – 2400Z)



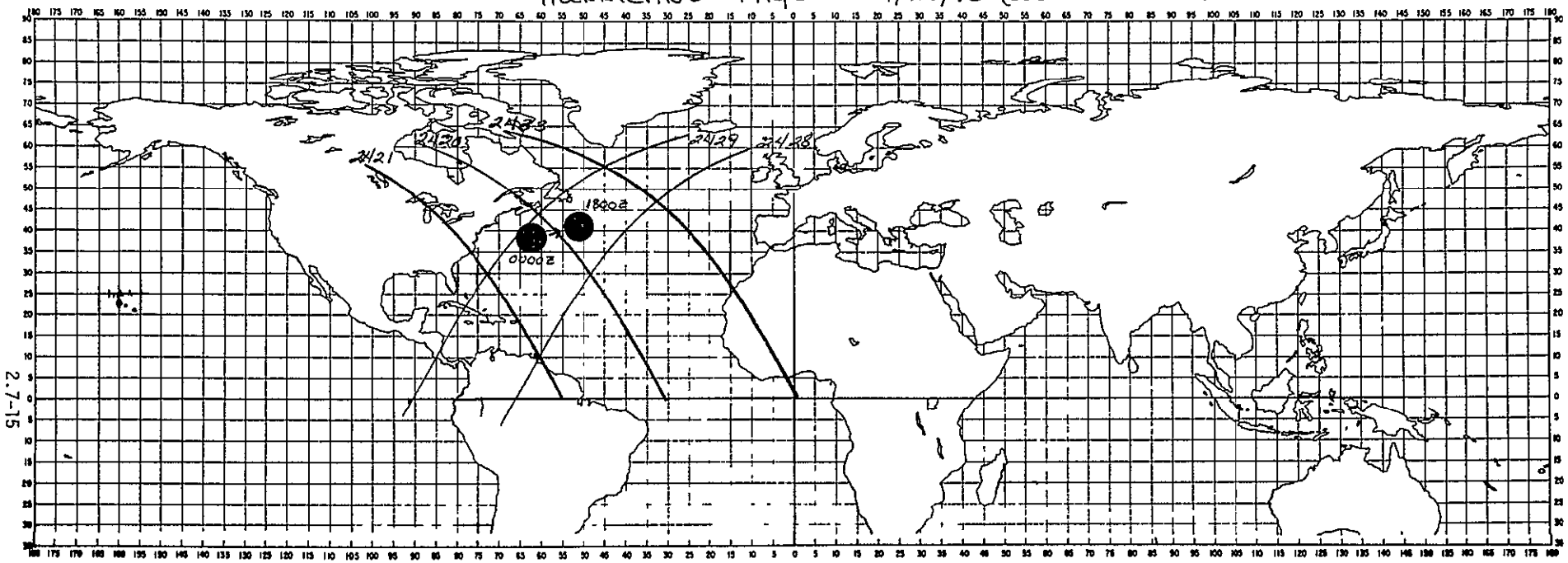
2 7-14

LOCATION
HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	32.7N	64.2W
0600Z	34.4	65.2
1200Z	36.1	65.7
1800Z	37.4	65.0
2400Z	38.4	63.7

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
2406	- 36.26	00 54 00	0103Z	010542	010820	802	83
2407	-61.58	02 35 47	0242Z	024210	024553	802	84
2414	+121.16	14 28 17	1511Z	No			
2415	+95.84	16 10 04	1648Z	164437	165753	802	94

HURRICANE "FAYE" - 9/28/75 (0000Z - 2400Z)

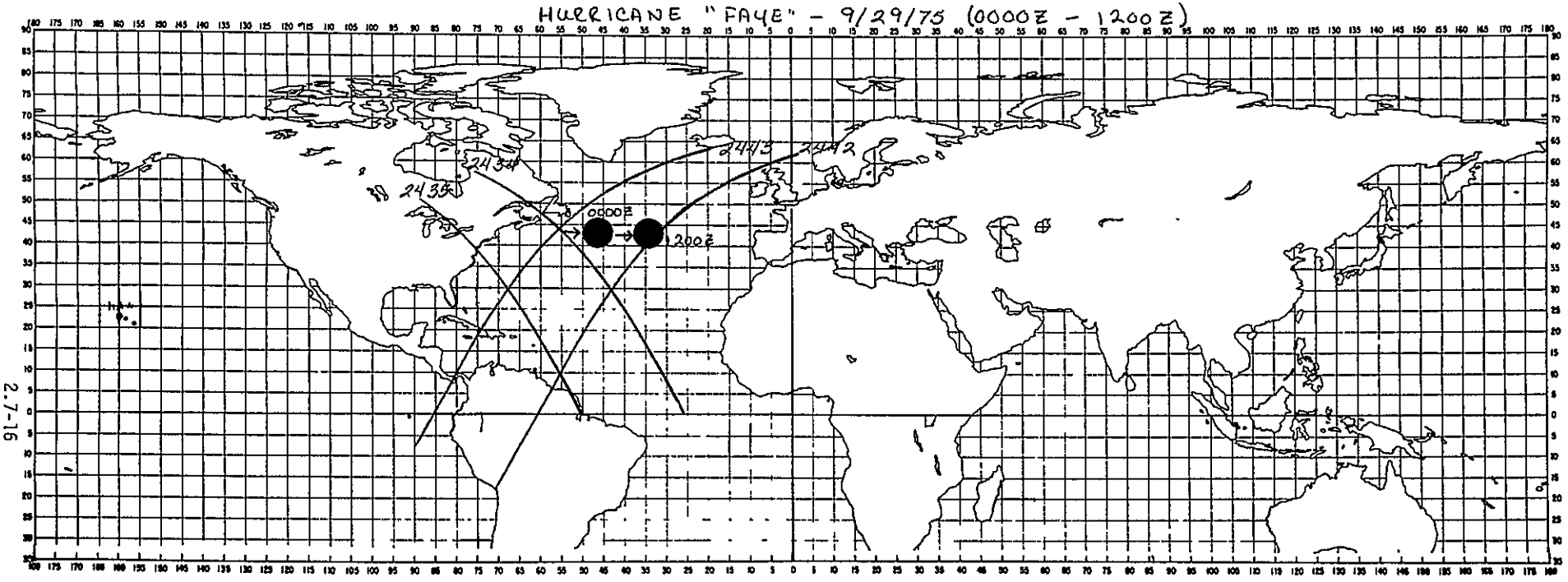


2.7-15

LOCATION
HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	38.4N	63.7W
0600Z	39.8	60.5
1200Z	41.0	57.1
1800Z	42.3	52.0
2400Z	42.8	46.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Length
2420	-30.78	00 38 59	0051Z	No			
2421	-56.11	02 20 46	0229Z	022812	023139	802	102
2428	+126.63	14 13 16	1453Z	No			
2429	+101.31	15 55 03	1631Z	163037	164506	802	111
2433	00.00	22 42 12	2257Z	No			



LOCATION

HURRICANE/EXTRATROPICAL (1200Z)

TIME	LATITUDE	LONGITUDE
0000Z	42.8N	46.0W
0600Z	42.9	40.0
1200Z	43.0	34.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
24434	-2531	00 23 59	0036Z	No			
24435	-5063	02 05 46	0215Z	021410	021854	802	118
24442	+132 11	13 58 15	1436Z	No			
24443	+108 78	15 40 02	1613Z	161514	163129	802	122

HURRICANE GLADYS

September 22 - October 3, 1975

Meteorological History/Data

The disturbance from which Gladys evolved followed the one which formed Faye by about four days as it crossed the eastern part of the tropical Atlantic. Faye took a more northern course near latitude 20°N while the predecessor of Gladys followed to the southeast near latitude 11°N.

No reconnaissance data nor ship reports were available from the immediate vicinity of the system from the time it was a tropical disturbance until two days after it became a hurricane. The estimates of maximum wind and central pressure during this period, therefore, are based on satellite photographs. These pictures suggest that a depression formed on September 22 and reached tropical storm intensity about fourty-eight hours later. An eye became apparent on satellite pictures on September 25 and Gladys was upgraded to hurricane status.

Shortly after Gladys became a hurricane it came under the influence of strong vertical wind shear which prevented further intensification. Gladys barely maintained hurricane strength for the next four days and winds may even have dropped below the hurricane threshold on September 28 as the central pressure rose to 1000 millibars.

However, as Gladys tracked west-northwestward on September 29, and the cold low which was east of the Bahamas receded to the southwest, the influence of the strong westerly shear ended and the hurricane deepened rapidly.

Forecasts and Warnings

During the next two days the forecast problem centered on the degree of persistence of the ridge to the north and its effect on the recurvature of the hurricane. Even though Gladys turned toward the north-northwest on October 1, and was expected to turn toward the north on the following day, the threat to the outer banks of North Carolina was sufficient to warrant a hurricane watch, which was issued for the area from Cape Lookout to Kitty Hawk at 6 p.m. EDT, October 1. Because of rising tides and increasing swells of eight feet, local officials closed the Cape Hatteras National Seashore road and campground.

As the hurricane center passed about 300 miles east of Cape Hatteras it reached its lowest pressure of 939 millibars with highest winds estimated 120 kts. This is one of the lowest recorded pressures in a hurricane that far north.

Gladys turned to the northeast and accelerated on October 2. It became apparent that the center would miss the North American continent but it still posed a threat to the island of Newfoundland. The hurricane attained a forward speed of more than 50 mph and two reconnaissance planes were unable to penetrate the center due to severe turbulence. The center passed about 70 miles off Cape Race, Newfoundland, about daybreak of October 3 and gradually became extratropical as it sped northeastward and merged with a cold front during the day.

Damage Estimates

No reports of casualties or damage due to Gladys have been received.

C-2

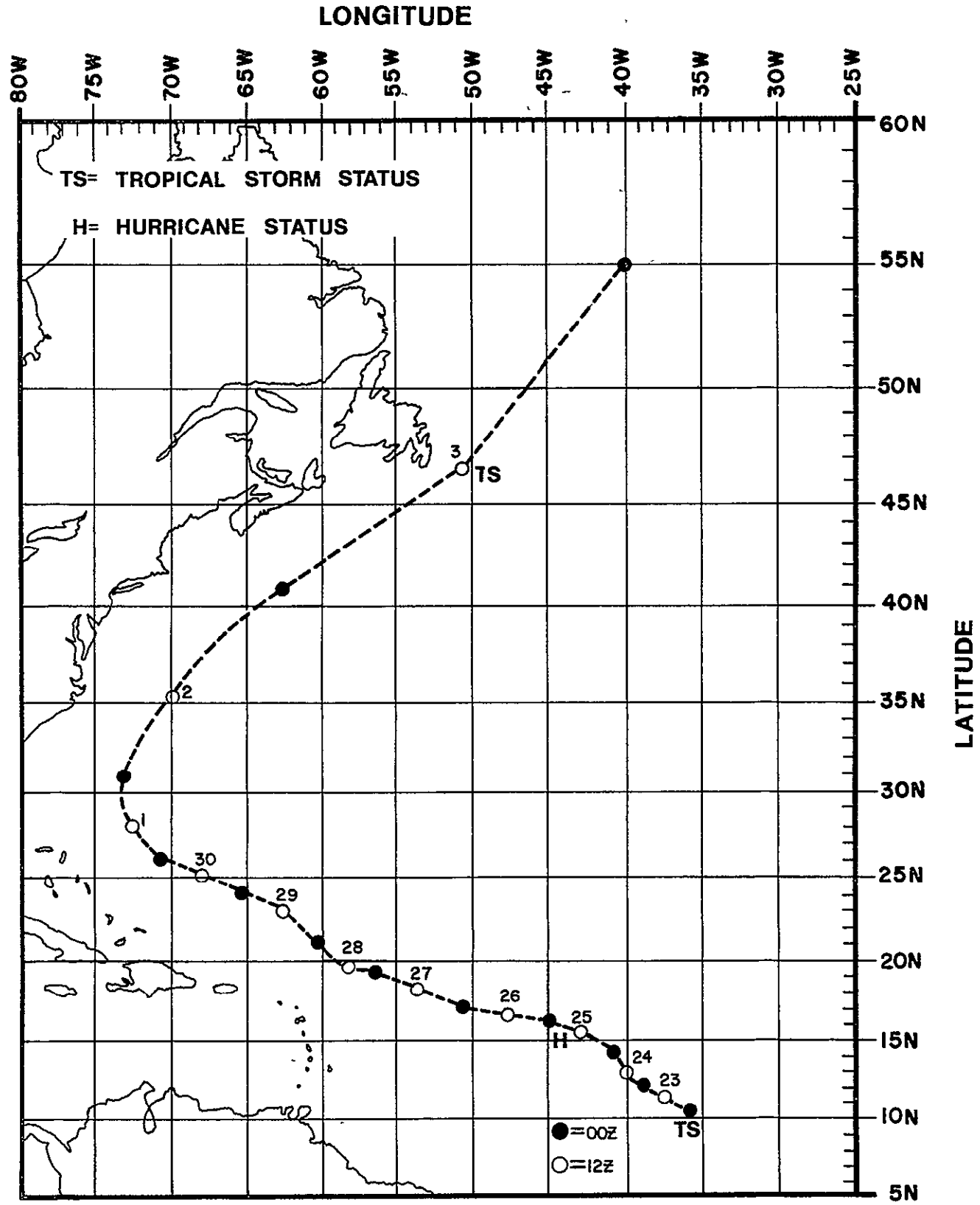


FIGURE 7. PRELIMINARY BEST TRACK FOR HURRICANE GLADYS

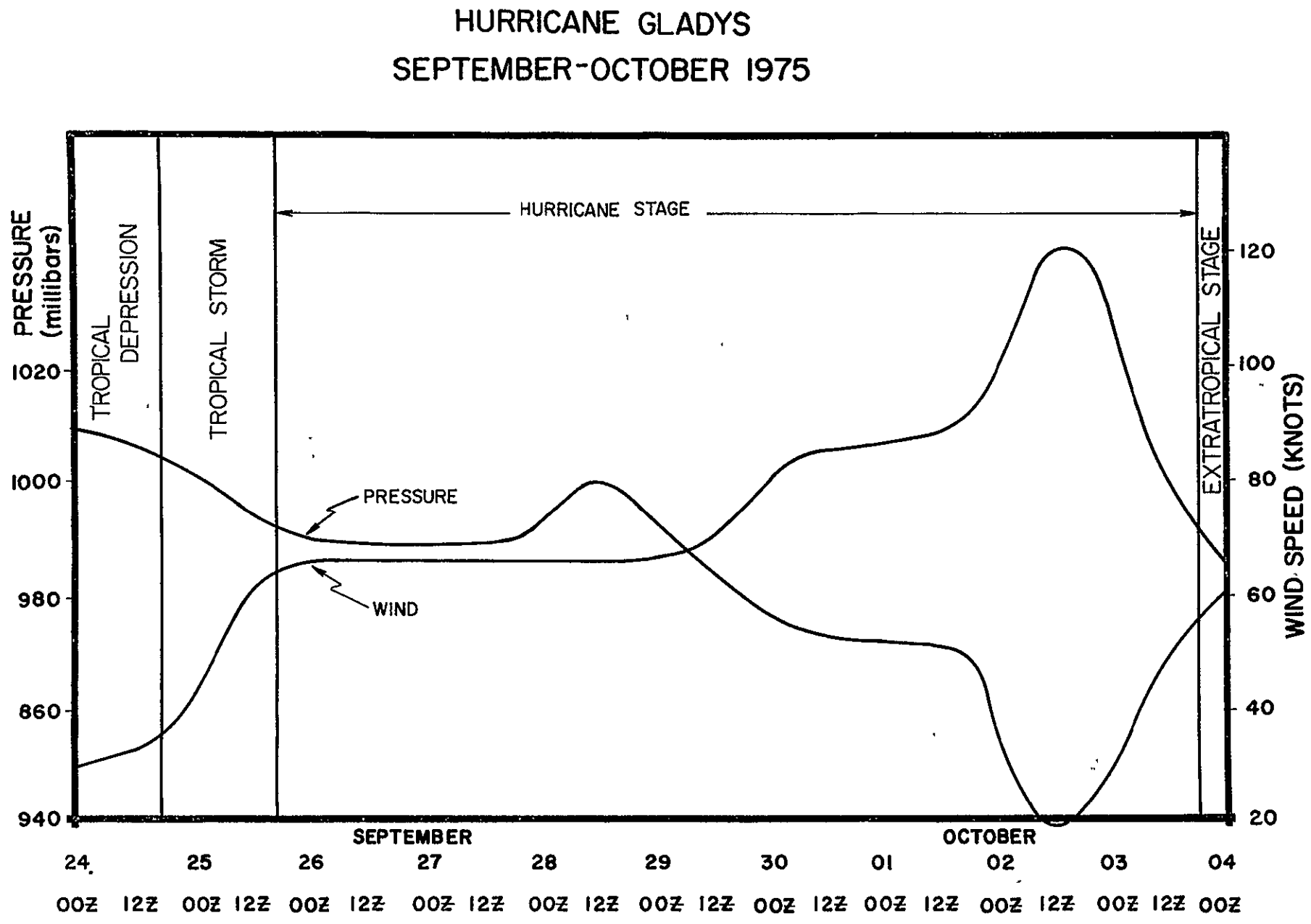


FIGURE 8 HURRICANE GLADYS PRESSURE–WIND VELOCITY PROFILE

STORM: HURRICANE GLADYS

DATE: SEPT 22 - OCT 3, 1975

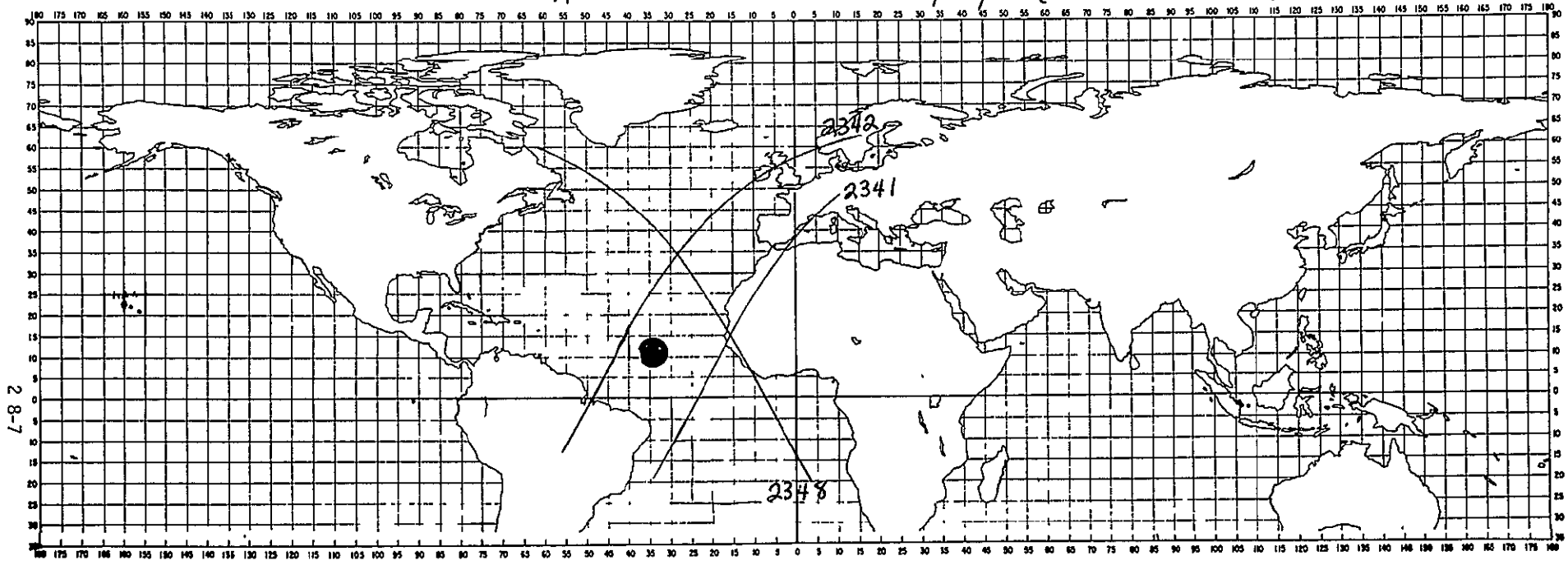
Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
9/22	1800Z	10.3N	34.8W	1012	25	Tropical Depression
9/23	0000Z	10.6N	35.8W	1012	25	Tropical Depression
	0600Z	11.0	36.7	1012	25	
	1200Z	11.4	37.4	1012	25	
	1800Z	11.7	38.2	1010	30	
9/24	0000Z	12.1N	38.8W	1010	30	Tropical Depression
	0600Z	12.4	39.6	1010	30	
	1200Z	12.9	40.0	1010	30	
	1800Z	13.5	40.4	1005	35	Tropical Storm
9/25	0000Z	14.2N	41.0W	----	40	Tropical Storm
	0600Z	14.8	42.0	1000	50	
	1200Z	15.4	43.0	----	60	
	1800Z	15.8	44.0	990	65	Hurricane
9/26	0000Z	16.2N	45.0W	990	65	Hurricane
	0600Z	16.4	46.1	990	65	
	1200Z	16.6	47.7	990	65	
	1800Z	16.8	49.3	990	65	
9/27	0000Z	17.1N	50.7W	990	65	Hurricane
	0600Z	17.6	52.2	990	65	
	1200Z	18.2	53.7	990	65	
	1800Z	18.8	55.1	990	65	
9/28	0000Z	19.4N	56.4W	992	65	Hurricane
	0600Z	19.6	57.4	----	65	
	1200Z	19.8	58.2	1000	65	
	1800Z	20.3	59.3	998	65	
9/29	0000Z	21.2N	60.3W	995	65	Hurricane
	0600Z	22.1	61.4	990	70	
	1200Z	23.0	62.6	----	--	
	1800Z	23.6	63.9	985	75	

STORM: HURRICANE GLADYS (CONT.)

DATE: SEPT 22 - OCT 3, 1975

Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
9/30	0000Z	24.1N	65.2W	975	80	Hurricane
	0600Z	24.6	66.5	975	80	
	1200Z	25.1	67.9	975	80	
	1800Z	25.6	69.3	975	80	
10/1	0000Z	26.1N	70.6W	975	80	Hurricane
	0600Z	26.8	71.7	975	80	
	1200Z	27.9	72.4	975	80	
	1800Z	29.4	73.0	969	90	
10/2	0000Z	31.0N	73.0W	954	100	Hurricane
	0600Z	32.9	72.1	942	110	
	1200Z	35.3	69.8	939	120	
	1800Z	37.8	67.0	----	---	
10/3	0000Z	40.8N	62.6W	950	110	Hurricane
	0600Z	43.7	57.0	960	85	
	1200Z	46.6	50.6	----	--	
	1800Z	50.5	45.5	975	75	Extratropical Storm
10/4	0000Z	55.0N	40.0W	980	65	Extratropical Storm

HURRICANE "GLADYS" – 9/22/75 (1800 Z – 2400 Z)



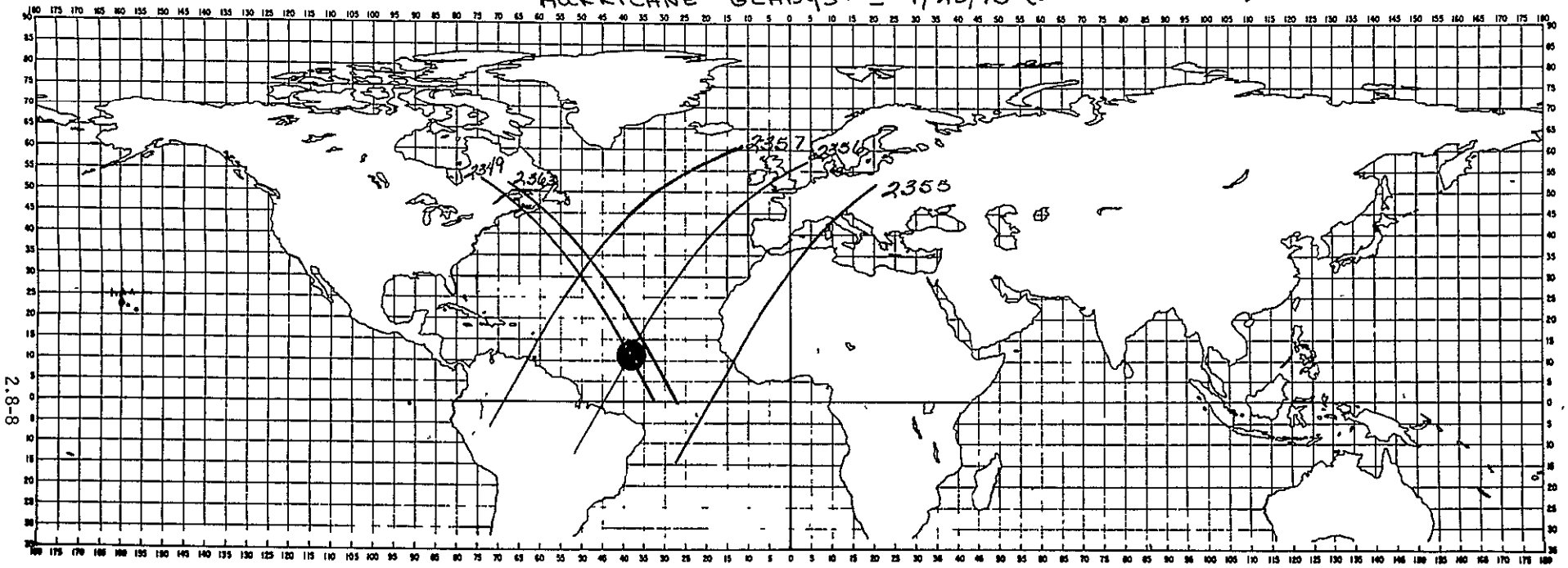
2-8-7

LOCATION
TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
1800 Z	10.3 N	34.8 W
2400 Z	10.6	38.8

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	U.#
2341	+ 169.76	10 38 00	1128 Z	No			
2342	+ 144.43	12 19 47	1307 Z	No			
2348	– 7.50	22 30 29	2236 Z	No			

HURRICANE "GLADYS" – 9/23/75 (0000Z – 2400Z)



2-8-8

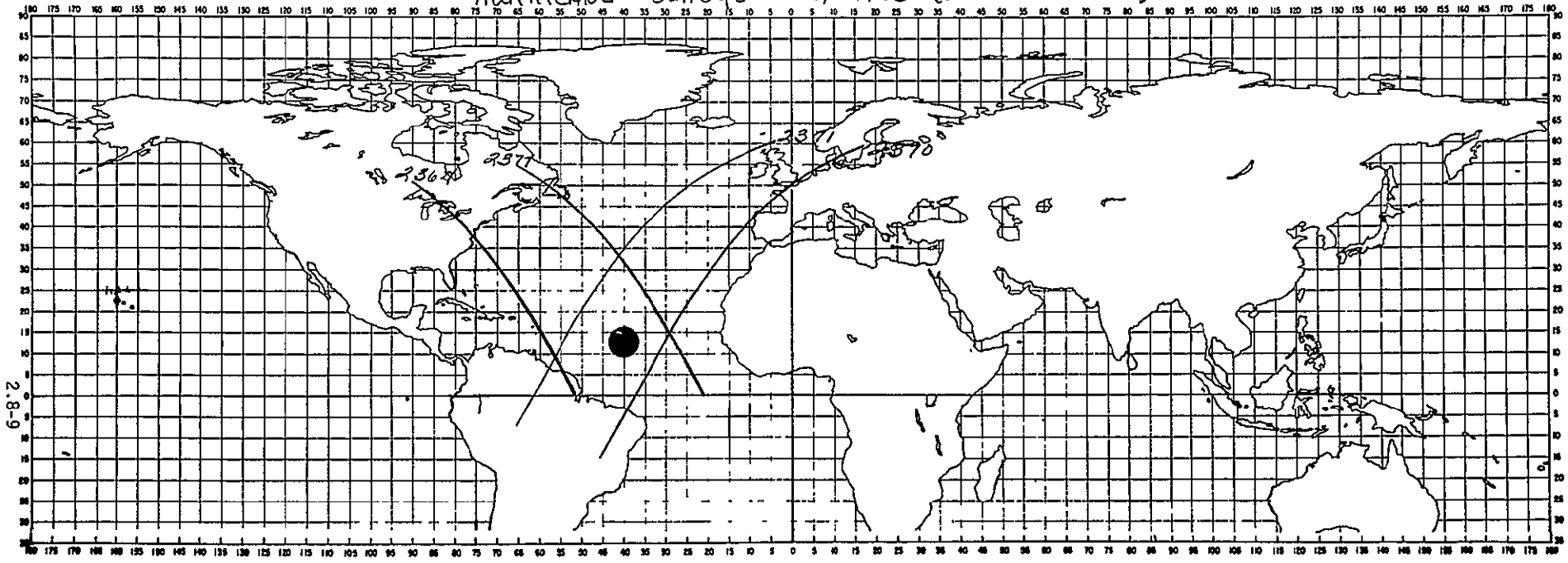
LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	10.6 N	35.8 W
0600Z	11.0	36.7
1200Z	11.4	37.4
1800Z	11.7	38.2
2400Z	12.1	38.8

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
2349	-32.83	00 12 16	0015Z	002120	002324	802	20
2355	+175.23	10 32 59	1114Z	No			
2356	+149.91	12 04 46	1252Z	No			
2357	+124.59	13 46 33	1430Z	No			
2363	-27.35	23 57 15	0001Z (9/24)	No			

HURRICANE "GLADYS" – 9/24/75 (0000Z – 2400Z)



2.8-9

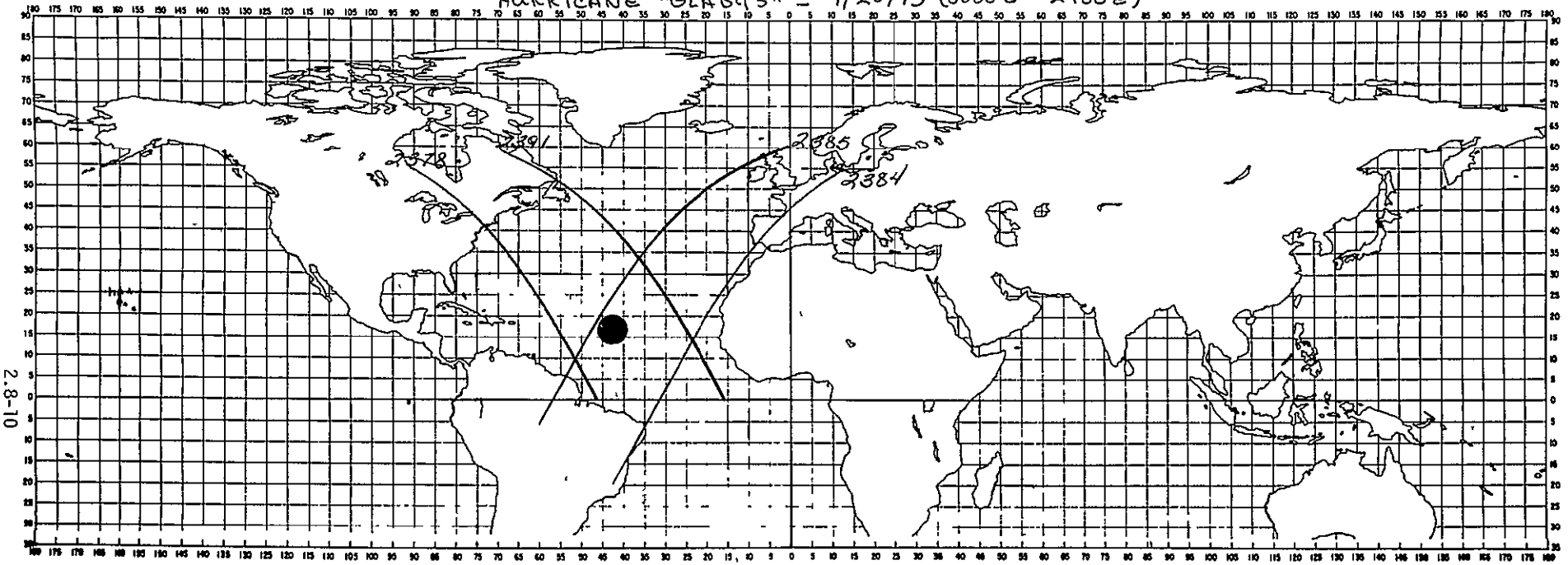
LOCATION

TROPICAL DEPRESSION/TROPICAL STORM (1800Z)

TIME	LATITUDE	LONGITUDE
0000Z	12 N	38.8 W
0600Z	12.4	39.6
1200Z	12.9	40.0
1800Z	13.5	40.4
2400Z	14.2	41.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
2364	- 52.68	01 59 02	0140 E	No			
2370	+155.38	11 49 45	1236 E	No			
2371	+130.06	13 31 32	1416 E	No			
2377	- 21.88	23 42 15	2348 E	No			

HURRICANE "GLADYS" - 9/25/75 (0000 Z - 2400 Z)



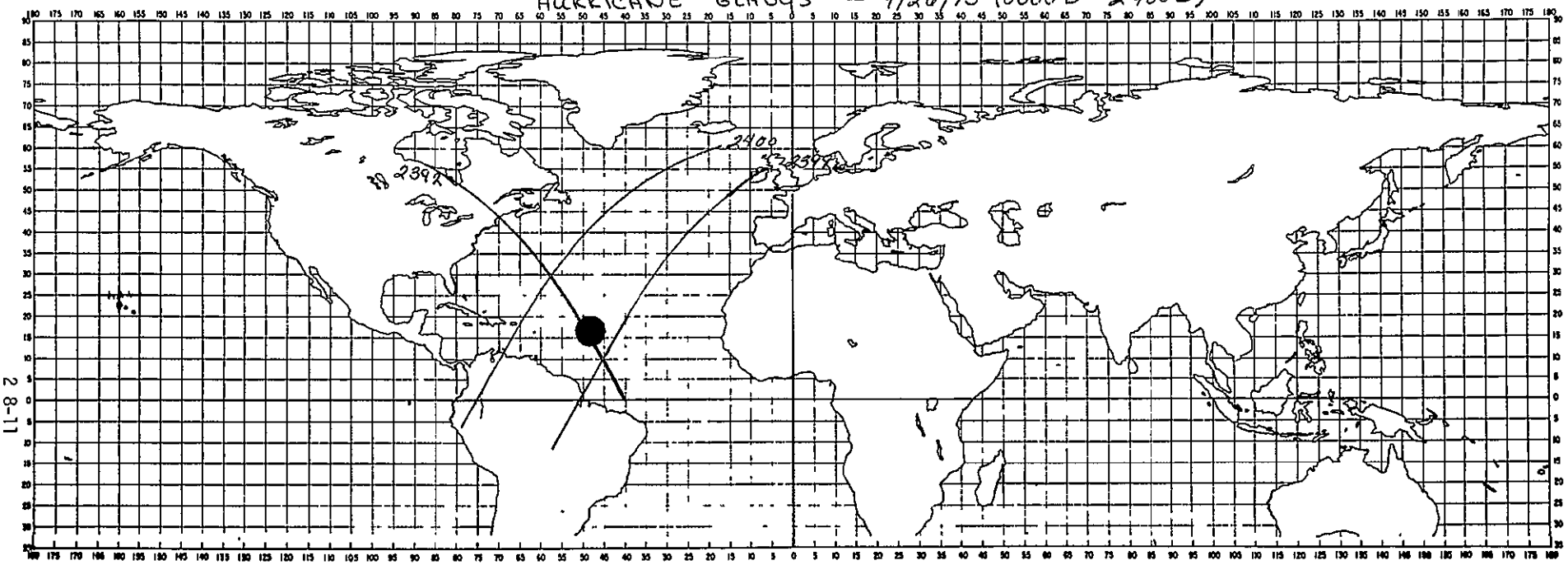
LOCATION

TROPICAL STORM/HURRICANE (1800Z)

TIME	LATITUDE	LONGITUDE
0000Z	14.2N	41.0W
0600Z	14.8	42.0
1200Z	15.4	43.0
1800Z	15.8	44.0
2400Z	16.2	45.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq#
2378	- 47.20	01 24 02	0126 Z	No			
2384	+160.86	11 34 44	1233 Z	No			
2385	+135.53	13 16 31	1402 Z	No			
2391	- 16.40	23 27 14	2335 Z	No			

HURRICANE "GLADYS" – 9/26/75 (0000 Z – 2400 Z)

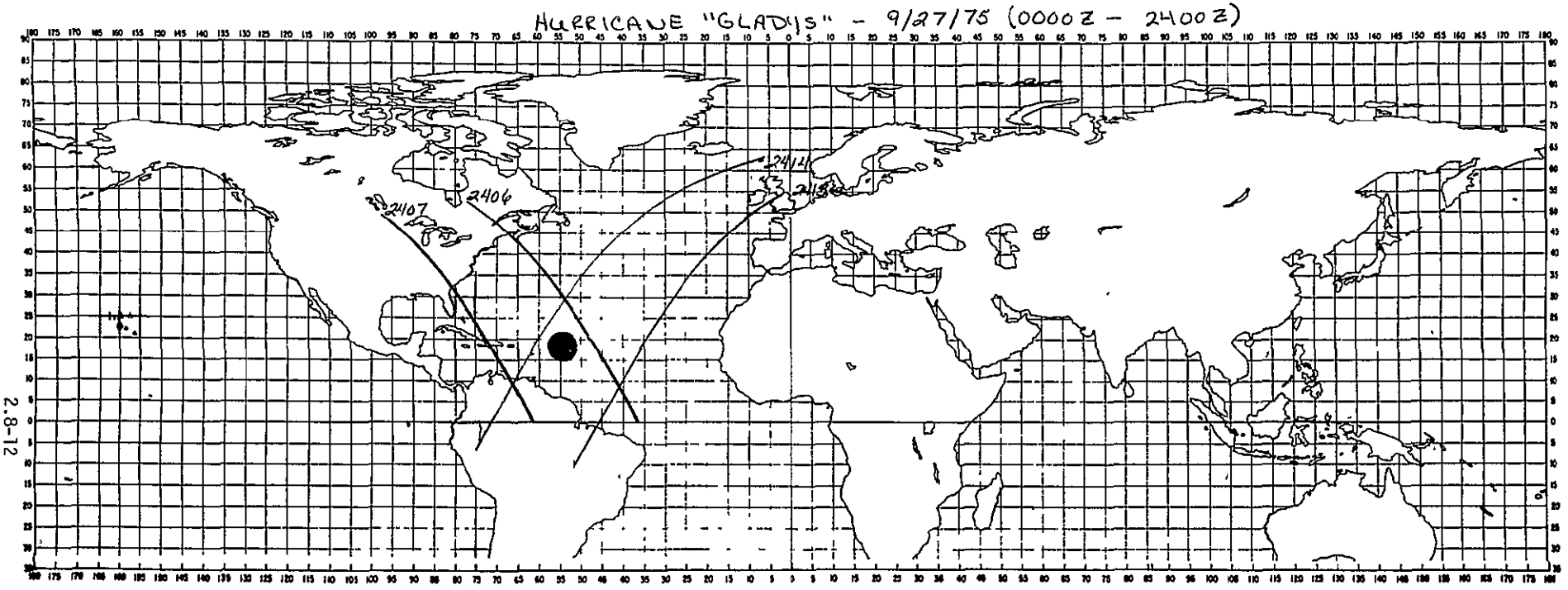


2 8-11

LOCATION
HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	16.2N	45.0W
0600Z	16.4	46.1
1200Z	16.6	47.7
1800Z	16.8	49.3
2400Z	17.1	50 7

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
2392	-41.73	01 09 01	0163Z	111931	112241	802	66
2399	+141 01	13 01 31	1348Z	No			
2400	+115.68	14 43 18	1526Z	No			



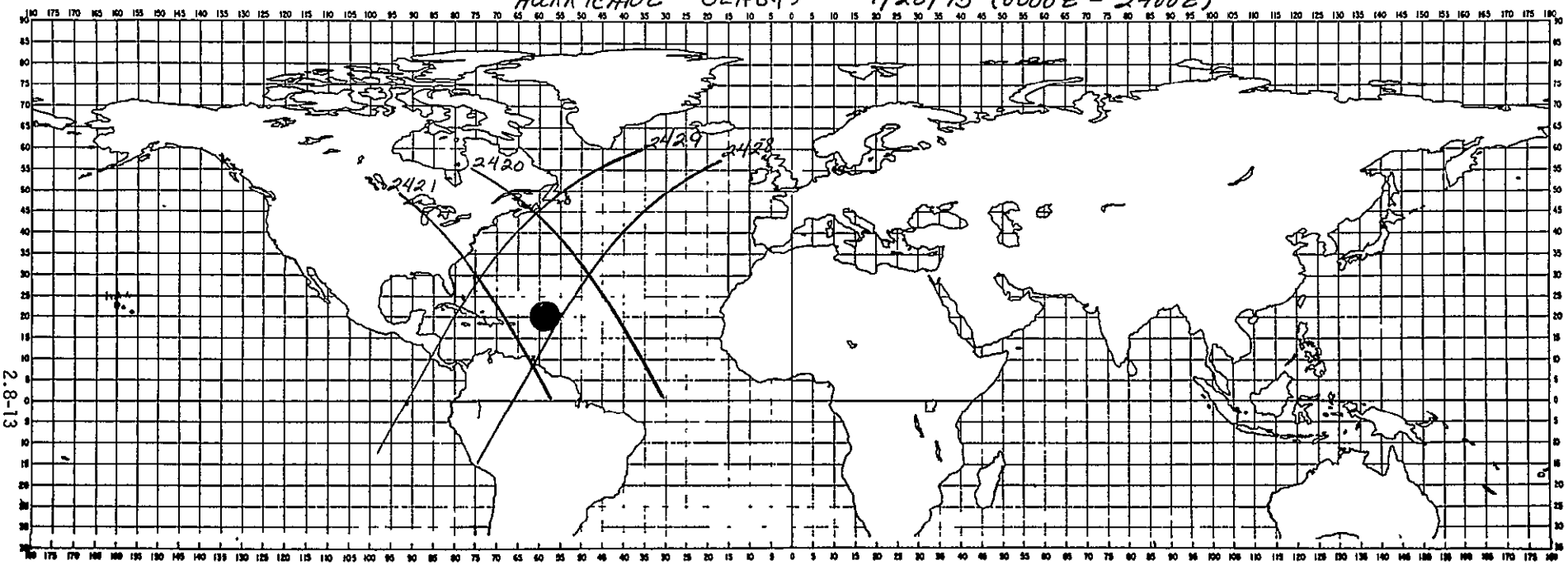
LOCATION

HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	17.1N	50.7W
0600Z	17.6	52.2
1200Z	18.2	53.7
1800Z	18.8	55.1
2400Z	19.4	56.4

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
2406	-36.26	00 54 00	0100Z	010542	010820	802	83
2407	-61.58	02 35 47	0238Z	024210	024553	802	84
2413	+146.48	12 46 30	1335Z	No			
2414	+121.16	14 26 17	1511Z	No			

HURRICANE "GLADYS" – 9/28/75 (0000Z – 2400Z)

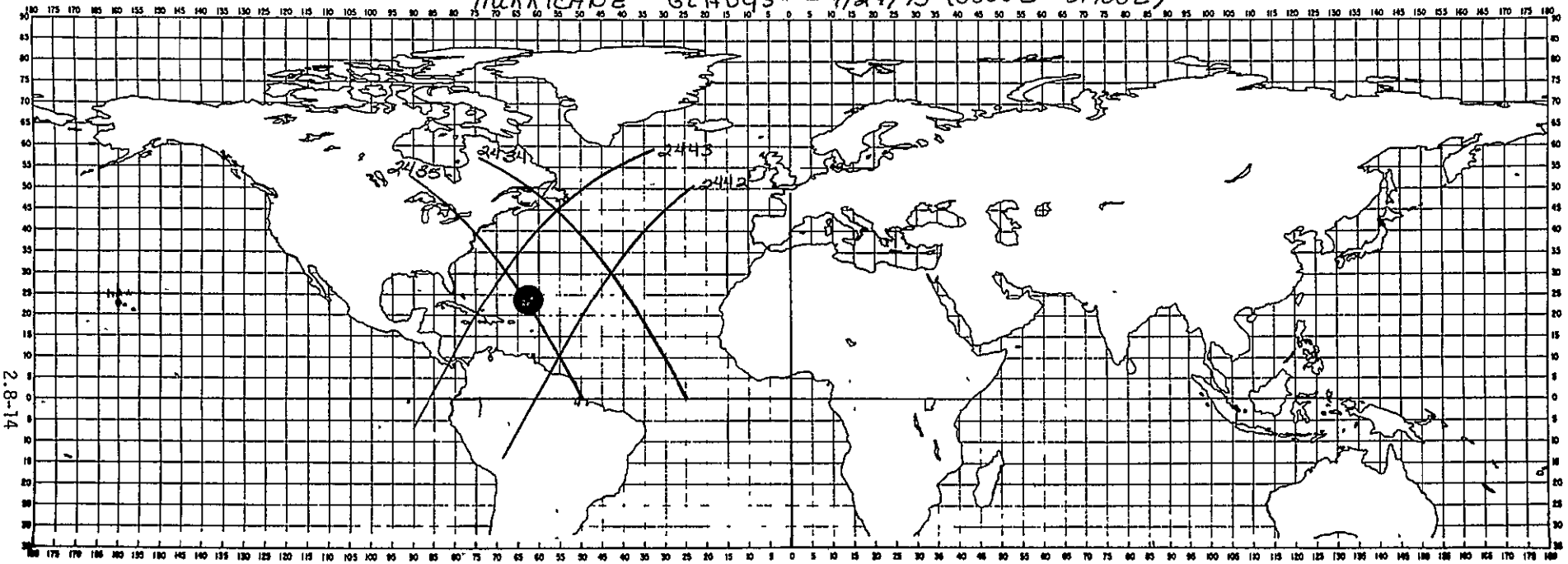


LOCATION
HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	19.4N	56.4W
0600Z	19.6	57.4
1200Z	19.8	58.2
1800Z	20.3	59.3
2400Z	21.2	60.5

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Weight
2420	-30.78	00 38 59	0047Z	No			
2421	-56.11	02 20 46	0225Z	023812	023139	802	102
2428	+126.63	14 13 16	1458Z	No			
2429	+101.31	15 55 03	1637Z	163037	164217	802	111

HURRICANE "GLADYS" - 9/29/75 (0000Z - 2400Z)



2.8-14

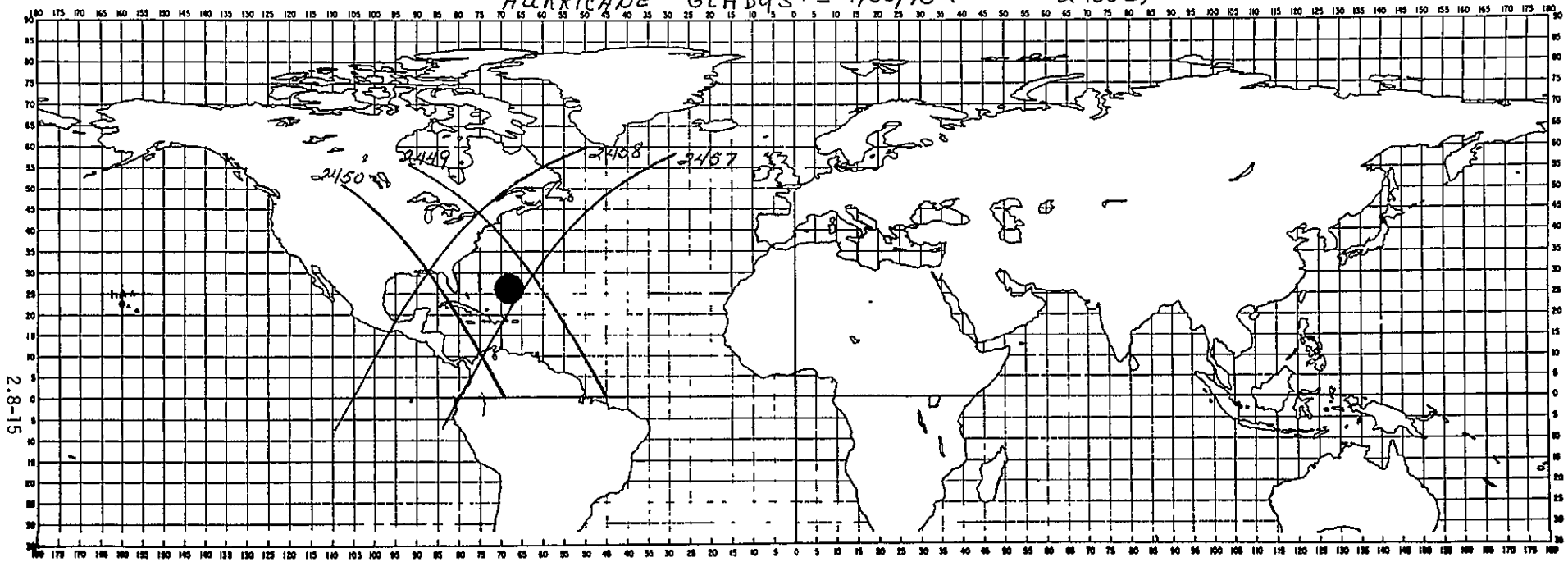
LOCATION

HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	21.2N	60.3W
0600Z	22.1	61.4
1200Z	23.0	62.6
1800Z	23.6	63.9
2400Z	24.1	65.2

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq. #
2434	-25.31	00 23 59	0034Z	Do			
2435	-50.63	02 05 46	0211Z	021410	021854	802	118
2442	+132.11	13 58 15	1444Z	Do			
2443	+106.79	15 40 02	1523Z	161655	162532	802	123

HURRICANE "GLADYS" - 9/30/75 (0000Z - 2400Z)



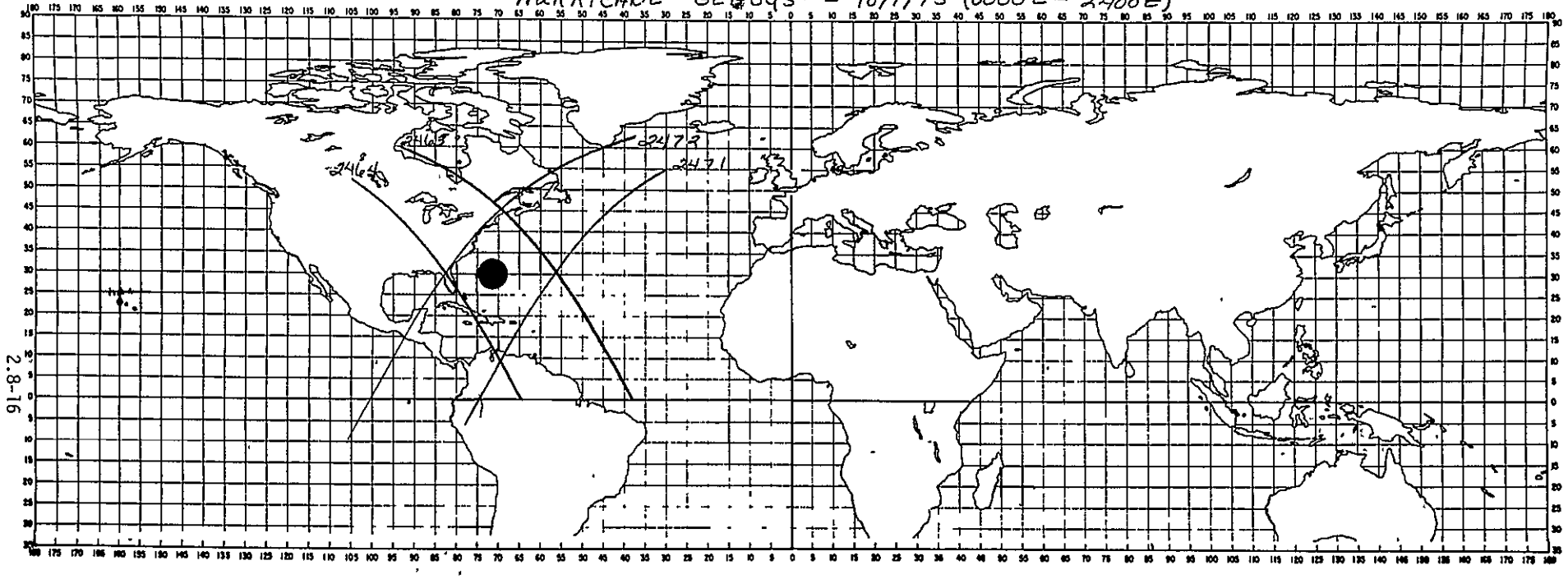
LOCATION

HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	24.1N	65.2W
0600Z	24.6	66.5
1200Z	25.1	67.9
1800Z	25.6	69.3
2400Z	26.1	70.6

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Weight
2449	-45.16	01 50 45	0159Z	020025	020454	802	125
2450	-70.48	03 32 32	0336Z	No			
2457	+112 26	15 25 01	1608Z	160119	161536	802	132
2458	+86 94	17 06 49	1746Z	No			

HURRICANE "GLADYS" - 10/1/75 (0000Z - 2400Z)



2.8-16

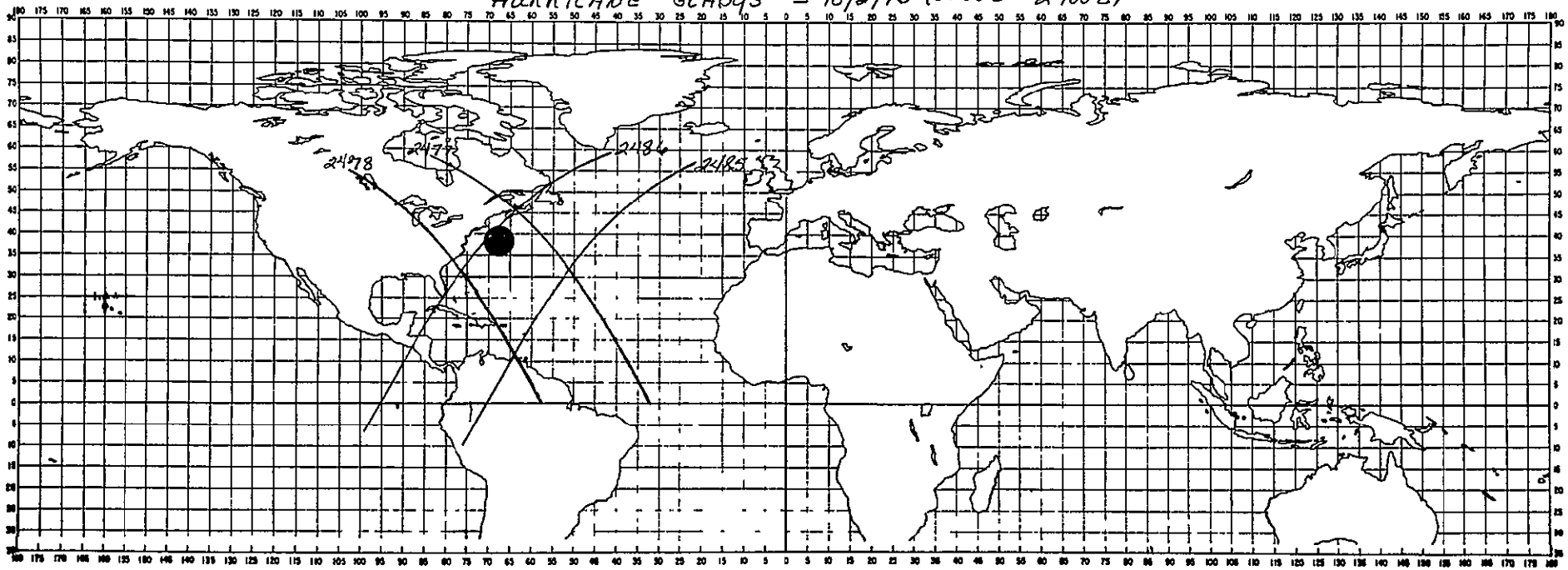
LOCATION

HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	26.1N	70.6W
0600Z	26.8	71.7
1200Z	27.9	72.4
1800Z	29.4	73.0
2400Z	31.0	73.6

