



NOAA Technical Memorandum NWS WR-200

ANNUAL DATA AND VERIFICATION TABULATION
EASTERN NORTH PACIFIC TROPICAL STORMS AND HURRICANES 1986

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Salt Lake City, Utah
September 1987

**U.S. DEPARTMENT OF
COMMERCE**

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Atmospheric Administration

National Weather
Service



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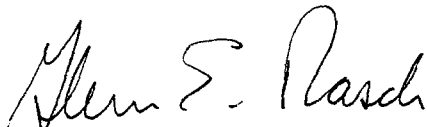
UNITED STATES
DEPARTMENT OF COMMERCE

National Oceanic and
Atmospheric Administration

National Weather
Service
Richard E. Hallgren, Director



This publication has been reviewed
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ANNUAL DATA AND VERIFICATION TABULATION
EASTERN NORTH PACIFIC TROPICAL STORMS AND HURRICANES 1986

I. INTRODUCTION

This is the eighth report of an annual series covering eastern North Pacific tropical cyclone activity. Data are provided by the National Weather Service Eastern Pacific Hurricane Center and the Satellite Field Service Station in San Francisco, California, and the Chief, Aerial Reconnaissance Coordination, all Hurricanes (CARCAH), Miami, Florida.

II. OBJECTIVE FORECAST TECHNIQUES

Tropical cyclone prediction models used by the Eastern Pacific Hurricane Center (EPHC) forecasters include:

1. EPHC77 (Leftwich and Neumann, 1977). A statistical-synoptic model.
2. EPHC81 (Leftwich, 1981). A statistical-dynamic model.
3. EPCLIPER84 (Neumann, 1982). A simulated-analog model based on persistence and climatology. This model was updated in 1984-85 and was first used during the 1986 season. The model development data set was updated to include all storms from 1965 to 1985.
4. EPANALOG85 (Jarrell, Mauck, and Renard, 1975). An analog model. This model also was updated for use in the 1986 season. The data set was updated to include the years 1965 to 1985 instead of the previous set 1949 to 1976. In addition, all analogs chosen must now be within 650 km, as opposed to the previous 1-1/2 degree limit. The analog date must be within 30 days of the current date, whereas previously, analogs from the entire season were used.
5. EPSANBAR (Sanders and Burpee, 1968). A filtered barotropic model.

In addition to the above models, forecasters also make use of NMC analyses and prognoses.

III. VERIFICATION

Verification statistics for the 1986 season are shown in Table 1. The forecast displacement error is the vector difference between the forecast displacement and the actual displacement computed from operational advisory positions. Tropical depressions are not verified.

IV. DATA SUMMARIES

A summary of the 1986 Eastern North Pacific tropical cyclone statistics is given in Table 2. Best track, operational positions, and position errors are given in Tables 3 to 19.

The actual track of a tropical storm consists of two scales of motion. The small scale motion is a trochoidal oscillation about a mean track. The large scale motion is the result of environmental steering forces and is quite conservative. The "best track" positions are constructed by removing the small scale motions. The operational position is real-time storm location, determined while the storm is in progress; the "best track" is based upon past operational positions and updated every 6 hours. Forecast errors are determined from the "best track" positions. The tables on the following pages only include tropical storms and hurricanes, but the storm history for each begins when the system reaches tropical depression status (≥ 25 KTS). Forecast errors are only computed once the tropical depression reaches storm status (≥ 33 KTS), therefore, there may be a lot of zero entries in the tables at the beginning and ending of a storm.

NOAA reconnaissance aircraft flew into two of the Eastern North Pacific tropical cyclones during the 1986 season. On September 21, a NOAA aircraft conducted cloud microphysics experiments around Hurricane Newton. Again on September 30, the NOAA aircraft conducted hurricane-environment experiments and structure of hurricane rainband experiments on Hurricane Paine.

Even as satellite imagery continues to improve and is one of the more important tools used by tropical forecasters, aircraft reconnaissance and ship reports are invaluable in providing comparative observations.

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TABLE 1
1986 FORECAST ERRORS*

| | 24 HR | FORECAST PERIOD | |
|------------------|--------------|-----------------|--------------|
| | | 48 HR | 72 HR |
| EPHC FORECASTERS | 187(101)/203 | 414(224)/160 | 577(312)/114 |
| EPANALOG85 | 198(107)/198 | 422(228)/164 | 592(320)/121 |
| EPHC77 | 189(102)/201 | 394(213)/168 | 564(305)/125 |
| CLIPER84 | 196(106)/202 | 409(221)/168 | 585(316)/125 |
| EPHC81 | 196(106)/92 | 376(203)/76 | 549(297)/58 |

*Average error in kilometers (nautical miles)/number of cases

TABLE 2
Summary of Eastern North Pacific Tropical Cyclones of 1986**
(Includes Only Those Cyclones that Reached Hurricane (HU) or
Tropical Storm (TS) Strength)

| NO. | NAME | CLASS | DATES | MAX WIND (KTS) |
|-----|-----------|-------|--------------|----------------|
| 1. | AGATHA | HU | 22-29 MAY | 65 |
| 2. | BLAS | TS | 17-19 JUN | 35 |
| 3. | CELIA | HU | 24-30 JUN | 75 |
| 4. | DARBY | TS | 3-7 JUL | 35 |
| 5. | ESTELLE | HU | 16-21 JUL | 115 |
| 6. | FRANK | HU | 24 JUL-2 AUG | 75 |
| 7. | GEORGETTE | TS | 2-4 AUG | 35 |
| 8. | HOWARD | TS | 16-18 AUG | 35 |
| 9. | ISIS | TS | 19-24 AUG | 45 |
| 10. | JAVIER | HU | 20-31 AUG | 115 |
| 11. | KAY | TS | 28 AUG-3 SEP | 40 |
| 12. | LESTER | TS | 13-16 SEP | 45 |
| 13. | MADELINE | TS | 15-22 SEP | 60 |
| 14. | NEWTON | HU | 18-23 SEP | 75 |
| 15. | ORLENE | HU | 21-22 SEP | 65 |
| 16. | PAINE | HU | 28 SEP-2 OCT | 80 |
| 17. | ROSLYN | HU | 15-22 OCT | 125 |

**Damage and Death Summaries Are Unknown

AGATHA.....

| DATE/TIME (GMT) | BEST TRACK | | OPERATIONAL POSITION | | POSITION ERROR | 24 HOUR FORECAST ERROR | | | 48 HOUR FORECAST ERROR | | | 72 HOUR FORECAST ERROR | | |
|---------------------------|------------|-------|----------------------|-------|----------------|------------------------|-------|---------|------------------------|-------|---------|------------------------|-------|---------|
| | LAT. | LONG. | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) |
| 52200 | 12.6 | 107.5 | 13.0 | 107.5 | 24.0 | 14.0 | 108.0 | 168. | 14.7 | 108.5 | 331. | 15.7 | 109.1 | 365. |
| 52206 | 12.2 | 107.4 | 13.4 | 107.2 | 72.9 | 14.9 | 106.5 | 236. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 52212 | 11.8 | 107.2 | 13.8 | 106.5 | 126.8 | 14.7 | 104.8 | 226. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 52218 | 11.5 | 106.8 | 11.5 | 105.5 | 75.9 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 52300 | 11.3 | 106.4 | 11.5 | 106.7 | 21.2 | 11.3 | 106.3 | 93. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 52306 | 11.0 | 106.1 | 11.0 | 106.0 | 5.8 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 52312 | 10.7 | 105.6 | 11.0 | 105.5 | 18.9 | 11.4 | 103.9 | 97. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 52318 | 10.5 | 105.2 | 10.5 | 105.0 | 11.5 | 11.0 | 103.3 | 75. | 12.8 | 102.7 | 155. | 15.7 | 101.4 | 67. |
| 52400 | 10.3 | 105.1 | 10.3 | 105.1 | 0.0 | 10.0 | 105.5 | 72. | 10.2 | 106.0 | 375. | 11.3 | 106.6 | 434. |
| 52406 | 10.3 | 105.4 | 10.1 | 105.4 | 12.0 | 10.7 | 107.1 | 223. | 11.7 | 107.6 | 402. | 13.2 | 107.4 | 454. |
| 52412 | 10.7 | 105.0 | 10.4 | 105.2 | 21.4 | 11.0 | 105.4 | 195. | 11.7 | 105.8 | 383. | 13.3 | 106.7 | 457. |
| 52418 | 11.5 | 104.8 | 10.6 | 104.5 | 56.7 | 11.8 | 103.2 | 199. | 13.7 | 102.7 | 197. | 16.8 | 103.6 | 311. |
| 52500 | 12.4 | 104.7 | 11.1 | 105.0 | 79.9 | 12.3 | 105.1 | 238. | 14.0 | 105.8 | 313. | 15.8 | 105.0 | 429. |
| 52506 | 13.2 | 104.5 | 13.4 | 104.5 | 12.0 | 17.1 | 103.5 | 46. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 52512 | 14.1 | 104.3 | 13.9 | 103.9 | 26.1 | 17.2 | 103.2 | 52. | 18.0 | 103.3 | 276. | 0.0 | 0.0 | 0. |
| 52518 | 15.0 | 104.0 | 15.0 | 104.1 | 5.8 | 18.3 | 103.7 | 150. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 52600 | 15.8 | 103.6 | 16.1 | 103.9 | 25.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 52606 | 16.5 | 103.0 | 16.6 | 102.9 | 8.3 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 52612 | 16.6 | 102.2 | 17.1 | 102.3 | 30.6 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 52618 | 16.3 | 101.5 | 16.8 | 101.6 | 30.6 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 52700 | 16.0 | 100.8 | 15.7 | 100.7 | 18.9 | 15.8 | 96.6 | 68. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 52706 | 15.8 | 100.0 | 15.9 | 100.1 | 8.3 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 52712 | 15.5 | 99.2 | 15.6 | 99.2 | 6.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 52718 | 15.3 | 98.4 | 15.4 | 98.4 | 6.0 | 15.3 | 95.7 | 92. | 15.5 | 94.7 | 95. | 15.6 | 93.9 | 0. |
| 52800 | 15.0 | 97.7 | 15.2 | 97.6 | 13.3 | 14.7 | 94.8 | 107. | 14.2 | 93.2 | 0. | 13.3 | 91.6 | 0. |
| 52806 | 14.7 | 97.3 | 15.0 | 97.0 | 25.0 | 15.0 | 94.6 | 101. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 52812 | 14.4 | 97.0 | 14.7 | 96.5 | 34.1 | 14.4 | 95.1 | 38. | 14.1 | 95.6 | 0. | 14.3 | 96.0 | 0. |
| 52818 | 14.1 | 96.8 | 14.3 | 96.9 | 13.3 | 13.6 | 97.7 | 148. | 14.0 | 98.5 | 0. | 14.6 | 97.9 | 0. |
| 52900 | 14.0 | 96.4 | 14.0 | 96.5 | 5.8 | 13.4 | 95.6 | 0. | 13.2 | 94.6 | 0. | 13.1 | 93.3 | 0. |
| 52906 | 13.9 | 96.0 | 14.0 | 96.0 | 6.0 | 14.1 | 94.4 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 52912 | 13.9 | 95.5 | 14.0 | 95.6 | 8.3 | 14.2 | 94.5 | 0. | 15.3 | 94.2 | 0. | 0.0 | 0.0 | 0. |
| 52918 | 0.0 | 0.0 | 14.0 | 95.2 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| MEAN VECTOR ERRORS (N.MI) | | | | | | | | 131. | 281. | | | 360. | | |
| NUMBER OF CASES | | | | | | | | 20 | 9 | | | 7 | | |

