

UNIVERSITY OF CALIFORNIA   SCRIPPS INSTITUTION OF OCEANOGRAPHY

# data report

PHYSICAL AND CHEMICAL DATA

CalCOFI Cruise 6904  
2-26 April 1969

CalCOFI Cruise 6905  
5-29 May 1969

and

CalCOFI Cruise 6906  
9-28 June 1969

SIO Reference 77-22  
1 November 1977

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9-28 June 1969

Sponsored by

Marine Research Committee

SIO Reference 77-22

Approved for distribution:

*W. A. Nierenberg*  
W. A. Nierenberg, Director

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## INTRODUCTION

The data in this report was collected during cruises 6904\*, 6905 and 6906 of the California Cooperative Oceanic Fisheries Investigations (CalCOFI) program aboard the RV David Starr Jordan, of the Bureau of Commercial Fisheries (now National Marine Fisheries Service), and the RV Alexander Agassiz, of the Scripps Institution of Oceanography. The report preceding this one in the series was SIO Ref. 76-14, which included data for January and February 1969.

This data was collected in part and processed completely by personnel of the Data Collection and Processing Group (DCPG, MLR), Scripps Institution of Oceanography.

## STANDARD PROCEDURES

### Hydrographic Cast Data

The hydrographic casts consisted of 12 to 18 bottles. At most stations the maximum sampling depth was 600 meters, bottom depth permitting. Temperature, oxygen, and nutrients were determined for all depths on each station, but samples from only five selected depths were used to determine salinity for comparison with the STD.

On STD lowerings where hydrographic casts were not made, a Nansen bottle was usually placed on the wire a few meters above the STD and another bottle was lowered to a depth of approximately 10 meters. Temperature, salinity, and nutrients were determined for most of the 10 meter samples. On the RV David Starr Jordan water samples at some stations were collected with a Niskin rosette lowered on the STD cable. Thermometers were used on the deepest Niskin sampler to record the temperature.

In general, paired protected reversing thermometers were used to determine temperatures which were recorded to hundredths of a Celsius degree. Temperatures determined using unprotected (pressure) thermometers or surface "bucket" thermometers were recorded to tenths of a degree. Sample bottles used below 100 meters were equipped with unprotected thermometers.

The salinities for the three cruises included in this report were all determined using Bissett Berman (now Plessey Environmental Systems) Model 6220 inductive salinometers. Difficulty was experienced at times with each salinometer resulting in some values being omitted from the tabulations.

The salinity values were recorded and are reported to three decimal places, provided accepted standards were met. If only one determination per sample was obtained, or there was doubt concerning the accuracy of the analytical results, the salinities are reported to two decimal places. All STD salinities are tabulated to hundredths.

Dissolved oxygen was determined by the Winkler method as modified by Carpenter (1965), using the equipment and procedure outlined by Anderson (1971).

Phosphate, silicate, nitrite and nitrate were determined using a first generation Technicon AutoAnalyzer<sup>R</sup> and methods developed at the Bureau of Commercial Fisheries based on the methodologies of Strickland (1968).

The observed data could not be evaluated using standard DCPG techniques (Klein, 1973) due to the sparsity of salinity data. Oxygen and nutrient values were plotted against depth.

#### In Situ Salinity/Temperature/Depth Recorder (STD) data

The Bissett Berman Model 9006 STD was used on both ships for lowerings on all three cruises. Both ships also used the digital data logger (DDL) Model 8114 for data recording.

The STD and data logger appeared to work well on all cruises included in this report. Comparison of sample bottle observations with the STD data from corresponding depths resulted in the following corrections to the tabulated STD data:

|                       | Temperature °C<br>0-500m | Salinity ‰<br>0-500m |
|-----------------------|--------------------------|----------------------|
| Cruise 6904           |                          |                      |
| RV Alexander Agassiz  | -0.02                    | 0.01                 |
| RV David Starr Jordan | -0.013                   | -0.041               |
| Cruise 6905           |                          |                      |
| RV David Starr Jordan | -0.01                    | -0.02                |
| Cruise 6906           |                          |                      |
| RV David Starr Jordan | none                     | -0.028               |

#### TABULATED DATA

The time reported is Greenwich Mean Time. For STD lowerings it is the "start down" time and for bottle casts it is the time of messenger release. When more than one cast was lowered on a station, the messenger times for

Bottom depths, determined acoustically, have been corrected using Matthews (1939) tables and are reported in meters. The weather and dominant waves are coded using the National Oceanographic Data Center (NODC) method.

Data for all cruises presented in this report was obtained by bottle casts and by the STD, and appear in two forms:

1. Data from the sample bottle casts is tabulated with the observed levels of depth on the left of a page, and standard depth values of temperature and oxygen interpolated from these observations on the right.
2. For each STD lowering, temperature and salinity values are read only at standard levels of depth and appear with computed values of DT and DD on the right of the page. Corrections have been applied to the temperature and salinity values as discussed previously in this report. Nutrient data from samples collected with a Niskin rosette is tabulated at observed levels of depth to the left of the STD data.

The same parameters have been tabulated in this report as in previous reports. The decimal has been omitted from the CalCOFI station number so station 90.65 appears in the tabulated data as 90065. The column headings are to be interpreted as follows:

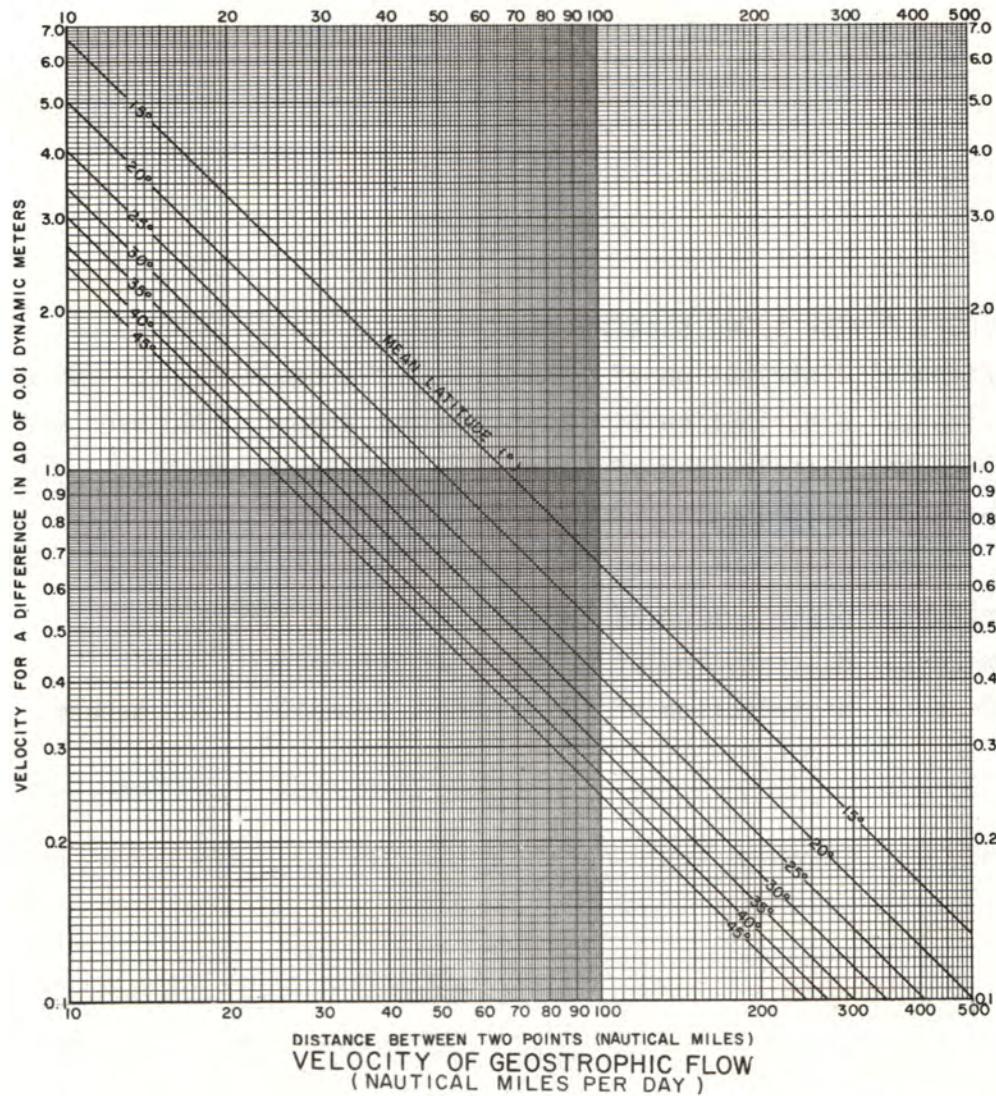
|      |   |             |
|------|---|-------------|
| Z    | Depth   | Meters      |
| T    | Temperature   | °C          |
| S    | Salinity  | ‰           |
| O2   | Dissolved oxygen  | mL/L        |
| P04  | "Reactive" inorganic phosphate-phosphorous  | µg at/L     |
| Si03 | "Reactive" inorganic silicate-silicon   | µg at/L     |
| N02  | "Reactive" nitrite-nitrogen   | µg at/L     |
| N03  | "Reactive" nitrate-nitrogen   | µg at/L     |
| DT   | $\delta_T$ Thermosteric anomaly   | cl/ton      |
| SIGT | $\sigma_t = (\rho_{s,t,0} - 1)10^3$ where $\rho_{s,t,0}$ is the density the parcel would have if moved isothermally to the sea surface. | g/L         |
| DD   | Geopotential anomaly, referred to the sea surface.  | dyn. meters |

#### FOOTNOTES

Data which appears to be in error without obvious reason is reported, but flagged uncertain with a U. Such data was not used in the determination of values at standard depths. Footnotes are used to indicate data which has required special processing.

## REFERENCES

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- University of Washington, 1960. Univ. of Wash. Dept. of Oceanography, Oct. 1960. Tech. Rep. UW Ref. No. 60-18.



| cm/sec | 0               | 1             | 2             | 3             | 4             | 5             | 6             | 7             | 8             | 9             |
|--------|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 0      | KNOTS<br>NM/DAY | 0.02<br>0.47  | 0.04<br>0.93  | 0.06<br>1.40  | 0.08<br>1.86  | 0.10<br>2.33  | 0.12<br>2.80  | 0.14<br>3.26  | 0.16<br>3.73  | 0.17<br>4.20  |
| 10     | 0.19<br>4.66    | 0.21<br>5.13  | 0.23<br>5.59  | 0.25<br>6.06  | 0.27<br>6.53  | 0.29<br>6.99  | 0.31<br>7.46  | 0.33<br>7.93  | 0.35<br>8.39  | 0.37<br>8.86  |
| 20     | 0.39<br>9.32    | 0.41<br>9.79  | 0.43<br>10.26 | 0.45<br>10.72 | 0.47<br>11.19 | 0.49<br>11.66 | 0.51<br>12.12 | 0.52<br>12.59 | 0.54<br>13.05 | 0.56<br>13.52 |
| 30     | 0.58<br>13.99   | 0.60<br>14.45 | 0.62<br>14.92 | 0.64<br>15.38 | 0.66<br>15.85 | 0.68<br>16.32 | 0.70<br>16.78 | 0.72<br>17.25 | 0.74<br>17.72 | 0.76<br>18.18 |
| 40     | 0.78<br>18.65   | 0.80<br>19.11 | 0.82<br>19.58 | 0.84<br>20.05 | 0.85<br>20.51 | 0.87<br>20.98 | 0.89<br>21.45 | 0.91<br>21.91 | 0.93<br>22.38 | 0.95<br>22.84 |
| 50     | 0.97<br>23.31   | 0.99<br>23.78 | 1.01<br>24.24 | 1.03<br>24.71 | 1.05<br>25.17 | 1.07<br>25.64 | 1.09<br>26.11 | 1.11<br>26.57 | 1.13<br>27.04 | 1.15<br>27.51 |
| 60     | 1.17<br>27.98   | 1.18<br>28.44 | 1.20<br>28.90 | 1.22<br>29.37 | 1.24<br>29.84 | 1.26<br>30.30 | 1.28<br>30.77 | 1.30<br>31.24 | 1.32<br>31.70 | 1.34<br>32.17 |
| 70     | 1.36<br>32.63   | 1.38<br>33.10 | 1.40<br>33.57 | 1.42<br>34.03 | 1.44<br>34.50 | 1.46<br>34.96 | 1.48<br>35.43 | 1.50<br>35.90 | 1.52<br>36.36 | 1.53<br>36.83 |
| 80     | 1.55<br>37.30   | 1.57<br>37.76 | 1.59<br>38.23 | 1.61<br>38.69 | 1.63<br>39.16 | 1.65<br>39.63 | 1.67<br>40.09 | 1.69<br>40.56 | 1.71<br>41.03 | 1.73<br>41.49 |
| 90     | 1.75<br>41.96   | 1.77<br>42.42 | 1.79<br>42.89 | 1.81<br>43.36 | 1.83<br>43.82 | 1.85<br>44.29 | 1.86<br>44.76 | 1.88<br>45.22 | 1.90<br>45.69 | 1.92<br>46.15 |
| 100    | 1.94<br>46.62   | 1.96<br>47.09 | 1.98<br>47.55 | 2.00<br>48.02 | 2.02<br>48.48 | 2.04<br>48.95 | 2.06<br>49.42 | 2.08<br>49.88 | 2.10<br>50.35 | 2.12<br>50.82 |

CONVERSION TABLE  
( CENTIMETERS / SECOND - KNOTS - NAUTICAL MILES / DAY )

1 cm/sec = 0.019 kts = 0.466 NAUTICAL MILES / DAY

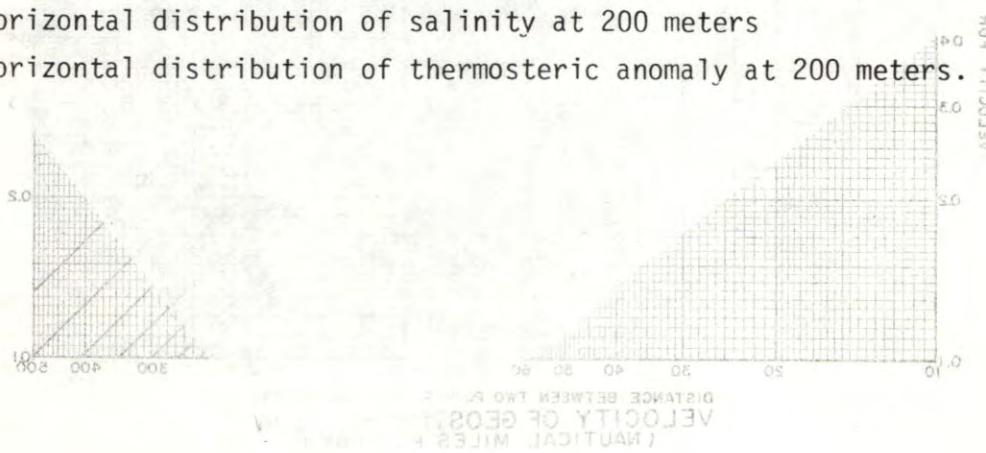
1 kts = 24 NAUTICAL MILES / DAY = 51.48 cm/sec

1 NAUTICAL MILE / DAY = 0.042 kts = 2.14 cm/sec

## FIGURES

### Cruise 6904

1. CalCOFI Cruise 6904, station positions
2. Horizontal distribution of dynamic height anomaly (0 over 500 d-bar)
3. Horizontal distribution of dynamic height anomaly (200 over 500 d-bar)
4. Horizontal distribution of temperature at 10 meters
5. Horizontal distribution of salinity at 10 meters
6. Horizontal distribution of thermosteric anomaly at 10 meters
7. Horizontal distribution of temperature at 200 meters
8. Horizontal distribution of salinity at 200 meters
9. Horizontal distribution of thermosteric anomaly at 200 meters.



| e       | B       | T       | R       | C       | A       | S       | I       | O       | depth   |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 410     | 410     | 410     | 410     | 410     | 410     | 410     | 410     | 410     | 410     |
| 050     | 050     | 050     | 050     | 050     | 050     | 050     | 050     | 050     | 050     |
| 330     | 330     | 330     | 330     | 330     | 330     | 330     | 330     | 330     | 330     |
| 288.8   | 288.8   | 288.8   | 288.8   | 288.8   | 288.8   | 288.8   | 288.8   | 288.8   | 288.8   |
| 280     | 280     | 280     | 280     | 280     | 280     | 280     | 280     | 280     | 280     |
| 132.0   | 132.0   | 132.0   | 132.0   | 132.0   | 132.0   | 132.0   | 132.0   | 132.0   | 132.0   |
| 81.61   | 81.61   | 81.61   | 81.61   | 81.61   | 81.61   | 81.61   | 81.61   | 81.61   | 81.61   |
| 57.2    | 57.2    | 57.2    | 57.2    | 57.2    | 57.2    | 57.2    | 57.2    | 57.2    | 57.2    |
| 22.0    | 22.0    | 22.0    | 22.0    | 22.0    | 22.0    | 22.0    | 22.0    | 22.0    | 22.0    |
| 18.85   | 18.85   | 18.85   | 18.85   | 18.85   | 18.85   | 18.85   | 18.85   | 18.85   | 18.85   |
| 11.2    | 11.2    | 11.2    | 11.2    | 11.2    | 11.2    | 11.2    | 11.2    | 11.2    | 11.2    |
| 1.575   | 1.575   | 1.575   | 1.575   | 1.575   | 1.575   | 1.575   | 1.575   | 1.575   | 1.575   |
| 0.923   | 0.923   | 0.923   | 0.923   | 0.923   | 0.923   | 0.923   | 0.923   | 0.923   | 0.923   |
| 0.572   | 0.572   | 0.572   | 0.572   | 0.572   | 0.572   | 0.572   | 0.572   | 0.572   | 0.572   |
| 0.345   | 0.345   | 0.345   | 0.345   | 0.345   | 0.345   | 0.345   | 0.345   | 0.345   | 0.345   |
| 0.216   | 0.216   | 0.216   | 0.216   | 0.216   | 0.216   | 0.216   | 0.216   | 0.216   | 0.216   |
| 0.132   | 0.132   | 0.132   | 0.132   | 0.132   | 0.132   | 0.132   | 0.132   | 0.132   | 0.132   |
| 0.081   | 0.081   | 0.081   | 0.081   | 0.081   | 0.081   | 0.081   | 0.081   | 0.081   | 0.081   |
| 0.050   | 0.050   | 0.050   | 0.050   | 0.050   | 0.050   | 0.050   | 0.050   | 0.050   | 0.050   |
| 0.033   | 0.033   | 0.033   | 0.033   | 0.033   | 0.033   | 0.033   | 0.033   | 0.033   | 0.033   |
| 0.021   | 0.021   | 0.021   | 0.021   | 0.021   | 0.021   | 0.021   | 0.021   | 0.021   | 0.021   |
| 0.013   | 0.013   | 0.013   | 0.013   | 0.013   | 0.013   | 0.013   | 0.013   | 0.013   | 0.013   |
| 0.008   | 0.008   | 0.008   | 0.008   | 0.008   | 0.008   | 0.008   | 0.008   | 0.008   | 0.008   |
| 0.005   | 0.005   | 0.005   | 0.005   | 0.005   | 0.005   | 0.005   | 0.005   | 0.005   | 0.005   |
| 0.003   | 0.003   | 0.003   | 0.003   | 0.003   | 0.003   | 0.003   | 0.003   | 0.003   | 0.003   |
| 0.002   | 0.002   | 0.002   | 0.002   | 0.002   | 0.002   | 0.002   | 0.002   | 0.002   | 0.002   |
| 0.001   | 0.001   | 0.001   | 0.001   | 0.001   | 0.001   | 0.001   | 0.001   | 0.001   | 0.001   |
| 0.0005  | 0.0005  | 0.0005  | 0.0005  | 0.0005  | 0.0005  | 0.0005  | 0.0005  | 0.0005  | 0.0005  |
| 0.0003  | 0.0003  | 0.0003  | 0.0003  | 0.0003  | 0.0003  | 0.0003  | 0.0003  | 0.0003  | 0.0003  |
| 0.0002  | 0.0002  | 0.0002  | 0.0002  | 0.0002  | 0.0002  | 0.0002  | 0.0002  | 0.0002  | 0.0002  |
| 0.0001  | 0.0001  | 0.0001  | 0.0001  | 0.0001  | 0.0001  | 0.0001  | 0.0001  | 0.0001  | 0.0001  |
| 0.00005 | 0.00005 | 0.00005 | 0.00005 | 0.00005 | 0.00005 | 0.00005 | 0.00005 | 0.00005 | 0.00005 |

CONVERSION TABLE  
(CENTIMETERS SECOND - KNOTS - NAUTICAL MILES DAY)  
1cm/sec = 0.00051498 nautical miles/day  
1 knot = 0.562344 nautical miles/day  
1 nautical mile/day = 0.00051498 km/day