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
24163	- 39 68	01 35 44	0146Z	014635	015046	802	138
24164	- 65 01	03 17 31	0324Z	032313	032643	802	139
24171	+117.73	15 10 01	1554Z	No			
24172	+ 92 41	16 51 18	1732Z	No			

HURRICANE "GLADYS" – 10/2/75 (0000Z – 2400Z)

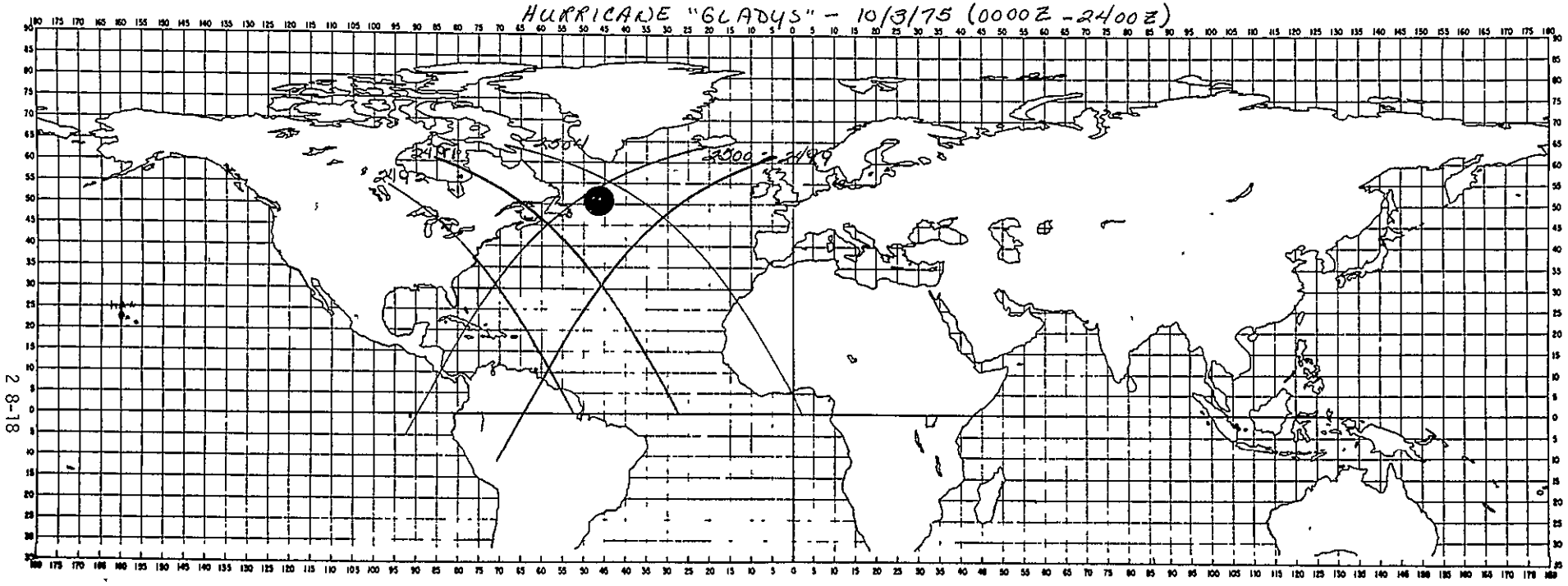


LOCATION

HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	31.0N	73.0W
0600Z	32.9	72.1
1200Z	35.3	69.8
1800Z	37.8	67.0
2400Z	40.8	62.6

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Weight
24177	-34.21	01 20 43	0134Z	No			
24178	-59.23	03 02 30	0312Z	030910	031352	802	152
24185	+123.21	14 55 00	1538Z	No			
24186	+97.89	16 36 47	1714Z	171210	172230	802	160



LOCATION

HURRICANE/EXTRATROPICAL (1800Z)

TIME	LATITUDE	LONGITUDE
0000Z	40.8N	62.6W
0600Z	43.7	57.0
1200Z	46.6	50.6
1800Z	50.5	41.5
2400Z	55.0	41.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Node	Night
2491	-28.73	01 05 42	0120Z	No			
2492	-54.06	02 47 29	0258Z	025513	025441	80.2	164
2499	+128.68	14 39 59	1517Z	No			
2500	+103.36	16 21 46	1655Z	No			
2504	+2.07	23 08 55	2336Z	No			

3.0 EASTERN PACIFIC/U.S. WEST COAST AREAS

3.1 General

In addition to the GEOS-3 orbit plots, tabulated data listing date, time, storm locations*, wind speed, and storm stage (estimated) have been provided for the following disturbances:

. Hurricane "Agatha"	(6/2/75 - 6/5/75)
. Tropical Storm "Bridgett"	(6/27/75 - 7/3/75)
. Tropical Depression "Four"	(7/2/75 - 7/3/75)
. Hurricane "Carlotta"	(7/2/75 - 7/11/75)
. Hurricane "Denise"	(7/4/75 - 7/15/75)
. Tropical Storm "Eleanor"	(7/10/75 - 7/12/75)
. Tropical Storm "Francene"	(7/27/75 - 7/30/75)
. Tropical Storm "Georgetta"	(8/10/75 - 8/13/75)
. Tropical Storm "Hilary"	(8/12/75 - 8/17/75)
. Hurricane "Ilsa"	(8/18/75 - 8/26/75)
. Hurricane "Jewel"	(8/23/75 - 8/31/75)
. Hurricane "Katrina"	(8/28/75 - 9/7/75)
. Tropical Cyclone "Thirteen"	(9/12/75 - 9/16/75)
. Hurricane "Lily"	(9/16/75 - 9/21/75)
. Tropical Storm "Monica"	(9/28/75 - 10/2/75)
. Tropical Storm "Nanette"	(9/28/75 - 10/4/75)
. Tropical Cyclone "Seventeen"	(10/16/75 - 10/17/75)
. Hurricane "Olivia"	(10/22/75 - 10/25/75)

Historical information, as well as pressure profiles, were not available for these disturbances, of which there were eighteen. The first recorded storm was Hurricane "Agatha" (June 2 - June 5, 1975); the last storm was Hurricane "Olivia" (October 22-25, 1975)

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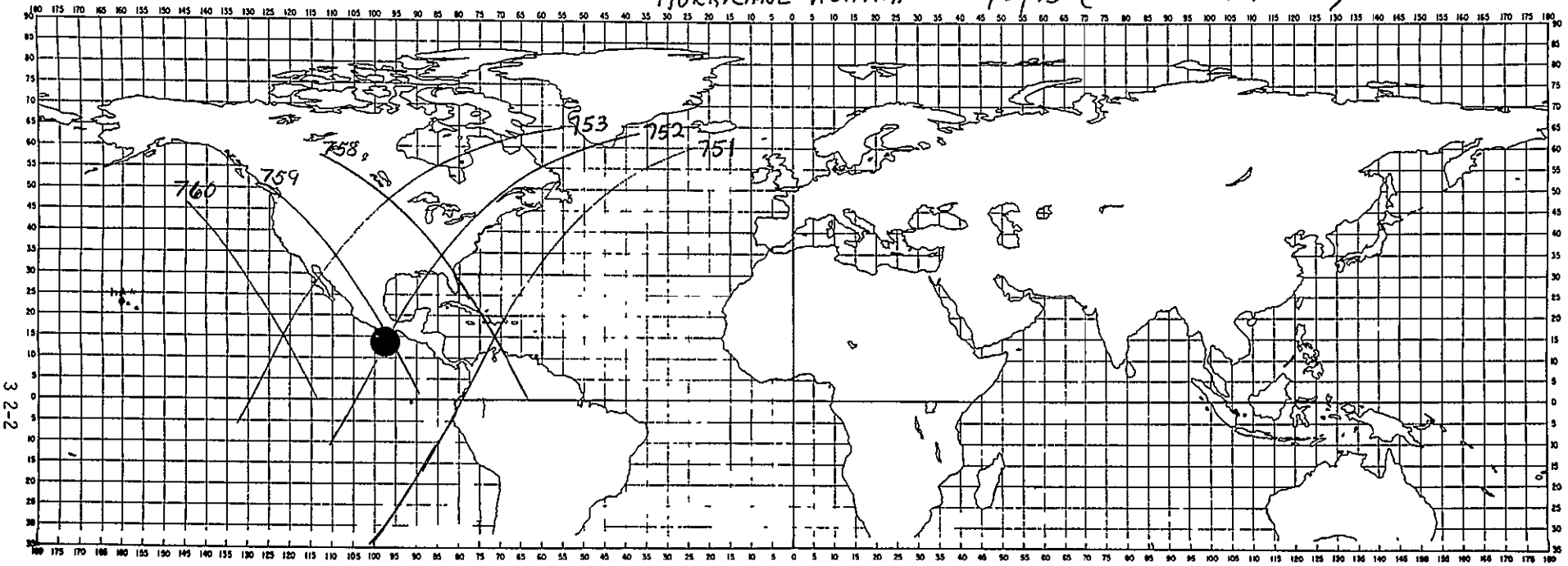
* Storm positions (latitude, longitude) and wind speeds were presented as three different sets of data in the source material. These data sets were labelled as "Analyzed," "Most Probable," and "24-Hr. Fcst." For the purposes of this document, only the set labelled "Most Probable" was used in plotting the storms.

STORM: HURRICANE AGATHA

DATE: JUNE 2 - JUNE 5, 1975

Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
6/02	0000Z	13.5N	99.0W		30	Tropical Depression
	0600Z	13.3	99.4		30	
	1200Z	13.2	99.9		30	Tropical Storm
	1800Z	13.2	100.4		35	
6/03	0000Z	13.3N	101.0W		40	
	0600Z	13.8	101.6		45	
	1200Z	14.5	102.5		55	
	1800Z	15.2	103.4		60	Tropical Storm
6/04	0000Z	15.8N	104.1W		70	Hurricane
	0600Z	16.6	104.7		65	
	1200Z	17.2	104.7		55	Tropical Storm
	1800Z	17.8	104.9		55	
6/05	0000Z	18.1N	105.0W		50	Tropical Storm
	0600Z	18.7	105.7		45	
	1200Z	19.0	106.2		35	
	1800Z	19.3	106.4		30	Tropical Depression
6/06	0000Z	19.7N	106.7W		30	Tropical Depression
	0600Z	----	-----		--	

HURRICANE "AGATHA" - 6/2/75 (0000Z - 2400Z)



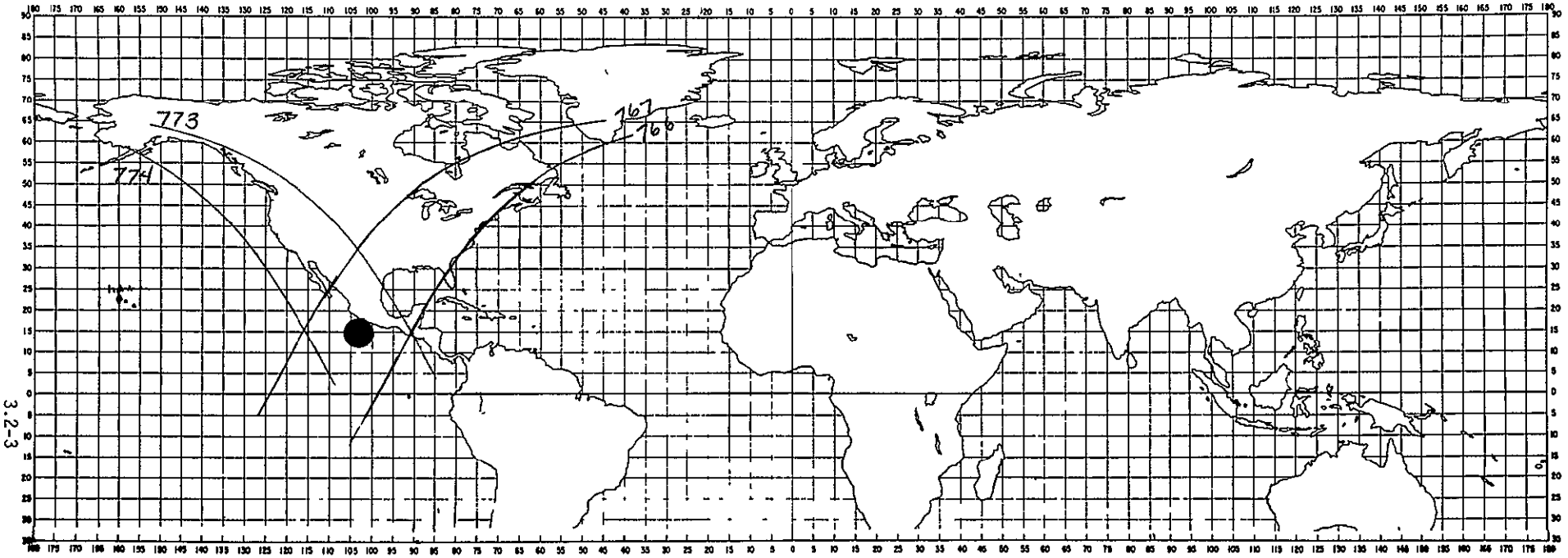
3 2-2

LOCATION
TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	13.5N	99.0W
0600Z	13.3	99.4
1200Z	13.2	99.9
1800Z	13.2	99 9
2400Z	13.3	101.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unig. #
751	+ 113.76	01 19 56	0210Z	NO			
752	+ 88.44	03 01 43	0347Z	NO			
753	+ 63.11	04 43 31	0527Z	NO			
758	- 63.50	13 12 26	1320Z	NO			
759	- 88.83	14 54 13	1459Z	No			
760	- 114.15	16 36 00	1637Z	NO			

HURRICANE "AGATHA" - 6/3/75 (0000Z - 2400Z)



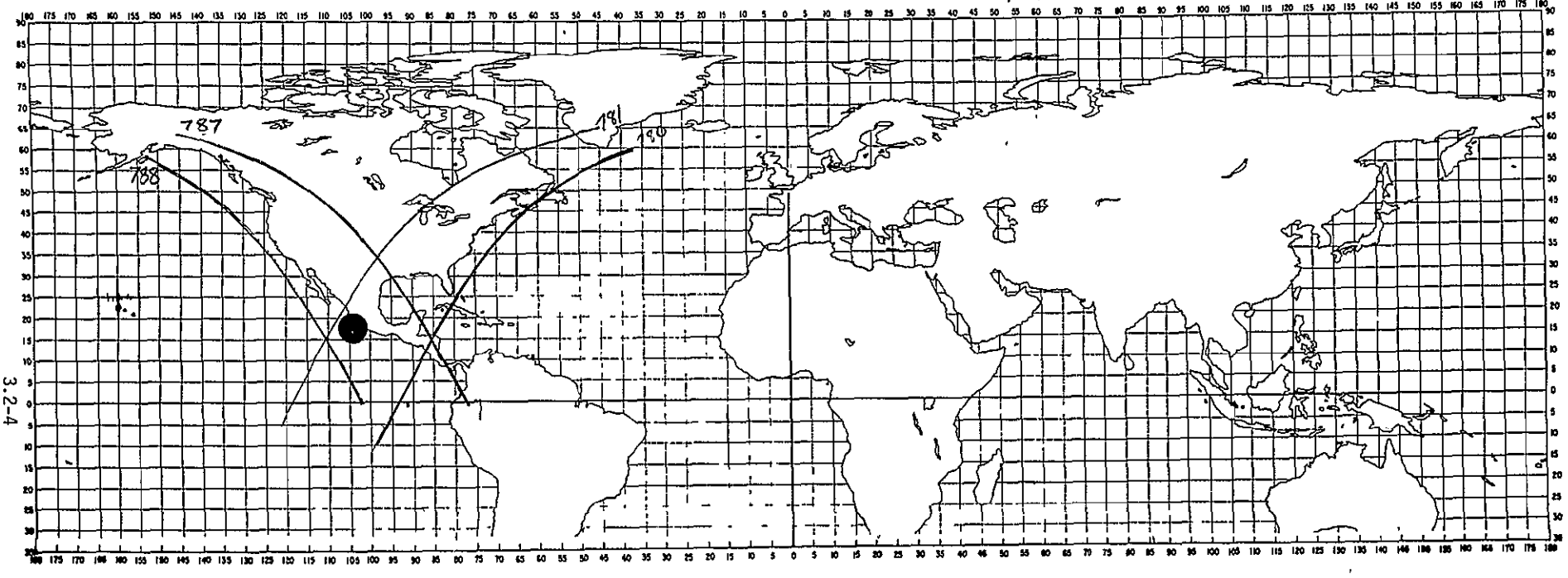
3.2-3

LOCATION
TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	13.3 N	101.0 W
0600Z	13.8	101.6
1200Z	14.5	102.5
1800Z	15.2	103.4
2400Z	15.8	104.1

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq. #
766	+93.93	02 46 42	0335Z	NO			
767	+68.60	04 28 29	0513Z	NO			
773	-83.34	14 39 12	1445Z	NO			
774	-108.66	16 20 59	1623Z	NO			

HURRICANE "AGATHA" - 6/4/75 (0000Z-2400Z)



3.2-4

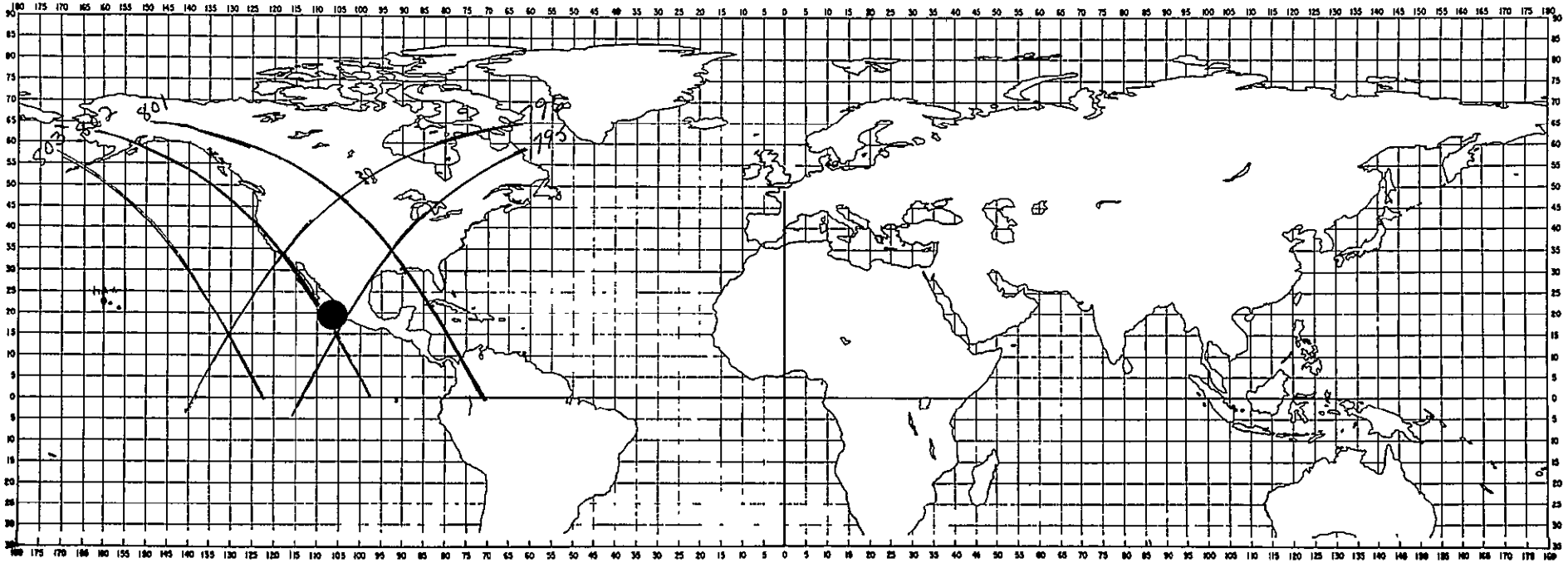
LOCATION

HURRICANE/TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	15.8 N	104.1 W
0600Z	16.6	104.7
1200Z	17.2	104.7
1800Z	17.8	104.9
2400Z	18.1	105.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unig. #
780	+99.40	02 31 42	0319Z	NO			
781	+74.08	04 13 29	0458Z	NO			
787	-77.86	14 34 11	1432Z	NO			
788	-103.18	16 05 58	1609Z	NO			

HURRICANE "AGATHA" - 6/5/75 (0000Z - 2400Z)



3.2-5

LOCATION

TROPICAL STORM/TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	18.1 N	105.0 W
0600Z	18.7	105.7
1200Z	19.0	106.2
1800Z	19.3	106.4
2400Z	19.7	106.7

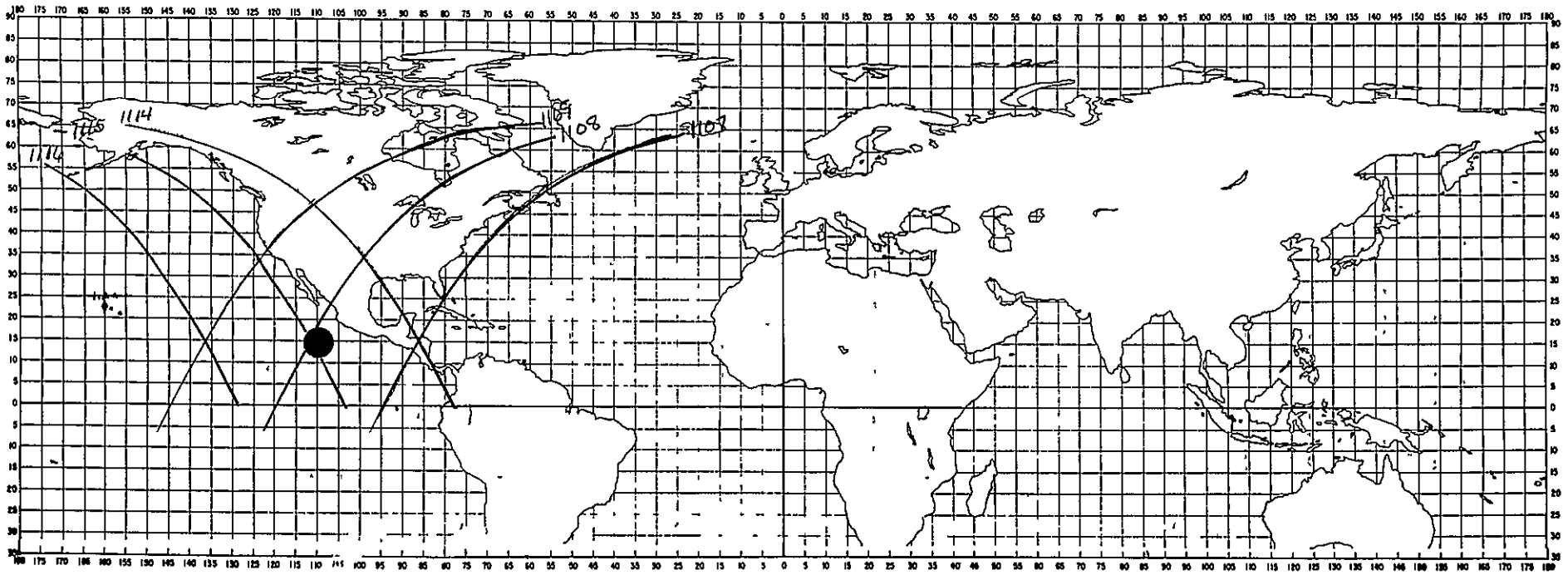
ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq. #
795	+79.55	03 58 28	0443Z	NO			
796	+54.23	05 40 15	0622Z	NO			
801	-72.39	14 09 11	1419Z	NO			
802	-97.71	15 50 58	1557Z	NO			
803	-123.04	17 32 45	1738Z	NO			

STORM: TROPICAL STORM BRIDGETT

DATE: JUNE 27 - JULY 3, 1975

Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
6/27	1800Z	14.5N	110.0W		30	Tropical Depression
6/28	0000Z	14.4N	110.2W		30	
	0600Z	14.3	110.5		30	
	1200Z	14.7	111.0		35	Tropical Storm
	1800Z	15.3	111.4		40	
6/29	0000Z	16.2N	112.2W		40	Tropical Storm
	0600Z	16.9	113.0		45	
	1200Z	17.2	113.8		45	
	1800Z	17.3	114.5		50	
6/30	0000Z	17.3N	115.5W		50	Tropical Storm
	0600Z	17.1	116.6		50	
	1200Z	16.9	117.0		50	
	1800Z	16.8	117.3		55	
7/01	0000Z	16.7N	117.6W		45	Tropical Storm
	0600Z	16.4	118.2		45	
	1200Z	16.3	118.7		45	
	1800Z	15.9	119.1		45	
7/02	0000Z	15.4N	119.6W		40	Tropical Storm
	0600Z	15.2	120.2		30	Tropical Depression
	1200Z	15.0	120.7		30	
	1800Z	14.8	121.2		30	
7/03	0000Z	14.6N	121.8W		30	Tropical Depression
	0600Z	14.4	122.5		25	
	1200Z	----	-----		--	
	1800Z	----	-----		--	

TROPICAL STORM "BRIDGETT" 6/27/75 (1800Z-2400Z)



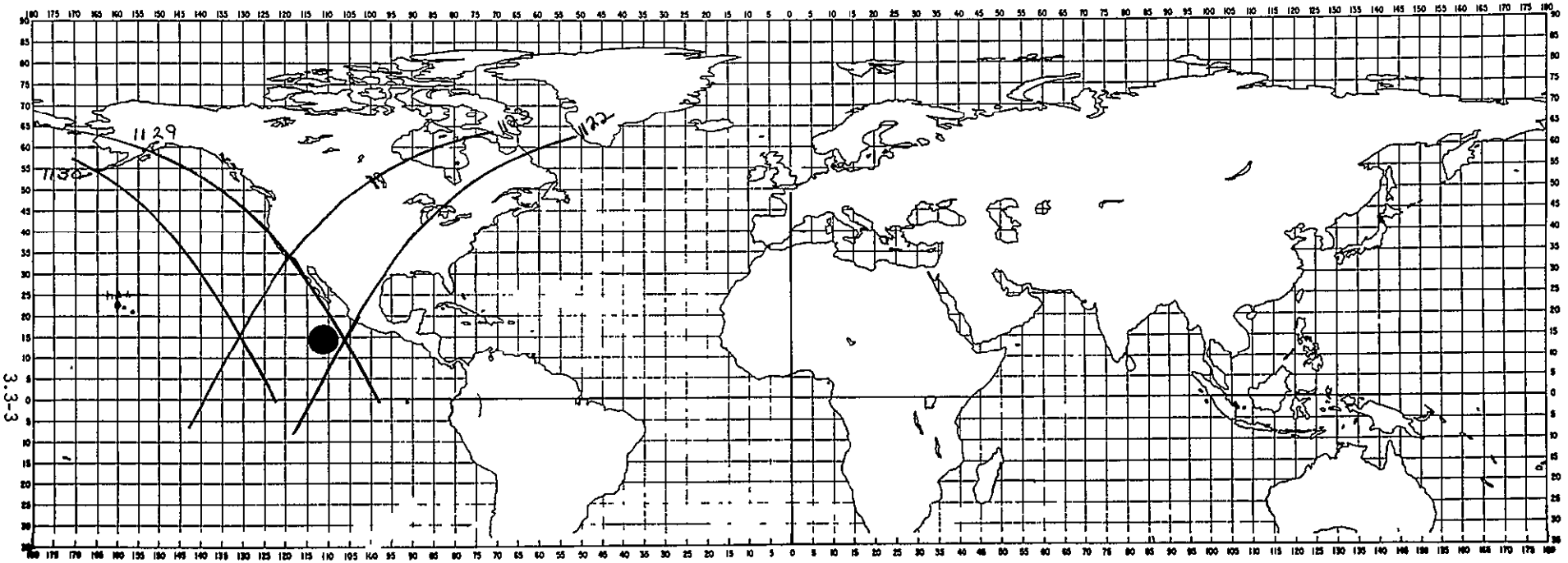
3 3-2

LOCATION

TIME	LATITUDE	LONGITUDE
1800Z	14.5N	110.0 W
2400Z	14.4	110.2

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit #
1107	+99.66	05 15 24	0605Z	No			
1108	+73.36	06 57 12	0747Z	NO			
1109	+48.03	08 38 59	0921Z	NO			
1114	-78.58	17 07 54	1716Z	No			
1115	-103.90	18 49 41	1854Z	No			
1116	-129.23	20 31 28	2033Z	NO			

TROPICAL STORM "BRIDGETT" - 6/28/75 (0000Z-2400Z)

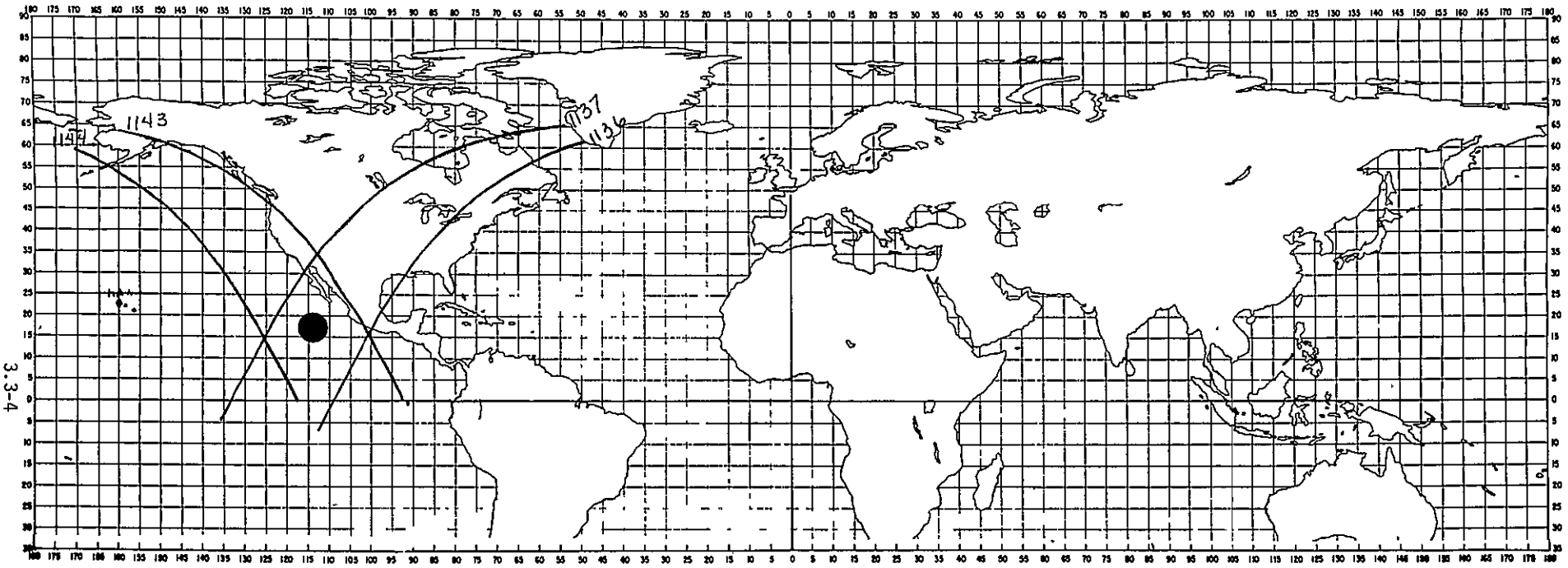


LOCATION
TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	14.4N	110.2W
0600Z	14.3	110 5
1200Z	14.7	111.0
1800Z	15.3	111.4
2400Z	16.2	112.2

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unig. #1
1122	+78.83	06 42 11	0729Z	NO			
1123	+53.51	08 23 58	0907Z	NO			
1129	-98.43	18 34 41	1840Z	NO			
1130	-123.76	20 16 28	2019Z	NO			

TROPICAL STORM "BRIDGETT" - 6/29/75 (0000Z - 2400Z)



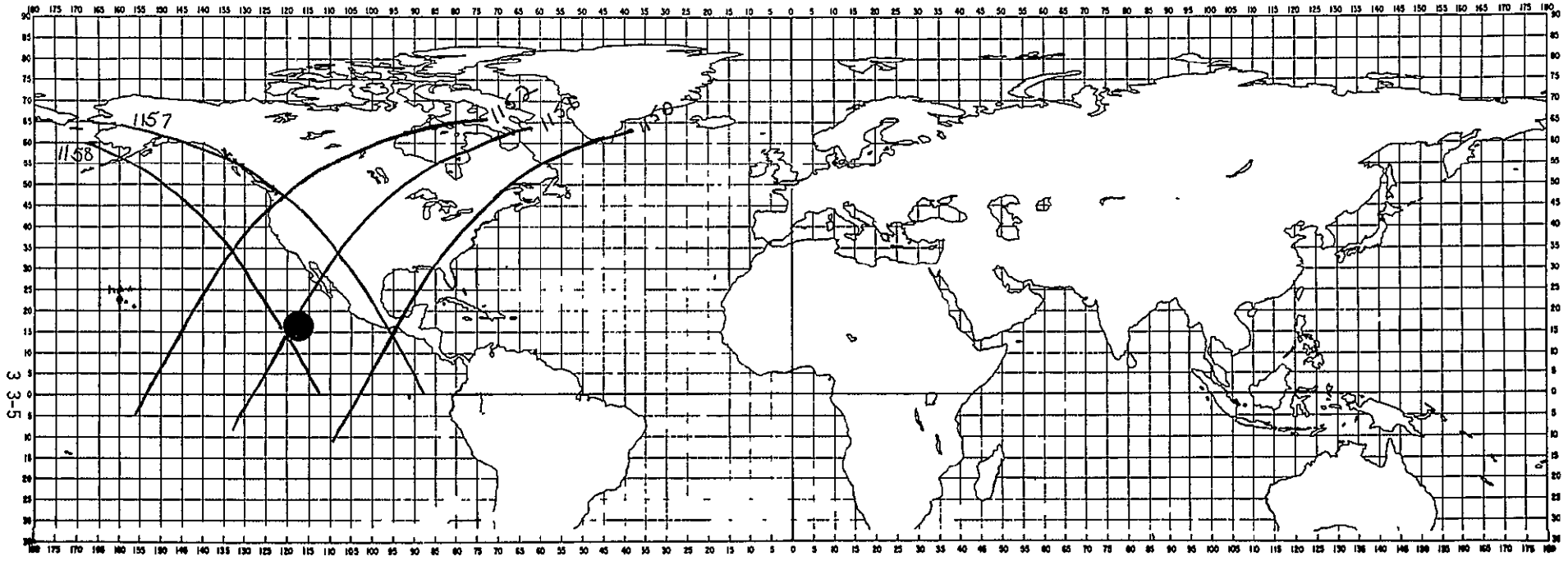
3.3-4

LOCATION
TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	16.2 N	112.2 W
0600Z	16.9	113.0
1200Z	17.2	113.8
1800Z	17.3	114.5
2400Z	17.3	155.5

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unig. #
1136	+84.31	06 27 10	0715Z	NO			
1137	+58.98	08 08 58	0953Z	094115	095346	803	—
1143	-92.96	18 19 40	1827Z	NO			
1144	-118.28	20 01 27	2004Z	NO			

TROPICAL STORM "BRIDGETT" - 6/30/75 (0000Z - 2400Z)



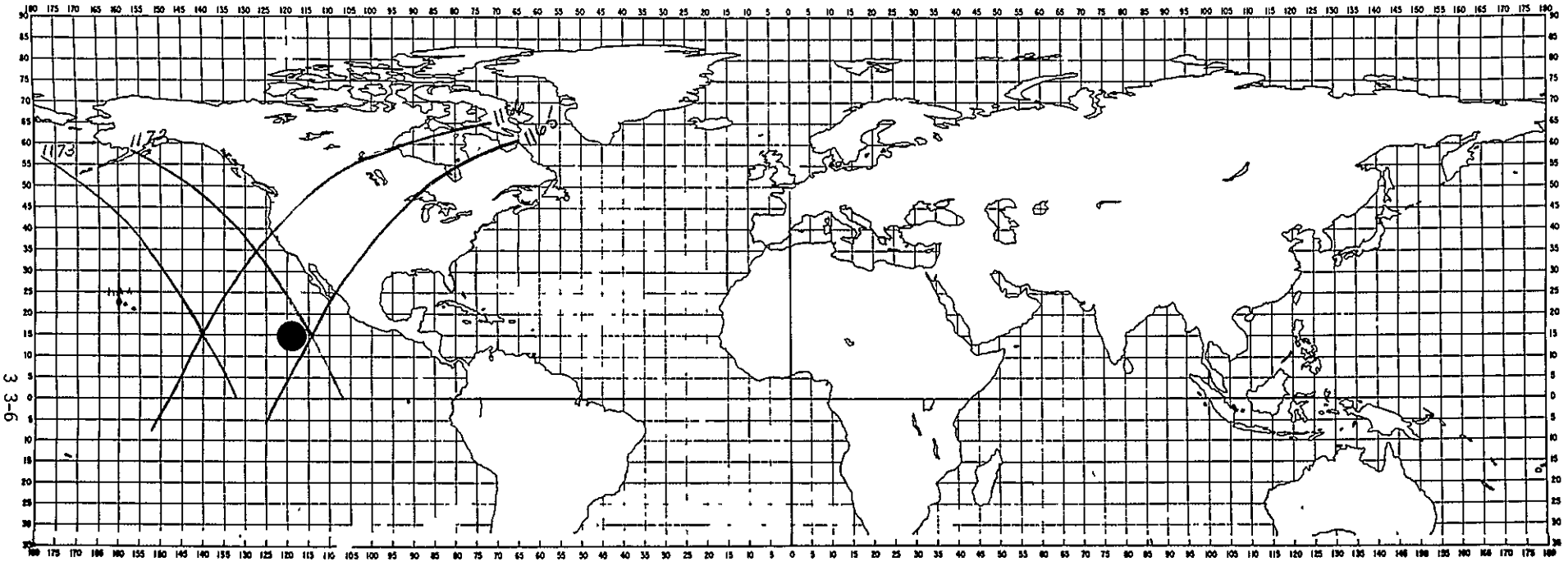
3-5

LOCATION
TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	17.3N	115.5W
0600Z	17.1	116.5
1200Z	16.9	117.0
1800Z	16.8	117.3
2400Z	16.7	117.6

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Mag. #4
1150	+89.78	06 12 10	0701Z	065012	070014	803	—
1151	+64.45	07 53 57	0839Z	NO			
1152	+39.13	09 35 44	0918Z	NO			
1157	-87.48	18 04 39	1812Z	NO			
1158	-112.81	19 46 27	1951Z	NO			

TROPICAL STORM "BRIDGETT" – 7/1/75 (0000Z – 2400Z)



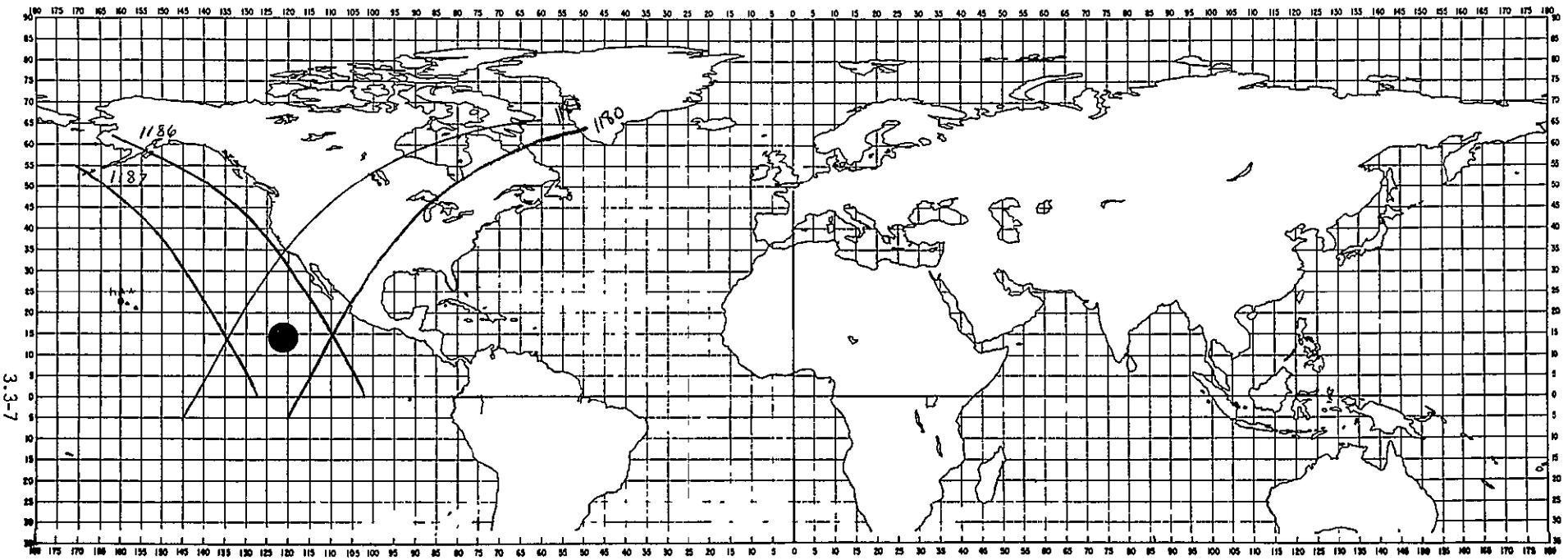
LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	16.7 N	117.6 W
0600Z	16.4	118.2
1200Z	16.3	118.7
1800Z	15.9	119.1
2400Z	15.4	119.6

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unig #
1165	+69.93	07 38 56	0826Z	081557	082603	803	—
1166	+44.60	09 20 44	1004Z	NO			
1172	-107.33	19 31 26	1935Z	NO			
1173	-132.66	21 13 13	2115Z	NO			

. TROPICAL STORM "BRIDGETT" - 7/2/75 (0000Z - 2400Z)

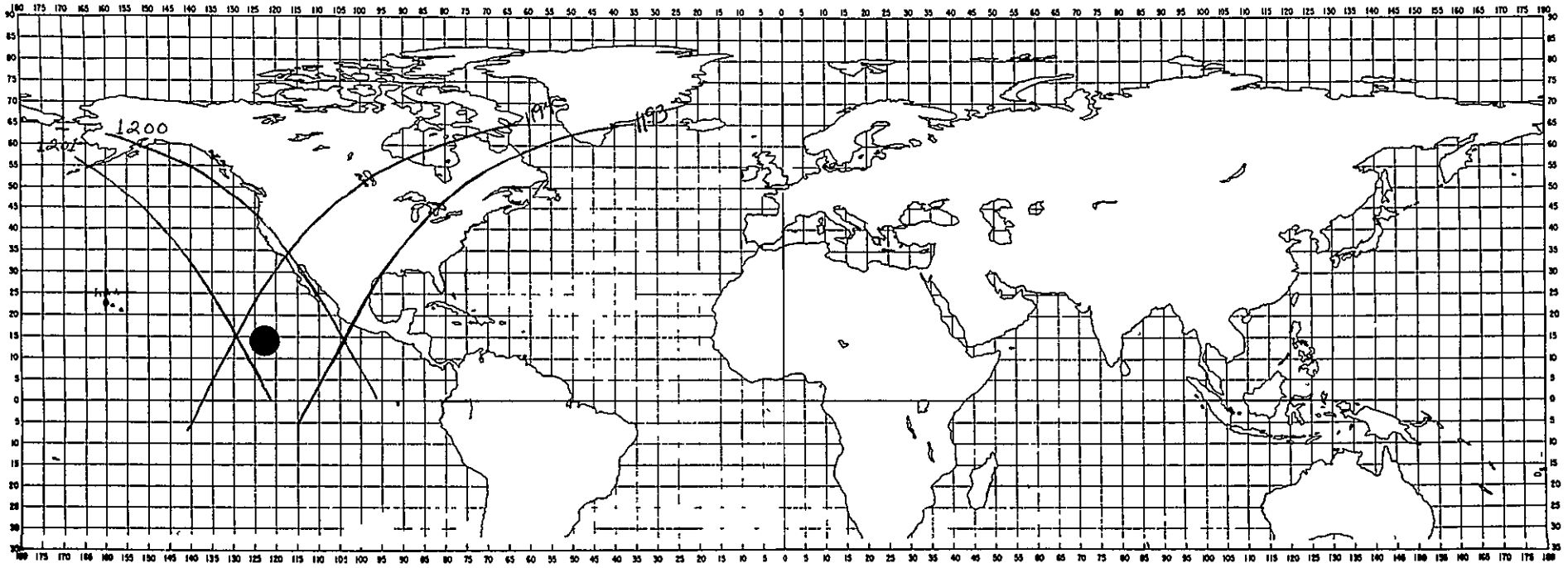


LOCATION
TROPICAL STORM / TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	15.4N	119.6W
0600Z	15.2	120.2
1200Z	15.0	120.7
1800Z	14.8	121.2
2400Z	14.6	121.8

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq. #
1180	+50.08	09 05 43	0951Z	NO			
1181	+24.76	10 47 30	1127Z	112030	112642	803	115
1186	-101.86	19 16 25	1922Z	192010	193559	803	120
1187	-127.18	20 58 13	2101Z	NO			

TROPICAL STORM "BRIDGETT" - 7/3/75 (0000Z - 06002)



LOCATION
TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	14.6 N	121.8 W
0600Z	14.4	122.5

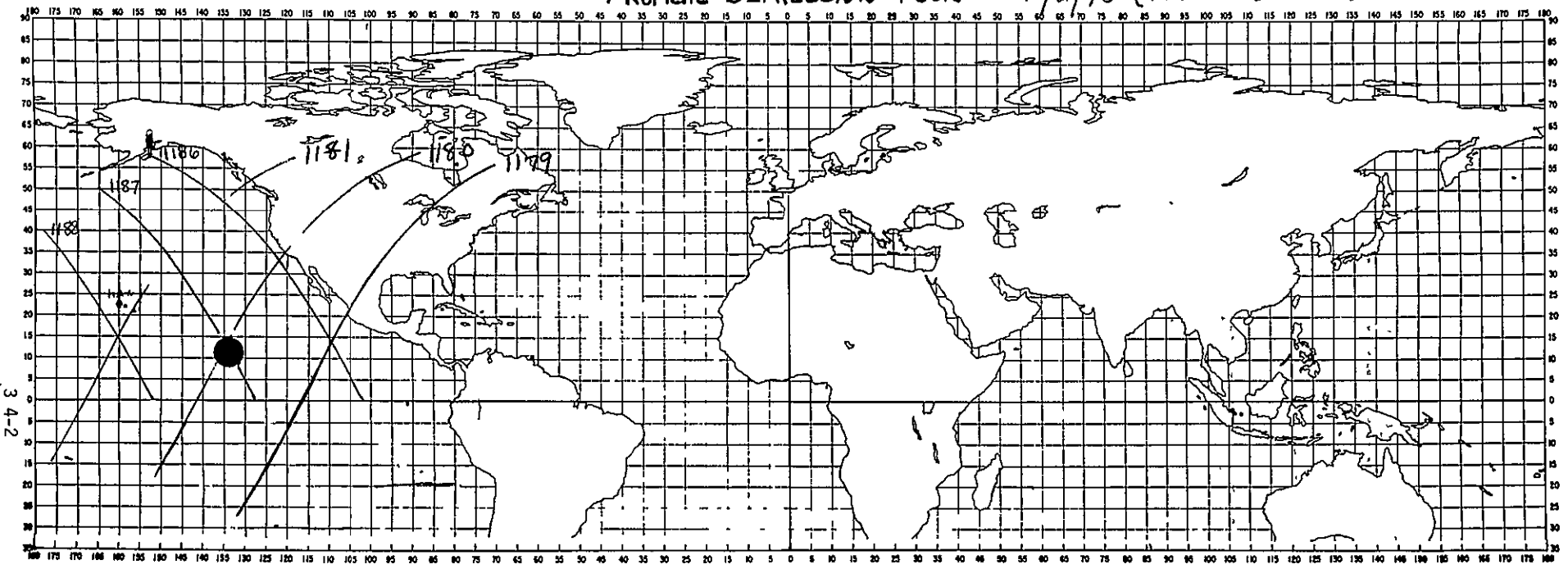
ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq. #
1193	+80.88	07 08 55	0758Z	NO			
1194	+55.55	08 50 42	0836Z	NO			
1200	-96.39	19 01 25	1908Z	NO			
1201	-121.71	20 43 12	2047Z	205050	205727	803	134

STORM: TROPICAL DEPRESSION FOUR

DATE: JULY 2 - JULY 3, 1975

Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
7/02	1800Z	11.7N	134.3W		25	Tropical Depression
7/03	0000Z	11.5N	135.5W		25	Tropical Depression
	0600Z	10.8	136.1		25	
	1200Z	10.5	136.5		25	
	1800Z	----	----		--	

TROPICAL DEPRESSION FOUR - 7/2/75 (1800Z - 2400Z)



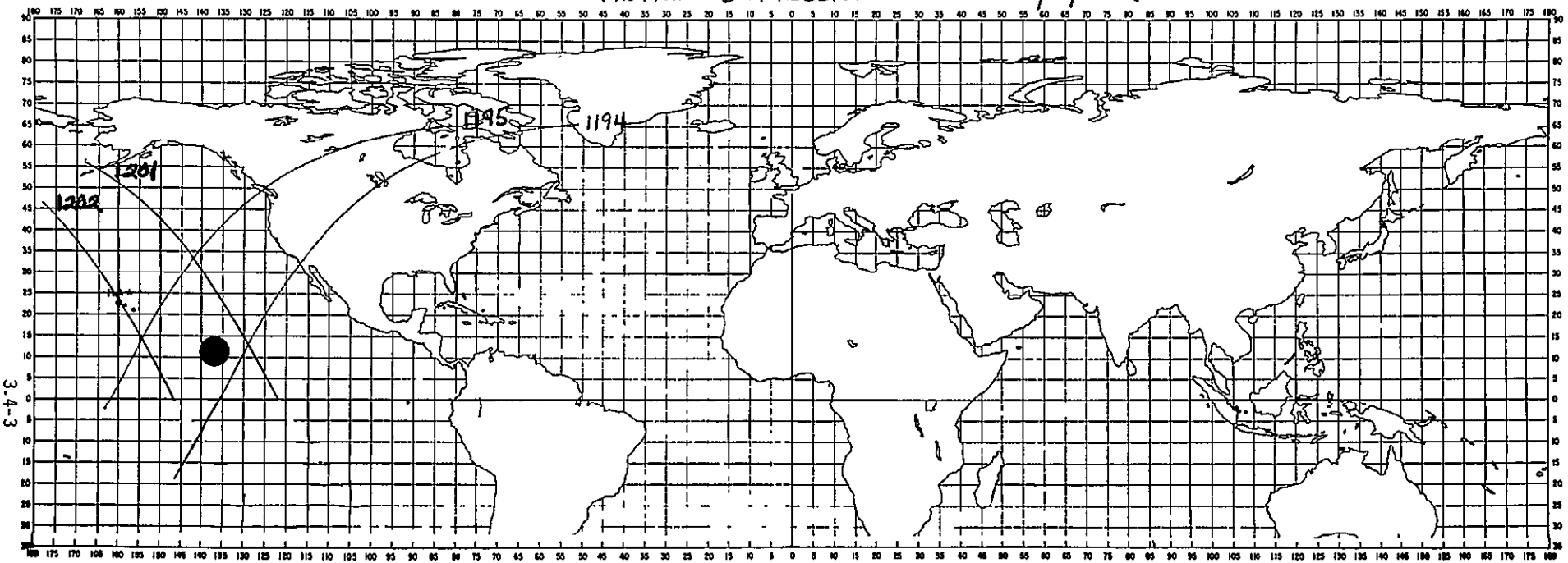
LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
1800Z	11.7N	134.3W
2400Z	11.5	135.5

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Day#
1179	+75.40	07 23 56	0814Z	No			
1180	+50.08	09 05 43	0953Z	No			
1181	+24.76	10 47 30	1131Z	No			
1186	-101.86	19 16 26	1923Z	1920/0	193559	863	120
1187	-127.18	20 58 13	2101Z	No			
1188	-152.51	22 40 00	2240Z	No			

TROPICAL DEPRESSION FOUR - 7/3/75 (0000Z - 1800Z)



LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	11.5N	135.5W
0600Z	10.8	136.1
1200Z	10.5	136.5
1800Z	--	--

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
1194	+56.56	08 50 42	0939Z	No			
1195	+30.23	10 32 30	1117Z	No			
1201	-121.71	20 43 12	2048Z	205050	205727	803	134
1202	-147.03	22 24 59	2227Z	No			

STORM: HURRICANE CARLOTTA

DATE: JULY 2 - JULY 11, 1975

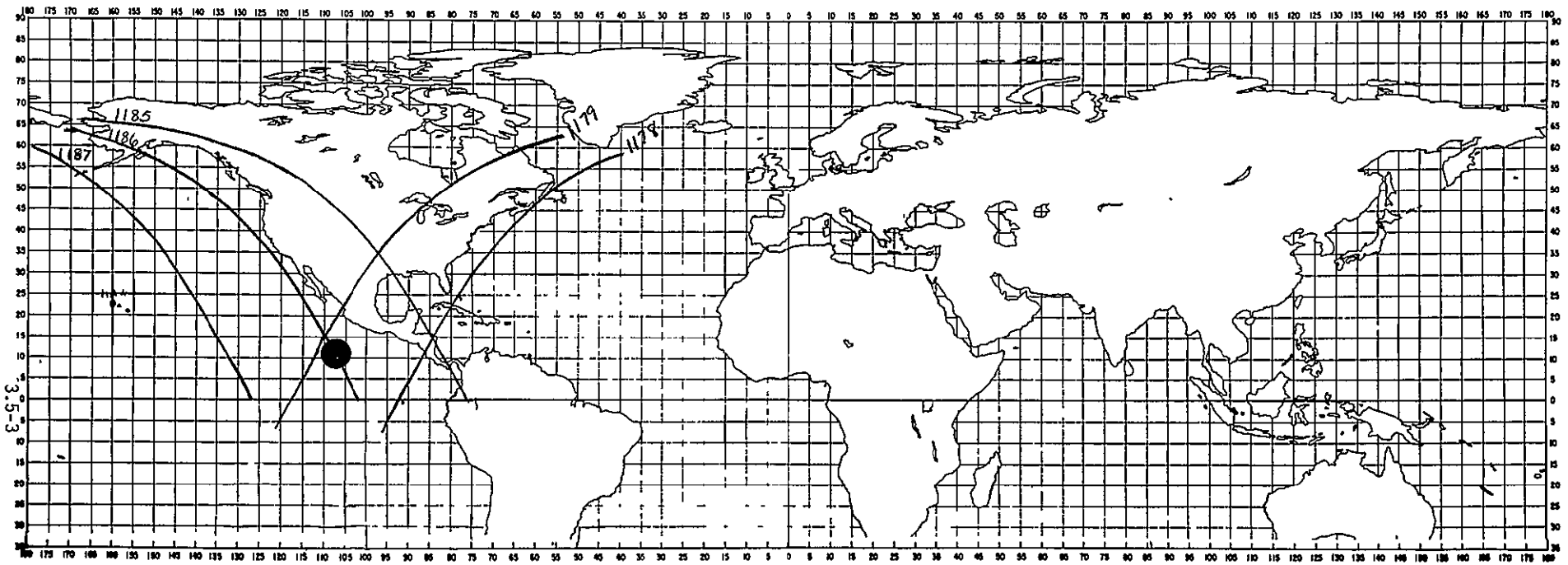
Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
7/2	0600Z	10.8N	101.0W		25	Tropical Depression
	1200Z	11.1	102.5		25	
	1800Z	11.4	103.4		35	Tropical Storm
7/3	0000Z	11.9N	104.3W		40	
	0600Z	12.3	105.2		45	
	1200Z	12.8	106.1		45	Tropical Storm
	1800Z	13.2	107.0		65	Hurricane
7/4	0000Z	13.6N	107.6W		70	Hurricane
	0600Z	14.1	108.7		75	
	1200Z	14.7	109.8		85	
	1800Z	15.2	110.7		90	
7/5	0000Z	15.8N	111.7W		100	Hurricane
	0600Z	16.3	112.7		105	
	1200Z	16.7	113.5		110	
	1800Z	17.1	114.5		100	
7/6	0000Z	17.3N	115.3W		110	Hurricane
	0600Z	17.4	116.3		110	
	1200Z	17.4	117.2		100	
	1800Z	17.4	117.9		100	
7/7	0000Z	17.4N	118.6W		95	Hurricane
	0600Z	17.4	119.5		90	
	1200Z	17.4	120.2		75	
	1800Z	17.4	120.7		65	
7/8	0000Z	17.4N	121.3W		60	Tropical Storm
	0600Z	17.4	121.9		50	
	1200Z	17.5	122.8		45	
	1800Z	17.5	123.6		45	
7/9	0000Z	17.5N	124.2W		40	
	0600Z	17.6	125.1		35	
	1200Z	17.9	126.0		35	
	1800Z	18.2	126.7		17.5	Tropical Depression

STORM: HURRICANE CARLOTTA (CONT.)