TABLE 3

BLAS.....

| DATE/TIME (GMT) | BEST TRACK | | OPERATIONAL POSITION | | POSITION ERROR (N.MI.) | 24 HOUR FORECAST ERROR (N.MI.) | | | 48 HOUR FORECAST ERROR (N.MI.) | | | 72 HOUR FORECAST ERROR (N.MI.) | | |
|---------------------------|------------|-------|-------------------------|-------|------------------------------|--------------------------------------|-------|------|--------------------------------------|-------|----|--------------------------------------|-------|----|
| | LAT. | LONG. | LAT. | LONG. | | LAT. | LONG. | | LAT. | LONG. | | LAT. | LONG. | |
| 61700 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 61706 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 61712 | 8.7 | 112.6 | 8.7 | 112.5 | 5.9 | 8.9 | 116.5 | 111. | 9.3 | 119.9 | 0. | 10.0 | 122.9 | 0. |
| 61718 | 8.8 | 113.8 | 8.7 | 113.4 | 24.4 | 9.0 | 117.4 | 176. | 10.0 | 121.3 | 0. | 10.7 | 125.0 | 0. |
| 61800 | 9.0 | 115.2 | 8.8 | 114.5 | 43.0 | 9.3 | 118.5 | 93. | 9.8 | 120.7 | 0. | 11.2 | 123.6 | 0. |
| 61806 | 9.2 | 116.5 | 9.0 | 116.5 | 12.0 | 9.8 | 121.6 | 93. | 10.2 | 125.6 | 0. | 10.9 | 128.9 | 0. |
| 61812 | 9.6 | 117.7 | 10.0 | 118.0 | 29.8 | 11.4 | 122.5 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 61818 | 10.0 | 118.7 | 11.4 | 119.1 | 87.3 | 17.5 | 124.3 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 61900 | 10.5 | 119.6 | 10.4 | 119.6 | 6.0 | 13.0 | 124.7 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 61906 | 0.0 | 0.0 | 10.9 | 120.5 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 61912 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 61918 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| MEAN VECTOR ERRORS (N.MI) | | | | | | | | 118. | | | 0. | | | |
| NUMBER OF CASES | | | | | | | | 4 | | | 0 | | | |

TABLE 4

CELIA.....

| DATE/TIME (GMT) | BEST TRACK | | OPERATIONAL POSITION | | POSITION ERROR | 24 HOUR FORECAST ERROR | | | 48 HOUR FORECAST ERROR | | | 72 HOUR FORECAST ERROR | | |
|---------------------------|------------|-------|-------------------------|-------|-------------------|---------------------------|-------|---------|---------------------------|-------|---------|---------------------------|-------|---------|
| | LAT. | LONG. | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) |
| 62400 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 62406 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 62412 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 62418 | 10.7 | 97.6 | 10.9 | 97.8 | 16.7 | 10.9 | 101.4 | 61. | 11.8 | 105.7 | 160. | 13.1 | 109.6 | 138. |
| 62500 | 10.6 | 98.3 | 11.4 | 98.3 | 48.0 | 11.4 | 100.3 | 76. | 11.5 | 102.4 | 106. | 11.9 | 106.0 | 289. |
| 62506 | 10.6 | 99.1 | 10.7 | 98.6 | 29.7 | 10.5 | 101.6 | 21. | 10.6 | 105.7 | 145. | 11.2 | 109.7 | 324. |
| 62512 | 10.6 | 99.8 | 10.8 | 99.2 | 36.7 | 11.3 | 101.8 | 31. | 12.1 | 105.0 | 126. | 13.4 | 108.6 | 291. |
| 62518 | 10.6 | 100.5 | 10.4 | 100.5 | 12.0 | 10.8 | 103.2 | 44. | 11.7 | 105.9 | 206. | 13.1 | 109.7 | 398. |
| 62600 | 10.7 | 101.2 | 10.6 | 101.3 | 8.3 | 11.3 | 104.5 | 53. | 12.1 | 107.9 | 230. | 13.1 | 111.3 | 448. |
| 62606 | 10.8 | 101.8 | 10.7 | 101.9 | 8.3 | 11.3 | 104.6 | 112. | 12.4 | 107.6 | 280. | 13.4 | 110.7 | 514. |
| 62612 | 11.1 | 102.5 | 10.8 | 101.9 | 38.8 | 11.4 | 103.8 | 206. | 12.3 | 105.6 | 440. | 13.2 | 108.2 | 0. |
| 62618 | 11.6 | 103.2 | 11.5 | 103.0 | 12.9 | 13.1 | 106.0 | 138. | 14.4 | 109.1 | 336. | 15.3 | 112.3 | 409. |
| 62700 | 12.3 | 104.2 | 12.1 | 104.1 | 13.3 | 13.9 | 107.7 | 134. | 15.1 | 111.4 | 329. | 15.6 | 115.0 | 434. |
| 62706 | 13.0 | 105.4 | 13.0 | 105.4 | 0.0 | 15.5 | 110.2 | 72. | 16.6 | 114.1 | 303. | 16.7 | 117.5 | 417. |
| 62712 | 13.7 | 106.7 | 13.6 | 106.5 | 12.7 | 15.8 | 111.2 | 132. | 16.6 | 115.2 | 0. | 17.2 | 118.6 | 422. |
| 62718 | 14.5 | 107.8 | 14.6 | 107.8 | 6.0 | 16.8 | 112.2 | 167. | 18.0 | 116.5 | 270. | 18.5 | 120.0 | 405. |
| 62800 | 15.6 | 108.8 | 15.8 | 108.9 | 13.2 | 19.5 | 112.8 | 64. | 21.5 | 116.1 | 131. | 22.7 | 119.7 | 0. |
| 62806 | 16.6 | 109.7 | 16.6 | 109.7 | 0.0 | 19.9 | 113.4 | 102. | 21.4 | 116.6 | 143. | 21.8 | 119.4 | 0. |
| 62812 | 17.9 | 110.6 | 17.9 | 110.5 | 5.6 | 21.7 | 113.9 | 0. | 22.7 | 115.7 | 55. | 23.4 | 117.2 | 0. |
| 62818 | 19.2 | 111.5 | 19.5 | 111.5 | 18.0 | 23.7 | 114.9 | 117. | 25.1 | 117.3 | 105. | 25.4 | 119.4 | 0. |
| 62900 | 20.2 | 112.5 | 20.5 | 112.4 | 18.8 | 24.5 | 115.3 | 119. | 26.6 | 117.8 | 0. | 28.1 | 120.6 | 0. |
| 62906 | 20.9 | 113.1 | 21.6 | 113.3 | 43.5 | 25.3 | 116.7 | 160. | 28.0 | 117.7 | 0. | 29.3 | 116.5 | 0. |
| 62912 | 21.6 | 113.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 62918 | 22.2 | 114.0 | 21.9 | 114.1 | 18.8 | 23.0 | 115.8 | 60. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 63000 | 22.7 | 114.4 | 22.8 | 114.2 | 12.7 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 63006 | 23.2 | 114.9 | 23.2 | 114.9 | 0.0 | 25.5 | 116.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 63012 | 23.6 | 115.4 | 23.6 | 115.5 | 5.6 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 63018 | 24.0 | 115.8 | 24.0 | 115.8 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| MEAN VECTOR ERRORS (N.MI) | | | | | | | | 98. | 210. | | | 374. | | |
| NUMBER OF CASES | | | | | | | | 19 | 16 | | | 12 | | |

TABLE 5

DARBY.....

| DATE/TIME (GMT) | BEST TRACK | | OPERATIONAL POSITION | | POSITION ERROR | 24 HOUR FORECAST ERROR | | | 48 HOUR FORECAST ERROR | | | 72 HOUR FORECAST ERROR | | | | |
|---------------------------|------------|-------|-------------------------|-------|-------------------|---------------------------|-------|---------|---------------------------|-------|---------|---------------------------|-------|---------|--|------|
| | LAT. | LONG. | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | | |
| 7 300 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 7 306 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 7 312 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 7 318 | 13.5 | 104.5 | 13.3 | 104.6 | 13.3 | 13.5 | 109.4 | 147. | 14.5 | 113.3 | 238. | 15.2 | 117.7 | 274. | | |
| 7 400 | 14.0 | 105.7 | 13.6 | 105.4 | 29.5 | 14.3 | 109.5 | 128. | 15.5 | 113.4 | 202. | 16.7 | 117.4 | 170. | | |
| 7 406 | 14.5 | 106.6 | 14.1 | 106.5 | 24.7 | 15.9 | 110.5 | 78. | 17.3 | 114.0 | 106. | 17.8 | 117.0 | 84. | | |
| 7 412 | 15.1 | 107.5 | 14.7 | 107.7 | 26.6 | 16.4 | 111.7 | 99. | 17.5 | 115.0 | 138. | 18.3 | 118.0 | 55. | | |
| 7 418 | 15.5 | 108.4 | 15.7 | 108.3 | 13.3 | 18.0 | 111.8 | 12. | 19.9 | 114.8 | 53. | 21.5 | 117.0 | 138. | | |
| 7 500 | 16.0 | 109.3 | 16.4 | 109.1 | 26.5 | 18.9 | 112.3 | 12. | 20.3 | 115.2 | 80. | 21.4 | 118.4 | 0. | | |
| 7 506 | 16.7 | 110.0 | 16.5 | 109.3 | 41.1 | 18.3 | 111.5 | 121. | 19.8 | 113.6 | 196. | 0.0 | 0.0 | 0. | | |
| 7 512 | 17.4 | 110.8 | 16.7 | 110.0 | 61.5 | 17.6 | 112.1 | 161. | 18.5 | 114.0 | 220. | 19.4 | 116.0 | 0. | | |
| 7 518 | 18.1 | 111.5 | 18.2 | 111.8 | 17.9 | 20.4 | 115.2 | 78. | 23.1 | 117.8 | 217. | 0.0 | 0.0 | 0. | | |
| 7 600 | 18.7 | 112.3 | 18.7 | 112.3 | 0.0 | 22.2 | 114.3 | 204. | 24.2 | 115.2 | 0. | 0.0 | 0.0 | 0. | | |
| 7 606 | 19.0 | 113.2 | 19.0 | 113.5 | 16.9 | 21.8 | 116.5 | 159. | 23.5 | 118.5 | 0. | 0.0 | 0.0 | 0. | | |
| 7 612 | 19.1 | 114.2 | 19.6 | 114.0 | 32.0 | 23.0 | 114.5 | 293. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 7 618 | 19.2 | 115.2 | 19.1 | 115.2 | 6.0 | 19.3 | 118.8 | 36. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 7 700 | 19.2 | 116.0 | 19.2 | 116.0 | 0.0 | 19.4 | 119.4 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 7 706 | 19.3 | 116.8 | 19.2 | 117.0 | 12.7 | 19.3 | 120.5 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 7 712 | 19.4 | 117.6 | 19.2 | 117.8 | 16.4 | 19.4 | 121.3 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 7 718 | 19.5 | 118.2 | 19.5 | 118.2 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| MEAN VECTOR ERRORS (N.MI) | | | | | | | | 118. | | | | 161. | | | | 144. |
| NUMBER OF CASES | | | | | | | | 13 | | | | 9 | | | | 5 |