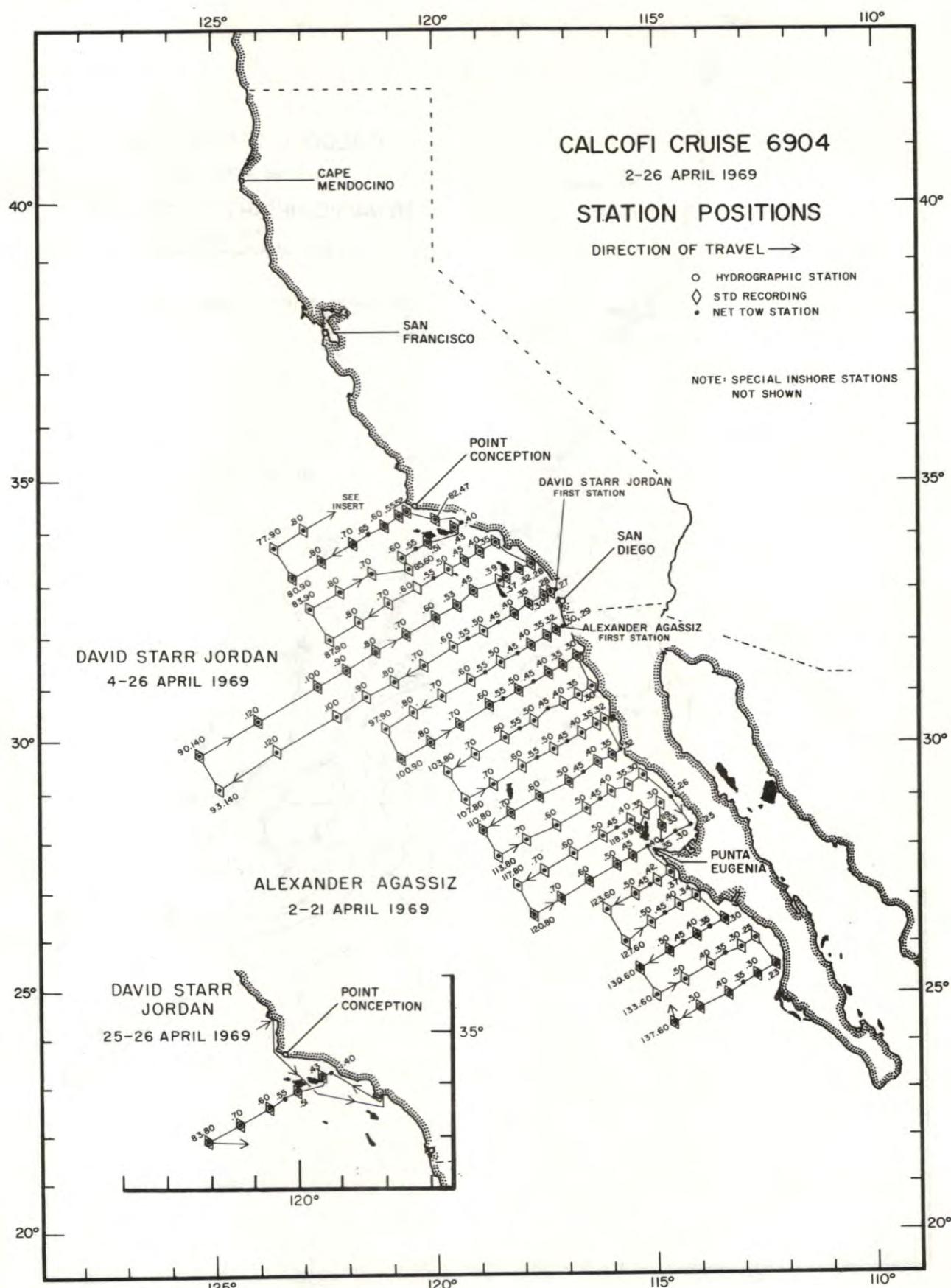


FIGURE 1

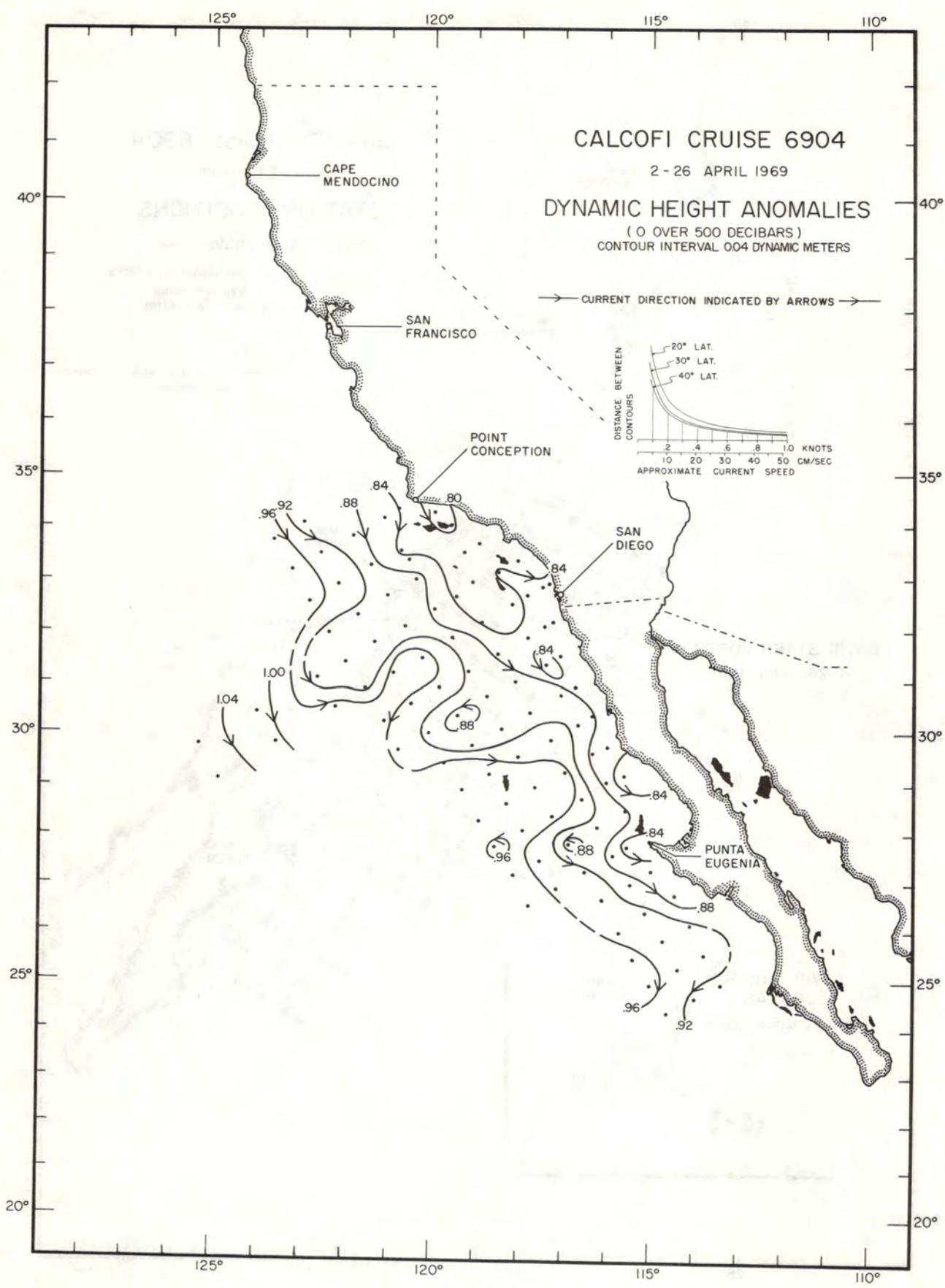


FIGURE 2

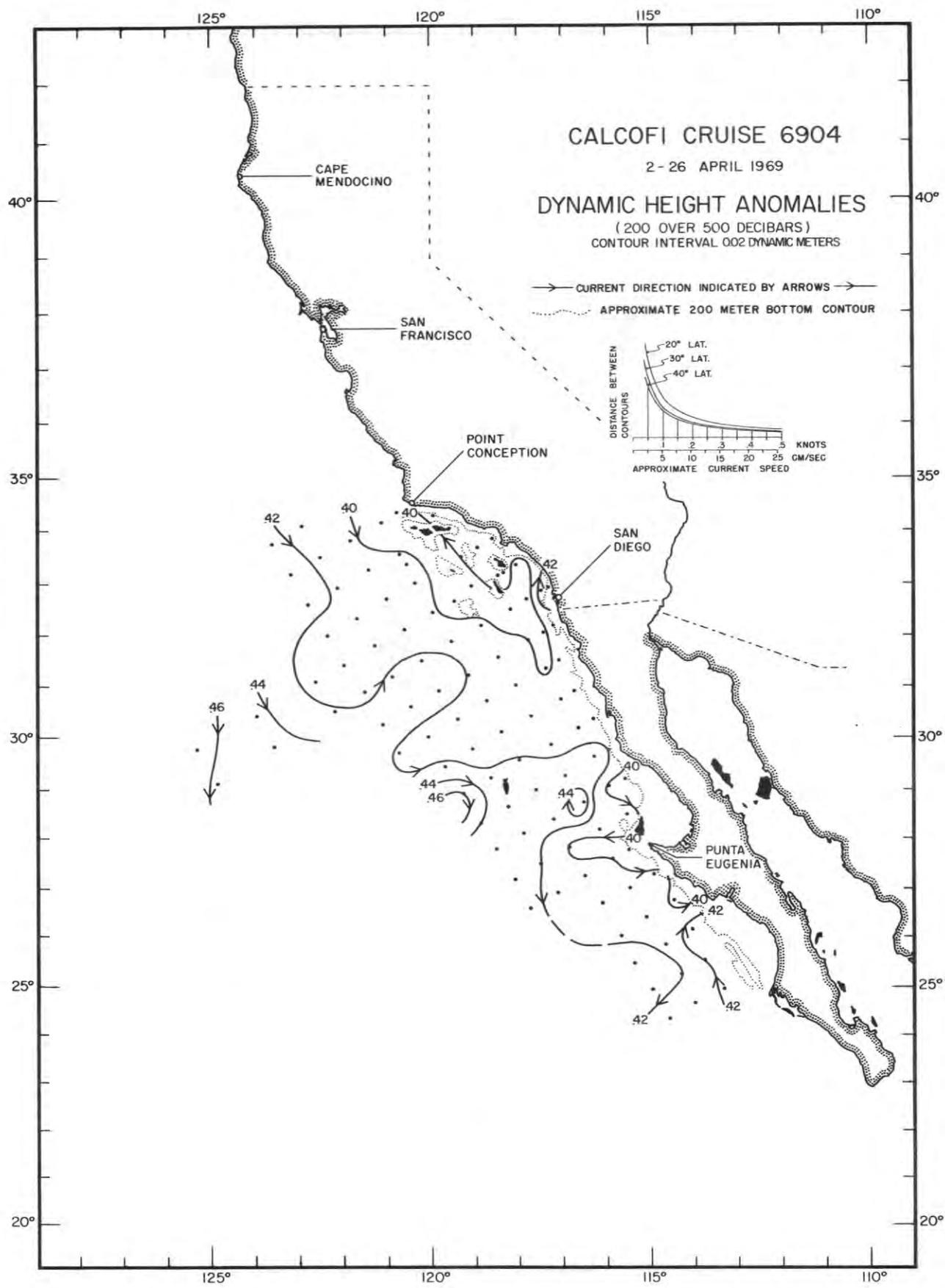


FIGURE 3

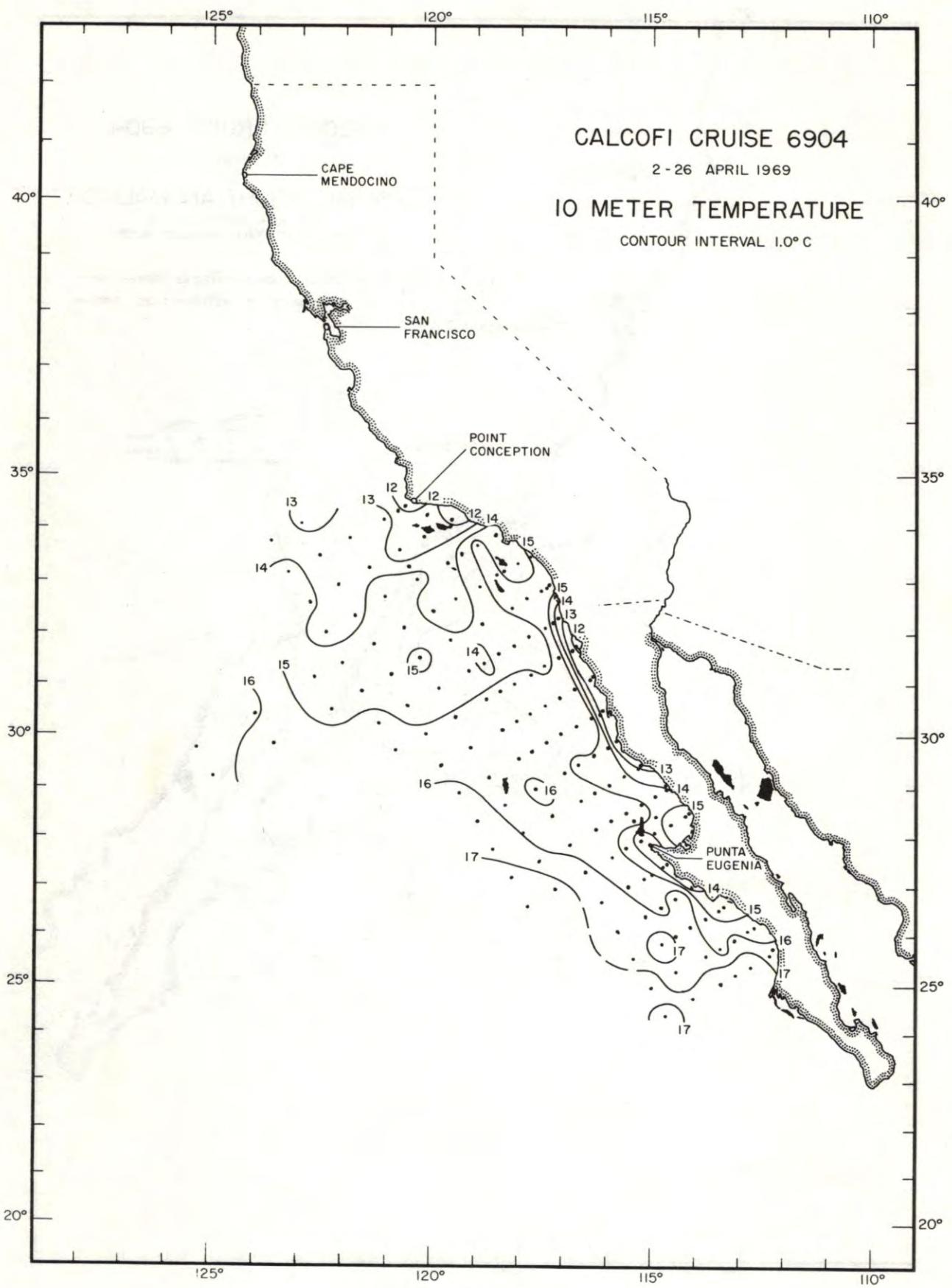


FIGURE 4

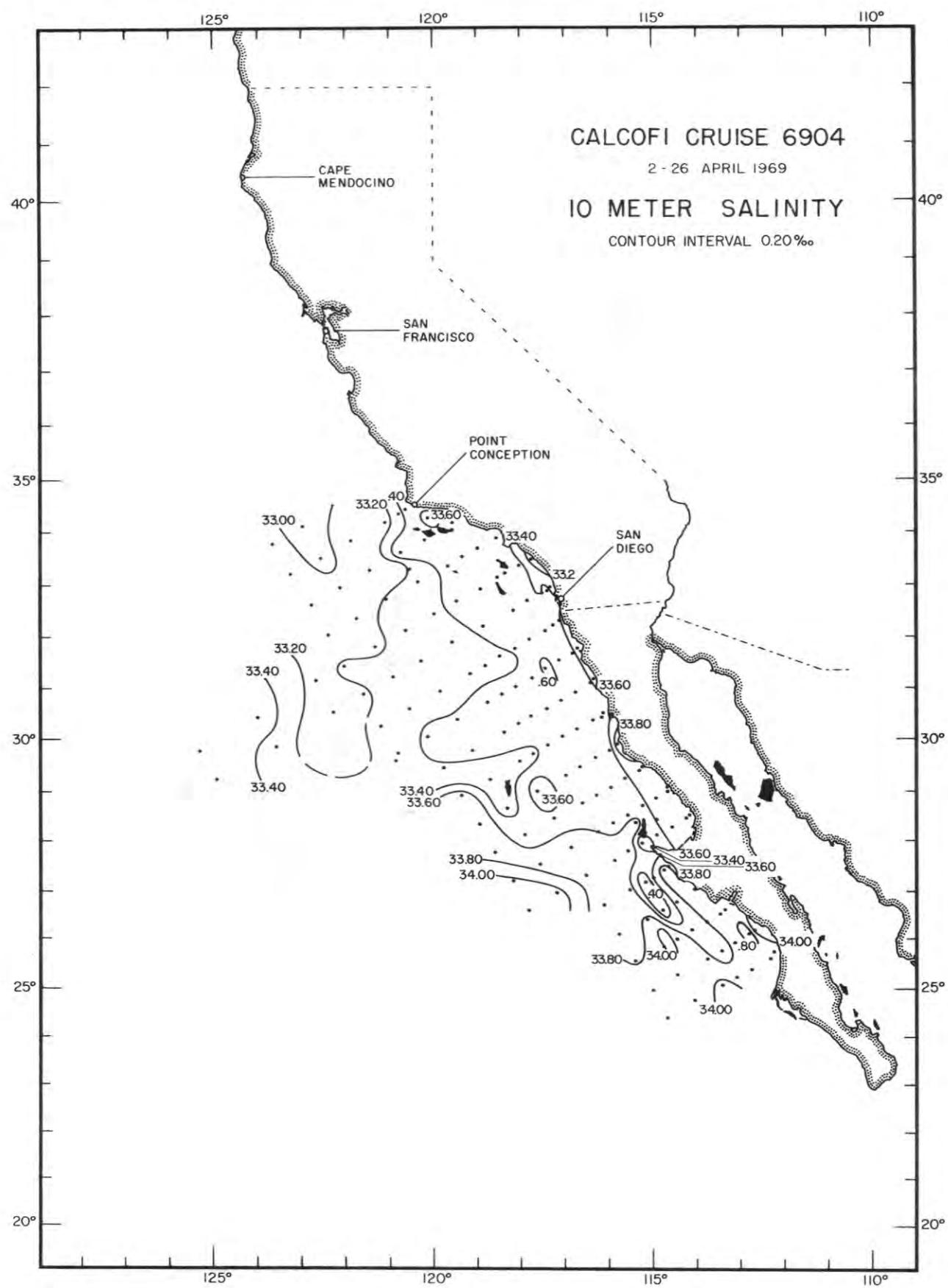


FIGURE 5

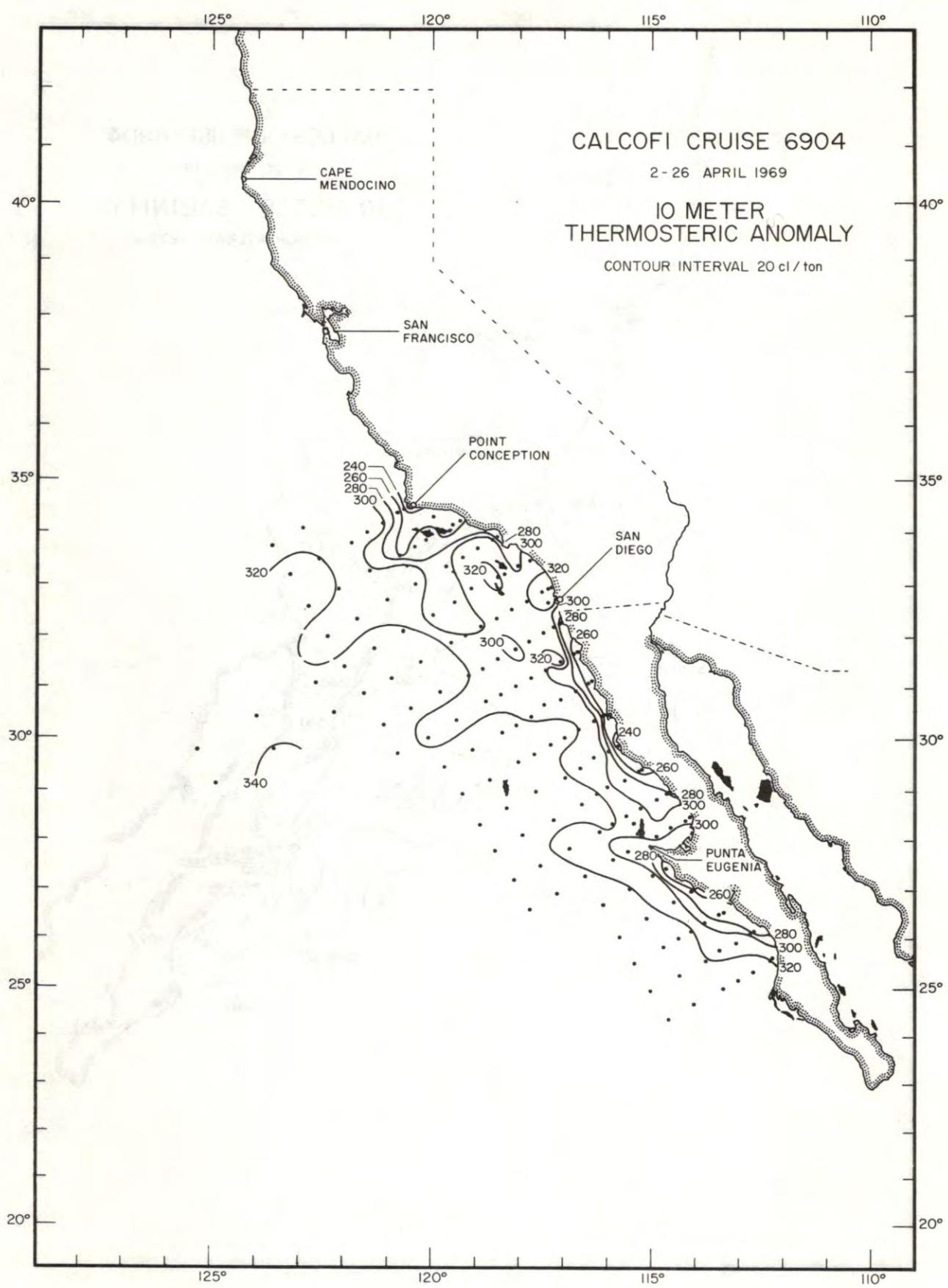


FIGURE 6

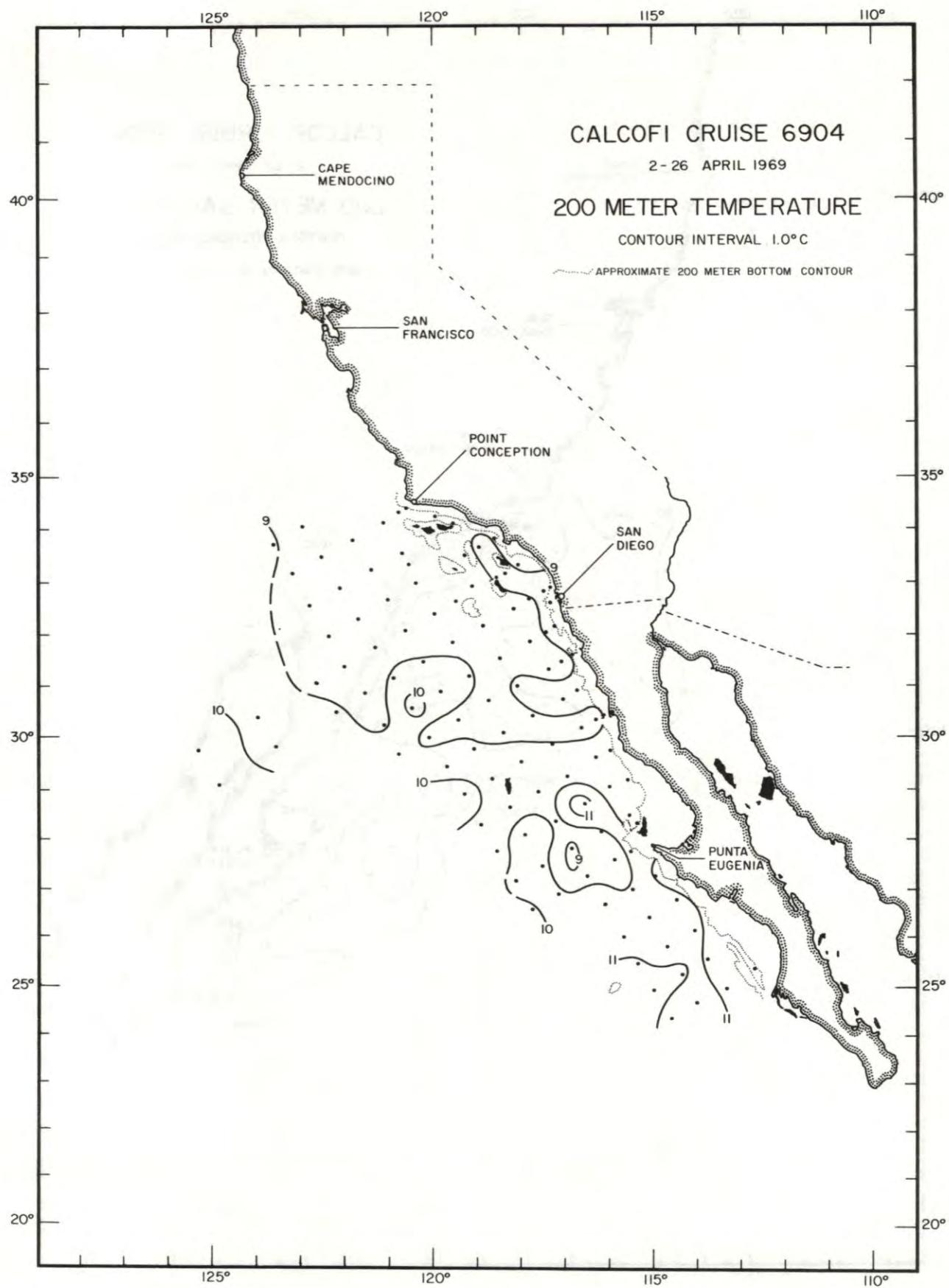


FIGURE 7

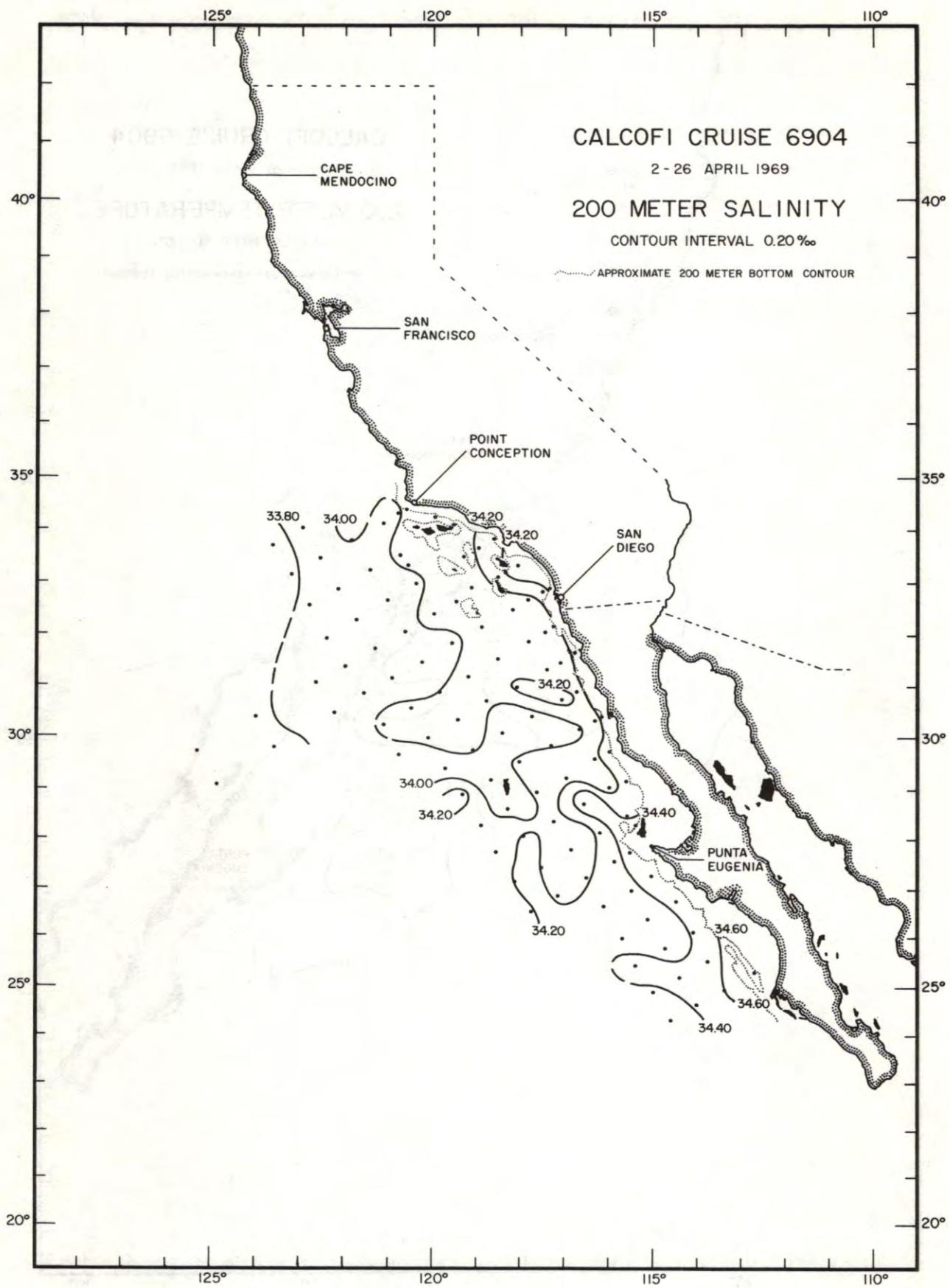


FIGURE 8

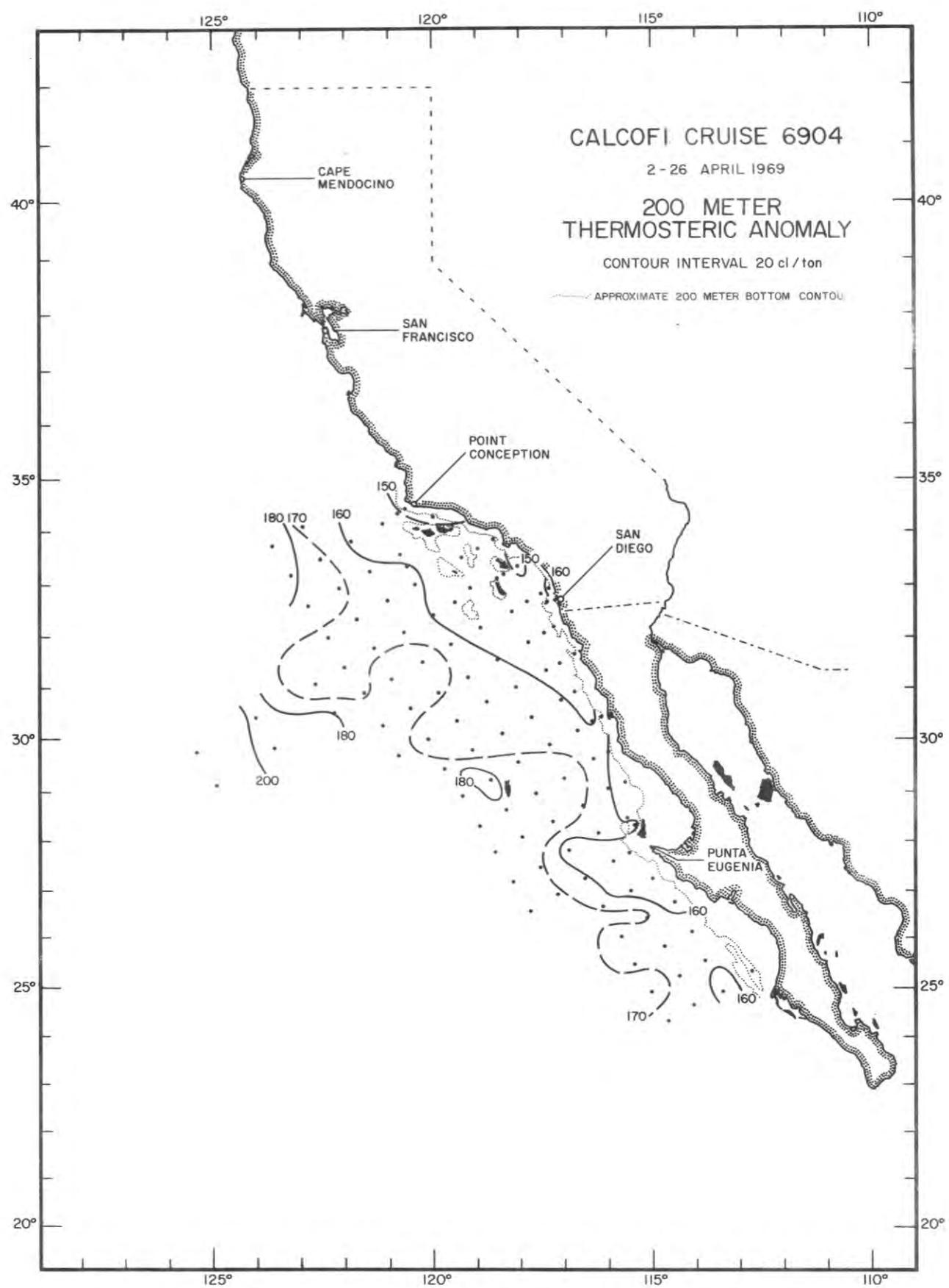


FIGURE 9

PERSONNEL

Cruise 6904

SHIP'S CAPTAINS

Davis, Laurence E., RV Alexander Agassiz  
Forster, Charles W., RV David Starr Jordan

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

RV Alexander Agassiz:

|                                 |                             |
|---------------------------------|-----------------------------|
| Mead, Richard V.<br>(in charge) | Marine Technician, SIO      |
| Ballard, Edward N.              | Marine Technician, SIO      |
| Conway, Carol B.                | Engineering Aide, SIO       |
| Dockins, Donald M.              | Museum Scientist, SIO       |
| Kaye, Hugh R.                   | Electronics Technician, SIO |
| Metoyer, Jack D.                | Biological Technician, BCF* |
| Owen, Robert W.                 | Oceanographer, BCF*         |
| Rommel, George W.               | Biological Technician, BCF* |

RV David Starr Jordan:

|                                  |                              |
|----------------------------------|------------------------------|
| Counts, Robert C.<br>(in charge) | Fishery Biologist BCF*       |
| Brown, Jack                      | Electronics Technician, BCF* |
| Graham, Jerry B.                 | Electronics Technician, SIO  |
| MacGregor, John                  | Fishery Biologist, BCF*      |
| Mulitauaoapele, Tapuni S.        | Biological Technician, BCF*  |
| Robertson, Scott B.              | Marine Technician, SIO       |
| Thomas, James E.                 | Marine Technician, SIO       |
| Wyllie, John G.                  | Laboratory Technician, SIO   |

\*Bureau of Commercial Fisheries

now National Marine Fisheries Service  
Southwest Fisheries Center





## RV DAVID STARR JORDAN CALCOFI CRUISE 6904 82047

| LATITUDE<br>34 15.0N | LONGITUDE<br>119 59.0W | MO/DAY/YR<br>04/13/69 | MESSENGER<br>0446 | TIME<br>GMT | BOTTOM<br>574M | WIND<br>300 | SPEED<br>18KT | WEATHER<br>1 | DOMINANT WAVES<br>99 |       |       |    |        |       |      |
|----------------------|------------------------|-----------------------|-------------------|-------------|----------------|-------------|---------------|--------------|----------------------|-------|-------|----|--------|-------|------|
|                      |                        |                       |                   |             |                |             |               |              |                      |       |       |    |        |       |      |
| Z                    | T                      | S                     | D2                | P04         | S103           | N02         | N03           | DT           | Z                    | T     | S     | D2 | SIGT   | DT    | DD   |
| 0                    |                        |                       | 6.14              | .94         | 15.            | .15         | 7.7           |              | 0                    | 12.64 | 33.62 |    | 25.416 | 257.1 | 0    |
| 10                   |                        |                       | 6.14              | .89         | 15.            | .11         | 7.4           |              | 10                   | 12.63 | 33.62 |    | 25.418 | 256.9 | .026 |
| 30                   |                        |                       | 4.28              | 1.39        | 20.            | .21         | 16.3          |              | 20                   | 11.86 | 33.63 |    | 25.573 | 242.1 | .051 |
| 50                   |                        |                       | 3.12              | 1.78        | 26.            | 1.03        | 20.8          |              | 30                   | 10.65 | 33.71 |    | 25.855 | 215.4 | .074 |
| 80                   |                        |                       | 2.66              | 1.97        | 31.            | .07         | 24.7          |              | 50                   | 9.82  | 33.84 |    | 26.098 | 192.2 | .115 |
| 110                  |                        |                       | 2.23              | 2.23        | 35.            | .06         | 28.0          |              | 75                   | 9.60  | 33.94 |    | 26.213 | 181.4 | .162 |
| 150                  |                        |                       | 1.84              | 2.31        | 39.            | .06         | 29.1          |              | 100                  | 9.37  | 34.06 |    | 26.344 | 168.9 | .206 |
| 200                  |                        |                       | 1.58              | 2.54        | 45.            | .10         | 30.9          |              | 125                  | 9.08  | 34.09 |    | 26.414 | 162.2 | .248 |
| 250                  |                        |                       | 1.14              |             |                |             |               |              | 150                  | 8.76  | 34.12 |    | 26.488 | 155.2 | .288 |
| 300                  |                        |                       | .90               |             |                |             |               |              | 200                  | 8.47  | 34.16 |    | 26.565 | 148.0 | .365 |
| 500                  |                        |                       | .28               |             |                |             |               |              | 250                  | 8.14  | 34.16 |    | 26.615 | 143.2 | .440 |
|                      |                        |                       |                   |             |                |             |               |              | 300                  | 7.73  | 34.18 |    | 26.691 | 135.9 | .512 |
|                      |                        |                       |                   |             |                |             |               |              | 400                  | 6.95  | 34.21 |    | 26.825 | 123.2 | .648 |
|                      |                        |                       |                   |             |                |             |               |              | 500                  | 6.50  | 34.25 |    | 26.918 | 114.5 | .773 |

## RV DAVID STARR JORDAN CALCOFI CRUISE 6904 83043

| LATITUDE<br>34 08.0N | LONGITUDE<br>119 34.0W | MO/DAY/YR<br>04/12/69 | MESSENGER<br>2140 | TIME<br>GMT | BOTTOM<br>242M | WIND<br>250 | SPEED<br>13KT | WEATHER<br>0 | DOMINANT WAVES<br>300 03 06 |       |       |    |        |       |      |
|----------------------|------------------------|-----------------------|-------------------|-------------|----------------|-------------|---------------|--------------|-----------------------------|-------|-------|----|--------|-------|------|
|                      |                        |                       |                   |             |                |             |               |              |                             |       |       |    |        |       |      |
| Z                    | T                      | S                     | D2                | P04         | S103           | N02         | N03           | DT           | Z                           | T     | S     | D2 | SIGT   | DT    | DD   |
| 0                    |                        |                       | 5.69              | .92         | 12.            | .18         | 7.8           |              | 0                           | 12.20 | 33.55 |    | 25.447 | 254.1 | 0    |
| 10                   |                        |                       | 4.02              | .94         | 12.            | .17         | 7.8           |              | 10                          | 11.87 | 33.54 |    | 25.502 | 248.9 | .025 |
| 30                   |                        |                       | 3.90              | 1.23        | 16.            | .30         | 11.4          |              | 20                          | 11.36 | 33.58 |    | 25.627 | 237.0 | .049 |
| 40                   |                        |                       | 3.97              | 1.23        | 17.            | .35         | 12.7          |              | 30                          | 11.22 | 33.57 |    | 25.645 | 235.4 | .073 |
| 55                   |                        |                       | 3.67              | 1.23        | 17.            | .33         | 12.6          |              | 50                          | 10.41 | 33.65 |    | 25.850 | 215.8 | .118 |
| 70                   |                        |                       | 2.55              | 1.73        | 25.            | .21         | 20.7          |              | 75                          | 9.89  | 33.78 |    | 26.040 | 197.8 | .170 |
| 85                   |                        |                       | 2.03              | 1.78        | 27.            | .09         | 22.2          |              | 100                         | 9.72  | 33.81 |    | 26.092 | 192.9 | .220 |
| 105                  |                        |                       | 1.44U             | 1.83        | 29.            | .09         | 23.4          |              | 125                         | 9.60  | 33.90 |    | 26.182 | 184.3 | .267 |
| 125                  |                        |                       | 2.22              | 1.94        | 31.            | .06         | 24.5          |              | 150                         | 9.42  | 34.07 |    | 26.344 | 168.9 | .312 |
| 145                  |                        |                       | 2.14              | 2.07        | 33.            | .10         | 25.6          |              | 200                         | 8.68  | 34.17 |    | 26.540 | 150.3 | .394 |
| 175                  |                        |                       | 1.66              | 2.31        | 40.            | .17         | 28.9          |              |                             |       |       |    |        |       |      |
| 200                  |                        |                       | 1.59              | 2.31        | 42.            | .30         | 29.2          |              |                             |       |       |    |        |       |      |

## RV DAVID STARR JORDAN CALCOFI CRUISE 6904 83043

| LATITUDE<br>34 08.0N | LONGITUDE<br>119 34.0W | MO/DAY/YR<br>04/25/69 | MESSENGER<br>0335 | TIME<br>GMT | BOTTOM<br>246M | WIND<br>310 | SPEED<br>19KT | WEATHER<br>1 | DOMINANT WAVES<br>300 06 07 |       |       |    |        |       |      |
|----------------------|------------------------|-----------------------|-------------------|-------------|----------------|-------------|---------------|--------------|-----------------------------|-------|-------|----|--------|-------|------|
|                      |                        |                       |                   |             |                |             |               |              |                             |       |       |    |        |       |      |
| Z                    | T                      | S                     | D2                | P04         | S103           | N02         | N03           | DT           | Z                           | T     | S     | D2 | SIGT   | DT    | DD   |
| 0                    |                        |                       | 5.27              | 1.21        | 15.            | .23         | 11.8          |              | 0                           | 11.59 | 33.64 |    | 25.631 | 236.6 | 0    |
| 10                   |                        |                       | 3.84              | 1.15        | 15.            | .28         | 11.8          |              | 10                          | 11.60 | 33.64 |    | 25.629 | 236.8 | .024 |
| 30                   |                        |                       | 4.73U             | 1.18        | 15.            | .29         | 11.8          |              | 20                          | 11.60 | 33.64 |    | 25.629 | 236.8 | .047 |
| 40                   |                        |                       | 4.97U             | 1.21        | 15.            | .25         | 12.3          |              | 30                          | 11.59 | 33.64 |    | 25.631 | 236.6 | .071 |
| 55                   |                        |                       | 3.69              | 1.57        | 20.            | .25         | 18.2          |              | 50                          | 10.89 | 33.69 |    | 25.797 | 220.9 | .117 |
| 70                   |                        |                       | 3.30              | 1.70        | 21.            | .11         | 20.7          |              | 75                          | 10.35 | 33.74 |    | 25.930 | 208.2 | .171 |
| 85                   |                        |                       | 2.38              | 1.89        | 24.            | .10         | 21.4          |              | 100                         | 9.97  | 33.88 |    | 26.104 | 191.7 | .221 |
| 105                  |                        |                       | 2.56              | 2.04        | 27.            | .05         | 23.5          |              | 125                         | 9.74  | 33.97 |    | 26.213 | 181.4 | .269 |
| 125                  |                        |                       | 2.12              | 2.10        | 30.            | .09         | 25.2          |              | 150                         | 9.21  | 34.04 |    | 26.354 | 167.9 | .313 |
| 145                  |                        |                       | 2.20              | 2.07        | 32.            | .01         | 26.1          |              | 200                         | 8.76  | 34.17 |    | 26.528 | 151.5 | .395 |
| 175                  |                        |                       | 1.90              | 2.41        | 38.            | .07         | 29.0          |              |                             |       |       |    |        |       |      |
| 200                  |                        |                       | 1.69              | 2.54        | 41.            | .35         | 29.5          |              |                             |       |       |    |        |       |      |

## RV DAVID STARR JORDAN CALCOFI CRUISE 6904 83051

| LATITUDE<br>33 52.0N | LONGITUDE<br>120 08.5W | MO/DAY/YR<br>04/12/69 | MESSENGER<br>1702 | TIME<br>GMT | BOTTOM<br>140M | WIND<br>350 | SPEED<br>12KT | WEATHER<br>2 | DOMINANT WAVES<br>320 06 07 |       |       |    |        |       |      |
|----------------------|------------------------|-----------------------|-------------------|-------------|----------------|-------------|---------------|--------------|-----------------------------|-------|-------|----|--------|-------|------|
|                      |                        |                       |                   |             |                |             |               |              |                             |       |       |    |        |       |      |
| Z                    | T                      | S                     | D2                | P04         | S103           | N02         | N03           | DT           | Z                           | T     | S     | D2 | SIGT   | DT    | DD   |
| 0                    |                        |                       | 5.76              | .81         | 10.            | .19         | 6.0           |              | 0                           | 12.71 | 33.54 |    | 25.341 | 264.2 | 0    |
| 10                   |                        |                       | 5.77              | .86         | 11.            | .21         | 6.1           |              | 10                          | 12.70 | 33.55 |    | 25.351 | 263.3 | .026 |
| 30                   |                        |                       | 5.24              | 1.07        | 13.            | .27         | 8.7           |              | 20                          | 12.63 | 33.54 |    | 25.357 | 262.7 | .053 |
| 50                   |                        |                       | 4.64              | 1.28        | 16.            | .30         | 11.9          |              | 30                          | 12.18 | 33.56 |    | 25.459 | 253.0 | .079 |
| 70                   |                        |                       | 3.83              | 1.57        | 21.            | .28         | 16.4          |              | 50                          | 11.56 | 33.60 |    | 25.606 | 239.0 | .128 |
| 80                   |                        |                       | 3.02              | 1.99        | 28.            | .21         | 22.0          |              | 75                          | 10.27 | 33.82 |    | 26.006 | 201.0 | .183 |
|                      |                        |                       |                   |             |                |             |               |              | 100                         | 10.13 | 33.88 |    | 26.077 | 194.3 | .233 |

RV DAVID STARR JORDAN

CALCOFI CRUISE 6904

83051

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSANGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |        |       |      |    |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|--------|-------|------|----|
| 33 52.0N | 120 08.5W | 04/25/69  | 0909 GMT       | 118M   | 320  | 11KT  | 0       | 300 12 08      |     |       |       |        |       |      |    |
| Z        | T         | S         | O2             | P04    | SI03 | N02   | N03     | DT             | Z   | T     | S     | O2     | SIGT  | DT   | DD |
| 10       |           |           |                | 5.52   | 1.13 | 14.   | .46     | 10.7           | 0   | 11.93 | 33.61 | 25.545 | 244.9 | 0    |    |
| 15       |           |           |                | 5.49   | 1.18 | 14.   | .40     | 10.8           | 10  | 11.94 | 33.61 | 25.543 | 245.0 | .025 |    |
| 20       |           |           |                | 5.41   | 1.15 | 14.   | .32     | 11.4           | 20  | 11.93 | 33.61 | 25.545 | 244.9 | .049 |    |
| 25       |           |           |                | 4.85   | 1.28 | 17.   | .29     | 14.5           | 30  | 11.50 | 33.67 | 25.671 | 232.8 | .073 |    |
| 30       |           |           |                | 4.58   | 1.41 | 18.   | .66     | 15.1           | 50  | 10.35 | 33.80 | 25.977 | 203.8 | .117 |    |
| 40       |           |           |                | 4.37   | 1.49 | 19.   | .21     | 16.7           | 75  | 10.10 | 33.85 | 26.059 | 196.0 | .167 |    |
| 50       |           |           |                | 3.45   | 1.76 | 23.   | .10     | 21.5           | 100 | 9.46  | 34.02 | 26.298 | 173.3 | .214 |    |
| 60       |           |           |                | 3.31   | 1.78 | 23.   | .05     | 21.7           |     |       |       |        |       |      |    |
| 70       |           |           |                | 3.24   | 1.89 | 23.   | .12     | 22.0           |     |       |       |        |       |      |    |
| 80       |           |           |                | 3.07   | 1.96 | 25.   | .13     | 23.0           |     |       |       |        |       |      |    |
| 90       |           |           |                | 2.91   | 1.97 | 26.   | .14     | 23.4           |     |       |       |        |       |      |    |

RV DAVID STARR JORDAN

CALCOFI CRUISE 6904

83060

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSANGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |        |       |      |    |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|--------|-------|------|----|
| 33 34.0N | 120 45.0W | 04/12/69  | 1229 GMT       | 1479M  | 320  | 14KT  | 6       | 99             |     |       |       |        |       |      |    |
| Z        | T         | S         | O2             | P04    | SI03 | N02   | N03     | DT             | Z   | T     | S     | O2     | SIGT  | DT   | DD |
| 0        |           |           |                |        |      |       |         |                | 0   | 12.23 | 33.47 | 25.379 | 260.6 | 0    |    |
| 10       |           |           |                |        |      |       |         |                | 10  | 12.25 | 33.50 | 25.399 | 258.7 | .026 |    |
| 20       |           |           |                |        |      |       |         |                | 20  | 12.35 | 33.51 | 25.387 | 259.8 | .052 |    |
| 30       |           |           |                |        |      |       |         |                | 30  | 12.35 | 33.51 | 25.387 | 259.8 | .078 |    |
| 50       |           |           |                |        |      |       |         |                | 50  | 12.36 | 33.54 | 25.409 | 257.8 | .130 |    |
| 75       |           |           |                |        |      |       |         |                | 75  | 11.14 | 33.63 | 25.706 | 229.6 | .191 |    |
| 100      |           |           |                |        |      |       |         |                | 100 | 10.32 | 33.71 | 25.912 | 209.9 | .247 |    |
| 125      |           |           |                |        |      |       |         |                | 125 | 9.68  | 33.88 | 26.153 | 187.1 | .297 |    |
| 150      |           |           |                |        |      |       |         |                | 150 | 8.94  | 33.85 | 26.249 | 177.9 | .343 |    |
| 200      |           |           |                |        |      |       |         |                | 200 | 8.45  | 34.05 | 26.482 | 155.8 | .428 |    |
| 250      |           |           |                |        |      |       |         |                | 250 | 8.06  | 34.13 | 26.603 | 144.3 | .505 |    |
| 300      |           |           |                |        |      |       |         |                | 300 | 7.60  | 34.16 | 26.695 | 135.6 | .577 |    |
| 400      |           |           |                |        |      |       |         |                | 400 | 6.85  | 34.25 | 26.871 | 119.0 | .710 |    |
| 500      |           |           |                |        |      |       |         |                | 500 | 6.20  | 34.31 | 27.004 | 106.3 | .829 |    |

RV DAVID STARR JORDAN

CALCOFI CRUISE 6904

83060

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSANGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |        |       |      |    |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|--------|-------|------|----|
| 33 34.0N | 120 45.0W | 04/25/69  | 1451 GMT       | 1479M  | 320  | 28KT  | 2       | 320 14 08      |     |       |       |        |       |      |    |
| Z        | T         | S         | O2             | P04    | SI03 | N02   | N03     | DT             | Z   | T     | S     | O2     | SIGT  | DT   | DD |
| 0        |           |           |                |        |      |       |         |                | 0   | 12.42 | 33.23 | 25.158 | 281.7 | 0    |    |
| 10       |           |           |                |        |      |       |         |                | 10  | 12.40 | 33.23 | 25.161 | 281.3 | .028 |    |
| 20       |           |           |                |        |      |       |         |                | 20  | 12.39 | 33.23 | 25.163 | 281.1 | .056 |    |
| 30       |           |           |                |        |      |       |         |                | 30  | 12.38 | 33.23 | 25.165 | 280.9 | .084 |    |
| 50       |           |           |                |        |      |       |         |                | 50  | 11.93 | 33.25 | 25.266 | 271.4 | .140 |    |
| 75       |           |           |                |        |      |       |         |                | 75  | 10.82 | 33.50 | 25.662 | 233.7 | .203 |    |
| 100      |           |           |                |        |      |       |         |                | 100 | 10.05 | 33.73 | 25.974 | 204.1 | .259 |    |
| 125      |           |           |                |        |      |       |         |                | 125 | 9.75  | 33.84 | 26.110 | 191.1 | .309 |    |
| 150      |           |           |                |        |      |       |         |                | 150 | 9.50  | 33.98 | 26.260 | 175.9 | .355 |    |
| 200      |           |           |                |        |      |       |         |                | 200 | 8.48  | 34.07 | 26.493 | 154.8 | .440 |    |
| 250      |           |           |                |        |      |       |         |                | 250 | 7.97  | 34.15 | 26.633 | 141.5 | .516 |    |
| 300      |           |           |                |        |      |       |         |                | 300 | 7.65  | 34.19 | 26.711 | 134.1 | .587 |    |
| 400      |           |           |                |        |      |       |         |                | 400 | 6.64  | 34.24 | 26.891 | 117.0 | .718 |    |
| 500      |           |           |                |        |      |       |         |                | 500 | 5.90  | 34.29 | 27.027 | 104.2 | .835 |    |

RV DAVID STARR JORDAN

CALCOFI CRUISE 6904

83070

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSANGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |        |       |      |    |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|--------|-------|------|----|
| 33 14.5N | 121 26.0W | 04/12/69  | 0515 GMT       | 3738M  | 320  | 16KT  | 2       | 310 06 07      |     |       |       |        |       |      |    |
| Z        | T         | S         | O2             | P04    | SI03 | N02   | N03     | DT             | Z   | T     | S     | O2     | SIGT  | DT   | DD |
| 0        |           |           |                |        |      |       |         |                | 0   | 13.78 | 33.16 | 24.834 | 312.5 | 0    |    |
| 10       |           |           |                |        |      |       |         |                | 10  | 13.77 | 33.16 | 24.836 | 312.3 | .031 |    |
| 20       |           |           |                |        |      |       |         |                | 20  | 13.77 | 33.16 | 24.836 | 312.3 | .063 |    |
| 30       |           |           |                |        |      |       |         |                | 30  | 13.77 | 33.16 | 24.836 | 312.3 | .094 |    |
| 50       |           |           |                |        |      |       |         |                | 50  | 12.63 | 33.10 | 25.017 | 295.1 | .155 |    |
| 75       |           |           |                |        |      |       |         |                | 75  | 11.66 | 33.17 | 25.254 | 272.5 | .226 |    |
| 100      |           |           |                |        |      |       |         |                | 100 | 10.30 | 33.40 | 25.675 | 232.5 | .290 |    |
| 125      |           |           |                |        |      |       |         |                | 125 | 9.72  | 33.59 | 25.920 | 209.2 | .345 |    |
| 150      |           |           |                |        |      |       |         |                | 150 | 9.12  | 33.78 | 26.166 | 185.8 | .395 |    |
| 200      |           |           |                |        |      |       |         |                | 200 | 8.33  | 33.92 | 26.398 | 163.7 | .484 |    |
| 250      |           |           |                |        |      |       |         |                | 250 | 7.51  | 33.98 | 26.566 | 147.8 | .564 |    |
| 300      |           |           |                |        |      |       |         |                | 300 | 6.81  | 34.01 | 26.687 | 136.3 | .637 |    |
| 400      |           |           |                |        |      |       |         |                | 400 | 5.91  | 34.08 | 26.860 | 120.0 | .770 |    |
| 500      |           |           |                |        |      |       |         |                | 500 | 5.43  | 34.19 | 27.005 | 106.2 | .889 |    |



RV DAVID STARR JORDAN

## CALCOFI CRUISE 6904

85060

| LATITUDE<br>33 20.0N | LONGITUDE<br>120 34.0W | MO/DAY/YR<br>04/12/69 | MESSENGER<br>0957 | TIME<br>GMT | BOTTOM<br>1202M | WIND<br>320 | SPEED<br>05KT | WEATHER<br>2 | DOMINANT WAVES<br>320 05 07 |
|----------------------|------------------------|-----------------------|-------------------|-------------|-----------------|-------------|---------------|--------------|-----------------------------|
|----------------------|------------------------|-----------------------|-------------------|-------------|-----------------|-------------|---------------|--------------|-----------------------------|

|     |   |   |    |     |      |     |     |    |     |       |       |        |       |      |    |
|-----|---|---|----|-----|------|-----|-----|----|-----|-------|-------|--------|-------|------|----|
| Z   | T | S | D2 | P04 | S103 | N02 | N03 | DT | Z   | T     | S     | D2     | SIGT  | DT   | DD |
| 0   |   |   |    |     |      |     |     |    | 0   | 13.39 | 33.20 | 24.944 | 302.0 | 0    |    |
| 10  |   |   |    |     |      |     |     |    | 10  | 13.36 | 33.20 | 24.950 | 301.5 | .030 |    |
| 20  |   |   |    |     |      |     |     |    | 20  | 13.36 | 33.20 | 24.950 | 301.5 | .060 |    |
| 30  |   |   |    |     |      |     |     |    | 30  | 13.36 | 33.24 | 24.981 | 298.5 | .090 |    |
| 50  |   |   |    |     |      |     |     |    | 50  | 12.39 | 33.28 | 25.202 | 277.4 | .148 |    |
| 75  |   |   |    |     |      |     |     |    | 75  | 11.76 | 33.34 | 25.367 | 261.7 | .216 |    |
| 100 |   |   |    |     |      |     |     |    | 100 | 10.66 | 33.49 | 25.682 | 231.8 | .278 |    |
| 125 |   |   |    |     |      |     |     |    | 125 | 9.82  | 33.61 | 25.919 | 209.3 | .334 |    |
| 150 |   |   |    |     |      |     |     |    | 150 | 9.26  | 33.79 | 26.151 | 187.2 | .384 |    |
| 200 |   |   |    |     |      |     |     |    | 200 | 8.70  | 34.03 | 26.428 | 161.0 | .473 |    |
| 250 |   |   |    |     |      |     |     |    | 250 | 7.81  | 34.06 | 26.586 | 146.0 | .552 |    |
| 300 |   |   |    |     |      |     |     |    | 300 | 7.15  | 34.08 | 26.696 | 135.5 | .624 |    |
| 400 |   |   |    |     |      |     |     |    | 400 | 6.39  | 34.20 | 26.893 | 116.9 | .755 |    |
| 500 |   |   |    |     |      |     |     |    | 500 | 6.20  | 34.30 | 26.996 | 107.0 | .874 |    |

RV DAVID STARR JORDAN

## CALCOFI CRUISE 6904

87035

| LATITUDE<br>33 50.0N | LONGITUDE<br>118 37.5W | MO/DAY/YR<br>04/10/69 | MESSENGER<br>1047 | TIME<br>GMT | BOTTOM<br>519M | WIND<br>290 | SPEED<br>06KT | WEATHER<br>2 | DOMINANT WAVES<br>00 |
|----------------------|------------------------|-----------------------|-------------------|-------------|----------------|-------------|---------------|--------------|----------------------|
|----------------------|------------------------|-----------------------|-------------------|-------------|----------------|-------------|---------------|--------------|----------------------|

|     |   |   |      |      |      |     |      |    |     |       |       |        |       |      |    |
|-----|---|---|------|------|------|-----|------|----|-----|-------|-------|--------|-------|------|----|
| Z   | T | S | D2   | P04  | S103 | N02 | N03  | DT | Z   | T     | S     | D2     | SIGT  | DT   | DD |
| 0   |   |   | 5.98 | .34  | 2.   | .02 | .0   |    | 0   | 14.50 | 33.46 | 24.914 | 304.8 | 0    |    |
| 10  |   |   | 5.99 | .34  | 3.   | .02 | .1   |    | 10  | 14.35 | 33.46 | 24.946 | 301.8 | .030 |    |
| 30  |   |   | 4.47 | 1.13 | 11.  | .30 | 9.6  |    | 20  | 12.90 | 33.41 | 25.203 | 277.3 | .059 |    |
| 50  |   |   | 3.55 | 1.55 | 17.  | .37 | 16.2 |    | 30  | 11.68 | 33.47 | 25.483 | 250.7 | .086 |    |
| 80  |   |   | 2.97 | 1.83 | 24.  | .07 | 21.3 |    | 50  | 10.86 | 33.67 | 25.787 | 221.8 | .133 |    |
| 110 |   |   | 2.68 | 1.99 | 28.  | .05 | 23.7 |    | 75  | 10.33 | 33.81 | 25.988 | 202.7 | .187 |    |
| 150 |   |   | 2.18 | 2.23 | 33.  | .07 | 26.6 |    | 100 | 10.08 | 33.91 | 26.109 | 191.2 | .236 |    |
| 200 |   |   | 1.77 | 2.49 | 40.  | .01 | 29.2 |    | 125 | 9.91  | 33.97 | 26.184 | 184.1 | .284 |    |
| 250 |   |   | 1.44 |      |      |     |      |    | 150 | 9.59  | 34.11 | 26.347 | 168.6 | .329 |    |
| 300 |   |   | 1.24 |      |      |     |      |    | 200 | 8.98  | 34.20 | 26.516 | 152.6 | .411 |    |
| 400 |   |   | .87  |      |      |     |      |    | 250 | 8.52  | 34.23 | 26.612 | 143.5 | .487 |    |
| 420 |   |   | .79  |      |      |     |      |    | 300 | 7.99  | 34.24 | 26.700 | 135.1 | .559 |    |
|     |   |   |      |      |      |     |      |    | 400 | 7.22  | 34.25 | 26.819 | 123.8 | .694 |    |

RV DAVID STARR JORDAN

## CALCOFI CRUISE 6904

87040

| LATITUDE<br>33 40.0N | LONGITUDE<br>118 58.0W | MO/DAY/YR<br>04/10/69 | MESSENGER<br>1405 | TIME<br>GMT | BOTTOM<br>925M | WIND<br>320 | SPEED<br>04KT | WEATHER<br>2 | DOMINANT WAVES<br>310 04 07 |
|----------------------|------------------------|-----------------------|-------------------|-------------|----------------|-------------|---------------|--------------|-----------------------------|
|----------------------|------------------------|-----------------------|-------------------|-------------|----------------|-------------|---------------|--------------|-----------------------------|

|     |   |   |       |      |      |     |      |    |     |       |       |        |       |      |    |
|-----|---|---|-------|------|------|-----|------|----|-----|-------|-------|--------|-------|------|----|
| Z   | T | S | D2    | P04  | S103 | N02 | N03  | DT | Z   | T     | S     | D2     | SIGT  | DT   | DD |
| 0   |   |   | 4.95  | .37  | 3.   | .03 | .0   |    | 0   | 15.11 | 33.45 | 24.775 | 318.1 | 0    |    |
| 10  |   |   | 4.54  | .31  | 3.   | .06 | .1   |    | 10  | 15.08 | 33.45 | 24.782 | 317.4 | .032 |    |
| 30  |   |   | 4.33  | .63  | 11.  | .12 | 3.3  |    | 20  | 14.37 | 33.43 | 24.919 | 304.4 | .063 |    |
| 50  |   |   | 3.23  | 1.21 | 14.  | .28 | 12.0 |    | 30  | 12.54 | 33.46 | 25.312 | 267.0 | .092 |    |
| 80  |   |   | 3.10  | 1.60 | 22.  | .07 | 19.1 |    | 50  | 11.16 | 33.56 | 25.648 | 235.1 | .142 |    |
| 110 |   |   | 2.80  | 1.76 | 25.  | .05 | 22.7 |    | 75  | 10.26 | 33.70 | 25.915 | 209.7 | .198 |    |
| 150 |   |   | 1.00U | 2.25 | 33.  | .10 | 26.7 |    | 100 | 10.04 | 33.78 | 26.014 | 200.2 | .250 |    |
| 200 |   |   | 1.30  | 2.41 | 37.  | .02 | 27.8 |    | 125 | 9.73  | 33.98 | 26.222 | 180.5 | .298 |    |
| 250 |   |   | 1.05  |      |      |     |      |    | 150 | 9.71  | 34.15 | 26.358 | 167.6 | .342 |    |
| 300 |   |   | .99   |      |      |     |      |    | 200 | 9.27  | 34.21 | 26.477 | 156.3 | .425 |    |
| 400 |   |   | .49   |      |      |     |      |    | 250 | 8.66  | 34.25 | 26.606 | 144.1 | .502 |    |
|     |   |   |       |      |      |     |      |    | 300 | 8.01  | 34.25 | 26.705 | 134.7 | .574 |    |
|     |   |   |       |      |      |     |      |    | 400 | 6.88  | 34.26 | 26.874 | 118.6 | .706 |    |
|     |   |   |       |      |      |     |      |    | 500 | 6.35  | 34.29 | 26.969 | 109.6 | .827 |    |