DATE: JULY 2 - JULY 11, 1975

Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
7/10	0000Z	18.4N	127.3W		30	Tropical Depression
	0600Z	18.6	128.1		30	
	1200Z	18.8	129.0		25	
	1800Z	18.8	130.0		25	
7/11	0000Z	19.0N	130.9W		25	Tropical Depression
	0600Z	----	----		--	
	1200Z	----	----		--	
	1800Z	----	----		--	

HURRICANE "CARLOTTA" - 7/2/75 (0600Z - 2400Z)



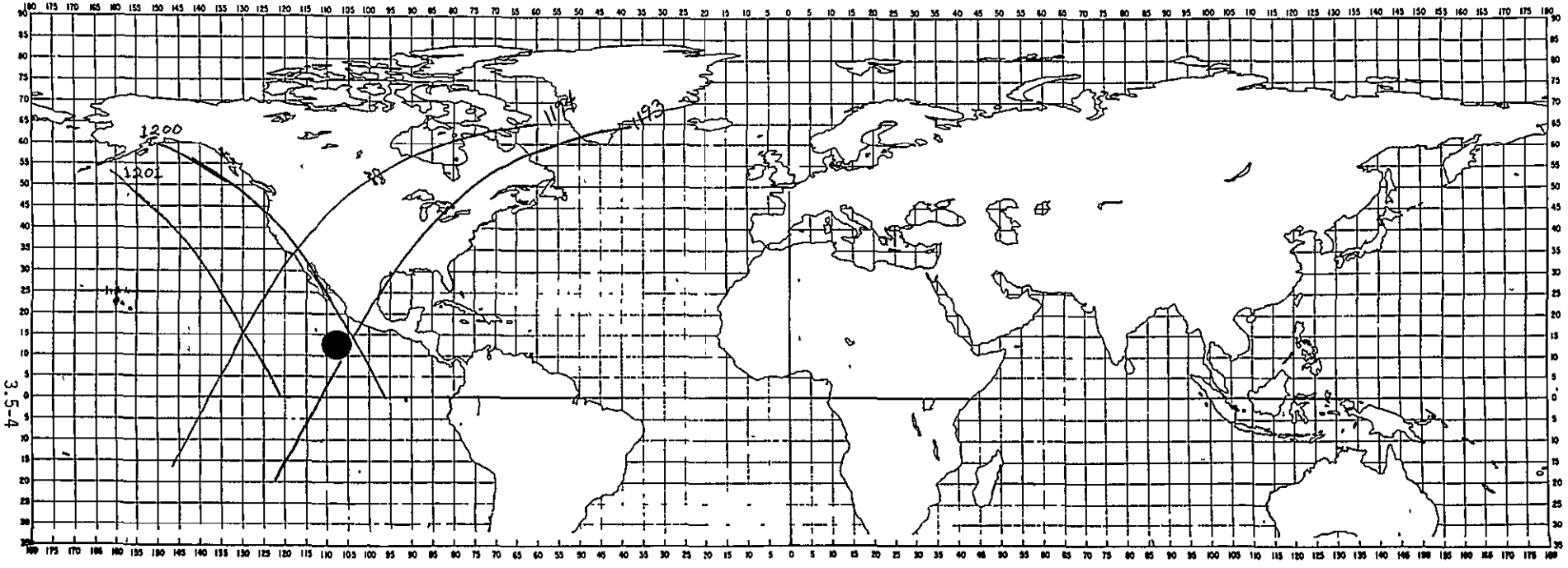
3.5-3

LOCATION
TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0600Z	10.8N	101.0W
1200Z	11.1	102.5
1800Z	11.4	103.4
2400Z	11.9	104.3

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ #
1178	+100.72	05 42 09	0632Z	NO			
1179	+75.40	07 23 56	0811Z	NO			
1185	-76.54	17 34 38	1741Z	173840	174400	802	119
1186	-101.86	19 16 25	1919Z	192010	193559	803	120
1187	-127.18	20 58 13	2059Z	NO			

HURRICANE "CARLOTTA" - 7/3/75 (0000Z-2400Z)



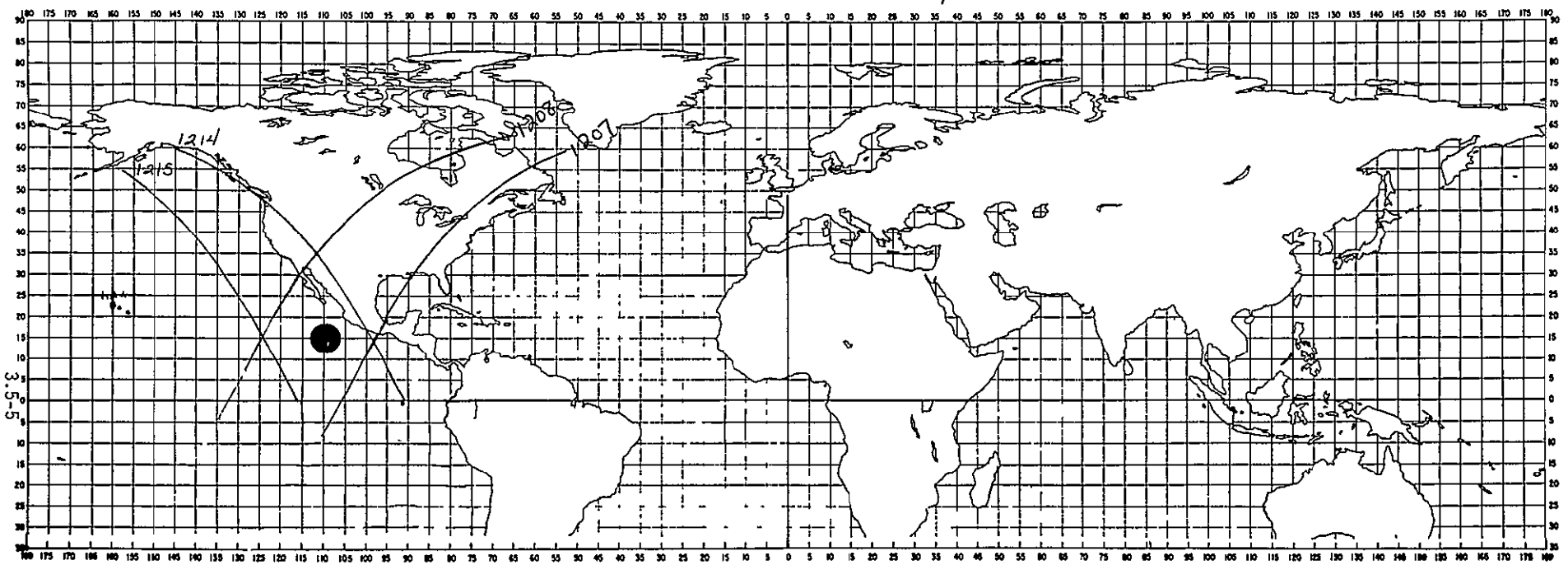
3.5-4

LOCATION
TROPICAL STORM / HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	11.9 N	104.3W
0600Z	12 3	105.2
1200Z	12.8	106.1
1800Z	13.2	107 0
2400Z	13 6	107 6

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit #
1193	+80.88	07 08 55	0756Z	NO			
1194	+55.55	08 50 42	0934Z	093221	093551	803	126
1200	-96.39	19 01 25	1906Z	NO			
1201	-121 71	20 43 12	2045Z	NO			

HURRICANE "CARLOTTA" - 7/4/75 (0000Z - 2400Z)

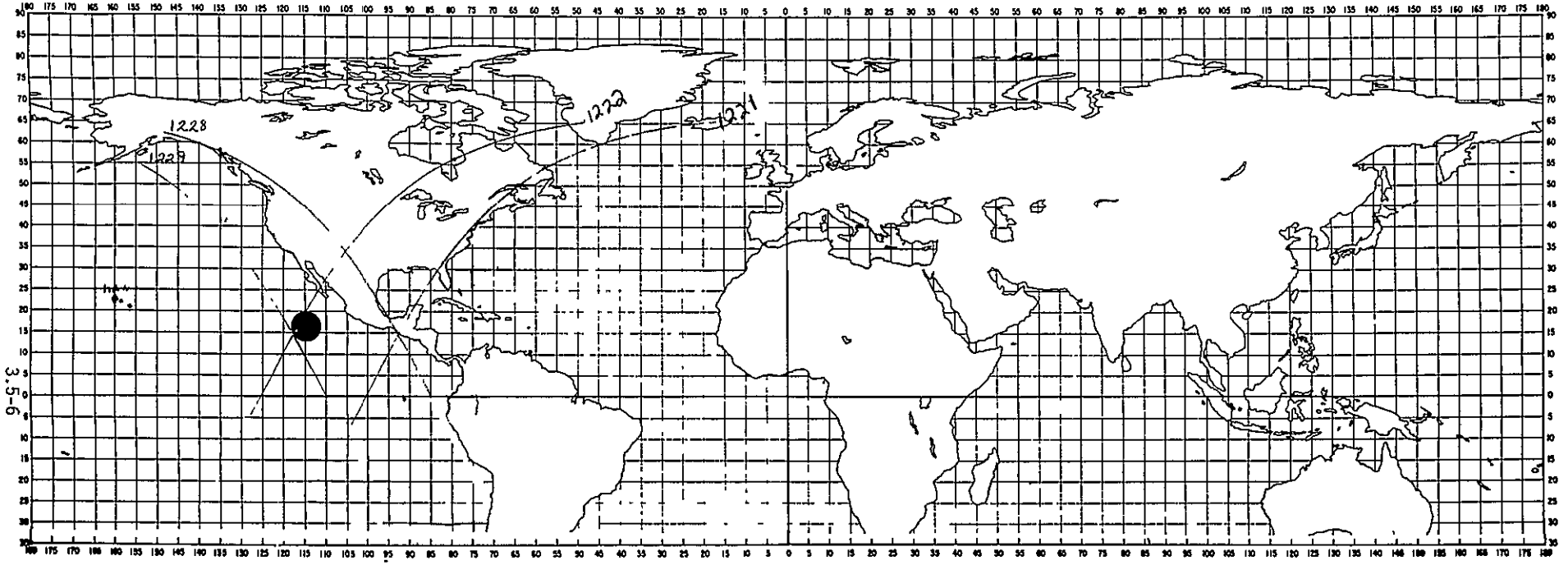


LOCATION
HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	13.6N	102.6W
0600Z	14.1	108.7
1200Z	14.7	109.8
1800Z	15.2	110.7
2400Z	15.8	111.7

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq #
1207	+86.35	06 53 55	0742Z	NO			
1208	+61.03	08 35 42	0820Z	NO			
1214	-90.91	18 46 24	1852Z	NO			
1215	-116.23	20 28 11	2031Z	NO			

HURRICANE "CARLOTTA" - 7/5/75 (0000Z-2400Z)

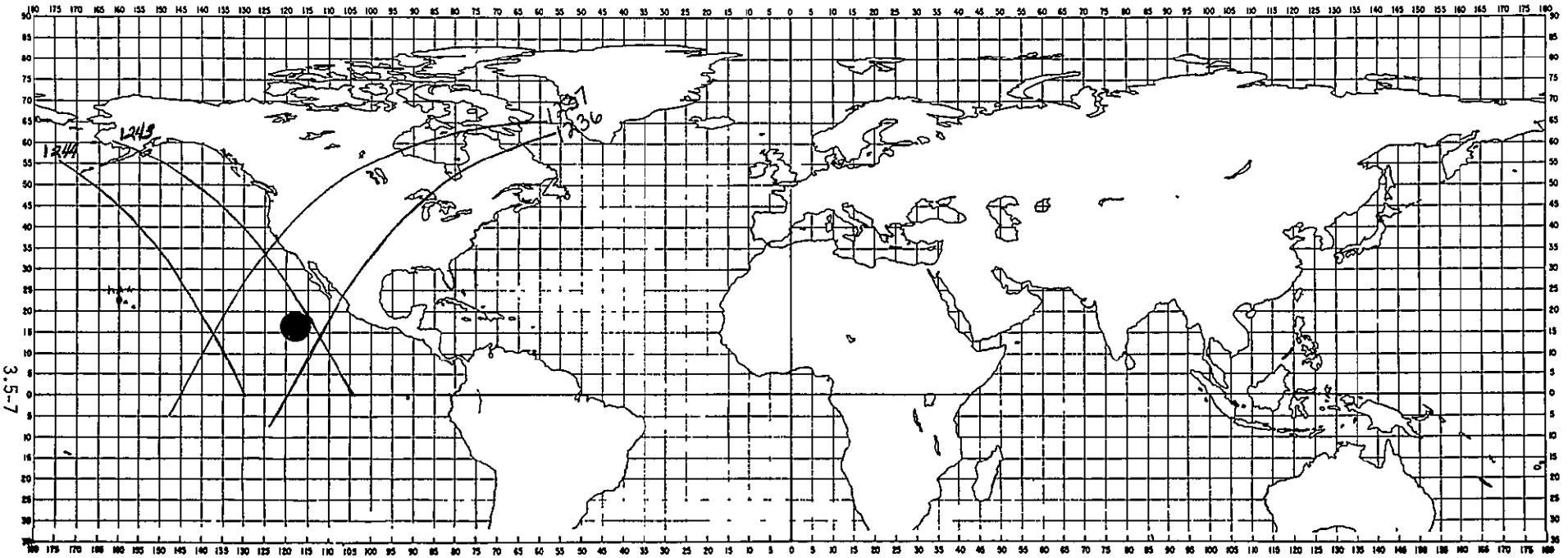


LOCATION
HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	15.8N	111.7W
0600Z	16.3	112.7
1200Z	16.7	113.5
1800Z	17.1	114.5
2400Z	17.3	115.3

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq. #
1221	+91.82	06 38 54	0627Z	NO			
1222	+66.50	08 20 41	0806Z	NO			
1228	-85.44	18 31 24	1839Z	NO			
1229	-110.76	20 13 11	2018Z	201718	203123	803	153

HURRICANE "CARLOTTA" - 7/6/75 (0000Z-2400Z)



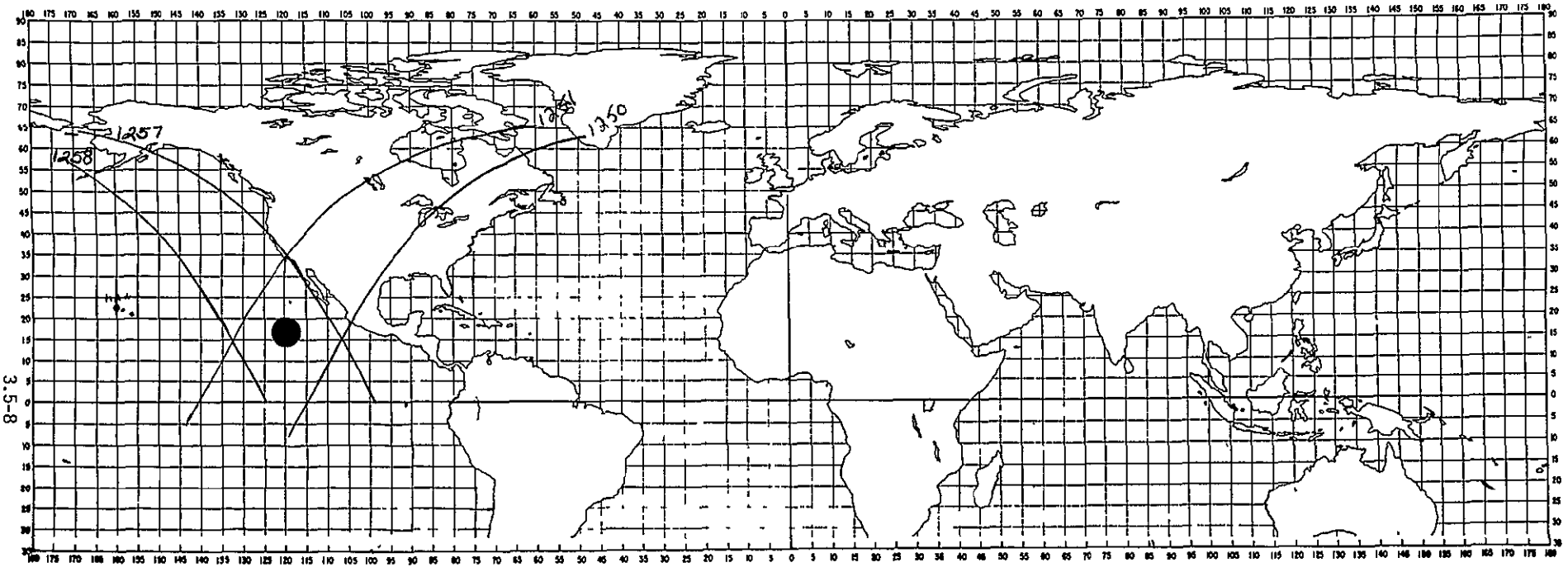
3.5-7

LOCATION
HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	17.3N	115.3W
0600Z	17.4	116.3
1200Z	17.4	117.2
1800Z	17.4	117.9
2400Z	17.4	118.6

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Umy #
1236	+71.97	08 05 41	0853Z	NO			
1237	+46.65	09 47 28	1030Z	102633	105120	803	158
1243	-105.29	19 58 10	2014Z	200332	201732	803	162
1244	-130 61	21 39 57	2142Z	NO			

HURRICANE "CARLOTTA" - 7/7/75 (0000Z - 2400Z)



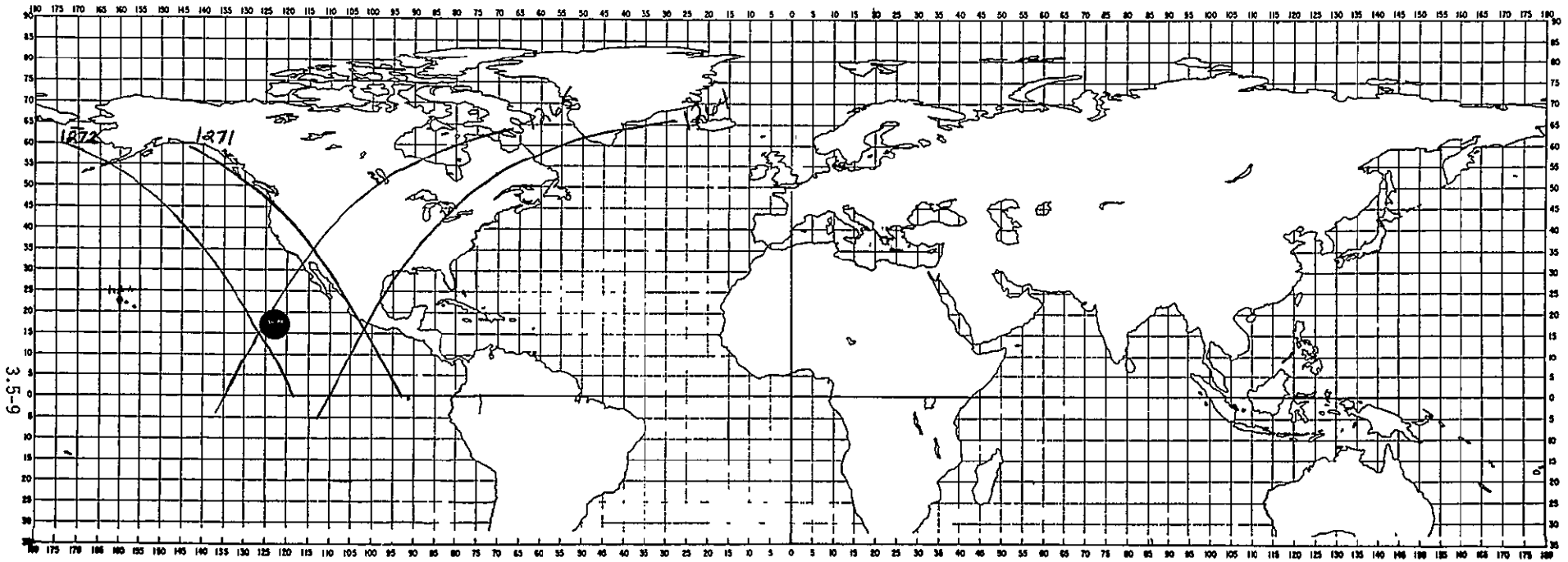
LOCATION
HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	17.4N	118.6W
0600Z	17.4	119.5
1200Z	17.4	120.2
1800Z	17.4	120.7
2400Z	17.4	121.3

Uniq #

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	#
1250	+77.45	07 50 40	0838Z	NO			
1251	+52.12	09 32 27	1014Z	NO			
1257	-99.82	19 43 10	1950Z	NO			
1258	-125.14	21 24 57	2128Z	NO			

HURRICANE "CARLOTTA" - 7/8/75 (0000Z-2400Z)



3-5-9

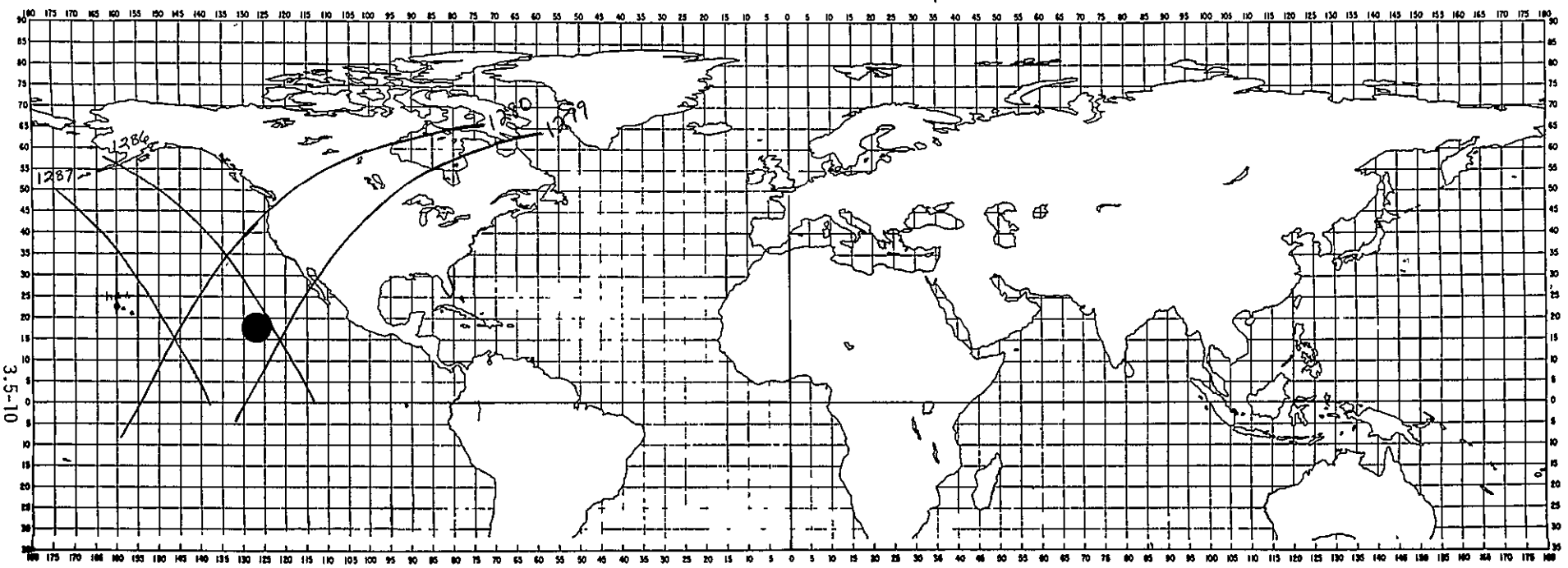
LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	17.4N	121.3W
0600Z	17.4	121.9
1200Z	17.5	122.8
1800Z	17.5	123.6
2400Z	17.5	124.2

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Usage #
1264	+82.92	07 35 40	0824Z	NO			
1265	+57.60	09 17 27	1003Z	094658	100420	803	173
1271	-94.34	19 28 09	1936Z	193244	194619	803	179
1272	-119.67	21 09 56	2114Z	NO			

HURRICANE "CARLOTTA" - 7/9/75 (0000Z - 2400Z)



3.5-10

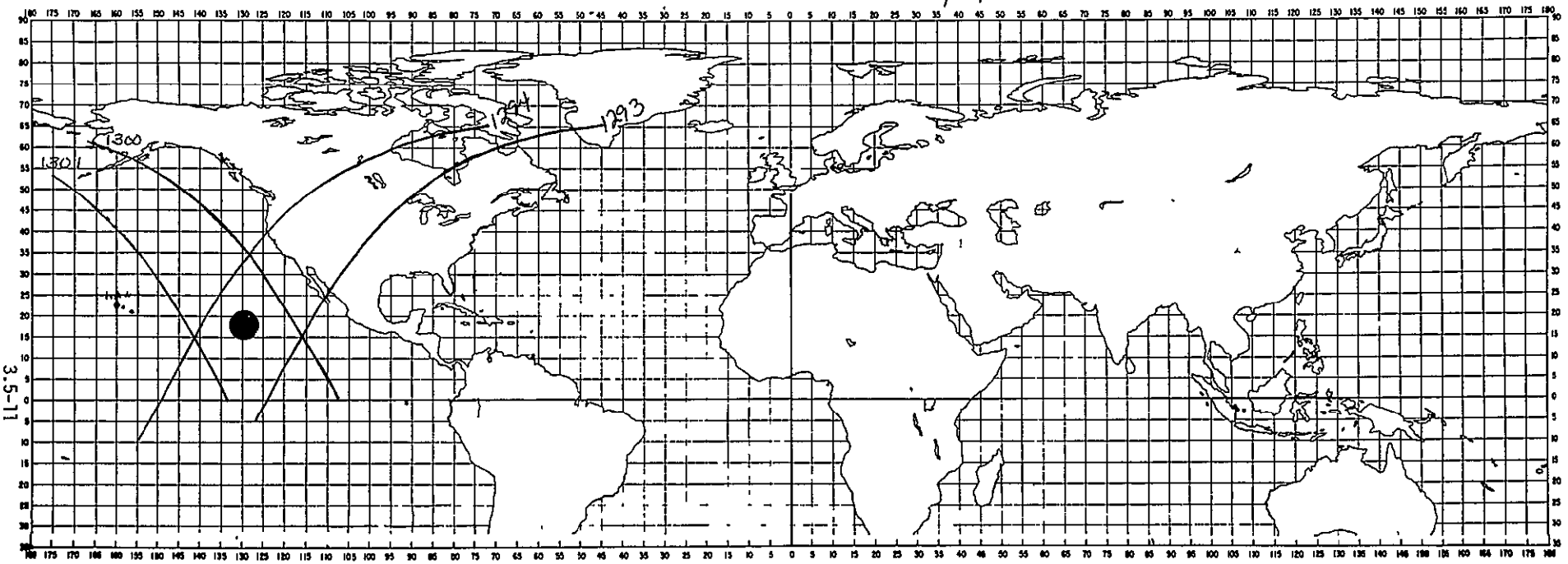
LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	17.5N	124.2W
0600Z	17.6	125.1
1200Z	17.9	126.0
1800Z	18.2	126.7
2400Z	18.4	127.3

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq. #
1279	+63.07	09 02 26	0949Z	093352	094841	803	185
1280	+37.75	10 44 13	1117Z	111357	112041	803	186
1286	-114.19	20 54 56	2101Z	NO			
1287	-139.52	22 36 43	2240Z	NO			

HURRICANE "CARLOTTA" - 7/10/75 (0000Z - 2400Z)



3.5-11

LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	18.4N	127.3W
0600Z	18.6	128.1
1200Z	18.8	129.0
1800Z	18.8	130.0
2400Z	19.0	130.9

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq. #
1293	+68.55	08 47 25	0934Z	No			
1294	+43.22	10 29 13	1113Z	NO			
1300	-108.72	20 39 55	2047Z	NO			
1301	-134.04	22 21 42	2225Z	NO			

STORM: HURRICANE DENISE

DATE: JULY 4 - JULY 15, 1975

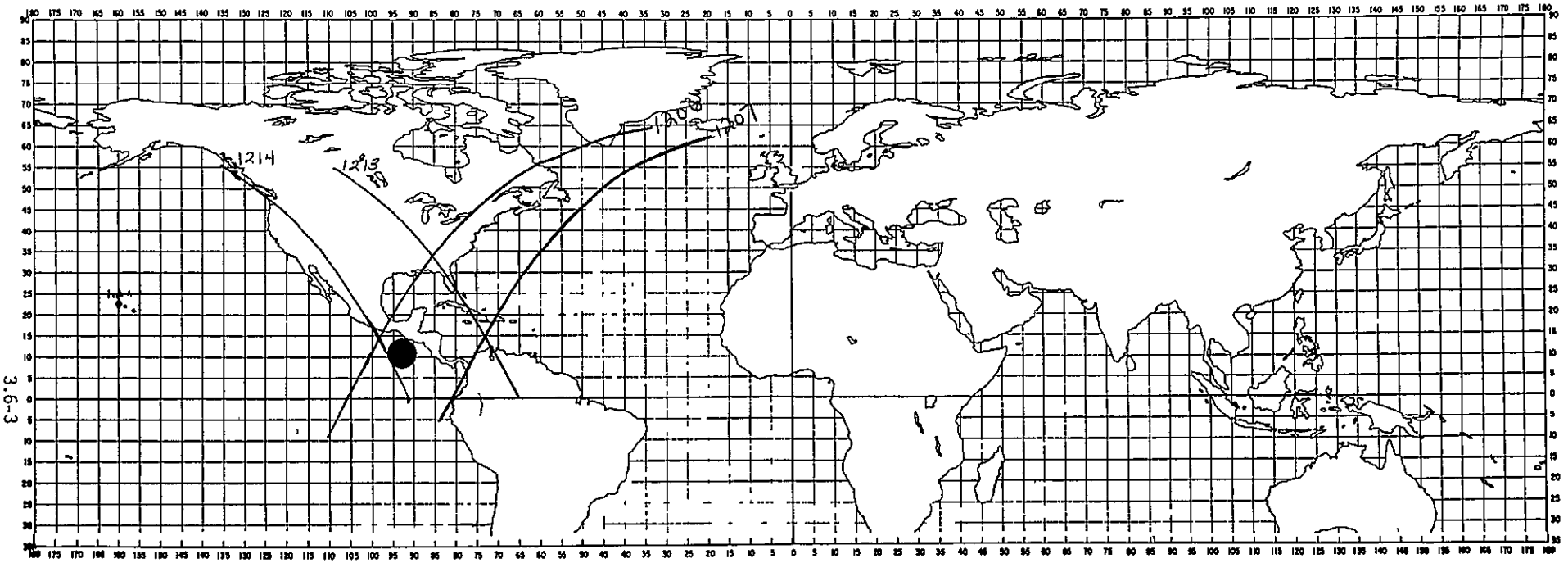
Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
7/4	1800Z	11.0N	093.0W		30	Tropical Depression
7/5	0000Z	10.8N	094.4W		30	Tropical Depression
	0600Z	10.6	096.0		30	
	1200Z	10.7	097.8		30	
	1800Z	10.9	098.9		30	
7/6	0000Z	11.3N	099.6W		30	Tropical Depression
	0600Z	11.9	100.1		30	
	1200Z	12.3	100.5		30	
	1800Z	12.9	100.9		30	
7/7	0000Z	13.3N	101.3W		40	Tropical Storm
	0600Z	13.9	101.8		45	
	1200Z	14.2	102.2		50	
	1800Z	14.6	102.8		65	Hurricane
7/8	0000Z	15.0N	103.4W		75	Hurricane
	0600Z	15.3	103.8		85	
	1200Z	15.7	104.3		95	
	1800Z	15.9	105.1		105	
7/9	0000Z	16.0N	106.0W		110	Hurricane
	0600Z	16.0	107.1		115	
	1200Z	16.0	108.1		120	
	1800Z	15.5	109.4		115	
7/10	0000Z	14.9N	110.4W		110	Hurricane
	0600Z	14.3	111.2		100	
	1200Z	13.4	112.6		95	
	1800Z	13.7	112.2		90	
7/11	0000Z	14.0N	112.5W		85	Hurricane
	0600Z	14.2	113.0		85	
	1200Z	14.8	113.8		80	
	1800Z	15.6	114.3		80	

STORM: HURRICANE DENISE (CONT.)

DATE: JULY 4 - JULY 15, 1975

Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
7/12	0000Z	16.5N	114.9W		75	Hurricane
	0600Z	17.2	115.5		70	
	1200Z	17.9	116.3		70	
	1800Z	18.5	117.2		65	
7/13	0000Z	19.4N	118.3W		65	Hurricane
	0600Z	19.6	118.5		65	
	1200Z	19.7	118.7		55	Tropical Storm
	1800Z	20.0	118.9		45	
7/14	0000Z	20.1N	119.0W		40	Tropical Storm
	0600Z	20.3	119.1		40	
	1200Z	20.4	119.2		35	
	1800Z	20.6	119.2		30	Tropical Depression
7/15	0000Z	20.8N	119.0W		25	Tropical Depression
	0600Z	----	----		--	
	1200Z	----	----		--	
	1800Z	----	----		--	

HURRICANE "DENISE" - 7/4/75 (1800Z-2400Z)



3.6-3

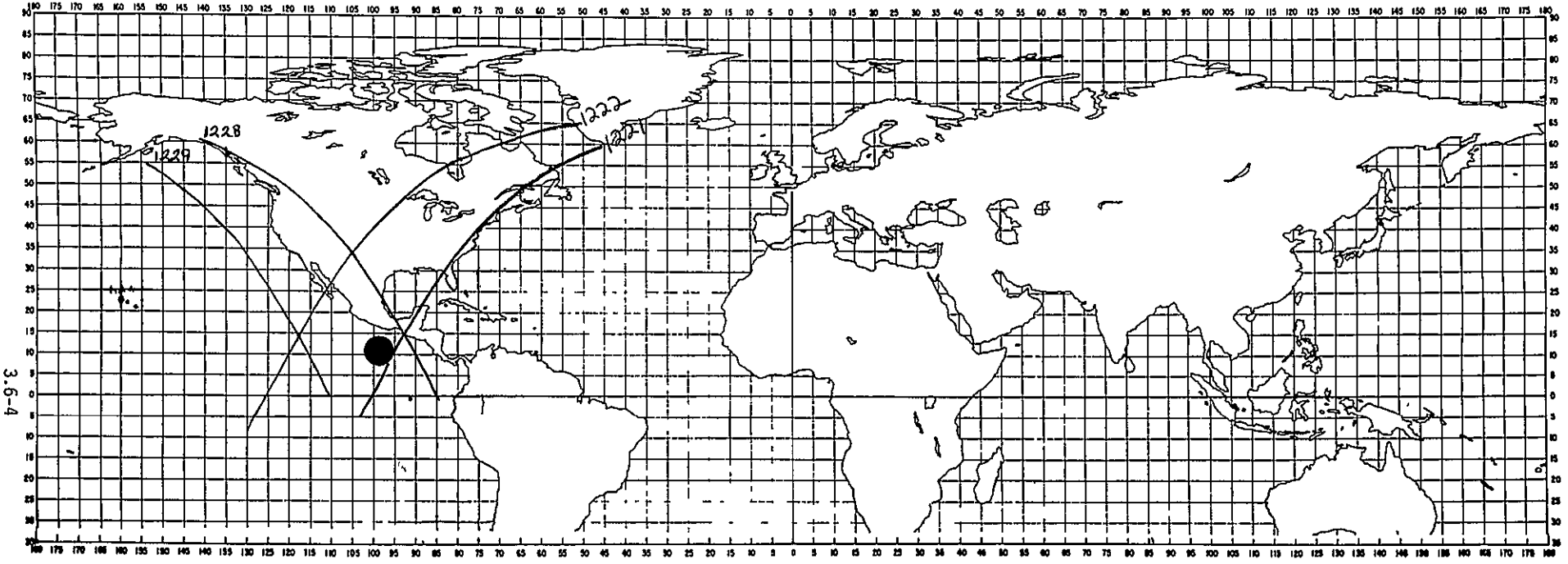
LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
1800Z	11 ON	93.0W
2400Z	10.8	94.4

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Mag #
1206	+111.67	05 12 08	0602Z	NO			
1207	+86.35	06 53 55	0741Z	NO			
1213	-65.59	17 07 37	1711Z	171013	171236	802	142
1214	-90.91	18 46 24	1849Z	NO			

HURRICANE "DENISE" - 7/5/75 (0000Z-2400Z)



3.6-4

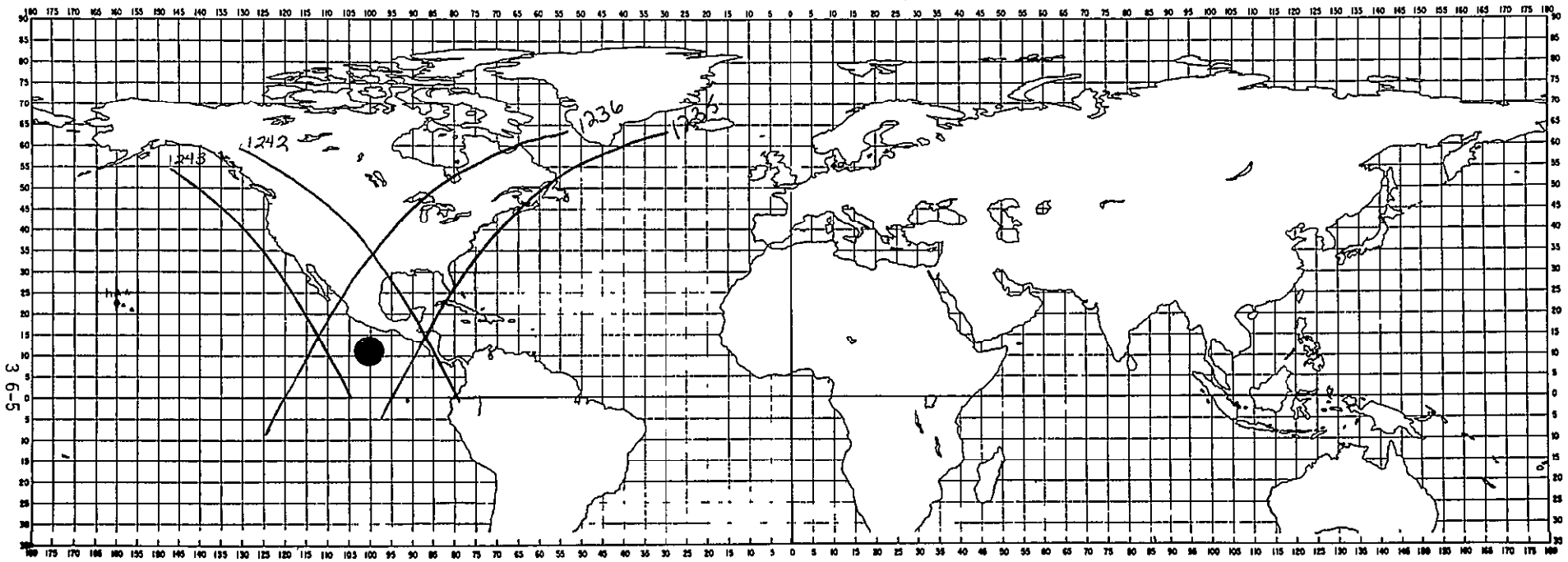
LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	10.8N	94.4W
0600Z	10.6	96.0
1200Z	10.7	97.8
1800Z	10.9	98.9
2400Z	11.3	99.6

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq. #
1221	+91.82	06 38 54	0727Z	NO			
1222	+66.50	08 20 41	0806Z	NO			
1228	-85.44	18 31 24	1836Z	NO			
1229	-110.76	20 13 11	2015Z	201718	203122	803	153

HURRICANE "DENISE" - 7/6/75 - (0000Z - 2400Z)



3 6-5

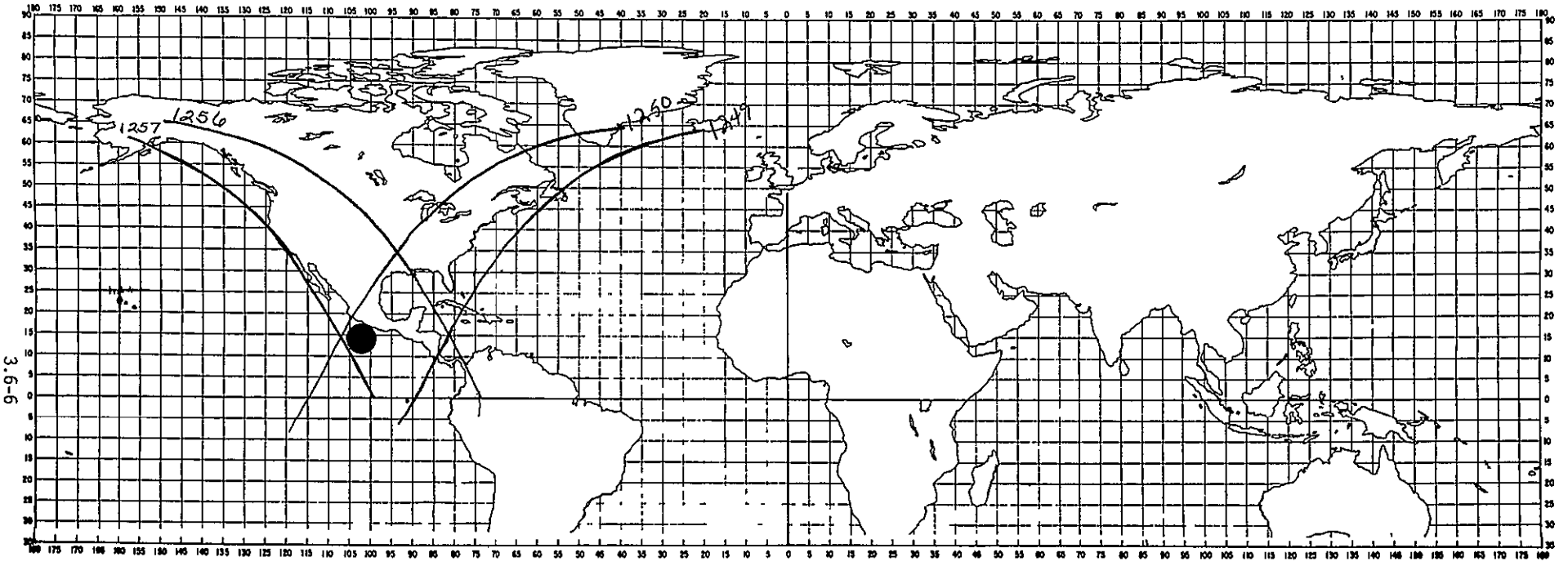
LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	11.3N	99.6W
0600Z	11.9	100.1
1200Z	12.3	100.5
1800Z	12.9	100.9
2400Z	13.3	101.3

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq. #
1235	+97.29	06 23 54	0712Z	070000	071639	802	157
1236	+71.97	08 05 41	0851Z	NO			
1242	-79.97	18 16 23	1822Z	NO			
1243	-105.29	19 58 10	2001Z	NO			

HURRICANE "DENISE" - 7/7/75 (0000Z - 2400Z)



3.6-6

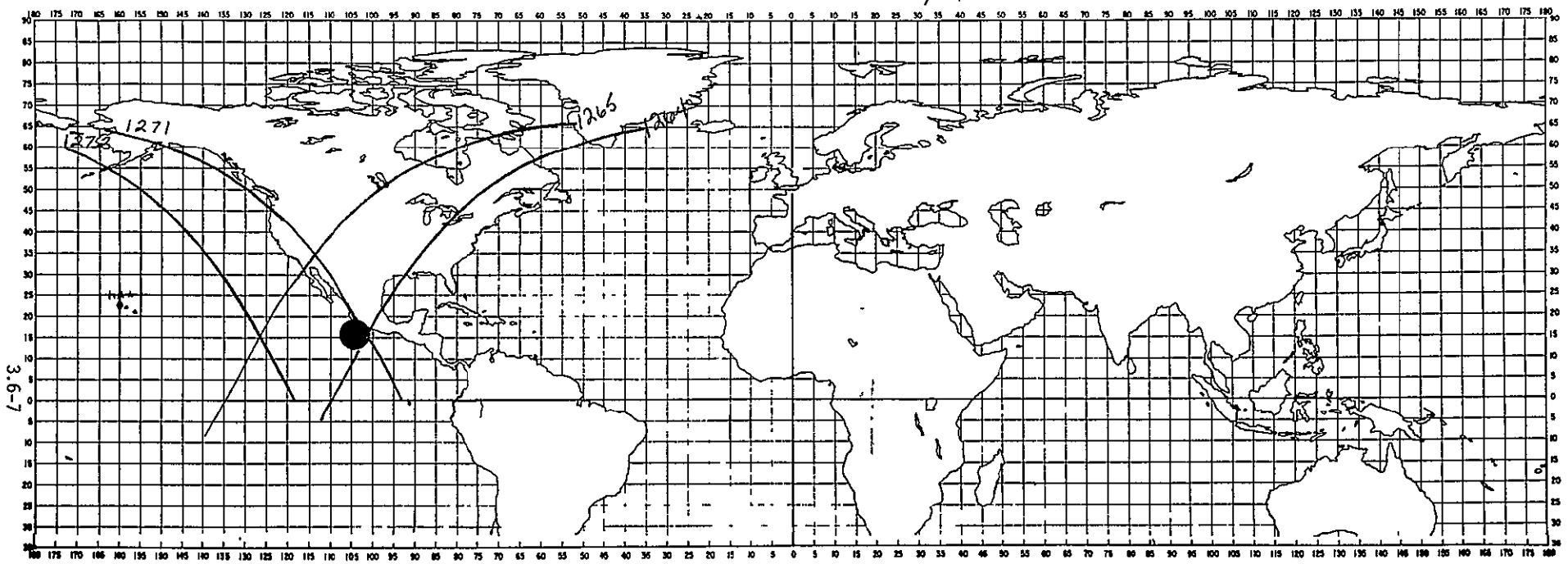
LOCATION

TROPICAL STORM/EXTRATROPICAL/HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	13.3 N	101.3 W
0600Z	13.9	101.8
1200Z	14.2	102.2
1800Z	14.6	102.8
2400Z	15.0	103.4

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Msng #
1249	+102.77	06 08 53	0657Z	NO			
1250	+77.45	07 50 40	0834Z	092812	093359	803	—
1256	-74.50	18 01 23	1809Z	190725	182511	803	168
1257	-99.82	19 43 10	1947Z	NO			

HURRICANE "DENISE" - 7/8/75 (0000Z - 00Z)



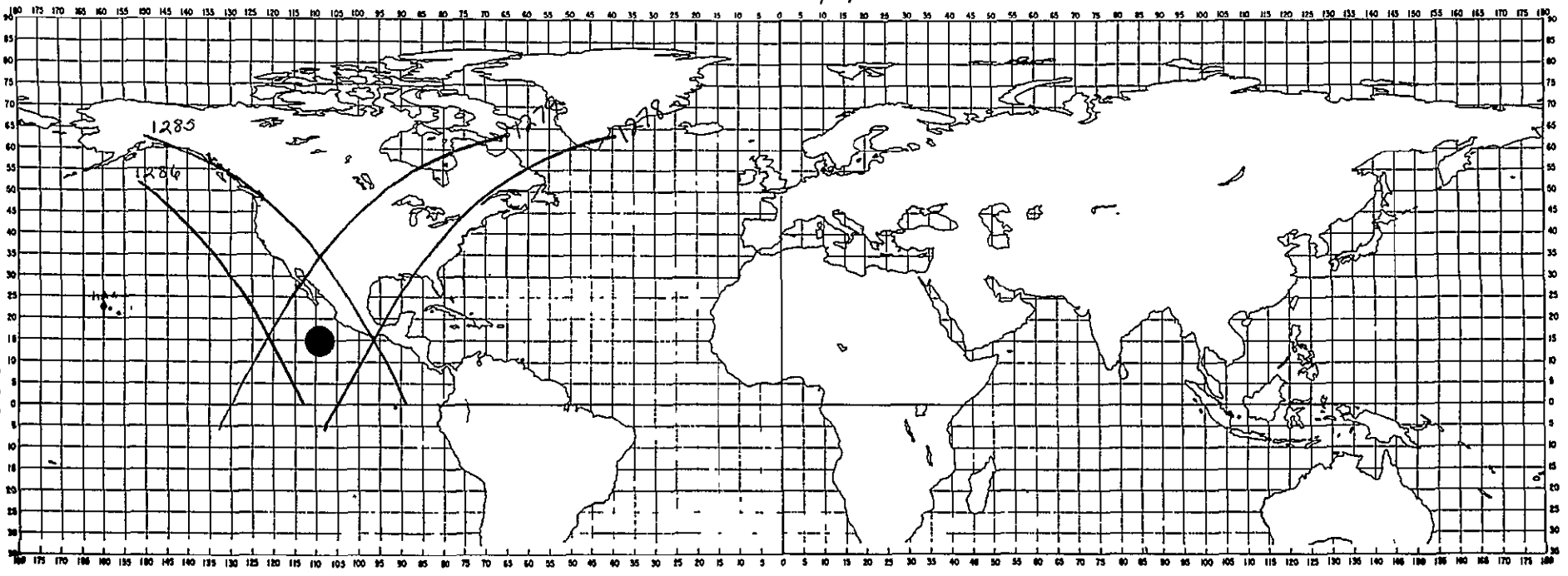
LOCATION

HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	15.0N	103.4W
0600Z	15.3	103 8
1200Z	15.7	104.3
1800Z	15.9	105.1
2400Z	16.0	106.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq. #
1264	+82.92	07 35 40	0822Z	NO			
1265	+57.60	09 17 27	1000Z	094658	100420	803	173
1271	-94.34	19 28 09	1933Z	193244	194619	803	179
1272	-119.67	21 09 57	2113Z	NO			

HURRICANE "DENISE" - 7/9/75 (0000Z-2400Z)



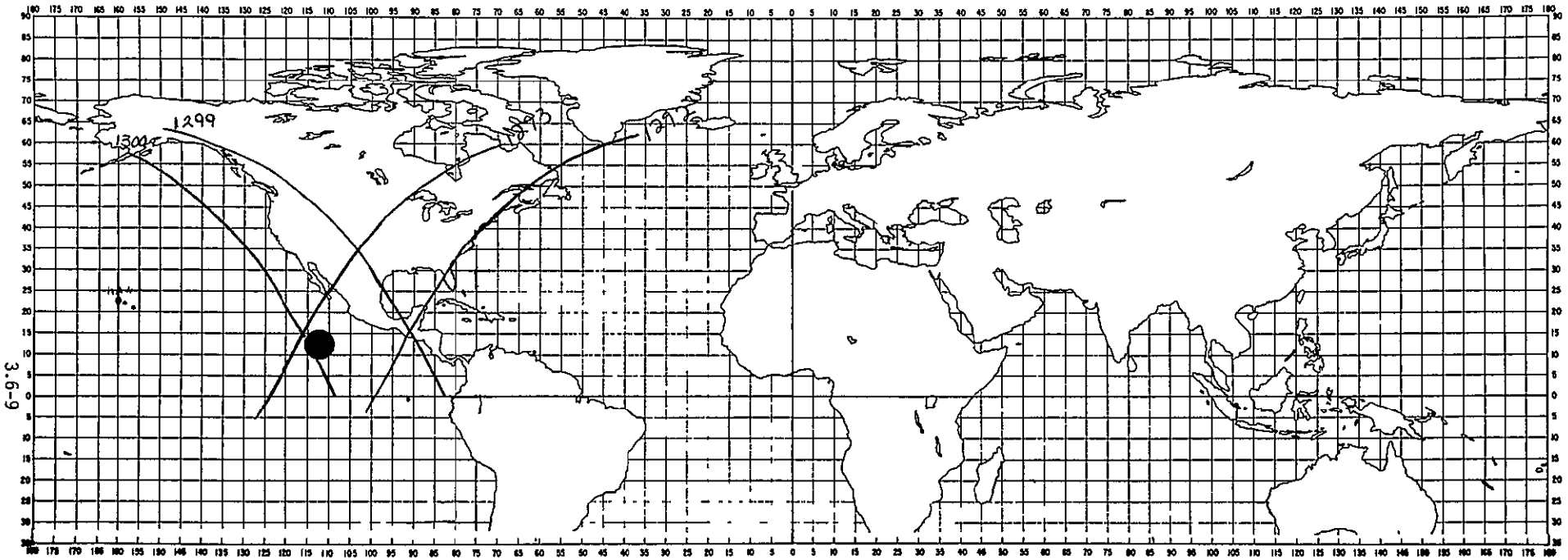
LOCATION

HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	16.0N	106.0W
0600Z	16.0	107.1
1200Z	16.0	108.1
1800Z	15.5	109.4
2400Z	14.9	110.4