TABLE 6

ESTELLE.....

| DATE/TIME (GMT) | BEST TRACK | | OPERATIONAL POSITION | | POSITION ERROR (N.MI.) | 24 HOUR FORECAST | | | 48 HOUR FORECAST | | | 72 HOUR FORECAST | | | | |
|---------------------------|------------|-------|-------------------------|-------|------------------------------|------------------|-------|------------------|------------------|-------|------------------|------------------|-------|------------------|--|------|
| | LAT. | LONG. | LAT. | LONG. | | LAT. | LONG. | ERROR (N.MI.) | LAT. | LONG. | ERROR (N.MI.) | LAT. | LONG. | ERROR (N.MI.) | | |
| 71600 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 71606 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 71612 | 10.3 | 115.0 | 10.0 | 115.5 | 34.3 | 11.0 | 119.2 | 43. | 12.2 | 122.7 | 59. | 13.3 | 126.2 | 111. | | |
| 71618 | 10.3 | 116.3 | 9.8 | 116.1 | 32.2 | 11.0 | 119.4 | 71. | 12.0 | 122.0 | 157. | 13.1 | 124.6 | 284. | | |
| 71700 | 10.4 | 117.4 | 10.2 | 117.8 | 26.2 | 11.0 | 122.2 | 46. | 12.2 | 126.3 | 42. | 13.6 | 130.2 | 71. | | |
| 71706 | 10.7 | 118.5 | 10.3 | 119.3 | 52.5 | 10.9 | 124.1 | 107. | 11.7 | 128.5 | 118. | 12.5 | 132.5 | 98. | | |
| 71712 | 11.0 | 119.6 | 10.6 | 119.8 | 26.7 | 11.4 | 124.2 | 56. | 12.4 | 128.5 | 59. | 13.6 | 132.7 | 100. | | |
| 71718 | 11.3 | 120.6 | 11.5 | 120.5 | 13.3 | 14.4 | 123.3 | 132. | 16.7 | 126.3 | 246. | 18.3 | 128.7 | 475. | | |
| 71800 | 11.6 | 121.6 | 11.6 | 121.7 | 5.8 | 12.7 | 125.9 | 6. | 13.4 | 129.8 | 96. | 13.5 | 133.8 | 270. | | |
| 71806 | 11.9 | 122.7 | 11.9 | 122.6 | 5.8 | 13.0 | 126.5 | 24. | 14.1 | 130.3 | 145. | 15.1 | 134.0 | 365. | | |
| 71812 | 12.2 | 123.7 | 12.2 | 123.7 | 0.0 | 13.3 | 128.0 | 6. | 14.5 | 131.9 | 134. | 15.6 | 135.6 | 0. | | |
| 71818 | 12.5 | 124.7 | 12.6 | 124.6 | 8.3 | 14.3 | 128.1 | 79. | 15.4 | 130.8 | 309. | 17.1 | 133.6 | 0. | | |
| 71900 | 12.8 | 125.8 | 12.7 | 125.8 | 6.0 | 13.7 | 130.1 | 76. | 14.6 | 134.0 | 240. | 15.0 | 138.0 | 0. | | |
| 71906 | 13.0 | 126.9 | 12.9 | 126.9 | 6.0 | 13.8 | 131.2 | 95. | 14.0 | 135.0 | 319. | 13.9 | 139.0 | 0. | | |
| 71912 | 13.4 | 128.1 | 13.3 | 128.1 | 6.0 | 14.1 | 132.8 | 83. | 14.2 | 137.6 | 0. | 14.2 | 142.0 | 0. | | |
| 71918 | 13.7 | 129.7 | 13.9 | 129.4 | 21.1 | 15.5 | 134.5 | 102. | 17.3 | 139.8 | 0. | 19.4 | 143.0 | 0. | | |
| 72000 | 13.9 | 131.3 | 13.8 | 131.4 | 8.3 | 14.3 | 137.7 | 59. | 14.6 | 142.7 | 0. | 15.1 | 147.6 | 0. | | |
| 72006 | 14.2 | 132.9 | 14.1 | 132.8 | 8.3 | 14.6 | 139.0 | 89. | 14.9 | 143.5 | 0. | 15.0 | 147.2 | 0. | | |
| 72012 | 14.6 | 134.6 | 14.4 | 134.2 | 26.1 | 15.0 | 140.1 | 0. | 15.2 | 145.5 | 0. | 16.0 | 150.8 | 0. | | |
| 72018 | 15.0 | 136.3 | 14.8 | 136.1 | 16.7 | 16.0 | 142.2 | 0. | 17.0 | 148.2 | 0. | 18.9 | 152.1 | 0. | | |
| 72100 | 15.2 | 138.2 | 15.2 | 138.1 | 5.8 | 15.6 | 144.6 | 0. | 15.8 | 150.8 | 0. | 16.0 | 156.2 | 0. | | |
| 72106 | 15.4 | 140.3 | 15.4 | 140.3 | 0.0 | 15.9 | 148.1 | 0. | 16.6 | 155.0 | 0. | 17.5 | 159.5 | 0. | | |
| 72112 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 72118 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| MEAN VECTOR ERRORS (N.MI) | | | | | | | | 67. | | | | 160. | | | | 222. |
| NUMBER OF CASES | | | | | | | | 16 | | | | 12 | | | | 8 |

TABLE 7

FRANK.....

| DATE/TIME (GMT) | BEST TRACK | | OPERATIONAL POSITION | | POSITION ERROR | 24 HOUR FORECAST ERROR | | | 48 HOUR FORECAST ERROR | | | 72 HOUR FORECAST ERROR | | | | | | |
|---------------------------|------------|-------|-------------------------|-------|-------------------|---------------------------|-------|---------|---------------------------|-------|---------|---------------------------|-------|---------|--|--|--|------|
| | LAT. | LONG. | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | | | | |
| 72400 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | | | |
| 72406 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | | | |
| 72412 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | | | |
| 72418 | 11.1 | 94.9 | 10.6 | 94.7 | 32.2 | 10.7 | 99.2 | 137. | 11.0 | 103.6 | 185. | 11.5 | 108.1 | 280. | | | | |
| 72500 | 11.3 | 96.1 | 11.3 | 96.0 | 5.8 | 12.1 | 100.4 | 46. | 13.1 | 104.5 | 183. | 14.2 | 108.7 | 268. | | | | |
| 72506 | 11.7 | 97.3 | 12.0 | 97.0 | 24.9 | 14.3 | 101.3 | 115. | 16.8 | 105.3 | 280. | 20.4 | 106.7 | 568. | | | | |
| 72512 | 11.9 | 98.1 | 12.3 | 98.2 | 24.7 | 13.8 | 102.6 | 64. | 15.7 | 106.2 | 262. | 0.0 | 0.0 | 0. | | | | |
| 72518 | 12.1 | 100.1 | 12.6 | 100.5 | 37.9 | 14.0 | 105.7 | 63. | 15.3 | 110.3 | 119. | 16.0 | 115.0 | 171. | | | | |
| 72600 | 12.5 | 101.6 | 12.6 | 101.0 | 35.4 | 12.9 | 105.8 | 113. | 13.5 | 110.1 | 189. | 14.1 | 114.5 | 239. | | | | |
| 72606 | 12.8 | 103.0 | 12.5 | 102.0 | 60.6 | 13.8 | 106.5 | 146. | 14.9 | 110.1 | 233. | 16.6 | 113.9 | 379. | | | | |
| 72612 | 13.1 | 104.5 | 12.9 | 103.2 | 76.2 | 14.1 | 107.9 | 145. | 15.2 | 112.1 | 196. | 16.3 | 116.3 | 308. | | | | |
| 72618 | 13.4 | 106.0 | 13.0 | 106.0 | 24.0 | 13.5 | 112.3 | 45. | 13.9 | 116.8 | 26. | 14.0 | 121.4 | 80. | | | | |
| 72700 | 13.7 | 107.5 | 13.6 | 107.6 | 8.3 | 14.8 | 113.0 | 51. | 16.0 | 116.4 | 167. | 17.3 | 119.8 | 253. | | | | |
| 72706 | 13.9 | 109.0 | 13.8 | 109.0 | 6.0 | 14.5 | 114.9 | 60. | 15.4 | 119.2 | 81. | 15.8 | 123.9 | 41. | | | | |
| 72712 | 13.9 | 110.5 | 14.1 | 110.4 | 13.3 | 14.8 | 115.8 | 64. | 15.7 | 120.7 | 89. | 16.6 | 125.8 | 13. | | | | |
| 72718 | 14.0 | 112.0 | 14.2 | 112.0 | 12.0 | 14.7 | 117.3 | 36. | 15.3 | 121.9 | 46. | 15.9 | 126.6 | 64. | | | | |
| 72800 | 14.1 | 113.3 | 14.0 | 113.3 | 6.0 | 14.6 | 118.5 | 25. | 15.8 | 123.0 | 50. | 17.2 | 128.6 | 13. | | | | |
| 72806 | 14.1 | 114.6 | 14.0 | 114.0 | 35.0 | 14.5 | 118.4 | 94. | 15.1 | 122.1 | 149. | 16.3 | 126.5 | 215. | | | | |
| 72812 | 14.1 | 115.9 | 13.9 | 115.2 | 41.9 | 14.0 | 119.8 | 83. | 14.5 | 124.5 | 133. | 16.0 | 129.0 | 183. | | | | |
| 72818 | 14.2 | 117.2 | 14.1 | 117.2 | 6.0 | 14.2 | 122.5 | 36. | 14.2 | 127.4 | 156. | 14.2 | 132.3 | 236. | | | | |
| 72900 | 14.3 | 118.5 | 14.2 | 118.6 | 8.3 | 14.5 | 124.1 | 51. | 14.9 | 129.1 | 133. | 15.3 | 133.5 | 180. | | | | |
| 72906 | 14.5 | 119.9 | 14.3 | 120.0 | 13.3 | 14.9 | 125.5 | 71. | 15.5 | 130.6 | 112. | 16.0 | 135.2 | 153. | | | | |
| 72912 | 14.8 | 121.1 | 14.3 | 121.2 | 30.5 | 14.4 | 126.2 | 123. | 15.2 | 130.8 | 167. | 16.2 | 135.2 | 144. | | | | |
| 72918 | 15.0 | 122.3 | 14.8 | 122.5 | 16.6 | 15.5 | 127.7 | 83. | 16.1 | 132.8 | 120. | 16.7 | 137.7 | 148. | | | | |
| 73000 | 15.4 | 123.5 | 15.2 | 123.6 | 13.3 | 15.3 | 128.6 | 109. | 15.4 | 133.2 | 175. | 15.5 | 137.5 | 291. | | | | |
| 73006 | 15.9 | 124.8 | 15.7 | 124.6 | 16.6 | 17.5 | 129.2 | 53. | 18.1 | 133.1 | 71. | 18.4 | 136.6 | 0. | | | | |
| 73012 | 16.5 | 126.1 | 16.4 | 125.7 | 23.6 | 17.9 | 130.4 | 63. | 18.5 | 134.4 | 40. | 19.0 | 133.6 | 0. | | | | |
| 73018 | 17.0 | 127.6 | 16.8 | 127.2 | 25.8 | 18.2 | 132.8 | 6. | 18.9 | 137.0 | 62. | 19.2 | 141.1 | 0. | | | | |
| 73100 | 17.3 | 129.1 | 17.1 | 128.8 | 20.9 | 17.2 | 134.9 | 104. | 16.9 | 140.5 | 208. | 16.0 | 145.7 | 0. | | | | |
| 73106 | 17.6 | 130.4 | 17.3 | 130.1 | 24.9 | 17.4 | 135.4 | 87. | 17.4 | 139.8 | 0. | 17.0 | 144.1 | 0. | | | | |
| 73112 | 17.8 | 131.6 | 17.9 | 131.5 | 8.3 | 18.2 | 136.8 | 100. | 18.8 | 141.5 | 0. | 19.4 | 145.8 | 0. | | | | |
| 73118 | 18.1 | 132.8 | 18.1 | 132.8 | 0.0 | 18.9 | 139.3 | 87. | 19.3 | 144.7 | 0. | 19.4 | 149.7 | 0. | | | | |
| 8 100 | 18.5 | 134.1 | 18.3 | 133.5 | 36.3 | 18.9 | 137.5 | 116. | 20.0 | 139.3 | 0. | 22.0 | 141.0 | 0. | | | | |
| 8 106 | 18.9 | 135.3 | 18.4 | 134.3 | 64.5 | 19.0 | 137.7 | 0. | 19.5 | 140.8 | 0. | 20.0 | 144.3 | 0. | | | | |
| 8 112 | 19.3 | 136.6 | 18.6 | 135.1 | 95.4 | 19.1 | 139.0 | 0. | 19.5 | 141.8 | 0. | 19.9 | 144.8 | 0. | | | | |
| 8 118 | 19.7 | 137.9 | 19.5 | 137.9 | 12.0 | 20.1 | 143.1 | 0. | 20.6 | 147.7 | 0. | 21.1 | 151.9 | 0. | | | | |
| 8 200 | 20.2 | 139.1 | 20.1 | 139.1 | 6.0 | 21.6 | 142.2 | 0. | 23.0 | 145.5 | 0. | 0.0 | 0.0 | 0. | | | | |
| 8 206 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | | | |
| 8 212 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | | | |
| 8 218 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | | | |
| MEAN VECTOR ERRORS (N.MI) | | | | | | | | 79. | | | | | 140. | | | | | 202. |
| NUMBER OF CASES | | | | | | | | 30 | | | | | 26 | | | | | 21 |