RV DAVID STARR JORDAN

## CALCOFI CRUISE 6904

87045

| LATITUDE<br>33 30.0N | LONGITUDE<br>119 19.0W | MO/DAY/YR<br>04/10/69 | MESSENGER<br>1655 | TIME<br>GMT | BOTTOM<br>1714M | WIND<br>320 | SPEED<br>04KT | WEATHER<br>2 | DOMINANT WAVES<br>250 05 08 |
|----------------------|------------------------|-----------------------|-------------------|-------------|-----------------|-------------|---------------|--------------|-----------------------------|
|----------------------|------------------------|-----------------------|-------------------|-------------|-----------------|-------------|---------------|--------------|-----------------------------|

|     |   |   |      |      |      |     |      |    |     |       |       |        |       |      |    |
|-----|---|---|------|------|------|-----|------|----|-----|-------|-------|--------|-------|------|----|
| Z   | T | S | D2   | P04  | S103 | N02 | N03  | DT | Z   | T     | S     | D2     | SIGT  | DT   | DD |
| 0   |   |   | 6.04 | .21  | 4.   | .00 | .0   |    | 0   | 15.00 | 33.46 | 24.807 | 315.1 | 0    |    |
| 10  | * |   | 6.04 | .31  | 4.   | .00 | .0   |    | 10  | 14.88 | 33.46 | 24.833 | 312.6 | .031 |    |
| 30  |   |   | 4.29 | 1.07 | 14.  | .19 | 13.9 |    | 20  | 12.77 | 33.51 | 25.306 | 267.6 | .060 |    |
| 50  |   |   | 3.90 | 1.49 | 21.  | .35 | 18.1 |    | 30  | 11.20 | 33.53 | 25.617 | 238.0 | .086 |    |
| 80  |   |   | 3.08 | 1.97 | 28.  | .11 | 23.2 |    | 50  | 10.45 | 33.67 | 25.859 | 215.0 | .131 |    |
| 110 |   |   | 2.72 | 1.99 | 31.  | .03 | 26.1 |    | 75  | 9.95  | 33.81 | 26.053 | 196.5 | .183 |    |
| 150 |   |   | 2.48 | 2.20 | 34.  | .05 | 27.2 |    | 100 | 9.62  | 33.92 | 26.194 | 183.2 | .231 |    |
| 200 |   |   | 2.01 | 2.36 | 40.  | .04 | 29.8 |    | 125 | 9.44  | 34.01 | 26.294 | 173.7 | .276 |    |
| 250 |   |   | 1.49 |      |      |     |      |    | 150 | 9.31  | 34.05 | 26.346 | 168.7 | .320 |    |
| 300 |   |   | 1.48 |      |      |     |      |    | 200 | 8.80  | 34.17 | 26.521 | 152.1 | .401 |    |
| 400 |   |   | .72  |      |      |     |      |    | 250 | 8.33  | 34.21 | 26.625 | 142.2 | .477 |    |
| 500 |   |   | .40  |      |      |     |      |    | 300 | 8.08  | 34.23 | 26.679 | 137.1 | .549 |    |
|     |   |   |      |      |      |     |      |    | 400 | 6.95  | 34.27 | 26.873 | 118.8 | .683 |    |
|     |   |   |      |      |      |     |      |    | 500 | 6.24  | 34.33 | 27.015 | 105.3 | .802 |    |

## RV DAVID STARR JORDAN

## CALCOFI CRUISE 6904

87050

| LATITUDE<br>33 20.0N |   | LONGITUDE<br>119 39.5W |    | MO/DAY/YR<br>04/10/69 | MESSENGER<br>1955 | TIME<br>GMT | BOTTOM<br>75M | WIND<br>310 | SPEED<br>16KT | WEATHER<br>0 | DOMINANT WAVES<br>310 06 08 |    |        |       |      |
|----------------------|---|------------------------|----|-----------------------|-------------------|-------------|---------------|-------------|---------------|--------------|-----------------------------|----|--------|-------|------|
| Z                    | T | S                      | D2 | P04                   | S103              | N02         | N03           | DT          | Z             | T            | S                           | D2 | SIGT   | DT    | DD   |
|                      |   |                        |    |                       |                   |             |               |             | 0             | 13.96        | 33.50                       |    | 25.058 | 291.1 | 0    |
|                      |   |                        |    |                       |                   |             |               |             | 10            | 13.84        | 33.49                       |    | 25.075 | 289.5 | .029 |
|                      |   |                        |    |                       |                   |             |               |             | 20            | 13.60        | 33.49                       |    | 25.125 | 284.8 | .058 |
|                      |   |                        |    |                       |                   |             |               |             | 30            | 12.69        | 33.48                       |    | 25.298 | 268.3 | .086 |
|                      |   |                        |    |                       |                   |             |               |             | 50            | 10.79        | 33.60                       |    | 25.745 | 225.8 | .135 |

## RV DAVID STARR JORDAN

## CALCOFI CRUISE 6904

87060

| LATITUDE<br>33 00.0N |   | LONGITUDE<br>120 21.9W |    | MO/DAY/YR<br>04/11/69 | MESSENGER<br>0117 | TIME<br>GMT | BOTTOM<br>789M | WIND<br>290 | SPEED<br>26KT | WEATHER<br>1 | DOMINANT WAVES<br>290 13 05 |    |        |       |      |
|----------------------|---|------------------------|----|-----------------------|-------------------|-------------|----------------|-------------|---------------|--------------|-----------------------------|----|--------|-------|------|
| Z                    | T | S                      | D2 | P04                   | S103              | N02         | N03            | DT          | Z             | T            | S                           | D2 | SIGT   | DT    | DD   |
|                      |   |                        |    |                       |                   |             |                |             | 0             | 14.16        | 33.27                       |    | 24.840 | 311.9 | 0    |
|                      |   |                        |    |                       |                   |             |                |             | 10            | 14.15        | 33.27                       |    | 24.842 | 311.7 | .031 |
|                      |   |                        |    |                       |                   |             |                |             | 20            | 14.15        | 33.27                       |    | 24.842 | 311.7 | .062 |
|                      |   |                        |    |                       |                   |             |                |             | 30            | 14.13        | 33.27                       |    | 24.846 | 311.3 | .096 |
|                      |   |                        |    |                       |                   |             |                |             | 50            | 13.30        | 33.29                       |    | 25.031 | 293.7 | .164 |
|                      |   |                        |    |                       |                   |             |                |             | 75            | 11.99        | 33.31                       |    | 25.301 | 268.0 | .228 |
|                      |   |                        |    |                       |                   |             |                |             | 100           | 10.75        | 33.34                       |    | 25.550 | 244.4 | .289 |
|                      |   |                        |    |                       |                   |             |                |             | 125           | 9.99         | 33.51                       |    | 25.813 | 219.4 | .348 |
|                      |   |                        |    |                       |                   |             |                |             | 150           | 9.36         | 33.73                       |    | 26.088 | 193.2 | .400 |
|                      |   |                        |    |                       |                   |             |                |             | 200           | 8.63         | 33.95                       |    | 26.376 | 165.9 | .492 |
|                      |   |                        |    |                       |                   |             |                |             | 250           | 7.97         | 34.06                       |    | 26.562 | 148.2 | .572 |
|                      |   |                        |    |                       |                   |             |                |             | 300           | 7.22         | 34.11                       |    | 26.709 | 134.2 | .645 |
|                      |   |                        |    |                       |                   |             |                |             | 400           | 6.24         | 34.15                       |    | 26.873 | 118.7 | .777 |
|                      |   |                        |    |                       |                   |             |                |             | 500           | 6.28         | 34.30                       |    | 26.986 | 108.0 | .896 |

## RV DAVID STARR JORDAN

## CALCOFI CRUISE 6904

87070

| LATITUDE<br>32 39.5N |   | LONGITUDE<br>121 02.0W |    | MO/DAY/YR<br>04/11/69 | MESSENGER<br>0524 | TIME<br>GMT | BOTTOM<br>3926M | WIND<br>080 | SPEED<br>25KT | WEATHER<br>1 | DOMINANT WAVES<br>330 13 08 |    |        |       |      |
|----------------------|---|------------------------|----|-----------------------|-------------------|-------------|-----------------|-------------|---------------|--------------|-----------------------------|----|--------|-------|------|
| Z                    | T | S                      | D2 | P04                   | S103              | N02         | N03             | DT          | Z             | T            | S                           | D2 | SIGT   | DT    | DD   |
|                      |   |                        |    |                       |                   |             |                 |             | 0             | 14.30        | 33.24                       |    | 24.787 | 316.9 | 0    |
|                      |   |                        |    |                       |                   |             |                 |             | 10            | 14.31        | 33.24                       |    | 24.785 | 317.1 | .032 |
|                      |   |                        |    |                       |                   |             |                 |             | 20            | 14.31        | 33.24                       |    | 24.785 | 317.1 | .063 |
|                      |   |                        |    |                       |                   |             |                 |             | 30            | 14.30        | 33.24                       |    | 24.787 | 316.9 | .095 |
|                      |   |                        |    |                       |                   |             |                 |             | 50            | 13.85        | 33.29                       |    | 24.919 | 304.3 | .158 |
|                      |   |                        |    |                       |                   |             |                 |             | 75            | 12.92        | 33.29                       |    | 25.107 | 286.5 | .232 |
|                      |   |                        |    |                       |                   |             |                 |             | 100           | 10.25        | 33.39                       |    | 25.675 | 232.4 | .297 |
|                      |   |                        |    |                       |                   |             |                 |             | 125           | 9.43         | 33.69                       |    | 26.046 | 197.2 | .351 |
|                      |   |                        |    |                       |                   |             |                 |             | 150           | 9.12         | 33.82                       |    | 26.197 | 182.9 | .400 |
|                      |   |                        |    |                       |                   |             |                 |             | 200           | 8.43         | 33.97                       |    | 26.422 | 161.5 | .487 |
|                      |   |                        |    |                       |                   |             |                 |             | 250           | 7.73         | 34.01                       |    | 26.558 | 148.6 | .567 |
|                      |   |                        |    |                       |                   |             |                 |             | 300           | 7.04         | 34.02                       |    | 26.664 | 138.6 | .641 |
|                      |   |                        |    |                       |                   |             |                 |             | 400           | 6.00         | 34.12                       |    | 26.880 | 118.1 | .774 |
|                      |   |                        |    |                       |                   |             |                 |             | 500           | 5.38         | 34.18                       |    | 27.003 | 106.3 | .802 |

## RV DAVID STARR JORDAN

## CALCOFI CRUISE 6904

87080

| LATITUDE<br>32 19.5N |   | LONGITUDE<br>121 43.0W |    | MO/DAY/YR<br>04/11/69 | MESSENGER<br>0958 | TIME<br>GMT | BOTTOM<br>3926M | WIND<br>320 | SPEED<br>22KT | WEATHER<br>1 | DOMINANT WAVES<br>320 12 |    |        |       |      |
|----------------------|---|------------------------|----|-----------------------|-------------------|-------------|-----------------|-------------|---------------|--------------|--------------------------|----|--------|-------|------|
| Z                    | T | S                      | D2 | P04                   | S103              | N02         | N03             | DT          | Z             | T            | S                        | D2 | SIGT   | DT    | DD   |
|                      |   |                        |    |                       |                   |             |                 |             | 0             | 13.83        | 33.17                    |    | 24.831 | 312.8 | 0    |
|                      |   |                        |    |                       |                   |             |                 |             | 10            | 13.83        | 33.18                    |    | 24.839 | 312.0 | .031 |
|                      |   |                        |    |                       |                   |             |                 |             | 20            | 13.83        | 33.18                    |    | 24.839 | 312.0 | .062 |
|                      |   |                        |    |                       |                   |             |                 |             | 30            | 13.77        | 33.17                    |    | 24.843 | 311.6 | .094 |
|                      |   |                        |    |                       |                   |             |                 |             | 50            | 12.73        | 33.14                    |    | 25.028 | 294.0 | .154 |
|                      |   |                        |    |                       |                   |             |                 |             | 75            | 12.33        | 33.19                    |    | 25.144 | 283.0 | .227 |
|                      |   |                        |    |                       |                   |             |                 |             | 100           | 11.60        | 33.20                    |    | 25.289 | 269.2 | .297 |
|                      |   |                        |    |                       |                   |             |                 |             | 125           | 10.18        | 33.36                    |    | 25.664 | 233.5 | .360 |
|                      |   |                        |    |                       |                   |             |                 |             | 150           | 9.26         | 33.71                    |    | 26.089 | 193.1 | .414 |
|                      |   |                        |    |                       |                   |             |                 |             | 200           | 8.60         | 33.92                    |    | 26.357 | 167.7 | .506 |
|                      |   |                        |    |                       |                   |             |                 |             | 250           | 7.86         | 33.99                    |    | 26.523 | 151.9 | .588 |
|                      |   |                        |    |                       |                   |             |                 |             | 300           | 7.15         | 34.02                    |    | 26.648 | 140.0 | .663 |
|                      |   |                        |    |                       |                   |             |                 |             | 400           | 5.98         | 34.08                    |    | 26.851 | 120.8 | .798 |
|                      |   |                        |    |                       |                   |             |                 |             | 500           | 5.29         | 34.18                    |    | 27.014 | 105.3 | .917 |







RV DAVID STARR JORDAN CALCOFI CRUISE 6904 90120

| LATITUDE<br>30 25.ON | LONGITUDE<br>124 00.W | MO/DAY/YR<br>04/08/69  | MESSANGER TIME<br>0140 GMT | BOTTOM<br>4604M | WIND<br>00KT | SPEED<br>00KNOTS | WEATHER<br>2 | DOMINANT WAVES<br>320 08 10 |
|----------------------|-----------------------|------------------------|----------------------------|-----------------|--------------|------------------|--------------|-----------------------------|
|                      | Z T S                 | D2 P04 S103            | N02 N03 DT                 | Z T S           | D2 SIGT      | DT               | DD           |                             |
| 0                    |                       | 5.75 .26 1. .00 .0     |                            | 0 16.16 33.60   | 24.656       | 329.4            | 0            |                             |
| 10                   |                       | 5.56 .26 1. .00 .0     |                            | 10 16.08 33.59  | 24.667       | 328.4            | .033         |                             |
| 30                   |                       | 5.58 .24 1. .00 .0     |                            | 20 16.04 33.60  | 24.684       | 326.8            | .066         |                             |
| 50                   |                       | 5.86 .24 1. .00 .0     |                            | 30 16.03 33.60  | 24.686       | 326.6            | .098         |                             |
| 80                   |                       | 5.62 .24 1. .00 .0     |                            | 50 16.02 33.60  | 24.688       | 326.4            | .164         |                             |
| 110                  |                       | 5.68 .29 2. .06 .2     |                            | 75 15.95 33.68  | 24.765       | 319.0            | .245         |                             |
| 150                  |                       | 5.52 .37 4. .08 1.7    |                            | 100 15.87 33.76 | 24.845       | 311.5            | .325         |                             |
| 200                  |                       | 4.56 1.13 16. .04 14.4 |                            | 125 14.69 33.72 | 25.074       | 289.7            | .401         |                             |
| 250                  |                       | 3.80                   |                            | 150 13.21 33.63 | 25.311       | 267.0            | .471         |                             |
| 300                  |                       | 3.03                   |                            | 200 9.84 33.75  | 26.025       | 199.2            | .590         |                             |
| 400                  |                       | 1.50                   |                            | 250 8.78 33.92  | 26.329       | 170.3            | .684         |                             |
| 500                  |                       | .71                    |                            | 300 7.78 34.00  | 26.543       | 150.0            | .767         |                             |
|                      |                       |                        |                            | 400 6.60 34.10  | 26.786       | 126.9            | .910         |                             |
|                      |                       |                        |                            | 500 5.90 34.18  | 26.940       | 112.4            | 1.036        |                             |

RV DAVID STARR JORDAN CALCOFI CRUISE 6904 90140

| LATITUDE<br>29 45.ON | LONGITUDE<br>125 20.W | MO/DAY/YR<br>04/07/69 | MESSANGER TIME<br>1716 GMT | BOTTOM<br>4689M | WIND<br>060 | SPEED<br>02KT | WEATHER<br>2 | DOMINANT WAVES<br>310 06 10 |
|----------------------|-----------------------|-----------------------|----------------------------|-----------------|-------------|---------------|--------------|-----------------------------|
|                      | Z T S                 | D2 P04 S103           | N02 N03 DT                 | Z T S           | D2 SIGT     | DT            | DD           |                             |
| 0                    |                       | 5.85 .47 1. .00 .0    |                            | 0 16.51 33.57   | 24.553      | 339.2         | 0            |                             |
| 10                   |                       | 5.72 .29 1. .00 .0    |                            | 10 16.50 33.58  | 24.563      | 338.3         | .034         |                             |
| 30                   |                       | 5.60 .26 1. .00 .0    |                            | 20 16.47 33.56  | 24.555      | 339.1         | .068         |                             |
| 50                   |                       | 5.72 .24 1. .00 .0    |                            | 30 15.91 33.55  | 24.675      | 327.6         | .101         |                             |
| 80                   |                       | 5.62 .24 2. .00 .0    |                            | 50 16.13 33.75  | 24.778      | 317.8         | .166         |                             |
| 110                  |                       | 5.51 .16 2. .00 .0    |                            | 75 16.57 34.03  | 24.891      | 307.0         | .245         |                             |
| 150                  |                       | 5.45 .31 3. .05 1.4   |                            | 100 17.55 34.40 | 24.942      | 302.2         | .321         |                             |
| 200                  |                       | 4.84 .79 12. .00 11.0 |                            | 125 14.90 33.90 | 25.167      | 280.8         | .395         |                             |
| 250                  |                       | 3.88                  |                            | 150 13.67 33.81 | 25.357      | 262.7         | .464         |                             |
| 300                  |                       | 3.31                  |                            | 200 10.31 33.65 | 25.867      | 214.2         | .585         |                             |
| 400                  |                       | 1.62                  |                            | 250 9.08 33.86  | 26.235      | 179.3         | .686         |                             |
| 500                  |                       | .79                   |                            | 300 8.12 33.98  | 26.477      | 156.3         | .772         |                             |
|                      |                       |                       |                            | 400 6.79 34.08  | 26.745      | 130.9         | .921         |                             |
|                      |                       |                       |                            | 500 5.90 34.18  | 26.940      | 112.4         | 1.049        |                             |

RV DAVID STARR JORDAN CALCOFI CRUISE 6904 93028

| LATITUDE<br>32 54.5N | LONGITUDE<br>117 22.0W | MO/DAY/YR<br>04/05/69  | MESSANGER TIME<br>0352 GMT | BOTTOM<br>574M | WIND<br>330 | SPEED<br>02KT | WEATHER<br>0 | DOMINANT WAVES<br>00 |
|----------------------|------------------------|------------------------|----------------------------|----------------|-------------|---------------|--------------|----------------------|
|                      | Z T S                  | D2 P04 S103            | N02 N03 DT                 | Z T S          | D2 SIGT     | DT            | DD           |                      |
| 0                    |                        | 5.05                   |                            | 0 16.15 33.43  | 24.528      | 341.6         | 0            |                      |
| 10                   |                        | 2.99A .31 2. .00 .2    |                            | 10 15.80 33.41 | 24.592      | 335.5         | .034         |                      |
| 30                   |                        | 2.07 1.05 11. .23 11.0 |                            | 20 13.45 33.39 | 25.078      | 289.2         | .065         |                      |
| 50                   |                        | 1.92 1.39 17. .10 17.0 |                            | 30 11.76 33.41 | 25.422      | 256.6         | .092         |                      |
| 80                   |                        | 1.57 1.70 24. .03 22.5 |                            | 50 10.56 33.52 | 25.723      | 227.9         | .141         |                      |
| 110                  |                        | 1.32 1.97 30. .01 25.5 |                            | 75 10.03 33.70 | 25.954      | 206.0         | .196         |                      |
| 150                  |                        | 1.16 2.10 34. .00 27.6 |                            | 100 9.61 33.88 | 26.164      | 186.0         | .245         |                      |
| 200                  |                        | .78 2.28 40. .00 29.8  |                            | 125 9.83 33.99 | 26.213      | 181.3         | .292         |                      |
| 250                  |                        | .79                    |                            | 150 9.85 34.06 | 26.265      | 176.5         | .337         |                      |
| 300                  |                        | .70                    |                            | 200 9.32 34.16 | 26.430      | 160.7         | .423         |                      |
| 400                  |                        | .39                    |                            | 250 9.17 34.24 | 26.517      | 152.5         | .504         |                      |
| 500                  |                        | .34                    |                            | 300 8.69 34.25 | 26.601      | 144.5         | .580         |                      |
|                      |                        |                        |                            | 400 7.69 34.25 | 26.752      | 130.2         | .724         |                      |
|                      |                        |                        |                            | 500 6.62 34.26 | 26.909      | 115.3         | .854         |                      |

RV DAVID STARR JORDAN CALCOFI CRUISE 6904 93030

| LATITUDE<br>32 50.5N | LONGITUDE<br>117 31.0W | MO/DAY/YR<br>04/05/69  | MESSANGER TIME<br>0610 GMT | BOTTOM<br>907M | WIND<br>340 | SPEED<br>02KT | WEATHER | DOMINANT WAVES<br>00 |
|----------------------|------------------------|------------------------|----------------------------|----------------|-------------|---------------|---------|----------------------|
|                      | Z T S                  | D2 P04 S103            | N02 N03 DT                 | Z T S          | D2 SIGT     | DT            | DD      |                      |
| 0                    |                        | 5.99 .29 2. .00 .1     |                            | 0 16.12 33.36  | 24.482      | 346.0         | 0       |                      |
| 10                   |                        | 6.18 .31 2. .00 .1     |                            | 10 15.32 33.40 | 24.591      | 326.1         | .034    |                      |
| 30                   |                        | 5.26 .68 7. .24 5.2    |                            | 20 14.20 33.52 | 25.024      | 294.4         | .065    |                      |
| 50                   |                        | 4.07 1.34 16. .06 15.5 |                            | 30 13.31 33.47 | 25.168      | 280.7         | .094    |                      |
| 80                   |                        | 3.80 1.60 23. .02 19.9 |                            | 50 11.32 33.53 | 25.595      | 240.0         | .146    |                      |
| 110                  |                        | 2.56 2.07 34. .00 26.8 |                            | 75 10.40 33.64 | 25.844      | 216.4         | .203    |                      |
| 150                  |                        | 1.89 2.23 38. .00 28.0 |                            | 100 9.68 33.95 | 26.207      | 181.9         | .253    |                      |
| 200                  |                        | 1.59 2.28 41. .00 29.4 |                            | 125 9.73 34.18 | 26.363      | 167.1         | .298    |                      |
| 250                  |                        | 1.27                   |                            | 150 9.44 34.24 | 26.378      | 165.7         | .340    |                      |
| 300                  |                        | 1.15                   |                            | 200 9.09 34.28 | 26.473      | 156.7         | .422    |                      |
| 400                  |                        | 1.00                   |                            | 250 8.79 34.30 | 26.561      | 148.3         | .501    |                      |
| 500                  |                        | .47                    |                            | 300 7.82 34.28 | 26.624      | 142.3         | .576    |                      |
|                      |                        |                        |                            | 400 6.47 34.28 | 26.757      | 129.8         | .718    |                      |
|                      |                        |                        |                            | 500 6.47 34.28 | 26.945      | 111.9         | .846    |                      |

A) THE UNUSUALLY LOW OXYGEN VALUES FOR THIS NISKIN CAST HAVE BEEN CAREFULLY VERIFIED.

RV DAVID STARR JORDAN

CALCOFI CRUISE 6904

93035

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSANGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |        |       |      |    |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|--------|-------|------|----|
| 32 40.5N | 117 51.5W | 04/05/69  | 0955 GMT       | 667M   | 200  | 01KT  |         | 00             |     |       |       |        |       |      |    |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z   | T     | S     | D2     | SIGT  | DT   | DD |
| 0        |           |           | 6.06           | .37    | 1.   | .00   | .0      |                | 0   | 15.34 | 33.53 | 24.786 | 317.0 | 0    |    |
| 10       |           |           | 6.09           | .31    | 1.   | .00   | .1      |                | 10  | 15.34 | 33.54 | 24.794 | 316.3 | .032 |    |
| 30       |           |           | 6.21           | .34    | 1.   | .01   | .1      |                | 20  | 15.26 | 33.52 | 24.796 | 316.1 | .063 |    |
| 50       |           |           | 5.04           | 1.00   | 10.  | .37   | 9.2     |                | 30  | 14.58 | 33.48 | 24.913 | 305.0 | .094 |    |
| 80       |           |           | 3.83           | 1.47   | 19.  | .02   | 18.2    |                | 50  | 12.56 | 33.51 | 25.347 | 263.7 | .152 |    |
| 110      |           |           | 3.54           | 1.78   | 26.  | .02   | 22.6    |                | 75  | 10.71 | 33.63 | 25.782 | 222.3 | .213 |    |
| 150      |           |           | 3.23           | 2.04   | 31.  | .00   | 25.5    |                | 100 | 10.23 | 33.77 | 25.974 | 204.0 | .266 |    |
| 200      |           |           | 2.72           | 2.12   | 39.  | .05   | 29.5    |                | 125 | 9.43  | 33.78 | 26.116 | 190.6 | .316 |    |
| 250      |           |           | 2.29           |        |      |       |         |                | 150 | 9.11  | 33.90 | 26.261 | 176.8 | .363 |    |
| 300      |           |           | 1.65           |        |      |       |         |                | 200 | 8.52  | 34.05 | 26.471 | 156.9 | .448 |    |
| 400      |           |           | .64            |        |      |       |         |                | 250 | 7.78  | 34.07 | 26.598 | 144.8 | .525 |    |
| 500      |           |           | .43            |        |      |       |         |                | 300 | 7.08  | 34.10 | 26.721 | 133.1 | .597 |    |
|          |           |           |                |        |      |       |         |                | 400 | 6.67  | 34.24 | 26.887 | 117.4 | .727 |    |
|          |           |           |                |        |      |       |         |                | 500 | 6.04  | 34.29 | 27.009 | 105.8 | .845 |    |

RV DAVID STARR JORDAN

CALCOFI CRUISE 6904

93040

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSANGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |        |       |      |    |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|--------|-------|------|----|
| 32 30.0N | 118 11.5W | 04/05/69  | 1152 GMT       | 1757M  | 200  | 00KT  | 1       | 00             |     |       |       |        |       |      |    |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z   | T     | S     | D2     | SIGT  | DT   | DD |
| 0        |           |           | 5.89           | .31    | 1.   | .00   | .0      |                | 0   | 15.20 | 33.53 | 24.817 | 314.1 | 0    |    |
| 10       |           |           | 5.94           | .34    | 1.   | .00   | .0      |                | 10  | 15.15 | 33.52 | 24.820 | 313.8 | .031 |    |
| 30       |           |           | 6.01           | .34    | 2.   | .00   | .0      |                | 20  | 14.89 | 33.50 | 24.861 | 309.9 | .063 |    |
| 50       |           |           | 4.98           | .84    | 9.   | .11   | 7.4     |                | 30  | 14.54 | 33.50 | 24.936 | 302.7 | .093 |    |
| 80       |           |           | 3.15           | 1.81   | 26.  | .00   | 22.2    |                | 50  | 11.84 | 33.51 | 25.484 | 250.6 | .149 |    |
| 110      |           |           | 2.92           | 1.91   | 30.  | .00   | 24.2    |                | 75  | 10.45 | 33.71 | 25.890 | 212.1 | .207 |    |
| 150      |           |           | 2.50           | 2.10   | 37.  | .00   | 27.8    |                | 100 | 9.77  | 33.87 | 26.130 | 189.2 | .258 |    |
| 200      |           |           | 2.08           | 2.23   | 43.  | .00   | 30.4    |                | 125 | 9.37  | 33.97 | 26.274 | 175.6 | .304 |    |
| 250      |           |           | 1.53           |        |      |       |         |                | 150 | 8.92  | 34.05 | 26.409 | 162.8 | .347 |    |
| 300      |           |           | 1.36           |        |      |       |         |                | 200 | 8.45  | 34.09 | 26.513 | 152.9 | .427 |    |
| 400      |           |           | .65            |        |      |       |         |                | 250 | 7.96  | 34.14 | 26.626 | 142.1 | .503 |    |
| 500      |           |           | .47            |        |      |       |         |                | 300 | 7.46  | 34.19 | 26.738 | 131.5 | .574 |    |
|          |           |           |                |        |      |       |         |                | 400 | 6.65  | 34.24 | 26.890 | 117.1 | .703 |    |
|          |           |           |                |        |      |       |         |                | 500 | 6.02  | 34.28 | 27.003 | 106.3 | .821 |    |

RV DAVID STARR JORDAN

CALCOFI CRUISE 6904

93050

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSANGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |        |       |      |    |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|--------|-------|------|----|
| 32 11.0N | 118 53.5W | 04/05/69  | 1712 GMT       | 1572M  | 180  | 08KT  | 1       | 240 02 07      |     |       |       |        |       |      |    |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z   | T     | S     | D2     | SIGT  | DT   | DD |
|          |           |           |                |        |      |       |         |                | 0   | 14.29 | 33.47 | 24.966 | 299.9 | 0    |    |
|          |           |           |                |        |      |       |         |                | 10  | 14.17 | 33.47 | 24.991 | 297.5 | .030 |    |
|          |           |           |                |        |      |       |         |                | 20  | 13.82 | 33.46 | 25.056 | 291.3 | .059 |    |
|          |           |           |                |        |      |       |         |                | 30  | 13.33 | 33.44 | 25.141 | 283.3 | .088 |    |
|          |           |           |                |        |      |       |         |                | 50  | 11.93 | 33.47 | 25.436 | 255.2 | .142 |    |
|          |           |           |                |        |      |       |         |                | 75  | 10.98 | 33.62 | 25.727 | 227.6 | .203 |    |
|          |           |           |                |        |      |       |         |                | 100 | 10.12 | 33.77 | 25.993 | 202.2 | .257 |    |
|          |           |           |                |        |      |       |         |                | 125 | 9.70  | 33.92 | 26.181 | 184.4 | .306 |    |
|          |           |           |                |        |      |       |         |                | 150 | 9.36  | 34.02 | 26.314 | 171.7 | .351 |    |
|          |           |           |                |        |      |       |         |                | 200 | 8.81  | 34.12 | 26.481 | 155.9 | .435 |    |
|          |           |           |                |        |      |       |         |                | 250 | 8.43  | 34.17 | 26.579 | 146.6 | .513 |    |
|          |           |           |                |        |      |       |         |                | 300 | 7.86  | 34.22 | 26.704 | 134.8 | .585 |    |
|          |           |           |                |        |      |       |         |                | 400 | 6.84  | 34.23 | 26.856 | 120.3 | .718 |    |
|          |           |           |                |        |      |       |         |                | 500 | 6.21  | 34.30 | 26.995 | 107.2 | .839 |    |

RV DAVID STARR JORDAN

CALCOFI CRUISE 6904

93060

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSANGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |        |       |      |    |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|--------|-------|------|----|
| 31 52.5N | 119 33.0W | 04/05/69  | 2254 GMT       | 2322M  | 200  | 08KT  | 2       | 210 05 06      |     |       |       |        |       |      |    |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z   | T     | S     | D2     | SIGT  | DT   | DD |
|          |           |           |                |        |      |       |         |                | 0   | 14.51 | 33.23 | 24.735 | 321.9 | 0    |    |
|          |           |           |                |        |      |       |         |                | 10  | 14.35 | 33.23 | 24.769 | 318.7 | .032 |    |
|          |           |           |                |        |      |       |         |                | 20  | 13.76 | 33.26 | 24.915 | 304.8 | .063 |    |
|          |           |           |                |        |      |       |         |                | 30  | 13.51 | 33.28 | 24.981 | 298.5 | .093 |    |
|          |           |           |                |        |      |       |         |                | 50  | 13.05 | 33.29 | 25.081 | 289.0 | .152 |    |
|          |           |           |                |        |      |       |         |                | 75  | 12.22 | 33.33 | 25.273 | 270.7 | .223 |    |
|          |           |           |                |        |      |       |         |                | 100 | 11.21 | 33.42 | 25.530 | 246.2 | .288 |    |
|          |           |           |                |        |      |       |         |                | 125 | 9.90  | 33.46 | 25.789 | 221.6 | .347 |    |
|          |           |           |                |        |      |       |         |                | 150 | 9.32  | 33.74 | 26.103 | 191.8 | .399 |    |
|          |           |           |                |        |      |       |         |                | 200 | 8.62  | 33.93 | 26.362 | 167.2 | .491 |    |
|          |           |           |                |        |      |       |         |                | 250 | 7.93  | 34.00 | 26.521 | 152.1 | .572 |    |
|          |           |           |                |        |      |       |         |                | 300 | 7.26  | 34.06 | 26.665 | 138.5 | .647 |    |
|          |           |           |                |        |      |       |         |                | 400 | 6.30  | 34.15 | 26.865 | 119.5 | .781 |    |
|          |           |           |                |        |      |       |         |                | 500 | 6.01  | 34.27 | 26.997 | 107.0 | .901 |    |

RV DAVID STARR JORDAN CALCOFI CRUISE 6904 93070

| LATITUDE<br>31 30.0N | LONGITUDE<br>120 14.0W | MO/DAY/YR<br>04/06/69 | MESSENGER<br>0335 | TIME<br>GMT | BOTTOM<br>4117M | WIND<br>330 | SPEED<br>14KT | WEATHER<br>5 | DOMINANT WAVES<br>310 04 | DD    |       |    |        |       |      |
|----------------------|------------------------|-----------------------|-------------------|-------------|-----------------|-------------|---------------|--------------|--------------------------|-------|-------|----|--------|-------|------|
| Z                    | T                      | S                     | D2                | P04         | S103            | N02         | N03           | DT           | Z                        | T     | S     | D2 | SIGT   | DT    | DD   |
|                      |                        |                       |                   |             |                 |             |               |              | 0                        | 15.05 | 33.22 |    | 24.612 | 333.6 | 0    |
|                      |                        |                       |                   |             |                 |             |               |              | 10                       | 15.05 | 33.22 |    | 24.612 | 333.6 | .033 |
|                      |                        |                       |                   |             |                 |             |               |              | 20                       | 14.98 | 33.22 |    | 24.627 | 332.2 | .067 |
|                      |                        |                       |                   |             |                 |             |               |              | 30                       | 14.74 | 33.22 |    | 24.679 | 327.3 | .100 |
|                      |                        |                       |                   |             |                 |             |               |              | 50                       | 14.31 | 33.20 |    | 24.754 | 320.1 | .165 |
|                      |                        |                       |                   |             |                 |             |               |              | 75                       | 14.11 | 33.40 |    | 24.950 | 301.4 | .243 |
|                      |                        |                       |                   |             |                 |             |               |              | 100                      | 13.25 | 33.38 |    | 25.111 | 286.1 | .317 |
|                      |                        |                       |                   |             |                 |             |               |              | 125                      | 11.88 | 33.49 |    | 25.461 | 252.8 | .385 |
|                      |                        |                       |                   |             |                 |             |               |              | 150                      | 10.73 | 33.53 |    | 25.701 | 230.0 | .446 |
|                      |                        |                       |                   |             |                 |             |               |              | 200                      | 9.02  | 33.85 |    | 26.237 | 179.1 | .550 |
|                      |                        |                       |                   |             |                 |             |               |              | 250                      | 8.33  | 33.97 |    | 26.438 | 160.0 | .637 |
|                      |                        |                       |                   |             |                 |             |               |              | 300                      | 7.50  | 34.04 |    | 26.615 | 143.2 | .715 |
|                      |                        |                       |                   |             |                 |             |               |              | 400                      | 6.39  | 34.11 |    | 26.822 | 123.6 | .854 |
|                      |                        |                       |                   |             |                 |             |               |              | 500                      | 5.71  | 34.20 |    | 26.979 | 108.5 | .976 |

RV DAVID STARR JORDAN CALCOFI CRUISE 6904 93080

| LATITUDE<br>31 10.0N | LONGITUDE<br>120 54.5W | MO/DAY/YR<br>04/06/69 | MESSENGER<br>0803 | TIME<br>GMT | BOTTOM<br>3926M | WIND<br>300 | SPEED<br>07KT | WEATHER | DOMINANT WAVES | DD    |       |    |        |       |      |
|----------------------|------------------------|-----------------------|-------------------|-------------|-----------------|-------------|---------------|---------|----------------|-------|-------|----|--------|-------|------|
| Z                    | T                      | S                     | D2                | P04         | S103            | N02         | N03           | DT      | Z              | T     | S     | D2 | SIGT   | DT    | DD   |
|                      |                        |                       |                   |             |                 |             |               |         | 0              | 14.95 | 33.23 |    | 24.641 | 330.8 | 0    |
|                      |                        |                       |                   |             |                 |             |               |         | 10             | 14.94 | 33.22 |    | 24.636 | 331.4 | .033 |
|                      |                        |                       |                   |             |                 |             |               |         | 20             | 14.95 | 33.22 |    | 24.633 | 331.6 | .066 |
|                      |                        |                       |                   |             |                 |             |               |         | 30             | 14.95 | 33.22 |    | 24.633 | 331.6 | .100 |
|                      |                        |                       |                   |             |                 |             |               |         | 50             | 14.56 | 33.32 |    | 24.794 | 316.3 | .165 |
|                      |                        |                       |                   |             |                 |             |               |         | 75             | 13.35 | 33.21 |    | 24.959 | 300.5 | .242 |
|                      |                        |                       |                   |             |                 |             |               |         | 100            | 12.19 | 33.39 |    | 25.325 | 265.7 | .313 |
|                      |                        |                       |                   |             |                 |             |               |         | 125            | 11.43 | 33.45 |    | 25.513 | 247.8 | .378 |
|                      |                        |                       |                   |             |                 |             |               |         | 150            | 10.03 | 33.52 |    | 25.814 | 219.3 | .437 |
|                      |                        |                       |                   |             |                 |             |               |         | 200            | 9.11  | 33.89 |    | 26.253 | 177.5 | .538 |
|                      |                        |                       |                   |             |                 |             |               |         | 250            | 8.31  | 33.99 |    | 26.456 | 158.3 | .624 |
|                      |                        |                       |                   |             |                 |             |               |         | 300            | 7.79  | 34.07 |    | 26.596 | 145.0 | .702 |
|                      |                        |                       |                   |             |                 |             |               |         | 400            | 6.73  | 34.14 |    | 26.800 | 125.6 | .843 |
|                      |                        |                       |                   |             |                 |             |               |         | 500            | 6.20  | 34.25 |    | 26.957 | 110.8 | .968 |

RV DAVID STARR JORDAN CALCOFI CRUISE 6904 93090

| LATITUDE<br>30 52.0N | LONGITUDE<br>121 35.0W | MO/DAY/YR<br>04/06/69 | MESSENGER<br>1225 | TIME<br>GMT | BOTTOM<br>4213M | WIND<br>310 | SPEED<br>12KT | WEATHER | DOMINANT WAVES | DD    |       |    |        |       |      |
|----------------------|------------------------|-----------------------|-------------------|-------------|-----------------|-------------|---------------|---------|----------------|-------|-------|----|--------|-------|------|
| Z                    | T                      | S                     | D2                | P04         | S103            | N02         | N03           | DT      | Z              | T     | S     | D2 | SIGT   | DT    | DD   |
|                      |                        |                       |                   |             |                 |             |               |         | 0              | 14.54 | 33.15 |    | 24.667 | 328.3 | 0    |
|                      |                        |                       |                   |             |                 |             |               |         | 10             | 14.54 | 33.14 |    | 24.660 | 329.1 | .033 |
|                      |                        |                       |                   |             |                 |             |               |         | 20             | 14.55 | 33.15 |    | 24.665 | 328.5 | .066 |
|                      |                        |                       |                   |             |                 |             |               |         | 30             | 14.28 | 33.18 |    | 24.745 | 320.9 | .098 |
|                      |                        |                       |                   |             |                 |             |               |         | 50             | 13.39 | 33.19 |    | 24.936 | 302.8 | .161 |
|                      |                        |                       |                   |             |                 |             |               |         | 75             | 11.99 | 33.16 |    | 25.185 | 279.1 | .234 |
|                      |                        |                       |                   |             |                 |             |               |         | 100            | 10.84 | 33.25 |    | 25.464 | 252.5 | .301 |
|                      |                        |                       |                   |             |                 |             |               |         | 125            | 10.08 | 33.42 |    | 25.728 | 227.5 | .362 |
|                      |                        |                       |                   |             |                 |             |               |         | 150            | 9.51  | 33.71 |    | 26.048 | 197.0 | .415 |
|                      |                        |                       |                   |             |                 |             |               |         | 200            | 8.73  | 33.93 |    | 26.345 | 168.8 | .508 |
|                      |                        |                       |                   |             |                 |             |               |         | 250            | 8.00  | 34.00 |    | 26.511 | 153.1 | .591 |
|                      |                        |                       |                   |             |                 |             |               |         | 300            | 7.20  | 34.05 |    | 26.665 | 138.4 | .666 |
|                      |                        |                       |                   |             |                 |             |               |         | 400            | 6.18  | 34.14 |    | 26.873 | 118.7 | .800 |
|                      |                        |                       |                   |             |                 |             |               |         | 500            | 5.73  | 34.24 |    | 27.008 | 105.9 | .918 |