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit #1
1278	+88.39	07 20 39	0808Z	075558	080848	803	183
1279	+63.07	09 02 26	0946Z	093352	094841	803	185
1285	-88.87	19 13 09	1919Z	No			
1286	-114.19	20 54 56	2057Z	NO			

HURRICANE "DENISE" - 7/10/75 (0000Z-2400Z)



3.6-9

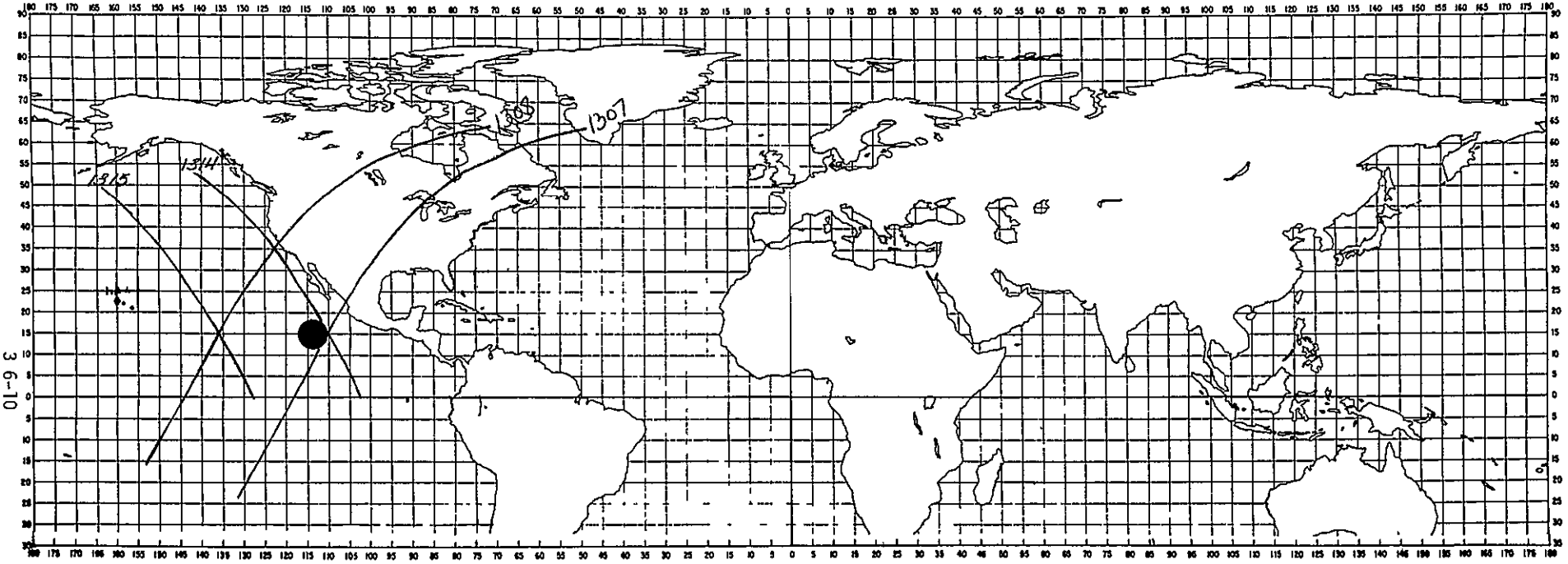
LOCATION

HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	14.9N	110.4W
0600Z	14.3	111.2
1200Z	13.4	112.6
1800Z	13.7	112.2
2400Z	14.0	112.5

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit #
1292	+93.87	07 05 38	0754Z	No			
1293	+68.55	08 47 25	0934Z	No			
1299	-83.40	18 58 08	1905Z	190447	192052	803	198
1300	-108.72	20 39 55	2043Z	NO			

HURRICANE "DENISE" - 7/11/75 (0000Z-2400Z)



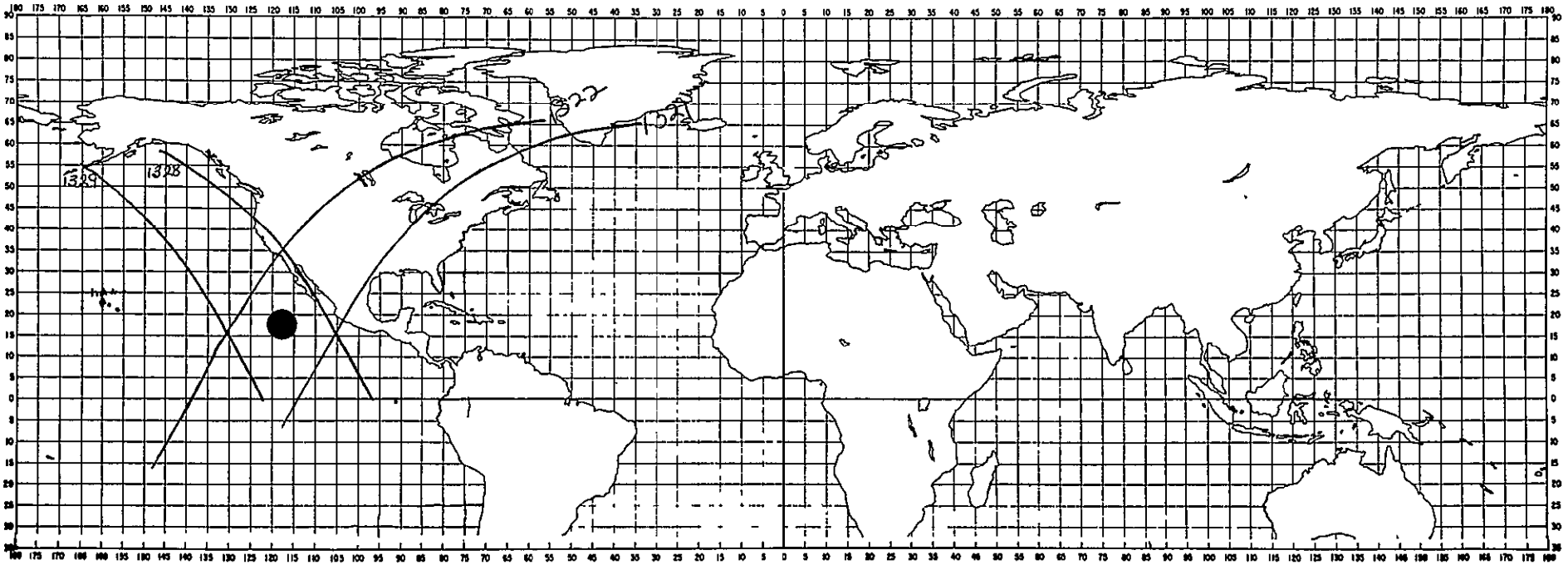
3 6-10

LOCATION
HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	14.0N	112.5W
0600Z	14.2	113.0
1200Z	14.8	113.8
1800Z	15.6	114.3
2400Z	16.5	114.9

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq. #
1307	+74.02	08 32 25	0919Z	NO			
1308	+48.69	10 14 12	1057Z	NO			
1314	-103.24	20 24 54	2030Z	NO			
1315	-128.57	22 06 42	2209Z	NO			

HURRICANE "DENISE" - 7/12/75 (0000Z-2400Z)

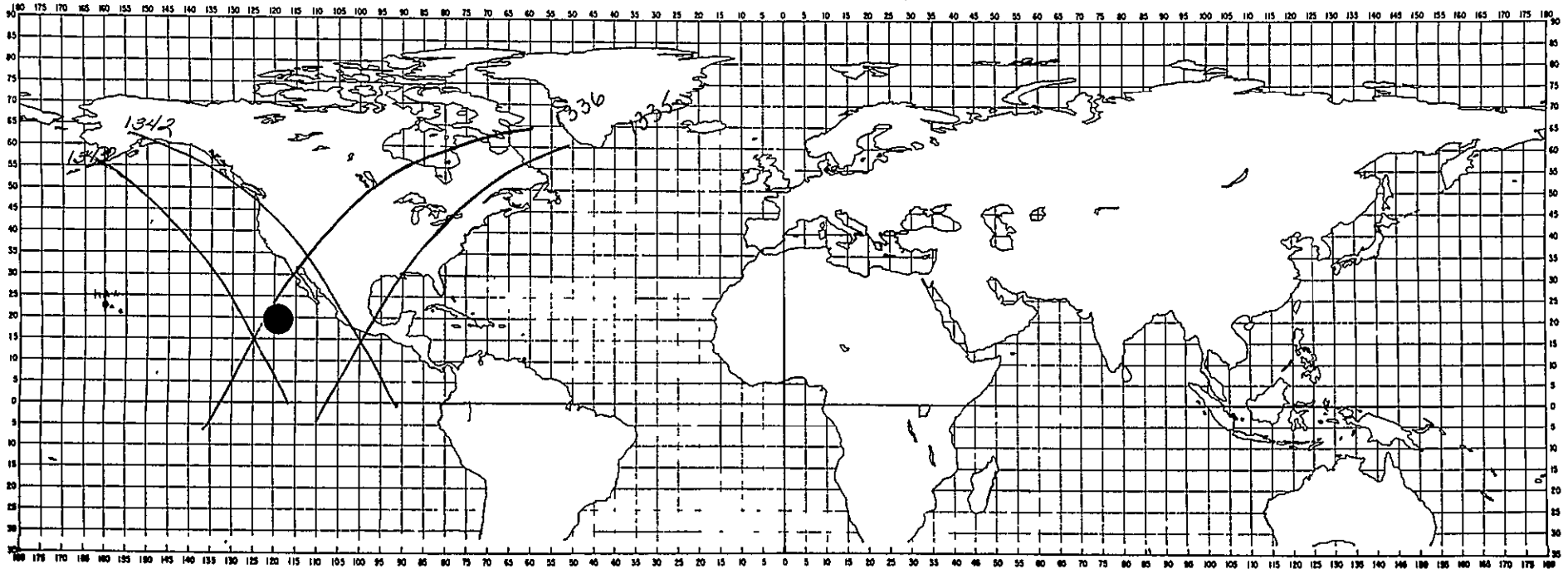


LOCATION
HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	16.5N	114.9W
0600Z	17.2	115.5
1200Z	17.9	116.3
1800Z	18.5	117.2
~~2400Z~~	19.4	118.3

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit #
1321	+79.49	08 17 24	0905Z	085022	090426	803	211
1322	+54.17	09 59 11	1044Z	102555	104412	803	213
1328	-97.77	20 09 54	2017Z	201403	202459	803	215
1329	-123.10	21 51 41	2155Z	NO			

HURRICANE "DENISE" - 7/13/75 (0000Z-2400Z)



3.6-12

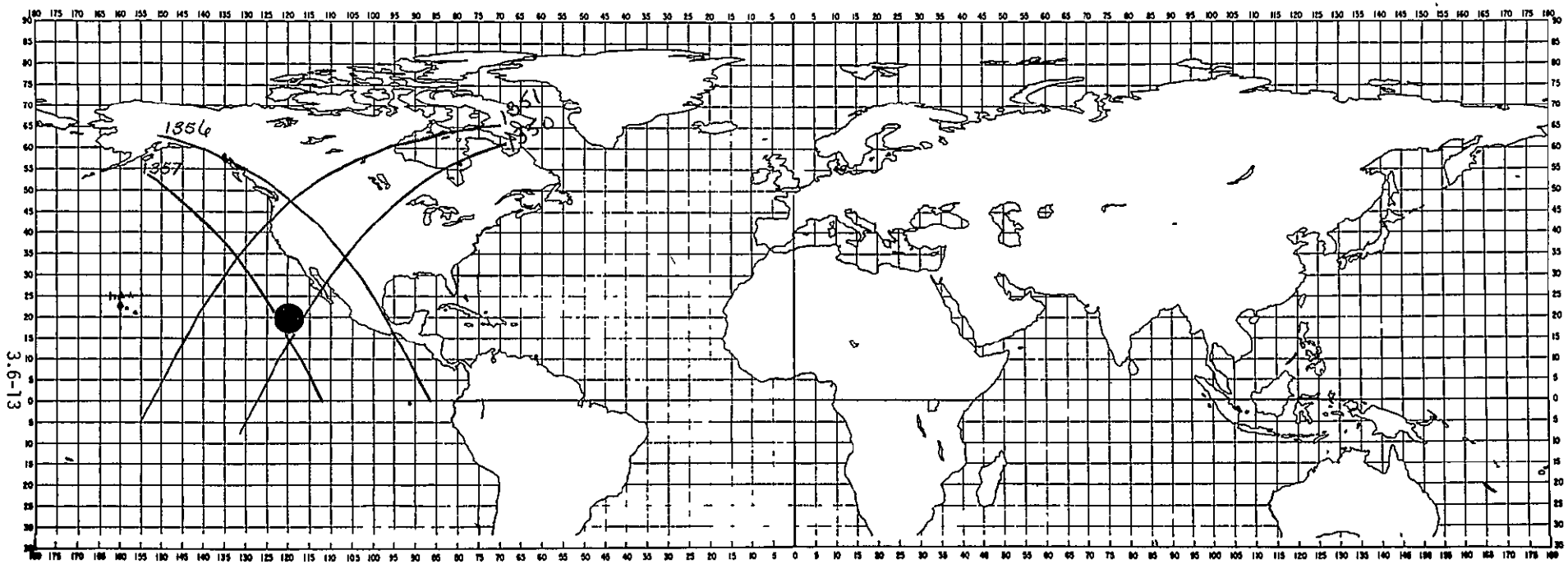
LOCATION

HURRICANE /TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	19.4N	118.3W
0600Z	19.6	118.5
1200Z	19.7	118.7
1800Z	20.0	118.9
2400Z	20.1	119.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit #
1335	+84.96	08 02 24	0850Z	083547	084959	803	219
1336	+69.64	09 44 11	1029Z	NO			
1342	-92.30	19 54 53	2004Z	NO			
1343	-117.62	21 36 40	2141Z	NO			

HURRICANE "DENISE" - 7/14/75 (0000Z - 2400Z)



3.6-13

LOCATION

TROPICAL STORM / TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	20.1N	119.6W
0600Z	20.3	119.1
1200Z	20.4	119.2
1800Z	20.6	119.2
2400Z	20.8	119.0

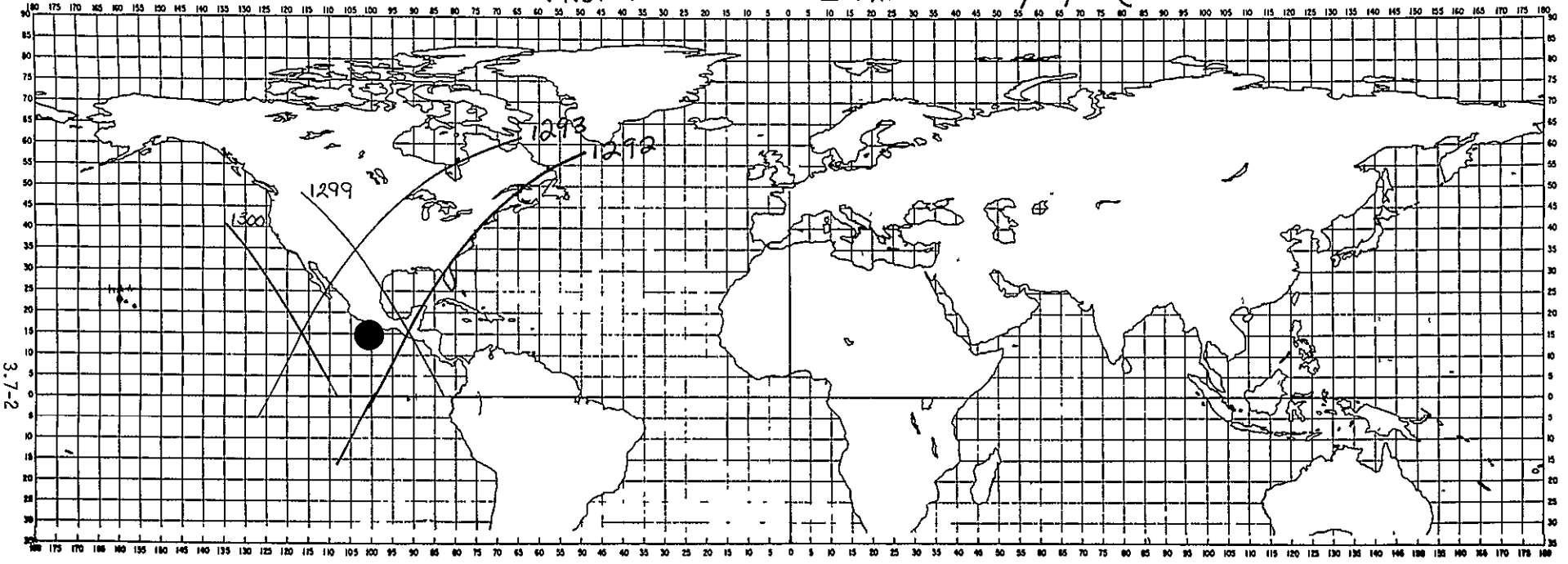
ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unig. #
1350	+65.12	09 29 10	1014Z	NO			
1351	+39.79	11 10 57	1153Z	NO			
1356	-86.83	19 39 53	1950Z	NO			
1357	-112.15	21 21 40	2127Z	NO			

STORM: TROPICAL STORM ELEANOR

DATE: JULY 10 - JULY 12, 1975

Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
7/10	1800Z	14.7N	100.2W		30	Tropical Depression
7/11	0000Z	15.8N	100.8W		35	Tropical Storm
	0600Z	16.5	102.4		35	
	1200Z	16.9	103.1		35	
	1800Z	17.2	103.4		35	
7/12	0000Z	17.6N	103.8W		35	Tropical Storm
	0600Z	----	----		--	
	1200Z	----	----		--	
	1800Z	----	----		--	

TROPICAL STORM "ELEANOR" — 7/10/75 (1800Z - 2400Z)



3.7-2

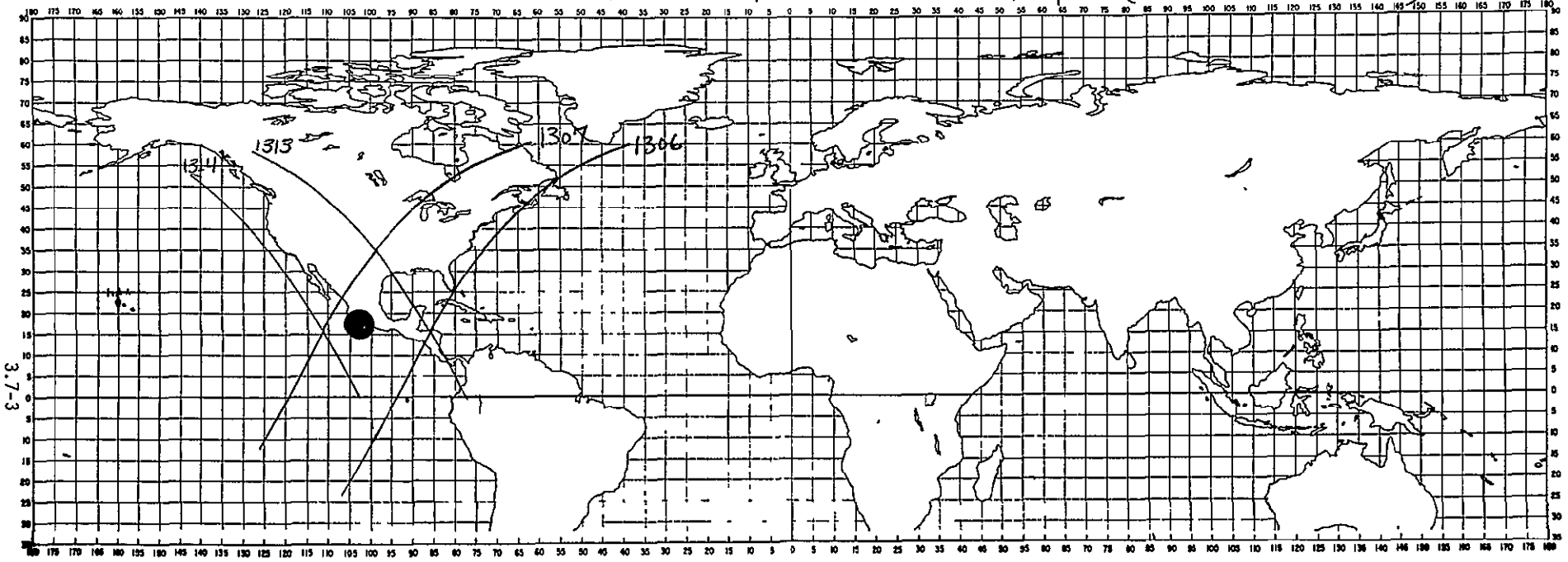
LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
1800Z	14.7N	100,2W
2400Z	15.8	100.8

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Umbra
1292	+93.87	07 05 38	0753Z	No			
1293	+68.55	08 47 25	0931Z	092000	093047	803	194
1299	−83.39	18 58 08	1904Z	190447	193052	803	198
1300	−108.72	20 39 55	2042Z	No			

TROPICAL STORM "ELEANOR" - 7/11/75 (0000Z - 2400Z)



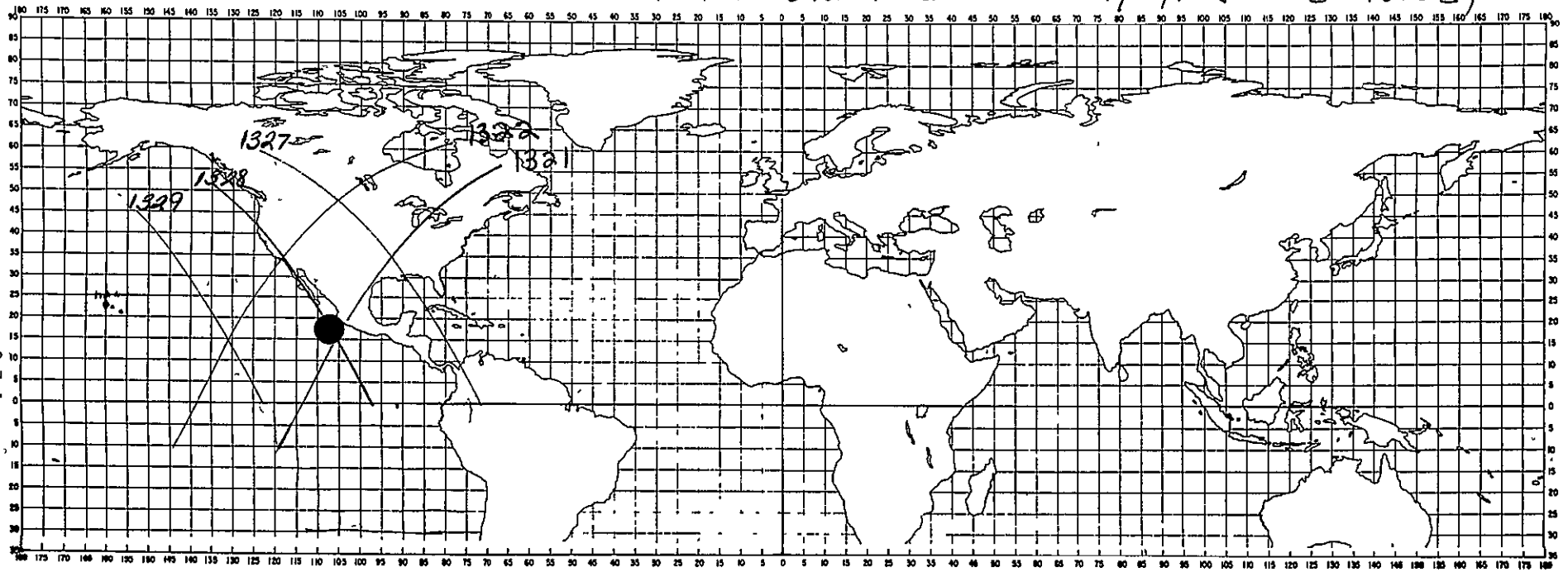
3.7-3

LOCATION
TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	15.8N	100.8W
0600Z	16.5	102.4
1200Z	16.9	103.1
1800Z	17.2	103.4
2400Z	17.6	103.8

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
1306	+99.34	06 50 58	0739Z	No			
1307	+74.02	08 32 25	0916Z	090425	091717	803	202
1313	-77.92	18 43 07	1851Z	No			
1314	-103.24	20 24 54	2049Z	No			

TROPICAL STORM "ELEANOR" – 7/12/75 (0000Z – 1800Z)



3 7-4

LOCATION
TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	17.6N	103.8W
0600Z	17.8*	107.3*
1200Z	18.3*	107.3*
1800Z	17.8*	107.3*

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
1321	+79.49	08 17 24	0903Z	085022	090426	803	211
1322	+54.17	09 59 11	1042Z	102555	104412	803	213
1327	-72.45	18 28 07	1838Z	No			
1328	-97.77	20 09 54	2015Z	201403	202459	803	215
1329	-123.09	21 51 41	2154Z	No			

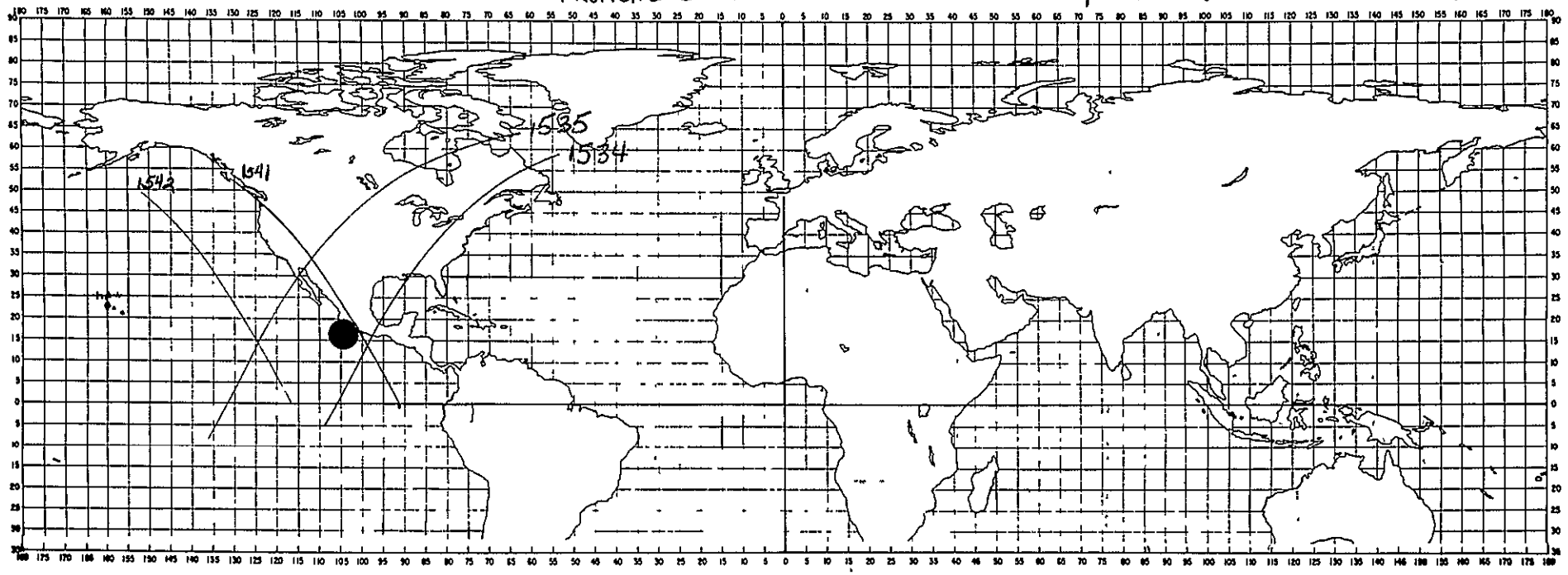
* 24-HOUR FORECAST

STORM: TROPICAL STORM FRANCENE

DATE: JULY 27 - JULY 30, 1975

Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
7/27	0600Z	16.3N	102.8W		30	Tropical Depression
	1200Z	16.5	103.7		35	Tropical Storm
	1800Z	16.5	104.5		45	
7/28	0000Z	16.5N	105.4W		45	Tropical Storm
	0600Z	16.5	106.8		45	
	1200Z	16.4	106.8		40	
	1800Z	16.3	107.5		30	Tropical Depression
7/29	0000Z	16.2N	108.2W		25	Tropical Depression
	0600Z	16.0	109.0		25	
	1200Z	16.0	110.0		25	
	1800Z	16.7	111.3		25	
7/30	0000Z	17.7N	112.5W		25	Tropical Depression
	0600Z					
	1200Z					
	1800Z					

TROPICAL STORM "FRANCENE" - 7/27/75 (0600Z - 2400Z)



3.8-2

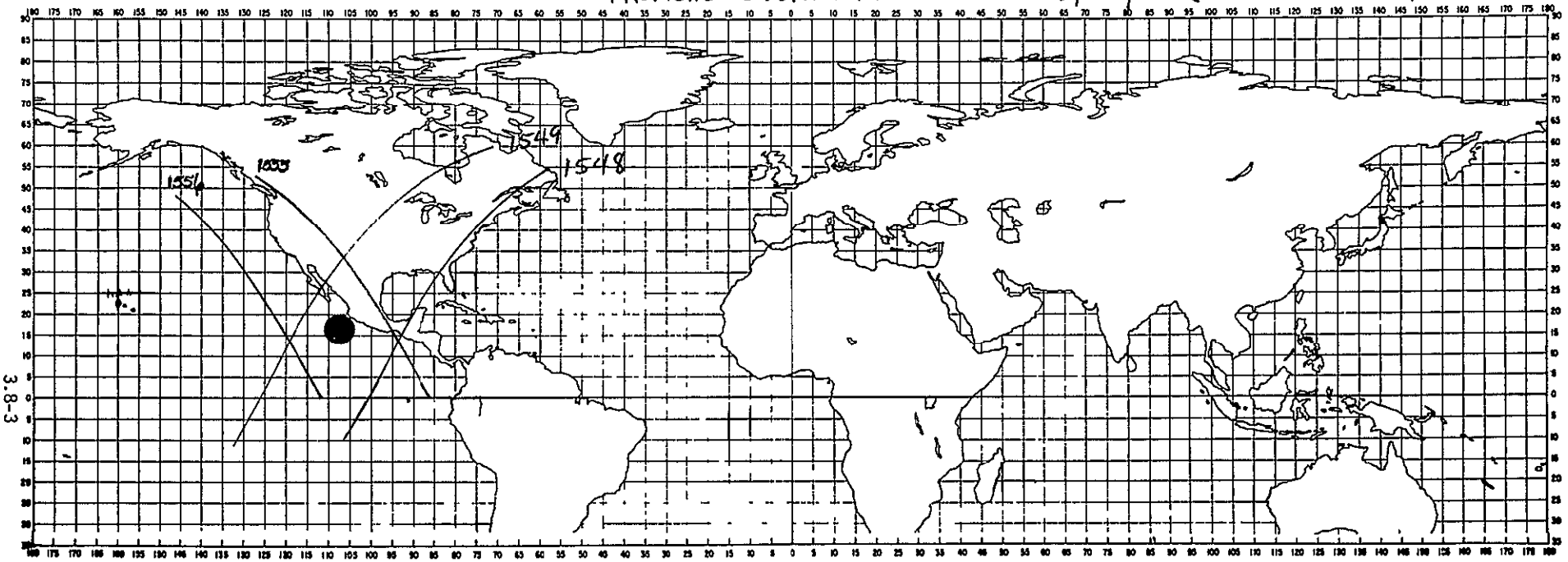
LOCATION

TROPICAL DEPRESSION/ TROPICAL STORM (1200Z)

TIME	LATITUDE	LONGITUDE
0600Z	16.3 N	102.8 W
1200Z	16.5	103 7
1800Z	16.5	104.5
2400Z	16.5	1054

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
1534	+85.63	09 37 36.	1024Z	No			
1535	+60.31	11 19 23	1202Z	120029	120521	802	422
1541	- 91.63	21 30 06	2136Z	No			
1542	- 116.96	23 11 53	2313Z	No			

TROPICAL STORM "FRANCENE" - 9/28/75 (0000Z - 2400Z)



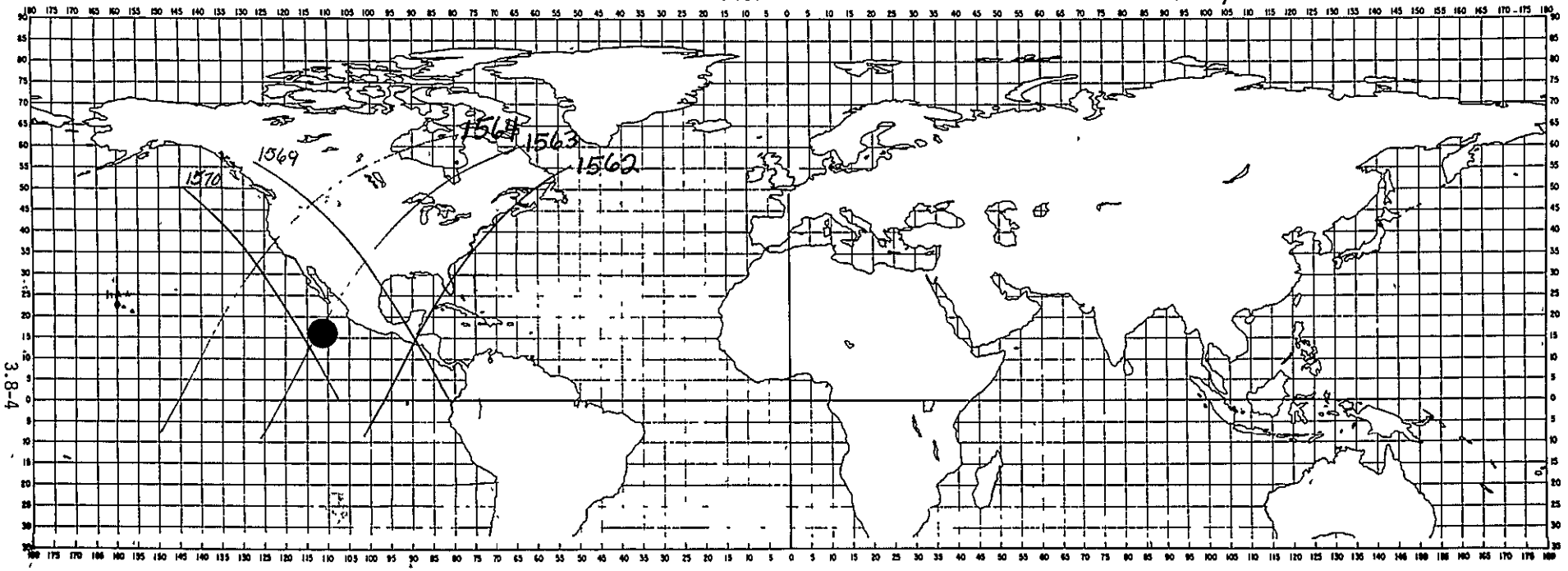
LOCATION

TROPICAL STORM / TROPICAL DEPRESSION (1800Z)

TIME	LATITUDE	LONGITUDE
0000Z	16.5N	105.4W
0600Z	16.5	106.8
1200Z	16.4	106.8
1800Z	16.3	107.5
2400Z	16.2	108.2

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
1548	+91.11	09 22 35	1010Z	No			
1549	+65.78	11 04 23	1148Z	114635	115102	802	433
1555	-86.16	21 15 05	2122Z	212053	212400	803	—
1556	-111.48	22 56 52	2300Z	No			

TROPICAL STORM "FRANCENE" – 7/29/30 (0000Z-2400Z)



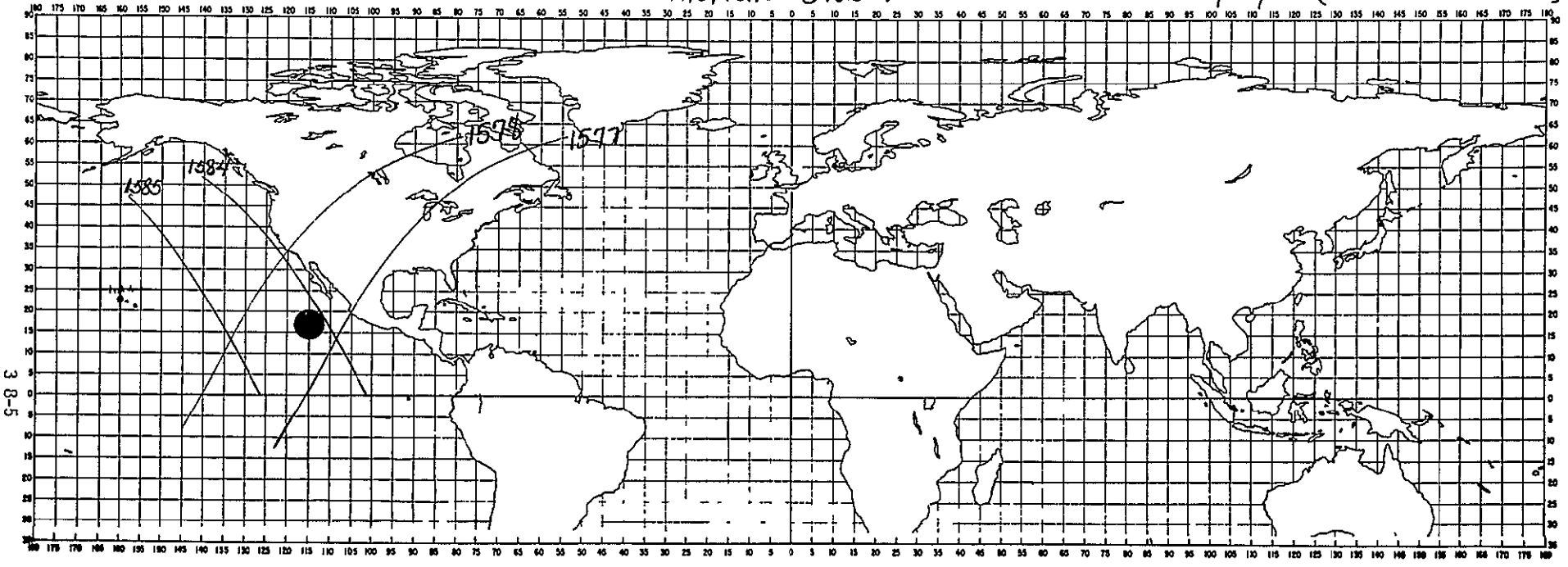
3.8-4

LOCATION
TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	16.2N	108.2W
0600Z	16.0	109.0
1200Z	16.0	110.0
1800Z	16.7	111.3
2400Z	17.7	112.5

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	On	Off	Mode	Usage#
1562	+96.58	09 07 35	0957Z	No			
1563	+71.25	10 49 22	1134Z	No			
1564	+45.93	12 31 09	1313Z	No			
1569	−80.68	21 00 04	2108Z	No			
1570	−106.01	22 41 52	2245Z	No			

TROPICAL STORM – "FRANCENE" – 7/30/75 (0000Z - 1800Z)



3 8-5

LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	17.7N	112.5W
0600Z	15.0*	110.0*
1200Z	16.0*	114.0*
1800Z	17.0*	115.5*

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Orig.
1577	+76.73	10 34 21	1121Z	No			
1578	+51.41	12 16 09	1300Z	No			
1584	-100.53	22 25 31	2232Z	No			
1585	-125.86	00 09 38	0012Z	No			

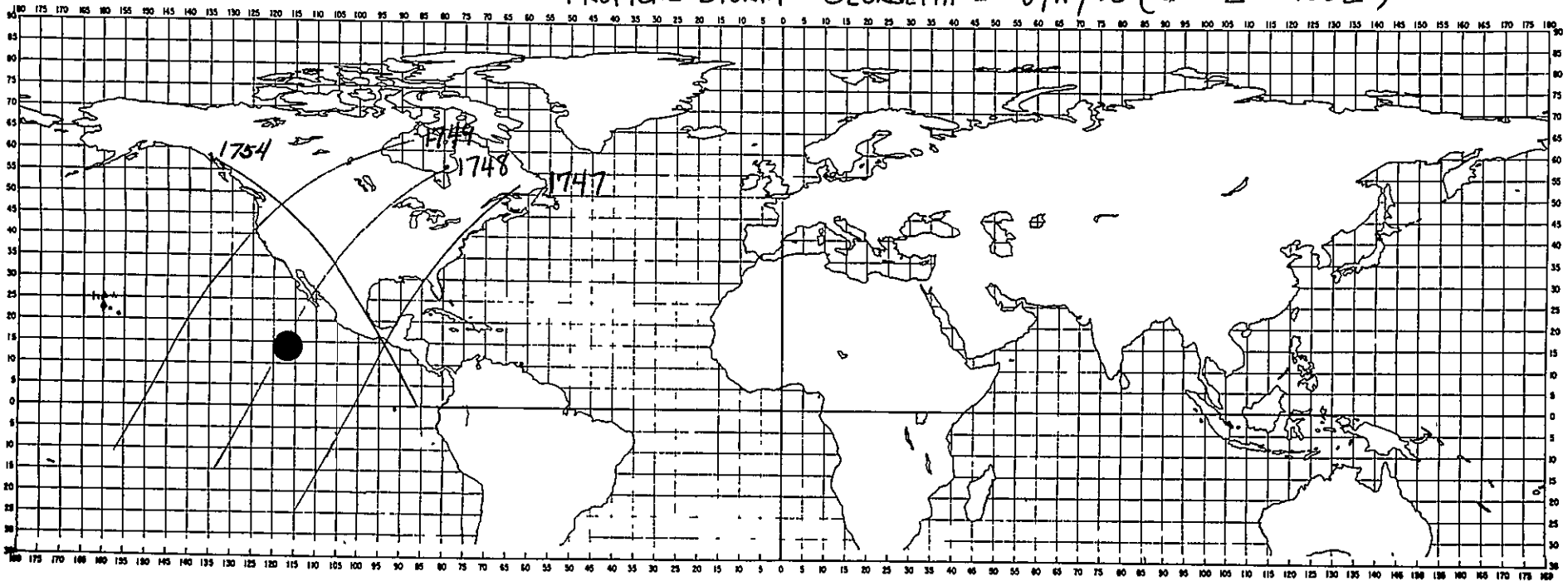
* 24-Hour Forecast

STORM: TROPICAL STORM GEORGETTA

DATE: AUGUST 10 - AUGUST 13, 1975

Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
8/11	0000Z	14.0N	117.5W		25	Tropical Depression
	0600Z	14.0	118.0		25	
	1200Z	14.1	118.7		30	
	1800Z	14.4	119.5		35	Tropical Storm
8/12	0000Z	14.6N	120.0W		35	Tropical Storm
	0600Z	15.0	121.7		40	
	1200Z	15.6	121.6		40	
	1800Z	16.1	122.6		40	
8/13	0000Z	16.7N	123.7W		35	Tropical Storm
	0600Z	17.4	125.3		30	Tropical Depression
	1200Z	17.5	126.0		30	
	1800Z	17.6	127.1		30	
8/14	0000Z	17.4N	128.2W		30	Tropical Depression
	0600Z	16.8	129.3		25	
	1200	----	----		--	

TROPICAL STORM "GEORGETTA" - 8/11/75 (0000Z - 2400Z)



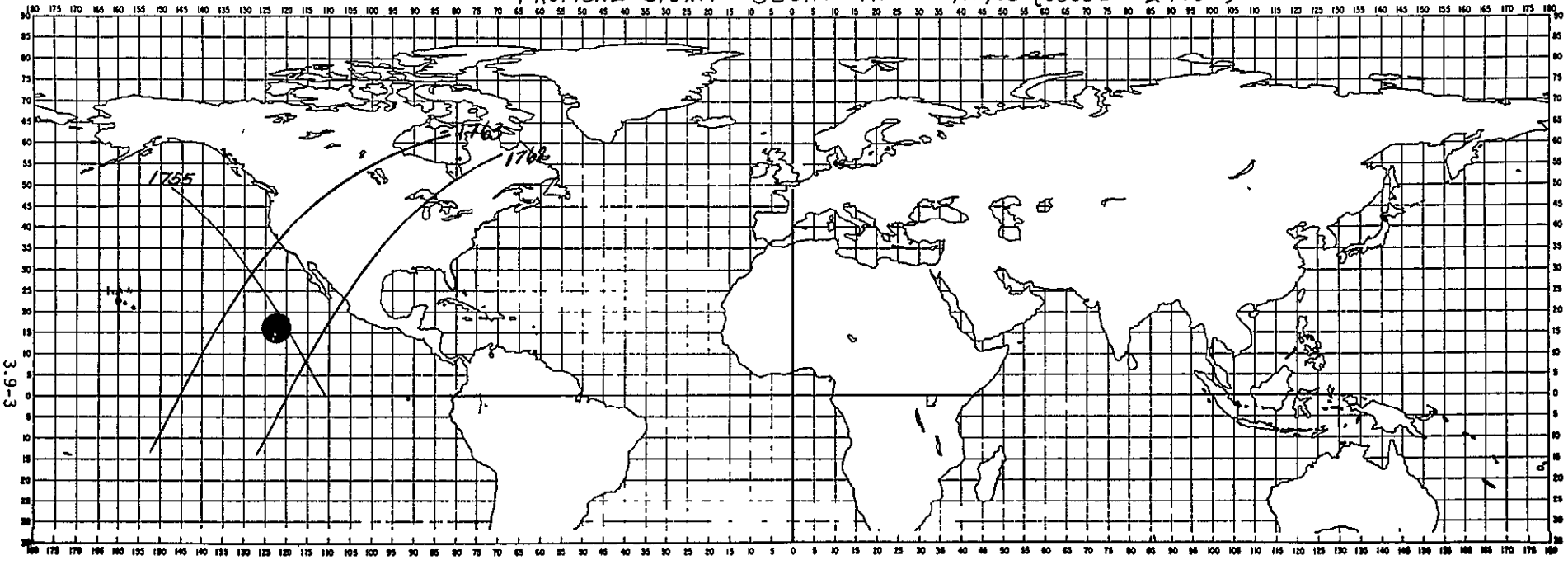
LOCATION

TROPICAL DEPRESSION/TROPICAL STORM (1800Z)

TIME	LATITUDE	LONGITUDE
0000Z	14.0N	117.5W
0600Z	14.0	118.0
1200Z	14.1	118.7
1800Z	14.4	119.5
2400Z	14.6	120.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unq #
1747	+91 78	10 57 47	1148Z	No			
1748	+66.45	12 39 35	1326Z	No			
1749	+41 13	14 21 22	1504Z	No			
1754	-85.49	22 50 17	2258Z	No			

TROPICAL STORM "GEORGETTA" - 8/12/75 (0000Z - 2400Z)



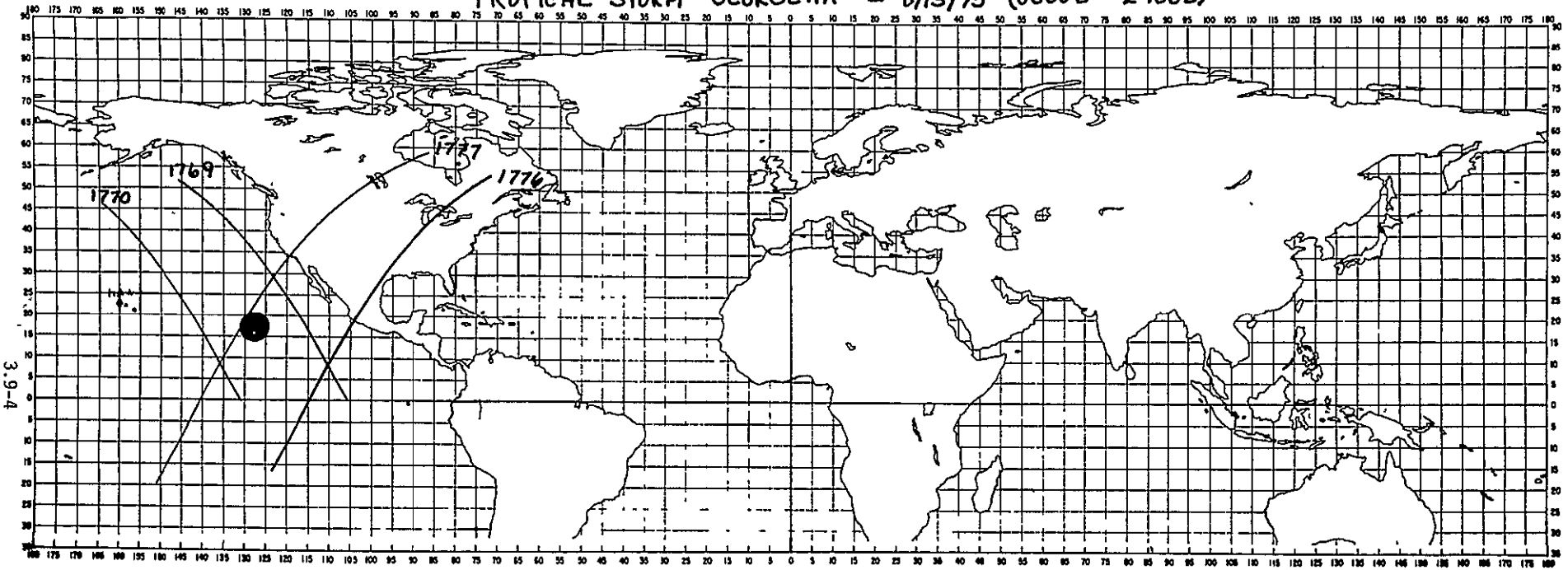
LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	14.6N	120.0W
0600Z	15.0	121.7
1200Z	15.6	121.6
1800Z	16.1	122.6
2400Z	16.7	123.7

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Weight
1755	-110.81	00 32 04	0036Z	Do			
1762	+ 71.95	12 24 39	1311Z	Do			
1763	+46.62	14 06 16	1450Z	144519	145014	802	125

TROPICAL STORM "GEORGETTA" – 8/13/75 (0000Z - 2400Z)



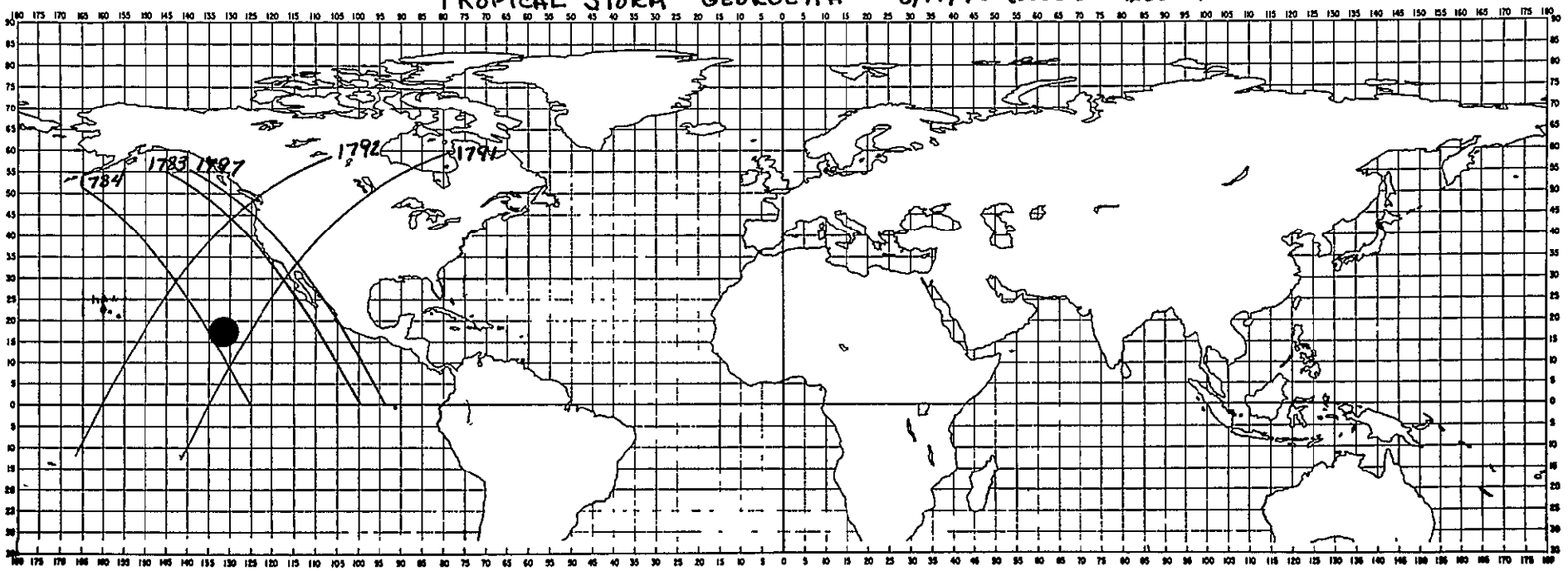
LOCATION

TROPICAL STORM/TROPICAL DEPRESSION (0600Z)

TIME	LATITUDE	LONGITUDE
0000Z	16.7N	123.7W
0600Z	17.4	125.3
1200Z	17.5	126.0
1800Z	17.6	127.1
2400Z	17.4	128.2

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
1769	-105.31	00 16 58	0023Z	No			
1770	-130.64	01 58 45	0201Z	No			
1776	+77.43	12 09 27	1258Z	No			
1777	+52.10	13 51 15	1436Z	No			

TROPICAL STORM "GEORGETTA" - 8/14/75 (0000Z - 1200Z)



3.9-5

LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	17.4N	128.2W
0600Z	16.8	129.3
1200Z	16.9 *	132.2 *

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Weight
1783	-99.84	00 01 57	0010Z	No			
1784	-125.16	01 43 44	0148Z	No			
1791	+57.58	13 36 13	1422Z	No			
1792	+32.25	15 18 01	1601Z	No			
1797	-94.36	23 45 55	2356Z	No			