TABLE 8

GEORGETTE.....

| DATE/TIME (GMT) | BEST TRACK | | OPERATIONAL POSITION | | POSITION ERROR | 24 HOUR FORECAST | | ERROR | 48 HOUR FORECAST | | ERROR | 72 HOUR FORECAST | | ERROR |
|---------------------------|------------|-------|-------------------------|-------|-------------------|------------------|-------|---------|------------------|-------|---------|------------------|-------|---------|
| | LAT. | LONG. | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) |
| 81300 | 9.0 | 133.3 | 9.0 | 133.2 | 5.9 | 9.1 | 138.0 | 86. | 9.3 | 142.3 | 0. | 10.2 | 146.8 | 0. |
| 81306 | 9.0 | 134.7 | 9.0 | 134.5 | 11.9 | 9.0 | 140.0 | 0. | 9.5 | 145.1 | 0. | 9.9 | 150.0 | 0. |
| 81312 | 8.9 | 136.5 | 8.6 | 136.2 | 25.3 | 8.6 | 141.7 | 0. | 9.4 | 146.6 | 0. | 9.9 | 151.2 | 0. |
| 81318 | 8.9 | 138.1 | 8.2 | 137.3 | 63.4 | 8.0 | 142.8 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 81400 | 8.7 | 140.0 | 7.8 | 138.6 | 99.1 | 7.4 | 143.2 | 0. | 7.9 | 146.8 | 0. | 8.9 | 149.8 | 0. |
| 81406 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 81412 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 81418 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| MEAN VECTOR ERRORS (N.MI) | | | | | | | | 86. | | | 0. | | | 0. |
| NUMBER OF CASES | | | | | | | | 1 | | | 0 | | | 0 |

TABLE 9

HOWARD.....

| DATE/TIME (GHT) | BEST TRACK | | OPERATIONAL POSITION | | POSITION ERROR (N.MI.) | 24 HOUR FORECAST | | | 48 HOUR FORECAST | | | 72 HOUR FORECAST | | | |
|---------------------------|------------|-------|-------------------------|-------|------------------------------|------------------|-------|-----------------|------------------|-------|------------------|------------------|-------|------------------|--|
| | LAT. | LONG. | LAT. | LONG. | | LAT. | LONG. | ERROR (N.MI) | LAT. | LONG. | ERROR (N.MI.) | LAT. | LONG. | ERROR (N.MI.) | |
| 81600 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | |
| 81606 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | |
| 81612 | 17.3 | 104.3 | 16.0 | 104.0 | 79.8 | 17.0 | 108.6 | 166. | 17.8 | 112.8 | 353. | 18.3 | 117.6 | 0. | |
| 81618 | 17.8 | 105.7 | 17.8 | 105.7 | 0.0 | 19.5 | 110.6 | 72. | 20.0 | 116.0 | 165. | 21.0 | 118.5 | 0. | |
| 81700 | 18.3 | 107.0 | 18.5 | 107.0 | 12.0 | 21.6 | 112.2 | 13. | 24.1 | 117.1 | 0. | 26.3 | 120.5 | 0. | |
| 81706 | 18.9 | 108.4 | 18.9 | 108.3 | 5.6 | 18.9 | 108.3 | 383. | 23.6 | 117.8 | 0. | 25.0 | 121.7 | 0. | |
| 81712 | 19.7 | 109.8 | 19.6 | 109.6 | 12.7 | 22.2 | 114.5 | 75. | 24.2 | 118.0 | 0. | 26.6 | 121.2 | 0. | |
| 81718 | 20.6 | 111.3 | 20.6 | 111.1 | 11.2 | 24.6 | 117.5 | 124. | 26.2 | 125.0 | 0. | 0.0 | 0.0 | 0. | |
| 81800 | 21.6 | 112.7 | 21.7 | 112.4 | 17.8 | 26.3 | 116.9 | 0. | 28.7 | 118.6 | 0. | 0.0 | 0.0 | 0. | |
| 81806 | 22.4 | 114.0 | 22.4 | 114.0 | 0.0 | 25.5 | 120.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | |
| 81812 | 23.2 | 115.2 | 23.2 | 115.3 | 5.6 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | |
| 81818 | 0.0 | 0.0 | 22.7 | 116.6 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | |
| MEAN VECTOR ERRORS (N.MI) | | | | | | | | 139. | | | | 259. | | | |
| NUMBER OF CASES | | | | | | | | 6 | | | | 2 | | | |

TABLE 10

ISIS.....

| DATE/TIME (GMT) | BEST TRACK | | OPERATIONAL POSITION | | POSITION ERROR (N.MI.) | 24 HOUR FORECAST ERROR | | | 48 HOUR FORECAST ERROR | | | 72 HOUR FORECAST ERROR | | |
|---------------------------|------------|-------|-------------------------|-------|------------------------------|---------------------------|-------|---------|---------------------------|-------|---------|---------------------------|-------|---------|
| | LAT. | LONG. | LAT. | LONG. | | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) |
| 81900 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 81906 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 81912 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 81918 | 15.4 | 114.0 | 15.0 | 115.0 | 61.5 | 15.5 | 119.1 | 51. | 16.5 | 123.0 | 143. | 17.4 | 127.1 | 247. |
| 82000 | 15.5 | 115.0 | 15.0 | 115.4 | 37.6 | 15.2 | 118.8 | 121. | 15.5 | 122.5 | 254. | 15.9 | 126.7 | 385. |
| 82006 | 15.8 | 116.0 | 15.0 | 116.0 | 48.0 | 15.1 | 118.4 | 219. | 15.3 | 120.8 | 393. | 15.7 | 123.1 | 612. |
| 82012 | 16.0 | 117.5 | 15.0 | 117.3 | 61.1 | 15.4 | 120.9 | 180. | 15.7 | 124.8 | 308. | 16.4 | 128.9 | 424. |
| 82018 | 16.4 | 118.8 | 16.3 | 118.8 | 6.0 | 17.3 | 123.7 | 83. | 18.3 | 127.8 | 183. | 19.2 | 131.2 | 243. |
| 82100 | 16.7 | 120.2 | 16.7 | 120.2 | 0.0 | 18.0 | 125.2 | 61. | 19.5 | 129.6 | 119. | 21.0 | 133.3 | 101. |
| 82106 | 17.1 | 121.6 | 17.2 | 121.5 | 8.2 | 18.9 | 126.1 | 21. | 20.2 | 129.8 | 150. | 21.3 | 133.8 | 120. |
| 82112 | 17.7 | 122.9 | 17.7 | 122.9 | 0.0 | 19.7 | 128.5 | 69. | 21.5 | 132.6 | 66. | 0.0 | 0.0 | 0. |
| 82118 | 18.4 | 124.1 | 18.6 | 124.2 | 13.2 | 21.6 | 129.3 | 37. | 23.2 | 133.6 | 106. | 0.0 | 0.0 | 0. |
| 82200 | 19.0 | 125.2 | 19.0 | 125.0 | 11.2 | 21.5 | 128.7 | 84. | 23.0 | 133.0 | 167. | 0.0 | 0.0 | 0. |
| 82206 | 19.7 | 126.4 | 19.2 | 126.3 | 30.5 | 20.1 | 130.2 | 143. | 20.8 | 134.2 | 96. | 0.0 | 0.0 | 0. |
| 82212 | 20.4 | 127.6 | 20.2 | 127.4 | 16.4 | 21.5 | 131.5 | 86. | 22.6 | 134.6 | 0. | 0.0 | 0.0 | 0. |
| 82218 | 21.0 | 128.9 | 21.2 | 128.8 | 13.2 | 23.7 | 132.9 | 152. | 26.0 | 136.1 | 0. | 0.0 | 0.0 | 0. |
| 82300 | 21.6 | 130.2 | 21.4 | 130.2 | 12.0 | 23.6 | 135.1 | 156. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 82306 | 22.0 | 131.6 | 22.2 | 131.4 | 16.4 | 24.1 | 135.6 | 193. | 24.0 | 138.0 | 0. | 0.0 | 0.0 | 0. |
| 82312 | 22.0 | 133.0 | 22.6 | 132.5 | 45.6 | 23.7 | 136.4 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 82318 | 21.6 | 134.1 | 21.7 | 134.6 | 28.6 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 82400 | 21.1 | 135.1 | 21.0 | 135.1 | 6.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 82406 | 0.0 | 0.0 | 20.9 | 135.9 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 82412 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 82418 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| MEAN VECTOR ERRORS (N.MI) | | | | | | | | 110. | 180. | | | 305. | | |
| NUMBER OF CASES | | | | | | | | 15 | 11 | | | 7 | | |