RV DAVID STARR JORDAN CALCOFI CRUISE 6904 93100

| LATITUDE<br>30 30.0N | LONGITUDE<br>122 14.0W | MO/DAY/YR<br>04/06/69 | MESSENGER<br>1705 | TIME<br>GMT | BOTTOM<br>4309M | WIND<br>340 | SPEED<br>10KT | WEATHER | DOMINANT WAVES | DD    |       |    |        |       |      |
|----------------------|------------------------|-----------------------|-------------------|-------------|-----------------|-------------|---------------|---------|----------------|-------|-------|----|--------|-------|------|
| Z                    | T                      | S                     | D2                | P04         | S103            | N02         | N03           | DT      | Z              | T     | S     | D2 | SIGT   | DT    | DD   |
|                      |                        |                       |                   |             |                 |             |               |         | 0              | 14.79 | 33.13 |    | 24.599 | 334.9 | 0    |
|                      |                        |                       |                   |             |                 |             |               |         | 10             | 14.78 | 33.13 |    | 24.601 | 334.7 | .033 |
|                      |                        |                       |                   |             |                 |             |               |         | 20             | 14.69 | 33.13 |    | 24.620 | 332.8 | .067 |
|                      |                        |                       |                   |             |                 |             |               |         | 30             | 14.13 | 33.12 |    | 24.731 | 322.3 | .100 |
|                      |                        |                       |                   |             |                 |             |               |         | 50             | 13.94 | 33.12 |    | 24.770 | 318.6 | .164 |
|                      |                        |                       |                   |             |                 |             |               |         | 75             | 13.32 | 33.00 |    | 24.804 | 315.4 | .244 |
|                      |                        |                       |                   |             |                 |             |               |         | 100            | 12.20 | 33.06 |    | 25.068 | 290.2 | .320 |
|                      |                        |                       |                   |             |                 |             |               |         | 125            | 11.26 | 33.38 |    | 25.490 | 250.0 | .388 |
|                      |                        |                       |                   |             |                 |             |               |         | 150            | 10.44 | 33.54 |    | 25.759 | 224.4 | .448 |
|                      |                        |                       |                   |             |                 |             |               |         | 200            | 9.09  | 33.85 |    | 26.225 | 180.2 | .551 |
|                      |                        |                       |                   |             |                 |             |               |         | 250            | 8.16  | 33.98 |    | 26.471 | 156.9 | .637 |
|                      |                        |                       |                   |             |                 |             |               |         | 300            | 7.34  | 34.01 |    | 26.614 | 143.3 | .715 |
|                      |                        |                       |                   |             |                 |             |               |         | 400            | 6.76  | 34.21 |    | 26.851 | 120.8 | .852 |
|                      |                        |                       |                   |             |                 |             |               |         | 500            | 6.14  | 34.29 |    | 26.996 | 107.1 | .972 |



RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 97032

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER | TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |       |       |    |        |       |      |
|----------|-----------|-----------|-----------|------|--------|------|-------|---------|----------------|-------|-------|----|--------|-------|------|
| 32 12.0N | 117 15.5W | 04/02/69  | 2303      | GMT  | 1387M  | 320  | 12KT  | 1       | 270 04 04      |       |       |    |        |       |      |
| Z        | T         | S         | D2        | P04  | S103   | N02  | N03   | DT      | Z              | T     | S     | D2 | SIGT   | DT    | DD   |
|          |           |           |           |      |        |      |       |         | 0              | 15.52 | 33.46 |    | 24.693 | 325.9 | 0    |
|          |           |           |           |      |        |      |       |         | 10             | 14.98 | 33.48 |    | 24.827 | 313.2 | .032 |
|          |           |           |           |      |        |      |       |         | 20             | 14.25 | 33.56 |    | 25.044 | 292.5 | .062 |
|          |           |           |           |      |        |      |       |         | 30             | 13.81 | 33.52 |    | 25.105 | 286.7 | .091 |
|          |           |           |           |      |        |      |       |         | 50             | 11.22 | 33.58 |    | 25.652 | 234.6 | .144 |
|          |           |           |           |      |        |      |       |         | 75             | 10.84 | 33.71 |    | 25.821 | 218.6 | .201 |
|          |           |           |           |      |        |      |       |         | 100            | 9.99  | 33.74 |    | 25.992 | 202.4 | .254 |
|          |           |           |           |      |        |      |       |         | 125            | 9.55  | 33.85 |    | 26.151 | 187.3 | .303 |
|          |           |           |           |      |        |      |       |         | 150            | 9.29  | 33.98 |    | 26.295 | 173.6 | .349 |
|          |           |           |           |      |        |      |       |         | 200            | 9.22  | 34.18 |    | 26.662 | 157.7 | .433 |
|          |           |           |           |      |        |      |       |         | 250            | 9.00  | 34.27 |    | 26.568 | 147.7 | .512 |
|          |           |           |           |      |        |      |       |         | 300            | 8.38  | 34.26 |    | 26.657 | 139.2 | .586 |
|          |           |           |           |      |        |      |       |         | 400            | 7.41  | 34.27 |    | 26.808 | 124.9 | .724 |
|          |           |           |           |      |        |      |       |         | 500            | 6.21  | 34.27 |    | 26.971 | 109.4 | .848 |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 97032

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER | TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |   |   |    |      |    |    |
|----------|-----------|-----------|-----------|------|--------|------|-------|---------|----------------|---|---|----|------|----|----|
| 32 12.0N | 117 15.5W | 04/03/69  | 0002      | GMT  | 1387M  | 320  | 12KT  | 1       | 270 04 04      |   |   |    |      |    |    |
| Z        | T         | S         | D2        | P04  | S103   | N02  | N03   | DT      | Z              | T | S | D2 | SIGT | DT | DD |
| 1        | 15.36     | 33.47     | 6.11      | .79  | 5.     | .03  | .2    | 321.8   |                |   |   |    |      |    |    |
| 11       | 14.87     | 33.50     | 6.16      | .81  | 2.     | .04  | .5    | 309.4   |                |   |   |    |      |    |    |
| 31       |           |           | 6.00      | .68  | 4.     | .01  | .1    |         |                |   |   |    |      |    |    |
| 46       |           |           | 5.12      | 1.19 | 6.     | .09  | 7.0   |         |                |   |   |    |      |    |    |
| 77       | 10.98     | 33.72     | 3.65      | 1.84 | 18.    | .21  | 15.5  | 220.2   |                |   |   |    |      |    |    |
| 111      |           |           | 3.32      | 1.96 | 24.    | .01  | 21.2  |         |                |   |   |    |      |    |    |
| 135      | 9.69      |           | 2.94      |      | 28.    | .03  | 22.6  |         |                |   |   |    |      |    |    |
| 166      | 8.96      |           | 2.90      | 2.30 | 32.    | .02  | 24.3  |         |                |   |   |    |      |    |    |
| 201      | 9.27      |           | 2.06      | 2.74 | 37.    | .02  | 25.9  |         |                |   |   |    |      |    |    |
| 236      | 9.03      | 34.26     | 1.82      |      |        |      |       | 148.9   |                |   |   |    |      |    |    |
| 269      | 8.43      | 34.24     | 1.71      |      |        |      |       | 141.4   |                |   |   |    |      |    |    |
| 309      | 8.12      |           | 1.32      |      |        |      |       |         |                |   |   |    |      |    |    |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 97035

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER | TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |       |       |    |        |       |      |
|----------|-----------|-----------|-----------|------|--------|------|-------|---------|----------------|-------|-------|----|--------|-------|------|
| 32 05.5N | 117 27.5W | 04/03/69  | 0205      | GMT  | 1210M  | 320  | 14KT  | 1       | 270 04 04      |       |       |    |        |       |      |
| Z        | T         | S         | D2        | P04  | S103   | N02  | N03   | DT      | Z              | T     | S     | D2 | SIGT   | DT    | DD   |
|          |           |           |           |      |        |      |       |         | 0              | 15.13 | 33.55 |    | 24.848 | 311.2 | 0    |
|          |           |           |           |      |        |      |       |         | 10             | 15.14 | 33.55 |    | 24.846 | 311.4 | .031 |
|          |           |           |           |      |        |      |       |         | 20             | 15.04 | 33.55 |    | 24.867 | 309.3 | .062 |
|          |           |           |           |      |        |      |       |         | 30             | 14.07 | 33.42 |    | 24.974 | 299.2 | .093 |
|          |           |           |           |      |        |      |       |         | 50             | 13.38 | 33.47 |    | 25.154 | 282.0 | .151 |
|          |           |           |           |      |        |      |       |         | 75             | 11.38 | 33.50 |    | 25.561 | 243.3 | .217 |
|          |           |           |           |      |        |      |       |         | 100            | 10.65 | 33.68 |    | 25.832 | 217.6 | .275 |
|          |           |           |           |      |        |      |       |         | 125            | 10.13 | 33.81 |    | 26.023 | 199.4 | .328 |
|          |           |           |           |      |        |      |       |         | 150            | 9.62  | 33.98 |    | 26.241 | 178.7 | .376 |
|          |           |           |           |      |        |      |       |         | 200            | 9.05  | 34.11 |    | 26.435 | 160.3 | .462 |
|          |           |           |           |      |        |      |       |         | 250            | 8.04  | 34.11 |    | 26.591 | 145.5 | .541 |
|          |           |           |           |      |        |      |       |         | 300            | 7.54  | 34.20 |    | 26.735 | 131.8 | .612 |
|          |           |           |           |      |        |      |       |         | 400            | 6.63  | 34.22 |    | 26.877 | 118.4 | .743 |
|          |           |           |           |      |        |      |       |         | 500            | 6.06  | 34.30 |    | 27.014 | 105.3 | .861 |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 97035

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER | TIME  | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |   |   |    |      |    |    |
|----------|-----------|-----------|-----------|-------|--------|------|-------|---------|----------------|---|---|----|------|----|----|
| 32 05.5N | 117 27.5W | 04/03/69  | 0257      | GMT   | 1210M  | 320  | 14KT  | 1       | 270 04 04      |   |   |    |      |    |    |
| Z        | T         | S         | D2        | P04   | S103   | N02  | N03   | DT      | Z              | T | S | D2 | SIGT | DT | DD |
| 1        | 15.16     | 33.54     | 5.98      | .63   | 1.     | .00  | .0    | 312.5   |                |   |   |    |      |    |    |
| 11       | 15.15     | 33.54     | 5.90      | 1.29U | 1.     | .00  | .0    | 312.1   |                |   |   |    |      |    |    |
| 31       |           |           | 6.03      | .54   | 1.     | .00  | .0    |         |                |   |   |    |      |    |    |
| 46       |           |           | 5.97      | .61   | 2.     | .01  | .0    |         |                |   |   |    |      |    |    |
| 76       | 10.97     | 33.54     | 4.36      | 1.62  | 13.    | .03  | 13.8  | 233.3   |                |   |   |    |      |    |    |
| 111      |           |           | 3.41      | 2.54  | 21.    | .01  | 20.0  |         |                |   |   |    |      |    |    |
| 135      | 9.60      |           | 3.16      | 2.68  | 24.    | .00  | 19.9  |         |                |   |   |    |      |    |    |
| 165      | 8.94      |           | 2.99      | 3.15U | 32.    | .00  | 25.1  |         |                |   |   |    |      |    |    |
| 199      | 8.96      |           | 2.16      | 2.92  | 39.    | .00  | 27.5  |         |                |   |   |    |      |    |    |
| 234      | 8.17      | 34.09     | 2.39      |       |        |      |       | 148.8   |                |   |   |    |      |    |    |
| 269      | 8.00      | 34.14     | 1.94      |       |        |      |       | 142.7   |                |   |   |    |      |    |    |
| 307      | 7.40      |           | 1.62      |       |        |      |       |         |                |   |   |    |      |    |    |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 97040

| LATITUDE<br>31 54.5N | LONGITUDE<br>117 49.0W | MO/DAY/YR<br>04/03/69 | MESSENGER<br>0547 | TIME<br>GMT | BOTTOM<br>1258M | WIND<br>080 | SPEED<br>12KT | WEATHER<br>6 | DOMINANT WAVES<br>270 04 04 |       |       |        |       |      |    |
|----------------------|------------------------|-----------------------|-------------------|-------------|-----------------|-------------|---------------|--------------|-----------------------------|-------|-------|--------|-------|------|----|
|                      |                        |                       |                   |             |                 |             |               |              |                             |       |       |        |       |      |    |
| Z                    | T                      | S                     | 02                | P04         | S103            | N02         | N03           | DT           | Z                           | T     | S     | 02     | SIGT  | DT   | DD |
|                      |                        |                       |                   |             |                 |             |               |              |                             |       |       |        |       |      |    |
|                      |                        |                       |                   |             |                 |             |               |              | 0                           | 14.81 | 33.53 | 24.902 | 306.0 | 0    |    |
|                      |                        |                       |                   |             |                 |             |               |              | 10                          | 14.82 | 33.54 | 24.907 | 305.5 | .031 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 20                          | 14.82 | 33.54 | 24.907 | 305.5 | .061 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 30                          | 14.77 | 33.54 | 24.918 | 304.5 | .092 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 50                          | 13.43 | 33.52 | 25.182 | 279.3 | .150 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 75                          | 11.89 | 33.47 | 25.444 | 254.4 | .217 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 100                         | 10.10 | 33.70 | 25.942 | 207.1 | .276 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 125                         | 9.72  | 33.87 | 26.138 | 188.4 | .326 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 150                         | 9.50  | 34.03 | 26.299 | 173.2 | .372 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 200                         | 8.87  | 34.11 | 26.463 | 157.5 | .456 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 250                         | 8.28  | 34.21 | 26.633 | 141.5 | .533 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 300                         | 7.75  | 34.22 | 26.720 | 133.3 | .604 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 400                         | 6.85  | 34.24 | 26.863 | 119.7 | .736 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 500                         | 6.20  | 34.30 | 26.996 | 107.0 | .856 |    |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 97040

| LATITUDE<br>31 54.5N | LONGITUDE<br>117 49.0W | MO/DAY/YR<br>04/03/69 | MESSENGER<br>0631 | TIME<br>GMT | BOTTOM<br>1258M | WIND<br>080 | SPEED<br>12KT | WEATHER<br>6 | DOMINANT WAVES<br>270 04 04 |   |   |    |      |    |    |
|----------------------|------------------------|-----------------------|-------------------|-------------|-----------------|-------------|---------------|--------------|-----------------------------|---|---|----|------|----|----|
|                      |                        |                       |                   |             |                 |             |               |              |                             |   |   |    |      |    |    |
| Z                    | T                      | S                     | 02                | P04         | S103            | N02         | N03           | DT           | Z                           | T | S | 02 | SIGT | DT | DD |
|                      |                        |                       |                   |             |                 |             |               |              |                             |   |   |    |      |    |    |
| 1                    | 14.86                  | 33.54                 | 5.90              | .76         | 2.              | .05         | .0            | 306.3        |                             |   |   |    |      |    |    |
| 11                   | 14.83                  | 33.53                 | 5.92              | .40         | 1.              | .02         | .5            | 306.4        |                             |   |   |    |      |    |    |
| 30                   |                        |                       | 6.07              | .47         | 3.              | .06         | .0            |              |                             |   |   |    |      |    |    |
| 45                   |                        |                       | 5.88              | .56         | 2.              | .05         | .9            |              |                             |   |   |    |      |    |    |
| 75                   | 10.92                  |                       | 4.25              | 1.30        | 14.             | .00         | 14.9          |              |                             |   |   |    |      |    |    |
| 109                  |                        |                       | 33.82             | 3.27        | 1.84            | .24         | .00           | 21.9         |                             |   |   |    |      |    |    |
| 133                  | 9.73                   |                       | 2.93              | 2.07        | 28.             | .07         | 23.7          |              |                             |   |   |    |      |    |    |
| 163                  | 9.26                   |                       | 2.68              | 2.50        | 35.             | .00         | 27.6          |              |                             |   |   |    |      |    |    |
| 197                  | 8.70                   |                       | 2.40              | 2.59        | 40.             | .00         | 28.6          |              |                             |   |   |    |      |    |    |
| 232                  | 8.34                   |                       | 2.01              |             |                 |             |               |              |                             |   |   |    |      |    |    |
| 266                  | 8.11                   | 34.19                 | 1.67              |             |                 |             |               | 140.5        |                             |   |   |    |      |    |    |
| 303                  | 7.63                   | 34.22                 | 1.35              |             |                 |             |               | 131.6        |                             |   |   |    |      |    |    |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 97050

| LATITUDE<br>31 33.0N | LONGITUDE<br>118 30.0W | MO/DAY/YR<br>04/03/69 | MESSENGER<br>1321 | TIME<br>GMT | BOTTOM<br>2500M | WIND<br>330 | SPEED<br>17KT | WEATHER<br>1 | DOMINANT WAVES<br>310 04 04 |       |       |        |       |      |    |
|----------------------|------------------------|-----------------------|-------------------|-------------|-----------------|-------------|---------------|--------------|-----------------------------|-------|-------|--------|-------|------|----|
|                      |                        |                       |                   |             |                 |             |               |              |                             |       |       |        |       |      |    |
| Z                    | T                      | S                     | 02                | P04         | S103            | N02         | N03           | DT           | Z                           | T     | S     | 02     | SIGT  | DT   | DD |
|                      |                        |                       |                   |             |                 |             |               |              |                             |       |       |        |       |      |    |
|                      |                        |                       |                   |             |                 |             |               |              | 0                           | 14.28 | 33.25 | 24.799 | 315.8 | 0    |    |
|                      |                        |                       |                   |             |                 |             |               |              | 10                          | 14.28 | 33.26 | 24.807 | 315.1 | .032 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 20                          | 14.28 | 33.26 | 24.807 | 315.1 | .063 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 30                          | 14.15 | 33.27 | 24.842 | 311.7 | .095 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 50                          | 13.16 | 33.33 | 25.090 | 288.1 | .155 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 75                          | 11.15 | 33.28 | 25.432 | 255.5 | .223 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 100                         | 9.99  | 33.59 | 25.875 | 213.4 | .282 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 125                         | 9.97  | 33.81 | 26.050 | 196.9 | .334 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 150                         | 9.54  | 33.96 | 26.238 | 179.0 | .382 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 200                         | 8.76  | 34.04 | 26.426 | 161.1 | .468 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 250                         | 8.15  | 34.13 | 26.590 | 145.6 | .547 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 300                         | 7.63  | 34.17 | 26.698 | 135.3 | .620 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 400                         | 6.72  | 34.23 | 26.872 | 118.8 | .752 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 500                         | 6.19  | 34.31 | 27.005 | 106.2 | .871 |    |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 97060

| LATITUDE<br>31 12.0N | LONGITUDE<br>119 11.0W | MO/DAY/YR<br>04/03/69 | MESSENGER<br>1920 | TIME<br>GMT | BOTTOM<br>3584M | WIND<br>320 | SPEED<br>11KT | WEATHER<br>1 | DOMINANT WAVES<br>320 04 07 |       |       |        |       |      |    |
|----------------------|------------------------|-----------------------|-------------------|-------------|-----------------|-------------|---------------|--------------|-----------------------------|-------|-------|--------|-------|------|----|
|                      |                        |                       |                   |             |                 |             |               |              |                             |       |       |        |       |      |    |
| Z                    | T                      | S                     | 02                | P04         | S103            | N02         | N03           | DT           | Z                           | T     | S     | 02     | SIGT  | DT   | DD |
|                      |                        |                       |                   |             |                 |             |               |              |                             |       |       |        |       |      |    |
|                      |                        |                       |                   |             |                 |             |               |              | 0                           | 14.55 | 33.24 | 24.734 | 321.9 | 0    |    |
|                      |                        |                       |                   |             |                 |             |               |              | 10                          | 14.44 | 33.24 | 24.758 | 319.7 | .032 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 20                          | 14.41 | 33.24 | 24.764 | 319.1 | .064 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 30                          | 14.35 | 33.25 | 24.784 | 317.2 | .096 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 50                          | 13.82 | 33.29 | 24.925 | 303.8 | .158 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 75                          | 12.60 | 33.28 | 25.161 | 281.3 | .232 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 100                         | 11.19 | 33.33 | 25.464 | 252.5 | .299 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 125                         | 10.04 | 33.68 | 25.937 | 207.6 | .357 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 150                         | 9.89  | 33.84 | 26.086 | 193.4 | .408 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 200                         | 9.65  | 34.15 | 26.368 | 166.6 | .500 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 250                         | 8.47  | 34.11 | 26.526 | 151.7 | .581 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 300                         | 7.89  | 34.15 | 26.644 | 140.4 | .657 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 400                         | 6.89  | 34.19 | 26.818 | 123.9 | .795 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 500                         | 6.35  | 34.27 | 26.953 | 111.1 | .919 |    |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 97070

| LATITUDE<br>30 55.0N | LONGITUDE<br>119 50.5W | MO/DAY/YR<br>04/04/69 | MESSENGER<br>0011 | TIME<br>GMT | BOTTOM<br>3776M | WIND<br>340 | SPEED<br>07KT | WEATHER<br>1 | DOMINANT WAVES<br>360 04 08 |       |       |        |       |      |    |
|----------------------|------------------------|-----------------------|-------------------|-------------|-----------------|-------------|---------------|--------------|-----------------------------|-------|-------|--------|-------|------|----|
| Z                    | T                      | S                     | D2                | P04         | S103            | N02         | N03           | DT           | Z                           | T     | S     | D2     | SIGT  | DT   | DD |
|                      |                        |                       |                   |             |                 |             |               |              | 0                           | 14.98 | 33.26 | 24.658 | 329.3 | 0    |    |
|                      |                        |                       |                   |             |                 |             |               |              | 10                          | 14.84 | 33.27 | 24.696 | 325.7 | .033 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 20                          | 14.59 | 33.28 | 24.757 | 319.8 | .065 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 30                          | 14.53 | 33.28 | 24.769 | 318.6 | .097 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 50                          | 13.80 | 33.25 | 24.899 | 306.3 | .160 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 75                          | 13.27 | 33.42 | 25.137 | 283.6 | .234 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 100                         | 11.50 | 33.30 | 25.384 | 260.1 | .302 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 125                         | 11.26 | 33.59 | 25.653 | 234.6 | .365 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 150                         | 10.53 | 33.75 | 25.907 | 210.4 | .421 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 200                         | 9.69  | 34.00 | 26.245 | 178.4 | .520 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 250                         | 9.35  | 34.17 | 26.433 | 160.5 | .607 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 300                         | 8.47  | 34.19 | 26.588 | 145.7 | .686 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 400                         | 7.53  | 34.28 | 26.799 | 125.8 | .828 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 500                         | 6.36  | 34.31 | 26.983 | 108.3 | .952 |    |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 97080

| LATITUDE<br>30 35.0N | LONGITUDE<br>120 30.5W | MO/DAY/YR<br>04/04/69 | MESSENGER<br>0453 | TIME<br>GMT | BOTTOM<br>3889M | WIND<br>350 | SPEED<br>06KT | WEATHER<br>1 | DOMINANT WAVES<br>320 09 08 |       |       |        |       |      |    |
|----------------------|------------------------|-----------------------|-------------------|-------------|-----------------|-------------|---------------|--------------|-----------------------------|-------|-------|--------|-------|------|----|
| Z                    | T                      | S                     | D2                | P04         | S103            | N02         | N03           | DT           | Z                           | T     | S     | D2     | SIGT  | DT   | DD |
|                      |                        |                       |                   |             |                 |             |               |              | 0                           | 15.00 | 33.32 | 24.699 | 325.3 | 0    |    |
|                      |                        |                       |                   |             |                 |             |               |              | 10                          | 14.93 | 33.32 | 24.715 | 323.8 | .032 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 20                          | 14.70 | 33.32 | 24.764 | 319.1 | .065 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 30                          | 14.45 | 33.42 | 24.894 | 306.8 | .096 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 50                          | 14.17 | 33.53 | 25.038 | 293.1 | .156 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 75                          | 13.51 | 33.50 | 25.151 | 282.3 | .229 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 100                         | 11.53 | 33.59 | 25.604 | 239.3 | .294 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 125                         | 10.88 | 33.77 | 25.861 | 214.8 | .352 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 150                         | 10.62 | 33.92 | 26.023 | 199.4 | .404 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 200                         | 10.20 | 34.15 | 26.275 | 175.5 | .500 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 250                         | 9.77  | 34.28 | 26.449 | 158.9 | .586 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 300                         | 8.78  | 34.26 | 26.595 | 145.1 | .664 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 400                         | 7.40  | 34.25 | 26.794 | 126.2 | .806 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 500                         | 6.49  | 34.30 | 26.958 | 110.6 | .931 |    |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 97090

| LATITUDE<br>30 16.0N | LONGITUDE<br>121 09.0W | MO/DAY/YR<br>04/04/69 | MESSENGER<br>0938 | TIME<br>GMT | BOTTOM<br>3898M | WIND<br>360 | SPEED<br>02KT | WEATHER<br>2 | DOMINANT WAVES<br>360 04 08 |       |       |        |       |      |    |
|----------------------|------------------------|-----------------------|-------------------|-------------|-----------------|-------------|---------------|--------------|-----------------------------|-------|-------|--------|-------|------|----|
| Z                    | T                      | S                     | D2                | P04         | S103            | N02         | N03           | DT           | Z                           | T     | S     | D2     | SIGT  | DT   | DD |
|                      |                        |                       |                   |             |                 |             |               |              | 0                           | 15.31 | 33.34 | 24.647 | 330.3 | 0    |    |
|                      |                        |                       |                   |             |                 |             |               |              | 10                          | 15.31 | 33.35 | 24.655 | 329.5 | .033 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 20                          | 15.13 | 33.33 | 24.679 | 327.2 | .066 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 30                          | 14.60 | 33.29 | 24.762 | 319.3 | .098 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 50                          | 14.56 | 33.34 | 24.809 | 314.8 | .162 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 75                          | 13.68 | 33.26 | 24.931 | 303.2 | .240 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 100                         | 11.54 | 33.15 | 25.261 | 271.8 | .312 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 125                         | 10.09 | 33.39 | 25.703 | 229.8 | .375 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 150                         | 9.71  | 33.68 | 25.992 | 202.3 | .430 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 200                         | 8.77  | 34.03 | 26.417 | 162.0 | .523 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 250                         | 7.92  | 34.03 | 26.546 | 149.7 | .603 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 300                         | 7.66  | 34.14 | 26.670 | 138.0 | .677 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 400                         | 6.45  | 34.17 | 26.861 | 119.8 | .811 |    |
|                      |                        |                       |                   |             |                 |             |               |              | 500                         | 5.97  | 34.31 | 27.033 | 103.5 | .929 |    |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 100030

| LATITUDE<br>31 40.5N | LONGITUDE<br>116 46.5W | MO/DAY/YR<br>04/06/69 | MESSENGER<br>0855 | TIME<br>GMT | BOTTOM<br>427M | WIND<br>320 | SPEED<br>12KT | WEATHER<br>5 | DOMINANT WAVES<br>03 |       |       |        |       |      |    |
|----------------------|------------------------|-----------------------|-------------------|-------------|----------------|-------------|---------------|--------------|----------------------|-------|-------|--------|-------|------|----|
| Z                    | T                      | S                     | D2                | P04         | S103           | N02         | N03           | DT           | Z                    | T     | S     | D2     | SIGT  | DT   | DD |
|                      |                        |                       |                   |             |                |             |               |              | 0                    | 13.60 | 33.55 | 25.171 | 280.4 | 0    |    |
|                      |                        |                       |                   |             |                |             |               |              | 10                   | 12.20 | 33.57 | 25.463 | 252.7 | .027 |    |
|                      |                        |                       |                   |             |                |             |               |              | 20                   | 10.61 | 33.61 | 25.784 | 222.1 | .050 |    |
|                      |                        |                       |                   |             |                |             |               |              | 30                   | 10.22 | 33.68 | 25.906 | 210.5 | .072 |    |
|                      |                        |                       |                   |             |                |             |               |              | 50                   | 9.94  | 33.80 | 26.047 | 197.1 | .113 |    |
|                      |                        |                       |                   |             |                |             |               |              | 75                   | 10.12 | 33.92 | 26.110 | 191.1 | .162 |    |
|                      |                        |                       |                   |             |                |             |               |              | 100                  | 10.03 | 33.97 | 26.164 | 186.0 | .210 |    |
|                      |                        |                       |                   |             |                |             |               |              | 125                  | 9.75  | 34.06 | 26.281 | 174.9 | .255 |    |
|                      |                        |                       |                   |             |                |             |               |              | 150                  | 9.62  | 34.13 | 26.357 | 167.6 | .299 |    |
|                      |                        |                       |                   |             |                |             |               |              | 200                  | 9.48  | 34.26 | 26.482 | 155.8 | .381 |    |
|                      |                        |                       |                   |             |                |             |               |              | 250                  | 9.03  | 34.29 | 26.578 | 146.7 | .459 |    |
|                      |                        |                       |                   |             |                |             |               |              | 300                  | 8.65  | 34.29 | 26.639 | 141.0 | .534 |    |
|                      |                        |                       |                   |             |                |             |               |              | 400                  | 7.73  | 34.28 | 26.770 | 128.5 | .675 |    |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 100030

| LATITUDE<br>31 40.5N | LONGITUDE<br>116 46.5W | MO/DAY/YR<br>04/06/69 | MESSENDER TIME<br>1003 GMT | BOTTOM<br>427M | WIND<br>320 | SPEED<br>12KT | WEATHER<br>5 | DOMINANT WAVES<br>03 |   |   |   |    |      |    |    |  |
|----------------------|------------------------|-----------------------|----------------------------|----------------|-------------|---------------|--------------|----------------------|---|---|---|----|------|----|----|--|
| Z                    | T                      | S                     | D2                         | P04            | S103        | N02           | N03          | DT                   | Z | T | S | D2 | SIGT | DT | DD |  |
| 0                    |                        | 33.58                 | 6.15                       | .43            | 2.          |               | .0           |                      |   |   |   |    |      |    |    |  |
| 10                   | 11.81                  | 33.62                 | 4.67                       | .85            | 8.          |               | 6.8          | 242.0                |   |   |   |    |      |    |    |  |
| 30                   |                        |                       | 3.74                       | 1.28           | 16.         |               | 14.6         |                      |   |   |   |    |      |    |    |  |
| 55                   |                        |                       | 3.36                       | 1.51           | 20.         |               | 17.2         |                      |   |   |   |    |      |    |    |  |
| 83                   | 9.99                   | 33.93                 | 2.98                       | 2.00           | 27.         |               | 22.1         | 188.3                |   |   |   |    |      |    |    |  |
| 123                  | 9.79                   |                       | 2.59                       | 1.30U          | 19.U        |               | 15.5U        |                      |   |   |   |    |      |    |    |  |
| 143                  | 9.62                   |                       | 2.34                       | 2.61           | 37.         |               | 26.9         |                      |   |   |   |    |      |    |    |  |
| 171                  | 9.69                   |                       | 1.71                       | 2.56           | 37.         |               | 26.9         |                      |   |   |   |    |      |    |    |  |
| 200                  | 9.36                   |                       | 1.35                       |                |             |               |              |                      |   |   |   |    |      |    |    |  |
| 288                  | 8.71                   | 34.32                 | 1.04                       |                |             |               |              | 139.6                |   |   |   |    |      |    |    |  |
| 343                  | 8.19                   | 34.31                 | .92                        |                |             |               |              | 132.8                |   |   |   |    |      |    |    |  |
| 403                  | 7.71                   |                       | .80                        |                |             |               |              |                      |   |   |   |    |      |    |    |  |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 100035

| LATITUDE<br>31 30.5N | LONGITUDE<br>117 07.0W | MO/DAY/YR<br>04/06/69 | MESSENDER TIME<br>0449 GMT | BOTTOM<br>1184M | WIND<br>230 | SPEED<br>06KT | WEATHER<br>5 | DOMINANT WAVES<br>04 |     |       |       |    |        |       |      |
|----------------------|------------------------|-----------------------|----------------------------|-----------------|-------------|---------------|--------------|----------------------|-----|-------|-------|----|--------|-------|------|
| Z                    | T                      | S                     | D2                         | P04             | S103        | N02           | N03          | DT                   | Z   | T     | S     | D2 | SIGT   | DT    | DD   |
|                      |                        |                       |                            |                 |             |               |              |                      | 0   | 15.62 | 33.51 |    | 24.709 | 324.4 | 0    |
|                      |                        |                       |                            |                 |             |               |              |                      | 10  | 15.45 | 33.51 |    | 24.747 | 320.8 | .032 |
|                      |                        |                       |                            |                 |             |               |              |                      | 20  | 15.00 | 33.51 |    | 24.845 | 311.4 | .064 |
|                      |                        |                       |                            |                 |             |               |              |                      | 30  | 14.75 | 33.51 |    | 24.899 | 306.3 | .095 |
|                      |                        |                       |                            |                 |             |               |              |                      | 50  | 12.61 | 33.53 |    | 25.353 | 263.1 | .152 |
|                      |                        |                       |                            |                 |             |               |              |                      | 75  | 11.29 | 33.68 |    | 25.717 | 228.5 | .214 |
|                      |                        |                       |                            |                 |             |               |              |                      | 100 | 10.08 | 33.82 |    | 26.039 | 197.9 | .268 |
|                      |                        |                       |                            |                 |             |               |              |                      | 125 | 9.49  | 33.85 |    | 26.161 | 186.3 | .316 |
|                      |                        |                       |                            |                 |             |               |              |                      | 150 | 9.22  | 33.98 |    | 26.306 | 172.5 | .362 |
|                      |                        |                       |                            |                 |             |               |              |                      | 200 | 8.30  | 34.06 |    | 26.513 | 152.9 | .445 |
|                      |                        |                       |                            |                 |             |               |              |                      | 250 | 8.23  | 34.17 |    | 26.609 | 143.7 | .521 |
|                      |                        |                       |                            |                 |             |               |              |                      | 300 | 8.04  | 34.26 |    | 26.708 | 134.3 | .593 |
|                      |                        |                       |                            |                 |             |               |              |                      | 400 | 7.11  | 34.26 |    | 26.843 | 121.6 | .727 |
|                      |                        |                       |                            |                 |             |               |              |                      | 500 | 6.14  | 34.29 |    | 26.996 | 107.1 | .847 |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 100035

| LATITUDE<br>31 30.5N | LONGITUDE<br>117 07.0W | MO/DAY/YR<br>04/06/69 | MESSENDER TIME<br>0529 GMT | BOTTOM<br>1184M | WIND<br>230 | SPEED<br>06KT | WEATHER<br>5 | DOMINANT WAVES<br>04 |   |   |   |    |      |    |    |  |
|----------------------|------------------------|-----------------------|----------------------------|-----------------|-------------|---------------|--------------|----------------------|---|---|---|----|------|----|----|--|
| Z                    | T                      | S                     | D2                         | P04             | S103        | N02           | N03          | DT                   | Z | T | S | D2 | SIGT | DT | DD |  |
| 0                    |                        | 33.52                 | 5.81                       | .27             | 0.          |               | .0           |                      |   |   |   |    |      |    |    |  |
| 10                   | 15.47                  | 33.51                 | 5.88                       | .27             | 0.          |               | .0           | 321.2                |   |   |   |    |      |    |    |  |
| 30                   |                        |                       | 5.92                       | .20             | 0.          |               | .0           |                      |   |   |   |    |      |    |    |  |
| 50                   |                        |                       | 5.31                       | .22             | 2.          |               | 1.6          |                      |   |   |   |    |      |    |    |  |
| 78                   | 11.18                  |                       | 3.71                       | .29             | 9.          |               | 8.8          |                      |   |   |   |    |      |    |    |  |
| 107                  | 10.08                  |                       | 3.21                       | .72             | 15.         |               | 13.6         |                      |   |   |   |    |      |    |    |  |
| 151                  | 9.34                   |                       | 2.97                       | 1.13            | 23.         |               | 18.4         |                      |   |   |   |    |      |    |    |  |
| 199                  | 8.26                   |                       | 2.75                       | 1.51            | 32.         |               | 21.9         |                      |   |   |   |    |      |    |    |  |
| 248                  | 8.03                   |                       | 2.13                       |                 |             |               |              |                      |   |   |   |    |      |    |    |  |
| 301                  | 8.06                   | 34.26                 | 1.20                       |                 |             |               |              | 134.6                |   |   |   |    |      |    |    |  |
| 399                  | 7.19                   | 34.27                 | .90                        |                 |             |               |              | 121.9                |   |   |   |    |      |    |    |  |
| 503                  | 6.15                   |                       | .58                        |                 |             |               |              |                      |   |   |   |    |      |    |    |  |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 100040

| LATITUDE<br>31 21.0N | LONGITUDE<br>117 27.0W | MO/DAY/YR<br>04/06/69 | MESSENDER TIME<br>0032 GMT | BOTTOM<br>2018M | WIND<br>270 | SPEED<br>12KT | WEATHER<br>2 | DOMINANT WAVES<br>270 04 06 |     |       |       |    |        |       |      |
|----------------------|------------------------|-----------------------|----------------------------|-----------------|-------------|---------------|--------------|-----------------------------|-----|-------|-------|----|--------|-------|------|
| Z                    | T                      | S                     | D2                         | P04             | S103        | N02           | N03          | DT                          | Z   | T     | S     | D2 | SIGT   | DT    | DD   |
|                      |                        |                       |                            |                 |             |               |              |                             | 0   | 15.19 | 33.57 |    | 24.850 | 311.0 | 0    |
|                      |                        |                       |                            |                 |             |               |              |                             | 10  | 14.82 | 33.62 |    | 24.969 | 299.6 | .031 |
|                      |                        |                       |                            |                 |             |               |              |                             | 20  | 14.71 | 33.65 |    | 25.015 | 295.2 | .060 |
|                      |                        |                       |                            |                 |             |               |              |                             | 30  | 13.61 | 33.66 |    | 25.254 | 272.5 | .089 |
|                      |                        |                       |                            |                 |             |               |              |                             | 50  | 11.91 | 33.74 |    | 25.649 | 234.9 | .140 |
|                      |                        |                       |                            |                 |             |               |              |                             | 75  | 10.58 | 33.96 |    | 26.061 | 195.7 | .194 |
|                      |                        |                       |                            |                 |             |               |              |                             | 100 | 9.93  | 34.07 |    | 26.259 | 177.0 | .241 |
|                      |                        |                       |                            |                 |             |               |              |                             | 125 | 9.80  | 34.12 |    | 26.320 | 171.2 | .285 |
|                      |                        |                       |                            |                 |             |               |              |                             | 150 | 9.34  | 34.12 |    | 26.396 | 164.0 | .328 |
|                      |                        |                       |                            |                 |             |               |              |                             | 200 | 8.89  | 34.17 |    | 26.507 | 153.4 | .409 |
|                      |                        |                       |                            |                 |             |               |              |                             | 250 | 8.35  | 34.21 |    | 26.622 | 142.5 | .485 |
|                      |                        |                       |                            |                 |             |               |              |                             | 300 | 7.77  | 34.23 |    | 26.725 | 132.8 | .556 |
|                      |                        |                       |                            |                 |             |               |              |                             | 400 | 6.96  | 34.26 |    | 26.863 | 119.6 | .688 |
|                      |                        |                       |                            |                 |             |               |              |                             | 500 | 6.19  | 34.30 |    | 26.997 | 106.9 | .808 |

## RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 100040

| LATITUDE<br>31 21.0N | LONGITUDE<br>117 27.0W | MO/DAY/YR<br>04/06/69 | MESSANGER TIME<br>0145 GMT | BOTTOM<br>2018M | WIND<br>270 | SPEED<br>12KT | WEATHER<br>2 | DOMINANT WAVES<br>270 04 06 |
|----------------------|------------------------|-----------------------|----------------------------|-----------------|-------------|---------------|--------------|-----------------------------|
| 0                    | 33.62                  | 5.98                  | .18 0.                     | .0              |             |               |              |                             |
| 11                   | 14.69                  | 33.64                 | 6.11 .36 0.                | .0              | 295.5       |               |              |                             |
| 31                   |                        | 5.61                  | .65 5.                     | 1.9             |             |               |              |                             |
| 51                   |                        | 3.41                  | .63 8.                     | 6.8             |             |               |              |                             |
| 80                   | 10.07                  | 34.01                 | 2.63 .95 14.               | 12.1            | 183.7       |               |              |                             |
| 110                  | 9.88                   |                       | 2.39 .97 15.               | 12.2            |             |               |              |                             |
| 154                  | 9.32                   |                       | 2.45 1.64 25.              | 18.9            |             |               |              |                             |
| 204                  | 8.80                   |                       | 2.07                       |                 |             |               |              |                             |
| 253                  | 8.14                   |                       | 1.72                       |                 |             |               |              |                             |
| 307                  | 7.76                   | 34.26                 | 1.16                       |                 | 130.4       |               |              |                             |
| 405                  | 6.84                   | 34.28                 | .70                        |                 | 116.6       |               |              |                             |
| 508                  | 6.08                   |                       | .54                        |                 |             |               |              |                             |

## RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 100050

| LATITUDE<br>31 01.5N | LONGITUDE<br>118 07.0W | MO/DAY/YR<br>04/05/69 | MESSANGER TIME<br>1738 GMT | BOTTOM<br>1731M | WIND<br>230 | SPEED<br>04KT | WEATHER<br>1 | DOMINANT WAVES<br>260 04 06 |
|----------------------|------------------------|-----------------------|----------------------------|-----------------|-------------|---------------|--------------|-----------------------------|
| 0                    |                        |                       |                            |                 |             |               |              |                             |
| 10                   |                        | 15.05                 | 33.53                      |                 |             |               |              |                             |
| 20                   |                        | 15.03                 | 33.54                      |                 |             |               |              |                             |
| 30                   |                        | 14.95                 | 33.53                      |                 |             |               |              |                             |
| 50                   |                        | 14.52                 | 33.50                      |                 |             |               |              |                             |
| 75                   |                        | 12.38                 | 33.57                      |                 |             |               |              |                             |
| 100                  |                        | 11.37                 | 33.73                      |                 |             |               |              |                             |
| 125                  |                        | 11.12                 | 33.97                      |                 |             |               |              |                             |
| 150                  |                        | 10.63                 | 34.06                      |                 |             |               |              |                             |
| 200                  |                        | 9.78                  | 34.22                      |                 |             |               |              |                             |
| 250                  |                        | 9.38                  | 34.29                      |                 |             |               |              |                             |
| 300                  |                        | 8.73                  | 34.31                      |                 |             |               |              |                             |
| 400                  |                        | 7.50                  | 34.30                      |                 |             |               |              |                             |
| 500                  |                        | 6.52                  | 34.30                      |                 |             |               |              |                             |
|                      |                        |                       |                            |                 |             |               |              |                             |

## RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 100050

| LATITUDE<br>31 01.5N | LONGITUDE<br>118 07.0W | MO/DAY/YR<br>04/05/69 | MESSANGER TIME<br>1829 GMT | BOTTOM<br>1731M | WIND<br>230 | SPEED<br>04KT | WEATHER<br>1 | DOMINANT WAVES<br>260 04 06 |
|----------------------|------------------------|-----------------------|----------------------------|-----------------|-------------|---------------|--------------|-----------------------------|
| 0                    |                        |                       |                            |                 |             |               |              |                             |
| 11                   | 15.08                  | 33.54                 | 5.85 .13 1.                | .0              | 310.9       |               |              |                             |
| 31                   |                        | 5.91                  | .11 0.                     | .0              |             |               |              |                             |
| 51                   |                        | 5.93                  | .18 3.                     | .0              |             |               |              |                             |
| 80                   | 12.27                  | 33.63                 | 4.02 .70 7.                | 7.0             | 249.5       |               |              |                             |
| 110                  | 11.23                  |                       | 3.14 .65 8.                |                 | 7.6         |               |              |                             |
| 154                  | 10.58                  |                       | 2.34 1.30 19.              |                 | 15.0        |               |              |                             |
| 204                  | 9.82                   |                       | 1.92 1.24 19.              |                 | 14.6        |               |              |                             |
| 254                  | 9.41                   |                       | 1.47                       |                 |             |               |              |                             |
| 308                  | 8.73                   | 34.32                 | 1.08                       |                 | 139.9       |               |              |                             |
| 407                  | 7.30                   | 34.30                 | .74                        |                 | 121.2       |               |              |                             |
| 510                  | 6.25                   |                       | .38                        |                 |             |               |              |                             |

## RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 100060

| LATITUDE<br>30 43.5N | LONGITUDE<br>118 47.5W | MO/DAY/YR<br>04/05/69 | MESSANGER TIME<br>1023 GMT | BOTTOM<br>2933M | WIND<br>230 | SPEED<br>02KT | WEATHER<br>0 | DOMINANT WAVES<br>270 06 08 |
|----------------------|------------------------|-----------------------|----------------------------|-----------------|-------------|---------------|--------------|-----------------------------|
| 0                    |                        |                       |                            |                 |             |               |              |                             |
| 10                   |                        | 15.21                 | 33.54                      |                 |             |               |              |                             |
| 20                   |                        | 15.22                 | 33.54                      |                 |             |               |              |                             |
| 30                   |                        | 15.09                 | 33.53                      |                 |             |               |              |                             |
| 50                   |                        | 15.06                 | 33.54                      |                 |             |               |              |                             |
| 75                   |                        | 12.19                 | 33.49                      |                 |             |               |              |                             |
| 100                  |                        | 10.83                 | 33.61                      |                 |             |               |              |                             |
| 125                  |                        | 10.12                 | 33.72                      |                 |             |               |              |                             |
| 150                  |                        | 9.46                  | 33.86                      |                 |             |               |              |                             |
| 200                  |                        | 8.73                  | 34.01                      |                 |             |               |              |                             |
| 250                  |                        | 7.92                  | 34.05                      |                 |             |               |              |                             |
| 300                  |                        | 7.40                  | 34.12                      |                 |             |               |              |                             |
| 400                  |                        | 6.72                  | 34.21                      |                 |             |               |              |                             |
| 500                  |                        | 5.81                  | 34.25                      |                 |             |               |              |                             |
|                      |                        |                       |                            |                 |             |               |              |                             |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

100060

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENDER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |       |   |   |    |      |    |    |  |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-------|---|---|----|------|----|----|--|
| 30 43.5N | 118 47.5W | 04/05/69  | 1105 GMT       | 2933M  | 230  | 02KT  | 0       | 270 06 08      |       |   |   |    |      |    |    |  |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z     | T | S | D2 | SIGT | DT | DD |  |
| 0        |           | 33.55     | 5.76           | .38    | 1.   |       | .0      |                |       |   |   |    | 5.76 |    |    |  |
| 11       | 15.24     | 33.54     | 5.77           | .27    | 2.   |       | .0      | 314.2          |       |   |   |    | 5.77 |    |    |  |
| 40       |           |           | 5.80           | .45    | 1.   |       | .0      |                |       |   |   |    | 5.78 |    |    |  |
| 59       |           |           | 5.71           | .40    | 2.   |       | .0      |                |       |   |   |    | 5.79 |    |    |  |
| 79       | 11.07     |           | 3.90           | 1.35   | 16.  |       | 15.5    |                |       |   |   |    | 5.75 |    |    |  |
| 109      | 10.21     |           | 3.55           | 1.69   | 22.  |       | 19.0    |                |       |   |   |    | 4.28 |    |    |  |
| 153      | 9.37      |           | 3.08           | 1.96   | 29.  |       | 22.6    |                |       |   |   |    | 3.65 |    |    |  |
| 203      | 8.38      |           | 2.96           | 1.78U  | 34.  |       | 23.6    |                |       |   |   |    | 3.36 |    |    |  |
| 251      | 7.86      |           | 2.48           |        |      |       |         |                |       |   |   |    | 3.11 |    |    |  |
| 308      | 7.39      | 34.15     | 1.60           |        |      |       |         | 133.5          |       |   |   |    | 2.97 |    |    |  |
| 407      | 6.71      | 34.24     | .82            |        |      |       |         |                | 117.9 |   |   |    | 2.49 |    |    |  |
| 511      | 5.81      |           | .54            |        |      |       |         |                |       |   |   |    | 1.72 |    |    |  |
|          |           |           |                |        |      |       |         |                |       |   |   |    | .85  |    |    |  |
|          |           |           |                |        |      |       |         |                |       |   |   |    | .54  |    |    |  |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

100070

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENDER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |    |        |       |      |  |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|----|--------|-------|------|--|
| 30 20.0N | 119 27.0W | 04/05/69  | 0407 GMT       | 3870M  | 310  | 04KT  | 0       | 310 08 09      |     |       |       |    |        |       |      |  |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z   | T     | S     | D2 | SIGT   | DT    | DD   |  |
| 0        |           |           |                |        |      | 15.47 | 33.49   |                | 0   | 15.47 | 33.49 |    | 24.727 | 322.7 | 0    |  |
| 10       |           |           |                |        |      | 15.08 | 33.49   |                | 10  | 15.08 | 33.49 |    | 24.813 | 314.5 | .032 |  |
| 20       |           |           |                |        |      | 15.01 | 33.49   |                | 20  | 15.01 | 33.49 |    | 24.828 | 313.1 | .063 |  |
| 30       |           |           |                |        |      | 14.89 | 33.48   |                | 30  | 14.89 | 33.48 |    | 24.846 | 311.3 | .095 |  |
| 50       |           |           |                |        |      | 14.23 | 33.48   |                | 50  | 14.23 | 33.48 |    | 24.987 | 297.9 | .156 |  |
| 75       |           |           |                |        |      | 12.05 | 33.41   |                | 75  | 12.05 | 33.41 |    | 25.367 | 261.7 | .226 |  |
| 100      |           |           |                |        |      | 10.86 | 33.57   |                | 100 | 10.86 | 33.57 |    | 25.709 | 229.2 | .288 |  |
| 125      |           |           |                |        |      | 9.83  | 33.77   |                | 125 | 9.83  | 33.77 |    | 26.042 | 197.6 | .342 |  |
| 150      |           |           |                |        |      | 9.24  | 33.90   |                | 150 | 9.24  | 33.90 |    | 26.240 | 178.8 | .390 |  |
| 200      |           |           |                |        |      | 8.67  | 34.05   |                | 200 | 8.67  | 34.05 |    | 26.448 | 159.1 | .476 |  |
| 250      |           |           |                |        |      | 7.93  | 34.10   |                | 250 | 7.93  | 34.10 |    | 26.599 | 144.7 | .554 |  |
| 300      |           |           |                |        |      | 7.39  | 34.11   |                | 300 | 7.39  | 34.11 |    | 26.685 | 136.5 | .626 |  |
| 400      |           |           |                |        |      | 6.76  | 34.25   |                | 400 | 6.76  | 34.25 |    | 26.883 | 117.8 | .759 |  |
| 500      |           |           |                |        |      | 6.09  | 34.30   |                | 500 | 6.09  | 34.30 |    | 27.010 | 105.7 | .877 |  |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

100070

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENDER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |       |   |   |    |      |    |    |  |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-------|---|---|----|------|----|----|--|
| 30 20.0N | 119 27.0W | 04/05/69  | 0451 GMT       | 3870M  | 310  | 04KT  | 0       | 310 08 09      |       |   |   |    |      |    |    |  |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z     | T | S | D2 | SIGT | DT | DD |  |
| 0        |           | 33.50     | 5.95           | .36    | 0.   |       | .0      |                |       |   |   |    |      |    |    |  |
| 11       | 15.10     | 33.51     | 5.92           | .27    | 0.   |       | .0      | 313.5          |       |   |   |    |      |    |    |  |
| 31       |           |           | 5.91           | .25    | 0.   |       | .0      |                |       |   |   |    |      |    |    |  |
| 55       |           |           | 5.81           | .34    | 1.   |       | .0      |                |       |   |   |    |      |    |    |  |
| 90       | 11.11     | 33.57     | 4.15           | .88    | 10.  |       | 10.3    | 233.5          |       |   |   |    |      |    |    |  |
| 119      | 9.82      |           | 3.43           | 1.30   | 17.  |       | 16.0    |                |       |   |   |    |      |    |    |  |
| 164      | 9.11      |           | 2.89           | 1.22   | 19.  |       | 15.6    |                |       |   |   |    |      |    |    |  |
| 220      | 8.50      |           | 2.57           | 1.84   | 31.  |       | 22.2    |                |       |   |   |    |      |    |    |  |
| 274      | 7.69      |           | 1.83           |        |      |       |         |                |       |   |   |    |      |    |    |  |
| 329      | 7.51      | 34.24     | 1.14           |        |      |       |         | 128.5          |       |   |   |    |      |    |    |  |
| 439      | 6.61      | 34.29     | .57            |        |      |       |         |                | 112.9 |   |   |    |      |    |    |  |
| 548      | 5.83      |           | .34            |        |      |       |         |                |       |   |   |    |      |    |    |  |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

100080

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENDER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |    |        |       |      |  |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|----|--------|-------|------|--|
| 30 00.0N | 120 07.0W | 04/04/69  | 2047 GMT       | 4088M  | 280  | 05KT  | 1       | 310 10 09      |     |       |       |    |        |       |      |  |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z   | T     | S     | D2 | SIGT   | DT    | DD   |  |
| 0        |           |           |                |        |      | 16.20 | 33.56   |                | 0   | 16.20 | 33.56 |    | 24.617 | 333.2 | 0    |  |
| 10       |           |           |                |        |      | 15.41 | 33.56   |                | 10  | 15.41 | 33.56 |    | 24.794 | 316.3 | .032 |  |
| 20       |           |           |                |        |      | 15.33 | 33.56   |                | 20  | 15.33 | 33.56 |    | 24.812 | 314.6 | .064 |  |
| 30       |           |           |                |        |      | 15.18 | 33.56   |                | 30  | 15.18 | 33.56 |    | 24.844 | 311.5 | .095 |  |
| 50       |           |           |                |        |      | 14.62 | 33.54   |                | 50  | 14.62 | 33.54 |    | 24.950 | 301.4 | .157 |  |
| 75       |           |           |                |        |      | 13.32 | 33.47   |                | 75  | 13.32 | 33.47 |    | 25.166 | 280.9 | .230 |  |
| 100      |           |           |                |        |      | 10.82 | 33.48   |                | 100 | 10.82 | 33.48 |    | 25.646 | 235.2 | .295 |  |
| 125      |           |           |                |        |      | 9.99  | 33.69   |                | 125 | 9.99  | 33.69 |    | 25.953 | 206.1 | .351 |  |
| 150      |           |           |                |        |      | 9.66  | 33.85   |                | 150 | 9.66  | 33.85 |    | 26.133 | 189.0 | .401 |  |
| 200      |           |           |                |        |      | 8.82  | 34.01   |                | 200 | 8.82  | 34.01 |    | 26.393 | 166.3 | .491 |  |
| 250      |           |           |                |        |      | 8.39  | 34.12   |                | 250 | 8.39  | 34.12 |    | 26.546 | 149.8 | .572 |  |
| 300      |           |           |                |        |      | 7.88  | 34.23   |                | 300 | 7.88  | 34.23 |    | 26.709 | 134.3 | .645 |  |
| 400      |           |           |                |        |      | 6.75  | 34.25   |                | 400 | 6.75  | 34.25 |    | 26.884 | 117.7 | .777 |  |
| 500      |           |           |                |        |      | 6.00  | 34.32   |                | 500 | 6.00  | 34.32 |    | 27.038 | 103.1 | .893 |  |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 100080

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER | TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |   |   |    |      |    |    |  |
|----------|-----------|-----------|-----------|------|--------|------|-------|---------|----------------|---|---|----|------|----|----|--|
| 30 00.0N | 120 07.0W | 04/04/69  | 2232      | GMT  | 4088M  | 280  | 05KT  | 1       | 310 10 09      |   |   |    |      |    |    |  |
| Z        | T         | S         | D2        | P04  | S103   | N02  | N03   | DT      | Z              | T | S | D2 | SIGT | DT | DD |  |
| 0        |           | 33.56     | 5.94      | .52  | 0.     |      | .0    |         |                |   |   |    |      |    |    |  |
| 11       | 15.45     | 33.56     | 5.86      | .54  | 0.     |      | .0    | 317.1   |                |   |   |    |      |    |    |  |
| 33       |           |           | 5.92      | .32  | 0.     |      | .0    |         |                |   |   |    |      |    |    |  |
| 54       |           |           | 5.95      | .34  | 12.    |      | .0    |         |                |   |   |    |      |    |    |  |
| 88       | 11.06     | 33.45     | 4.74      | .99  | 16.    |      | 12.0  | 241.5   |                |   |   |    |      |    |    |  |
| 118      | 10.01     |           | 3.77      | 1.22 | 22.    |      | 15.8  |         |                |   |   |    |      |    |    |  |
| 162      | 9.07      |           | 2.94      | 1.08 | 33.    |      | 15.9  |         |                |   |   |    |      |    |    |  |
| 216      | 8.45      |           | 2.23      | 2.25 | 41.    |      | 26.5  |         |                |   |   |    |      |    |    |  |
| 271      | 8.08      |           | 1.58      |      |        |      |       |         |                |   |   |    |      |    |    |  |
| 336      | 7.44      | 34.24     | 1.13      |      |        |      |       | 127.5   |                |   |   |    |      |    |    |  |
| 435      | 6.43      | 34.29     | .51       |      |        |      |       | 110.6   |                |   |   |    |      |    |    |  |
| 544      |           |           | .38       |      |        |      |       |         |                |   |   |    |      |    |    |  |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 100090

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER | TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |       |       |    |        |       |      |
|----------|-----------|-----------|-----------|------|--------|------|-------|---------|----------------|-------|-------|----|--------|-------|------|
| 29 39.5N | 120 45.5W | 04/04/69  | 1441      | GMT  | 3970M  | 300  | 02KT  | 2       | 290 11 09      |       |       |    |        |       |      |
| Z        | T         | S         | D2        | P04  | S103   | N02  | N03   | DT      | Z              | T     | S     | D2 | SIGT   | DT    | DD   |
| 0        |           |           |           |      |        |      |       |         | 0              | 15.25 | 33.33 |    | 24.653 | 329.7 | 0    |
| 10       |           |           |           |      |        |      |       |         | 10             | 15.26 | 33.34 |    | 24.658 | 329.2 | .033 |
| 20       |           |           |           |      |        |      |       |         | 20             | 15.24 | 33.33 |    | 24.655 | 329.5 | .066 |
| 30       |           |           |           |      |        |      |       |         | 30             | 15.08 | 33.33 |    | 24.690 | 326.2 | .099 |
| 50       |           |           |           |      |        |      |       |         | 50             | 14.69 | 33.37 |    | 24.805 | 315.3 | .163 |
| 75       |           |           |           |      |        |      |       |         | 75             | 14.19 | 33.37 |    | 24.910 | 305.2 | .241 |
| 100      |           |           |           |      |        |      |       |         | 100            | 12.90 | 33.36 |    | 25.165 | 281.0 | .315 |
| 125      |           |           |           |      |        |      |       |         | 125            | 11.13 | 33.45 |    | 25.568 | 242.7 | .381 |
| 150      |           |           |           |      |        |      |       |         | 150            | 10.21 | 33.63 |    | 25.869 | 214.0 | .439 |
| 200      |           |           |           |      |        |      |       |         | 200            | 9.15  | 33.97 |    | 26.309 | 172.2 | .537 |
| 250      |           |           |           |      |        |      |       |         | 250            | 7.98  | 34.05 |    | 26.553 | 149.1 | .620 |
| 300      |           |           |           |      |        |      |       |         | 300            | 7.38  | 34.08 |    | 26.663 | 138.6 | .694 |
| 400      |           |           |           |      |        |      |       |         | 400            | 6.53  | 34.18 |    | 26.858 | 120.1 | .828 |
| 500      |           |           |           |      |        |      |       |         | 500            | 6.10  | 34.29 |    | 27.001 | 106.6 | .948 |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 100090

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER | TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |   |   |    |      |    |    |  |
|----------|-----------|-----------|-----------|------|--------|------|-------|---------|----------------|---|---|----|------|----|----|--|
| 29 39.5N | 120 45.5W | 04/04/69  | 1522      | GMT  | 3970M  | 300  | 02KT  | 2       | 290 11 09      |   |   |    |      |    |    |  |
| Z        | T         | S         | D2        | P04  | S103   | N02  | N03   | DT      | Z              | T | S | D2 | SIGT | DT | DD |  |
| 0        |           | 33.32     | 5.76      | .34  | 2.     |      | .1    |         |                |   |   |    |      |    |    |  |
| 10       | 15.26     | 33.32     | 5.78      | .40  | 3.     |      | .0    | 330.7   |                |   |   |    |      |    |    |  |
| 29       |           |           | 5.81      | .34  | 2.     |      | .0    |         |                |   |   |    |      |    |    |  |
| 49       |           |           | 5.87      | .25  | 4.     |      | .0    |         |                |   |   |    |      |    |    |  |
| 78       | 14.06     | 33.38     | 5.88      | .40  | 2.     |      | .0    | 301.9   |                |   |   |    |      |    |    |  |
| 108      | 12.17     |           | 5.53      | .63  | 12.    |      | 4.3   |         |                |   |   |    |      |    |    |  |
| 151      | 10.09     |           | 4.25      | .99  | 21.    |      | 16.0  |         |                |   |   |    |      |    |    |  |
| 201      | 9.01      |           | 3.42      | 1.82 | 33.    |      | 22.6  |         |                |   |   |    |      |    |    |  |
| 250      | 8.00      |           | 2.93      |      |        |      |       |         |                |   |   |    |      |    |    |  |
| 304      | 7.24      | 34.09     | 2.12      |      |        |      |       | 136.0   |                |   |   |    |      |    |    |  |
| 402      | 6.33      | 34.18     | 1.11      |      |        |      |       | 117.6   |                |   |   |    |      |    |    |  |
| 506      |           |           | .46       |      |        |      |       |         |                |   |   |    |      |    |    |  |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 103030

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER | TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |       |       |    |        |       |      |
|----------|-----------|-----------|-----------|------|--------|------|-------|---------|----------------|-------|-------|----|--------|-------|------|
| 31 06.0N | 116 24.5W | 04/07/69  | 0610      | GMT  | 65M    | 330  | 22KT  | 0       |                |       |       |    |        |       |      |
| Z        | T         | S         | D2        | P04  | S103   | N02  | N03   | DT      | Z              | T     | S     | D2 | SIGT   | DT    | DD   |
| 0        |           |           |           |      |        |      |       |         | 0              | 12.47 | 33.58 |    | 25.418 | 256.9 | 0    |
| 10       |           |           |           |      |        |      |       |         | 10             | 12.49 | 33.59 |    | 25.422 | 256.5 | .026 |
| 20       |           |           |           |      |        |      |       |         | 20             | 12.30 | 33.58 |    | 25.451 | 253.7 | .051 |
| 30       |           |           |           |      |        |      |       |         | 30             | 11.47 | 33.55 |    | 25.584 | 241.2 | .076 |
| 50       |           |           |           |      |        |      |       |         | 50             | 10.42 | 33.72 |    | 25.903 | 210.8 | .121 |

RV ALEXANDER AGASSIZ

## CALCOFI CRUISE 6904

103035

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENDER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |        |       |      |    |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|--------|-------|------|----|
| 30 56.5N | 116 45.0W | 04/07/69  | 0839 GMT       | 3731M  | 340  | 23KT  | 1       | 340 04 05      |     |       |       |        |       |      |    |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z   | T     | S     | D2     | SIGT  | DT   | DD |
|          |           |           |                |        |      |       |         |                | 0   | 15.14 | 33.52 | 24.822 | 313.6 | 0    |    |
|          |           |           |                |        |      |       |         |                | 10  | 15.15 | 33.52 | 24.820 | 313.8 | .031 |    |
|          |           |           |                |        |      |       |         |                | 20  | 15.15 | 33.52 | 24.820 | 313.8 | .063 |    |
|          |           |           |                |        |      |       |         |                | 30  | 15.06 | 33.53 | 24.848 | 311.2 | .094 |    |
|          |           |           |                |        |      |       |         |                | 50  | 13.93 | 33.53 | 25.088 | 288.3 | .154 |    |
|          |           |           |                |        |      |       |         |                | 75  | 11.24 | 33.49 | 25.579 | 241.6 | .221 |    |
|          |           |           |                |        |      |       |         |                | 100 | 10.40 | 33.61 | 25.821 | 218.6 | .279 |    |
|          |           |           |                |        |      |       |         |                | 125 | 9.79  | 33.75 | 26.033 | 198.4 | .332 |    |
|          |           |           |                |        |      |       |         |                | 150 | 9.46  | 33.86 | 26.173 | 185.1 | .380 |    |
|          |           |           |                |        |      |       |         |                | 200 | 9.11  | 34.19 | 26.488 | 155.3 | .467 |    |
|          |           |           |                |        |      |       |         |                | 250 | 8.31  | 34.21 | 26.628 | 141.9 | .543 |    |
|          |           |           |                |        |      |       |         |                | 300 | 8.08  | 34.25 | 26.694 | 135.7 | .615 |    |
|          |           |           |                |        |      |       |         |                | 400 | 7.04  | 34.28 | 26.868 | 119.2 | .748 |    |
|          |           |           |                |        |      |       |         |                | 500 | 6.38  | 34.30 | 26.973 | 109.3 | .869 |    |

RV ALEXANDER AGASSIZ

## CALCOFI CRUISE 6904

103040

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENDER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |        |       |      |    |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|--------|-------|------|----|
| 30 47.0N | 117 05.5W | 04/07/69  | 1135 GMT       | 3738M  | 330  | 21KT  | 1       | 330 05         |     |       |       |        |       |      |    |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z   | T     | S     | D2     | SIGT  | DT   | DD |
|          |           |           |                |        |      |       |         |                | 0   | 15.12 | 33.52 | 24.827 | 313.2 | 0    |    |
|          |           |           |                |        |      |       |         |                | 10  | 15.14 | 33.52 | 24.822 | 313.6 | .031 |    |
|          |           |           |                |        |      |       |         |                | 20  | 15.13 | 33.51 | 24.817 | 314.1 | .063 |    |
|          |           |           |                |        |      |       |         |                | 30  | 15.03 | 33.52 | 24.846 | 311.3 | .094 |    |
|          |           |           |                |        |      |       |         |                | 50  | 14.16 | 33.44 | 24.970 | 299.5 | .155 |    |
|          |           |           |                |        |      |       |         |                | 75  | 12.11 | 33.46 | 25.395 | 259.1 | .226 |    |
|          |           |           |                |        |      |       |         |                | 100 | 11.10 | 33.70 | 25.767 | 223.7 | .286 |    |
|          |           |           |                |        |      |       |         |                | 125 | 10.50 | 33.90 | 26.029 | 198.9 | .340 |    |
|          |           |           |                |        |      |       |         |                | 150 | 9.93  | 34.03 | 26.228 | 180.0 | .388 |    |
|          |           |           |                |        |      |       |         |                | 200 | 9.84  | 34.25 | 26.414 | 162.2 | .475 |    |
|          |           |           |                |        |      |       |         |                | 250 | 8.96  | 34.19 | 26.512 | 153.0 | .556 |    |
|          |           |           |                |        |      |       |         |                | 300 | 8.22  | 34.20 | 26.634 | 141.4 | .633 |    |
|          |           |           |                |        |      |       |         |                | 400 | 7.31  | 34.30 | 26.846 | 121.3 | .770 |    |
|          |           |           |                |        |      |       |         |                | 500 | 6.26  | 34.32 | 27.004 | 106.3 | .890 |    |

RV ALEXANDER AGASSIZ

## CALCOFI CRUISE 6904

103050

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENDER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |        |       |      |    |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|--------|-------|------|----|
| 30 25.0N | 117 44.5W | 04/07/69  | 1708 GMT       | 2154M  | 320  | 13KT  | 1       | 320 12 12      |     |       |       |        |       |      |    |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z   | T     | S     | D2     | SIGT  | DT   | DD |
|          |           |           |                |        |      |       |         |                | 0   | 15.48 | 33.55 | 24.771 | 318.5 | 0    |    |
|          |           |           |                |        |      |       |         |                | 10  | 15.48 | 33.56 | 24.778 | 317.8 | .032 |    |
|          |           |           |                |        |      |       |         |                | 20  | 15.49 | 33.56 | 24.776 | 318.0 | .064 |    |
|          |           |           |                |        |      |       |         |                | 30  | 15.48 | 33.56 | 24.778 | 317.8 | .096 |    |
|          |           |           |                |        |      |       |         |                | 50  | 14.76 | 33.53 | 24.912 | 305.0 | .158 |    |
|          |           |           |                |        |      |       |         |                | 75  | 14.51 | 33.51 | 24.951 | 301.4 | .234 |    |
|          |           |           |                |        |      |       |         |                | 100 | 12.15 | 33.39 | 25.333 | 265.0 | .306 |    |
|          |           |           |                |        |      |       |         |                | 125 | 10.52 | 33.63 | 25.815 | 219.1 | .367 |    |
|          |           |           |                |        |      |       |         |                | 150 | 9.81  | 33.85 | 26.108 | 191.4 | .419 |    |
|          |           |           |                |        |      |       |         |                | 200 | 8.63  | 33.96 | 26.384 | 165.1 | .510 |    |
|          |           |           |                |        |      |       |         |                | 250 | 7.76  | 34.03 | 26.569 | 147.5 | .590 |    |
|          |           |           |                |        |      |       |         |                | 300 | 7.60  | 34.17 | 26.702 | 134.9 | .663 |    |
|          |           |           |                |        |      |       |         |                | 400 | 7.00  | 34.28 | 26.873 | 118.7 | .795 |    |
|          |           |           |                |        |      |       |         |                | 500 | 6.10  | 34.30 | 27.009 | 105.8 | .914 |    |

RV ALEXANDER AGASSIZ

## CALCOFI CRUISE 6904

103060

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENDER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |        |       |      |    |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|--------|-------|------|----|
| 30 06.0N | 118 25.5W | 04/07/69  | 2301 GMT       | 3508M  | 320  | 12KT  | 1       | 320 08 10      |     |       |       |        |       |      |    |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z   | T     | S     | D2     | SIGT  | DT   | DD |
|          |           |           |                |        |      |       |         |                | 0   | 15.81 | 33.54 | 24.689 | 326.2 | 0    |    |
|          |           |           |                |        |      |       |         |                | 10  | 15.80 | 33.55 | 24.699 | 325.3 | .033 |    |
|          |           |           |                |        |      |       |         |                | 20  | 15.66 | 33.55 | 24.731 | 322.3 | .065 |    |
|          |           |           |                |        |      |       |         |                | 30  | 15.62 | 33.55 | 24.740 | 321.5 | .097 |    |
|          |           |           |                |        |      |       |         |                | 50  | 14.80 | 33.55 | 24.919 | 304.4 | .160 |    |
|          |           |           |                |        |      |       |         |                | 75  | 14.31 | 33.46 | 24.954 | 301.0 | .236 |    |
|          |           |           |                |        |      |       |         |                | 100 | 10.76 | 33.49 | 25.665 | 233.4 | .304 |    |
|          |           |           |                |        |      |       |         |                | 125 | 10.13 | 33.66 | 25.906 | 210.5 | .360 |    |
|          |           |           |                |        |      |       |         |                | 150 | 9.67  | 33.80 | 26.092 | 192.8 | .411 |    |
|          |           |           |                |        |      |       |         |                | 200 | 8.52  | 33.94 | 26.385 | 165.0 | .502 |    |
|          |           |           |                |        |      |       |         |                | 250 | 7.76  | 34.02 | 26.562 | 148.3 | .582 |    |
|          |           |           |                |        |      |       |         |                | 300 | 7.18  | 34.07 | 26.684 | 136.7 | .656 |    |
|          |           |           |                |        |      |       |         |                | 400 | 6.72  | 34.28 | 26.912 | 115.0 | .787 |    |
|          |           |           |                |        |      |       |         |                | 500 | 5.92  | 34.32 | 27.048 | 102.2 | .902 |    |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

103070

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |        |       |      |    |      |    |    |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|--------|-------|------|----|------|----|----|
| 29 46.5N | 119 05.0W | 04/08/69  | 0409 GMT       | 3482M  | 310  | 10Kt  |         | 320 09 10      |        |       |      |    |      |    |    |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z      | T     | S    | D2 | SIGT | DT | DD |
| 0        | 15.62     | 33.45     |                |        |      |       |         |                | 24.663 | 328.8 |      | 0  |      |    |    |
| 10       | 15.62     | 33.46     |                |        |      |       |         |                | 24.671 | 328.0 | .033 |    |      |    |    |
| 20       | 15.44     | 33.47     |                |        |      |       |         |                | 24.718 | 323.5 | .065 |    |      |    |    |
| 30       | 15.17     | 33.51     |                |        |      |       |         |                | 24.808 | 314.9 | .097 |    |      |    |    |
| 50       | 14.43     | 33.50     |                |        |      |       |         |                | 24.960 | 300.5 | .159 |    |      |    |    |
| 75       | 13.38     | 33.44     |                |        |      |       |         |                | 25.131 | 284.2 | .233 |    |      |    |    |
| 100      | 11.98     | 33.45     |                |        |      |       |         |                | 25.411 | 257.5 | .301 |    |      |    |    |
| 125      | 10.71     | 33.58     |                |        |      |       |         |                | 25.743 | 226.0 | .362 |    |      |    |    |
| 150      | 9.94      | 33.78     |                |        |      |       |         |                | 26.031 | 198.6 | .416 |    |      |    |    |
| 200      | 9.34      | 34.13     |                |        |      |       |         |                | 26.403 | 163.3 | .508 |    |      |    |    |
| 250      | 8.69      | 34.23     |                |        |      |       |         |                | 26.585 | 146.0 | .588 |    |      |    |    |
| 300      | 7.94      | 34.24     |                |        |      |       |         |                | 26.707 | 134.4 | .660 |    |      |    |    |
| 400      | 6.98      | 34.27     |                |        |      |       |         |                | 26.868 | 119.2 | .793 |    |      |    |    |
| 500      | 6.16      | 34.32     |                |        |      |       |         |                | 27.017 | 105.1 | .911 |    |      |    |    |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

103080

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |        |       |      |    |      |    |    |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|--------|-------|------|----|------|----|----|
| 29 26.0N | 119 43.5W | 04/08/69  | 0915 GMT       | 3793M  | 320  | 10Kt  |         | 320 08 10      |        |       |      |    |      |    |    |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z      | T     | S    | D2 | SIGT | DT | DD |
| 0        | 15.38     | 33.35     |                |        |      |       |         |                | 24.639 | 331.0 | 0    |    |      |    |    |
| 10       | 15.39     | 33.36     |                |        |      |       |         |                | 24.645 | 330.5 | .033 |    |      |    |    |
| 20       | 15.39     | 33.36     |                |        |      |       |         |                | 24.645 | 330.5 | .066 |    |      |    |    |
| 30       | 15.25     | 33.35     |                |        |      |       |         |                | 24.668 | 328.3 | .099 |    |      |    |    |
| 50       | 14.91     | 33.41     |                |        |      |       |         |                | 24.788 | 316.9 | .164 |    |      |    |    |
| 75       | 14.35     | 33.34     |                |        |      |       |         |                | 24.854 | 310.5 | .243 |    |      |    |    |
| 100      | 12.98     | 33.34     |                |        |      |       |         |                | 25.133 | 284.0 | .318 |    |      |    |    |
| 125      | 11.24     | 33.38     |                |        |      |       |         |                | 25.494 | 249.7 | .385 |    |      |    |    |
| 150      | 10.17     | 33.62     |                |        |      |       |         |                | 25.868 | 214.1 | .444 |    |      |    |    |
| 200      | 9.53      | 33.97     |                |        |      |       |         |                | 26.248 | 178.1 | .544 |    |      |    |    |
| 250      | 8.87      | 34.13     |                |        |      |       |         |                | 26.479 | 156.1 | .629 |    |      |    |    |
| 300      | 8.49      | 34.24     |                |        |      |       |         |                | 26.624 | 142.3 | .706 |    |      |    |    |
| 400      | 6.84      | 34.17     |                |        |      |       |         |                | 26.809 | 124.8 | .846 |    |      |    |    |
| 500      | 6.07      | 34.24     |                |        |      |       |         |                | 26.966 | 109.9 | .969 |    |      |    |    |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

107032

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |        |       |      |    |      |    |    |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|--------|-------|------|----|------|----|----|
| 30 26.0N | 116 11.0W | 04/09/69  | 1542 GMT       | 316M   | 310  | 10Kt  | 2       | 320 04 06      |        |       |      |    |      |    |    |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z      | T     | S    | D2 | SIGT | DT | DD |
| 0        | 13.67     | 33.52     |                |        |      |       |         |                | 25.133 | 284.0 | 0    |    |      |    |    |
| 10       | 13.55     | 33.53     |                |        |      |       |         |                | 25.166 | 280.9 | .028 |    |      |    |    |
| 20       | 13.31     | 33.51     |                |        |      |       |         |                | 25.199 | 277.8 | .056 |    |      |    |    |
| 30       | 12.70     | 33.53     |                |        |      |       |         |                | 25.335 | 264.8 | .083 |    |      |    |    |
| 50       | 11.20     | 33.60     |                |        |      |       |         |                | 25.671 | 232.8 | .133 |    |      |    |    |
| 75       | 10.54     | 33.77     |                |        |      |       |         |                | 25.921 | 209.1 | .189 |    |      |    |    |
| 100      | 10.43     | 33.97     |                |        |      |       |         |                | 26.095 | 192.5 | .240 |    |      |    |    |
| 125      | 10.37     | 34.11     |                |        |      |       |         |                | 26.215 | 181.2 | .287 |    |      |    |    |
| 150      | 10.27     | 34.17     |                |        |      |       |         |                | 26.279 | 175.1 | .332 |    |      |    |    |
| 200      | 9.88      | 34.27     |                |        |      |       |         |                | 26.423 | 161.4 | .418 |    |      |    |    |
| 250      | 9.48      | 34.37     |                |        |      |       |         |                | 26.568 | 147.7 | .498 |    |      |    |    |
| 300      | 8.99      | 34.40     |                |        |      |       |         |                | 26.671 | 137.9 | .572 |    |      |    |    |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

107035

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |        |       |      |    |      |    |    |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|--------|-------|------|----|------|----|----|
| 30 20.5N | 116 21.5W | 04/09/69  | 1340 GMT       | 1771M  | 310  | 10Kt  | 2       | 320 04 06      |        |       |      |    |      |    |    |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z      | T     | S    | D2 | SIGT | DT | DD |
| 0        | 15.17     | 33.50     |                |        |      |       |         |                | 24.801 | 315.7 | 0    |    |      |    |    |
| 10       | 15.18     | 33.51     |                |        |      |       |         |                | 24.806 | 315.1 | .032 |    |      |    |    |
| 20       | 15.18     | 33.51     |                |        |      |       |         |                | 24.806 | 315.1 | .063 |    |      |    |    |
| 30       | 15.18     | 33.51     |                |        |      |       |         |                | 24.806 | 315.1 | .095 |    |      |    |    |
| 50       | 14.94     | 33.51     |                |        |      |       |         |                | 24.858 | 310.2 | .157 |    |      |    |    |
| 75       | 11.87     | 33.35     |                |        |      |       |         |                | 25.355 | 262.9 | .229 |    |      |    |    |
| 100      | 10.31     | 33.52     |                |        |      |       |         |                | 25.766 | 223.8 | .291 |    |      |    |    |
| 125      | 9.77      | 33.63     |                |        |      |       |         |                | 25.943 | 207.0 | .345 |    |      |    |    |
| 150      | 9.10      | 33.88     |                |        |      |       |         |                | 26.247 | 178.1 | .394 |    |      |    |    |
| 200      | 8.78      | 34.09     |                |        |      |       |         |                | 26.462 | 157.7 | .480 |    |      |    |    |
| 250      | 8.51      | 34.20     |                |        |      |       |         |                | 26.590 | 145.6 | .558 |    |      |    |    |
| 300      | 8.15      | 34.28     |                |        |      |       |         |                | 26.707 | 134.4 | .630 |    |      |    |    |
| 400      | 7.40      | 34.35     |                |        |      |       |         |                | 26.872 | 118.8 | .763 |    |      |    |    |
| 500      | 6.38      | 34.34     |                |        |      |       |         |                | 27.004 | 106.3 | .882 |    |      |    |    |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 107040

| LATITUDE<br>30 10.5N | LONGITUDE<br>116 41.5W | MO/DAY/YR<br>04/09/69 | MESSENGER TIME<br>1040 GMT | BOTTOM<br>2565M | WIND<br>310 | SPEED<br>15KT | WEATHER<br>2 | DOMINANT WAVES<br>320 04 08 |        |       |   |      |      |    |    |
|----------------------|------------------------|-----------------------|----------------------------|-----------------|-------------|---------------|--------------|-----------------------------|--------|-------|---|------|------|----|----|
| Z                    | T                      | S                     | D2                         | P04             | S103        | N02           | N03          | DT                          | Z      | T     | S | D2   | SIGT | DT | DD |
|                      |                        |                       |                            |                 | 0           | 15.46         | 33.53        |                             | 24.760 | 319.5 |   | 0    |      |    |    |
|                      |                        |                       |                            |                 | 10          | 15.46         | 33.53        |                             | 24.760 | 319.5 |   | .032 |      |    |    |
|                      |                        |                       |                            |                 | 20          | 15.46         | 33.53        |                             | 24.760 | 319.5 |   | .064 |      |    |    |
|                      |                        |                       |                            |                 | 30          | 15.47         | 33.54        |                             | 24.765 | 319.0 |   | .096 |      |    |    |
|                      |                        |                       |                            |                 | 50          | 15.12         | 33.51        |                             | 24.819 | 313.9 |   | .159 |      |    |    |
|                      |                        |                       |                            |                 | 75          | 13.13         | 33.33        |                             | 25.096 | 287.5 |   | .235 |      |    |    |
|                      |                        |                       |                            |                 | 100         | 11.16         | 33.42        |                             | 25.539 | 245.4 |   | .302 |      |    |    |
|                      |                        |                       |                            |                 | 125         | 10.36         | 33.69        |                             | 25.890 | 212.1 |   | .360 |      |    |    |
|                      |                        |                       |                            |                 | 150         | 9.46          | 33.75        |                             | 26.088 | 193.3 |   | .411 |      |    |    |
|                      |                        |                       |                            |                 | 200         | 8.78          | 33.98        |                             | 26.376 | 165.9 |   | .503 |      |    |    |
|                      |                        |                       |                            |                 | 250         | 8.10          | 34.07        |                             | 26.550 | 149.3 |   | .584 |      |    |    |
|                      |                        |                       |                            |                 | 300         | 8.02          | 34.20        |                             | 26.664 | 138.5 |   | .658 |      |    |    |
|                      |                        |                       |                            |                 | 400         | 7.09          | 34.25        |                             | 26.837 | 122.1 |   | .794 |      |    |    |
|                      |                        |                       |                            |                 | 500         | 6.58          | 34.32        |                             | 26.962 | 110.3 |   | .917 |      |    |    |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 107050

| LATITUDE<br>29 51.0N | LONGITUDE<br>117 21.0W | MO/DAY/YR<br>04/09/69 | MESSENGER TIME<br>0505 GMT | BOTTOM<br>2209M | WIND<br>320 | SPEED<br>09KT | WEATHER<br>2 | DOMINANT WAVES<br>320 05 06 |        |       |   |      |      |    |    |
|----------------------|------------------------|-----------------------|----------------------------|-----------------|-------------|---------------|--------------|-----------------------------|--------|-------|---|------|------|----|----|
| Z                    | T                      | S                     | D2                         | P04             | S103        | N02           | N03          | DT                          | Z      | T     | S | D2   | SIGT | DT | DD |
|                      |                        |                       |                            |                 | 0           | 15.82         | 33.51        |                             | 24.664 | 328.6 |   | 0    |      |    |    |
|                      |                        |                       |                            |                 | 10          | 15.82         | 33.51        |                             | 24.664 | 328.6 |   | .033 |      |    |    |
|                      |                        |                       |                            |                 | 20          | 15.83         | 33.51        |                             | 24.662 | 328.8 |   | .066 |      |    |    |
|                      |                        |                       |                            |                 | 30          | 15.85         | 33.52        |                             | 24.665 | 328.5 |   | .099 |      |    |    |
|                      |                        |                       |                            |                 | 50          | 14.51         | 33.43        |                             | 24.889 | 307.2 |   | .163 |      |    |    |
|                      |                        |                       |                            |                 | 75          | 14.00         | 33.42        |                             | 24.988 | 297.8 |   | .239 |      |    |    |
|                      |                        |                       |                            |                 | 100         | 12.33         | 33.34        |                             | 25.260 | 271.9 |   | .310 |      |    |    |
|                      |                        |                       |                            |                 | 125         | 10.41         | 33.49        |                             | 25.726 | 227.6 |   | .373 |      |    |    |
|                      |                        |                       |                            |                 | 150         | 9.80          | 33.70        |                             | 25.993 | 202.3 |   | .428 |      |    |    |
|                      |                        |                       |                            |                 | 200         | 9.00          | 33.99        |                             | 26.349 | 168.4 |   | .522 |      |    |    |
|                      |                        |                       |                            |                 | 250         | 8.71          | 34.13        |                             | 26.504 | 153.7 |   | .605 |      |    |    |
|                      |                        |                       |                            |                 | 300         | 8.24          | 34.25        |                             | 26.670 | 137.9 |   | .680 |      |    |    |
|                      |                        |                       |                            |                 | 400         | 7.30          | 34.30        |                             | 26.847 | 121.2 |   | .816 |      |    |    |
|                      |                        |                       |                            |                 | 500         | 6.57          | 34.34        |                             | 26.979 | 108.7 |   | .938 |      |    |    |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 107060

| LATITUDE<br>29 31.5N | LONGITUDE<br>118 01.5W | MO/DAY/YR<br>04/08/69 | MESSENGER TIME<br>2336 GMT | BOTTOM<br>3623M | WIND<br>300 | SPEED<br>13KT | WEATHER<br>2 | DOMINANT WAVES<br>300 10 10 |        |       |   |      |      |    |    |
|----------------------|------------------------|-----------------------|----------------------------|-----------------|-------------|---------------|--------------|-----------------------------|--------|-------|---|------|------|----|----|
| Z                    | T                      | S                     | D2                         | P04             | S103        | N02           | N03          | DT                          | Z      | T     | S | D2   | SIGT | DT | DD |
|                      |                        |                       |                            |                 | 0           | 15.57         | 33.33        |                             | 24.582 | 336.5 |   | 0    |      |    |    |
|                      |                        |                       |                            |                 | 10          | 15.51         | 33.37        |                             | 24.626 | 332.3 |   | .033 |      |    |    |
|                      |                        |                       |                            |                 | 20          | 15.39         | 33.39        |                             | 24.668 | 328.3 |   | .067 |      |    |    |
|                      |                        |                       |                            |                 | 30          | 15.40         | 33.44        |                             | 24.704 | 324.8 |   | .099 |      |    |    |
|                      |                        |                       |                            |                 | 50          | 14.90         | 33.47        |                             | 24.836 | 312.3 |   | .163 |      |    |    |
|                      |                        |                       |                            |                 | 75          | 14.08         | 33.38        |                             | 24.941 | 302.3 |   | .240 |      |    |    |
|                      |                        |                       |                            |                 | 100         | 12.43         | 33.41        |                             | 25.295 | 268.6 |   | .312 |      |    |    |
|                      |                        |                       |                            |                 | 125         | 11.23         | 33.43        |                             | 25.534 | 245.8 |   | .377 |      |    |    |
|                      |                        |                       |                            |                 | 150         | 9.96          | 33.69        |                             | 25.958 | 205.6 |   | .434 |      |    |    |
|                      |                        |                       |                            |                 | 200         | 9.52          | 34.02        |                             | 26.288 | 174.2 |   | .531 |      |    |    |
|                      |                        |                       |                            |                 | 250         | 8.74          | 34.08        |                             | 26.460 | 157.9 |   | .616 |      |    |    |
|                      |                        |                       |                            |                 | 300         | 8.35          | 34.21        |                             | 26.522 | 142.5 |   | .694 |      |    |    |
|                      |                        |                       |                            |                 | 400         | 7.38          | 34.29        |                             | 26.828 | 123.0 |   | .833 |      |    |    |
|                      |                        |                       |                            |                 | 500         | 6.59          | 34.33        |                             | 26.969 | 109.7 |   | .956 |      |    |    |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 107070

| LATITUDE<br>29 11.0N | LONGITUDE<br>118 42.0W | MO/DAY/YR<br>04/08/69 | MESSENGER TIME<br>1842 GMT | BOTTOM<br>3889M | WIND<br>330 | SPEED<br>11KT | WEATHER<br>1 | DOMINANT WAVES<br>310 10 10 |        |       |   |      |      |    |    |
|----------------------|------------------------|-----------------------|----------------------------|-----------------|-------------|---------------|--------------|-----------------------------|--------|-------|---|------|------|----|----|
| Z                    | T                      | S                     | D2                         | P04             | S103        | N02           | N03          | DT                          | Z      | T     | S | D2   | SIGT | DT | DD |
|                      |                        |                       |                            |                 | 0           | 15.59         | 33.32        |                             | 24.570 | 337.6 |   | 0    |      |    |    |
|                      |                        |                       |                            |                 | 10          | 15.56         | 33.31        |                             | 24.569 | 337.7 |   | .034 |      |    |    |
|                      |                        |                       |                            |                 | 20          | 15.52         | 33.32        |                             | 24.585 | 336.1 |   | .068 |      |    |    |
|                      |                        |                       |                            |                 | 30          | 15.67         | 33.45        |                             | 24.652 | 329.8 |   | .101 |      |    |    |
|                      |                        |                       |                            |                 | 50          | 15.84         | 33.64        |                             | 24.759 | 319.6 |   | .166 |      |    |    |
|                      |                        |                       |                            |                 | 75          | 15.53         | 33.63        |                             | 24.821 | 313.7 |   | .246 |      |    |    |
|                      |                        |                       |                            |                 | 100         | 14.03         | 33.52        |                             | 25.059 | 291.0 |   | .322 |      |    |    |
|                      |                        |                       |                            |                 | 125         | 11.85         | 33.47        |                             | 25.451 | 253.7 |   | .391 |      |    |    |
|                      |                        |                       |                            |                 | 150         | 10.33         | 33.54        |                             | 25.778 | 222.6 |   | .451 |      |    |    |
|                      |                        |                       |                            |                 | 200         | 9.29          | 33.82        |                             | 26.170 | 185.4 |   | .555 |      |    |    |
|                      |                        |                       |                            |                 | 250         | 8.23          | 33.97        |                             | 26.453 | 158.6 |   | .643 |      |    |    |
|                      |                        |                       |                            |                 | 300         | 7.44          | 34.03        |                             | 26.616 | 143.1 |   | .721 |      |    |    |
|                      |                        |                       |                            |                 | 400         | 6.74          | 34.13        |                             | 26.791 | 126.5 |   | .861 |      |    |    |
|                      |                        |                       |                            |                 | 500         | 5.87          | 34.21        |                             | 26.967 | 109.8 |   | .985 |      |    |    |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