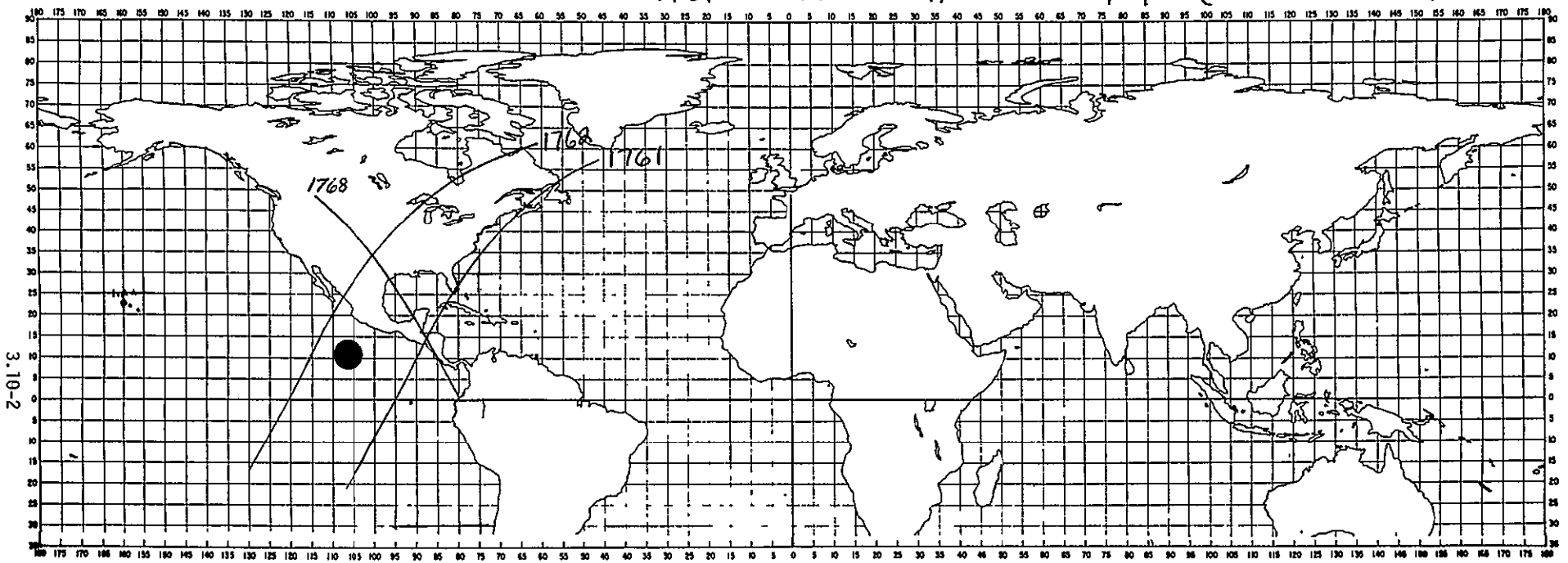
* 24 HOUR FORECAST

STORM: TROPICAL STORM HILARY

DATE: AUGUST 12 - AUGUST 17, 1975

Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
8/12	1800Z	11.4N	107.0W		30	Tropical Depression
8/13	0000Z	11.7N	108.0W		30	Tropical Depression
	0600Z	12.0	109.5		40	Tropical Storm
	1200Z	12.3	110.5		40	
	1800Z	12.5	111.4		45	
8/14	0000Z	13.0N	112.0W		45	Tropical Storm
	0600Z	13.7	113.0		40	
	1200Z	14.7	114.0		45	
	1800Z	15.5	115.0		45	
8/15	0000Z	16.4N	116.0W		50	Tropical Storm
	0600Z	17.5	117.4		45	
	1200Z	18.3	118.3		45	
	1800Z	19.5	119.5		45	
8/16	0000Z	20.0N	120.4W		45	Tropical Storm
	0600Z	20.2	121.1		35	
	1200Z	20.3	121.7		30	Tropical Depression
	1800Z	20.4	122.2		30	
8/17	0000Z	20.6N	122.7W		30	Tropical Depression
	0600Z	20.7	123.4		30	
	1200Z	21.0	124.0		25	
	1800Z	----	----		--	

TROPICAL STORM "HILARY" - 8/12/75 (1800Z - 2400Z)



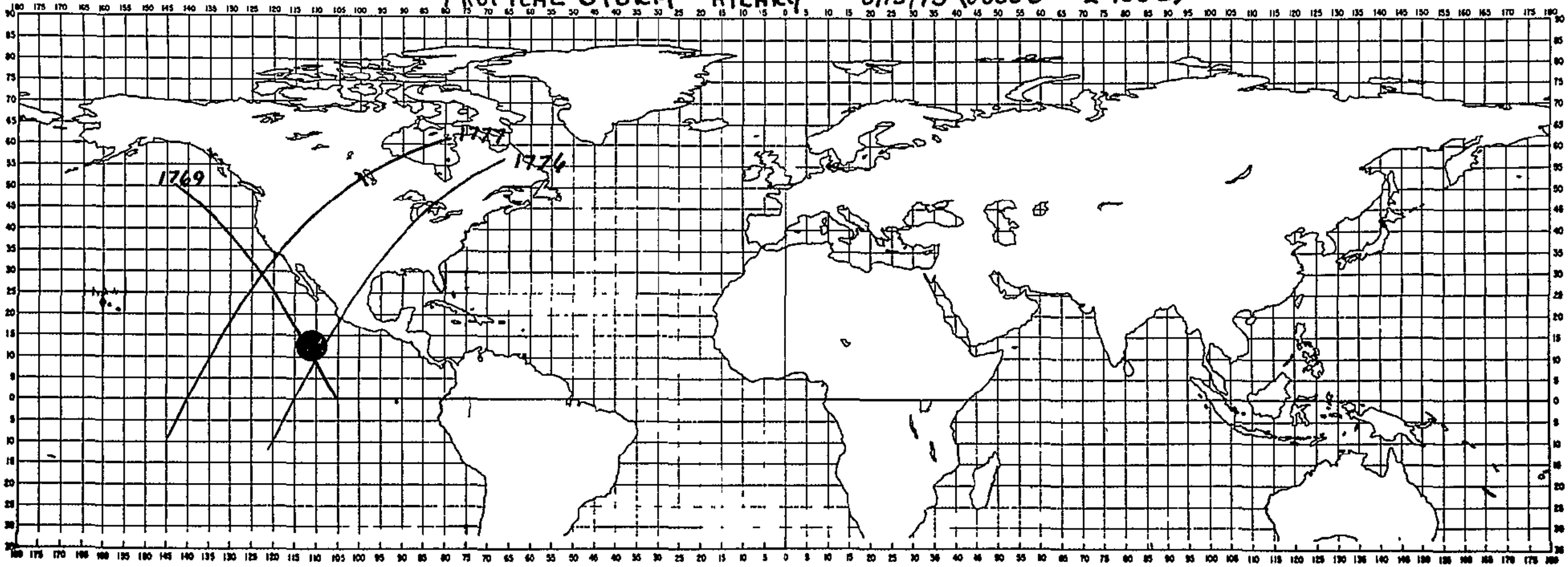
3.10-2

LOCATION
TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
1806Z	11.4N	107.0W
2400Z	11.7	108.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Uniq #
1761	+97.27	10 42 41	1133Z	No			
1762	+71.95	12 24 49	1311Z	No			
1769	-79.99	22 35 11	2241Z	No			

TROPICAL STORM "HILARY" – 8/13/75 (0000Z – 2400Z)

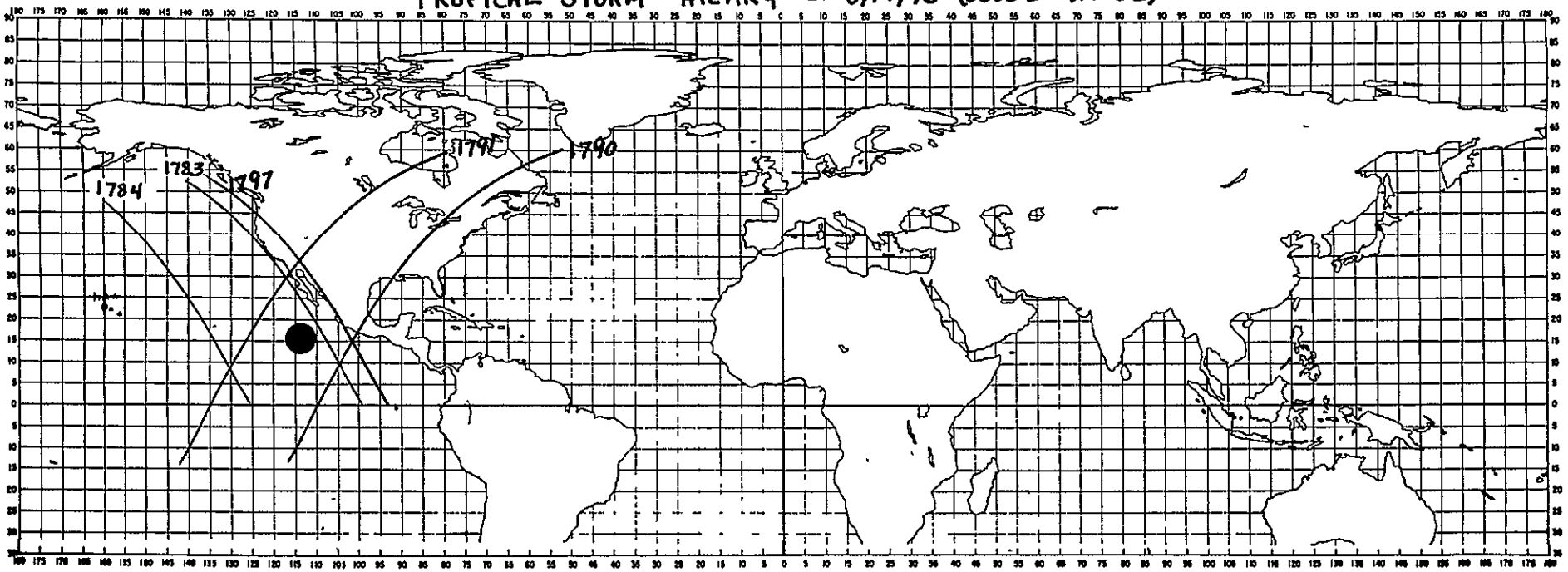


LOCATION
TROPICAL DEPRESSION/TROPICAL STORM (0600Z)

TIME	LATITUDE	LONGITUDE
0000Z	11.7N	108.0W
0600Z	12.0	109.5
1200Z	12.3	110.5
1800Z	12.5	111.4
2400Z	13.0	112.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unig#
1769	-105.31	00 16 58	0019Z	No			
1776	+77.43	12 09 27	1257Z	No			
1777	+52.10	13 51 15	1435Z	No			

TROPICAL STORM "HILARY" – 8/14/75 (0000Z - 2400Z)

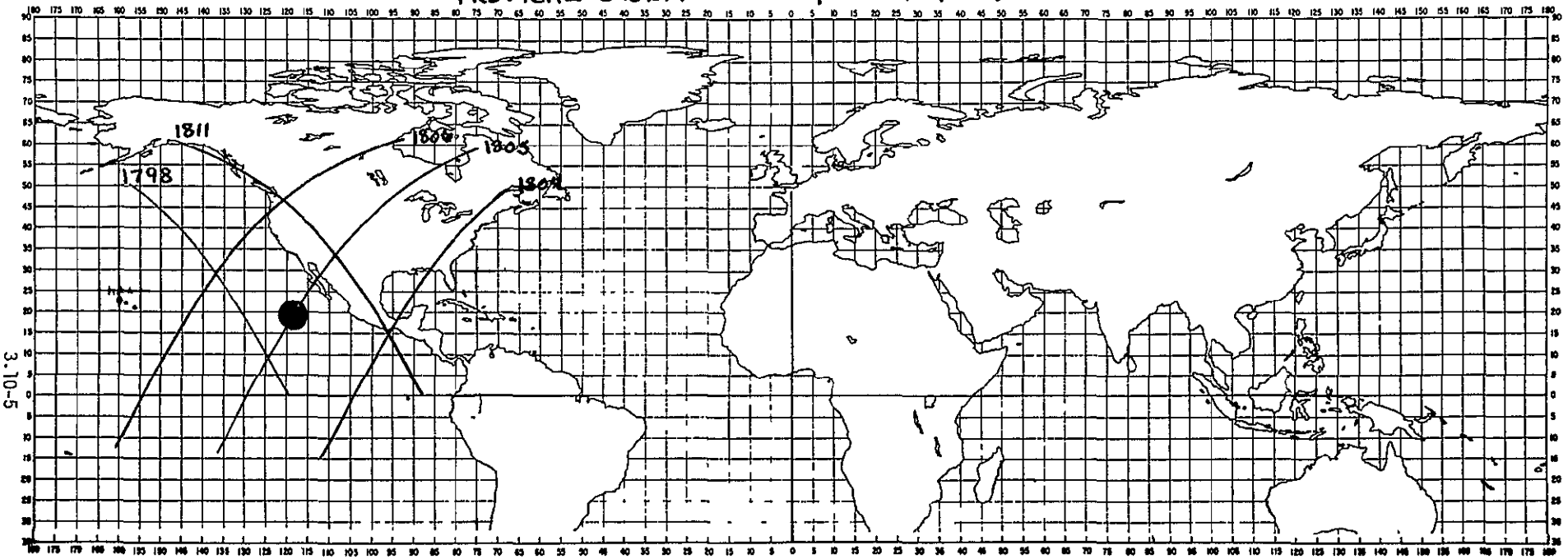


LOCATION
TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	13.0N	112.0W
0600Z	13.7	113.0
1200Z	14.7	114.0
1800Z	15.5	115.0
2400Z	16.4	116.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Weight
1783	-99.84	00 01 57	0006Z	No			
1784	-125.16	01 43 44	0145Z	No			
1790	+82.90	11 54 26	1242Z	No			
1791	+57.58	13 36 13	1420Z	No			
1797	-94.36	23 45 55	2351Z	No			

TROPICAL STORM "HILARY" – 8/15/75 (0000Z – 2400Z)



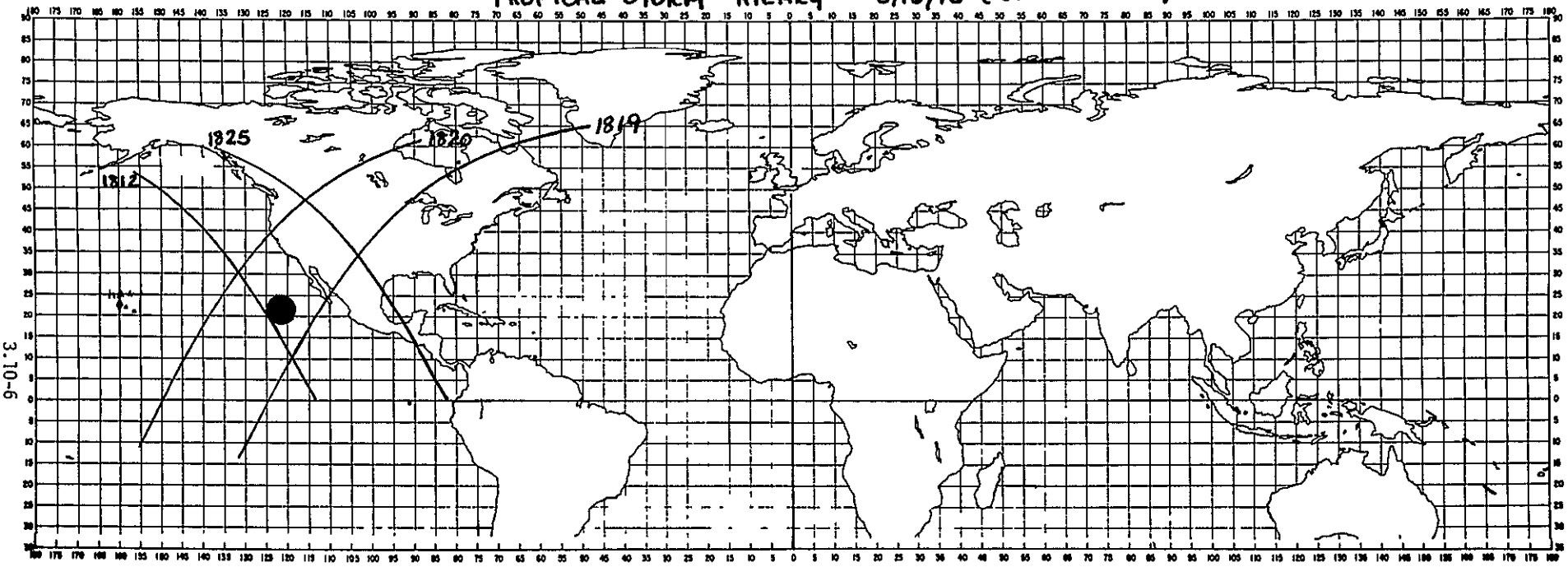
LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	16.4N	116.0W
0600Z	17.5	117.4
1200Z	18.3	118.3
1800Z	19.5	119.5
2400Z	20.0	120.4

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Angle
1798	-119.69	01 38 43	0133Z	No			
1804	+ 88.38	11 39 25	1228Z	No			
1805	+63.05	13 21 12	1406Z	No			
1806	+37.73	15 02 59	1544Z	No			
1811	- 88.89	23 31 55	2334Z	No			

TROPICAL STORM "HILARY" - 8/16/75 (0000Z - 2400Z)



3.10-6

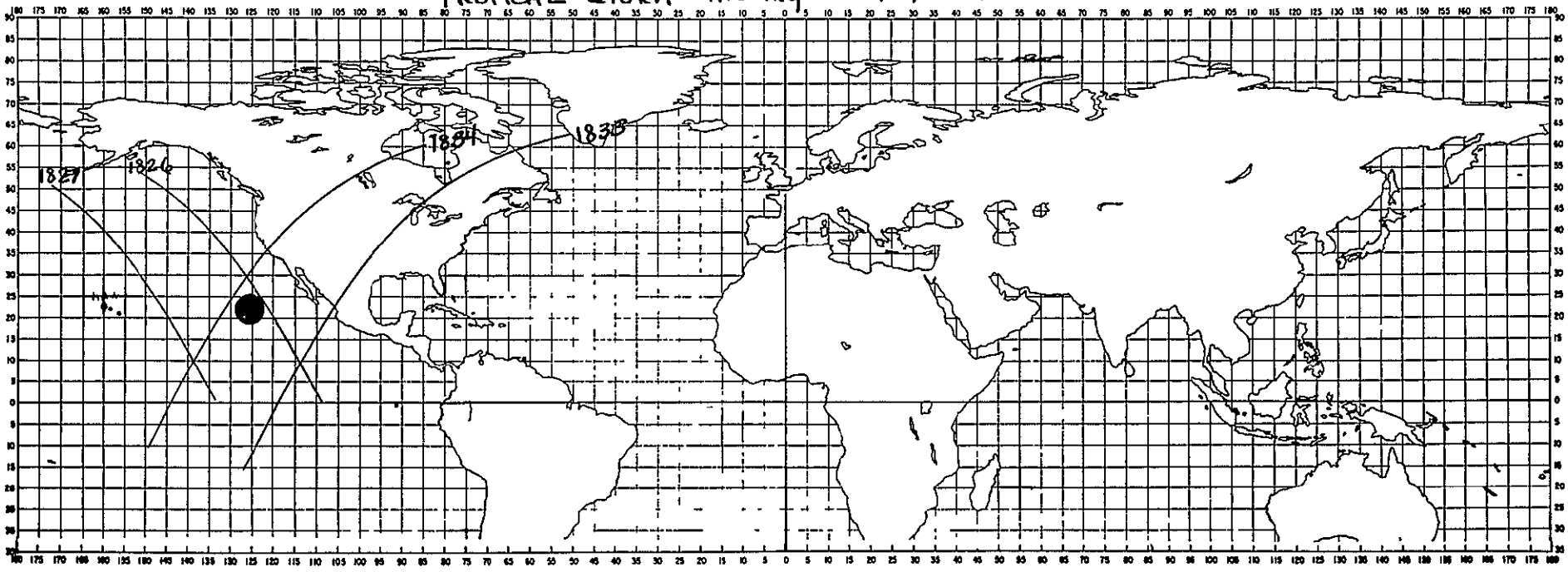
LOCATION

TROPICAL STORM/TROPICAL DEPRESSION (1200Z)

TIME	LATITUDE	LONGITUDE
0000Z	20.0N	120.4W
0600Z	20.2	121.1
1200Z	20.3	121.7
1800Z	20.4	122.2
2400Z	20.6	122.7

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit #
1812	-114.21	01 13 42	0118Z	No			
1819	+68.53	13 06 11	1352Z	No			
1820	+43.21	14 47 58	1530Z	No			
1825	-83.41	23 16 53	2318Z	No			

TROPICAL STORM "HILARY" - 8/17/75 (0000Z - 1800Z)



3.10-7

LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	20.6N	122.7W
0600Z	20.7	123.4
1200Z	21.0	124.0
1800Z	21.3*	126.7*

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unig. #*
1826	-108.73	00 58 40	0155Z	010315	020536	802	180
1827	-134.06	02 40 28	0243Z	No			
1833	+ 74.00	12 51 10	1335Z	No			
1834	+ 48.68	14 32 57	1516Z	No			

*24 Hour Forecast

STORM: HURRICANE ILSA

DATE: AUGUST 18 - AUGUST 26, 1975

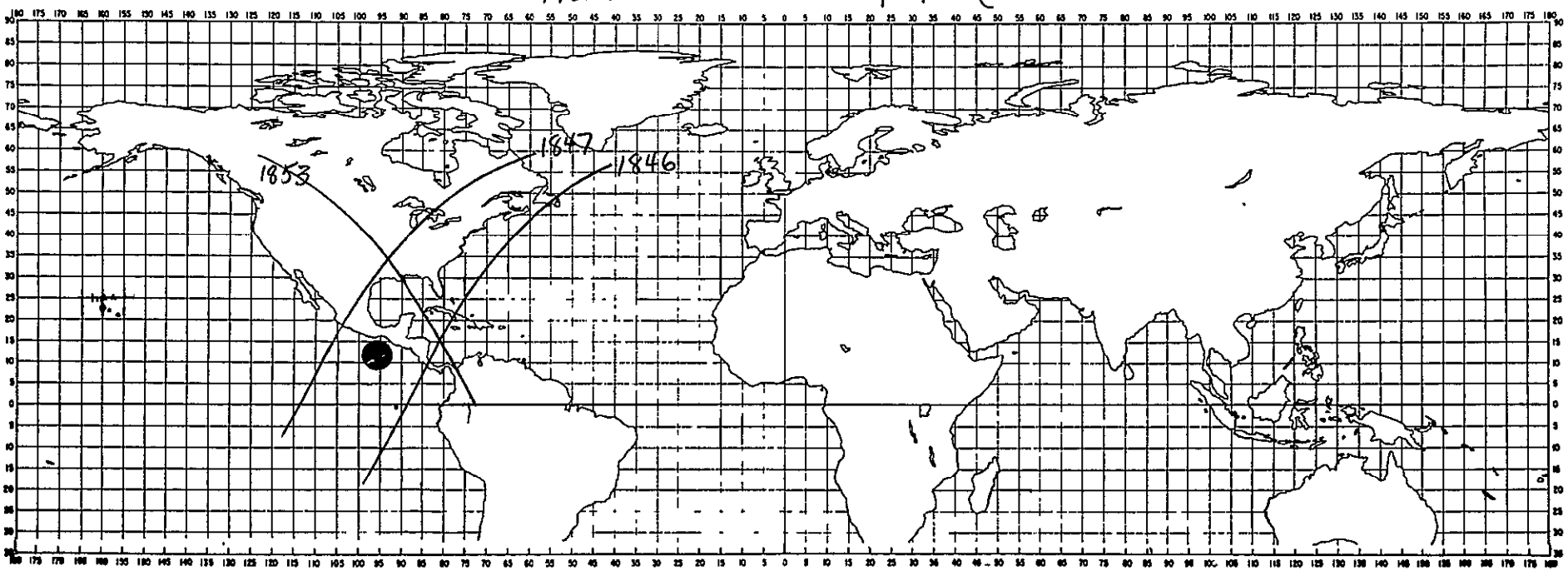
Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
8/18	0000Z	12.1N	95.8W		30	Tropical Depression
	0600Z	12.1	96.4		30	
	1200Z	12.3	97.0		35	Tropical Storm
	1800Z	12.5	97.8		35	
8/19	0000Z	12.6N	98.5W		35	Tropical Storm
	0600Z	12.8	99.0		35	
	1200Z	13.0	99.5		35	
	1800Z	13.3	100.0		45	
8/20	0000Z	13.5N	100.5W		55	Tropical Storm
	0600Z	13.7	101.2		55	
	1200Z	13.7	101.8		60	
	1800Z	14.0	102.8		60	
8/21	0000Z	14.0N	104.0W		65	Hurricane
	0600Z	14.0	104.7		75	
	1200Z	14.0	105.5		75	
	1800Z	14.0	106.3		75	
8/22	0000Z	14.0N	107.2W		75	Hurricane
	0600Z	14.2	108.2		80	
	1200Z	14.3	109.5		85	
	1800Z	14.4	110.2		90	
8/23	0000Z	14.7N	111.0W		95	Hurricane
	0600Z	15.2	112.0		90	
	1200Z	15.9	112.9		90	
	1800Z	16.8	113.3		90	
8/24	0000Z	17.1N	114.7W		90	Hurricane
	0600Z	18.1	116.2		85	
	1200Z	19.0	117.5		90	
	1800Z	19.6	119.0		90	

STORM: HURRICANE ILSA (Cont.)

DATE: AUGUST 18 - AUGUST 26, 1975

Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
8/25	0000Z	20.0N	120.8W		90	Hurricane
	0600Z	20.1	122.4		90	
	1200Z	19.9	124.0		80	
	1800Z	19.7	125.0		65	
8/26	0000Z	19.7N	126.1W		60	Tropical Storm
	0600Z	19.8	127.3		45	
	1200Z	20.0	128.5		35	Tropical Storm
	1800Z	20.3	129.9		30	Tropical Depression

HURRICANE "ILSA" - 8/18/75 (0000Z - 2400Z)



3 11-3

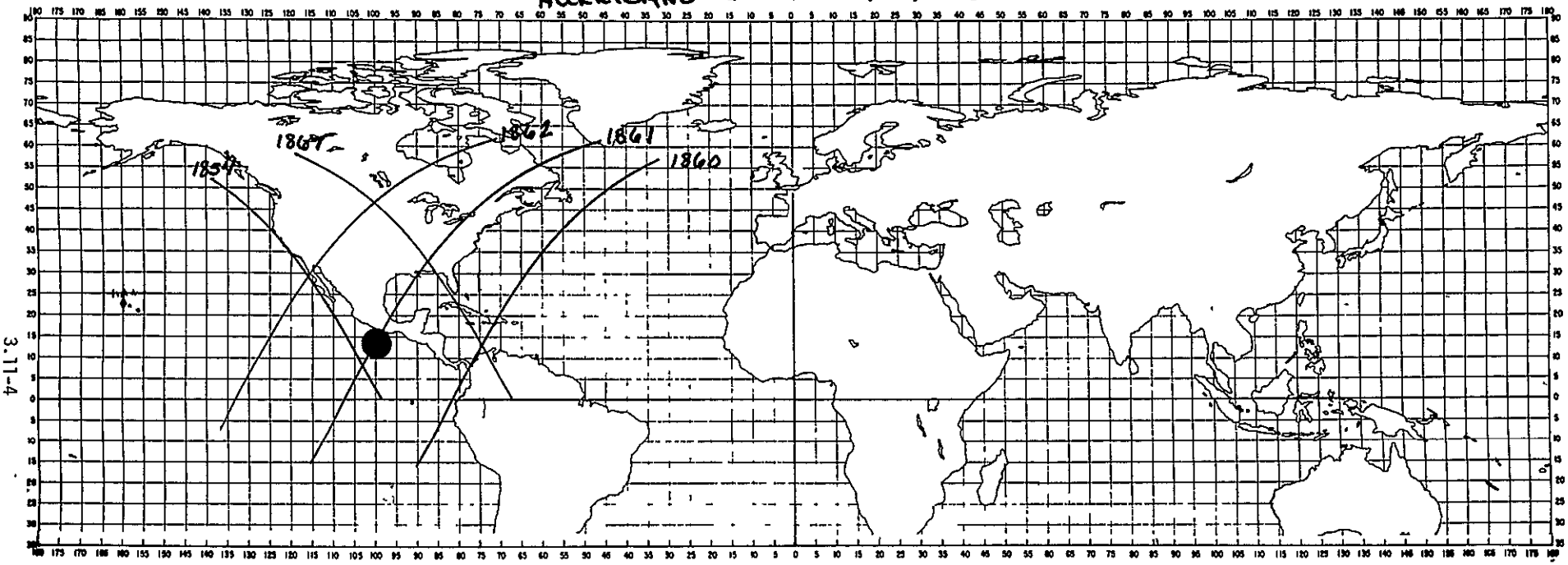
LOCATION

TROPICAL DEPRESSION / TROPICAL STORM (1200Z)

TIME	LATITUDE	LONGITUDE
0000Z	12.1 N	95.8W
0600Z	12.1	96.4
1200Z	12.3	97.0
1800Z	12.5	97.0
2400Z	12.6	98.5

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit #
1846	+104.80	10 54 22	1143Z	113500	114042	902	194
1847	+ 79.48	12 36 09	1322Z	NO			
1853	- 72.46	22 46 51	2253Z	NO			

HURRICANE "ILSA" - 8/19/75 (0000Z - 2400Z)



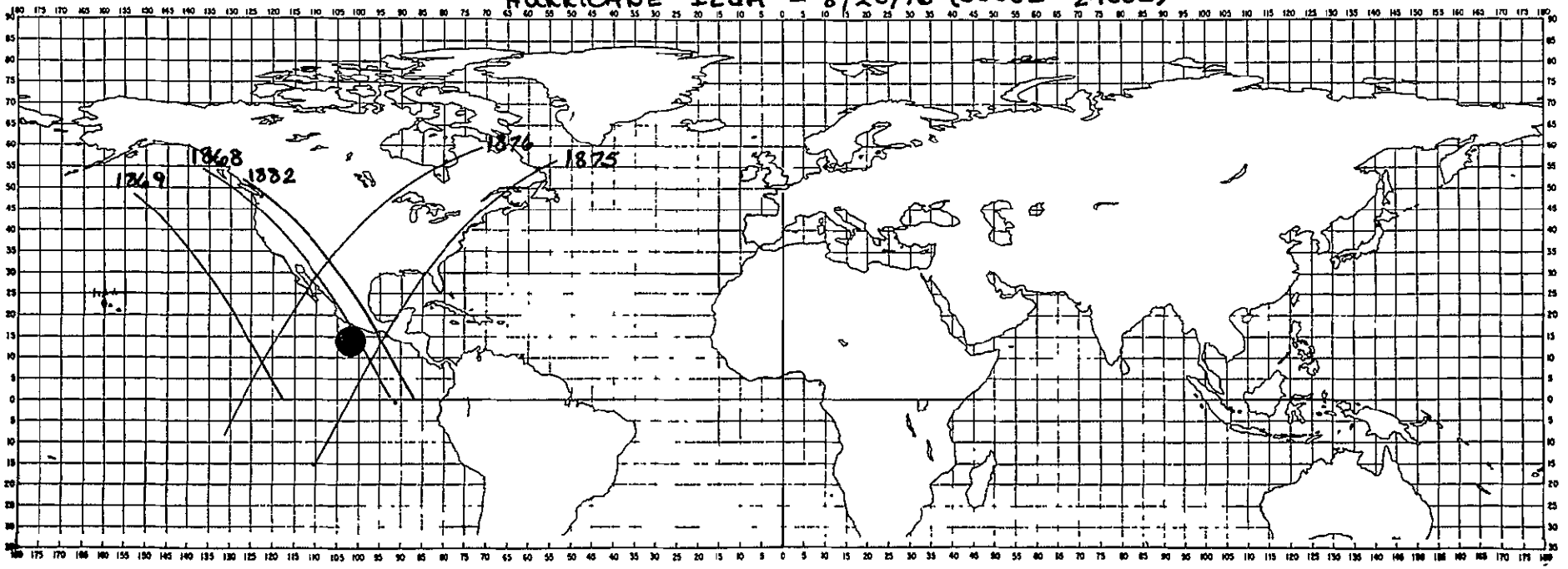
LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	12.6N	98.5W
0600Z	12.8	99.0
1200Z	13.0	99.5
1800Z	13.3	100.0
2400Z	13.5	100.5

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
1854	-97.78	00 28 38	0031Z	No			
1860	+110.25	10 39 29	1129Z	111842	112248	802	205
1861	+84.92	12 21 16	1228Z	No			
1862	+59.60	14 03 04	1446Z	No			
1867	-67.02	22 31 59	2239Z	223530	224122	802	211

HURRICANE "ILSA" – 8/20/75 (0000Z – 2400Z)



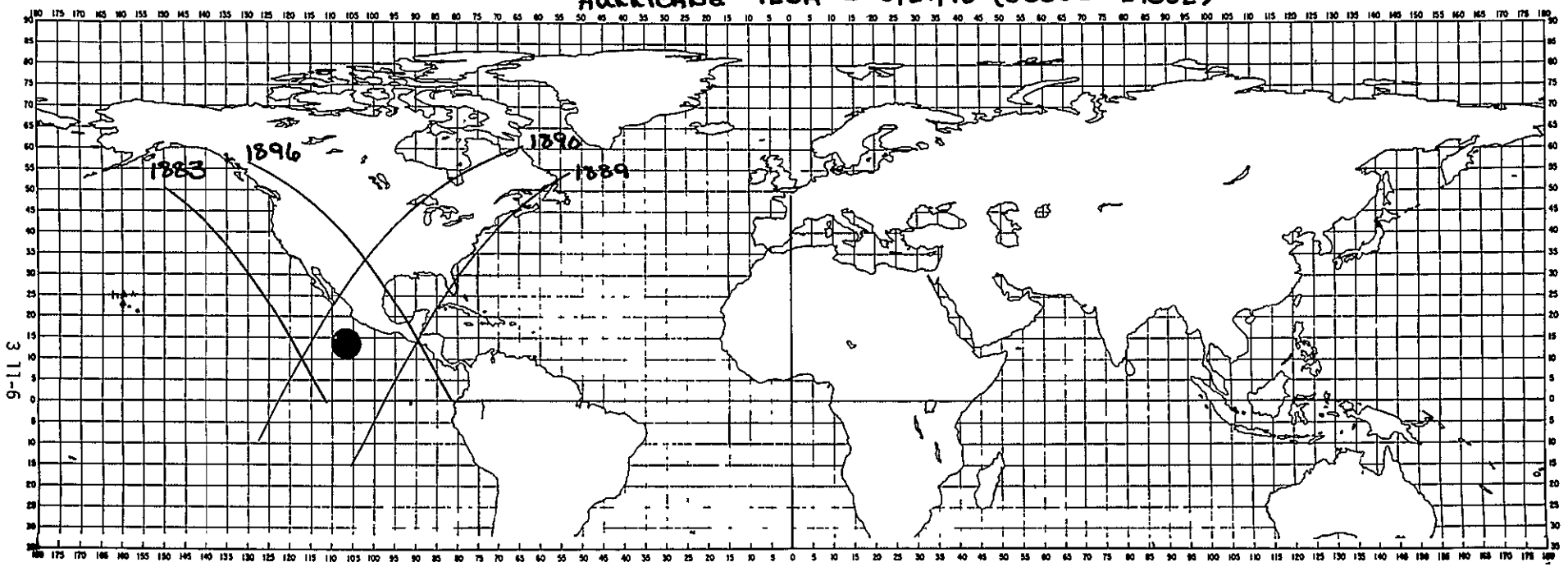
LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	13.5N	100.5W
0600Z	13.7	101.2
1200Z	13.7	101.8
1800Z	14.0	102.8
2400Z	14.0	104.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
1868	- 92 34	00 13 46	0018Z	No			
1869	- 117. 66	01 55 33	0156Z	No			
1875	+ 90.40	12 08 16	1256Z	No			
1876	+ 65 07	13 48 03	1432Z	No			
1882	- 86.35	23 55 45	0002Z (8/21)	No			

HURRICANE "ILSA" - 8/21/75 (0000Z - 2400Z)

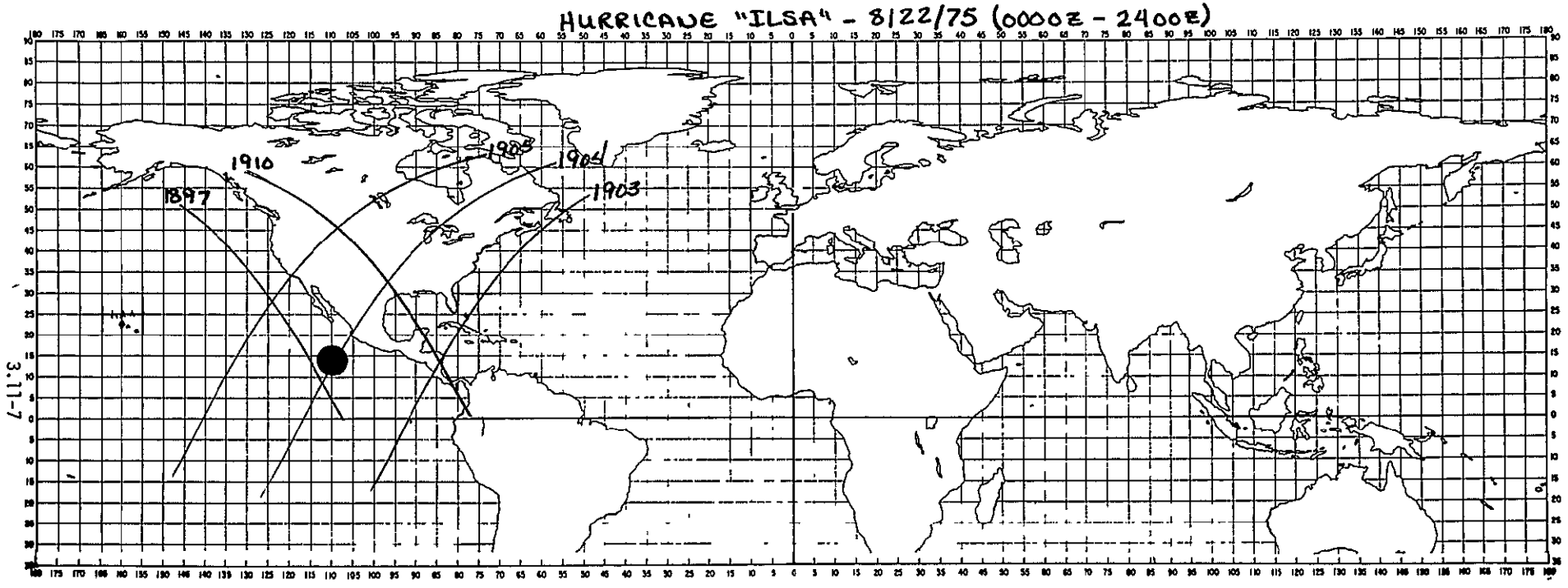


3-11-6

LOCATION
HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	14.0N	104.0W
0600Z	14.0	104.7
1200Z	14.0	105.5
1800Z	14.0	106.3
2400Z	14.0	107.2

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
1883	-112.19	01 40 32	0142Z	No			
1889	+ 95.87	11 51 15	1240Z	123427	123855	802	229
1890	+ 70.55	13 33 02	1419Z	No			
1896	- 81.39	23 43 45	2351Z	No			



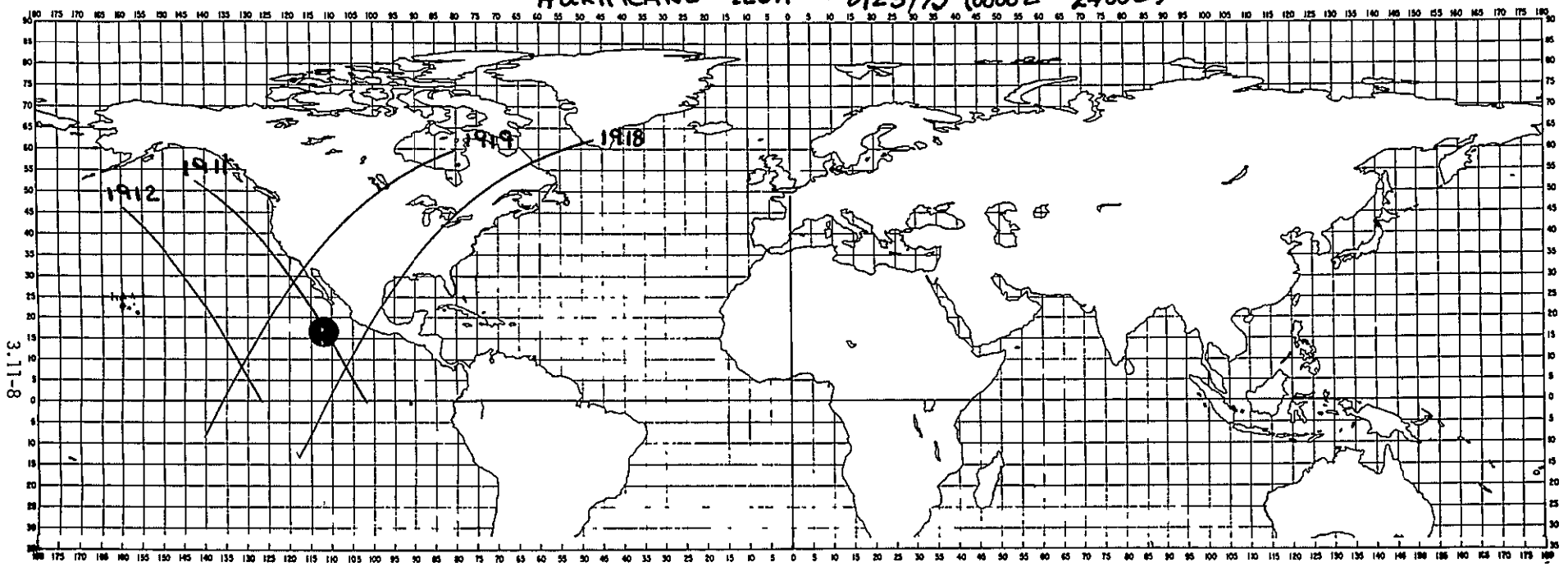
3.11-7

LOCATION
HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	14.0N	107.2W
0600Z	14.2	108.2
1200Z	14.3	109.5
1800Z	14.4	110.2
2400Z	14.7	111.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
1897	-106.72	01 25 32	0128Z	Do			
1903	+101.55	11 36 14	1226Z	1211 46	1223 17	802	288
1904	+ 75.92	13 18 01	1405Z	Do			
1905	+50.70	14 59 49	1443Z	Do			
1910	-75.92	23 28 44	2356Z	Do			

HURRICANE "ILSA" – 8/23/75 (0000Z – 2400Z)



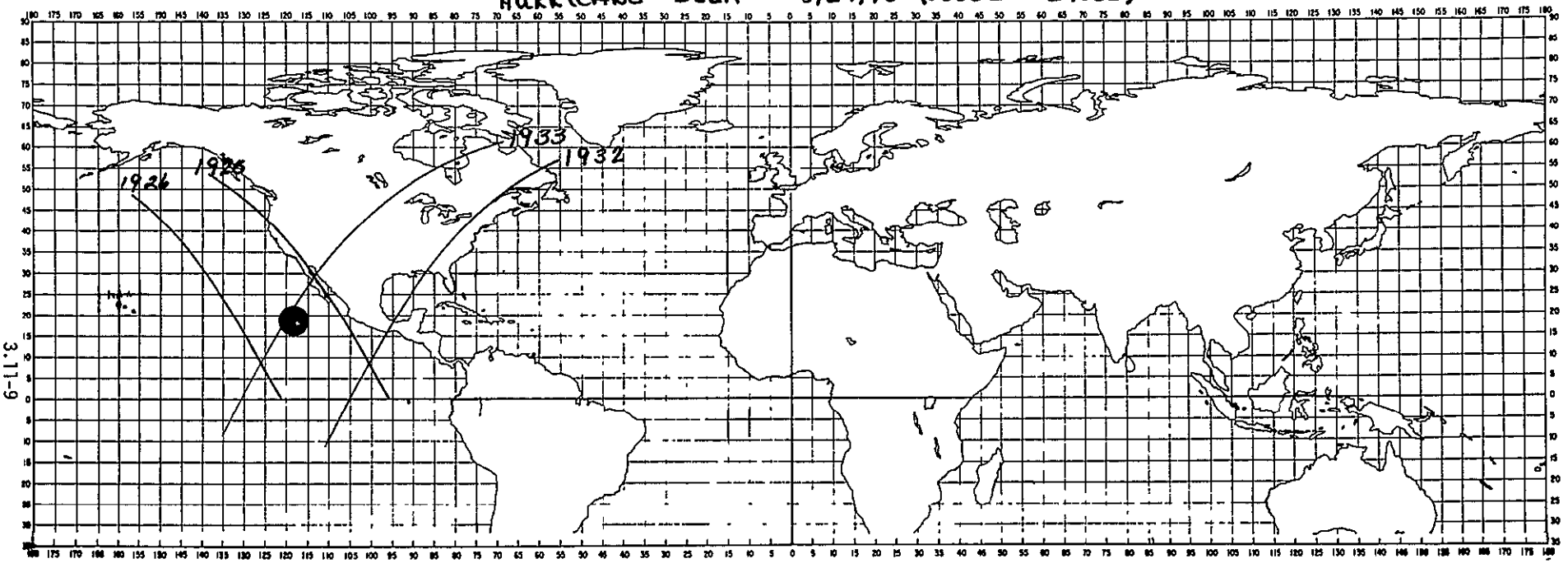
3.11-8

LOCATION
HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	14.7N	111.0W
0600Z	15.2	112.0
1200Z	15.9	112.9
1800Z	16.8	113.3
2400Z	17.1	114.7

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
1911	-101.24	01 10 31	0115Z	No			
1912	-136.55	02 52 18	0253Z	No			
1918	+ 81.50	13 03 01	1350Z	No			
1919	+ 56.17	14 44 48	1528Z	No			

HURRICANE "ILSA" – 8/24/75 (0000Z – 2400Z)



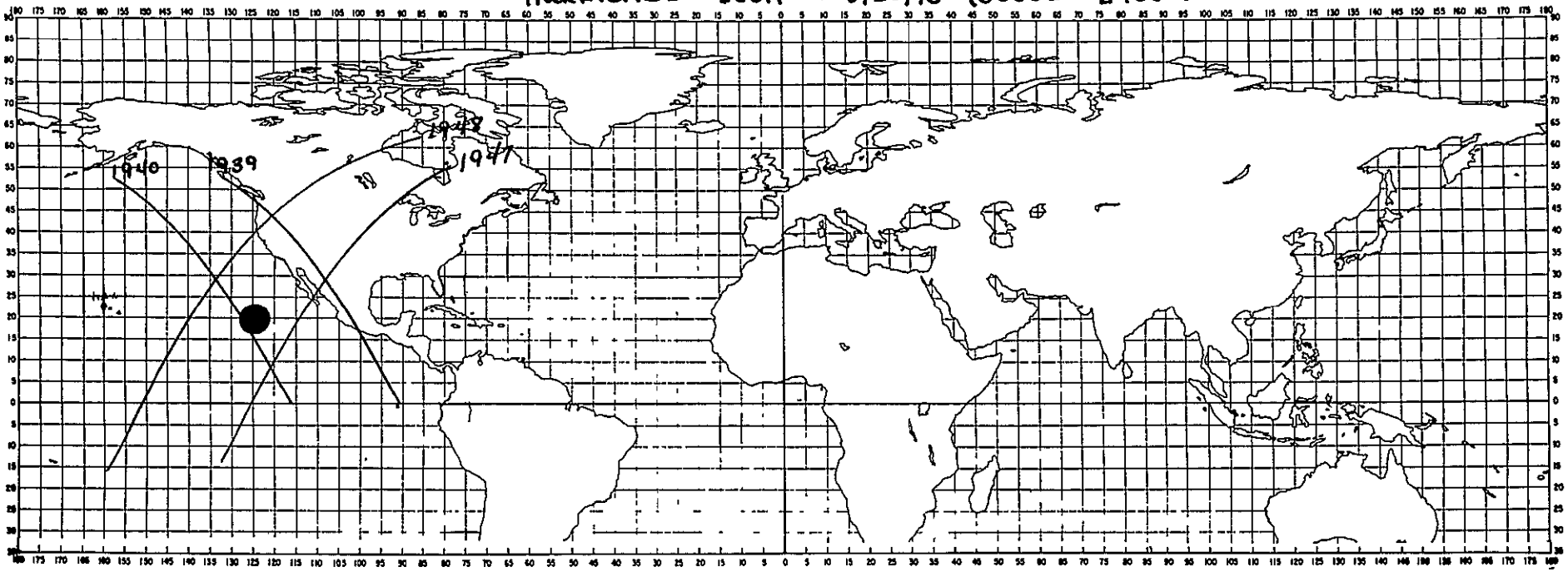
3.11-9

LOCATION
HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	17.1N	114.7W
0600Z	18.1	116.2
1200Z	19.0	117.5
1800Z	19.6	119.0
2400Z	20.0	120.8

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
1925	- 95.76	00 53 30	0100Z	No			
1926	-121.09	02 37 17	0239Z	No			
1932	+ 86.97	12 45 00	1333Z	No			
1933	+ 61.65	14 29 47	1515Z	No			

HURRICANE "ILSA" – 8/25/75 (0000Z – 2400Z)



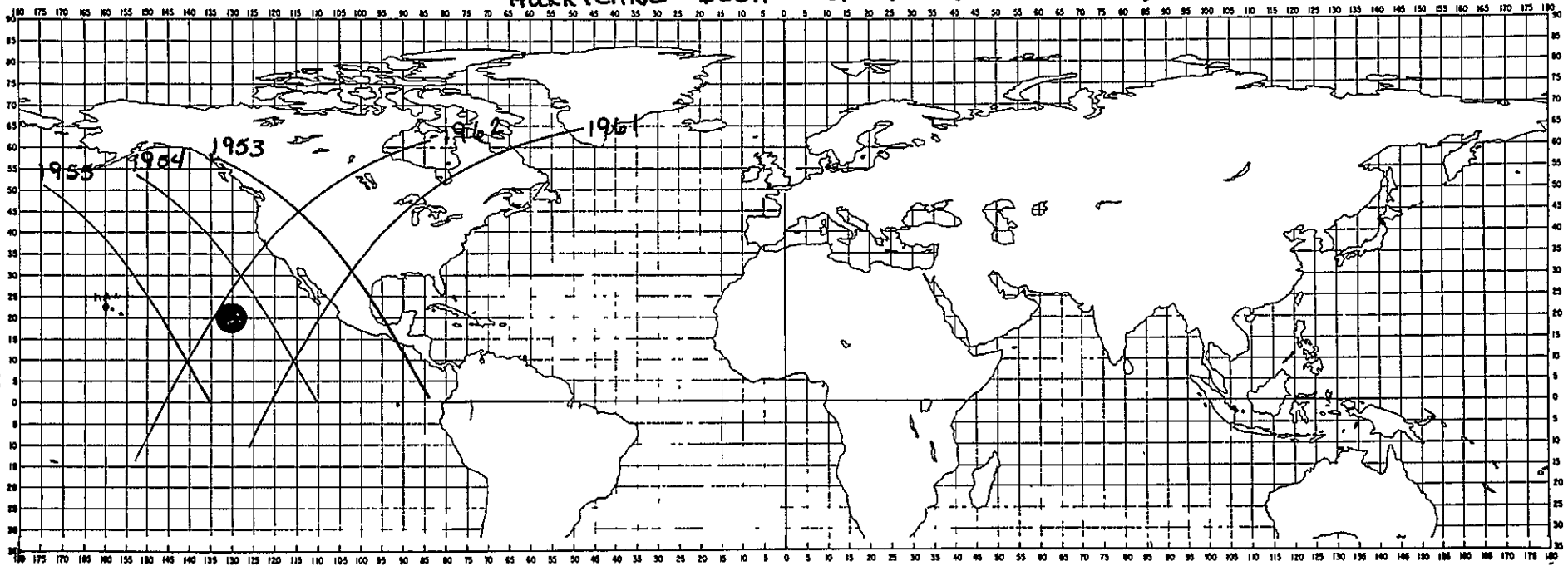
3.11-10

LOCATION
HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	20.0N	120.8W
0600Z	20.1	122.4
1200Z	19.9	124.0
1800Z	19.7	125.0
2400Z	19.7	126.1

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
1939	-90.29	00 40 30	0049Z	No			
1940	-115.62	02 22 17	0227Z	No			
1947	+67.12	14 14 46	1501Z	No			
1948	+41.30	15 55 34	1638Z	163428	163942	802	271

HURRICANE "ILSA" – 8126/75 (0000Z - 1800Z)



LOCATION

TROPICAL STORM / TROPICAL DEPRESSION (1800Z)

TIME	LATITUDE	LONGITUDE
0000Z	19.7N	126.1W
0600Z	19.8	127.5
1200Z	20.0	128.5
1800Z	20.3	129.9

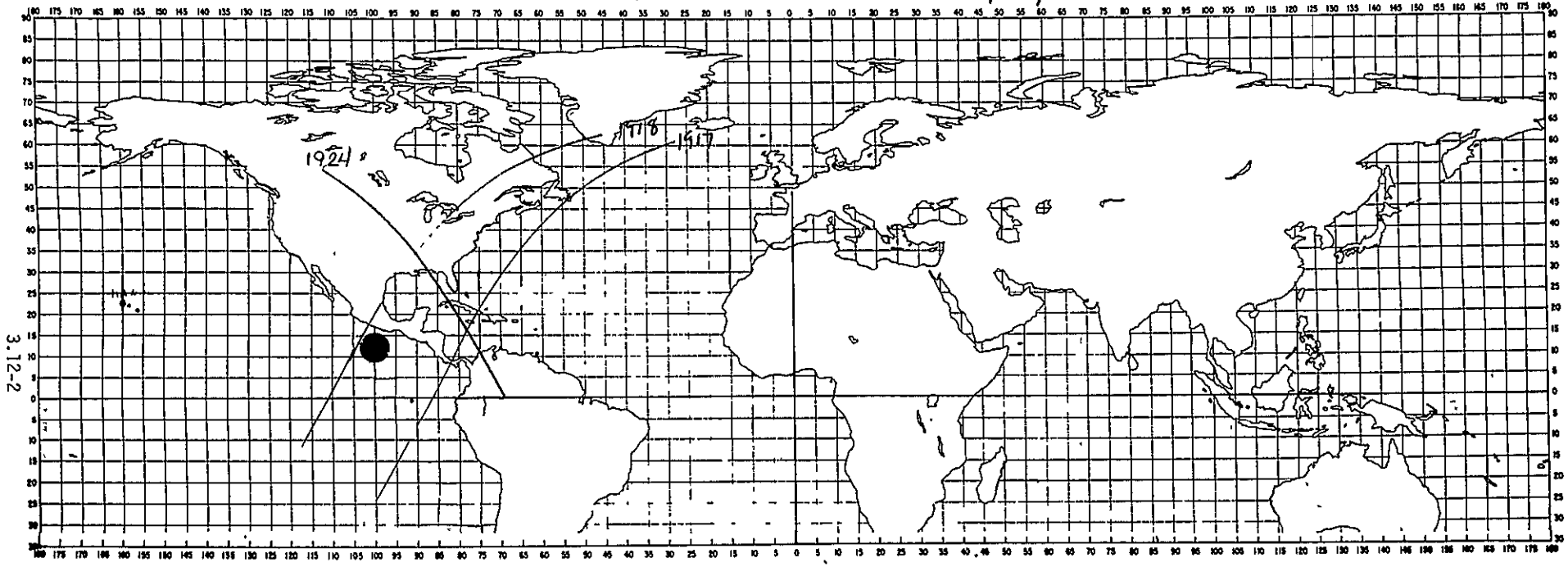
ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
1953	- 84.82	00 25 29	0036Z	No			
1954	- 110.14	02 07 16	0214Z	No			
1955	-135.46	03 49 03	0352Z	No			
1961	+ 72 60	13 59 46	1447Z	No			
1962	+47.28	15 41 33	1625Z	162044	164601	802	285