TABLE 11

JAVIER.....

| DATE/TIME (GMT) | BEST TRACK | | OPERATIONAL POSITION | | POSITION ERROR (N.MI.) | 24 HOUR FORECAST ERROR | | | 48 HOUR FORECAST ERROR | | | 72 HOUR FORECAST ERROR | | |
|--------------------|------------|-------|-------------------------|-------|------------------------------|---------------------------|-------|---------|---------------------------|-------|---------|---------------------------|-------|---------|
| | LAT. | LONG. | LAT. | LONG. | | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) |
| 82000 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 82006 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 82012 | 10.0 | 97.2 | 9.5 | 97.4 | 32.2 | 10.5 | 102.2 | 73. | 11.6 | 106.8 | 73. | 12.5 | 111.3 | 92. |
| 82018 | 10.2 | 98.5 | 10.2 | 98.2 | 17.4 | 11.3 | 102.6 | 99. | 13.0 | 106.7 | 111. | 15.0 | 110.8 | 59. |
| 82100 | 10.6 | 99.9 | 10.7 | 99.7 | 13.1 | 12.4 | 104.6 | 63. | 14.3 | 109.9 | 99. | 15.0 | 115.2 | 286. |
| 82106 | 11.0 | 101.2 | 11.1 | 101.5 | 18.3 | 12.9 | 107.0 | 48. | 14.4 | 111.6 | 114. | 16.8 | 115.0 | 308. |
| 82112 | 11.4 | 102.8 | 11.5 | 102.9 | 8.3 | 13.3 | 108.6 | 91. | 15.1 | 114.1 | 252. | 16.8 | 119.0 | 530. |
| 82118 | 11.8 | 104.2 | 11.8 | 104.2 | 0.0 | 14.0 | 110.0 | 130. | 15.6 | 115.0 | 282. | 17.4 | 119.4 | 519. |
| 82200 | 12.0 | 105.5 | 12.0 | 105.6 | 5.8 | 13.3 | 111.3 | 126. | 15.0 | 115.8 | 321. | 16.0 | 120.5 | 556. |
| 82206 | 12.3 | 106.5 | 12.1 | 107.0 | 31.2 | 12.7 | 112.6 | 156. | 13.2 | 117.2 | 433. | 14.4 | 121.2 | 601. |
| 82212 | 12.5 | 107.5 | 11.9 | 108.0 | 46.1 | 12.3 | 112.7 | 168. | 12.8 | 116.6 | 422. | 14.0 | 121.2 | 590. |
| 82218 | 12.8 | 108.6 | 12.4 | 108.5 | 24.7 | 13.0 | 112.0 | 114. | 14.0 | 116.0 | 360. | 15.0 | 120.1 | 474. |
| 82300 | 13.0 | 109.2 | 12.8 | 109.2 | 12.0 | 13.7 | 112.8 | 153. | 14.7 | 116.5 | 354. | 16.0 | 120.4 | 434. |
| 82306 | 13.3 | 109.6 | 13.3 | 110.0 | 22.7 | 15.3 | 112.7 | 157. | 16.8 | 116.0 | 273. | 18.0 | 120.0 | 291. |
| 82312 | 13.6 | 110.0 | 13.5 | 110.1 | 8.2 | 15.2 | 111.7 | 106. | 17.5 | 114.8 | 170. | 19.0 | 117.7 | 99. |
| 82318 | 14.0 | 110.2 | 14.1 | 110.4 | 12.8 | 15.9 | 112.1 | 107. | 17.7 | 114.7 | 124. | 19.2 | 117.7 | 54. |
| 82400 | 14.5 | 110.2 | 14.5 | 110.3 | 5.7 | 16.0 | 111.1 | 67. | 17.2 | 112.4 | 138. | 18.5 | 113.6 | 328. |
| 82406 | 15.1 | 110.1 | 15.0 | 110.0 | 8.2 | 17.3 | 109.0 | 132. | 19.7 | 105.6 | 537. | 0.0 | 0.0 | 0. |
| 82412 | 15.8 | 110.1 | 15.5 | 109.9 | 21.3 | 17.9 | 108.9 | 172. | 20.6 | 105.8 | 592. | 0.0 | 0.0 | 0. |
| 82418 | 16.6 | 110.4 | 16.6 | 110.4 | 0.0 | 19.3 | 111.9 | 66. | 21.5 | 114.7 | 188. | 22.5 | 118.2 | 322. |
| 82500 | 17.1 | 110.8 | 17.1 | 110.9 | 5.6 | 18.9 | 112.3 | 76. | 20.0 | 114.4 | 265. | 20.4 | 116.2 | 495. |
| 82506 | 17.6 | 111.4 | 17.5 | 111.3 | 8.2 | 19.2 | 113.7 | 80. | 20.7 | 116.1 | 265. | 21.9 | 118.8 | 421. |
| 82512 | 18.0 | 112.1 | 18.1 | 111.9 | 12.7 | 20.0 | 114.5 | 101. | 21.5 | 117.0 | 285. | 22.8 | 119.0 | 479. |
| 82518 | 18.5 | 112.8 | 18.5 | 112.7 | 5.6 | 20.4 | 115.4 | 131. | 22.0 | 118.3 | 306. | 23.1 | 121.0 | 366. |
| 82600 | 19.1 | 113.8 | 19.2 | 113.6 | 12.5 | 21.2 | 117.1 | 127. | 22.9 | 120.8 | 275. | 25.5 | 123.0 | 427. |
| 82606 | 19.6 | 115.2 | 19.4 | 115.1 | 13.2 | 20.7 | 120.4 | 29. | 22.1 | 125.9 | 92. | 22.4 | 130.0 | 54. |
| 82612 | 19.9 | 116.4 | 20.0 | 116.3 | 8.1 | 21.8 | 120.4 | 115. | 23.5 | 124.0 | 249. | 25.0 | 126.0 | 330. |
| 82618 | 20.1 | 117.7 | 20.1 | 117.7 | 0.0 | 20.4 | 122.5 | 56. | 20.7 | 126.8 | 13. | 20.8 | 130.8 | 102. |
| 82700 | 20.2 | 119.1 | 20.2 | 119.1 | 0.0 | 20.7 | 123.9 | 63. | 21.3 | 125.7 | 191. | 22.3 | 127.2 | 322. |
| 82706 | 20.2 | 120.6 | 20.4 | 120.8 | 16.3 | 21.1 | 126.5 | 34. | 21.8 | 130.6 | 38. | 23.0 | 134.8 | 55. |
| 82712 | 20.3 | 122.1 | 20.6 | 122.0 | 18.8 | 21.7 | 126.6 | 72. | 22.9 | 131.1 | 74. | 24.3 | 134.6 | 70. |
| 82718 | 20.4 | 123.5 | 20.4 | 123.5 | 0.0 | 20.7 | 128.6 | 90. | 20.9 | 133.6 | 107. | 21.0 | 138.1 | 233. |
| 82800 | 20.5 | 124.9 | 20.5 | 125.0 | 5.5 | 20.9 | 130.2 | 63. | 21.3 | 132.7 | 62. | 22.2 | 134.8 | 140. |
| 82806 | 20.6 | 126.1 | 20.6 | 126.2 | 5.5 | 21.2 | 131.5 | 86. | 22.1 | 136.2 | 144. | 22.7 | 139.7 | 193. |
| 82812 | 20.8 | 127.2 | 20.7 | 127.3 | 8.1 | 21.2 | 131.3 | 41. | 22.2 | 135.0 | 60. | 23.0 | 138.0 | 0. |
| 82818 | 20.9 | 128.1 | 20.6 | 127.0 | 63.1 | 21.0 | 129.3 | 167. | 22.2 | 131.6 | 228. | 23.9 | 133.4 | 0. |
| 82900 | 21.1 | 129.1 | 21.1 | 129.1 | 0.0 | 22.0 | 132.7 | 25. | 23.1 | 135.9 | 67. | 24.2 | 139.2 | 0. |
| 82906 | 21.4 | 130.1 | 21.5 | 130.0 | 9.1 | 22.9 | 133.3 | 28. | 24.1 | 137.3 | 36. | 24.7 | 141.3 | 0. |
| 82912 | 21.7 | 131.0 | 21.7 | 130.8 | 11.0 | 22.8 | 134.0 | 60. | 23.9 | 137.0 | 0. | 24.5 | 140.3 | 0. |
| 82918 | 22.0 | 132.0 | 22.0 | 132.1 | 5.5 | 23.2 | 135.7 | 47. | 25.0 | 139.0 | 0. | 0.0 | 0.0 | 0. |
| 83000 | 22.3 | 133.0 | 22.3 | 133.0 | 0.0 | 23.7 | 136.9 | 53. | 25.0 | 140.0 | 0. | 0.0 | 0.0 | 0. |
| 83006 | 22.7 | 133.8 | 23.0 | 133.8 | 18.0 | 25.4 | 137.5 | 66. | 27.5 | 140.3 | 0. | 0.0 | 0.0 | 0. |
| 83012 | 23.2 | 134.6 | 23.2 | 135.0 | 22.0 | 25.1 | 139.0 | 0. | 26.7 | 143.0 | 0. | 0.0 | 0.0 | 0. |
| 83018 | 23.8 | 135.5 | 23.9 | 135.3 | 12.5 | 26.7 | 137.7 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 83100 | 24.2 | 136.4 | 24.2 | 136.1 | 16.5 | 25.6 | 138.4 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 83106 | 24.5 | 137.4 | 24.5 | 136.8 | 33.0 | 25.2 | 138.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 83112 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 83118 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |

MEAN VECTOR ERRORS (N.MI.)
NUMBER OF CASES

91.
40

211.
36

308.
30

KAY.....

| DATE/TIME (GMT) | BEST TRACK | | OPERATIONAL POSITION | | POSITION ERROR (N.MI.) | 24 HOUR FORECAST | | ERROR (N.MI.) | 48 HOUR FORECAST | | ERROR (N.MI.) | 72 HOUR FORECAST | | ERROR (N.MI.) | | | |
|---------------------------|------------|-------|-------------------------|-------|------------------------------|------------------|-------|------------------|------------------|-------|------------------|------------------|-------|------------------|--|--|--|
| | LAT. | LONG. | LAT. | LONG. | | LAT. | LONG. | | LAT. | LONG. | | LAT. | LONG. | | | | |
| 82800 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | | |
| 82806 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | | |
| 82812 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | | |
| 82818 | 18.1 | 112.3 | 18.0 | 113.2 | 51.1 | 18.5 | 115.4 | 82. | 19.6 | 118.9 | 172. | 20.9 | 122.2 | 156. | | | |
| 82900 | 18.1 | 112.7 | 18.0 | 115.9 | 181.3 | 18.7 | 120.0 | 303. | 19.1 | 122.1 | 292. | 19.8 | 124.0 | 143. | | | |
| 82906 | 18.1 | 113.2 | 18.1 | 116.8 | 203.7 | 18.6 | 119.9 | 285. | 19.4 | 122.8 | 300. | 20.2 | 125.7 | 187. | | | |
| 82912 | 18.2 | 113.6 | 17.7 | 115.0 | 84.8 | 18.2 | 118.7 | 211. | 19.2 | 122.3 | 220. | 20.0 | 125.8 | 166. | | | |
| 82918 | 18.2 | 114.0 | 18.2 | 114.0 | 0.0 | 18.5 | 116.0 | 17. | 19.6 | 118.6 | 103. | 20.9 | 121.0 | 302. | | | |
| 83000 | 18.2 | 114.5 | 18.2 | 114.7 | 11.3 | 18.1 | 116.9 | 25. | 18.5 | 119.4 | 132. | 19.4 | 122.0 | 306. | | | |
| 83006 | 18.2 | 115.1 | 18.3 | 114.9 | 12.8 | 18.3 | 117.3 | 21. | 18.6 | 120.0 | 159. | 19.2 | 123.0 | 296. | | | |
| 83012 | 18.3 | 115.7 | 18.4 | 115.0 | 40.0 | 18.7 | 116.6 | 109. | 19.0 | 118.7 | 276. | 19.3 | 121.5 | 453. | | | |
| 83018 | 18.4 | 116.3 | 18.3 | 116.2 | 8.2 | 18.6 | 118.7 | 94. | 19.5 | 121.4 | 262. | 20.6 | 124.0 | 309. | | | |
| 83100 | 18.5 | 117.0 | 18.5 | 117.0 | 0.0 | 18.8 | 119.8 | 108. | 19.2 | 122.7 | 266. | 20.3 | 125.6 | 221. | | | |
| 83106 | 18.5 | 117.8 | 18.5 | 117.6 | 11.3 | 18.9 | 120.5 | 131. | 19.5 | 123.6 | 261. | 20.3 | 127.1 | 163. | | | |
| 83112 | 18.6 | 118.9 | 18.5 | 118.5 | 23.4 | 18.7 | 121.6 | 111. | 19.0 | 124.8 | 269. | 19.4 | 128.0 | 157. | | | |
| 83118 | 18.7 | 120.3 | 19.0 | 120.3 | 18.0 | 19.9 | 125.1 | 70. | 21.1 | 129.6 | 109. | 23.0 | 133.7 | 0. | | | |
| 9 100 | 18.8 | 121.7 | 18.8 | 121.7 | 0.0 | 19.5 | 126.4 | 57. | 20.5 | 130.7 | 77. | 21.5 | 134.8 | 0. | | | |
| 9 106 | 18.9 | 123.0 | 18.7 | 122.8 | 16.5 | 18.4 | 127.4 | 95. | 18.4 | 131.7 | 145. | 18.4 | 136.0 | 0. | | | |
| 9 112 | 19.0 | 124.5 | 18.3 | 123.5 | 70.4 | 17.9 | 127.8 | 145. | 18.1 | 131.1 | 116. | 18.4 | 135.0 | 0. | | | |
| 9 118 | 19.1 | 126.0 | 19.1 | 126.0 | 0.0 | 19.7 | 131.6 | 132. | 20.7 | 136.8 | 0. | 22.2 | 141.4 | 0. | | | |
| 9 200 | 19.3 | 127.3 | 19.4 | 127.4 | 8.2 | 20.3 | 132.3 | 160. | 21.3 | 136.0 | 0. | 0.0 | 0.0 | 0. | | | |
| 9 206 | 19.4 | 128.1 | 19.8 | 128.2 | 24.7 | 20.9 | 131.4 | 89. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | | |
| 9 212 | 19.5 | 128.8 | 19.7 | 129.5 | 41.3 | 20.0 | 134.5 | 214. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | | |
| 9 218 | 19.6 | 129.3 | 19.3 | 129.3 | 18.0 | 19.2 | 131.5 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | | |
| 9 300 | 19.7 | 129.8 | 19.9 | 129.5 | 20.8 | 21.0 | 129.4 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | | |
| 9 306 | 19.8 | 130.3 | 20.2 | 130.0 | 29.4 | 21.9 | 131.1 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | | |
| 9 312 | 20.0 | 130.7 | 20.0 | 130.7 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | | |
| 9 318 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | | |
| MEAN VECTOR ERRORS (N.MI) | | | | | | | | 123. | | | | | 197. | 238. | | | |
| NUMBER OF CASES | | | | | | | | 20 | | | | | 16 | 12 | | | |

TABLE 13

LESTER.....

| DATE/TIME (GMT) | BEST TRACK | | OPERATIONAL POSITION | | POSITION ERROR | 24 HOUR FORECAST ERROR | | | 48 HOUR FORECAST ERROR | | | 72 HOUR FORECAST ERROR | | | | |
|---------------------------|------------|-------|-------------------------|-------|-------------------|---------------------------|-------|---------|---------------------------|-------|---------|---------------------------|-------|---------|--|----|
| | LAT. | LONG. | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | | |
| 91300 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 91306 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 91312 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 91318 | 14.0 | 129.9 | 14.0 | 129.9 | 0.0 | 13.8 | 133.4 | 54. | 13.7 | 136.9 | 192. | 13.7 | 140.3 | 0. | | |
| 91400 | 14.0 | 130.9 | 14.0 | 130.3 | 34.4 | 13.8 | 133.4 | 107. | 13.9 | 136.6 | 190. | 14.3 | 139.7 | 0. | | |
| 91406 | 14.0 | 131.8 | 14.2 | 131.7 | 13.3 | 14.6 | 135.9 | 39. | 14.9 | 139.1 | 186. | 15.3 | 142.7 | 0. | | |
| 91412 | 14.1 | 132.8 | 14.2 | 132.9 | 8.3 | 14.8 | 137.6 | 125. | 15.8 | 141.0 | 168. | 17.2 | 144.9 | 0. | | |
| 91418 | 14.4 | 133.7 | 14.0 | 134.3 | 42.0 | 14.2 | 139.2 | 206. | 14.8 | 143.3 | 0. | 15.3 | 147.5 | 0. | | |
| 91500 | 15.0 | 134.7 | 14.5 | 135.1 | 37.8 | 15.0 | 139.3 | 166. | 15.9 | 143.4 | 0. | 16.8 | 147.3 | 0. | | |
| 91506 | 15.4 | 135.6 | 14.9 | 135.3 | 34.6 | 16.7 | 138.9 | 97. | 18.0 | 141.0 | 0. | 19.8 | 143.9 | 0. | | |
| 91512 | 16.0 | 136.3 | 15.6 | 135.6 | 46.8 | 16.6 | 136.7 | 166. | 17.8 | 138.0 | 0. | 18.7 | 140.0 | 0. | | |
| 91518 | 16.5 | 137.0 | 16.9 | 137.0 | 24.0 | 19.8 | 139.9 | 0. | 21.5 | 143.7 | 0. | 0.0 | 0.0 | 0. | | |
| 91600 | 17.0 | 137.7 | 17.0 | 137.3 | 23.0 | 18.8 | 139.0 | 0. | 20.0 | 141.1 | 0. | 0.0 | 0.0 | 0. | | |
| 91606 | 17.6 | 138.4 | 17.6 | 137.5 | 51.7 | 19.8 | 138.0 | 0. | 21.3 | 137.7 | 0. | 0.0 | 0.0 | 0. | | |
| 91612 | 18.0 | 139.2 | 18.0 | 139.2 | 0.0 | 21.4 | 140.2 | 0. | 23.5 | 140.6 | 0. | 0.0 | 0.0 | 0. | | |
| 91618 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| MEAN VECTOR ERRORS (N.MI) | | | | | | | | 120. | | | | 184. | | | | 0. |
| NUMBER OF CASES | | | | | | | | 8 | | | | 4 | | | | 0 |

TABLE 14

MADLINE.....