107080

| LATITUDE<br>28 51.5N | LONGITUDE<br>119 20.0W | MO/DAY/YR<br>04/08/69 | MESSENGER<br>1355 | TIME<br>GMT | BOTTOM<br>3680M | WIND<br>280 | SPEED<br>05KT | WEATHER<br>2 | DOMINANT WAVES<br>330 08 08 |       |       |    |        |       |      |
|----------------------|------------------------|-----------------------|-------------------|-------------|-----------------|-------------|---------------|--------------|-----------------------------|-------|-------|----|--------|-------|------|
| Z                    | T                      | S                     | D2                | P04         | S103            | N02         | N03           | DT           | Z                           | T     | S     | D2 | SIGT   | DT    | DD   |
|                      |                        |                       |                   |             |                 |             |               |              | 0                           | 16.40 | 33.75 |    | 24.716 | 323.7 | 0    |
|                      |                        |                       |                   |             |                 |             |               |              | 10                          | 16.40 | 33.75 |    | 24.716 | 323.7 | .032 |
|                      |                        |                       |                   |             |                 |             |               |              | 20                          | 16.40 | 33.75 |    | 24.716 | 323.7 | .065 |
|                      |                        |                       |                   |             |                 |             |               |              | 30                          | 16.39 | 33.74 |    | 24.711 | 324.2 | .097 |
|                      |                        |                       |                   |             |                 |             |               |              | 50                          | 15.75 | 33.70 |    | 24.826 | 313.3 | .161 |
|                      |                        |                       |                   |             |                 |             |               |              | 75                          | 14.68 | 33.53 |    | 24.930 | 303.4 | .239 |
|                      |                        |                       |                   |             |                 |             |               |              | 100                         | 12.46 | 33.47 |    | 25.335 | 264.8 | .310 |
|                      |                        |                       |                   |             |                 |             |               |              | 125                         | 10.95 | 33.78 |    | 25.856 | 215.3 | .371 |
|                      |                        |                       |                   |             |                 |             |               |              | 150                         | 10.71 | 34.10 |    | 26.147 | 187.6 | .422 |
|                      |                        |                       |                   |             |                 |             |               |              | 200                         | 10.53 | 34.23 |    | 26.280 | 175.0 | .515 |
|                      |                        |                       |                   |             |                 |             |               |              | 250                         | 10.35 | 34.36 |    | 26.413 | 162.4 | .602 |
|                      |                        |                       |                   |             |                 |             |               |              | 300                         | 10.08 | 34.41 |    | 26.498 | 154.3 | .684 |
|                      |                        |                       |                   |             |                 |             |               |              | 400                         | 9.04  | 34.39 |    | 26.655 | 139.4 | .838 |
|                      |                        |                       |                   |             |                 |             |               |              | 500                         | 7.58  | 34.37 |    | 26.862 | 119.8 | .975 |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

110035

| LATITUDE<br>29 46.0N | LONGITUDE<br>116 00.0W | MO/DAY/YR<br>04/09/69 | MESSENGER<br>2256 | TIME<br>GMT | BOTTOM<br>1373M | WIND<br>300 | SPEED<br>20KT | WEATHER<br>1 | DOMINANT WAVES<br>340 04 04 |       |       |    |        |       |      |
|----------------------|------------------------|-----------------------|-------------------|-------------|-----------------|-------------|---------------|--------------|-----------------------------|-------|-------|----|--------|-------|------|
| Z                    | T                      | S                     | D2                | P04         | S103            | N02         | N03           | DT           | Z                           | T     | S     | D2 | SIGT   | DT    | DD   |
|                      |                        |                       |                   |             |                 |             |               |              | 0                           | 14.40 | 33.51 |    | 24.974 | 299.2 | 0    |
|                      |                        |                       |                   |             |                 |             |               |              | 10                          | 14.36 | 33.51 |    | 24.982 | 298.4 | .030 |
|                      |                        |                       |                   |             |                 |             |               |              | 20                          | 13.57 | 33.50 |    | 25.138 | 283.5 | .059 |
|                      |                        |                       |                   |             |                 |             |               |              | 30                          | 12.98 | 33.41 |    | 25.187 | 278.8 | .087 |
|                      |                        |                       |                   |             |                 |             |               |              | 50                          | 10.61 | 33.41 |    | 25.629 | 236.9 | .139 |
|                      |                        |                       |                   |             |                 |             |               |              | 75                          | 10.39 | 33.68 |    | 25.877 | 213.3 | .196 |
|                      |                        |                       |                   |             |                 |             |               |              | 100                         | 9.99  | 33.87 |    | 26.093 | 192.7 | .247 |
|                      |                        |                       |                   |             |                 |             |               |              | 125                         | 10.36 | 34.11 |    | 26.216 | 181.0 | .294 |
|                      |                        |                       |                   |             |                 |             |               |              | 150                         | 10.15 | 34.17 |    | 26.299 | 173.2 | .339 |
|                      |                        |                       |                   |             |                 |             |               |              | 200                         | 9.81  | 34.27 |    | 26.435 | 160.3 | .424 |
|                      |                        |                       |                   |             |                 |             |               |              | 250                         | 9.65  | 34.34 |    | 26.516 | 152.6 | .505 |
|                      |                        |                       |                   |             |                 |             |               |              | 300                         | 9.00  | 34.35 |    | 26.630 | 141.8 | .581 |
|                      |                        |                       |                   |             |                 |             |               |              | 400                         | 7.79  | 34.35 |    | 26.816 | 124.1 | .720 |
|                      |                        |                       |                   |             |                 |             |               |              | 500                         | 6.53  | 34.34 |    | 26.984 | 108.2 | .844 |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

110035

| LATITUDE<br>29 46.0N | LONGITUDE<br>116 00.0W | MO/DAY/YR<br>04/10/69 | MESSENGER<br>0007 | TIME<br>GMT | BOTTOM<br>1373M | WIND<br>300 | SPEED<br>20KT | WEATHER<br>1 | DOMINANT WAVES<br>340 04 04 |   |   |    |      |    |    |
|----------------------|------------------------|-----------------------|-------------------|-------------|-----------------|-------------|---------------|--------------|-----------------------------|---|---|----|------|----|----|
| Z                    | T                      | S                     | D2                | P04         | S103            | N02         | N03           | DT           | Z                           | T | S | D2 | SIGT | DT | DD |
| 0                    |                        | 33.53                 | 6.22              | 1.17        | 2.              | .           | 0             |              |                             |   |   |    |      |    |    |
| 9                    | 14.38                  | 33.53                 | 5.66U             | .70         | 2.              | .           | 0             | 297.3        |                             |   |   |    |      |    |    |
| 31                   |                        | 33.54                 | 5.91              | .76         | 5.              | .           | 1.8           |              |                             |   |   |    |      |    |    |
|                      |                        |                       | 4.95              | 1.26        | 10.             | .           | 10.0          |              |                             |   |   |    |      |    |    |
| 77                   | 10.42                  |                       | 3.94              | 1.73        | 18.             | .           | 16.9          |              |                             |   |   |    |      |    |    |
| 102                  | 10.05                  |                       | 3.59              | 1.91        | 22.             | .           | 19.6          |              |                             |   |   |    |      |    |    |
| 138                  | 10.30                  |                       | 2.34              | 2.09        | 31.             | .           | 24.6          |              |                             |   |   |    |      |    |    |
| 182                  | 9.69                   |                       | 2.03              | 2.66        | 35.             | .           | 26.3          |              |                             |   |   |    |      |    |    |
| 224                  | 9.60                   |                       | 1.45              | 3.13        | 40.             | .           | 27.8          |              |                             |   |   |    |      |    |    |
| 266                  | 9.29                   | 34.38                 | 1.12              |             |                 |             |               | 144.0        |                             |   |   |    |      |    |    |
| 360                  | 8.16                   | 34.39                 | .66               |             |                 |             |               | 126.4        |                             |   |   |    |      |    |    |
| 443                  | 7.42                   |                       | 1.64U             |             |                 |             |               |              |                             |   |   |    |      |    |    |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

110040

| LATITUDE<br>29 37.0N | LONGITUDE<br>116 20.0W | MO/DAY/YR<br>04/10/69 | MESSENGER<br>0305 | TIME<br>GMT | BOTTOM<br>2933M | WIND<br>310 | SPEED<br>14KT | WEATHER<br>1 | DOMINANT WAVES<br>310 06 05 |       |       |    |        |       |      |
|----------------------|------------------------|-----------------------|-------------------|-------------|-----------------|-------------|---------------|--------------|-----------------------------|-------|-------|----|--------|-------|------|
| Z                    | T                      | S                     | D2                | P04         | S103            | N02         | N03           | DT           | Z                           | T     | S     | D2 | SIGT   | DT    | DD   |
|                      |                        |                       |                   |             |                 |             |               |              | 0                           | 15.02 | 33.51 |    | 24.841 | 311.8 | 0    |
|                      |                        |                       |                   |             |                 |             |               |              | 10                          | 14.98 | 33.51 |    | 24.850 | 311.0 | .031 |
|                      |                        |                       |                   |             |                 |             |               |              | 20                          | 14.56 | 33.50 |    | 24.932 | 303.1 | .062 |
|                      |                        |                       |                   |             |                 |             |               |              | 30                          | 14.28 | 33.48 |    | 24.976 | 298.9 | .092 |
|                      |                        |                       |                   |             |                 |             |               |              | 50                          | 10.89 | 33.35 |    | 25.533 | 246.0 | .147 |
|                      |                        |                       |                   |             |                 |             |               |              | 75                          | 10.29 | 33.65 |    | 25.871 | 213.9 | .205 |
|                      |                        |                       |                   |             |                 |             |               |              | 100                         | 10.28 | 33.86 |    | 26.036 | 198.2 | .257 |
|                      |                        |                       |                   |             |                 |             |               |              | 125                         | 10.09 | 34.07 |    | 26.232 | 179.6 | .304 |
|                      |                        |                       |                   |             |                 |             |               |              | 150                         | 10.11 | 34.15 |    | 26.291 | 174.0 | .349 |
|                      |                        |                       |                   |             |                 |             |               |              | 200                         | 9.78  | 34.19 |    | 26.378 | 165.7 | .436 |
|                      |                        |                       |                   |             |                 |             |               |              | 250                         | 9.98  | 34.40 |    | 26.507 | 153.4 | .518 |
|                      |                        |                       |                   |             |                 |             |               |              | 300                         | 9.47  | 34.41 |    | 26.601 | 144.5 | .596 |
|                      |                        |                       |                   |             |                 |             |               |              | 400                         | 8.29  | 34.37 |    | 26.757 | 129.8 | .739 |
|                      |                        |                       |                   |             |                 |             |               |              | 500                         | 6.90  | 34.36 |    | 26.950 | 111.4 | .867 |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

110040

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |       |   |   |    |      |    |    |  |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-------|---|---|----|------|----|----|--|
| 29 37.0N | 116 20.0W | 04/10/69  | 0417 GMT       | 2933M  | 310  | 14KKT | 1       | 310 06 05      |       |   |   |    |      |    |    |  |
| Z        | T         | S         | 02             | P04    | S103 | N02   | N03     | DT             | Z     | T | S | 02 | SIGT | DT | DD |  |
| 0        |           | 33.53     | 5.94           | .49    | 1.   |       | .0      |                |       |   |   |    |      |    |    |  |
| 11       | 14.93     | 33.53     | 5.99           | .45    | 1.   |       | .1      | 308.5          |       |   |   |    |      |    |    |  |
| 30       |           |           | 5.99           | .49    | 2.   |       | .1      |                |       |   |   |    |      |    |    |  |
| 54       |           |           | 5.14           | .95    | 8.   |       | 8.1     |                |       |   |   |    |      |    |    |  |
| 85       | 10.27     | 33.76     | 3.78           | 1.53   | 20.  |       | 16.9    | 205.4          |       |   |   |    |      |    |    |  |
| 113      | 10.37     |           | 2.49           | 2.21   | 29.  |       | 23.0    |                |       |   |   |    |      |    |    |  |
| 155      | 10.27     |           | 1.83           | 2.48   | 34.  |       | 25.0    |                |       |   |   |    |      |    |    |  |
| 206      | 9.83      |           | 1.48           | 2.61   | 38.  |       | 26.1    |                |       |   |   |    |      |    |    |  |
| 256      | 9.47      |           | 1.28           |        |      |       |         |                |       |   |   |    |      |    |    |  |
| 309      | 8.99      | 34.38     | .92            |        |      |       |         | 139.4          |       |   |   |    |      |    |    |  |
| 412      | 8.08      | 34.39     | .56            |        |      |       |         |                | 125.3 |   |   |    |      |    |    |  |
| 519      | 6.52      |           | .36            |        |      |       |         |                |       |   |   |    |      |    |    |  |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

110050

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |    |        |       |      |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|----|--------|-------|------|
| 29 14.0N | 116 58.0W | 04/10/69  | 0930 GMT       | 3480M  | 310  | 11KKT | 5       | 310 06 05      |     |       |       |    |        |       |      |
| Z        | T         | S         | 02             | P04    | S103 | N02   | N03     | DT             | Z   | T     | S     | 02 | SIGT   | DT    | DD   |
|          |           |           |                |        |      |       |         |                | 0   | 15.67 | 33.51 |    | 24.698 | 325.4 | 0    |
|          |           |           |                |        |      |       |         |                | 10  | 15.68 | 33.51 |    | 24.696 | 325.7 | .033 |
|          |           |           |                |        |      |       |         |                | 20  | 15.68 | 33.51 |    | 24.696 | 325.7 | .065 |
|          |           |           |                |        |      |       |         |                | 30  | 15.68 | 33.52 |    | 24.703 | 324.9 | .098 |
|          |           |           |                |        |      |       |         |                | 50  | 15.21 | 33.50 |    | 24.792 | 316.5 | .162 |
|          |           |           |                |        |      |       |         |                | 75  | 15.00 | 33.59 |    | 24.907 | 305.5 | .240 |
|          |           |           |                |        |      |       |         |                | 100 | 12.98 | 33.47 |    | 25.234 | 274.4 | .313 |
|          |           |           |                |        |      |       |         |                | 125 | 11.28 | 33.59 |    | 25.649 | 234.9 | .378 |
|          |           |           |                |        |      |       |         |                | 150 | 10.29 | 33.74 |    | 25.941 | 207.2 | .434 |
|          |           |           |                |        |      |       |         |                | 200 | 9.87  | 34.06 |    | 26.261 | 176.8 | .532 |
|          |           |           |                |        |      |       |         |                | 250 | 9.48  | 34.21 |    | 26.443 | 159.5 | .618 |
|          |           |           |                |        |      |       |         |                | 300 | 8.77  | 34.27 |    | 26.604 | 144.2 | .697 |
|          |           |           |                |        |      |       |         |                | 400 | 7.52  | 34.26 |    | 26.784 | 127.1 | .838 |
|          |           |           |                |        |      |       |         |                | 500 | 6.61  | 34.31 |    | 26.950 | 111.4 | .965 |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

110050

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |       |   |   |    |      |    |    |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-------|---|---|----|------|----|----|
| 29 14.0N | 116 58.0W | 04/10/69  | 1011 GMT       | 3480M  | 310  | 11KKT | 5       | 310 06 05      |       |   |   |    |      |    |    |
| Z        | T         | S         | 02             | P04    | S103 | N02   | N03     | DT             | Z     | T | S | 02 | SIGT | DT | DD |
| 0        |           | 33.54     | 5.83           | .36    | 1.   |       | .0      |                |       |   |   |    |      |    |    |
| 11       | 15.69     | 33.54     | 5.88           | .40    | 2.   |       | .0      | 323.7          |       |   |   |    |      |    |    |
| 31       |           |           | 5.89           | .45    | 1.   |       | .0      |                |       |   |   |    |      |    |    |
| 55       |           |           | 5.95           | .31    | 2.   |       | .0      |                |       |   |   |    |      |    |    |
| 91       | 14.03     | 33.56     | 5.43           | .58    | 4.   |       | 2.0     | 288.1          |       |   |   |    |      |    |    |
| 120      | 11.75     |           | 4.42           | .95    | 9.   |       | 9.2     |                |       |   |   |    |      |    |    |
| 165      | 10.18     |           | 3.31           | 1.71   | 23.  |       | 19.0    |                |       |   |   |    |      |    |    |
| 220      | 9.79      |           | 2.34           | 2.34   | 34.  |       | 24.5    |                |       |   |   |    |      |    |    |
| 275      | 9.38      |           | 1.38           |        |      |       |         |                |       |   |   |    |      |    |    |
| 329      | 8.40      | 34.32     | .95            |        |      |       |         | 135.1          |       |   |   |    |      |    |    |
| 439      | 7.33      | 34.36     | .44            |        |      |       |         |                | 117.1 |   |   |    |      |    |    |
| 545      | 6.43      |           | .40            |        |      |       |         |                |       |   |   |    |      |    |    |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

110060

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |    |        |       |      |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|----|--------|-------|------|
| 28 56.5N | 116 38.5W | 04/10/69  | 1531 GMT       | 3527M  | 290  | 11KKT | 6       | 320 02 12      |     |       |       |    |        |       |      |
| Z        | T         | S         | 02             | P04    | S103 | N02   | N03     | DT             | Z   | T     | S     | 02 | SIGT   | DT    | DD   |
| 0        |           |           |                |        |      |       |         |                | 0   | 16.13 | 33.68 |    | 24.724 | 322.9 | 0    |
|          |           |           |                |        |      |       |         |                | 10  | 16.13 | 33.68 |    | 24.724 | 322.9 | .032 |
|          |           |           |                |        |      |       |         |                | 20  | 16.12 | 33.68 |    | 24.727 | 322.7 | .065 |
|          |           |           |                |        |      |       |         |                | 30  | 16.12 | 33.68 |    | 24.727 | 322.7 | .097 |
|          |           |           |                |        |      |       |         |                | 50  | 15.71 | 33.63 |    | 24.781 | 317.5 | .161 |
|          |           |           |                |        |      |       |         |                | 75  | 15.45 | 33.62 |    | 24.831 | 312.7 | .240 |
|          |           |           |                |        |      |       |         |                | 100 | 14.21 | 33.53 |    | 25.029 | 293.9 | .317 |
|          |           |           |                |        |      |       |         |                | 125 | 11.77 | 33.54 |    | 25.520 | 247.2 | .385 |
|          |           |           |                |        |      |       |         |                | 150 | 10.47 | 33.76 |    | 25.925 | 208.7 | .443 |
|          |           |           |                |        |      |       |         |                | 200 | 9.96  | 34.09 |    | 26.269 | 176.0 | .541 |
|          |           |           |                |        |      |       |         |                | 250 | 9.52  | 34.24 |    | 26.460 | 157.9 | .627 |
|          |           |           |                |        |      |       |         |                | 300 | 8.95  | 34.29 |    | 26.591 | 145.4 | .705 |
|          |           |           |                |        |      |       |         |                | 400 | 7.70  | 34.34 |    | 26.821 | 123.6 | .846 |
|          |           |           |                |        |      |       |         |                | 500 | 7.07  | 34.40 |    | 26.958 | 110.7 | .971 |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

110060

| LATITUDE |           | LONGITUDE |      | MO/DAY/YR |      | MESSENGER TIME |     | BOTTOM |     | WIND |   | SPEED |      | WEATHER |    | DOMINANT WAVES |  |  |
|----------|-----------|-----------|------|-----------|------|----------------|-----|--------|-----|------|---|-------|------|---------|----|----------------|--|--|
| 28 56.5N | 118 38.5W |           |      | 04/10/69  |      | 1643           | GMT | 3527M  | 290 | 11KT | 6 |       |      |         |    | 320 02 12      |  |  |
| Z        | T         | S         | D2   | P04       | S103 | N02            | N03 | DT     | Z   | T    | S | D2    | SIGT | DT      | DD |                |  |  |
| 0        |           | 33.68     | 5.72 | .47       | 2.   |                |     | .0     |     |      |   |       |      |         |    |                |  |  |
| 10       | 16.15     | 33.69     | 5.72 | .45       | 2.   |                |     | .0     |     |      |   |       |      |         |    |                |  |  |
| 29       |           |           | 5.72 | .45       | 2.   |                |     | .0     |     |      |   |       |      |         |    |                |  |  |
| 54       |           |           | 5.86 | .43       | 1.   |                |     | .0     |     |      |   |       |      |         |    |                |  |  |
| 88       | 14.84     | 33.61     | 5.59 | .58       | 2.   |                |     | .6     |     |      |   |       |      |         |    |                |  |  |
| 118      | 11.84     |           | 4.62 | 1.06      | 10.  |                |     | 9.8    |     |      |   |       |      |         |    |                |  |  |
| 162      | 10.31     |           | 2.95 | 2.05      | 27.  |                |     | 22.2   |     |      |   |       |      |         |    |                |  |  |
| 217      | 9.80      |           | 2.14 | 2.41      | 35.  |                |     | 25.6   |     |      |   |       |      |         |    |                |  |  |
| 271      | 9.29      |           |      |           |      |                |     |        |     |      |   |       |      |         |    |                |  |  |
| 326      | 8.29      | 34.29     | 1.04 |           |      |                |     |        |     |      |   |       |      |         |    |                |  |  |
| 435      | 7.49      | 34.37     | .61  |           |      |                |     |        |     |      |   |       |      |         |    |                |  |  |
| 545      | 6.65      |           |      |           |      |                |     |        |     |      |   |       |      |         |    |                |  |  |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

110070

| LATITUDE |           | LONGITUDE |       | MO/DAY/YR |      | MESSENGER TIME |     | BOTTOM |     | WIND |   | SPEED |      | WEATHER |    | DOMINANT WAVES |  |  |
|----------|-----------|-----------|-------|-----------|------|----------------|-----|--------|-----|------|---|-------|------|---------|----|----------------|--|--|
| 28 36.5N | 118 18.0W |           |       | 04/10/69  |      | 2202           | GMT | 3700M  | 340 | 16KT | 1 |       |      |         |    | 320 05 07      |  |  |
| Z        | T         | S         | D2    | P04       | S103 | N02            | N03 | DT     | Z   | T    | S | D2    | SIGT | DT      | DD |                |  |  |
| 0        |           | 15.55     | 33.33 |           |      |                |     |        |     |      |   |       |      |         |    | 0              |  |  |
| 10       |           | 15.53     | 33.33 |           |      |                |     |        |     |      |   |       |      |         |    | .034           |  |  |
| 20       |           | 15.48     | 33.33 |           |      |                |     |        |     |      |   |       |      |         |    | .067           |  |  |
| 30       |           | 15.41     | 33.35 |           |      |                |     |        |     |      |   |       |      |         |    | .101           |  |  |
| 50       |           | 14.74     | 33.29 |           |      |                |     |        |     |      |   |       |      |         |    | .166           |  |  |
| 75       |           | 14.51     | 33.36 |           |      |                |     |        |     |      |   |       |      |         |    | .246           |  |  |
| 100      |           | 13.66     | 33.37 |           |      |                |     |        |     |      |   |       |      |         |    | .322           |  |  |
| 125      |           | 11.93     | 33.33 |           |      |                |     |        |     |      |   |       |      |         |    | .393           |  |  |
| 150      |           | 10.64     | 33.59 |           |      |                |     |        |     |      |   |       |      |         |    | .455           |  |  |
| 200      |           | 9.32      | 33.93 |           |      |                |     |        |     |      |   |       |      |         |    | .557           |  |  |
| 250      |           | 8.65      | 34.04 |           |      |                |     |        |     |      |   |       |      |         |    | .644           |  |  |
| 300      |           | 8.22      | 34.15 |           |      |                |     |        |     |      |   |       |      |         |    | .722           |  |  |
| 400      |           | 7.52      | 34.28 |           |      |                |     |        |     |      |   |       |      |         |    | .864           |  |  |
| 500      |           | 6.57      | 34.30 |           |      |                |     |        |     |      |   |       |      |         |    | .989           |  |  |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

110070

| LATITUDE |           | LONGITUDE |      | MO/DAY/YR |      | MESSENGER TIME |     | BOTTOM |     | WIND |   | SPEED |      | WEATHER |    | DOMINANT WAVES |  |  |
|----------|-----------|-----------|------|-----------|------|----------------|-----|--------|-----|------|---|-------|------|---------|----|----------------|--|--|
| 28 36.5N | 118 18.0W |           |      | 04/10/69  |      | 2253           | GMT | 3700M  | 340 | 16KT | 1 |       |      |         |    | 320 05 07      |  |  |
| Z        | T         | S         | D2   | P04       | S103 | N02            | N03 | DT     | Z   | T    | S | D2    | SIGT | DT      | DD |                |  |  |
| 0        |           | 33.35     | 5.84 | .45       | 1.   |                |     | .0     |     |      |   |       |      |         |    |                |  |  |
| 11       | 15.54     | 33.34     | 5.90 | .54       | 1.   |                |     | .0     |     |      |   |       |      |         |    |                |  |  |
| 31       |           | 5.85      | .49  | 1.        |      |                |     | .0     |     |      |   |       |      |         |    |                |  |  |
| 51       |           | 6.05      | .45  | 1.        |      |                |     | .0     |     |      |   |       |      |         |    |                |  |  |
| 91       | 13.85     | 33.40     | 5.88 | .52       | 1.   |                |     | .0     |     |      |   |       |      |         |    |                |  |  |
| 120      | 11.28     |           | 5.17 | .95       | 1.   |                |     | 7.9    |     |      |   |       |      |         |    |                |  |  |
| 165      | 9.78      |           | 3.90 | 1.69      | 20.  |                |     | 18.8   |     |      |   |       |      |         |    |                |  |  |
| 220      | 9.28      |           | 3.05 | 2.09      | 38.  |                |     | 23.7   |     |      |   |       |      |         |    |                |  |  |
| 274      | 8.47      |           |      |           |      |                |     |        |     |      |   |       |      |         |    |                |  |  |
| 328      | 8.19      | 34.23     | 1.40 |           |      |                |     |        |     |      |   |       |      |         |    |                |  |  |
| 437      | 7.12      | 34.30     | .71  |           |      |                |     |        |     |      |   |       |      |         |    |                |  |  |
| 545      | 6.27      |           |      |           |      |                |     |        |     |      |   |       |      |         |    |                |  |  |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

110080

| LATITUDE |           | LONGITUDE |       | MO/DAY/YR |      | MESSENGER TIME |     | BOTTOM |     | WIND |   | SPEED |      | WEATHER |    | DOMINANT WAVES |  |  |
|----------|-----------|-----------|-------|-----------|------|----------------|-----|--------|-----|------|---|-------|------|---------|----|----------------|--|--|
| 28 16.5N | 118 56.5W |           |       | 04/11/69  |      | 0312           | GMT | 3945M  | 310 | 14KT | 1 |       |      |         |    | 310 10 06      |  |  |
| Z        | T         | S         | D2    | P04       | S103 | N02            | N03 | DT     | Z   | T    | S | D2    | SIGT | DT      | DD |                |  |  |
| 0        |           | 16.57     | 33.72 |           |      |                |     |        |     |      |   |       |      |         |    | 0              |  |  |
| 10       |           | 16.57     | 33.72 |           |      |                |     |        |     |      |   |       |      |         |    | .033           |  |  |
| 20       |           | 16.56     | 33.72 |           |      |                |     |        |     |      |   |       |      |         |    | .066           |  |  |
| 30       |           | 16.56     | 33.72 |           |      |                |     |        |     |      |   |       |      |         |    | .099           |  |  |
| 50       |           | 15.96     | 33.65 |           |      |                |     |        |     |      |   |       |      |         |    | .164           |  |  |
| 75       |           | 15.42     | 33.64 |           |      |                |     |        |     |      |   |       |      |         |    | .244           |  |  |
| 100      |           | 14.13     | 33.56 |           |      |                |     |        |     |      |   |       |      |         |    | .319           |  |  |
| 125      |           | 11.51     | 33.59 |           |      |                |     |        |     |      |   |       |      |         |    | .386           |  |  |
| 150      |           | 10.84     | 33.81 |           |      |                |     |        |     |      |   |       |      |         |    | .443           |  |  |
| 200      |           | 9.93      | 34.07 |           |      |                |     |        |     |      |   |       |      |         |    | .542           |  |  |
| 250      |           | 9.79      | 34.28 |           |      |                |     |        |     |      |   |       |      |         |    | .629           |  |  |
| 300      |           | 9.30      | 34.33 |           |      |                |     |        |     |      |   |       |      |         |    | .708           |  |  |
| 400      |           | 8.03      | 34.35 |           |      |                |     |        |     |      |   |       |      |         |    | .852           |  |  |
| 500      |           | 7.16      | 34.38 |           |      |                |     |        |     |      |   |       |      |         |    | .980           |  |  |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

110080

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |       |   |   |    |      |    |    |  |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-------|---|---|----|------|----|----|--|
| 28 16.5N | 118 56.5W | 04/11/69  | 0418 GMT       | 3945M  | 310  | 14KT  | 1       | 310 10 06      |       |   |   |    |      |    |    |  |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z     | T | S | D2 | SIGT | DT | DD |  |
| 0        |           | 33.72     | 5.75           | .58    | 1.   |       |         | .0             |       |   |   |    |      |    |    |  |
| 11       | 16.56     | 33.72     | 5.76           | .38    | 1.   |       |         | .0             | 329.4 |   |   |    |      |    |    |  |
| 30       |           |           | 5.76           | .47    | 1.   |       |         | .0             |       |   |   |    |      |    |    |  |
| 54       |           |           | 5.90           | .47    | 1.   |       |         | 1.1            |       |   |   |    |      |    |    |  |
| 88       | 14.84     | 33.63     | 5.51           | .61    | 2.   |       |         | .8             | 299.3 |   |   |    |      |    |    |  |
| 117      | 12.47     |           | 4.41           | 1.17   | 9.   |       |         | 10.1           |       |   |   |    |      |    |    |  |
| 162      | 10.65     |           | 3.22           | 1.85   | 21.  |       |         | 20.0           |       |   |   |    |      |    |    |  |
| 217      | 9.89      |           | 2.35           | 2.36   | 32.  |       |         | 25.1           |       |   |   |    |      |    |    |  |
| 271      | 9.55      |           |                |        |      |       |         |                |       |   |   |    |      |    |    |  |
| 326      | 8.72      | 34.29     | 1.26           |        |      |       |         |                | 142.0 |   |   |    |      |    |    |  |
| 435      | 7.67      | 34.34     | .88            |        |      |       |         |                | 123.2 |   |   |    |      |    |    |  |
| 542      | 6.86      |           | .31            |        |      |       |         |                |       |   |   |    |      |    |    |  |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

113030

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |    |       |       |    |        |       |      |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|----|-------|-------|----|--------|-------|------|
| 29 22.0N | 115 18.0W | 04/12/69  | 1231 GMT       | 60M    | 300  | 14KT  | 1       | 300 02 06      |    |       |       |    |        |       |      |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z  | T     | S     | D2 | SIGT   | DT    | DD   |
|          |           |           |                |        |      |       |         |                | 0  | 13.06 | 33.73 |    | 25.419 | 256.8 | 0    |
|          |           |           |                |        |      |       |         |                | 10 | 13.05 | 33.73 |    | 25.421 | 256.7 | .026 |
|          |           |           |                |        |      |       |         |                | 20 | 12.29 | 33.79 |    | 25.615 | 238.1 | .050 |
|          |           |           |                |        |      |       |         |                | 30 | 11.75 | 33.70 |    | 25.648 | 235.0 | .074 |
|          |           |           |                |        |      |       |         |                | 50 | 11.78 | 33.94 |    | 25.828 | 217.9 | .120 |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

113035

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |    |        |       |      |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|----|--------|-------|------|
| 29 11.5N | 115 39.5W | 04/12/69  | 0920 GMT       | 1354M  | 320  | 13KT  | 2       | 320 04 06      |     |       |       |    |        |       |      |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z   | T     | S     | D2 | SIGT   | DT    | DD   |
|          |           |           |                |        |      |       |         |                | 0   | 14.59 | 33.59 |    | 24.995 | 297.1 | 0    |
|          |           |           |                |        |      |       |         |                | 10  | 14.59 | 33.59 |    | 24.995 | 297.1 | .030 |
|          |           |           |                |        |      |       |         |                | 20  | 14.51 | 33.60 |    | 25.020 | 294.8 | .059 |
|          |           |           |                |        |      |       |         |                | 30  | 14.42 | 33.61 |    | 25.047 | 292.2 | .089 |
|          |           |           |                |        |      |       |         |                | 50  | 12.22 | 33.64 |    | 25.513 | 247.9 | .143 |
|          |           |           |                |        |      |       |         |                | 75  | 11.36 | 33.76 |    | 25.766 | 223.8 | .202 |
|          |           |           |                |        |      |       |         |                | 100 | 10.51 | 33.87 |    | 26.004 | 201.2 | .256 |
|          |           |           |                |        |      |       |         |                | 125 | 9.76  | 33.92 |    | 26.171 | 185.4 | .305 |
|          |           |           |                |        |      |       |         |                | 150 | 9.61  | 34.05 |    | 26.297 | 173.4 | .350 |
|          |           |           |                |        |      |       |         |                | 200 | 9.30  | 34.24 |    | 26.496 | 154.5 | .434 |
|          |           |           |                |        |      |       |         |                | 250 | 8.84  | 34.33 |    | 26.640 | 140.8 | .510 |
|          |           |           |                |        |      |       |         |                | 300 | 8.41  | 34.36 |    | 26.730 | 132.2 | .581 |
|          |           |           |                |        |      |       |         |                | 400 | 7.46  | 34.35 |    | 26.864 | 119.6 | .713 |
|          |           |           |                |        |      |       |         |                | 500 | 6.44  | 34.36 |    | 27.012 | 105.5 | .832 |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

113040

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |    |        |       |      |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|----|--------|-------|------|
| 29 02.5N | 116 00.0W | 04/12/69  | 0633 GMT       | 1931M  | 320  | 10KT  | 2       | 320 04 06      |     |       |       |    |        |       |      |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z   | T     | S     | D2 | SIGT   | DT    | DD   |
|          |           |           |                |        |      |       |         |                | 0   | 14.44 | 33.49 |    | 24.950 | 301.4 | 0    |
|          |           |           |                |        |      |       |         |                | 10  | 14.43 | 33.49 |    | 24.952 | 301.2 | .030 |
|          |           |           |                |        |      |       |         |                | 20  | 14.11 | 33.48 |    | 25.012 | 295.6 | .060 |
|          |           |           |                |        |      |       |         |                | 30  | 13.64 | 33.47 |    | 25.101 | 287.1 | .089 |
|          |           |           |                |        |      |       |         |                | 50  | 12.81 | 33.60 |    | 25.368 | 261.7 | .144 |
|          |           |           |                |        |      |       |         |                | 75  | 11.05 | 33.59 |    | 25.691 | 231.0 | .206 |
|          |           |           |                |        |      |       |         |                | 100 | 10.44 | 33.75 |    | 25.923 | 208.9 | .262 |
|          |           |           |                |        |      |       |         |                | 125 | 10.42 | 34.08 |    | 26.183 | 184.2 | .311 |
|          |           |           |                |        |      |       |         |                | 150 | 10.23 | 34.13 |    | 26.254 | 177.4 | .357 |
|          |           |           |                |        |      |       |         |                | 200 | 9.16  | 34.12 |    | 26.425 | 161.2 | .444 |
|          |           |           |                |        |      |       |         |                | 250 | 8.69  | 34.27 |    | 26.617 | 143.0 | .522 |
|          |           |           |                |        |      |       |         |                | 300 | 8.21  | 34.31 |    | 26.722 | 133.1 | .594 |
|          |           |           |                |        |      |       |         |                | 400 | 7.13  | 34.34 |    | 26.903 | 115.9 | .724 |
|          |           |           |                |        |      |       |         |                | 500 | 6.44  | 34.35 |    | 27.004 | 106.3 | .842 |



RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 117030

| LATITUDE<br>28 48.ON | LONGITUDE<br>114 56.0W | MO/DAY/YR<br>04/13/69 | MESSINGER TIME<br>1056 GMT | BOTTOM<br>101M | WIND<br>260 | SPEED<br>22KT | WEATHER<br>2 | DOMINANT WAVES<br>49 05 03 |    |       |       |        |       |      |    |
|----------------------|------------------------|-----------------------|----------------------------|----------------|-------------|---------------|--------------|----------------------------|----|-------|-------|--------|-------|------|----|
| Z                    | T                      | S                     | D2                         | P04            | S103        | N02           | N03          | DT                         | Z  | T     | S     | D2     | SIGT  | DT   | DD |
|                      |                        |                       |                            |                |             |               |              |                            | 0  | 14.54 | 33.72 | 25.106 | 286.6 | 0    |    |
|                      |                        |                       |                            |                |             |               |              |                            | 10 | 14.53 | 33.72 | 25.108 | 286.4 | .029 |    |
|                      |                        |                       |                            |                |             |               |              |                            | 20 | 14.49 | 33.72 | 25.116 | 285.6 | .057 |    |
|                      |                        |                       |                            |                |             |               |              |                            | 30 | 12.91 | 33.67 | 25.402 | 258.4 | .085 |    |
|                      |                        |                       |                            |                |             |               |              |                            | 50 | 11.30 | 33.91 | 25.894 | 211.7 | .132 |    |
|                      |                        |                       |                            |                |             |               |              |                            | 75 | 10.86 | 34.01 | 26.051 | 196.8 | .183 |    |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 117035

| LATITUDE<br>28 37.ON | LONGITUDE<br>115 16.5W | MO/DAY/YR<br>04/13/69 | MESSINGER TIME<br>1334 GMT | BOTTOM<br>201M | WIND<br>330 | SPEED<br>17KT | WEATHER<br>2 | DOMINANT WAVES<br>320 05 06 |     |       |       |        |       |      |    |
|----------------------|------------------------|-----------------------|----------------------------|----------------|-------------|---------------|--------------|-----------------------------|-----|-------|-------|--------|-------|------|----|
| Z                    | T                      | S                     | D2                         | P04            | S103        | N02           | N03          | DT                          | Z   | T     | S     | D2     | SIGT  | DT   | DD |
|                      |                        |                       |                            |                |             |               |              |                             | 0   | 15.14 | 33.54 | 24.838 | 312.1 | 0    |    |
|                      |                        |                       |                            |                |             |               |              |                             | 10  | 15.14 | 33.54 | 24.838 | 312.1 | .031 |    |
|                      |                        |                       |                            |                |             |               |              |                             | 20  | 15.14 | 33.54 | 24.838 | 312.1 | .062 |    |
|                      |                        |                       |                            |                |             |               |              |                             | 30  | 15.10 | 33.54 | 24.847 | 311.3 | .094 |    |
|                      |                        |                       |                            |                |             |               |              |                             | 50  | 14.15 | 33.47 | 24.996 | 297.1 | .155 |    |
|                      |                        |                       |                            |                |             |               |              |                             | 75  | 11.40 | 33.44 | 25.511 | 248.0 | .223 |    |
|                      |                        |                       |                            |                |             |               |              |                             | 100 | 10.36 | 33.74 | 25.929 | 208.4 | .281 |    |
|                      |                        |                       |                            |                |             |               |              |                             | 125 | 10.25 | 33.99 | 26.142 | 188.1 | .331 |    |
|                      |                        |                       |                            |                |             |               |              |                             | 150 | 9.91  | 34.19 | 26.356 | 167.8 | .376 |    |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 117040

| LATITUDE<br>28 28.ON | LONGITUDE<br>115 36.0W | MO/DAY/YR<br>04/14/69 | MESSINGER TIME<br>0030 GMT | BOTTOM<br>1003M | WIND<br>320 | SPEED<br>20KT | WEATHER<br>2 | DOMINANT WAVES<br>310 06 05 |     |       |       |        |       |      |    |
|----------------------|------------------------|-----------------------|----------------------------|-----------------|-------------|---------------|--------------|-----------------------------|-----|-------|-------|--------|-------|------|----|
| Z                    | T                      | S                     | D2                         | P04             | S103        | N02           | N03          | DT                          | Z   | T     | S     | D2     | SIGT  | DT   | DD |
|                      |                        |                       |                            |                 |             |               |              |                             | 0   | 15.40 | 33.52 | 24.765 | 319.0 | 0    |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 10  | 15.41 | 33.52 | 24.763 | 319.2 | .032 |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 20  | 15.41 | 33.52 | 24.763 | 319.2 | .064 |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 30  | 15.41 | 33.52 | 24.763 | 319.2 | .096 |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 50  | 14.86 | 33.51 | 24.876 | 308.5 | .159 |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 75  | 12.94 | 33.43 | 25.211 | 276.6 | .232 |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 100 | 10.89 | 33.47 | 25.626 | 237.1 | .297 |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 125 | 10.75 | 33.65 | 25.791 | 221.5 | .355 |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 150 | 10.31 | 34.09 | 26.209 | 181.7 | .406 |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 200 | 10.09 | 34.36 | 26.457 | 158.1 | .493 |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 250 | 9.85  | 34.46 | 26.576 | 146.9 | .572 |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 300 | 8.93  | 34.41 | 26.688 | 136.3 | .645 |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 400 | 7.57  | 34.37 | 26.864 | 119.6 | .779 |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 500 | 6.51  | 34.37 | 27.011 | 105.7 | .899 |    |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 117050

| LATITUDE<br>28 07.5N | LONGITUDE<br>116 14.0W | MO/DAY/YR<br>04/14/69 | MESSINGER TIME<br>0537 GMT | BOTTOM<br>3832M | WIND<br>320 | SPEED<br>19KT | WEATHER<br>2 | DOMINANT WAVES<br>330 06 07 |     |       |       |        |       |      |    |
|----------------------|------------------------|-----------------------|----------------------------|-----------------|-------------|---------------|--------------|-----------------------------|-----|-------|-------|--------|-------|------|----|
| Z                    | T                      | S                     | D2                         | P04             | S103        | N02           | N03          | DT                          | Z   | T     | S     | D2     | SIGT  | DT   | DD |
|                      |                        |                       |                            |                 |             |               |              |                             | 0   | 15.54 | 33.60 | 24.796 | 316.1 | 0    |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 10  | 15.54 | 33.60 | 24.796 | 316.1 | .032 |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 20  | 15.54 | 33.60 | 24.796 | 316.1 | .063 |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 30  | 15.54 | 33.60 | 24.796 | 316.1 | .095 |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 50  | 15.05 | 33.57 | 24.880 | 308.0 | .158 |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 75  | 14.24 | 33.56 | 25.046 | 292.3 | .233 |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 100 | 11.41 | 33.58 | 25.618 | 237.9 | .300 |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 125 | 10.64 | 33.81 | 25.934 | 207.8 | .356 |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 150 | 10.34 | 34.02 | 26.150 | 187.3 | .406 |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 200 | 9.77  | 34.21 | 26.395 | 164.1 | .496 |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 250 | 9.70  | 34.45 | 26.594 | 145.2 | .576 |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 300 | 9.22  | 34.50 | 26.712 | 134.0 | .648 |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 400 | 8.04  | 34.45 | 26.857 | 120.2 | .782 |    |
|                      |                        |                       |                            |                 |             |               |              |                             | 500 | 6.95  | 34.43 | 26.998 | 106.8 | .903 |    |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 117060

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |    |        |       |      |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|----|--------|-------|------|
| 27 47.0N | 116 53.0W | 04/14/69  | 1024 GMT       | 3546M  | 350  | 19KT  |         | 330 08 07      |     |       |       |    |        |       |      |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z   | T     | S     | D2 | SIGT   | DT    | DD   |
|          |           |           |                |        |      |       |         |                | 0   | 15.73 | 33.65 |    | 24.792 | 316.5 | 0    |
|          |           |           |                |        |      |       |         |                | 10  | 15.73 | 33.64 |    | 24.784 | 317.2 | .032 |
|          |           |           |                |        |      |       |         |                | 20  | 15.72 | 33.64 |    | 24.786 | 317.0 | .063 |
|          |           |           |                |        |      |       |         |                | 30  | 15.63 | 33.62 |    | 24.791 | 315.5 | .095 |
|          |           |           |                |        |      |       |         |                | 50  | 14.65 | 33.60 |    | 24.990 | 297.6 | .157 |
|          |           |           |                |        |      |       |         |                | 75  | 12.95 | 33.61 |    | 25.348 | 263.5 | .227 |
|          |           |           |                |        |      |       |         |                | 100 | 11.35 | 33.68 |    | 25.706 | 229.5 | .290 |
|          |           |           |                |        |      |       |         |                | 125 | 10.48 | 33.85 |    | 25.993 | 202.2 | .344 |
|          |           |           |                |        |      |       |         |                | 150 | 9.86  | 34.00 |    | 26.216 | 181.1 | .393 |
|          |           |           |                |        |      |       |         |                | 200 | 8.94  | 34.15 |    | 26.483 | 155.7 | .479 |
|          |           |           |                |        |      |       |         |                | 250 | 9.06  | 34.34 |    | 26.613 | 143.4 | .556 |
|          |           |           |                |        |      |       |         |                | 300 | 8.61  | 34.38 |    | 26.715 | 133.7 | .628 |
|          |           |           |                |        |      |       |         |                | 400 | 7.19  | 34.32 |    | 26.878 | 118.2 | .759 |
|          |           |           |                |        |      |       |         |                | 500 | 6.26  | 34.37 |    | 27.044 | 102.6 | .876 |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 117070

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |    |        |       |      |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|----|--------|-------|------|
| 27 27.5N | 117 32.5W | 04/14/69  | 1515 GMT       | 3936M  | 330  | 20KT  | 1       | 320 08 05      |     |       |       |    |        |       |      |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z   | T     | S     | D2 | SIGT   | DT    | DD   |
|          |           |           |                |        |      |       |         |                | 0   | 16.29 | 33.66 |    | 24.673 | 327.8 | 0    |
|          |           |           |                |        |      |       |         |                | 10  | 16.29 | 33.66 |    | 24.673 | 327.8 | .033 |
|          |           |           |                |        |      |       |         |                | 20  | 16.29 | 33.66 |    | 24.673 | 327.8 | .066 |
|          |           |           |                |        |      |       |         |                | 30  | 16.29 | 33.66 |    | 24.673 | 327.8 | .098 |
|          |           |           |                |        |      |       |         |                | 50  | 15.61 | 33.62 |    | 24.796 | 316.1 | .163 |
|          |           |           |                |        |      |       |         |                | 75  | 15.12 | 33.64 |    | 24.919 | 304.4 | .241 |
|          |           |           |                |        |      |       |         |                | 100 | 13.85 | 33.51 |    | 25.089 | 288.2 | .316 |
|          |           |           |                |        |      |       |         |                | 125 | 11.87 | 33.63 |    | 25.571 | 242.3 | .383 |
|          |           |           |                |        |      |       |         |                | 150 | 10.78 | 33.82 |    | 25.917 | 209.4 | .440 |
|          |           |           |                |        |      |       |         |                | 200 | 10.14 | 34.18 |    | 26.309 | 172.3 | .537 |
|          |           |           |                |        |      |       |         |                | 250 | 9.95  | 34.41 |    | 26.520 | 152.2 | .621 |
|          |           |           |                |        |      |       |         |                | 300 | 9.07  | 34.37 |    | 26.634 | 141.3 | .697 |
|          |           |           |                |        |      |       |         |                | 400 | 7.75  | 34.36 |    | 26.830 | 122.8 | .835 |
|          |           |           |                |        |      |       |         |                | 500 | 6.65  | 34.36 |    | 26.984 | 108.2 | .958 |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 117080

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |    |        |       |      |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|----|--------|-------|------|
| 27 08.0N | 118 10.5W | 04/14/69  | 2013 GMT       | 3964M  | 340  | 21KT  | 1       | 330 15 08      |     |       |       |    |        |       |      |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z   | T     | S     | D2 | SIGT   | DT    | DD   |
|          |           |           |                |        |      |       |         |                | 0   | 17.63 | 34.09 |    | 24.686 | 326.6 | 0    |
|          |           |           |                |        |      |       |         |                | 10  | 17.63 | 34.09 |    | 24.686 | 326.6 | .033 |
|          |           |           |                |        |      |       |         |                | 20  | 17.61 | 34.09 |    | 24.691 | 326.1 | .065 |
|          |           |           |                |        |      |       |         |                | 30  | 17.58 | 34.09 |    | 24.698 | 325.4 | .098 |
|          |           |           |                |        |      |       |         |                | 50  | 17.55 | 34.09 |    | 24.705 | 324.7 | .163 |
|          |           |           |                |        |      |       |         |                | 75  | 17.51 | 34.15 |    | 24.761 | 319.4 | .244 |
|          |           |           |                |        |      |       |         |                | 100 | 16.74 | 34.02 |    | 24.844 | 311.5 | .324 |
|          |           |           |                |        |      |       |         |                | 125 | 12.63 | 33.64 |    | 25.434 | 255.4 | .395 |
|          |           |           |                |        |      |       |         |                | 150 | 12.22 | 34.03 |    | 25.815 | 219.2 | .456 |
|          |           |           |                |        |      |       |         |                | 200 | 10.50 | 34.22 |    | 26.277 | 175.2 | .556 |
|          |           |           |                |        |      |       |         |                | 250 | 9.90  | 34.36 |    | 26.490 | 155.1 | .641 |
|          |           |           |                |        |      |       |         |                | 300 | 9.55  | 34.45 |    | 26.619 | 142.9 | .719 |
|          |           |           |                |        |      |       |         |                | 400 | 8.01  | 34.39 |    | 26.815 | 124.3 | .859 |
|          |           |           |                |        |      |       |         |                | 500 | 6.95  | 34.40 |    | 26.975 | 109.1 | .983 |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 118039

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |    |        |       |      |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|----|--------|-------|------|
| 28 18.5N | 115 24.0W | 04/13/69  | 1558 GMT       | 279M   | 330  | 14KT  | 2       | 320 05 06      |     |       |       |    |        |       |      |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z   | T     | S     | D2 | SIGT   | DT    | DD   |
|          |           |           |                |        |      |       |         |                | 0   | 15.35 | 33.66 |    | 24.884 | 307.7 | 0    |
|          |           |           |                |        |      |       |         |                | 10  | 15.34 | 33.66 |    | 24.886 | 307.5 | .031 |
|          |           |           |                |        |      |       |         |                | 20  | 15.24 | 33.63 |    | 24.885 | 307.6 | .062 |
|          |           |           |                |        |      |       |         |                | 30  | 15.12 | 33.61 |    | 24.896 | 306.6 | .092 |
|          |           |           |                |        |      |       |         |                | 50  | 13.17 | 33.62 |    | 25.312 | 267.0 | .150 |
|          |           |           |                |        |      |       |         |                | 75  | 12.25 | 33.74 |    | 25.584 | 241.1 | .214 |
|          |           |           |                |        |      |       |         |                | 100 | 11.41 | 34.02 |    | 25.959 | 205.5 | .270 |
|          |           |           |                |        |      |       |         |                | 125 | 10.93 | 34.17 |    | 26.162 | 186.2 | .320 |
|          |           |           |                |        |      |       |         |                | 150 | 10.62 | 34.27 |    | 26.295 | 173.5 | .365 |
|          |           |           |                |        |      |       |         |                | 200 | 10.61 | 34.43 |    | 26.421 | 161.6 | .451 |
|          |           |           |                |        |      |       |         |                | 250 | 9.79  | 34.47 |    | 26.594 | 145.2 | .530 |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 118039

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER | TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |   |   |    |      |    |    |  |
|----------|-----------|-----------|-----------|------|--------|------|-------|---------|----------------|---|---|----|------|----|----|--|
| 28 18.5N | 115 24.0W | 04/13/69  | 1650      | GMT  | 279M   | 330  | 14KT  | 2       | 320 05 06      |   |   |    |      |    |    |  |
| Z        | T         | S         | D2        | P04  | S103   | N02  | N03   | DT      | Z              | T | S | D2 | SIGT | DT | DD |  |
| 0        |           | 33.66     |           | .56  | 4.     |      | .0    |         |                |   |   |    |      |    |    |  |
| 11       | 15.38     | 33.66     | 5.96      | .52  | 4.     |      | .0    | 308.4   |                |   |   |    |      |    |    |  |
| 30       |           |           | 5.92      | .49  | 4.     |      | .0    |         |                |   |   |    |      |    |    |  |
| 44       |           |           | 5.93      | .38  | 9.     |      | .0    |         |                |   |   |    |      |    |    |  |
| 53       |           | 33.65     | 5.40      | .70U | 11.    |      | 3.9U  |         |                |   |   |    |      |    |    |  |
| 67       | 12.06     |           | 3.40      | .36  | 16.    |      | 1.4   |         |                |   |   |    |      |    |    |  |
| 76       |           |           | 2.31      | .40  | 26.    |      | 2.0   |         |                |   |   |    |      |    |    |  |
| 101      | 11.10     |           | 2.18      | .83  | 29.    |      | 8.3   |         |                |   |   |    |      |    |    |  |
| 125      |           |           | 2.07      | 2.11 | 30.    |      | 22.2  |         |                |   |   |    |      |    |    |  |
| 145      | 10.75     |           | 1.33      |      | 34.    |      | 23.4  |         |                |   |   |    |      |    |    |  |
| 179      | 10.76     | 34.43     | 1.07      |      | 40.    |      | 21.3U | 164.1   |                |   |   |    |      |    |    |  |
| 209      | 10.41     | 34.44     | .83       |      | 43.    |      | 23.7  | 157.5   |                |   |   |    |      |    |    |  |
| 249      |           | 9.83      | .65       |      |        |      |       |         |                |   |   |    |      |    |    |  |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 119033

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER | TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |       |       |    |        |       |      |
|----------|-----------|-----------|-----------|------|--------|------|-------|---------|----------------|-------|-------|----|--------|-------|------|
| 28 19.0N | 114 53.0W | 04/13/69  | 0408      | GMT  | 112M   | 300  | 20KT  |         | 300 06 06      |       |       |    |        |       |      |
| Z        | T         | S         | D2        | P04  | S103   | N02  | N03   | DT      | Z              | T     | S     | D2 | SIGT   | DT    | DD   |
|          |           |           |           |      |        |      |       |         | 0              | 14.85 | 33.61 |    | 24.955 | 301.0 | 0    |
|          |           |           |           |      |        |      |       |         | 10             | 14.84 | 33.62 |    | 24.964 | 300.1 | .030 |
|          |           |           |           |      |        |      |       |         | 20             | 14.79 | 33.61 |    | 24.967 | 299.8 | .060 |
|          |           |           |           |      |        |      |       |         | 30             | 14.69 | 33.61 |    | 24.989 | 297.7 | .090 |
|          |           |           |           |      |        |      |       |         | 50             | 14.54 | 33.60 |    | 25.013 | 295.4 | .150 |
|          |           |           |           |      |        |      |       |         | 75             | 11.88 | 33.83 |    | 25.724 | 227.8 | .215 |
|          |           |           |           |      |        |      |       |         | 100            | 11.28 | 34.05 |    | 26.006 | 201.0 | .269 |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 119033

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER | TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |       |       |      |        |       |      |
|----------|-----------|-----------|-----------|------|--------|------|-------|---------|----------------|-------|-------|------|--------|-------|------|
| 28 19.0N | 114 53.0W | 04/13/69  | 0630      | GMT  | 112M   | 300  | 20KT  |         | 300 06 06      |       |       |      |        |       |      |
| Z        | T         | S         | D2        | P04  | S103   | N02  | N03   | DT      | Z              | T     | S     | D2   | SIGT   | DT    | DD   |
| 1        | 14.87     | 33.61     | 5.91      | .22  | 2.     |      | .0    | 301.4   | 0              | 14.87 | 33.61 | 5.91 | 24.950 | 301.4 | 0    |
| 11       | 14.86     | 33.61     | 5.94      | .52U | 3.     |      | .0    | 301.2   | 10             | 14.86 | 33.61 | 5.94 | 24.952 | 301.2 | .030 |
| 26       | 14.81     |           | 5.96      | .27  | 3.     |      | .0    |         | 20             | 14.83 | 33.62 | 5.95 | 24.964 | 300.1 | .060 |
| 36       | 14.79     |           | 5.81      | .27  | 3.     |      | .0    |         | 30             | 14.80 | 33.63 | 5.90 | 24.977 | 298.9 | .090 |
| 46       | 14.76     | 33.64     | 5.76      | .31  | 3.     |      | .0    | 297.0   | 50             | 14.49 | 33.70 | 5.70 | 25.097 | 287.4 | .149 |
| 59       | 13.60     |           | 5.55      | .25  | 5.     |      | .5    |         | 75             | 11.70 | 33.82 | 3.30 | 25.748 | 225.6 | .214 |
| 74       | 11.72     | 33.80     | 3.40      | .52  | 10.    |      | 6.5   | 227.1   | 100            | 11.22 | 34.03 | 2.05 | 26.001 | 201.4 | .268 |
| 99       | 11.25     | 34.03     | 2.07      | .79  | 18.    |      | 9.3   | 202.0   |                |       |       |      |        |       |      |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 120045

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER | TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |       |       |    |        |       |      |
|----------|-----------|-----------|-----------|------|--------|------|-------|---------|----------------|-------|-------|----|--------|-------|------|
| 27 43.0N | 115 33.0W | 04/15/69  | 2254      | GMT  | 2416M  | 330  | 18KT  | 1       | 320 10 00      |       |       |    |        |       |      |
| Z        | T         | S         | D2        | P04  | S103   | N02  | N03   | DT      | Z              | T     | S     | D2 | SIGT   | DT    | DD   |
|          |           |           |           |      |        |      |       |         | 0              | 14.94 | 33.75 |    | 25.043 | 292.6 | 0    |
|          |           |           |           |      |        |      |       |         | 10             | 14.94 | 33.75 |    | 25.043 | 292.6 | .029 |
|          |           |           |           |      |        |      |       |         | 20             | 14.88 | 33.75 |    | 25.056 | 291.4 | .059 |
|          |           |           |           |      |        |      |       |         | 30             | 13.09 | 33.72 |    | 25.405 | 258.2 | .086 |
|          |           |           |           |      |        |      |       |         | 50             | 11.30 | 33.68 |    | 25.715 | 228.6 | .135 |
|          |           |           |           |      |        |      |       |         | 75             | 11.49 | 34.01 |    | 25.936 | 207.6 | .190 |
|          |           |           |           |      |        |      |       |         | 100            | 11.38 | 34.32 |    | 26.197 | 182.9 | .239 |
|          |           |           |           |      |        |      |       |         | 125            | 11.36 | 34.43 |    | 26.286 | 174.4 | .284 |
|          |           |           |           |      |        |      |       |         | 150            | 11.20 | 34.54 |    | 26.401 | 163.5 | .328 |
|          |           |           |           |      |        |      |       |         | 200            | 10.41 | 34.54 |    | 26.542 | 150.1 | .408 |
|          |           |           |           |      |        |      |       |         | 250            | 9.83  | 34.57 |    | 26.665 | 138.4 | .482 |
|          |           |           |           |      |        |      |       |         | 300            | 9.00  | 34.52 |    | 26.763 | 129.2 | .552 |
|          |           |           |           |      |        |      |       |         | 400            | 7.94  | 34.47 |    | 26.888 | 117.3 | .682 |
|          |           |           |           |      |        |      |       |         | 500            | 7.05  | 34.44 |    | 26.992 | 107.4 | .802 |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

120045

| LATITUDE<br>27 43.ON | LONGITUDE<br>115 33.0W | MO/DAY/YR<br>04/15/69 | MESSANGER TIME<br>2359 GMT | BOTTOM<br>2416M | WIND<br>330 | SPEED<br>18KT | WEATHER<br>1 | DOMINANT WAVES<br>320 10 08 |   |   |   |    |      |    |    |
|----------------------|------------------------|-----------------------|----------------------------|-----------------|-------------|---------------|--------------|-----------------------------|---|---|---|----|------|----|----|
| Z                    | T                      | S                     | D2                         | P04             | S103        | N02           | N03          | DT                          | Z | T | S | D2 | SIGT | DT | DD |
| 0                    |                        |                       | 5.40                       | .70             | 5.          |               | 3.6          |                             |   |   |   |    |      |    |    |
| 11                   | 14.86                  |                       | 5.49                       | .72             | 5.          |               | 3.6          |                             |   |   |   |    |      |    |    |
| 30                   |                        |                       | 4.60                       | 1.15            | 10.         |               | 10.5         |                             |   |   |   |    |      |    |    |
| 40                   |                        |                       | 4.49                       | 1.32            | 11.         |               | 11.8         |                             |   |   |   |    |      |    |    |
| 52                   |                        |                       | 3.41                       | 1.64            | 15.         |               | 18.0         |                             |   |   |   |    |      |    |    |
| 69                   | 11.52                  |                       | 2.66                       | 1.82            | 19.         |               | 20.7         |                             |   |   |   |    |      |    |    |
| 94                   |                        |                       | 2.05                       | 2.25            | 23.         |               | 24.0         |                             |   |   |   |    |      |    |    |
| 114                  | 11.27                  |                       | 1.48                       | 2.59            | 27.         |               | 25.5         |                             |   |   |   |    |      |    |    |
| 134                  |                        |                       | 1.17                       | 2.57            | 29.         |               | 26.1         |                             |   |   |   |    |      |    |    |
| 155                  | 11.15                  |                       | .70                        | 3.02U           | 32.         |               | 26.8         |                             |   |   |   |    |      |    |    |
| 184                  |                        |                       | .72                        | 2.79            | 33.         |               | 27.4         |                             |   |   |   |    |      |    |    |
| 219                  | 10.25                  |                       | .63                        | 2.88            | 35.         |               | 28.0         |                             |   |   |   |    |      |    |    |
| 249                  |                        |                       | .44                        |                 |             |               |              |                             |   |   |   |    |      |    |    |
| 299                  | 9.50                   |                       | .49                        |                 |             |               |              |                             |   |   |   |    |      |    |    |
| 354                  |                        |                       | .40                        |                 |             |               |              |                             |   |   |   |    |      |    |    |
| 439                  | 7.70                   |                       | .32                        |                 |             |               |              |                             |   |   |   |    |      |    |    |
| 523                  | 6.74                   |                       | .30                        |                 |             |               |              |                             |   |   |   |    |      |    |    |
| 606                  | 6.04                   |                       | .24                        |                 |             |               |              |                             |   |   |   |    |      |    |    |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

120050

| LATITUDE<br>27 34.ON | LONGITUDE<br>116 54.0W | MO/DAY/YR<br>04/15/69 | MESSANGER TIME<br>1854 GMT | BOTTOM<br>3738M | WIND<br>350 | SPEED<br>17KT | WEATHER<br>1 | DOMINANT WAVES<br>340 10 06 |     |       |       |    |        |       |      |
|----------------------|------------------------|-----------------------|----------------------------|-----------------|-------------|---------------|--------------|-----------------------------|-----|-------|-------|----|--------|-------|------|
| Z                    | T                      | S                     | D2                         | P04             | S103        | N02           | N03          | DT                          | Z   | T     | S     | D2 | SIGT   | DT    | DD   |
| 0                    |                        |                       |                            |                 |             |               |              |                             | 0   | 15.38 | 33.71 |    | 24.916 | 304.7 | 0    |
| 10                   |                        |                       |                            |                 |             |               |              |                             | 10  | 15.38 | 33.71 |    | 24.916 | 304.7 | .030 |
| 20                   |                        |                       |                            |                 |             |               |              |                             | 20  | 15.36 | 33.71 |    | 24.920 | 304.3 | .061 |
| 30                   |                        |                       |                            |                 |             |               |              |                             | 30  | 15.35 | 33.71 |    | 24.922 | 304.1 | .091 |
| 50                   |                        |                       |                            |                 |             |               |              |                             | 50  | 15.16 | 33.68 |    | 24.941 | 302.3 | .152 |
| 75                   |                        |                       |                            |                 |             |               |              |                             | 75  | 13.36 | 33.75 |    | 25.374 | 261.1 | .223 |
| 100                  |                        |                       |                            |                 |             |               |              |                             | 100 | 12.26 | 33.80 |    | 25.629 | 236.8 | .286 |
| 125                  |                        |                       |                            |                 |             |               |              |                             | 125 | 10.91 | 33.97 |    | 26.011 | 200.6 | .341 |
| 150                  |                        |                       |                            |                 |             |               |              |                             | 150 | 10.36 | 34.15 |    | 26.247 | 178.1 | .389 |
| 200                  |                        |                       |                            |                 |             |               |              |                             | 200 | 9.76  | 34.29 |    | 26.459 | 158.0 | .475 |
| 250                  |                        |                       |                            |                 |             |               |              |                             | 250 | 9.61  | 34.45 |    | 26.609 | 143.8 | .553 |
| 300                  |                        |                       |                            |                 |             |               |              |                             | 300 | 9.05  | 34.48 |    | 26.724 | 132.9 | .625 |
| 400                  |                        |                       |                            |                 |             |               |              |                             | 400 | 7.73  | 34.43 |    | 26.887 | 117.4 | .756 |
| 500                  |                        |                       |                            |                 |             |               |              |                             | 500 | 6.78  | 34.42 |    | 27.014 | 105.4 | .875 |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

120050

| LATITUDE<br>27 34.ON | LONGITUDE<br>116 54.0W | MO/DAY/YR<br>04/15/69 | MESSANGER TIME<br>1955 GMT | BOTTOM<br>3738M | WIND<br>350 | SPEED<br>17KT | WEATHER<br>1 | DOMINANT WAVES<br>340 10-06 |   |   |   |    |      |    |    |
|----------------------|------------------------|-----------------------|----------------------------|-----------------|-------------|---------------|--------------|-----------------------------|---|---|---|----|------|----|----|
| Z                    | T                      | S                     | D2                         | P04             | S103        | N02           | N03          | DT                          | Z | T | S | D2 | SIGT | DT | DD |
| 0                    |                        |                       | 5.94                       | .45             | 3.          |               | .0           |                             |   |   |   |    |      |    |    |
| 11                   | 15.42                  |                       | 5.91                       | .43             | 3.          |               | .0           |                             |   |   |   |    |      |    |    |
| 30                   |                        |                       | 5.93                       | .49             | 2.          |               | .0           |                             |   |   |   |    |      |    |    |
| 40                   |                        |                       | 6.16                       | .49             | 1.          |               | .0           |                             |   |   |   |    |      |    |    |
| 54                   |                        |                       | 5.64                       | .63             | 2.          |               | 1.4          |                             |   |   |   |    |      |    |    |
| 69                   | 13.58                  |                       | 4.86                       | 1.08            | 6.          |               | 7.1          |                             |   |   |   |    |      |    |    |
| 94                   |                        |                       | 3.65                       | 1.60            | 14.         |               | 16.0         |                             |   |   |   |    |      |    |    |
| 114                  | 11.07                  |                       | 3.13                       | 1.91            | 18.         |               | 19.4         |                             |   |   |   |    |      |    |    |
| 134                  |                        |                       | 2.68                       | 2.09            | 23.         |               | 22.4         |                             |   |   |   |    |      |    |    |
| 154                  | 10.16                  |                       | 2.43                       | 2.27            | 27.         |               | 24.5         |                             |   |   |   |    |      |    |    |
| 184                  |                        |                       | 2.05                       | 2.34            | 30.         |               | 25.4         |                             |   |   |   |    |      |    |    |
| 219                  | 9.93                   |                       | 1.30                       |                 | 34.         |               | 27.2         |                             |   |   |   |    |      |    |    |
| 249                  |                        |                       | .86                        |                 |             |               |              |                             |   |   |   |    |      |    |    |
| 299                  | 8.94                   |                       | .57                        |                 |             |               |              |                             |   |   |   |    |      |    |    |
| 355                  |                        |                       | .57                        |                 |             |               |              |                             |   |   |   |    |      |    |    |
| 439                  | 7.38                   |                       | .28                        |                 |             |               |              |                             |   |   |   |    |      |    |    |
| 524                  | 6.52                   |                       | .28                        |                 |             |               |              |                             |   |   |   |    |      |    |    |
| 605                  | 5.85                   |                       | .30                        |                 |             |               |              |                             |   |   |   |    |      |    |    |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

120060

| LATITUDE<br>27 13.5N | LONGITUDE<br>116 32.5W | MO/DAY/YR<br>04/15/69 | MESSANGER TIME<br>1257 GMT | BOTTOM<br>3738M | WIND<br>330 | SPEED<br>20KT | WEATHER<br>2 | DOMINANT WAVES<br>330 10 06 |     |       |       |    |        |       |      |
|----------------------|------------------------|-----------------------|----------------------------|-----------------|-------------|---------------|--------------|-----------------------------|-----|-------|-------|----|--------|-------|------|
| Z                    | T                      | S                     | D2                         | P04             | S103        | N02           | N03          | DT                          | Z   | T     | S     | D2 | SIGT   | DT    | DD   |
| 0                    |                        |                       |                            |                 |             |               |              |                             | 0   | 16.44 | 33.76 |    | 24.715 | 323.8 | 0    |
| 10                   |                        |                       |                            |                 |             |               |              |                             | 10  | 16.43 | 33.76 |    | 24.717 | 323.6 | .032 |
| 20                   |                        |                       |                            |                 |             |               |              |                             | 20  | 16.44 | 33.76 |    | 24.715 | 323.8 | .065 |
| 30                   |                        |                       |                            |                 |             |               |              |                             | 30  | 16.44 | 33.77 |    | 24.722 | 323.1 | .097 |
| 50                   |                        |                       |                            |                 |             |               |              |                             | 50  | 16.63 | 33.86 |    | 24.747 | 320.7 | .162 |
| 75                   |                        |                       |                            |                 |             |               |              |                             | 75  | 15.17 | 33.67 |    | 24.931 | 303.2 | .240 |
| 100                  |                        |                       |                            |                 |             |               |              |                             | 100 | 12.80 | 33.58 |    | 25.354 | 263.0 | .312 |
| 125                  |                        |                       |                            |                 |             |               |              |                             | 125 | 11.42 | 33.74 |    | 25.740 | 226.3 | .373 |
| 150                  |                        |                       |                            |                 |             |               |              |                             | 150 | 10.77 | 33.96 |    | 26.028 | 198.9 | .427 |
| 200                  |                        |                       |                            |                 |             |               |              |                             | 200 | 9.82  | 34.16 |    | 26.347 | 168.6 | .521 |
| 250                  |                        |                       |                            |                 |             |               |              |                             | 250 | 9.67  | 34.43 |    | 26.583 | 146.2 | .602 |
| 300                  |                        |                       |                            |                 |             |               |              |                             | 300 | 9.01  | 34.42 |    | 26.683 | 136.7 | .676 |
| 400                  |                        |                       |                            |                 |             |               |              |                             | 400 | 7.80  | 34.42 |    | 26.869 | 119.1 | .810 |
| 500                  |                        |                       |                            |                 |             |               |              |                             | 500 | 6.72  | 34.41 |    | 27.014 | 105.4 | .929 |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

120060

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |   |   |   |    |      |    |    |  |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|---|---|---|----|------|----|----|--|
| 27 13.5N | 116 32.5W | 04/15/64  | 1401 GMT       | 3738M  | 330  | 20KT  | 2       | 330 10 06      |   |   |   |    |      |    |    |  |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z | T | S | D2 | SIGT | DT | DD |  |
| 0        |           |           | 5.71           | .40    | 0.   |       | .0      |                |   |   |   |    |      |    |    |  |
| 10       | 16.56     |           | 5.70           | .36    | 0.   |       | .0      |                |   |   |   |    |      |    |    |  |
| 30       |           |           | 5.73           | .34    | 0.   |       | .0      |                |   |   |   |    |      |    |    |  |
| 40       |           |           | 5.72           | .40    | 0.   |       | .0      |                |   |   |   |    |      |    |    |  |
| 50       |           |           | 5.87           | .38    | 0.   |       | .0      |                |   |   |   |    |      |    |    |  |
| 68       | 15.34     |           | 5.81           | .36    | 0.   |       | .0      |                |   |   |   |    |      |    |    |  |
| 94       |           |           | 5.82           | .52    | 2.   |       | 1.0     |                |   |   |   |    |      |    |    |  |
| 112      | 12.33     |           | 5.31           | 1.17   | 9.   |       | 8.5     |                |   |   |   |    |      |    |    |  |
| 132      |           |           | 3.73           | 1.51   | 15.  |       | 16.6    |                |   |   |   |    |      |    |    |  |
| 150      | 10.79     |           | 3.01           | 1.87   | 22.  |       | 21.0    |                |   |   |   |    |      |    |    |  |
| 180      |           |           | 2.91           | 1.93   | 26.  |       | 21.7    |                |   |   |   |    |      |    |    |  |
| 213      | 9.62      |           | 1.77           | 2.27   | 34.  |       | 25.6    |                |   |   |   |    |      |    |    |  |
| 243      |           |           |                | 1.10   |      |       |         |                |   |   |   |    |      |    |    |  |
| 290      | 8.89      |           |                | .94    |      |       |         |                |   |   |   |    |      |    |    |  |
| 346      |           |           |                | .64    |      |       |         |                |   |   |   |    |      |    |    |  |
| 427      | 7.15      |           |                | .47    |      |       |         |                |   |   |   |    |      |    |    |  |
| 512      | 6.46      |           |                | .32    |      |       |         |                |   |   |   |    |      |    |    |  |
| 596      | 5.81      |           |                | .27    |      |       |         |                |   |   |   |    |      |    |    |  |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

120070

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |    |        |       |      |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|----|--------|-------|------|
| 26 52.5N | 117 11.0W | 04/15/64  | 0708 GMT       | 3738M  | 340  | 15KT  | 1       | 330 08 05      |     |       |       |    |        |       |      |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z   | T     | S     | D2 | SIGT   | DT    | DD   |
| 0        |           |           |                |        |      |       |         |                | 0   | 17.43 | 34.02 |    | 24.681 | 327.1 | 0    |
| 10       | 17.46     |           |                |        |      |       |         |                | 10  | 17.44 | 34.02 |    | 24.678 | 327.3 | .033 |
| 20       |           |           |                |        |      |       |         |                | 20  | 17.44 | 34.02 |    | 24.678 | 327.3 | .066 |
| 30       |           |           |                |        |      |       |         |                | 30  | 17.45 | 34.03 |    | 24.684 | 326.8 | .098 |
| 50       |           |           |                |        |      |       |         |                | 50  | 16.65 | 33.86 |    | 24.743 | 321.2 | .163 |
| 75       |           |           |                |        |      |       |         |                | 75  | 16.55 | 33.89 |    | 24.789 | 315.8 | .244 |
| 100      |           |           |                |        |      |       |         |                | 100 | 14.69 | 33.79 |    | 25.127 | 284.6 | .319 |
| 125      |           |           |                |        |      |       |         |                | 125 | 11.94 | 33.67 |    | 25.589 | 240.6 | .386 |
| 150      |           |           |                |        |      |       |         |                | 150 | 11.00 | 33.93 |    | 25.964 | 205.0 | .442 |
| 200      |           |           |                |        |      |       |         |                | 200 | 10.09 | 34.18 |    | 26.317 | 171.4 | .538 |
| 250      |           |           |                |        |      |       |         |                | 250 | 9.55  | 34.33 |    | 26.525 | 151.7 | .621 |
| 300      |           |           |                |        |      |       |         |                | 300 | 9.28  | 34.47 |    | 26.679 | 137.2 | .696 |
| 400      |           |           |                |        |      |       |         |                | 400 | 8.21  | 34.49 |    | 26.863 | 119.7 | .831 |
| 500      |           |           |                |        |      |       |         |                | 500 | 7.22  | 34.47 |    | 26.992 | 107.4 | .953 |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

120070

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |   |   |   |    |      |    |    |  |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|---|---|---|----|------|----|----|--|
| 26 52.5N | 117 11.0W | 04/15/69  | 0808 GMT       | 3738M  | 340  | 15KT  | 1       | 330 08 05      |   |   |   |    |      |    |    |  |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z | T | S | D2 | SIGT | DT | DD |  |
| 0        |           |           | 5.68           | .43    | 0.   |       | .0      |                |   |   |   |    |      |    |    |  |
| 11       | 17.46     |           | 5.68           | .40    | 0.   |       | .0      |                |   |   |   |    |      |    |    |  |
| 31       |           |           | 5.55           | .38    | 0.   |       | .0      |                |   |   |   |    |      |    |    |  |
| 40       |           |           | 5.96           | .40    | 0.   |       | .0      |                |   |   |   |    |      |    |    |  |
| 55       |           |           | 5.86           | .38    | 0.   |       | .0      |                |   |   |   |    |      |    |    |  |
| 70       | 16.21     |           | 5.77           | .40    | 0.   |       | .0      |                |   |   |   |    |      |    |    |  |
| 95       |           |           | 5.53           | .43    | 1.   |       | .0      |                |   |   |   |    |      |    |    |  |
| 115      | 12.10     |           | 4.25           | .63    | 9.   |       | 5.4     |                |   |   |   |    |      |    |    |  |
| 134      |           |           | 3.54           | 1.46   | 16.  |       | 16.4    |                |   |   |   |    |      |    |    |  |
| 154      | 10.74     |           | 3.02           | 1.85   | 21.  |       | 21.2    |                |   |   |   |    |      |    |    |  |
| 184      |           |           | 2.42           | 2.16   | 26.  |       | 23.7    |                |   |   |   |    |      |    |    |  |
| 219      | 9.77      |           | 2.06           |        | 32.  |       | 25.7    |                |   |   |   |    |      |    |    |  |
| 248      |           |           | 1.43           |        |      |       |         |                |   |   |   |    |      |    |    |  |
| 299      | 9.29      |           | .91            |        |      |       |         |                |   |   |   |    |      |    |    |  |
| 354      |           |           | .62            |        |      |       |         |                |   |   |   |    |      |    |    |  |
| 438      | 7.54      |           | .37            |        |      |       |         |                |   |   |   |    |      |    |    |  |
| 522      | 6.98      |           | .25            |        |      |       |         |                |   |   |   |    |      |    |    |  |
| 606      | 6.14      |           | .27            |        |      |       |         |                |   |   |   |    |      |    |    |  |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

120080

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |    |        |       |      |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|----|--------|-------|------|
| 26 33.0N | 117 48.5W | 04/15/69  | 0050 GMT       | 3738M  | 350  | 23KT  | 2       | 340 12 07      |     |       |       |    |        |       |      |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z   | T     | S     | D2 | SIGT   | DT    | DD   |
| 0        |           |           |                |        |      |       |         |                | 0   | 17.99 | 34.18 |    | 24.667 | 328.4 | 0    |
| 10       |           |           |                |        |      |       |         |                | 10  | 17.99 | 34.18 |    | 24.667 | 328.4 | .033 |
| 20       |           |           |                |        |      |       |         |                | 20  | 18.00 | 34.19 |    | 24.672 | 327.9 | .066 |
| 30       |           |           |                |        |      |       |         |                | 30  | 18.03 | 34.21 |    | 24.680 | 327.1 | .099 |
| 50       |           |           |                |        |      |       |         |                | 50  | 17.91 | 34.19 |    | 24.694 | 325.8 | .164 |
| 75       |           |           |                |        |      |       |         |                | 75  | 16.80 | 33.96 |    | 24.784 | 317.2 | .245 |
| 100      |           |           |                |        |      |       |         |                | 100 | 16.12 | 33.82 |    | 24.834 | 312.5 | .324 |
| 125      |           |           |                |        |      |       |         |                | 125 | 12.67 | 33.58 |    | 25.380 | 260.5 | .397 |
| 150      |           |           |                |        |      |       |         |                | 150 | 11.23 | 33.71 |    | 25.751 | 225.2 | .458 |
| 200      |           |           |                |        |      |       |         |                | 200 | 9.93  | 34.09 |    | 26.274 | 175.5 | .560 |
| 250      |           |           |                |        |      |       |         |                | 250 | 9.22  | 34.20 |    | 26.478 | 156.2 | .646 |
| 300      |           |           |                |        |      |       |         |                | 300 | 8.74  | 34.29 |    | 26.624 | 142.3 | .723 |
| 400      |           |           |                |        |      |       |         |                | 400 | 7.66  | 34.37 |    | 26.850 | 120.9 | .861 |
| 500      |           |           |                |        |      |       |         |                | 500 | 6.75  | 34.40 |    | 27.002 | 106.5 | .981 |