STORM: HURRICANE JEWEL

DATE: AUGUST 23 - AUGUST 31, 1975

Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
8/23	1800Z	12.0N	100.0W		25	Tropical Depression
8/24	0000Z	12.5N	100.3W		30	Tropical Depression
	0600Z	13.0	101.8		30	
	1200Z	13.7	103.1		30	
	1800Z	14.3	104.2		30	
8/25	0000Z	14.9N	105.3W		30	Tropical Depression
	0600Z	15.3	106.0		30	
	1200Z	15.5	106.6		30	Tropical Depression
	1800Z	15.8	107.1		40	Tropical Storm
8/26	0000Z	16.0N	107.8W		45	Tropical Storm
	0600Z	16.2	108.5		45	
	1200Z	16.3	109.3		45	
	1800Z	16.4	109.8		50	
8/27	0000Z	16.4N	110.2W		55	Tropical Storm
	0600Z	16.4	110.5		55	Tropical Storm
	1200Z	16.5	111.0		65	Hurricane
	1800Z	16.5	111.5		55	Tropical Storm
8/28	0000Z	16.4N	112.2W		55	Tropical Storm
	0600Z	16.3	113.1		55	
	1200Z	16.3	114.1		55	
	1800Z	16.3	115.3		50	
8/29	0000Z	16.4N	116.5W		45	Tropical Storm
	0600Z	16.7	118.0		45	
	1200Z	17.0	119.0		45	
	1800Z	17.5	120.2		40	
8/30	0000Z	18.3N	121.3W		40	Tropical Storm
	0600Z	18.6	122.8		45	
	1200Z	18.9	124.0		40	
	1800Z	19.0	125.0		35	
8/31	0000Z	19.0N	126.2W		30	Tropical Depression
	0600Z	19.0	127.3		30	
	1200Z	19.0	129.0		25	
	1800	19.0	129.0		25	

HURRICANE "JEWEL" - 8/23/75 (1800Z - 2400Z)



3.12-2

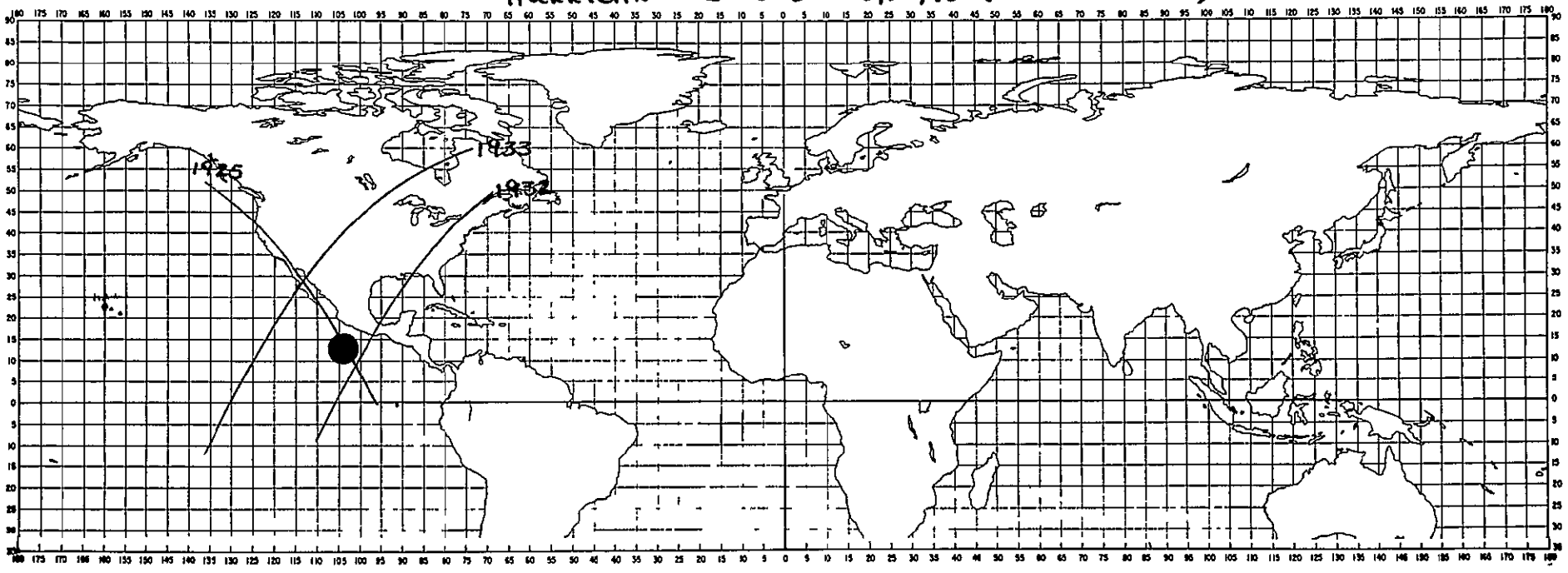
LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
1800Z	12.0N	100.0W
24/00Z	12 5	100 3

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	Mode	Unit#
1917	+106.82	11 21 14	1229Z	NO			
1918	+ 81.50	13 03 01	1350Z	NO			
1924	- 70.44	23 13 43	2320Z	NO			

HURRICANE "JEWEL" - 8/24/75 (0000Z - 2400Z)



3.12-3

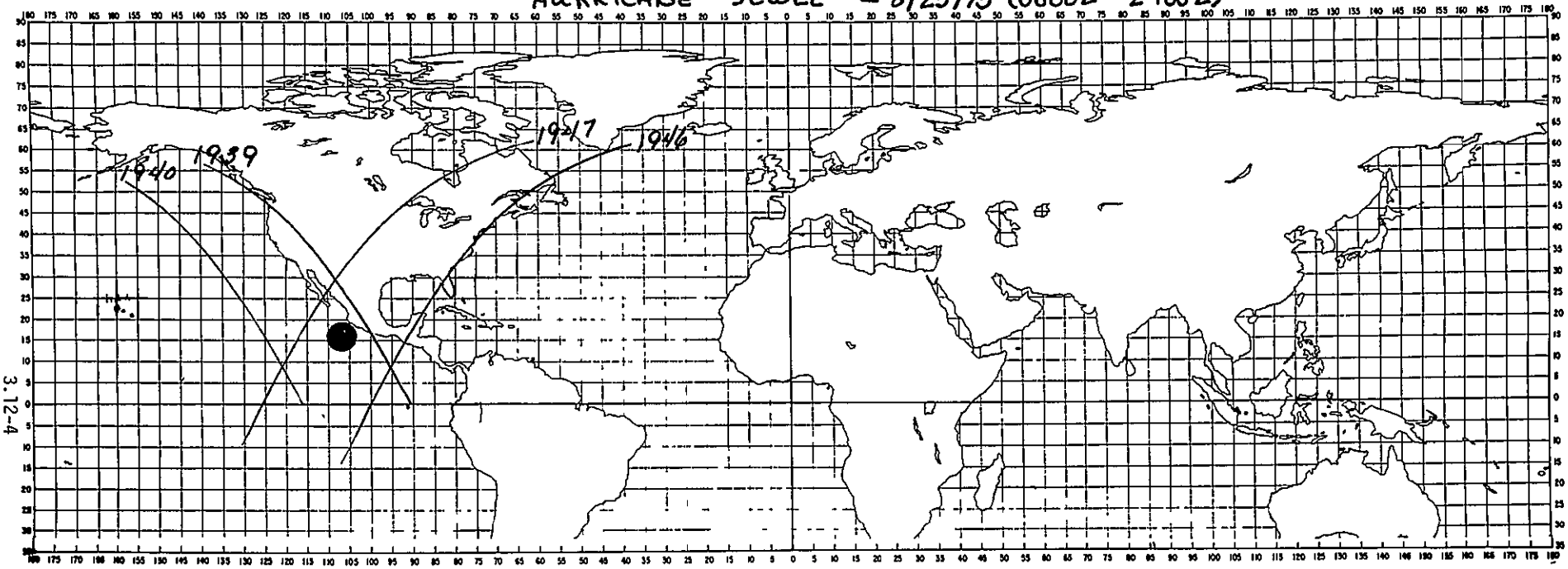
LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	12.5N	100.5W
0600Z	13.0	101.8
1200Z	13.7	103.1
1800Z	14.3	104.2
2400Z	14.9	105.3

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
1925	- 95.76	00 55 30	0059Z	No			
1932	+ 86 97	12 45 30	1333Z	No			
1933	+ 61.65	14 29 47	1514Z	No			

HURRICANE "JEWEL" – 8/25/75 (0000Z - 2400Z)



3.12-4

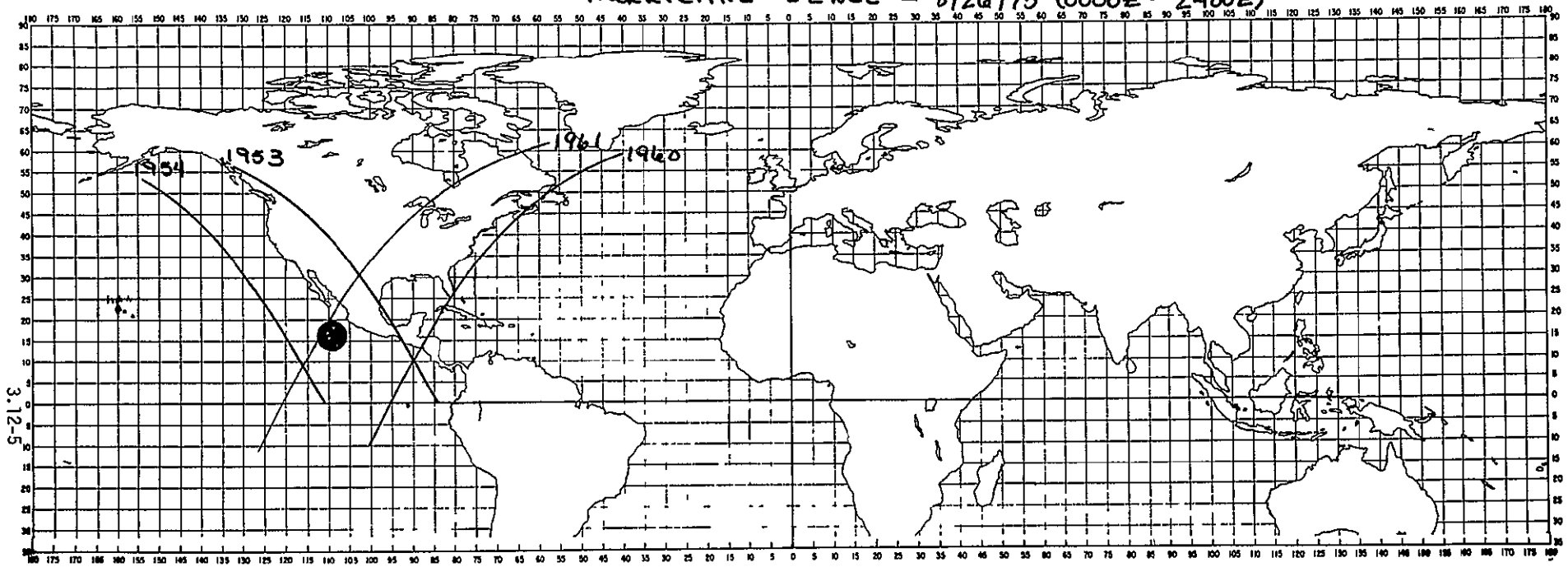
LOCATION

TROPICAL DEPRESSION/TROPICAL STORM (1800Z)

TIME	LATITUDE	LONGITUDE
0000Z	14.9N	105.3W
0600Z	15.3	106.0
1200Z	15.5	106.6
1800Z	15.8	107.1
2400Z	16.0	107.8

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
1939	-90.29	00 40 30	0045Z	No			
1940	-115 62	02 22 17	0224Z	No			
1946	+92.45	12 32 59	1320Z	No			
1947	+67.12	14 14 46	1459Z	No			

HURRICANE "JEWEL" – 8/26/75 (0000Z - 2400Z)



3.12-5

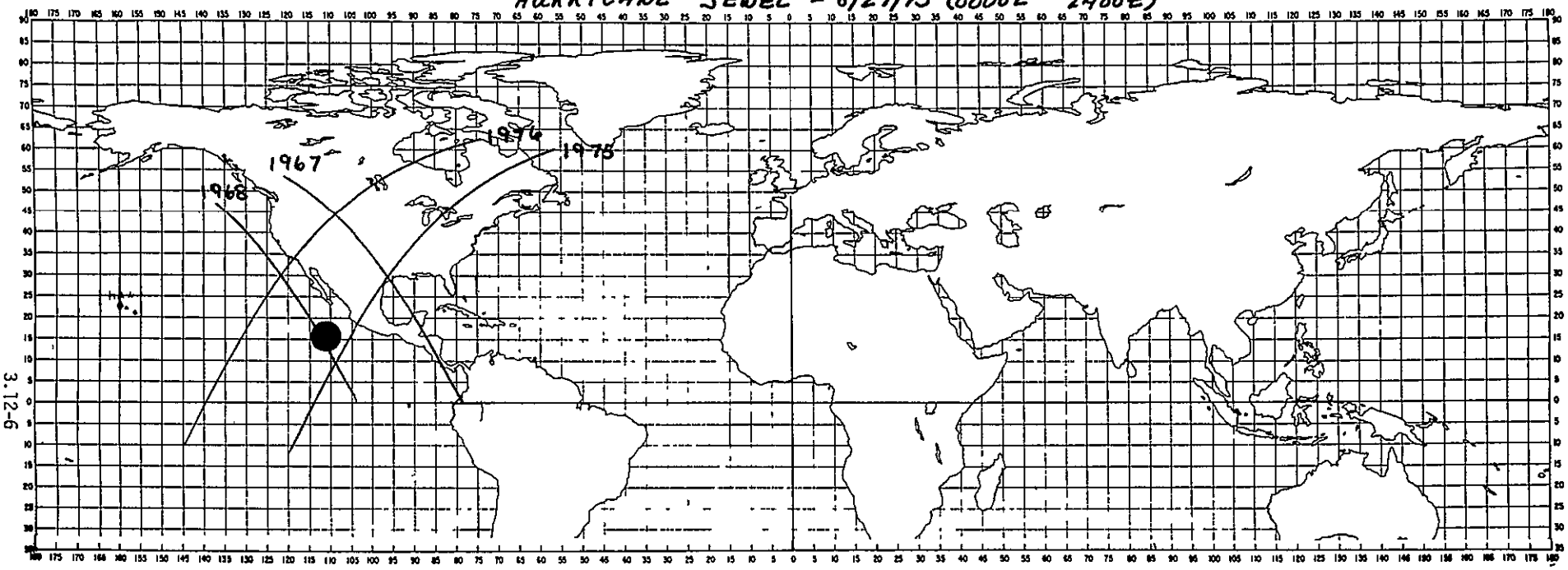
LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	16.0N	107.8W
0600Z	16.2	108.5
1200Z	16.3	109.3
1800Z	16.4	109.8
2400Z	16.4	110.2

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
1953	- 84.82	00 25 29	0032Z	No			
1954	- 110.14	02 07 16	0210Z	No			
1960	+ 97.92	12 17 59	1306Z	No			
1961	+ 72.60	13 59 46	1445Z	No			

HURRICANE "JEWEL" - 8/27/75 (0000Z - 2400Z)



3.12-6

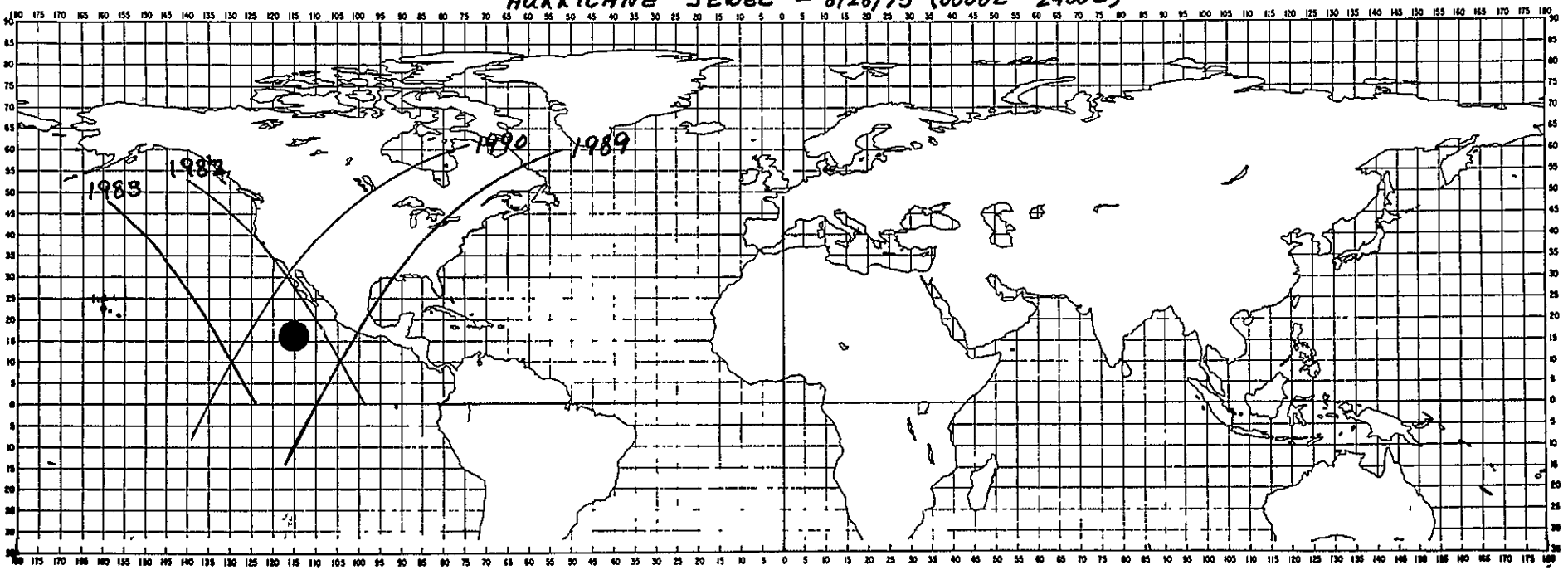
LOCATION

TROPICAL STORM/ HURRICANE (1200Z - 1800Z)

TIME	LATITUDE	LONGITUDE
0000Z	16.4N	110.2W
0600Z	16.4	110.5
1200Z	16.5	111.0
1800Z	16.5	111.5
2400Z	16.4	112.2

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
1967	- 79.34	00 10 20	0018Z	No			
1968	-104.66	01 52 02	0157Z	No			
1975	+ 78.07	13 44 45	1429Z	No			
1976	+ 52.75	15 25 32	1533Z	No			

HURRICANE "JEWEL" – 8/26/75 (0000Z - 2400Z)



3.12-7

LOCATION

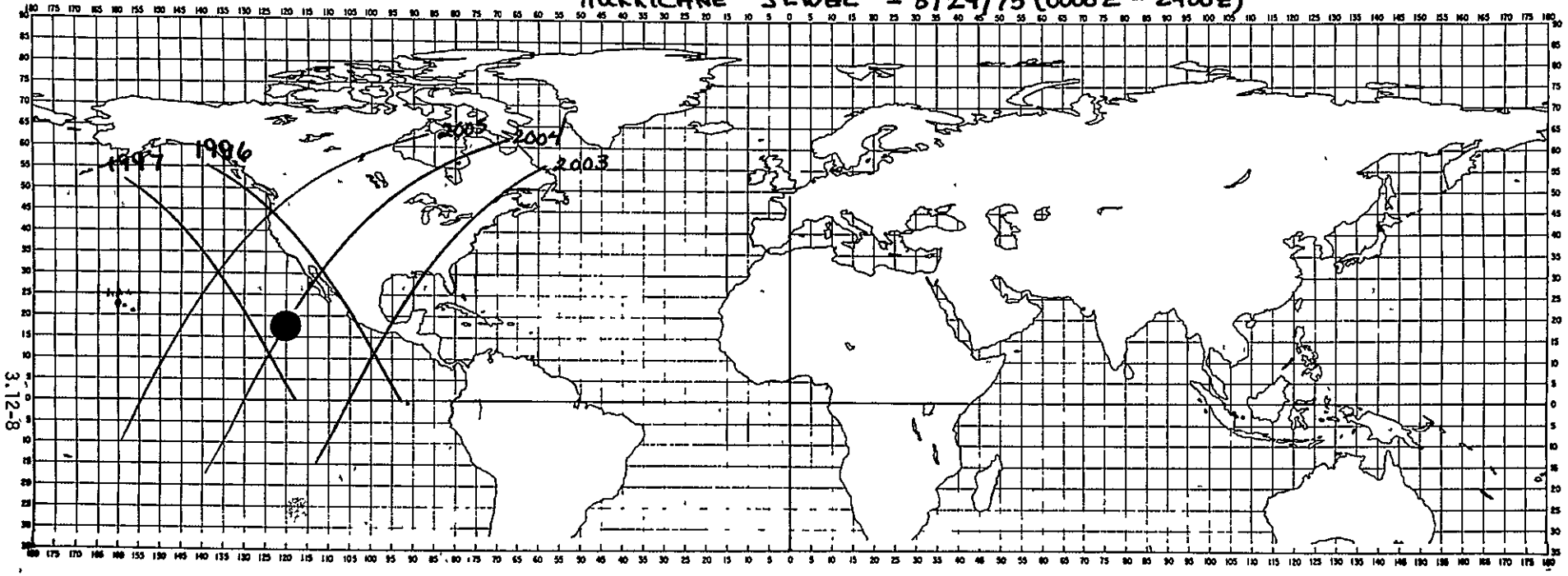
TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	16.4N	112.2W
0600Z	16.3	113.1
1200Z	16.3	114.1
1800Z	16.3	115.3
2400Z	16.4	116.5

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
1982	- 99.19	01 37 15	0143Z	No			
1983	-124.51	03 16 02	0318Z	No			
1989	+ 83.59	13 25 44	1413Z	No			
1990	+ 58.22	15 11 32	1556Z	No			

C13

HURRICANE "JEWEL" - 8/29/75 (0000Z - 2400Z)



3.12-8

LOCATION

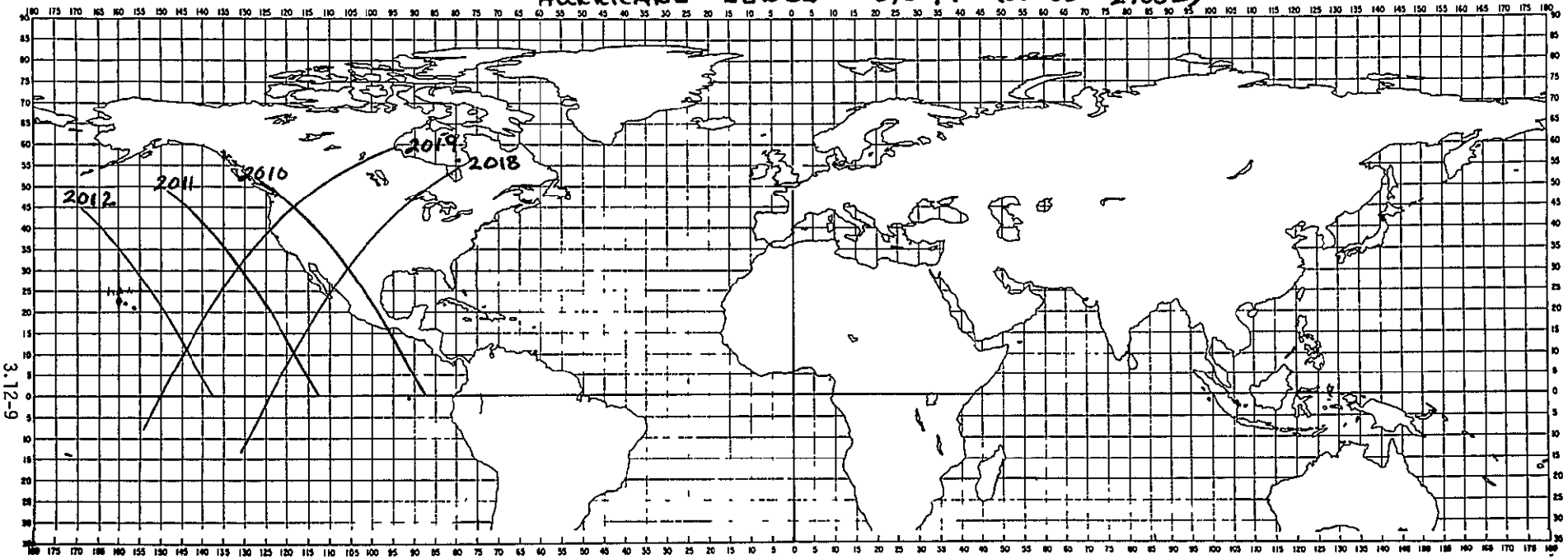
TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	16.4N	116.5W
0600Z	16.7	118.0
1200Z	17.0	119.0
1800Z	17.5	120.2
2400Z	18.3	121.3

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
1996	-93.71	01 22 14	0129Z	No			
1997	-118.04	03 04 01	0307Z	No			
2003	+89.02	13 14 44	1404Z	No			
2004	+63.70	14 56 31	1541Z	No			
2005	+38.33	16 38 18	1720Z	171503	172057	802	314

D-3

HURRICANE "JEWEL" – 8/30/75 (0000Z – 2400Z)



3.12-9

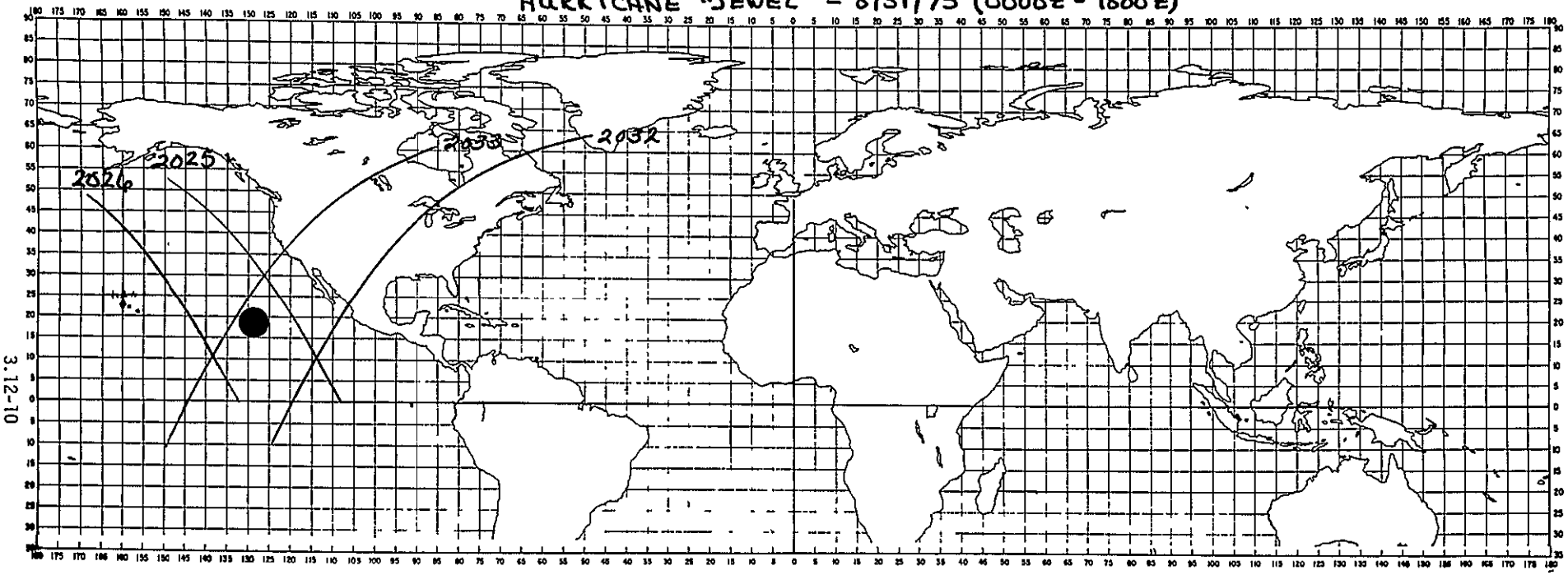
LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	18.3N	121.5W
0600Z	18.6	122.8
1200Z	18.9	124.0
1800Z	19.0	125.0
2400Z	19.0	126.2

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2010	-88.24	01 07 13	0116Z	Do			
2011	-113.51	02 48 00	0251Z	Do			
2012	-138.58	04 30 47	0432Z	Do			
2018	+69.17	14 41 30	1527Z	Do			
2019	+43.35	16 23 17	1706Z	170145	170647	802	326

HURRICANE "JEWEL" - 8/31/75 (0000Z - 1800Z)



3.12-10

LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	19.0N	126.2W
0600Z	19.0	127.3
1200Z	19.0	129.0
1800Z	19.0	129.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2025	-108.09	02 34 00	0241Z	No			
2026	-133.41	04 15 47	0418Z	No			
2032	+74.66	14 26 29	1514Z	No			
2033	+49.33	16 08 16	1659Z	164755	165237	802	355

STORM: HURRICANE KATRINA

DATE: AUGUST 28 - SEPTEMBER 7, 1975

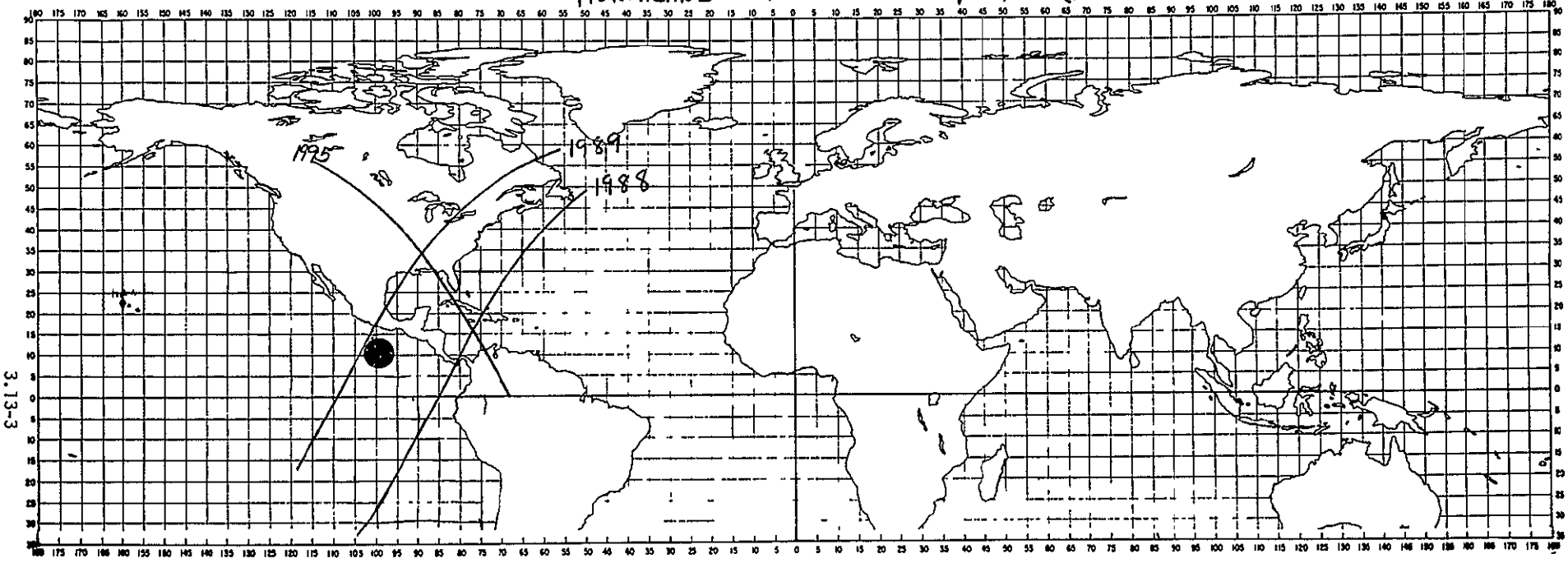
Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
8/28	1800Z	10.0N	100.0W		30	Tropical Depression
8/29	0000Z	10.5N	101.0W		35	Tropical Storm
	0600Z	10.9	102.0		35	
	1200Z	11.2	102.9		45	
	1800Z	11.5	103.7		65	Hurricane
8/30	0000Z	11.7N	104.4W		65	Hurricane
	0600Z	11.9	105.0		70	
	1200Z	12.2	105.0		70	
	1800Z	12.4	106.0		70	
8/31	0000Z	12.6N	106.4W		70	Hurricane
	0600Z	13.2	107.2		70	
	1200Z	14.0	108.1		65	
	1800Z	14.8	108.9		65	
9/1	0000Z	15.9N	109.5W		75	Hurricane
	0600Z	16.7	109.9		80	
	1200Z	17.5	110.2		80	
	1800Z	18.0	110.6		80	
9/2	0000Z	18.5N	111.0W		80	Hurricane
	0600Z	19.0	111.5		95	
	1200Z	19.4	111.8		90	
	1800Z	19.7	112.1		90	
9/3	0000Z	19.9N	112.5W		100	Hurricane
	0600Z	20.2	113.0		110	
	1200Z	20.4	113.7		115	
	1800Z	20.7	114.5		110	
9/4	0000Z	20.9N	115.2W		110	Hurricane
	0600Z	21.1	116.0		105	
	1200Z	21.3	117.0		100	
	1800Z	21.6	118.0		80	

STORM: HURRICANE KATRINA (CONT.)

DATE: AUGUST 28 - SEPTEMBER 7, 1975

Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
9/5	0000Z	21.7N	119.0W		70	Hurricane
	0600Z	21.8	120.0		65	
	1200Z	21.8	121.1		50	Tropical Storm
	1800Z	21.8	122.3		45	
9/6	0000Z	21.7N	123.5W		40	Tropical Storm
	0600Z	21.6	125.0		35	
	1200Z	21.6	126.3		30	Tropical Depression
	1800Z	21.6	127.6		30	
9/7	0000Z	21.6N	128.9W		25	Tropical Depression

HURRICANE "KATRINA" - 8/28/75 (1800Z-2400Z)



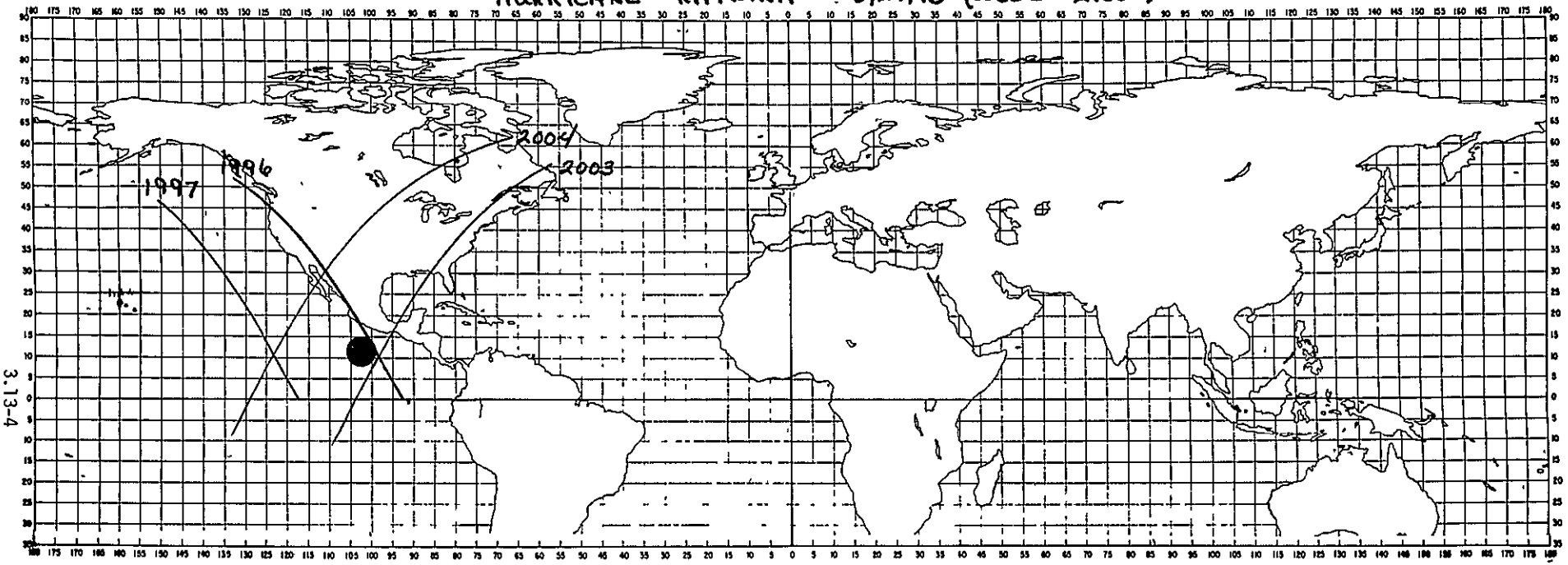
LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
1800Z	10.0N	100.0W
2400Z	10.5	101.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
1988	+108.87	11 47 57	1238Z	122105	123225	802	303
1989	+ 83.59	13 25 44	1413Z	NO			
1995	- 68.39	23 40 27	2347Z	NO			

HURRICANE "KATRINA" - 8/29/75 (0000Z - 2400Z)



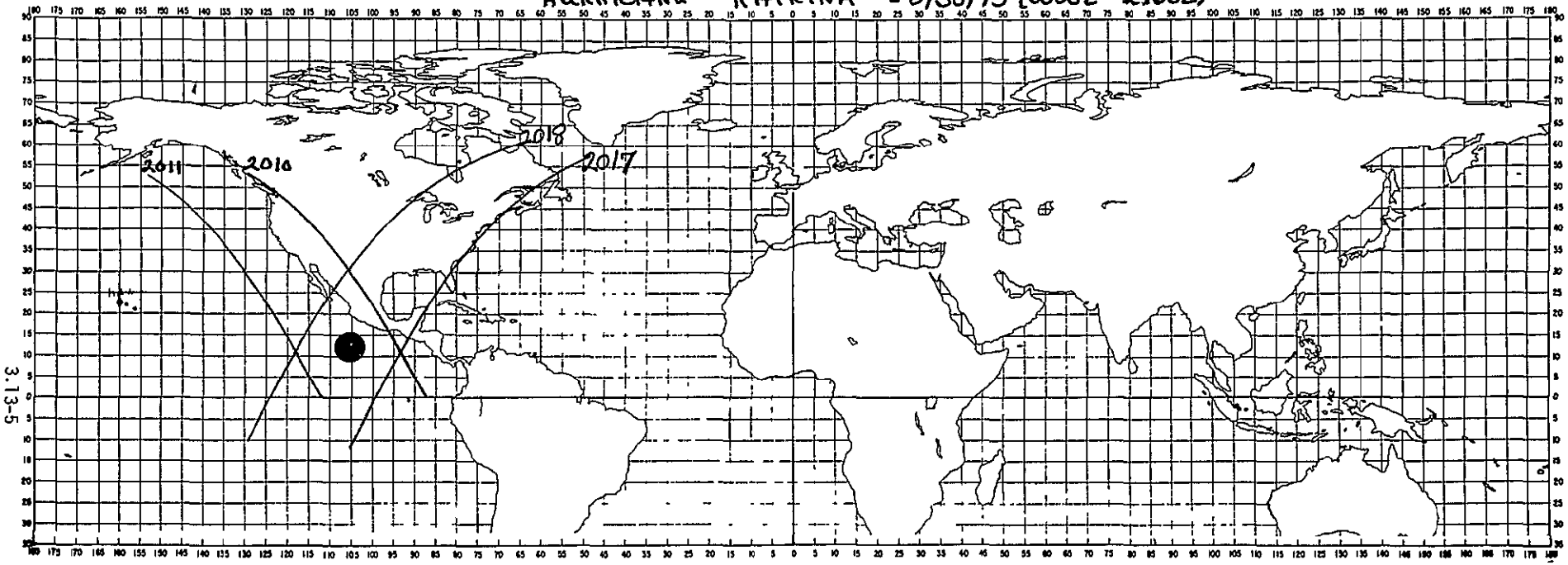
LOCATION

TROPICAL STORM/ HURRICANE (1800Z)

TIME	LATITUDE	LONGITUDE
0000Z	10.5N	101.0W
0600Z	10.9	102.0
1200Z	11.2	102.9
1800Z	11.5	103.7
2400Z	11.7	104.4

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
1996	-93.71	01 22 14	0125Z	No			
1997	-118.04	03 04 01	0304Z	No			
2003	+89.02	13 14 44	1403Z	No			
2004	+63.70	14 56 31	1540Z	No			

HURRICANE "KATRINA" - 8/30/75 (0000Z - 2400Z)

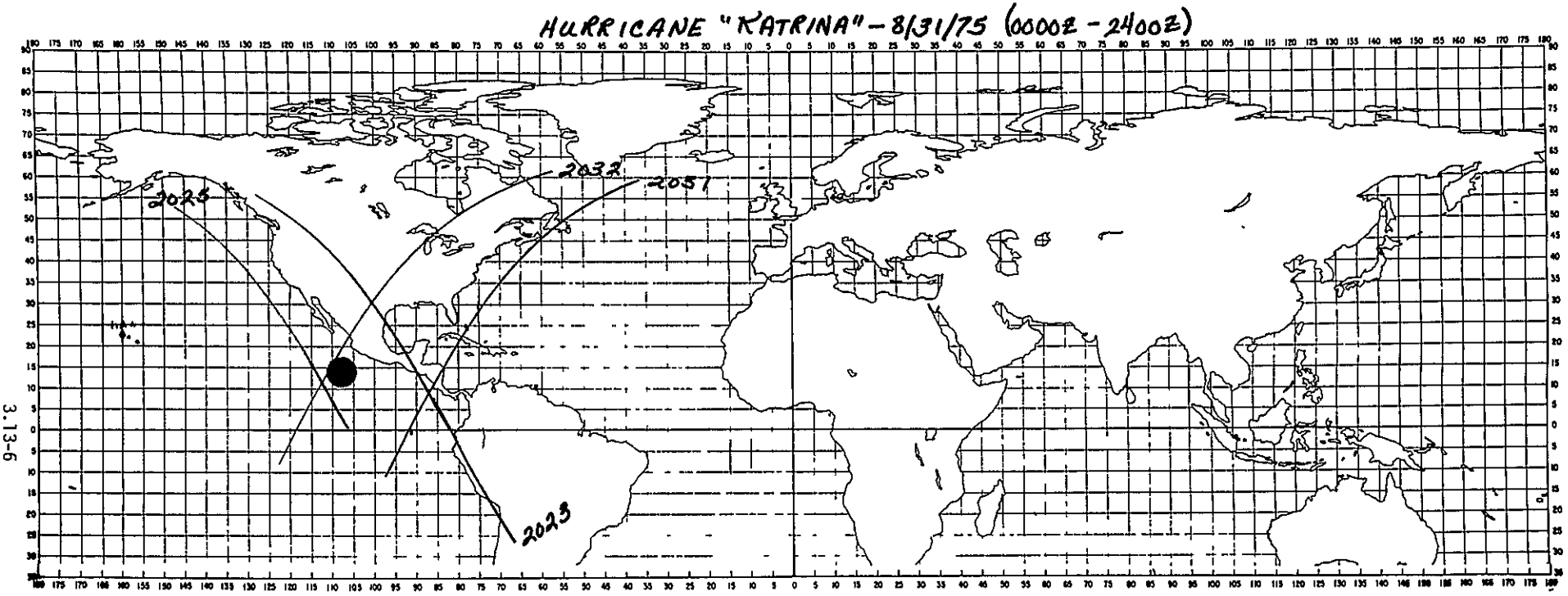


LOCATION

HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	11.7N	104.4W
0600Z	11.9	105.0
1200Z	12.2	105.5
1800Z	12.4	106.0
2400Z	12.6	106.4

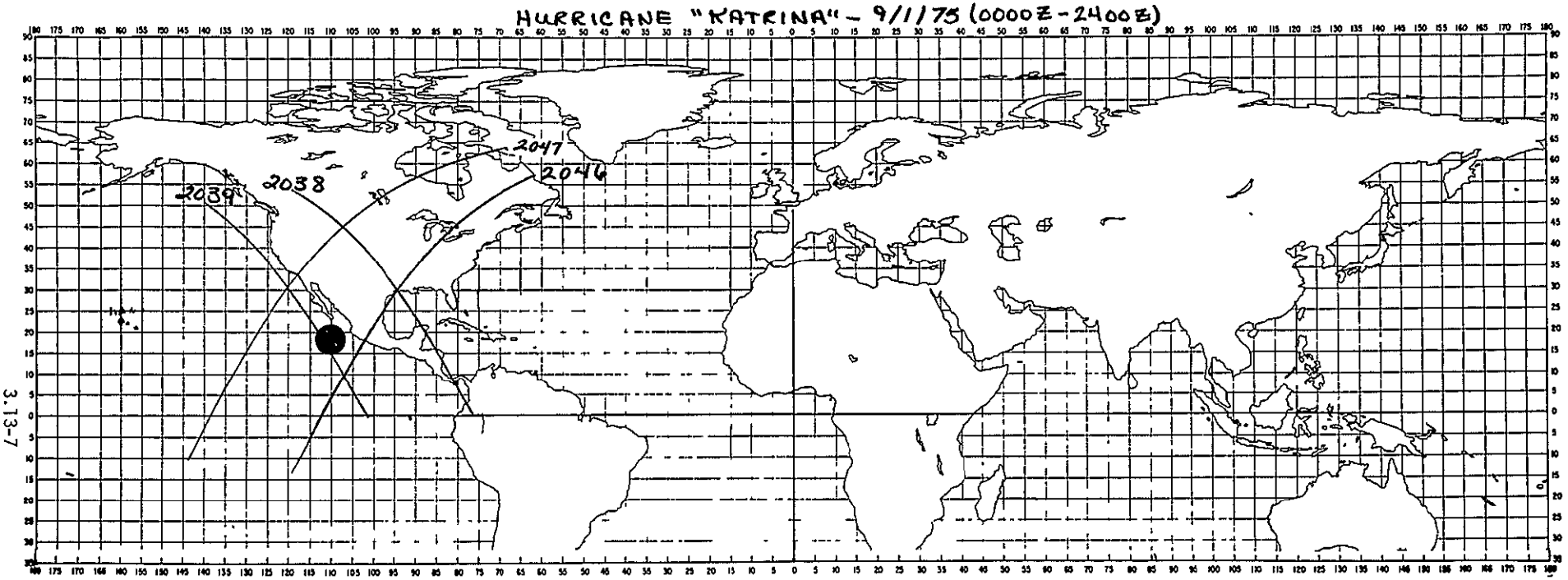
ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2010	-88.24	01 07 13	0112Z	No			
2011	-113.50	02 48 00	0249Z	No			
2017	+94.55	12 59 28	1348Z	133415	134731	802	325
2018	+69.23	14 41 15	1427Z	No			



LOCATION
HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	12.6N	106.4W
0600Z	13.2	107.2
1200Z	14.0	108.1
1800Z	14.8	108.9
2400Z	15.9	109.5

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2023	-57.44	23 10 25	0058Z	004810	010136	808	332
2025	-106.93	02 33 44	0236Z	Do			
2031	+100.03	12 44 26	1344Z	Do			
2032	+74.71	14 26 13	1512Z	Do			



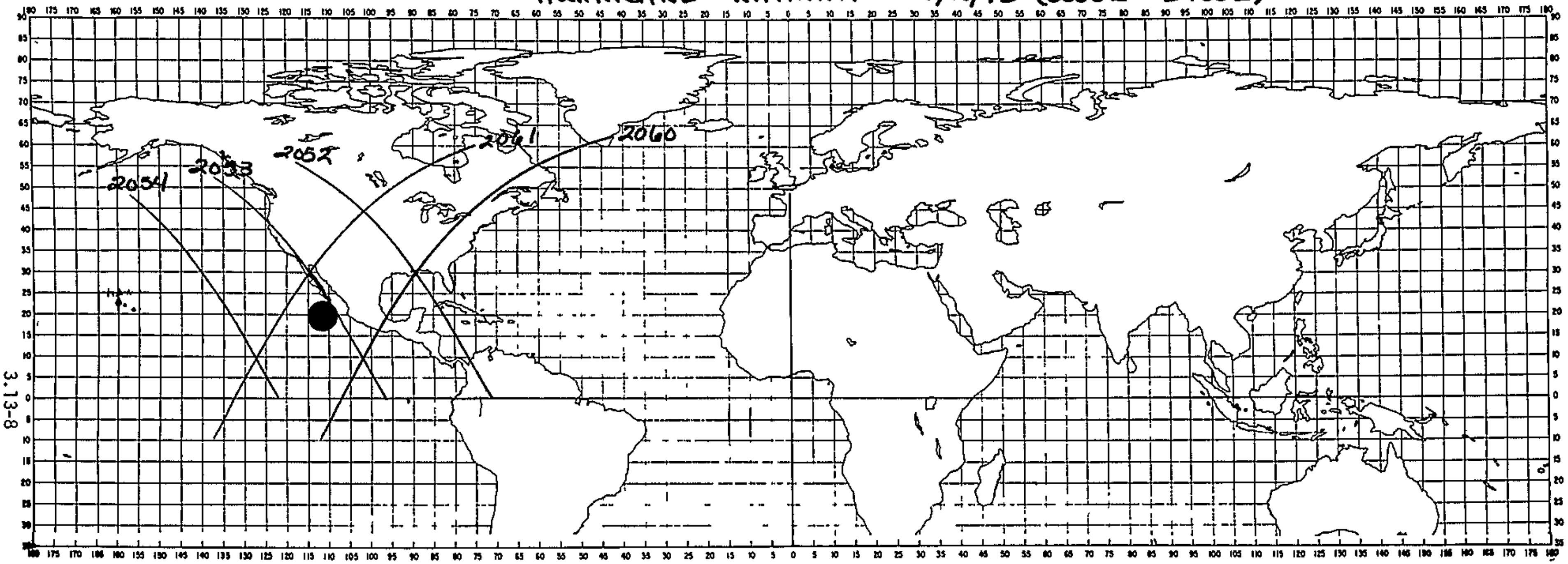
LOCATION

HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	15.9N	109.5W
0600Z	16.7	109.9
1200Z	17.5	110.2
1800Z	18.0	110.6
2400Z	18.5	111.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2038	-77.23	00 36 55	0045Z	No			
2039	-102.55	02 18 43	0223Z	No			
2046	+80.18	14 11 12	1457Z	No			
2047	+54.85	15 52 59	1636Z	No			

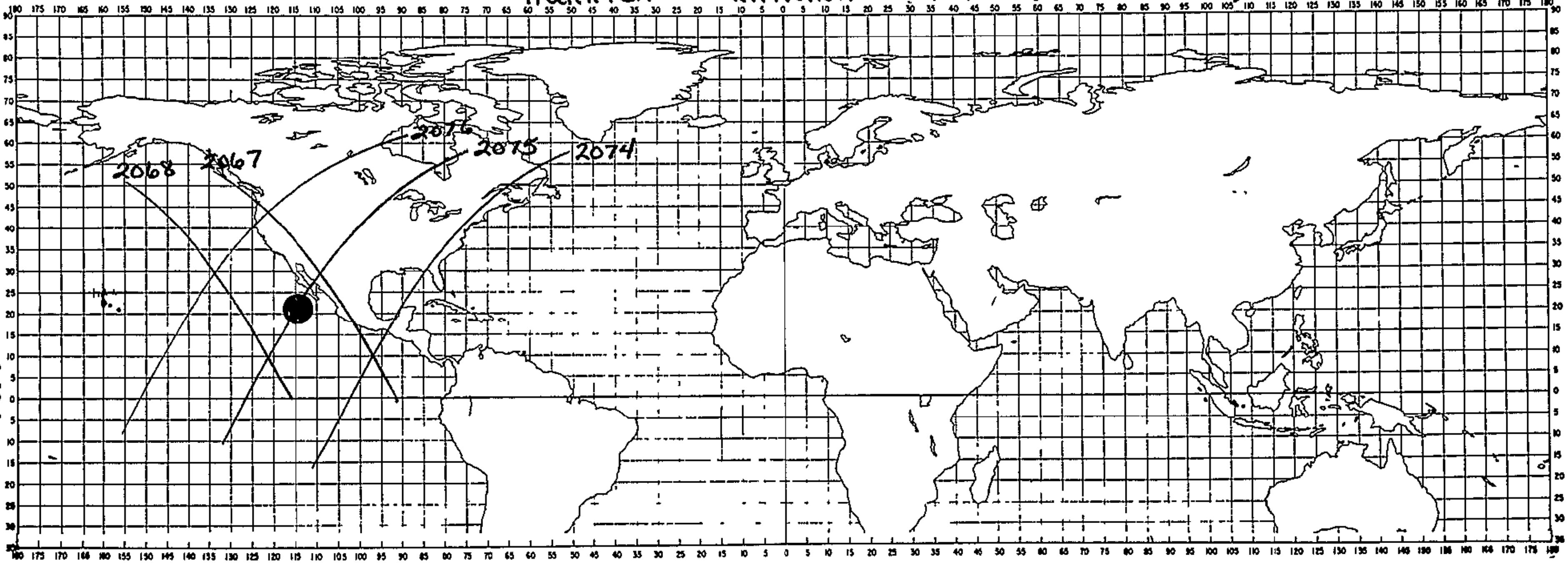
HURRICANE "KATRINA" – 9/2/75 (0000Z – 2400Z)



TIME	LOCATION HURRICANE LATITUDE	LONGITUDE
0000Z	18.5N	111.0W
0600Z	19.0	111.5
1200Z	19.4	111.8
1800Z	19.7	112.1
2400Z	19.9	112.5

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2052	- 71.75	00 21 54	0032Z	No			
2053	- 97.08	02 03 41	0210Z	No			
2054	-122.40	03 45 23	0348Z	No			
2060	+ 85.60	13 56 28	1442Z	No			
2061	+60.27	15 38 15	1622Z	No			

HURRICANE "KATRINA" - 9/3/75 (0000Z - 2400Z)