| DATE/TIME (GMT) | BEST TRACK | | OPERATIONAL POSITION | | POSITION ERROR (N.MI.) | 24 HOUR FORECAST ERROR | | | 48 HOUR FORECAST ERROR | | | 72 HOUR FORECAST ERROR | | |
|---------------------------|------------|-------|-------------------------|-------|------------------------------|---------------------------|-------|---------|---------------------------|-------|---------|---------------------------|-------|---------|
| | LAT. | LONG. | LAT. | LONG. | | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) |
| 91500 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 91506 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 91512 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 91518 | 12.7 | 103.9 | 13.0 | 104.0 | 18.9 | 13.3 | 108.7 | 84. | 13.9 | 112.8 | 139. | 14.3 | 116.8 | 269. |
| 91600 | 12.5 | 105.4 | 13.1 | 106.0 | 50.0 | 13.5 | 112.0 | 123. | 14.1 | 118.0 | 119. | 16.0 | 122.7 | 100. |
| 91606 | 12.4 | 106.8 | 13.1 | 107.0 | 43.6 | 13.6 | 111.7 | 72. | 14.0 | 116.4 | 93. | 14.2 | 120.4 | 251. |
| 91612 | 12.3 | 108.1 | 13.2 | 108.5 | 58.7 | 13.9 | 113.5 | 93. | 15.1 | 117.8 | 123. | 16.2 | 121.0 | 307. |
| 91618 | 12.3 | 109.6 | 12.2 | 109.6 | 6.0 | 12.6 | 115.0 | 13. | 13.6 | 119.8 | 95. | 15.0 | 124.4 | 267. |
| 91700 | 12.4 | 110.8 | 12.3 | 110.3 | 29.6 | 12.5 | 114.7 | 98. | 13.3 | 119.2 | 242. | 14.5 | 124.0 | 353. |
| 91706 | 12.5 | 112.1 | 12.4 | 111.7 | 23.9 | 12.7 | 116.5 | 74. | 13.5 | 121.3 | 209. | 15.0 | 125.9 | 256. |
| 91712 | 12.6 | 113.4 | 12.5 | 112.8 | 35.1 | 13.1 | 117.2 | 94. | 14.1 | 121.4 | 276. | 15.3 | 125.6 | 279. |
| 91718 | 12.8 | 115.0 | 12.8 | 114.9 | 5.8 | 13.7 | 120.0 | 82. | 14.5 | 124.6 | 258. | 15.3 | 128.7 | 177. |
| 91800 | 13.0 | 116.6 | 13.0 | 116.3 | 17.2 | 14.0 | 122.4 | 52. | 15.2 | 128.6 | 83. | 16.3 | 134.8 | 277. |
| 91806 | 13.2 | 118.2 | 13.1 | 117.7 | 29.2 | 13.8 | 123.1 | 105. | 14.6 | 128.4 | 134. | 16.0 | 133.4 | 265. |
| 91812 | 13.5 | 119.9 | 13.3 | 118.8 | 63.8 | 14.3 | 123.8 | 137. | 15.4 | 128.3 | 141. | 16.8 | 133.1 | 248. |
| 91818 | 14.0 | 121.6 | 13.9 | 121.4 | 12.9 | 15.0 | 127.4 | 93. | 15.8 | 133.0 | 183. | 16.9 | 137.4 | 455. |
| 91900 | 14.4 | 123.2 | 14.4 | 123.2 | 0.0 | 14.9 | 129.6 | 43. | 14.6 | 132.5 | 255. | 14.5 | 135.6 | 469. |
| 91906 | 14.8 | 125.0 | 14.6 | 124.7 | 20.9 | 15.3 | 130.8 | 54. | 15.7 | 134.9 | 341. | 16.0 | 139.9 | 665. |
| 91912 | 14.9 | 126.8 | 14.8 | 126.1 | 40.2 | 15.3 | 131.4 | 127. | 16.0 | 136.3 | 425. | 16.8 | 141.2 | 685. |
| 91918 | 15.0 | 128.4 | 15.1 | 129.0 | 34.6 | 15.6 | 136.0 | 340. | 16.0 | 141.0 | 669. | 16.2 | 145.6 | 0. |
| 92000 | 15.5 | 129.6 | 15.5 | 130.0 | 22.7 | 17.0 | 135.8 | 314. | 18.4 | 140.6 | 639. | 18.8 | 145.8 | 0. |
| 92006 | 16.3 | 130.0 | 16.0 | 130.2 | 21.3 | 18.1 | 132.7 | 157. | 19.7 | 134.9 | 328. | 21.0 | 137.5 | 0. |
| 92012 | 17.0 | 130.3 | 17.0 | 130.1 | 11.4 | 19.8 | 130.7 | 47. | 21.4 | 131.0 | 86. | 22.0 | 131.1 | 0. |
| 92018 | 17.7 | 130.5 | 17.7 | 130.5 | 0.0 | 20.4 | 131.0 | 99. | 23.1 | 131.1 | 0. | 25.7 | 130.7 | 0. |
| 92100 | 18.4 | 130.5 | 18.4 | 130.5 | 0.0 | 21.1 | 130.7 | 116. | 23.7 | 130.5 | 0. | 26.3 | 129.8 | 0. |
| 92106 | 18.7 | 130.2 | 19.2 | 130.2 | 30.0 | 22.0 | 129.3 | 109. | 23.0 | 130.2 | 0. | 0.0 | 0.0 | 0. |
| 92112 | 19.1 | 129.9 | 19.6 | 129.9 | 30.0 | 22.3 | 128.5 | 130. | 24.1 | 128.4 | 0. | 0.0 | 0.0 | 0. |
| 92118 | 19.4 | 129.6 | 19.2 | 129.8 | 16.5 | 20.3 | 129.0 | 0. | 21.4 | 128.2 | 0. | 0.0 | 0.0 | 0. |
| 92200 | 19.8 | 129.3 | 19.6 | 129.4 | 13.3 | 21.1 | 128.8 | 0. | 23.1 | 128.5 | 0. | 0.0 | 0.0 | 0. |
| 92206 | 20.2 | 129.0 | 20.2 | 129.1 | 5.7 | 21.9 | 128.5 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 92212 | 20.5 | 129.8 | 20.5 | 129.8 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 92218 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| MEAN VECTOR ERRORS (N.MI) | | | | | | | | 111. | | | 242. | | | 333. |
| NUMBER OF CASES | | | | | | | | 24 | | | 20 | | | 16 |

TABLE 15

NEWTON.....

| DATE/TIME (GMT) | BEST TRACK | | OPERATIONAL POSITION | | POSITION ERROR | 24 HOUR FORECAST ERROR | | | 48 HOUR FORECAST ERROR | | | 72 HOUR FORECAST ERROR | | | | |
|---------------------------|------------|-------|-------------------------|-------|-------------------|---------------------------|-------|---------|---------------------------|-------|---------|---------------------------|-------|---------|--|------|
| | LAT. | LONG. | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | | |
| 91800 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 91806 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 91812 | 12.4 | 94.5 | 13.0 | 94.0 | 45.9 | 14.7 | 98.2 | 95. | 16.5 | 102.0 | 84. | 18.1 | 106.3 | 48. | | |
| 91818 | 12.7 | 95.8 | 12.3 | 95.9 | 24.7 | 13.1 | 101.0 | 67. | 15.1 | 105.8 | 121. | 17.3 | 109.6 | 253. | | |
| 91900 | 12.9 | 97.0 | 12.8 | 96.8 | 12.8 | 14.3 | 101.2 | 71. | 15.6 | 104.9 | 115. | 16.5 | 109.0 | 300. | | |
| 91906 | 13.3 | 98.2 | 13.0 | 97.6 | 38.4 | 14.4 | 101.1 | 102. | 16.1 | 104.8 | 144. | 17.4 | 108.3 | 277. | | |
| 91912 | 13.6 | 99.6 | 13.2 | 98.7 | 56.2 | 14.3 | 102.5 | 120. | 15.7 | 106.4 | 187. | 17.1 | 110.4 | 347. | | |
| 91918 | 14.1 | 101.0 | 14.2 | 100.8 | 12.7 | 15.8 | 105.2 | 67. | 17.6 | 108.6 | 205. | 18.7 | 113.5 | 363. | | |
| 92000 | 14.8 | 102.0 | 14.8 | 102.3 | 16.6 | 17.5 | 107.3 | 120. | 18.9 | 109.8 | 201. | 21.2 | 110.8 | 207. | | |
| 92006 | 15.3 | 102.9 | 15.3 | 102.6 | 16.6 | 17.1 | 103.9 | 137. | 18.2 | 105.7 | 257. | 19.5 | 107.5 | 367. | | |
| 92012 | 15.9 | 103.8 | 16.1 | 103.4 | 25.0 | 18.6 | 105.4 | 75. | 20.4 | 107.6 | 141. | 21.9 | 109.4 | 253. | | |
| 92018 | 16.7 | 104.6 | 16.5 | 104.3 | 20.4 | 18.6 | 106.9 | 115. | 20.7 | 109.8 | 158. | 22.3 | 112.2 | 0. | | |
| 92100 | 17.5 | 105.2 | 17.5 | 105.2 | 0.0 | 20.4 | 108.6 | 92. | 21.7 | 110.7 | 177. | 23.7 | 111.6 | 0. | | |
| 92106 | 18.5 | 105.9 | 18.2 | 106.0 | 18.8 | 20.2 | 108.3 | 112. | 21.5 | 110.1 | 222. | 22.1 | 112.0 | 0. | | |
| 92112 | 19.4 | 106.4 | 18.8 | 106.7 | 39.6 | 21.7 | 109.4 | 74. | 23.6 | 111.6 | 176. | 24.7 | 113.5 | 0. | | |
| 92118 | 20.3 | 106.8 | 20.5 | 106.7 | 13.2 | 24.0 | 107.1 | 128. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 92200 | 21.2 | 107.3 | 21.2 | 107.2 | 5.5 | 24.5 | 108.8 | 49. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 92206 | 22.0 | 107.7 | 22.0 | 107.8 | 5.5 | 25.3 | 109.9 | 6. | 28.2 | 111.8 | 0. | 0.0 | 0.0 | 0. | | |
| 92212 | 22.8 | 108.4 | 22.6 | 108.5 | 13.2 | 25.2 | 110.8 | 73. | 26.9 | 111.4 | 0. | 0.0 | 0.0 | 0. | | |
| 92218 | 23.6 | 109.1 | 23.3 | 109.3 | 21.1 | 27.4 | 111.2 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 92300 | 24.5 | 109.7 | 24.5 | 109.7 | 0.0 | 28.2 | 111.7 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 92306 | 25.2 | 109.9 | 25.2 | 109.9 | 0.0 | 28.3 | 111.6 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 92312 | 26.1 | 109.9 | 26.1 | 109.9 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 92318 | 26.7 | 109.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| MEAN VECTOR ERRORS (N.MI) | | | | | | | | 88. | | | | 168. | | | | 268. |
| NUMBER OF CASES | | | | | | | | 17 | | | | 13 | | | | 9 |

TABLE 16

ORLELE.....