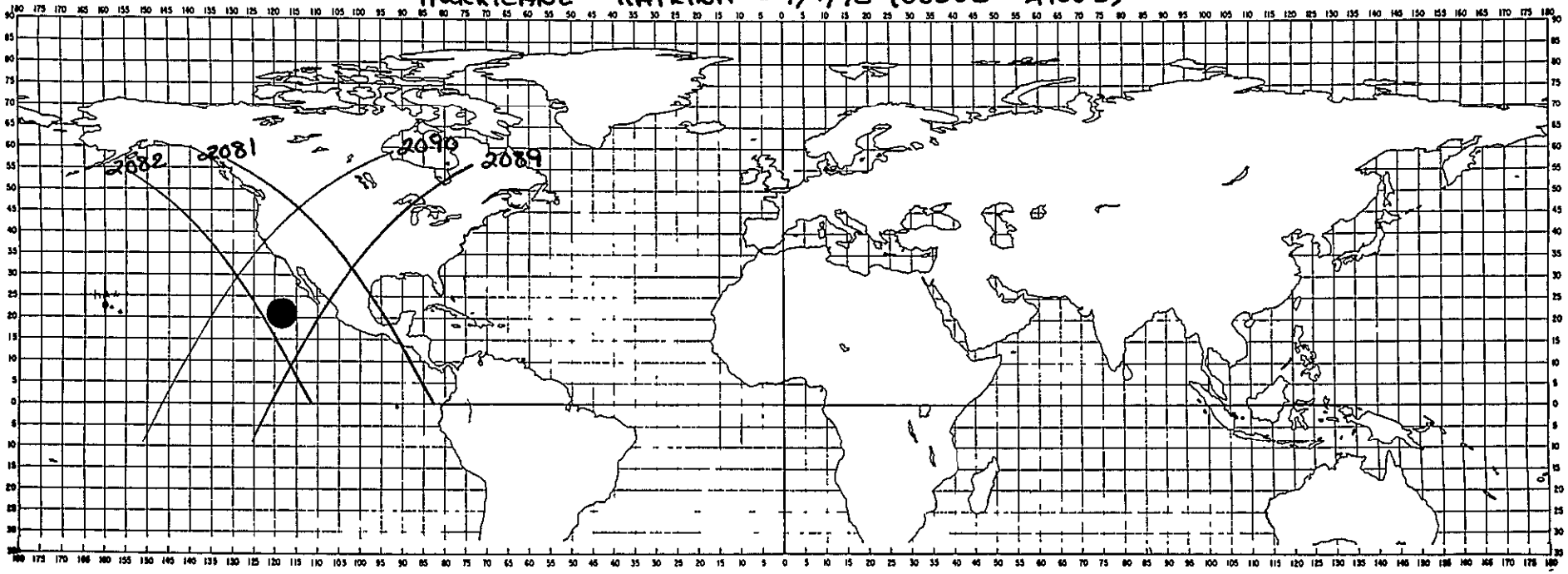
3.13-9

LOCATION
HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	19.9N	112.5W
0600Z	20.2	113.0
1200Z	20.4	113.7
1800Z	20.7	114.5
2400Z	20.9	115.2

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2067	-91.66	01 48 57	0157Z	No			
2068	-116.99	03 30 40	0334Z	No			
2074	+91.07	13 41 27	1428Z	No			
2075	+65.75	15 23 14	1607Z	No			
2076	+40.43	17 05 01	1745Z	174231	174758	802	367

HURRICANE "KATRINA" - 9/4/75 (0000Z - 2400Z)

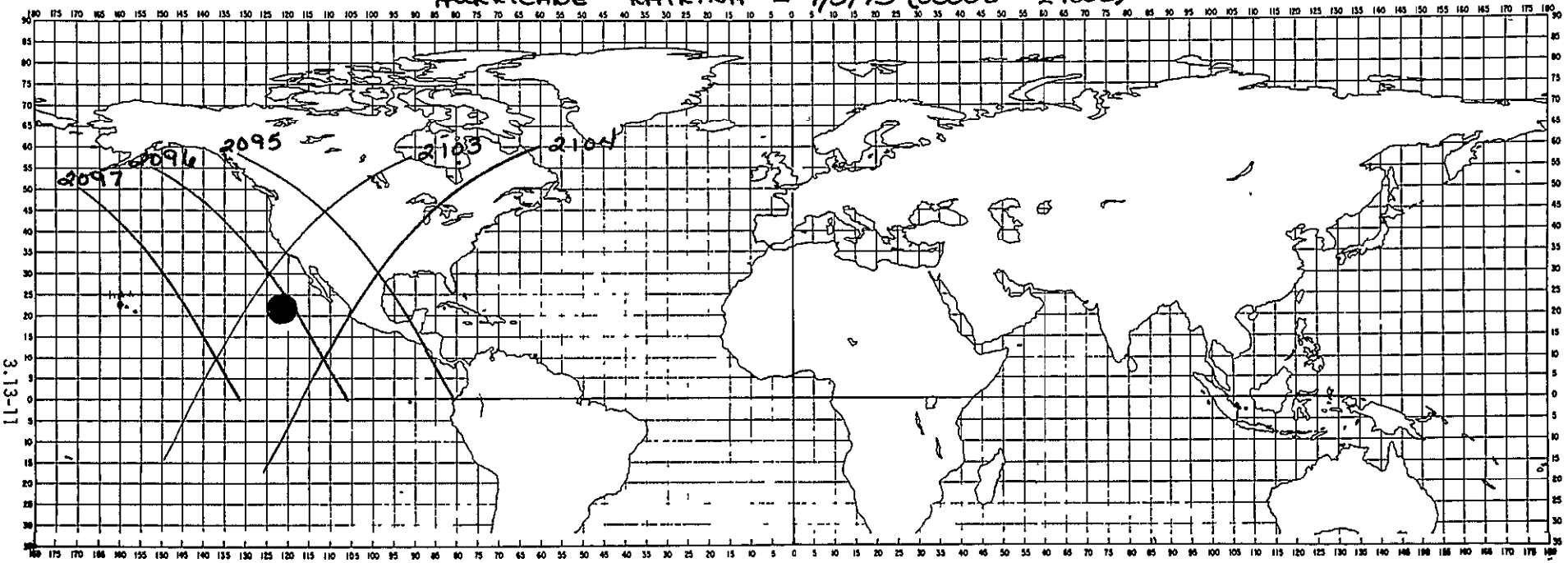


LOCATION
HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	20.9N	115.2W
0600Z	21.1	116.0
1200Z	21.3	117.0
1800Z	21.6	118.0
2400Z	21.7	119.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2081	-86.19	01 33 57	0144Z	No			
2082	-111.52	03 15 44	0321Z	No			
2089	+71.22	15 08 13	1554Z	No			
2090	+45.90	16 50 01	1732Z	172853	173349	802	379

HURRICANE "KATRINA" – 9/5/75 (0000Z – 2400Z)



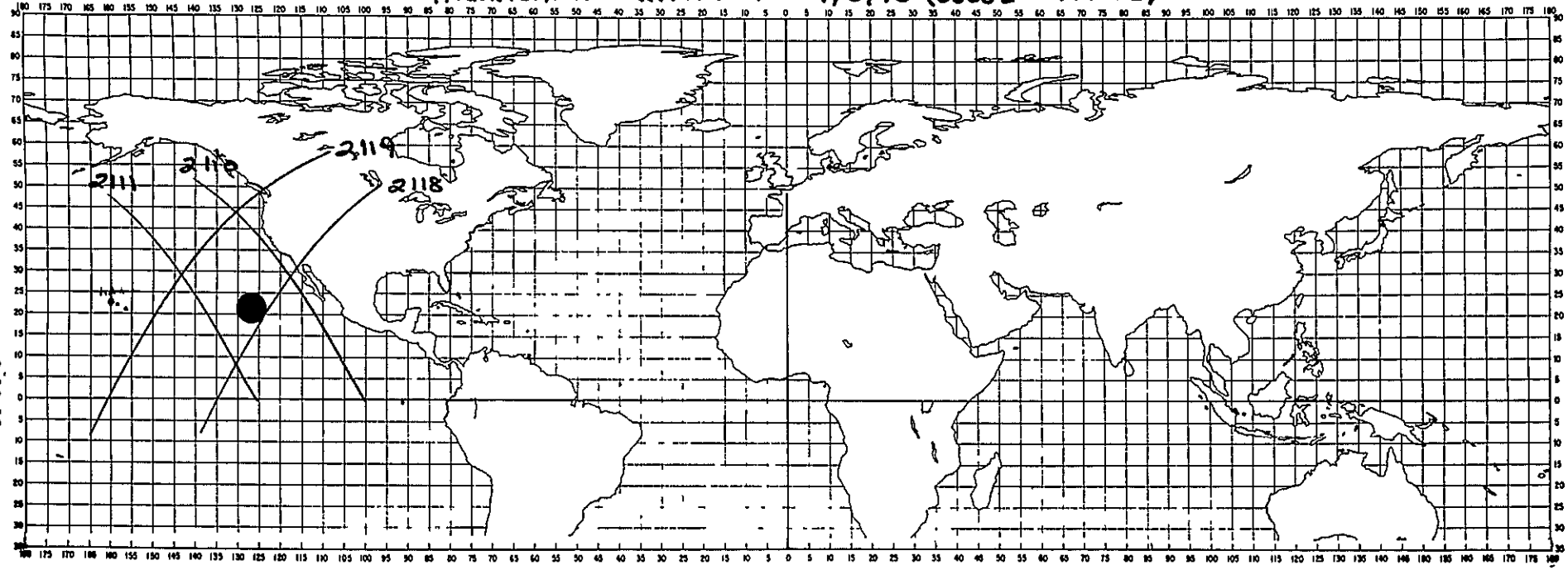
LOCATION

HURRICANE/TROPICAL STORM (1200Z)

TIME	LATITUDE	LONGITUDE
0000Z	21.7N	119.0W
0600Z	21.8	120.0
1200Z	21.8	121.1
1800Z	21.8	122.3
2400Z	21.7	123.5

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2095	-80.72	01 18 56	0129Z	Do			
2096	-106.04	03 00 43	0308Z	Do			
2097	-131.36	04 42 30	0446Z	Do			
2103	+76.70	14 53 19	1539Z	Do			
2104	+51.37	16 35 00	1718Z	Do			

HURRICANE "KATRINA" - 9/6/75 (0000Z - 2400Z)



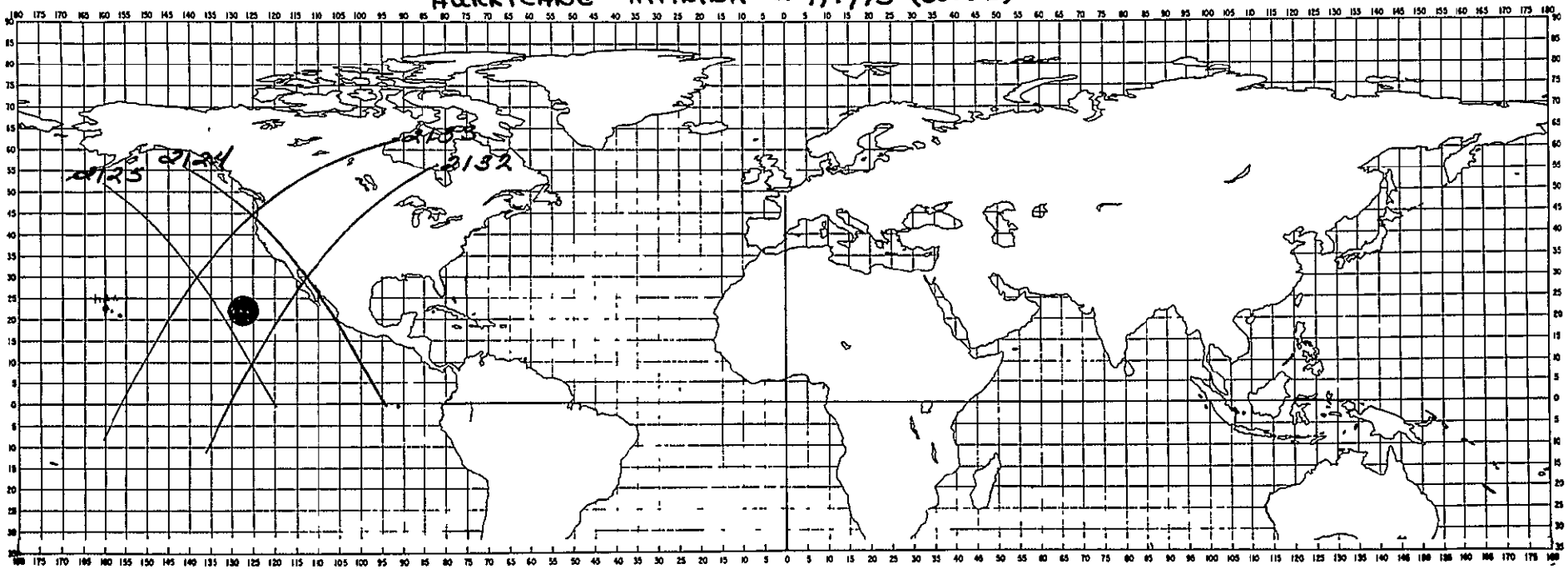
LOCATION

TROPICAL STORM/TROPICAL DEPRESSION (1200Z)

TIME	LATITUDE	LONGITUDE
0000Z	21.7N	123.5W
0600Z	21.6	125.0
1200Z	21.6	126.3
1800Z	21.6	127.6
2400Z	21.6	128.9

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2110	-100.56	02 45 42	0254Z	No			
2111	-125.89	04 27 29	0432Z	No			
2118	+56.85	16 19 59	1705Z	No			
2119	+31.53	18 01 46	1843Z	No			

HURRICANE "KATRINA" – 9/7/75 (0000Z)



3.13-13

LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	21.6N	128.9W

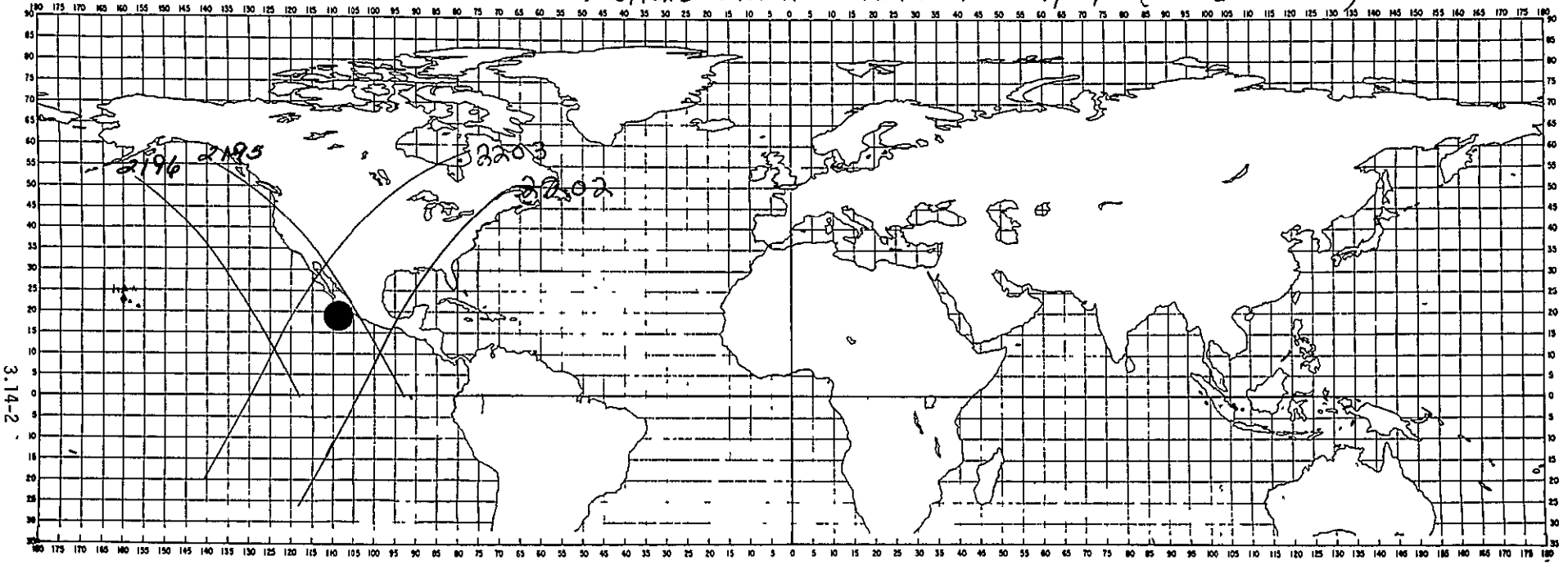
ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2124	-95.09	02 30 41	0240Z	No			
2125	-120.42	04 12 29	0418Z	No			
2132	+62.32	16 04 58	1650Z	No			
2133	+37.00	17 46 46	1827Z	No			

STORM: TROPICAL CYCLONE THIRTEEN

DATE: SEPT 12 - SEPT 16, 1975

Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
9/12	0000Z	19.5N	109.5W		25	Tropical Depression
	0600Z	19.5	109.5		25	
	1200Z	19.5	109.5		25	
	1800Z	19.5	109.5		25	
9/13	0000Z	19.5N	109.5W		30	Tropical Depression
	0600Z	19.5	109.5		30	
	1200Z	19.5	109.5		30	
	1800Z	19.5	109.5		30	
9/14	0000Z	19.5N	109.5W		30	Tropical Depression
	0600Z	19.5	109.5		30	
	1200Z	20.0	109.5		30	
	1800Z	21.0	110.2		25	
9/15	0000Z	21.6N	111.6W		25	Tropical Depression
	0600Z	22.0	113.0		25	
	1200Z	22.3	113.8		25	
	1800Z	23.0	114.2		25	
9/16	0000Z	23.3N	115.2W		25	Tropical Depression
	0600Z	----	----		--	

TROPICAL STORM "THIRTEEN" - 9/12/75 (0000Z - 2400Z)



3.14-2

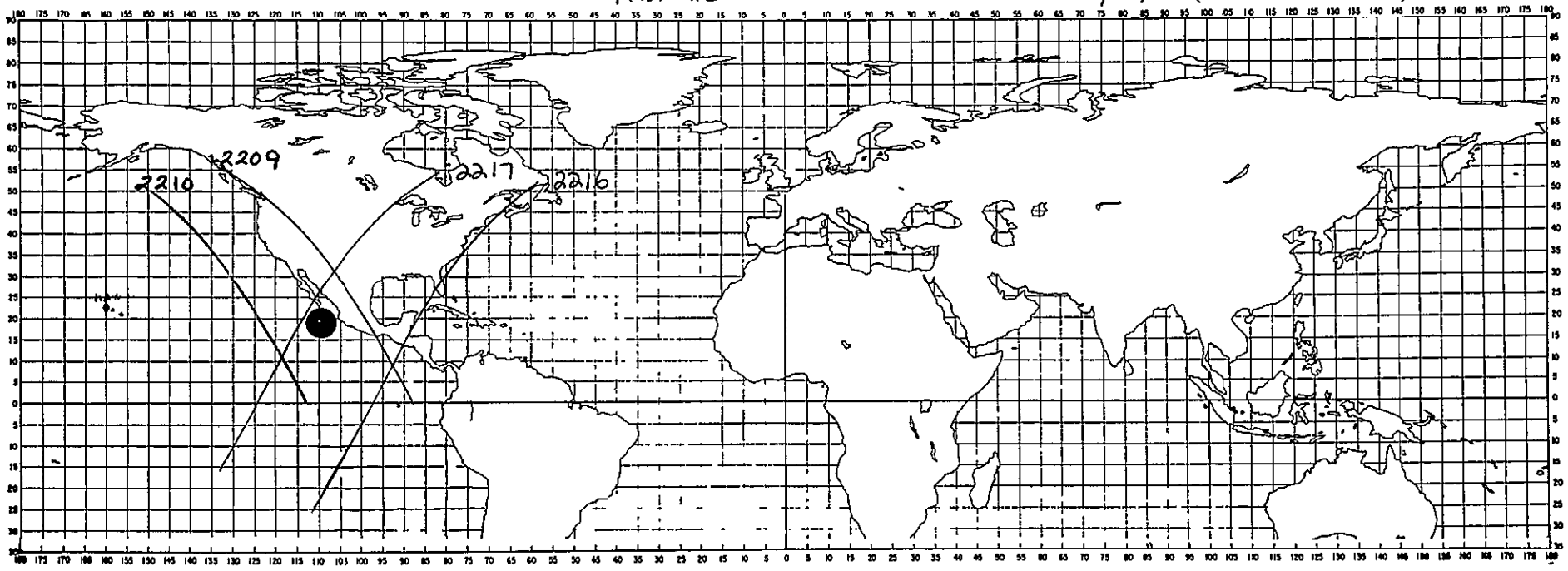
LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	19.5N	109.5W
0600Z	19.5	109.5
1200Z	19.5	109.5
1800Z	19 5	109.5
2400Z	195	1095

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2195	-93 04	02 57 25	0344Z	No			
2196	-118.37	04 38 48	0523Z	No			
2202	+89.69	14 49 55	1537Z	No			
2203	+64.37	16 31 42	1713Z	No			

TROPICAL CYCLONE "THIRTEEN" – 9/13/75 (0000Z – 2400Z)

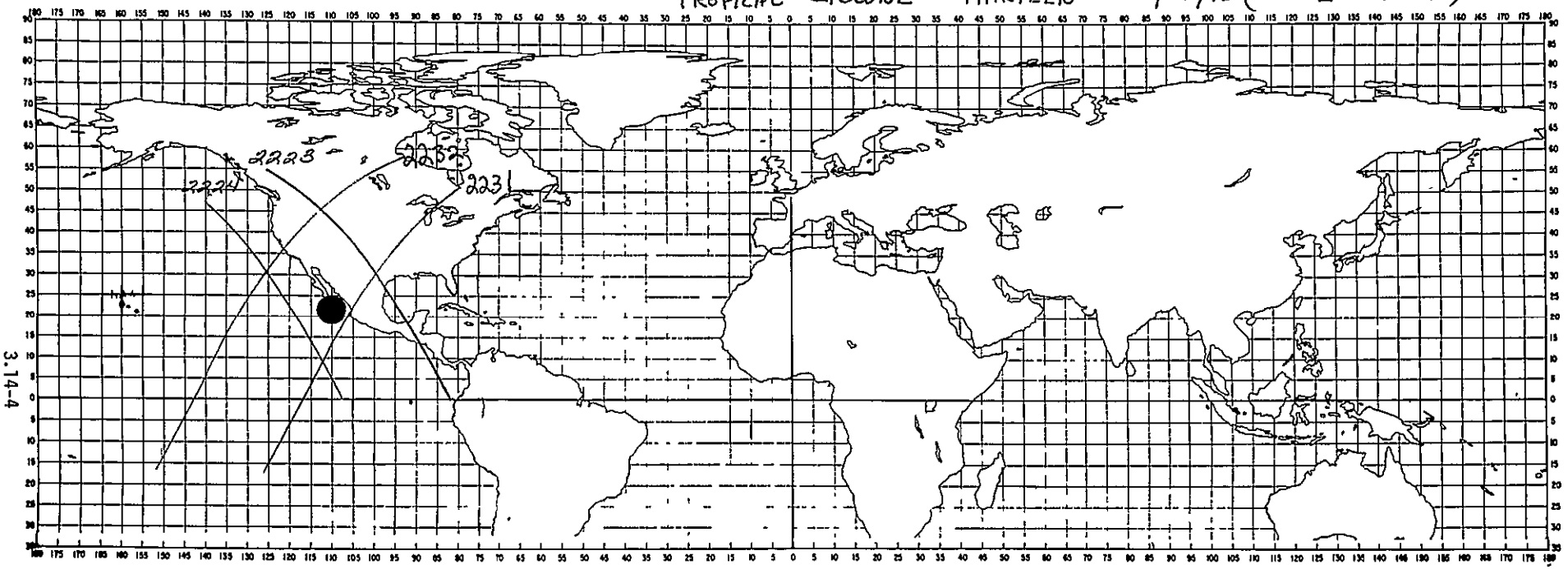


LOCATION
TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	19.5 N	109.5W
0600Z	19.5	109.5
1200Z	19.5	109.5
1800Z	19.5	109.5
2400Z	19.5	109.5

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2209	-87.57	02 42 24	0250Z	NO			
2210	-112.80	04 24 11	0428Z	NO			
2216	+95.17	14 34 54	1523Z	NO			
2217	+69.64	16 16 41	1700Z	NO			

TROPICAL CYCLONE "THIRTEEN" - 9/14/75 (0000Z - 2400Z)



3.14-4

LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	19.5N	109.5W
0600Z	19.5	109.5
1200Z	20.0	109.5
1800Z	21.0	110.2
2400Z	23.3	115.2

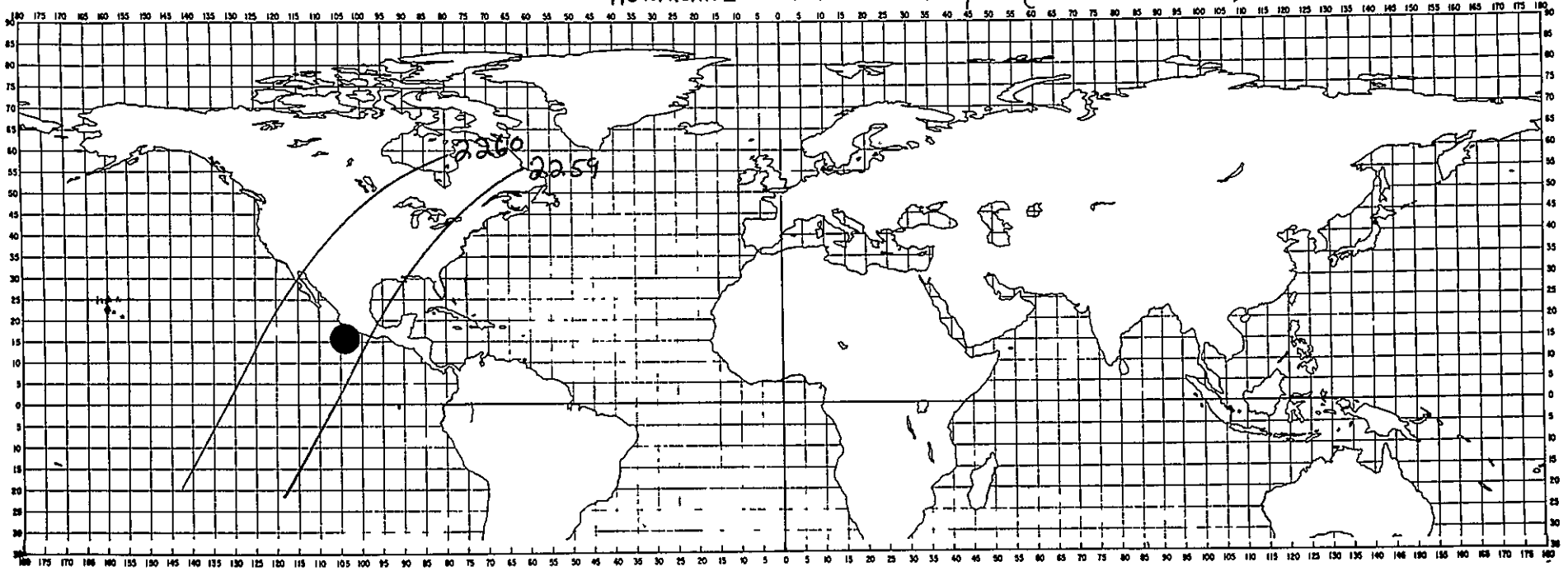
ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2223	-82.09	02 27 23	0239Z	NO			
2224	-107.42	04 09 10	0414Z	NO			
2231	+75.32	16 01 40	1646Z	NO			
2232	+50.00	17 43 27	1825Z	NO			

STORM: HURRICANE LILY

DATE: SEPT 16 - SEPT 21, 1975

Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
9/16	1200Z	16.3N	104.2W		30	Tropical Depression
	1800Z	16.4	105.0		40	Tropical Storm
9/17	0000Z	16.5N	105.6W		40	Tropical Storm
	0600Z	16.5	106.0		40	
	1200Z	16.6	106.3		40	
	1800Z	16.8	106.6		45	
9/18	0000Z	17.0N	107.2W		45	Tropical Storm
	0600Z	17.4	108.3		45	
	1200Z	17.8	109.3		55	
	1800Z	18.2	110.3		65	Hurricane
9/19	0000Z	18.6N	111.6W		75	Hurricane
	0600Z	18.8	112.7		70	
	1200Z	19.2	114.2		75	
	1800Z	19.6	115.5		75	
9/20	0000Z	20.0N	117.0W		70	Hurricane
	0600Z	20.3	118.3		70	
	1200Z	21.0	119.9		70	
	1800Z	21.4	121.1		60	
9/21	0000Z	21.9N	122.6W		55	Hurricane
	0600Z	22.6	123.8		50	
	1200Z	23.0	125.0		40	
	1800Z	22.5	126.0		25	

HURRICANE "LILY" - 9/16/75 (1200Z-2400Z)



3.15-2

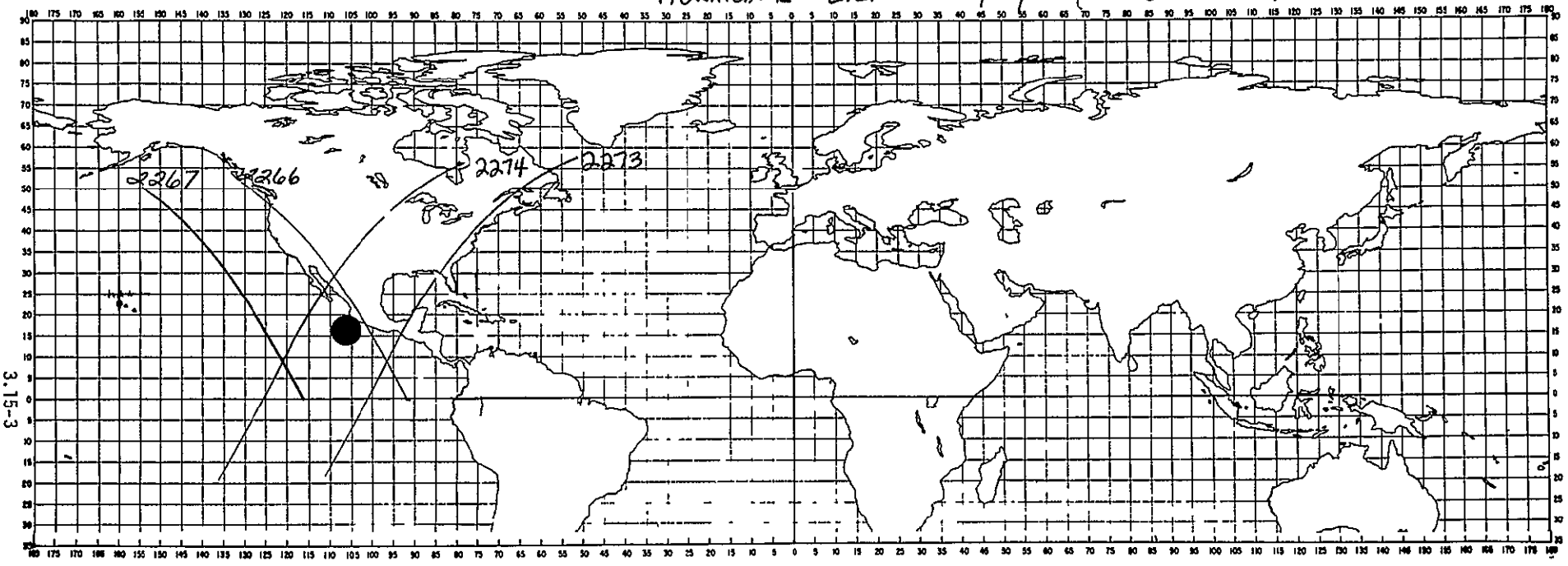
LOCATION

TROPICAL DEPRESSION/TROPICAL STORM (1800Z)

TIME	LATITUDE	LONGITUDE
1200Z	16.3 N	104.2W
1800Z	16.4	105.0
2400Z	16 5	105.6

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2259	+86.27	15 31 39	1619 Z	NO			
2260	+60.94	17 13 24	1800Z	NO			

HORRICANE "LILY" - 9/17/75 (0000Z - 2400Z)



3.15-3

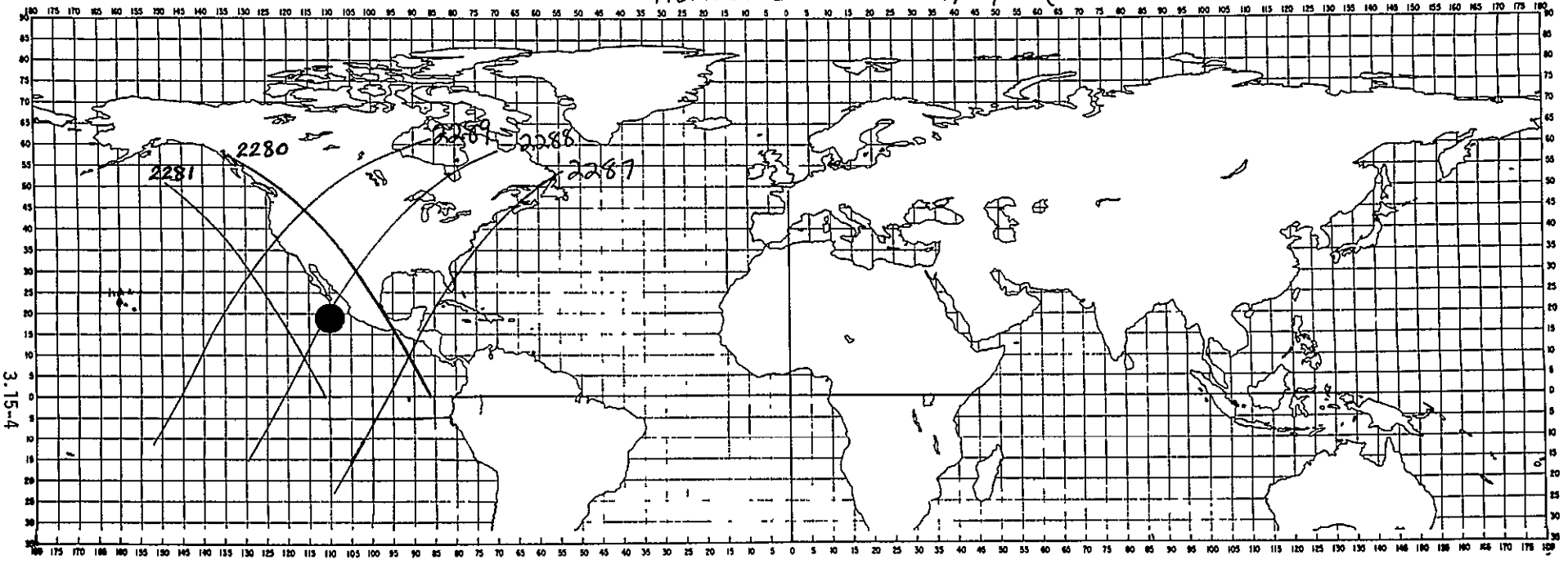
LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	16.5N	105.6W
0600Z	16.5	106.0
1200Z	16.6	106.3
1800Z	16.8	106.6
2400Z	17.0	107.2

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2266	-90 99	03 24 08	0330Z	NO			
2267	-116 32	05 05 55	0508Z	NO			
2273	+91.74	15 16 38	1604Z	NO			
2274	+66.42	16 58 25	1742Z	NO			

HURRICANE "LILY" – 9/18/75 (0000Z – 2400Z)



3.15-4

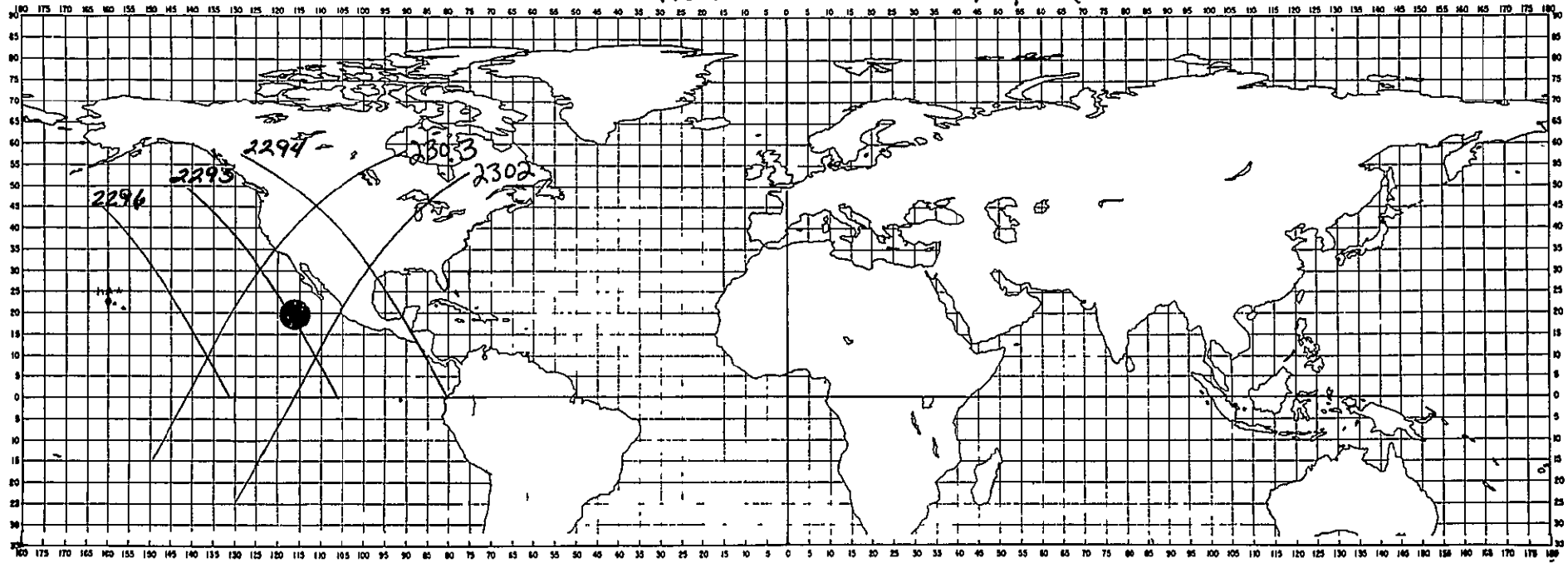
LOCATION

TROPICAL STORM/HURRICANE (1800Z)

TIME	LATITUDE	LONGITUDE
0000Z	17.0N	107.2W
0600Z	17.4	108.3
1200Z	17.8	109.3
1800Z	18.2	110.3
2400Z	18.6	111.6

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2280	−85.52	03 09 07	0315Z	NO			
2281	−110.85	04 50 54	0454Z	NO			
2287	+97.22	15 01 37	1550Z	154600	155422	802	522
2288	+71.89	16 43 24	1728Z	NO			
2289	+46.57	18 25 11	1907Z	NO			

HURRICANE "LILY" - 9/19/75 (0000Z - 2400Z)

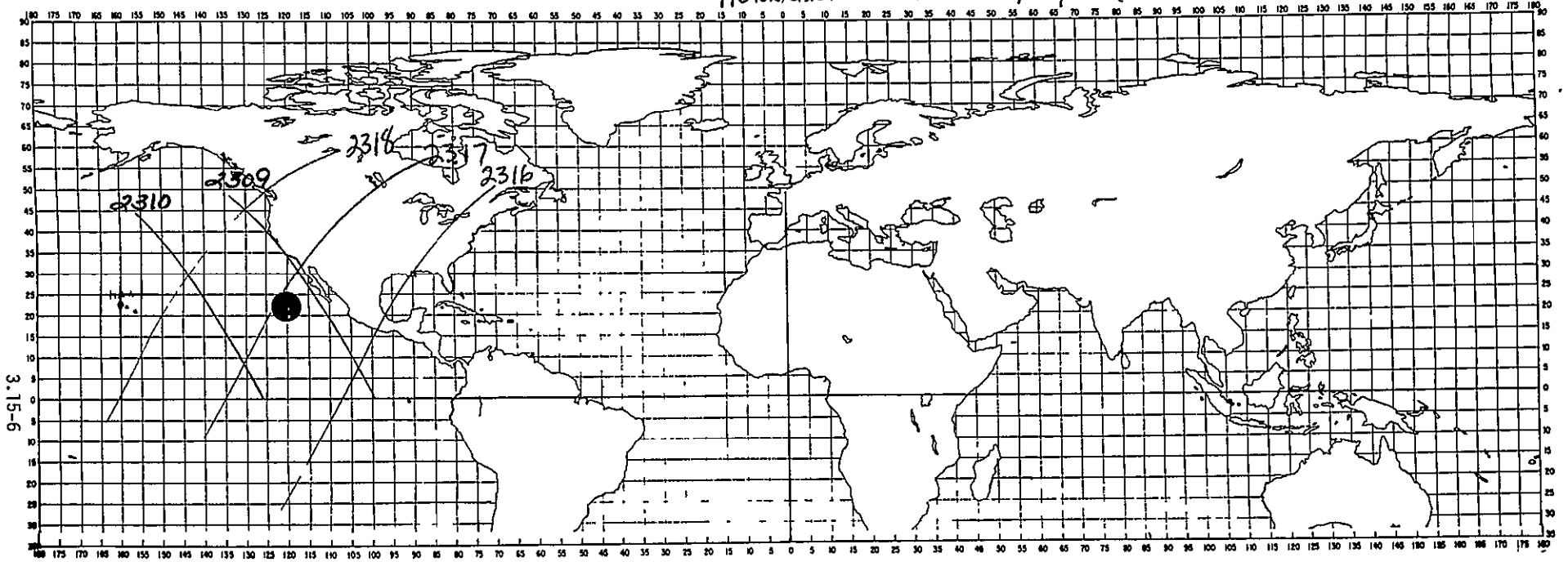


LOCATION
HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	18.6 N	111.6W
0600Z	18.8	112.7
1200Z	19.2	114.2
1800Z	19.6	115.5
2400Z	20.0	117.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2294	-80.05	02 54 07	0304Z	NO			
2295	-105.37	04 35 54	0440Z	NO			
2296	-130.69	06 17 11	0620Z	NO			
2302	+77.37	16 28 43	1715Z	NO			
2303	+52.04	18 10 11	1853Z	NO			

HURRICANE "LILY" – 9/20/75 (0000Z – 24002)



3.15-6

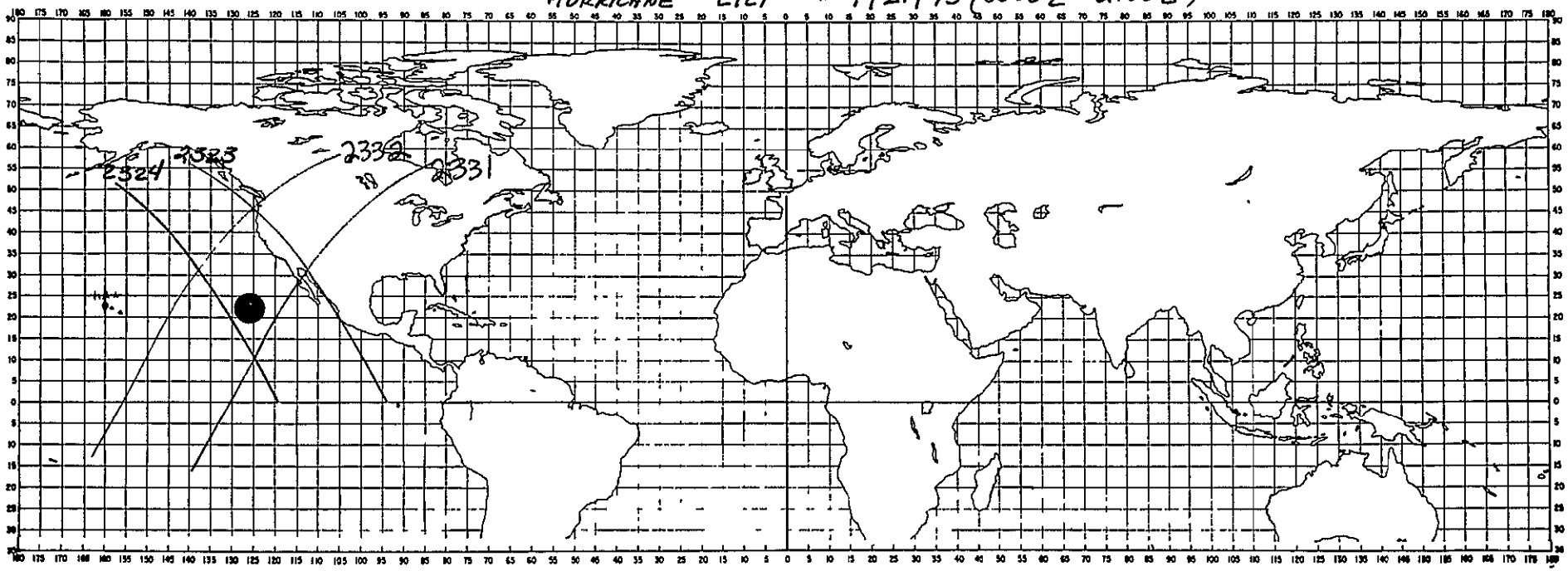
LOCATION

HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	20.0N	117.0W
0600Z	20.3	118.3
1200Z	21.0	119.9
1800Z	21.4	121.1
2400Z	21.9	122.6

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2309	-99.90	04 20 53	0427Z	NO			
2310	-125.22	06 02 40	0605Z	NO			
2316	+85.82	16 13 23	1700Z	NO			
2317	+57.52	17 55 10	1838Z	NO			
2318	+32.19	19 36 57	2017Z	201206	205025	802	549

HURRICANE "LILY" - 9/21/75 (0000Z - 2400Z)

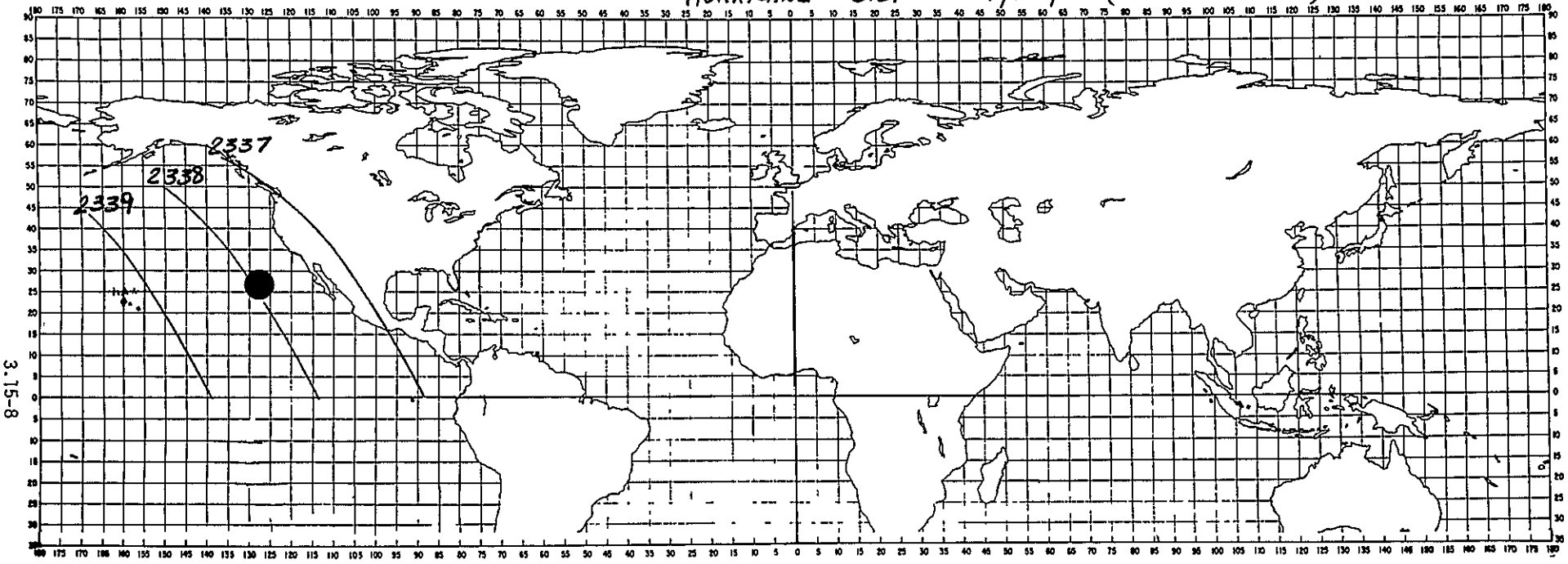


LOCATION
HURRICADE

TIME	LATITUDE	LONGITUDE
0000Z	21.9N	122.6W
0600Z	22.6	123.8
1200Z	23.0	125.0
1800Z	22.5	126.0
2400Z	26.5	127.5

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2323	-94.92	04 05 52	0415Z	NO			
2324	-119.74	05 47 39	0553Z	NO			
2331	+62.99	17 40 09	1825Z	NO			
2332	+37.67	19 21 56	2000Z	NO			

HURRICANE "LILY" - 9/22/75 (0000Z-1200Z)



3.15-8

LOCATION
24-HOUR FORECAST

TIME	LATITUDE	LONGITUDE
0000Z	26.5N	127.5W
0600Z	26.5	128.3
1200	27.0	128.0

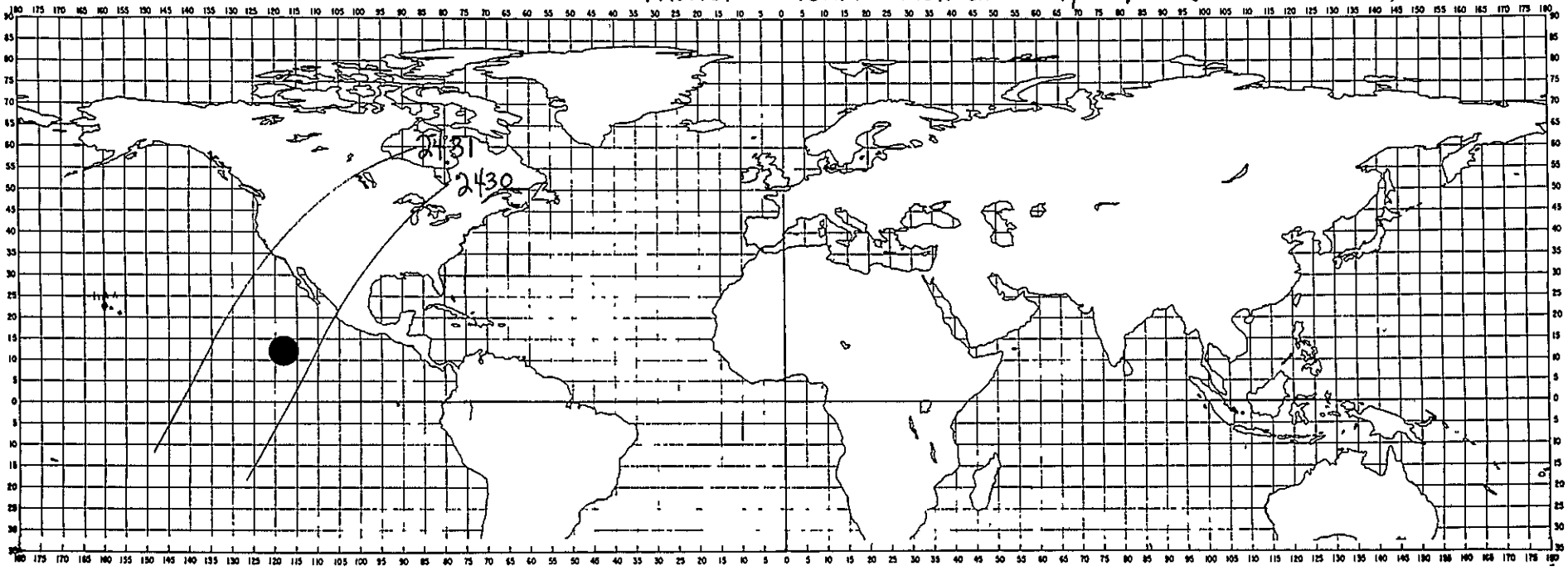
ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2337	-88.95	03 50 51	0402Z	No			
2338	-114.27	05 32 38	0540Z	No			
2339	-139.60	07 14 26	0717Z	No			

STORM: TROPICAL STORM MONICA

DATE: SEPT 28 - OCT 2, 1975

Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
9/28	1200Z	11.5N	117.8W		25	Tropical Depression
	1800Z	11.5	118.9		30	
9/29	0000Z	11.7N	120.0W		35	Tropical Storm
	0600Z	11.8	121.1		35	
	1200Z	12.0	122.3		35	
	1800Z	12.1	123.0		35	
9/30	0000Z	12.3N	123.7W		35	Tropical Storm
	0600Z	12.4	124.2		35	
	1200Z	12.6	124.7		40	
	1800Z	13.0	125.3		45	
10/1	0000Z	13.3N	126.0W		35	Tropical Storm
	0600Z	13.5	126.5		30	Tropical Depression
	1200Z	14.0	127.0		30	
	1800Z	14.5	127.1		25	
10/2	0000Z	15.0N	127.3W		25	Tropical Depression

TROPICAL STORM "MONICA" - 9/28/75 (1200Z - 2400Z)



3.16-2

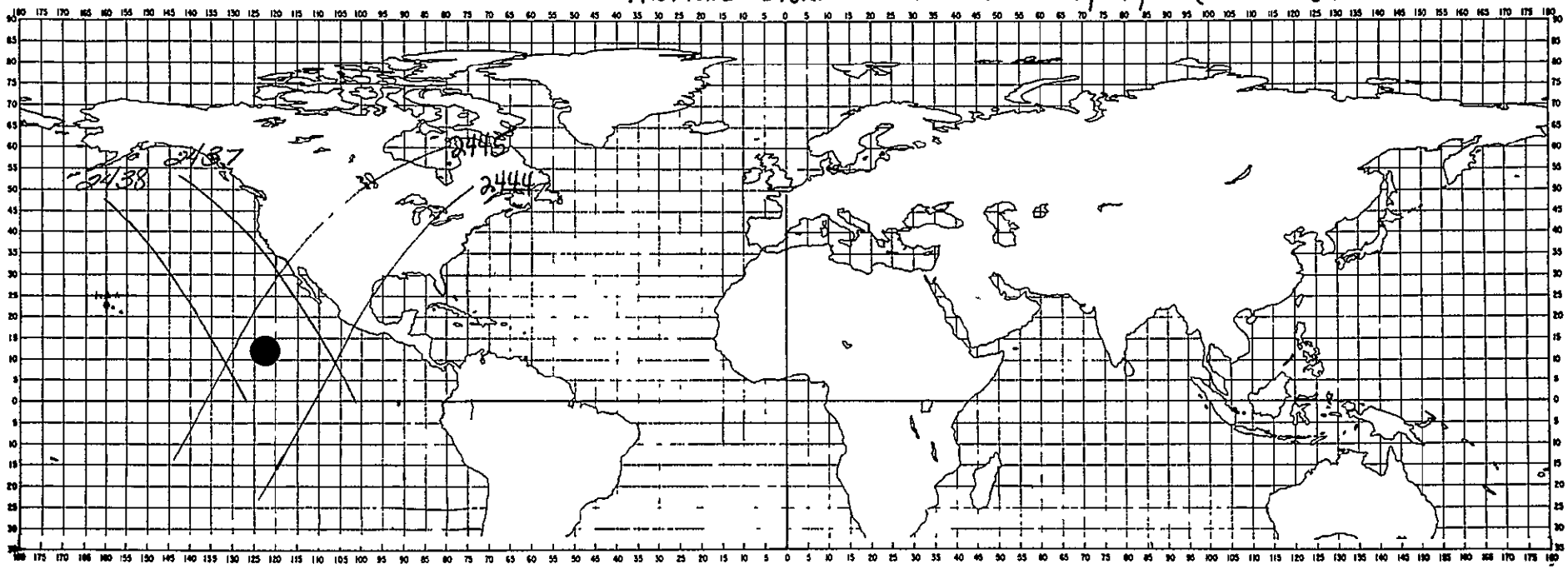
LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
1200Z	11.5N	117.8W
1800Z	11.5	118.9
2400Z	11.7	120.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2430.	+75.99	17 36 51	1825 Z	No			
2431	+50.66	19 18 35	2004 Z	195837	200315	802	112