| DATE/TIME (GMT) | BEST TRACK | | OPERATIONAL POSITION | | POSITION ERROR (N.MI.) | 24 HOUR FORECAST | | | 48 HOUR FORECAST | | | 72 HOUR FORECAST | | |
|---------------------------|------------|-------|-------------------------|-------|------------------------------|------------------|-------|-----------------|------------------|-------|------------------|------------------|-------|------------------|
| | LAT. | LONG. | LAT. | LONG. | | LAT. | LONG. | ERROR (N.MI) | LAT. | LONG. | ERROR (N.MI.) | LAT. | LONG. | ERROR (N.MI.) |
| 92100 | 12.0 | 138.7 | 12.1 | 138.7 | 6.0 | 16.4 | 139.4 | 172. | 18.8 | 140.7 | 0. | 21.2 | 142.6 | 0. |
| 92106 | 12.4 | 138.9 | 12.3 | 139.2 | 18.4 | 14.0 | 140.8 | 0. | 16.2 | 141.7 | 0. | 0.0 | 0.0 | 0. |
| 92112 | 12.9 | 139.2 | 12.7 | 139.0 | 16.7 | 14.8 | 139.8 | 0. | 16.5 | 140.1 | 0. | 18.5 | 141.4 | 0. |
| 92118 | 13.2 | 139.5 | 13.1 | 139.3 | 13.1 | 14.6 | 140.2 | 0. | 16.3 | 141.3 | 0. | 18.5 | 140.3 | 0. |
| 92200 | 13.6 | 140.0 | 13.6 | 140.0 | 0.0 | 15.5 | 141.7 | 0. | 17.5 | 143.2 | 0. | 18.1 | 143.0 | 0. |
| 92206 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 19.7 | 144.0 | 0. |
| 92212 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| 92218 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. |
| MEAN VECTOR ERRORS (N.MI) | | | | | | | | 172. | | | 0. | | | |
| NUMBER OF CASES | | | | | | | | 1 | | | 0 | | | |

TABLE 17

PAINÉ.....

| DATE/TIME (GMT) | BEST TRACK | | OPERATIONAL POSITION | | POSITION ERROR (N.MI.) | 24 HOUR FORECAST ERROR | | | 48 HOUR FORECAST ERROR | | | 72 HOUR FORECAST ERROR | | | | |
|---------------------------|------------|-------|-------------------------|-------|------------------------------|---------------------------|-------|---------|---------------------------|-------|---------|---------------------------|-------|---------|--|------|
| | LAT. | LONG. | LAT. | LONG. | | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | | |
| 92800 | 11.5 | 93.0 | 11.5 | 93.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 92806 | 11.5 | 94.6 | 11.5 | 95.2 | 33.4 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 92812 | 11.6 | 96.2 | 11.5 | 96.7 | 28.4 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 92818 | 11.8 | 97.9 | 11.5 | 98.2 | 24.8 | 12.1 | 104.2 | 56. | 13.0 | 110.7 | 354. | 15.0 | 115.0 | 502. | | |
| 92900 | 12.4 | 99.4 | 12.0 | 101.8 | 137.8 | 13.0 | 107.6 | 94. | 14.6 | 112.0 | 324. | 16.3 | 114.0 | 474. | | |
| 92906 | 13.0 | 100.7 | 12.3 | 103.6 | 168.7 | 13.2 | 110.2 | 165. | 14.7 | 115.2 | 493. | 16.5 | 119.1 | 719. | | |
| 92912 | 13.7 | 102.0 | 12.4 | 105.4 | 206.0 | 13.7 | 110.7 | 126. | 15.0 | 115.5 | 497. | 16.5 | 119.4 | 796. | | |
| 92918 | 14.5 | 103.3 | 12.4 | 105.1 | 161.5 | 13.5 | 111.0 | 336. | 14.7 | 116.3 | 567. | 16.0 | 121.2 | 0. | | |
| 93000 | 15.4 | 104.5 | 13.2 | 106.0 | 156.5 | 14.6 | 112.0 | 324. | 16.3 | 116.9 | 585. | 18.4 | 120.7 | 0. | | |
| 93006 | 16.3 | 105.6 | 14.0 | 107.5 | 174.4 | 16.0 | 112.8 | 341. | 17.4 | 116.8 | 583. | 19.0 | 120.1 | 0. | | |
| 93012 | 17.2 | 106.6 | 14.7 | 108.8 | 194.2 | 16.9 | 113.8 | 347. | 19.0 | 118.3 | 652. | 21.8 | 122.3 | 0. | | |
| 93018 | 18.0 | 107.3 | 18.3 | 108.0 | 43.2 | 22.1 | 111.8 | 153. | 25.3 | 113.3 | 0. | 0.0 | 0.0 | 0. | | |
| 10 100 | 18.9 | 108.0 | 18.5 | 108.1 | 24.6 | 20.9 | 110.0 | 119. | 23.6 | 110.7 | 0. | 0.0 | 0.0 | 0. | | |
| 10 106 | 19.7 | 108.7 | 20.3 | 108.9 | 37.7 | 25.6 | 109.8 | 124. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 10 112 | 20.5 | 109.1 | 20.6 | 109.1 | 6.0 | 23.8 | 109.6 | 95. | 26.6 | 110.2 | 0. | 0.0 | 0.0 | 0. | | |
| 10 118 | 21.5 | 109.2 | 21.3 | 109.2 | 12.0 | 24.3 | 109.1 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 10 200 | 22.5 | 109.1 | 22.7 | 109.1 | 12.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 10 206 | 23.7 | 108.9 | 23.7 | 108.9 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 10 212 | 25.1 | 108.6 | 25.1 | 108.6 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 10 218 | 27.2 | 107.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| MEAN VECTOR ERRORS (N.MI) | | | | | | | | 190. | | | | 507. | | | | 623. |
| NUMBER OF CASES | | | | | | | | 12 | | | | 8 | | | | 4 |

TABLE 18

ROSLYN.....

| DATE/TIME (GMT) | BEST TRACK | | OPERATIONAL POSITION | | POSITION ERROR | 24 HOUR FORECAST ERROR | | | 48 HOUR FORECAST ERROR | | | 72 HOUR FORECAST ERROR | | | | |
|---------------------------|------------|-------|-------------------------|-------|-------------------|---------------------------|-------|---------|---------------------------|-------|---------|---------------------------|-------|---------|--|------|
| | LAT. | LONG. | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | LAT. | LONG. | (N.MI.) | | |
| 101500 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 101506 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 101512 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 101518 | 10.2 | 92.7 | 10.3 | 93.0 | 18.6 | 10.3 | 95.0 | 182. | 10.4 | 97.0 | 431. | 10.5 | 99.0 | 594. | | |
| 101600 | 10.3 | 94.1 | 10.2 | 94.0 | 8.4 | 10.4 | 97.5 | 136. | 11.0 | 101.6 | 241. | 11.7 | 105.6 | 236. | | |
| 101606 | 10.5 | 95.3 | 10.4 | 95.2 | 8.3 | 10.8 | 99.9 | 69. | 12.2 | 104.1 | 159. | 15.9 | 106.8 | 243. | | |
| 101612 | 10.7 | 96.8 | 10.4 | 96.1 | 44.4 | 11.6 | 100.2 | 143. | 13.3 | 104.5 | 204. | 15.6 | 107.8 | 203. | | |
| 101618 | 10.8 | 98.0 | 11.0 | 98.0 | 12.0 | 12.0 | 103.0 | 73. | 13.8 | 107.8 | 101. | 16.0 | 112.3 | 112. | | |
| 101700 | 11.0 | 99.6 | 11.1 | 99.7 | 8.3 | 12.0 | 105.5 | 8. | 13.2 | 110.2 | 48. | 15.4 | 114.3 | 151. | | |
| 101706 | 11.3 | 101.0 | 11.2 | 101.0 | 6.0 | 12.3 | 106.7 | 19. | 13.5 | 110.0 | 8. | 14.5 | 112.3 | 96. | | |
| 101712 | 11.5 | 102.6 | 11.2 | 102.6 | 18.0 | 12.1 | 108.3 | 30. | 13.2 | 112.5 | 109. | 15.4 | 116.0 | 240. | | |
| 101718 | 11.7 | 104.1 | 11.7 | 104.2 | 5.8 | 12.5 | 110.1 | 70. | 13.4 | 116.2 | 292. | 14.2 | 122.1 | 641. | | |
| 101800 | 11.9 | 105.3 | 11.9 | 105.6 | 17.2 | 12.9 | 111.5 | 123. | 14.0 | 116.3 | 277. | 15.2 | 120.7 | 616. | | |
| 101806 | 12.1 | 106.5 | 12.0 | 106.8 | 18.1 | 13.2 | 111.5 | 83. | 14.8 | 116.0 | 228. | 16.2 | 120.1 | 654. | | |
| 101812 | 12.3 | 107.7 | 12.2 | 107.8 | 8.3 | 13.1 | 111.9 | 79. | 14.1 | 115.7 | 264. | 15.8 | 119.3 | 664. | | |
| 101818 | 12.7 | 108.8 | 12.5 | 108.9 | 13.3 | 13.6 | 113.6 | 142. | 15.0 | 118.4 | 425. | 18.5 | 120.0 | 646. | | |
| 101900 | 13.0 | 109.4 | 13.0 | 109.4 | 0.0 | 14.3 | 112.2 | 61. | 15.4 | 114.2 | 300. | 16.9 | 116.0 | 548. | | |
| 101906 | 13.4 | 110.1 | 13.4 | 110.1 | 0.0 | 15.3 | 112.7 | 53. | 16.9 | 115.2 | 386. | 17.6 | 117.5 | 661. | | |
| 101912 | 13.8 | 110.7 | 13.7 | 110.7 | 6.0 | 15.2 | 112.8 | 104. | 16.9 | 114.5 | 397. | 18.7 | 116.2 | 0. | | |
| 101918 | 14.4 | 111.3 | 14.4 | 111.3 | 0.0 | 16.8 | 113.2 | 112. | 18.5 | 114.6 | 363. | 19.8 | 118.0 | 0. | | |
| 102000 | 15.2 | 111.7 | 15.2 | 111.7 | 0.0 | 18.4 | 112.9 | 129. | 22.3 | 112.0 | 217. | 24.8 | 108.1 | 0. | | |
| 102006 | 16.1 | 112.1 | 16.1 | 112.3 | 11.3 | 20.5 | 110.9 | 79. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 102012 | 17.1 | 112.0 | 16.8 | 112.1 | 18.9 | 20.7 | 110.0 | 59. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 102018 | 18.1 | 111.6 | 18.0 | 111.7 | 8.2 | 21.6 | 109.0 | 6. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 102100 | 19.1 | 111.1 | 19.2 | 110.8 | 17.9 | 22.9 | 106.8 | 83. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 102106 | 20.2 | 110.5 | 20.4 | 109.5 | 57.6 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 102112 | 20.8 | 109.8 | 21.0 | 109.0 | 46.6 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 102118 | 21.4 | 109.0 | 21.5 | 109.0 | 6.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 102200 | 22.0 | 108.1 | 22.2 | 108.1 | 12.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 102206 | 22.7 | 107.1 | 22.7 | 107.1 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 102212 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| 102218 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | 0.0 | 0.0 | 0. | | |
| MEAN VECTOR ERRORS (N.MI) | | | | | | | | 84. | | | | 247. | | | | 420. |
| NUMBER OF CASES | | | | | | | | 22 | | | | 18 | | | | 15 |

TABLE 19

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