TROPICAL STORM "MONICA" - 9/29/75 (0000Z - 2400Z)



3.16-3

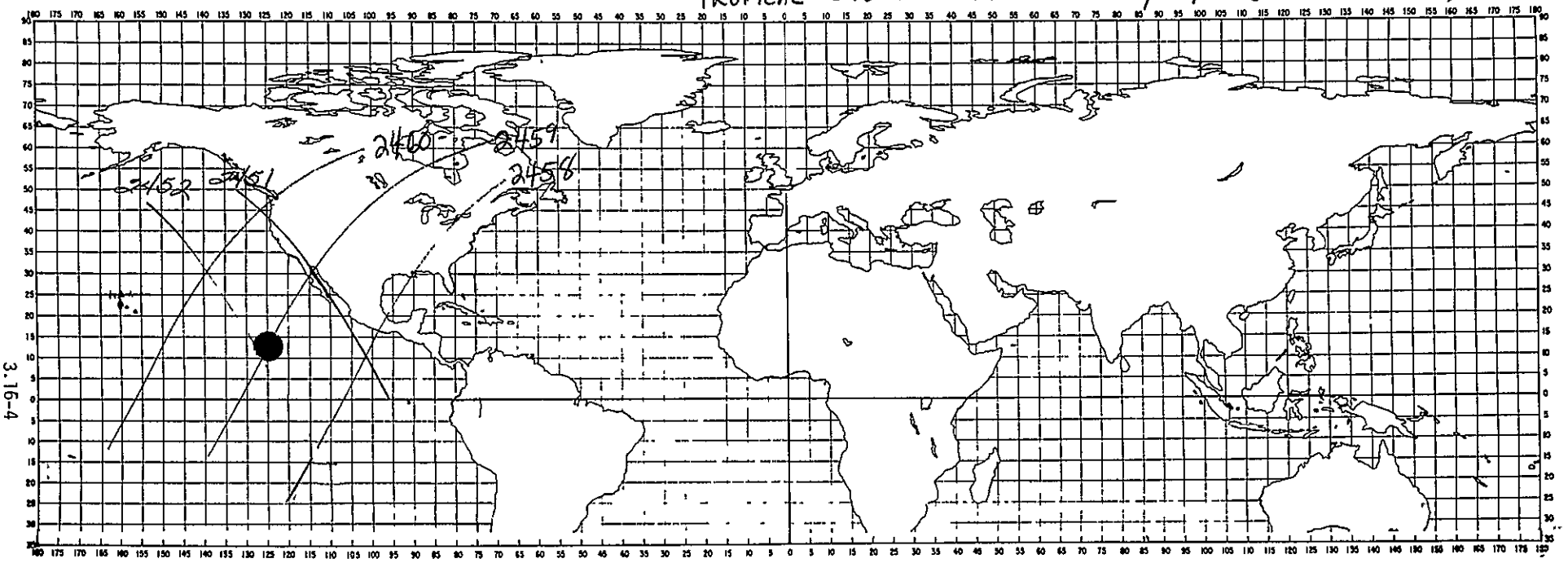
LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	11.7N	120.0W
0600Z	11.8	121.1
1200Z	12.0	122.3
1800Z	12.1	123.0
2400Z	12.3	123.7

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2437	-101.27	05 29 20	0534Z	No			
2438	-126.80	07 11 07	0712Z	No			
2444	+81.46	17 21 50	1812Z	No			
2445	+56.14	19 03 57	1950Z	No			

TROPICAL STORM "MONICA" - 9/30/75 (0000Z-2400Z)



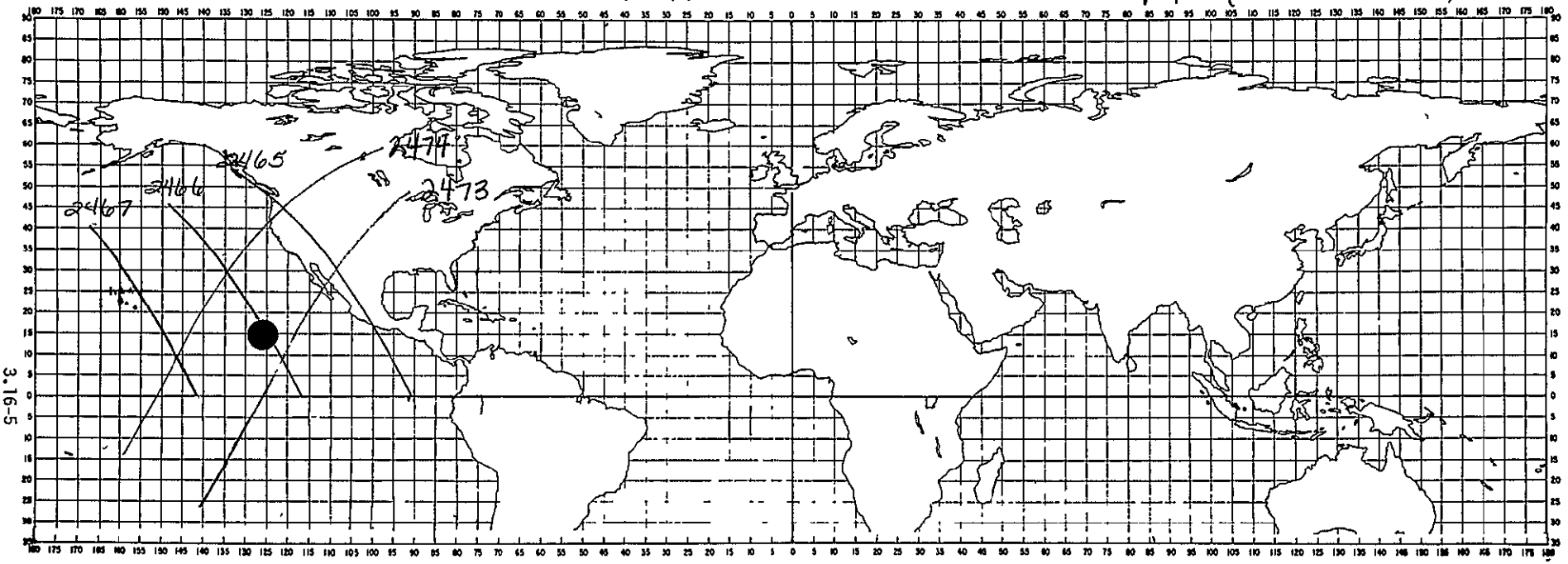
LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	12.3N	123.7W
0600Z	12.4	124.2
1200Z	12.6	124.7
1800Z	13.0	125.3
2400Z	13.3	126.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2451	-95.80	05 14 19	0521Z	No			
2452	-121.13	06 56 07	0659Z	No			
2458	+86.94	17 06 49	1757Z	No			
2459	+61.61	18 48 36	1936Z	No			
2460	+36.29	20 30 23	2114Z	No			

TROPICAL STORM "MONICA" - 10/1/75 (0000Z - 2400Z)



LOCATION

TROPICAL STORM / TROPICAL DEPRESSION (0600Z)

TIME	LATITUDE	LONGITUDE
0000Z	13.3N	126.0W
0600Z	13.5	126.5
1200Z	14.0	127.0
1800Z	14.5	127.1
2400Z	15.0	127.3

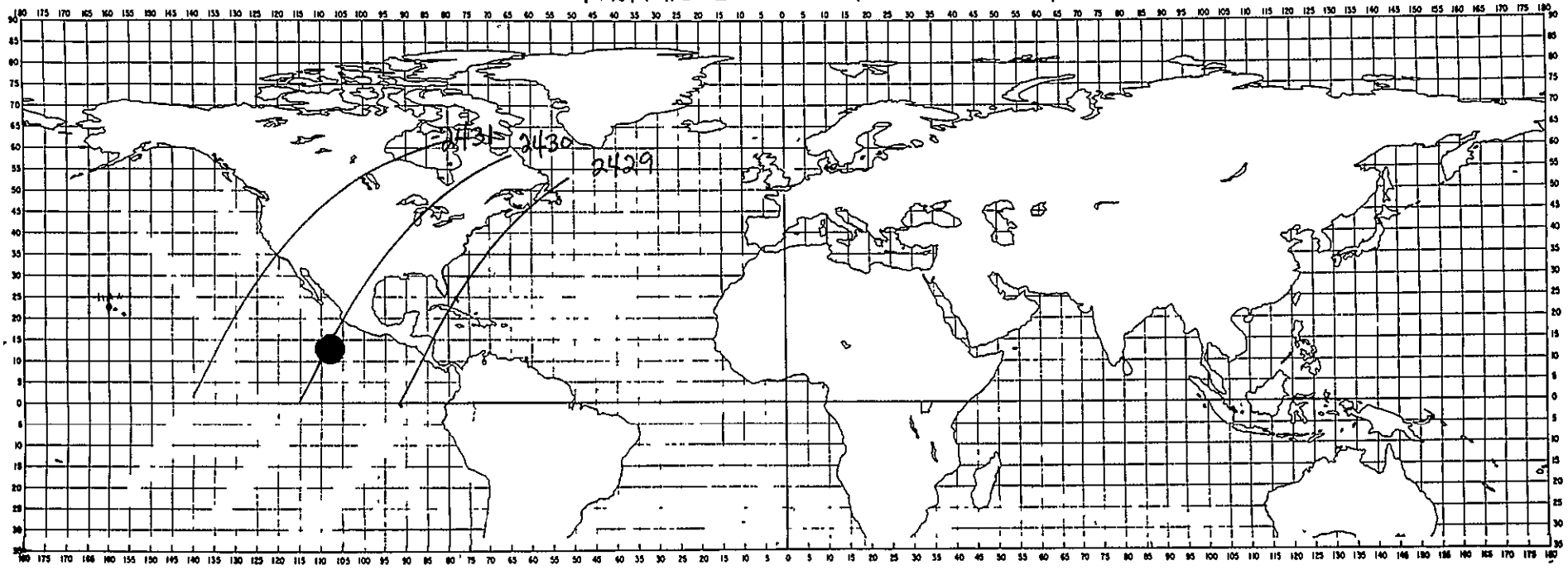
ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2465	-90.32	04 59 19	0507Z	No			
2466	-115.65	06 41 06	0645Z	No			
2467	-140.97	08 22 53	0824Z	No			
2473	+67.09	18 33 35	1926Z	No			
2474	+41.76	20 15 23	2059Z	No			

STORM: TROPICAL STORM NANETTE

DATE: SEPT 28 - OCT 4, 1975

Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
9/28	1200Z	12.8N	107.0W		25	Tropical Depression
	1800Z	12.8	107.7		30	
9/29	0000Z	12.8N	108.4W		30	Tropical Depression
	0600Z	12.8	108.9		25	
	1200Z	12.5	109.6		25	
	1800Z	12.7	110.0		35	Tropical Storm
9/30	0000Z	12.5N	110.5W		35	Tropical Storm
	0600Z	12.3	111.0		35	
	1200Z	12.6	111.8		35	
	1800Z	12.7	112.3		50	
10/1	0000Z	12.8N	113.0W		45	Tropical Storm
	0600Z	13.2	114.2		40	
	1200Z	13.0	115.4		40	
	1800Z	13.1	116.4		45	
10/2	0000Z	13.3N	117.5W		45	Tropical Storm
	0600Z	13.8	118.8		40	
	1200Z	14.2	120.0		49	
	1800Z	14.5	120.8		35	
10/3	0000Z	14.9N	121.9W		40	Tropical Storm
	0600Z	15.0	122.5		40	
	1200Z	14.9	123.2		40	
	1800Z	14.6	124.0		35	
10/4	0000Z	14.0N	125.0W		30	Tropical Depression

TROPICAL STORM "NANETTE" - 9/28/75 (1200Z - 2400Z)



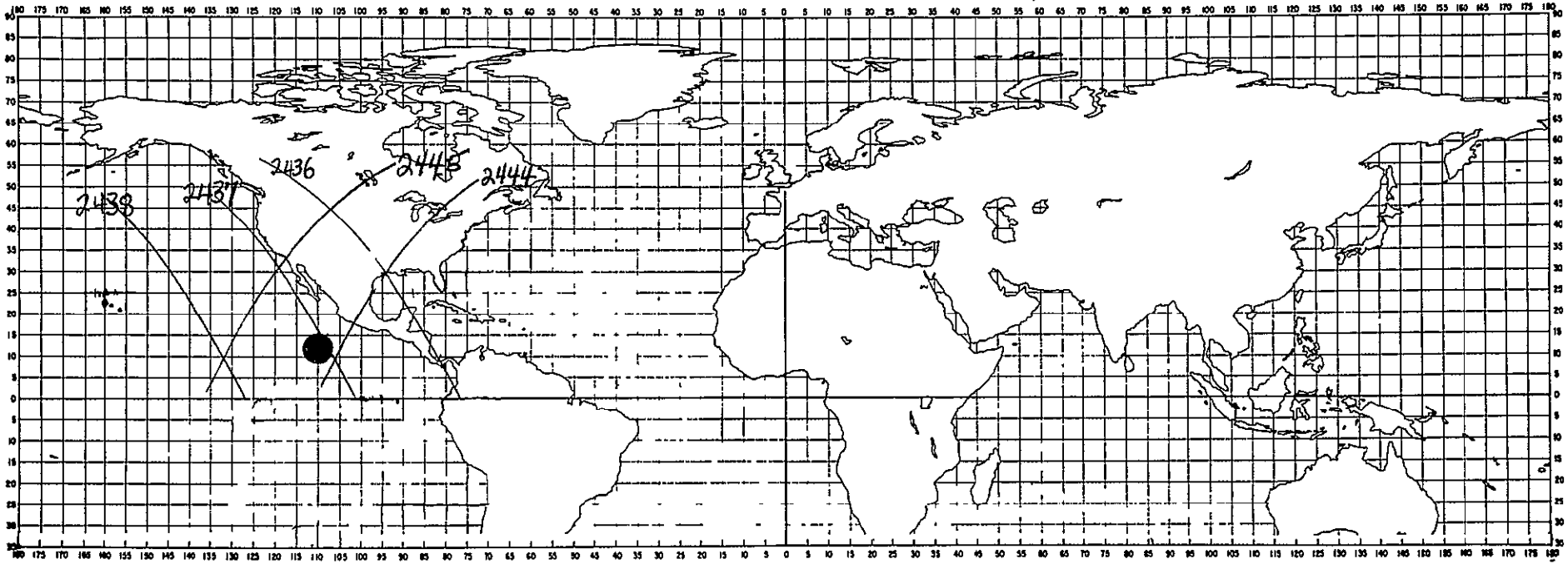
LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
1200Z	12.8N	107.0W
1800Z	12.8	107.7
2400Z	12.8	108.4

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2429	+101.31	15 55 03 Z	1645Z	163037	164217	802	111
2430	+75.99	17 36 51 Z	1824Z	NO:			
2431	+50.66	19 18 35 Z	2002Z	195837	200315	802	112

TROPICAL STORM "NANETTE" - 9/29/75 (0000Z-2400Z)



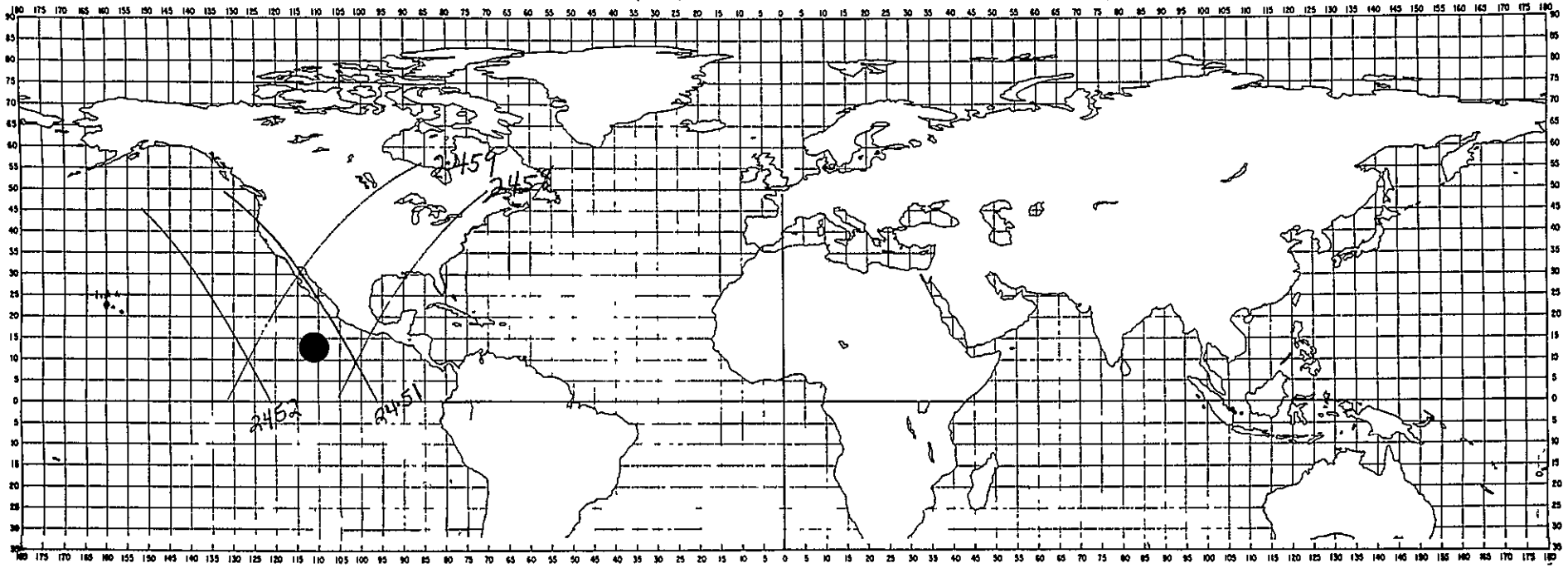
LOCATION

TROPICAL DEPRESSION/TROPICAL STORM (1800Z)

TIME	LATITUDE	LONGITUDE
0000Z	12.8N	108.4W
0600Z	12.8	108.9
1200Z	12.5	109.6
1800Z	12.7	110.0
2400Z	12.5	110.5

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2436	-75.95	03 47 33 Z	0355 Z	Do			
2437	-101.27	05 29 20 Z	0533 Z	Do			
2438	-126.60	07 11 07 Z	0712 Z	Do			
2444	+81.46	17 21 50 Z	1810 Z	Do			
2445	+56.14	19 03 37 Z	1949 Z	Do			

TROPICAL STORM "NANETTE" - 9/30/75 (0000Z-2400Z)



3 17-4

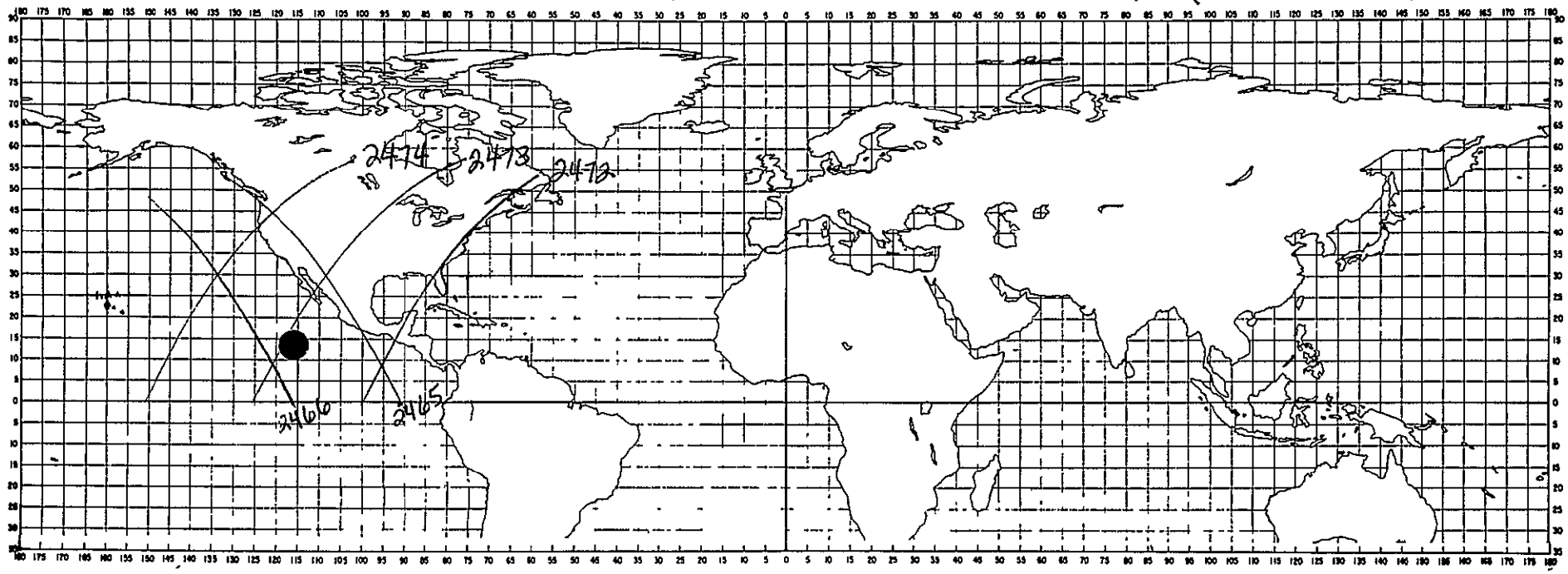
LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	12.5N	110.5 W
0600Z	12.3	111.0
1200Z	12.6	111.8
1800Z	12.7	112.3
2400Z	12.8	113.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2451	-95.80	05 14 19 Z	0519 Z	Do			
2452	-121.13	06 56 06 Z	0657 Z	Do			
2458	+86.94	17 06 49 Z	1756 Z	Do			
2459	+61.61	18 48 36 Z	1934 Z	Do			

TROPICAL STORM "NANETTE" - 10/1/75 (0000Z - 2400Z)



3.1.5

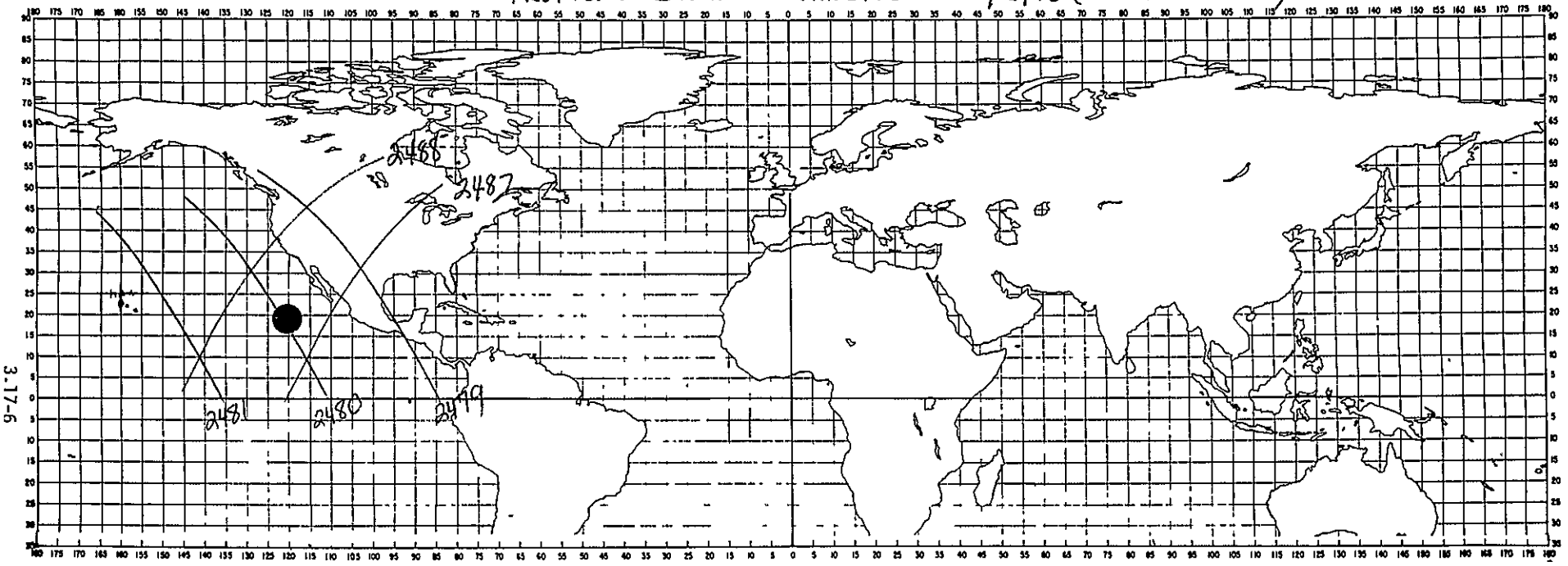
LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	12.8N	113.0W
0600Z	13.2	114.2
1200Z	13.0	115.4
1800Z	13.1	116.4
2400Z	13.3	117.5

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2465	-90.33	04 59 19 Z	0505Z	Do			
2466	-115.65	06 41 06 Z	0643Z	Do			
2472	+92.41	16 51 48 Z	1742Z	Do			
2473	+67.09	18 33 35 Z	1921Z	Do			
2474	+41.76	20 15 23 Z	2048Z	Do			

TROPICAL STORM "NANETTE" - 10/2/75 (0000Z - 2400Z)



3.17-6

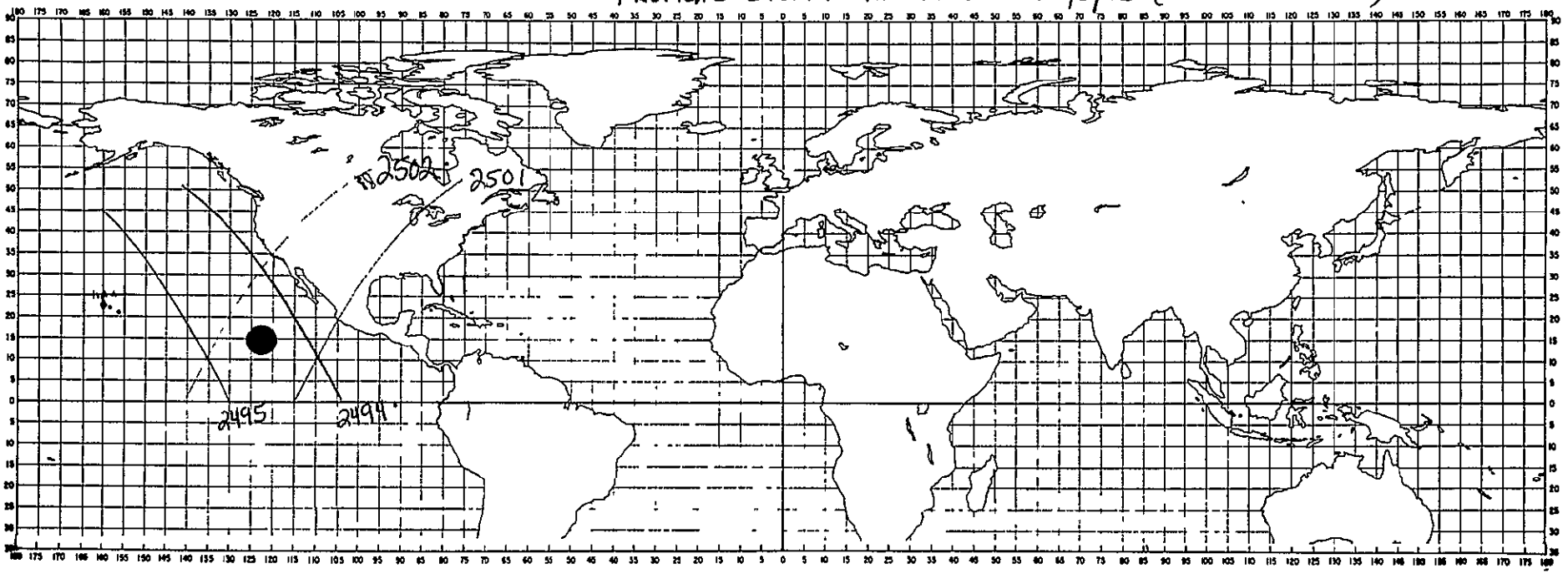
LOCATION

TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	13.3 N	117.5 W
0600Z	13.8	118.8
1200Z	14.2	120.0
1800Z	14.5	120.8
2400Z	14.9	121.9

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2479	-84.85	04 44 18 Z	0453Z	Do			
2480	-110.16	06 26 05 Z	0630Z	Do			
2481	-135.50	08 07 52 Z	0808Z	Do			
2487	+72.56	18 18 35 Z	1906Z	Do			
2488	+47.24	20 00 22 Z	2044Z	203835	211357	802	162

TROPICAL STORM "NANETTE" -10/3/75 (0000Z - 2400Z)



3.17-7

LOCATION
TROPICAL STORM

TIME	LATITUDE	LONGITUDE
0000Z	14.9N	121.9W
0600Z	15.0	122.5
1200Z	14.9	123.2
1800Z	14.6	124.0
2400Z	14.0	125.0

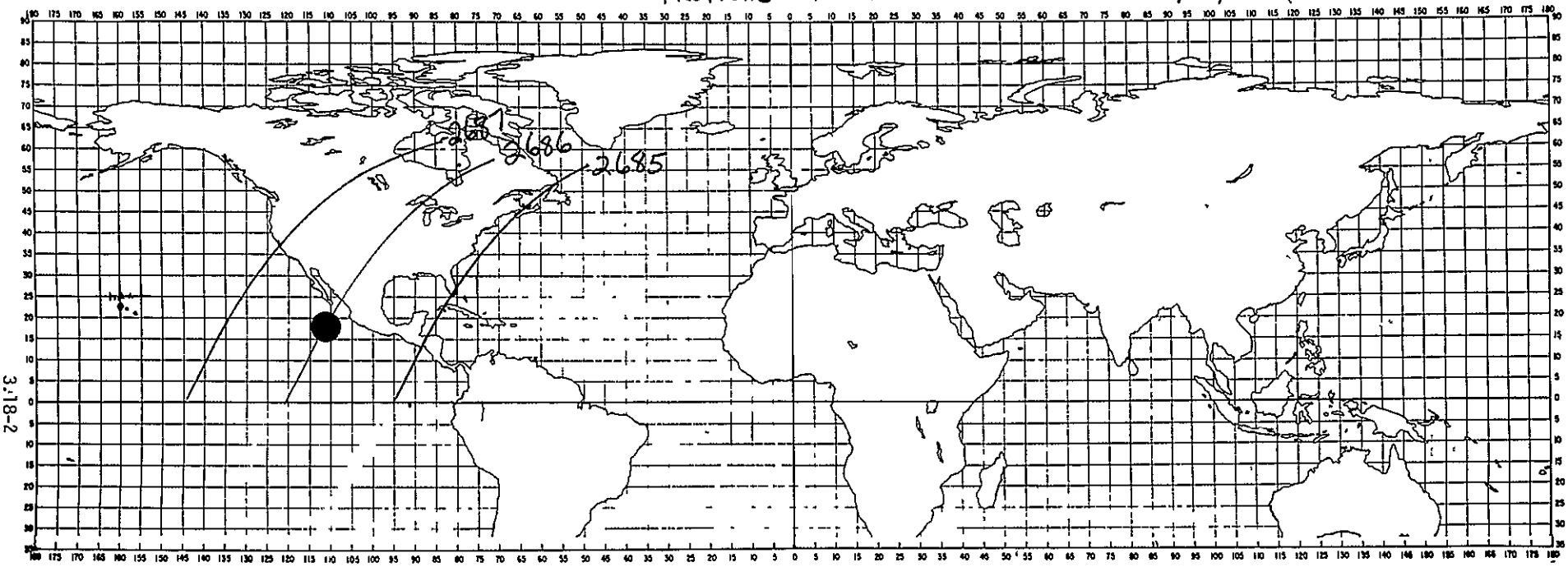
ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2494	-104.70	06 11 04 Z	0617Z	Do			
2495	-130.02	07 52 51 Z	0755Z	Do			
2501	+78.03	18 03 34 Z	1852Z	Do			
2502	+52.71	19 45 21 Z	2030Z	202431	203254	802	180

STORM: TROPICAL CYCLONE SEVENTEEN

DATE: OCT 16 - OCT 17, 1975

Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
10/16	1800Z	18.1N	111.1W		25	Tropical Depression
10/17	0000Z	18.0N	111.0W		25	Tropical Depression
	0600Z	18.0	111.0		25	
	1200Z	18.0	111.0		25	
	1800Z	----	----		--	

TROPICAL CYCLONE "SEVENTEEN" – 10/16/75 (2400Z)



3.18-2

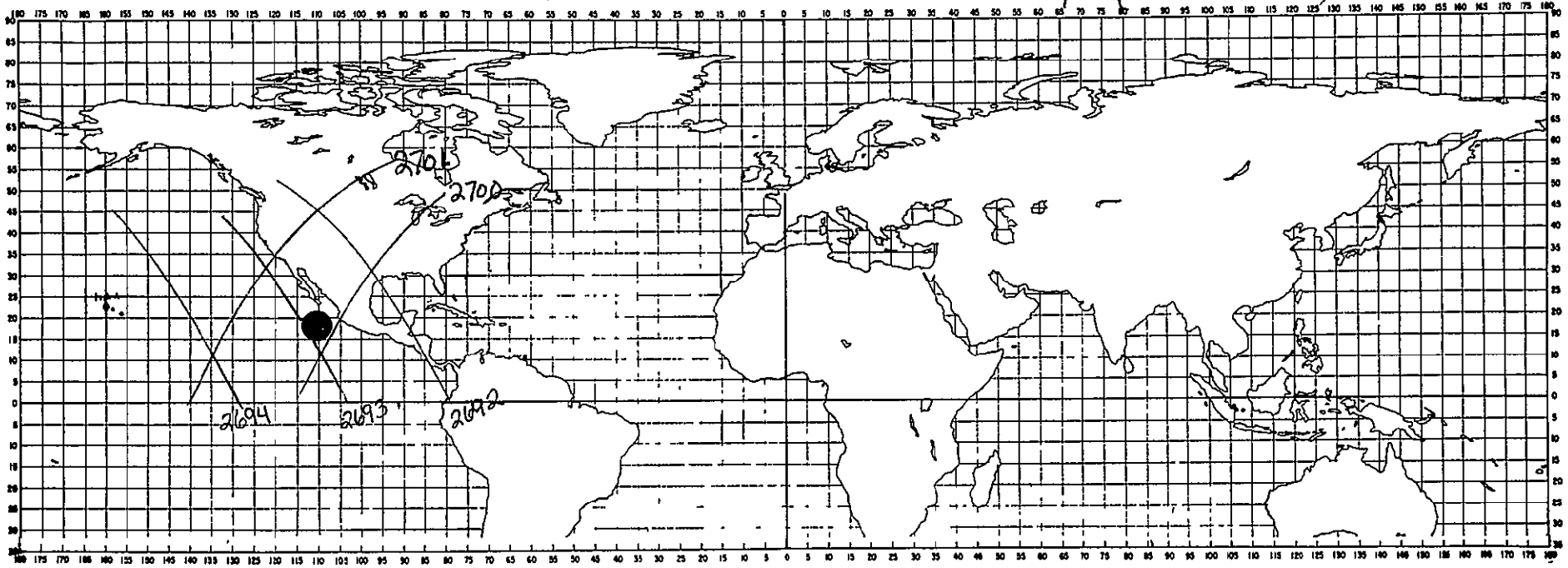
LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
1800Z	18.1N	111.1W
2400Z	18.0	111.0

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2685	+98.57	18 11 57Z	1901Z	No			
2686	+73.24	19 53 44Z	2039Z	No			
2687	+47.92	21 35 31Z	2218Z	No			

TROPICAL CYCLONE "SEVENTEEN" - 10/17/75 (0000Z - 2400Z)



3 18-3

LOCATION

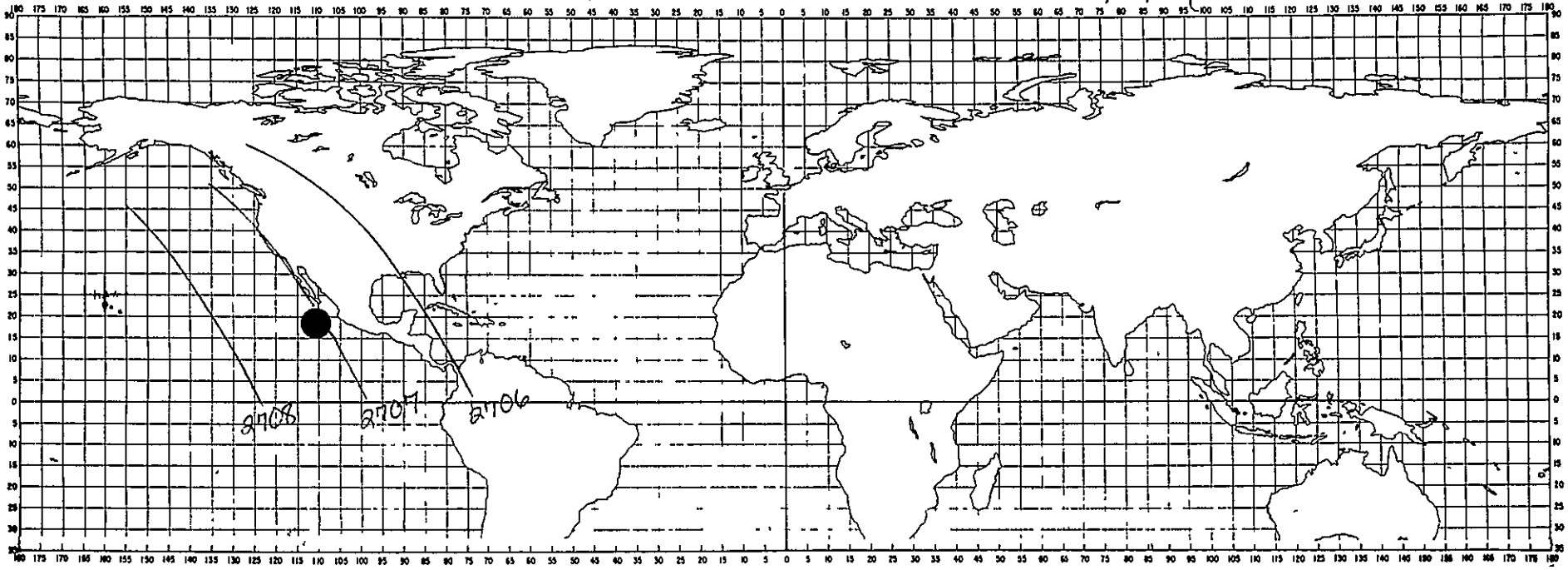
TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	18.0N	111.0W
0600Z	18.0	111.0
1200Z	18.0	111.0
1800Z	18.9	111.0
2400Z	18.5	111.2*

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2692	-78.69	06 04 26 Z	0613Z	D0			
2693	-104.02	07 45 13 Z	0751Z	D0			
2694	-129.34	09 28 01 Z	0930Z	D0			
2700	+78.72	19 38 43 Z	2025Z	D0			
2701	+53.40	21 20 30 Z	2204Z	D0			

*24 hour Forecast

TROPICAL STORM "SEVENTEEN" – 10/18/75 (0000Z – 0600Z)*



LOCATION

TROPICAL DEPRESSION

TIME	LATITUDE	LONGITUDE
0000Z	18.5N*	111.2W*
0600Z	18 5	111.2 *

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2706	-73.22	05 49 25 Z	0559Z	055338	055936	802	408
2707	-98.54	07 31 13 Z	0737Z	Do			
2708	-123.87	09 13 00 Z	0916Z	Do			

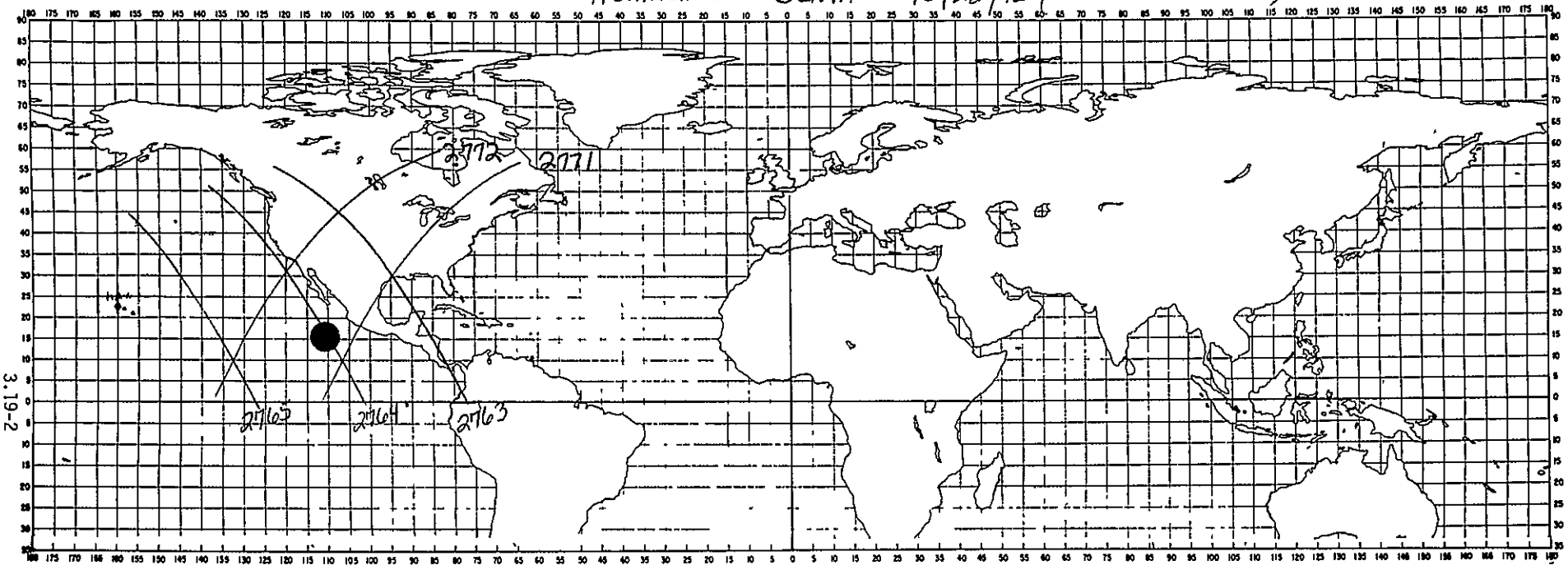
* 24-HR FORECAST

STORM: HURRICANE OLIVIA

DATE: OCT 22 - OCT 25, 1975

Date	Time GMT	Position		Pressure (MB)	Wind (KTS)	Stage
		Latitude	Longitude			
10/22	0000Z	13.7N	107.6W		30	Tropical Depression
	0600Z	14.0	109.0		35	Tropical Storm
	1200Z	14.7	110.0		35	
	1800Z	15.1	110.7		35	
10/23	0000Z	15.6N	110.8W		40	Tropical Storm
	0600Z	16.0	110.9		40	
	1200Z	16.4	110.9		55	
	1800Z	17.0	110.8		75	Hurricane
10/24	0000Z	17.6N	110.5W		80	Hurricane
	0600Z	18.8	110.0		80	
	1200Z	20.0	109.3		90	
	1800Z	21.2	108.3		90	
10/25	0000Z	22.2N	107.3W		95	Hurricane
	0600Z	23.2	106.3		100	

HURRICANE "OLIVIA - 10/22/75 (0000Z - 2400Z)



3.19-2

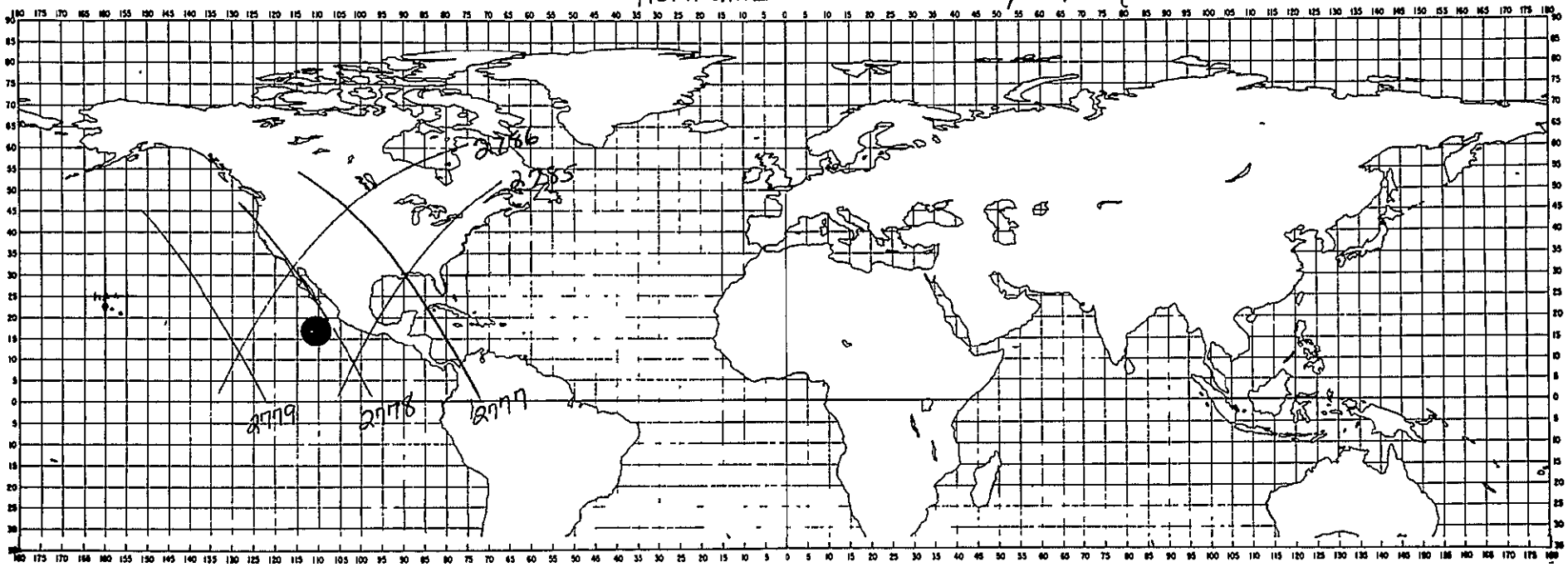
LOCATION

TROPICAL DEPRESSION/TROPICAL STORM (0600Z)

TIME	LATITUDE	LONGITUDE
0000Z	13.7 N	107.6 W
0600Z	14.0	109.0
1200Z	14.7	110.0
1800Z	15.1	110.7
2400Z	15.6	110.8

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2763	-76.65	06 31 09 Z	0640 Z	063514	064129	802	444
2764	-101.97	08 12 56 Z	0818 Z	Do			
2765	-127.29	09 54 43 Z	10956 Z	Do			
2771	+80.27	20 05 26 Z	2052 Z	Do			
2772	+55.27	21 47 13 Z	2231 Z	Do			

HURRICANE "OLIVIA" – 10/23/75 (0000Z – 2400Z)



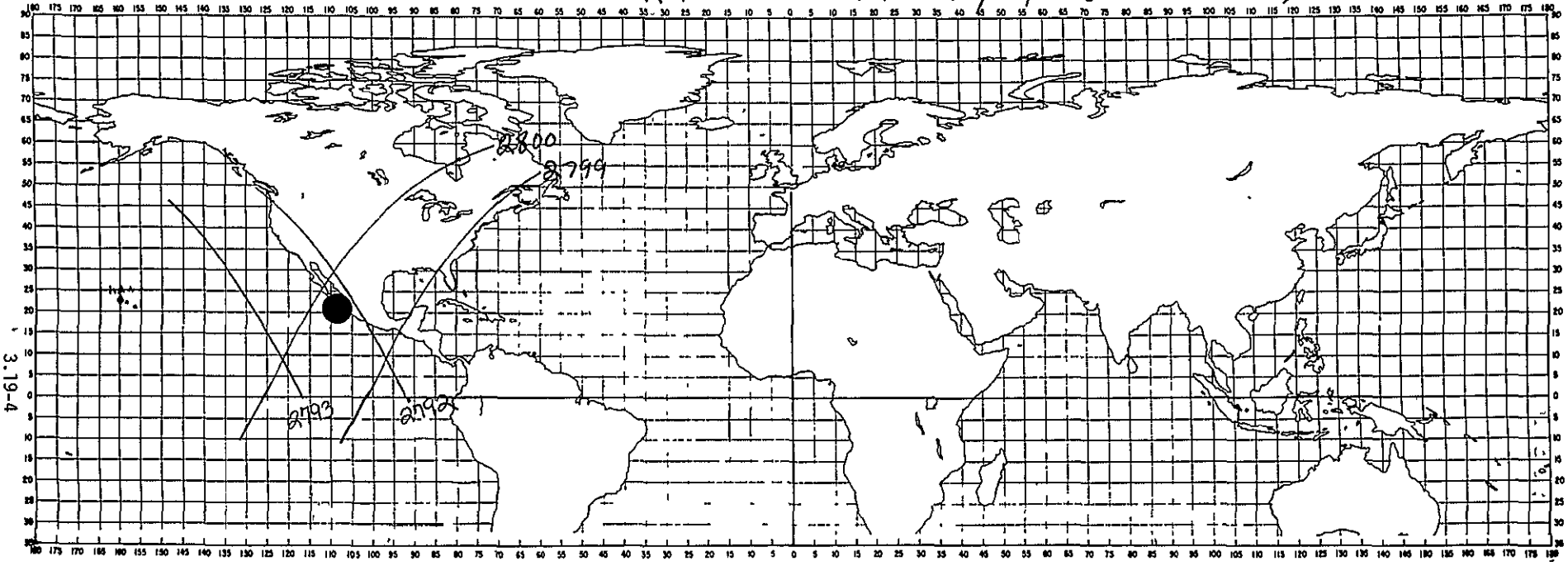
LOCATION

TROPICAL STORM/HURRICANE (1800Z)

TIME	LATITUDE	LONGITUDE
0000Z	15.6 N	110.8 W
0600Z	16.0	110.9
1200Z	16.4	110.9
1800Z	17.0	110.8
2400Z	17.6	110.5

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2777	-71.17	06 1 08 Z	0626Z	062057	062640	802	451
2778	-96.49	07 55 55 Z	0802Z	No			
2779	-121.82	09 39 43 Z	0942Z	No			
2785	+86.24	19 50 25 Z	2037Z	203042	205702	802	456
2786	+60.92	21 32 12 Z	2216Z	No			

HURRICANE "OLIVIA" - 10/24/75 (0000Z - 2400Z)

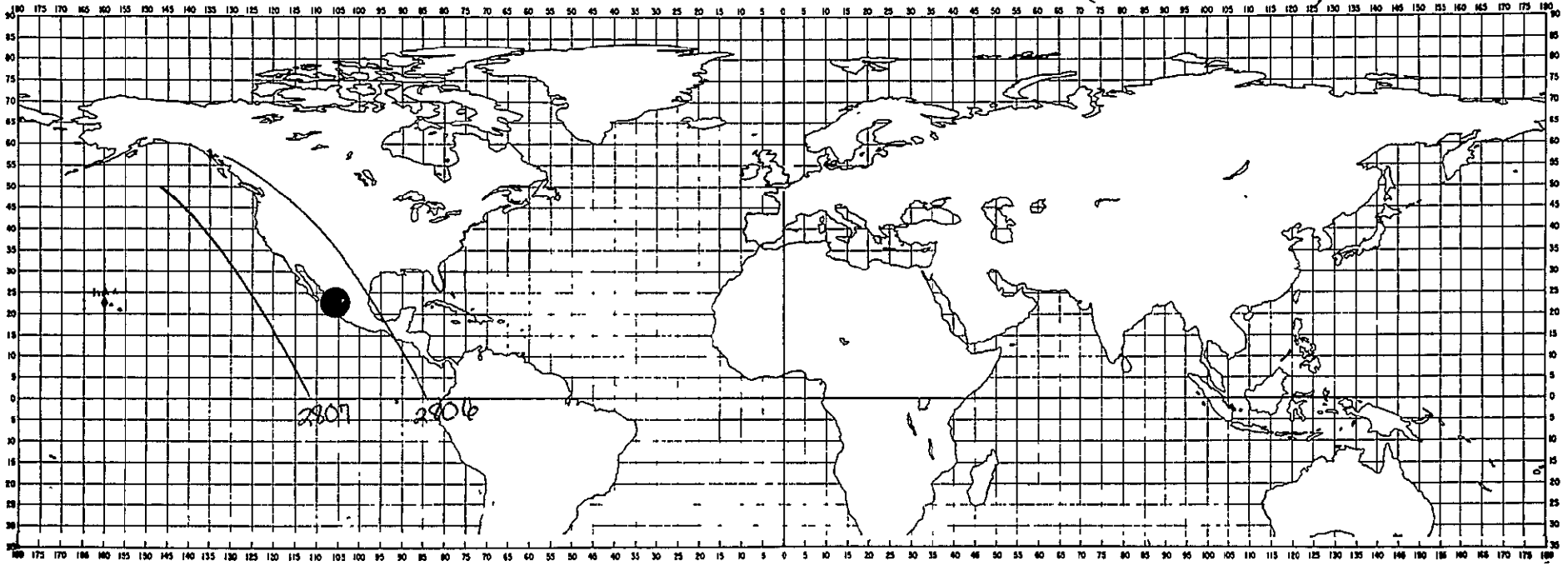


LOCATION
HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	17.6N	110.5W
0600Z	18.8	110.0
1200Z	20.0	109.3
1800Z	21.2	108.3
2400Z	22.2	107.3

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2792	-91.02	07 42 55 Z	0750Z	Do			
2793	-116.34	09 24 42 Z	0928Z	Do			
2799	+91.72	19 35 24 Z	2022Z	Do			
2800	+66.40	21 17 11 Z	2201Z	Do			

HURRICANE "OLIVIA" - 10/25/75 (0000Z - 0600Z)



3.19-5

LOCATION
HURRICANE

TIME	LATITUDE	LONGITUDE
0000Z	22.2N	107.3W
0600Z*	23.2	106.3

ORBIT	EQUATOR CROSSING	TIME OF EQUATOR CROSSING	APPROXIMATE PCA	ON	OFF	MODE	UNIQ.#
2806	-85.55	07 27 54 Z	0736 Z	No			
2807	-110.87	09 09 41 Z	0914 Z	No			

* At this time, storm reached wind velocity of 100 knots; however, no further data was provided