RV ALEXANDER AGASSIZ

## CALCOFI CRUISE 6904

120080

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER | TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |   |   |    |      |    |    |
|----------|-----------|-----------|-----------|------|--------|------|-------|---------|----------------|---|---|----|------|----|----|
| Z        | T         | S         | D2        | P04  | S103   | N02  | N03   | DT      | Z              | T | S | D2 | SIGT | DT | DD |
| 0        |           | 5.54      | .45       | 2.   |        | .0   |       |         |                |   |   |    |      |    |    |
| 10       | 17.98     | 5.53      | .45       | 2.   |        | .0   |       |         |                |   |   |    |      |    |    |
| 29       |           | 5.55      | .45       | 2.   |        | .0   |       |         |                |   |   |    |      |    |    |
| 58       |           | 5.64      | .43       | 2.   |        | .0   |       |         |                |   |   |    |      |    |    |
| 68       |           | 5.72      | .40       | 2.   |        | .0   |       |         |                |   |   |    |      |    |    |
| 82       | 16.15     | 5.68      | .34       | 2.   |        | .0   |       |         |                |   |   |    |      |    |    |
| 96       |           | 5.72      | .36       | 2.   |        | .0   |       |         |                |   |   |    |      |    |    |
| 112      | 13.79     | 5.19      | .61       | 4.   |        | 3.1  |       |         |                |   |   |    |      |    |    |
| 141      |           | 4.66      | 1.01      | 10.  |        | 10.1 |       |         |                |   |   |    |      |    |    |
| 155      | 10.79     | 3.56      | 1.35      | 19.  |        | 18.3 |       |         |                |   |   |    |      |    |    |
| 182      |           | 2.99      | 1.87      | 26.  |        | 21.8 |       |         |                |   |   |    |      |    |    |
| 214      | 9.50      | 3.10      | 1.96      | 29.  |        | 23.3 |       |         |                |   |   |    |      |    |    |
| 243      |           | 2.31      |           |      |        |      |       |         |                |   |   |    |      |    |    |
| 293      | 8.68      | 1.60      |           |      |        |      |       |         |                |   |   |    |      |    |    |
| 347      |           | 1.01      |           |      |        |      |       |         |                |   |   |    |      |    |    |
| 430      | 7.38      | .46       |           |      |        |      |       |         |                |   |   |    |      |    |    |
| 514      | 6.63      | .29       |           |      |        |      |       |         |                |   |   |    |      |    |    |
| 598      | 6.05      | .25       |           |      |        |      |       |         |                |   |   |    |      |    |    |

RV ALEXANDER AGASSIZ

## CALCOFI CRUISE 6904

123037

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER | TIME | BOTTOM | WIND   | SPEED | WEATHER | DOMINANT WAVES |   |   |    |      |    |    |
|----------|-----------|-----------|-----------|------|--------|--------|-------|---------|----------------|---|---|----|------|----|----|
| Z        | T         | S         | D2        | P04  | S103   | N02    | N03   | DT      | Z              | T | S | D2 | SIGT | DT | DD |
| 0        |           | 13.25     | 33.94     |      |        | 25.543 | 245.1 |         |                |   |   |    |      |    | 0  |
| 10       |           | 13.21     | 33.95     |      |        | 25.558 | 243.6 | .024    |                |   |   |    |      |    |    |
| 20       |           | 13.06     | 33.97     |      |        | 25.604 | 239.2 | .049    |                |   |   |    |      |    |    |
| 30       |           | 12.35     | 34.05     |      |        | 25.805 | 220.1 | .072    |                |   |   |    |      |    |    |
| 50       |           | 11.95     | 34.21     |      |        | 26.005 | 201.1 | .114    |                |   |   |    |      |    |    |

RV ALEXANDER AGASSIZ

## CALCOFI CRUISE 6904

123042

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER | TIME | BOTTOM | WIND   | SPEED | WEATHER | DOMINANT WAVES |   |   |    |      |    |    |
|----------|-----------|-----------|-----------|------|--------|--------|-------|---------|----------------|---|---|----|------|----|----|
| Z        | T         | S         | D2        | P04  | S103   | N02    | N03   | DT      | Z              | T | S | D2 | SIGT | DT | DD |
| 0        |           | 15.04     | 33.63     |      |        | 24.929 | 303.5 |         |                |   |   |    |      |    | 0  |
| 10       |           | 15.00     | 33.64     |      |        | 24.945 | 301.9 | .030    |                |   |   |    |      |    |    |
| 20       |           | 14.99     | 33.64     |      |        | 24.947 | 301.7 | .061    |                |   |   |    |      |    |    |
| 30       |           | 14.99     | 33.64     |      |        | 24.947 | 301.7 | .091    |                |   |   |    |      |    |    |
| 50       |           | 14.99     | 33.64     |      |        | 24.947 | 301.7 | .151    |                |   |   |    |      |    |    |
| 75       |           | 12.90     | 33.68     |      |        | 25.412 | 257.5 | .222    |                |   |   |    |      |    |    |
| 100      |           | 11.34     | 33.81     |      |        | 25.809 | 219.7 | .282    |                |   |   |    |      |    |    |
| 125      |           | 10.66     | 34.01     |      |        | 26.086 | 193.4 | .334    |                |   |   |    |      |    |    |
| 150      |           | 10.46     | 34.29     |      |        | 26.339 | 169.4 | .380    |                |   |   |    |      |    |    |
| 200      |           | 11.03     | 34.59     |      |        | 26.471 | 155.9 | .464    |                |   |   |    |      |    |    |
| 250      |           | 10.23     | 34.59     |      |        | 26.612 | 143.4 | .541    |                |   |   |    |      |    |    |
| 300      |           | 9.13      | 34.48     |      |        | 26.711 | 134.1 | .614    |                |   |   |    |      |    |    |
| 400      |           | 8.14      | 34.49     |      |        | 26.873 | 118.7 | .747    |                |   |   |    |      |    |    |
| 500      |           | 7.04      | 34.46     |      |        | 27.009 | 105.8 | .866    |                |   |   |    |      |    |    |

RV ALEXANDER AGASSIZ

## CALCOFI CRUISE 6904

123050

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER | TIME | BOTTOM | WIND   | SPEED | WEATHER | DOMINANT WAVES |   |   |    |      |    |    |
|----------|-----------|-----------|-----------|------|--------|--------|-------|---------|----------------|---|---|----|------|----|----|
| Z        | T         | S         | D2        | P04  | S103   | N02    | N03   | DT      | Z              | T | S | D2 | SIGT | DT | DD |
| 0        |           | 15.95     | 33.63     |      |        | 24.727 | 322.7 |         |                |   |   |    |      |    | 0  |
| 10       |           | 15.92     | 33.64     |      |        | 24.741 | 321.3 | .032    |                |   |   |    |      |    |    |
| 20       |           | 15.80     | 33.63     |      |        | 24.761 | 319.4 | .064    |                |   |   |    |      |    |    |
| 30       |           | 15.75     | 33.63     |      |        | 24.772 | 318.4 | .096    |                |   |   |    |      |    |    |
| 50       |           | 15.11     | 33.63     |      |        | 24.913 | 304.9 | .159    |                |   |   |    |      |    |    |
| 75       |           | 13.31     | 33.53     |      |        | 25.214 | 276.3 | .232    |                |   |   |    |      |    |    |
| 100      |           | 11.50     | 33.64     |      |        | 25.648 | 235.0 | .296    |                |   |   |    |      |    |    |
| 125      |           | 11.80     | 34.04     |      |        | 25.902 | 210.9 | .353    |                |   |   |    |      |    |    |
| 150      |           | 10.38     | 34.04     |      |        | 26.158 | 186.5 | .403    |                |   |   |    |      |    |    |
| 200      |           | 10.07     | 34.36     |      |        | 26.461 | 157.8 | .491    |                |   |   |    |      |    |    |
| 250      |           | 9.72      | 34.44     |      |        | 26.582 | 146.3 | .570    |                |   |   |    |      |    |    |
| 300      |           | 9.07      | 34.44     |      |        | 26.689 | 136.2 | .643    |                |   |   |    |      |    |    |
| 400      |           | 7.83      | 34.44     |      |        | 26.880 | 118.0 | .776    |                |   |   |    |      |    |    |
| 500      |           | 6.67      | 34.42     |      |        | 27.029 | 104.0 | .895    |                |   |   |    |      |    |    |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 123060

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER | TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |       |       |    |        |       |      |
|----------|-----------|-----------|-----------|------|--------|------|-------|---------|----------------|-------|-------|----|--------|-------|------|
| 26 38.5N | 116 09.0W | 04/17/69  | 0342      | GMT  | 3832M  | 340  | 23KT  | 1       | 320 08 08      |       |       |    |        |       |      |
| Z        | T         | S         | D2        | P04  | S103   | N02  | N03   | DT      | Z              | T     | S     | D2 | SIGT   | DT    | DD   |
|          |           |           |           |      |        |      |       |         | 0              | 16.46 | 33.72 |    | 24.679 | 327.2 | 0    |
|          |           |           |           |      |        |      |       |         | 10             | 16.47 | 33.73 |    | 24.685 | 326.7 | .033 |
|          |           |           |           |      |        |      |       |         | 20             | 16.49 | 33.74 |    | 24.688 | 325.4 | .065 |
|          |           |           |           |      |        |      |       |         | 30             | 16.71 | 33.82 |    | 24.698 | 325.4 | .098 |
|          |           |           |           |      |        |      |       |         | 50             | 17.19 | 34.01 |    | 24.730 | 322.3 | .163 |
|          |           |           |           |      |        |      |       |         | 75             | 16.57 | 34.01 |    | 24.876 | 308.5 | .242 |
|          |           |           |           |      |        |      |       |         | 100            | 12.97 | 33.62 |    | 25.352 | 263.2 | .314 |
|          |           |           |           |      |        |      |       |         | 125            | 11.49 | 33.78 |    | 25.758 | 224.6 | .376 |
|          |           |           |           |      |        |      |       |         | 150            | 10.93 | 33.99 |    | 26.023 | 199.4 | .430 |
|          |           |           |           |      |        |      |       |         | 200            | 10.71 | 34.37 |    | 26.357 | 167.7 | .524 |
|          |           |           |           |      |        |      |       |         | 250            | 9.83  | 34.42 |    | 26.548 | 149.5 | .605 |
|          |           |           |           |      |        |      |       |         | 300            | 9.50  | 34.49 |    | 26.658 | 139.1 | .680 |
|          |           |           |           |      |        |      |       |         | 400            | 8.13  | 34.47 |    | 26.859 | 120.0 | .817 |
|          |           |           |           |      |        |      |       |         | 500            | 6.97  | 34.45 |    | 27.011 | 105.6 | .937 |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 127034

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER | TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |       |       |    |        |       |      |
|----------|-----------|-----------|-----------|------|--------|------|-------|---------|----------------|-------|-------|----|--------|-------|------|
| 26 55.5N | 114 06.0W | 04/17/69  | 2233      | GMT  | 75M    | 320  | 17KT  | 0       | 310 04 05      |       |       |    |        |       |      |
| Z        | T         | S         | D2        | P04  | S103   | N02  | N03   | DT      | Z              | T     | S     | D2 | SIGT   | DT    | DD   |
|          |           |           |           |      |        |      |       |         | 0              | 14.97 | 33.84 |    | 25.105 | 286.7 | 0    |
|          |           |           |           |      |        |      |       |         | 10             | 14.72 | 33.93 |    | 25.228 | 274.9 | .028 |
|          |           |           |           |      |        |      |       |         | 20             | 13.61 | 33.93 |    | 25.462 | 252.7 | .055 |
|          |           |           |           |      |        |      |       |         | 30             | 13.31 | 33.97 |    | 25.554 | 244.0 | .079 |
|          |           |           |           |      |        |      |       |         | 50             | 11.81 | 34.10 |    | 25.947 | 206.7 | .125 |
|          |           |           |           |      |        |      |       |         | 75             | 11.23 | 34.29 |    | 26.201 | 182.5 | .174 |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 127040

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER | TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |       |       |    |        |       |      |
|----------|-----------|-----------|-----------|------|--------|------|-------|---------|----------------|-------|-------|----|--------|-------|------|
| 26 43.5N | 114 29.5W | 04/17/69  | 1920      | GMT  | 3075M  | 320  | 10KT  | 0       | 310 05 05      |       |       |    |        |       |      |
| Z        | T         | S         | D2        | P04  | S103   | N02  | N03   | DT      | Z              | T     | S     | D2 | SIGT   | DT    | DD   |
|          |           |           |           |      |        |      |       |         | 0              | 16.6  | 33.80 |    | 24.708 | 324.4 | 0    |
|          |           |           |           |      |        |      |       |         | 10             | 16.28 | 33.80 |    | 24.782 | 317.4 | .032 |
|          |           |           |           |      |        |      |       |         | 20             | 16.19 | 33.80 |    | 24.803 | 315.5 | .064 |
|          |           |           |           |      |        |      |       |         | 30             | 16.16 | 33.80 |    | 24.809 | 314.8 | .095 |
|          |           |           |           |      |        |      |       |         | 50             | 13.96 | 33.81 |    | 25.297 | 268.4 | .154 |
|          |           |           |           |      |        |      |       |         | 75             | 11.67 | 33.80 |    | 25.740 | 226.3 | .216 |
|          |           |           |           |      |        |      |       |         | 100            | 11.13 | 34.03 |    | 26.018 | 199.9 | .270 |
|          |           |           |           |      |        |      |       |         | 125            | 10.80 | 34.15 |    | 26.170 | 185.4 | .319 |
|          |           |           |           |      |        |      |       |         | 150            | 11.34 | 34.47 |    | 26.321 | 171.1 | .364 |
|          |           |           |           |      |        |      |       |         | 200            | 10.67 | 34.54 |    | 26.496 | 154.5 | .447 |
|          |           |           |           |      |        |      |       |         | 250            | 9.71  | 34.54 |    | 26.662 | 138.7 | .523 |
|          |           |           |           |      |        |      |       |         | 300            | 9.11  | 34.53 |    | 26.753 | 130.1 | .593 |
|          |           |           |           |      |        |      |       |         | 400            | 7.79  | 34.44 |    | 26.886 | 117.5 | .723 |
|          |           |           |           |      |        |      |       |         | 500            | 6.98  | 34.45 |    | 27.010 | 105.7 | .842 |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 127050

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER | TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |       |       |    |        |       |      |
|----------|-----------|-----------|-----------|------|--------|------|-------|---------|----------------|-------|-------|----|--------|-------|------|
| 26 23.5N | 115 08.0W | 04/17/69  | 1333      | GMT  | 3604M  | 330  | 13KT  | 0       | 330 07 06      |       |       |    |        |       |      |
| Z        | T         | S         | D2        | P04  | S103   | N02  | N03   | DT      | Z              | T     | S     | D2 | SIGT   | DT    | DD   |
|          |           |           |           |      |        |      |       |         | 0              | 16.50 | 33.80 |    | 24.731 | 322.2 | 0    |
|          |           |           |           |      |        |      |       |         | 10             | 16.50 | 33.81 |    | 24.739 | 321.5 | .032 |
|          |           |           |           |      |        |      |       |         | 20             | 16.51 | 33.81 |    | 24.737 | 321.7 | .064 |
|          |           |           |           |      |        |      |       |         | 30             | 16.51 | 33.81 |    | 24.737 | 321.7 | .097 |
|          |           |           |           |      |        |      |       |         | 50             | 16.51 | 33.81 |    | 24.737 | 321.7 | .161 |
|          |           |           |           |      |        |      |       |         | 75             | 15.06 | 33.63 |    | 24.924 | 303.9 | .240 |
|          |           |           |           |      |        |      |       |         | 100            | 12.98 | 33.65 |    | 25.373 | 261.2 | .311 |
|          |           |           |           |      |        |      |       |         | 125            | 11.26 | 33.73 |    | 25.761 | 224.2 | .372 |
|          |           |           |           |      |        |      |       |         | 150            | 11.07 | 33.97 |    | 25.982 | 203.3 | .427 |
|          |           |           |           |      |        |      |       |         | 200            | 10.25 | 34.23 |    | 26.329 | 170.4 | .522 |
|          |           |           |           |      |        |      |       |         | 250            | 9.34  | 34.29 |    | 26.528 | 151.4 | .605 |
|          |           |           |           |      |        |      |       |         | 300            | 8.80  | 34.35 |    | 26.662 | 138.7 | .680 |
|          |           |           |           |      |        |      |       |         | 400            | 8.06  | 34.47 |    | 26.870 | 119.0 | .815 |
|          |           |           |           |      |        |      |       |         | 500            | 7.27  | 34.49 |    | 27.001 | 106.6 | .936 |

**RV ALEXANDER AGASSIZ**   **CALCOFI CRUISE 6904**   **127060**

| LATITUDE<br>26 01.0N | LONGITUDE<br>115 44.5W | MO/DAY/YR<br>04/17/69 | MESSENGER<br>0827 | TIME<br>GMT | BOTTOM<br>3738M | WIND<br>350 | SPEED<br>1KKT | WEATHER | DOMINANT WAVES<br>330 10' 07' |       |       |    |        |       |      |
|----------------------|------------------------|-----------------------|-------------------|-------------|-----------------|-------------|---------------|---------|-------------------------------|-------|-------|----|--------|-------|------|
| Z                    | T                      | S                     | D2                | P04         | S103            | N02         | N03           | DT      | Z                             | T     | S     | D2 | SIGT   | DT    | DD   |
|                      |                        |                       |                   |             |                 |             |               |         | 0                             | 16.44 | 33.78 |    | 24.730 | 322.4 | 0    |
|                      |                        |                       |                   |             |                 |             |               |         | 10                            | 16.44 | 33.77 |    | 24.722 | 323.1 | .032 |
|                      |                        |                       |                   |             |                 |             |               |         | 20                            | 16.44 | 33.78 |    | 24.730 | 322.4 | .065 |
|                      |                        |                       |                   |             |                 |             |               |         | 30                            | 16.39 | 33.76 |    | 24.726 | 322.7 | .097 |
|                      |                        |                       |                   |             |                 |             |               |         | 50                            | 16.23 | 33.74 |    | 24.748 | 320.7 | .162 |
|                      |                        |                       |                   |             |                 |             |               |         | 75                            | 15.38 | 33.60 |    | 24.831 | 312.7 | .241 |
|                      |                        |                       |                   |             |                 |             |               |         | 100                           | 14.99 | 33.64 |    | 24.947 | 301.7 | .319 |
|                      |                        |                       |                   |             |                 |             |               |         | 125                           | 12.60 | 33.90 |    | 25.641 | 235.7 | .386 |
|                      |                        |                       |                   |             |                 |             |               |         | 150                           | 11.53 | 34.02 |    | 25.937 | 207.6 | .443 |
|                      |                        |                       |                   |             |                 |             |               |         | 200                           | 10.63 | 34.33 |    | 26.340 | 169.3 | .539 |
|                      |                        |                       |                   |             |                 |             |               |         | 250                           | 10.11 | 34.45 |    | 26.524 | 151.8 | .622 |
|                      |                        |                       |                   |             |                 |             |               |         | 300                           | 9.34  | 34.44 |    | 26.645 | 140.3 | .698 |
|                      |                        |                       |                   |             |                 |             |               |         | 400                           | 7.98  | 34.42 |    | 26.843 | 121.6 | .835 |
|                      |                        |                       |                   |             |                 |             |               |         | 500                           | 7.20  | 34.48 |    | 27.003 | 106.4 | .957 |

**RV ALEXANDER AGASSIZ**   **CALCOFI CRUISE 6904**   **130030**

| LATITUDE<br>26 28.5N | LONGITUDE<br>113 29.0W | MO/DAY/YR<br>04/18/69 | MESSENGER<br>0448 | TIME<br>GMT | BOTTOM<br>78M | WIND<br>310 | SPEED<br>13KT | WEATHER | DOMINANT WAVES<br>270 04 05 |       |       |    |        |       |      |
|----------------------|------------------------|-----------------------|-------------------|-------------|---------------|-------------|---------------|---------|-----------------------------|-------|-------|----|--------|-------|------|
| Z                    | T                      | S                     | D2                | P04         | S103          | N02         | N03           | DT      | Z                           | T     | S     | D2 | SIGT   | DT    | DD   |
|                      |                        |                       |                   |             |               |             |               |         | 0                           | 14.16 | 33.82 |    | 25.263 | 271.7 | 0    |
|                      |                        |                       |                   |             |               |             |               |         | 10                          | 14.09 | 33.84 |    | 25.293 | 268.8 | .027 |
|                      |                        |                       |                   |             |               |             |               |         | 20                          | 13.61 | 33.84 |    | 25.392 | 259.3 | .053 |
|                      |                        |                       |                   |             |               |             |               |         | 30                          | 13.20 | 33.83 |    | 25.468 | 252.2 | .079 |
|                      |                        |                       |                   |             |               |             |               |         | 50                          | 12.19 | 33.84 |    | 25.673 | 232.6 | .128 |
|                      |                        |                       |                   |             |               |             |               |         | 75                          | 11.15 | 34.02 |    | 26.006 | 201.0 | .182 |

**RV ALEXANDER AGASSIZ**   **CALCOFI CRUISE 6904**   **130030**

| LATITUDE<br>26 28.5N | LONGITUDE<br>113 29.0W | MO/DAY/YR<br>04/18/69 | MESSENGER<br>0514 | TIME<br>GMT | BOTTOM<br>78M | WIND<br>310 | SPEED<br>13KT | WEATHER | DOMINANT WAVES<br>270 04 05 |   |   |    |      |    |    |
|----------------------|------------------------|-----------------------|-------------------|-------------|---------------|-------------|---------------|---------|-----------------------------|---|---|----|------|----|----|
| Z                    | T                      | S                     | D2                | P04         | S103          | N02         | N03           | DT      | Z                           | T | S | D2 | SIGT | DT | DD |
| 0                    | 14.18                  |                       | 5.50              | .99         | 9.            |             | 6.0           |         |                             |   |   |    |      |    |    |
| 10                   | 14.17                  | 33.80                 | 5.60              | 1.01        | 9.            |             | 5.7           | 273.3   |                             |   |   |    |      |    |    |
| 20                   | 13.76                  |                       | 5.31              | 1.10        | 11.           |             | 7.7           |         |                             |   |   |    |      |    |    |
| 30                   | 13.14                  | 33.80                 | 4.71              | 1.33        | 12.           |             | 10.7          | 253.2   |                             |   |   |    |      |    |    |
| 49                   | 11.86                  |                       | 3.62              | 1.62        | 16.           |             | 16.0          |         |                             |   |   |    |      |    |    |
| 73                   | 11.19                  | 33.99                 | 2.70              | 2.05        | 24.           |             | 20.7          | 203.9   |                             |   |   |    |      |    |    |

**RV ALEXANDER AGASSIZ**   **CALCOFI CRUISE 6904**   **130040**

| LATITUDE<br>26 09.0N | LONGITUDE<br>114 07.0W | MO/DAY/YR<br>04/18/69 | MESSENGER<br>1030 | TIME<br>GMT | BOTTOM<br>2154M | WIND<br>320 | SPEED<br>10KT | WEATHER | DOMINANT WAVES<br>320 04 08 |       |       |    |        |       |      |
|----------------------|------------------------|-----------------------|-------------------|-------------|-----------------|-------------|---------------|---------|-----------------------------|-------|-------|----|--------|-------|------|
| Z                    | T                      | S                     | D2                | P04         | S103            | N02         | N03           | DT      | Z                           | T     | S     | D2 | SIGT   | DT    | DD   |
|                      |                        |                       |                   |             |                 |             |               |         | 0                           | 16.33 | 33.77 |    | 24.748 | 320.7 | 0    |
|                      |                        |                       |                   |             |                 |             |               |         | 10                          | 16.33 | 33.77 |    | 24.748 | 320.7 | .032 |
|                      |                        |                       |                   |             |                 |             |               |         | 20                          | 16.22 | 33.76 |    | 24.765 | 319.0 | .064 |
|                      |                        |                       |                   |             |                 |             |               |         | 30                          | 16.17 | 33.77 |    | 24.784 | 317.2 | .096 |
|                      |                        |                       |                   |             |                 |             |               |         | 50                          | 15.64 | 33.72 |    | 24.866 | 309.5 | .159 |
|                      |                        |                       |                   |             |                 |             |               |         | 75                          | 13.90 | 33.59 |    | 25.140 | 283.3 | .233 |
|                      |                        |                       |                   |             |                 |             |               |         | 100                         | 12.43 | 33.69 |    | 25.511 | 248.0 | .300 |
|                      |                        |                       |                   |             |                 |             |               |         | 125                         | 11.26 | 33.88 |    | 25.878 | 213.2 | .359 |
|                      |                        |                       |                   |             |                 |             |               |         | 150                         | 11.05 | 34.16 |    | 26.133 | 188.9 | .410 |
|                      |                        |                       |                   |             |                 |             |               |         | 200                         | 10.85 | 34.42 |    | 26.371 | 166.4 | .501 |
|                      |                        |                       |                   |             |                 |             |               |         | 250                         | 10.22 | 34.43 |    | 26.490 | 155.1 | .583 |
|                      |                        |                       |                   |             |                 |             |               |         | 300                         | 9.58  | 34.44 |    | 26.606 | 144.1 | .661 |
|                      |                        |                       |                   |             |                 |             |               |         | 400                         | 8.33  | 34.46 |    | 26.821 | 123.7 | .802 |
|                      |                        |                       |                   |             |                 |             |               |         | 500                         | 7.19  | 34.47 |    | 26.996 | 107.0 | .925 |

**RV ALEXANDER AGASSIZ**    **CALCOFI CRUISE 6904**    **130040**

| LATITUDE<br>26 09.0N | LONGITUDE<br>114 07.0W | MO/DAY/YR<br>04/18/69 | MESSENGER TIME<br>1142 GMT | BOTTOM<br>2154M | WIND<br>320 | SPEED<br>10KT | WEATHER<br>4 | DOMINANT WAVES<br>320 04 08 |   |   |   |    |      |    |    |  |
|----------------------|------------------------|-----------------------|----------------------------|-----------------|-------------|---------------|--------------|-----------------------------|---|---|---|----|------|----|----|--|
| Z                    | T                      | S                     | D2                         | P04             | S103        | N02           | N03          | DT                          | Z | T | S | D2 | SIGT | DT | DD |  |
| 0                    |                        | 33.73                 | 6.04                       | .31             | 0.          |               |              |                             |   |   |   |    |      |    |    |  |
| 11                   | 16.32                  | 33.73                 | 5.48                       | .29             | 0.          |               |              |                             |   |   |   |    |      |    |    |  |
| 31                   |                        |                       | 5.74                       | .27             | 1.          |               |              | 323.4                       |   |   |   |    |      |    |    |  |
| 41                   |                        |                       | 5.78                       | .29             | 1.          |               |              |                             |   |   |   |    |      |    |    |  |
| 56                   |                        | 33.58                 | 5.76                       | .34             | 0.          |               |              |                             |   |   |   |    |      |    |    |  |
| 70                   | 13.75                  |                       | 5.23                       | .65             | 4.          |               |              |                             |   |   |   |    |      |    |    |  |
| 95                   |                        |                       | 4.25                       | 1.08            | 11.         |               |              |                             |   |   |   |    |      |    |    |  |
| 115                  | 11.32                  |                       | 3.42                       | 1.19            | 18.         |               |              | 10.9                        |   |   |   |    |      |    |    |  |
| 135                  |                        |                       | 2.78                       | 1.76            | 25.         |               |              | 17.5                        |   |   |   |    |      |    |    |  |
| 155                  | 11.01                  |                       | 2.16                       | 2.05            | 29.         |               |              | 20.8                        |   |   |   |    |      |    |    |  |
| 184                  |                        |                       | 1.22                       | 2.54            | 34.         |               |              | 24.5                        |   |   |   |    |      |    |    |  |
| 218                  | 10.74                  |                       | .74                        | 2.77            | 38.         |               |              | 23.9                        |   |   |   |    |      |    |    |  |
| 248                  |                        |                       |                            |                 |             |               |              |                             |   |   |   |    |      |    |    |  |
| 298                  | 9.78                   |                       |                            |                 |             |               |              |                             |   |   |   |    |      |    |    |  |
| 353                  |                        |                       |                            |                 |             |               |              |                             |   |   |   |    |      |    |    |  |
| 436                  | 7.64                   | 34.45                 | .22                        |                 |             |               |              |                             |   |   |   |    |      |    |    |  |
| 520                  | 6.98                   | 34.45                 | .22                        |                 |             |               |              |                             |   |   |   |    |      |    |    |  |
| 605                  | 6.36                   |                       | .20                        |                 |             |               |              |                             |   |   |   |    |      |    |    |  |

**RV ALEXANDER AGASSIZ**    **CALCOFI CRUISE 6904**    **130050**

| LATITUDE<br>25 49.0N | LONGITUDE<br>114 45.5W | MO/DAY/YR<br>04/18/69 | MESSENGER TIME<br>1710 GMT | BOTTOM<br>3604M | WIND<br>320 | SPEED<br>15KT | WEATHER<br>0 | DOMINANT WAVES<br>320 06 06 |     |       |       |    |        |       |      |
|----------------------|------------------------|-----------------------|----------------------------|-----------------|-------------|---------------|--------------|-----------------------------|-----|-------|-------|----|--------|-------|------|
| Z                    | T                      | S                     | D2                         | P04             | S103        | N02           | N03          | DT                          | Z   | T     | S     | D2 | SIGT   | DT    | DD   |
|                      |                        |                       |                            |                 |             |               |              |                             | 0   | 17.25 | 34.01 |    | 24.716 | 323.7 | 0    |
|                      |                        |                       |                            |                 |             |               |              |                             | 10  | 17.23 | 34.00 |    | 24.713 | 324.0 | .032 |
|                      |                        |                       |                            |                 |             |               |              |                             | 20  | 17.20 | 34.00 |    | 24.720 | 323.3 | .065 |
|                      |                        |                       |                            |                 |             |               |              |                             | 30  | 17.19 | 34.00 |    | 24.723 | 323.1 | .097 |
|                      |                        |                       |                            |                 |             |               |              |                             | 50  | 17.10 | 34.00 |    | 24.744 | 321.0 | .162 |
|                      |                        |                       |                            |                 |             |               |              |                             | 75  | 16.25 | 33.97 |    | 24.919 | 304.4 | .241 |
|                      |                        |                       |                            |                 |             |               |              |                             | 100 | 12.99 | 33.70 |    | 25.409 | 257.7 | .311 |
|                      |                        |                       |                            |                 |             |               |              |                             | 125 | 11.72 | 33.85 |    | 25.770 | 223.5 | .372 |
|                      |                        |                       |                            |                 |             |               |              |                             | 150 | 11.03 | 34.08 |    | 26.075 | 194.5 | .425 |
|                      |                        |                       |                            |                 |             |               |              |                             | 200 | 9.99  | 34.25 |    | 26.389 | 164.7 | .517 |
|                      |                        |                       |                            |                 |             |               |              |                             | 250 | 10.30 | 34.54 |    | 26.561 | 148.3 | .598 |
|                      |                        |                       |                            |                 |             |               |              |                             | 300 | 9.72  | 34.55 |    | 26.668 | 138.2 | .672 |
|                      |                        |                       |                            |                 |             |               |              |                             | 400 | 8.41  | 34.48 |    | 26.824 | 123.3 | .810 |
|                      |                        |                       |                            |                 |             |               |              |                             | 500 | 7.21  | 34.47 |    | 26.993 | 107.3 | .933 |

**RV ALEXANDER AGASSIZ**    **CALCOFI CRUISE 6904**    **130050**

| LATITUDE<br>25 49.0N | LONGITUDE<br>114 45.5W | MO/DAY/YR<br>04/18/69 | MESSENGER TIME<br>1803 GMT | BOTTOM<br>3604M | WIND<br>320 | SPEED<br>15KT | WEATHER<br>0 | DOMINANT WAVES<br>320 06 06 |     |       |       |    |        |       |      |
|----------------------|------------------------|-----------------------|----------------------------|-----------------|-------------|---------------|--------------|-----------------------------|-----|-------|-------|----|--------|-------|------|
| Z                    | T                      | S                     | D2                         | P04             | S103        | N02           | N03          | DT                          | Z   | T     | S     | D2 | SIGT   | DT    | DD   |
|                      |                        |                       |                            |                 |             |               |              |                             | 0   | 16.95 | 5.65  |    | 24.716 | 323.7 | 0    |
|                      | 17.29                  | 33.95                 | 5.67                       | 1.150           | 12.0        |               |              |                             | 10  | 17.23 | 34.00 |    | 24.713 | 324.0 | .032 |
| 30                   |                        |                       | 5.70                       | .43             | 7.          |               |              |                             | 20  | 17.20 | 34.00 |    | 24.720 | 323.3 | .065 |
| 40                   |                        |                       | 5.70                       | .49             | 7.          |               |              |                             | 30  | 17.19 | 34.00 |    | 24.723 | 323.1 | .097 |
| 54                   |                        | 33.94                 | 5.68                       | .38             | 7.          |               |              |                             | 50  | 17.10 | 34.00 |    | 24.744 | 321.0 | .162 |
| 69                   | 16.56                  |                       | 5.52                       | .45             | 8.          |               |              |                             | 75  | 16.25 | 33.97 |    | 24.919 | 304.4 | .241 |
| 93                   |                        |                       | 4.56                       | .76             | 9.          |               |              |                             | 100 | 12.99 | 33.70 |    | 25.409 | 257.7 | .311 |
| 113                  | 12.03                  |                       | 3.99                       | 1.04            | 16.         |               |              |                             | 125 | 11.72 | 33.85 |    | 25.770 | 223.5 | .372 |
| 132                  |                        |                       | 3.09                       | 1.71            | 21.         |               |              |                             | 150 | 11.03 | 34.08 |    | 26.075 | 194.5 | .425 |
| 152                  | 10.82                  |                       | 2.68                       | 1.93            | 25.         |               |              |                             | 200 | 9.99  | 34.25 |    | 26.389 | 164.7 | .517 |
| 180                  |                        |                       | 2.32                       | 2.18            | 30.         |               |              |                             | 250 | 10.30 | 34.54 |    | 26.561 | 148.3 | .598 |
| 215                  | 10.10                  |                       | 1.92                       | 2.34            | 35.         |               |              |                             | 300 | 9.72  | 34.55 |    | 26.668 | 138.2 | .672 |
| 244                  |                        |                       | .89                        |                 |             |               |              |                             | 400 | 8.41  | 34.48 |    | 26.824 | 123.3 | .810 |
| 293                  | 9.87                   |                       | .54                        |                 |             |               |              |                             | 500 | 7.21  | 34.47 |    | 26.993 | 107.3 | .933 |
| 349                  |                        |                       | .44                        |                 |             |               |              |                             |     |       |       |    |        |       |      |
| 432                  | 8.08                   | 34.45                 | .39                        |                 |             |               |              |                             |     |       |       |    |        |       |      |
| 515                  | 6.96                   | 34.44                 | .32                        |                 |             |               |              |                             |     |       |       |    |        |       |      |
| 598                  | 6.45                   |                       | .32                        |                 |             |               |              |                             |     |       |       |    |        |       |      |

**RV ALEXANDER AGASSIZ**    **CALCOFI CRUISE 6904**    **130060**

| LATITUDE<br>25 29.0N | LONGITUDE<br>115 24.5W | MO/DAY/YR<br>04/18/69 | MESSENGER TIME<br>2240 GMT | BOTTOM<br>3738M | WIND<br>350 | SPEED<br>18KT | WEATHER<br>1 | DOMINANT WAVES<br>320 06 05 |     |       |       |    |        |       |      |
|----------------------|------------------------|-----------------------|----------------------------|-----------------|-------------|---------------|--------------|-----------------------------|-----|-------|-------|----|--------|-------|------|
| Z                    | T                      | S                     | D2                         | P04             | S103        | N02           | N03          | DT                          | Z   | T     | S     | D2 | SIGT   | DT    | DD   |
|                      |                        |                       |                            |                 |             |               |              |                             | 0   | 16.82 | 33.80 |    | 24.657 | 329.3 | 0    |
|                      |                        |                       |                            |                 |             |               |              |                             | 10  | 16.79 | 33.80 |    | 24.664 | 328.7 | .033 |
|                      |                        |                       |                            |                 |             |               |              |                             | 20  | 16.69 | 33.79 |    | 24.680 | 327.2 | .066 |
|                      |                        |                       |                            |                 |             |               |              |                             | 30  | 16.58 | 33.79 |    | 24.705 | 324.7 | .098 |
|                      |                        |                       |                            |                 |             |               |              |                             | 50  | 16.49 | 33.80 |    | 24.734 | 322.0 | .163 |
|                      |                        |                       |                            |                 |             |               |              |                             | 75  | 15.42 | 33.72 |    | 24.914 | 304.8 | .242 |
|                      |                        |                       |                            |                 |             |               |              |                             | 100 | 14.36 | 33.61 |    | 25.059 | 291.0 | .317 |
|                      |                        |                       |                            |                 |             |               |              |                             | 125 | 12.10 | 33.69 |    | 25.574 | 242.0 | .385 |
|                      |                        |                       |                            |                 |             |               |              |                             | 150 | 11.40 | 33.93 |    | 25.891 | 211.9 | .442 |
|                      |                        |                       |                            |                 |             |               |              |                             | 200 | 11.17 | 34.47 |    | 26.352 | 168.2 | .539 |
|                      |                        |                       |                            |                 |             |               |              |                             | 250 | 10.67 | 34.54 |    | 26.496 | 154.5 | .622 |
|                      |                        |                       |                            |                 |             |               |              |                             | 300 | 10.08 | 34.57 |    | 26.623 | 142.5 | .700 |
|                      |                        |                       |                            |                 |             |               |              |                             | 400 | 8.67  | 34.51 |    | 26.807 | 124.9 | .840 |
|                      |                        |                       |                            |                 |             |               |              |                             | 500 | 7.57  | 34.50 |    | 26.966 | 109.9 | .966 |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

130060

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |       |   |   |    |      |    |    |  |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-------|---|---|----|------|----|----|--|
| 25 29.0N | 115 24.5W | 04/18/69  | 2355 GMT       | 3738M  | 350  | 18KT  | 1       | 320 06 05      |       |   |   |    |      |    |    |  |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z     | T | S | D2 | SIGT | DT | DD |  |
| 0        |           | 33.76     | 5.74           | .45    | 1.   |       |         | .0             |       |   |   |    |      |    |    |  |
| 11       | 16.75     | 33.76     | 5.74           | .43    | 1.   |       |         | .0             | 330.7 |   |   |    |      |    |    |  |
| 31       |           |           | 5.77           | .47    | 1.   |       |         | .0             |       |   |   |    |      |    |    |  |
| 61       |           |           | 5.79           | .49    | 1.   |       |         | .0             |       |   |   |    |      |    |    |  |
| 71       |           | 33.63     | 5.91           | .52    | 1.   |       |         | .0             |       |   |   |    |      |    |    |  |
| 85       | 14.89     |           | 5.65           | .52    | 1.   |       |         | .0             |       |   |   |    |      |    |    |  |
| 100      |           |           | 5.05           | .81    | 4.   |       |         | 4.0            |       |   |   |    |      |    |    |  |
| 116      | 12.41     |           | 4.32           | 1.19   | 9.   |       |         | 10.9           |       |   |   |    |      |    |    |  |
| 140      |           |           | 3.25           | 1.80   | 18.  |       |         | 18.6           |       |   |   |    |      |    |    |  |
| 160      | 11.32     |           | 2.54           | 2.11   | 23.  |       |         | 22.1           |       |   |   |    |      |    |    |  |
| 190      |           |           | 1.38           |        | 32.  |       |         | 26.0           |       |   |   |    |      |    |    |  |
| 220      | 11.05     |           | .87            | 2.88   | 35.  |       |         | 26.8           |       |   |   |    |      |    |    |  |
| 250      |           |           | .61            |        |      |       |         |                |       |   |   |    |      |    |    |  |
| 300      | 9.96      |           | .52            |        |      |       |         |                |       |   |   |    |      |    |    |  |
| 355      |           |           | .32            |        |      |       |         |                |       |   |   |    |      |    |    |  |
| 439      | 8.22      | 34.47     | .28            |        |      |       |         | 121.3          |       |   |   |    |      |    |    |  |
| 524      | 7.27      | 34.45     | .20            |        |      |       |         | 109.6          |       |   |   |    |      |    |    |  |
| 608      | 6.54      |           | .22            |        |      |       |         |                |       |   |   |    |      |    |    |  |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

133025

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |    |       |       |    |        |       |      |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|----|-------|-------|----|--------|-------|------|
| 26 05.0N | 112 4P.5W | 04/19/69  | 2359 GMT       | 84M    | 300  | 19KT  | 0       | 320 04 06      |    |       |       |    |        |       |      |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z  | T     | S     | D2 | SIGT   | DT    | DD   |
|          |           |           |                |        |      |       |         |                | 0  | 15.96 | 33.75 |    | 24.817 | 314.1 | 0    |
|          |           |           |                |        |      |       |         |                | 10 | 15.74 | 33.77 |    | 24.882 | 307.9 | .031 |
|          |           |           |                |        |      |       |         |                | 20 | 15.18 | 33.76 |    | 24.998 | 296.9 | .061 |
|          |           |           |                |        |      |       |         |                | 30 | 14.51 | 33.80 |    | 25.173 | 280.2 | .090 |
|          |           |           |                |        |      |       |         |                | 50 | 14.52 | 34.08 |    | 25.387 | 259.9 | .145 |
|          |           |           |                |        |      |       |         |                | 75 | 12.62 | 34.22 |    | 25.884 | 212.6 | .204 |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

133030

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |    |        |       |      |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|----|--------|-------|------|
| 25 54.5N | 113 07.5W | 04/19/69  | 2101 GMT       | 187M   | 300  | 17KT  | 0       | 320 05 07      |     |       |       |    |        |       |      |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z   | T     | S     | D2 | SIGT   | DT    | DD   |
|          |           |           |                |        |      |       |         |                | 0   | 16.75 | 33.95 |    | 24.788 | 316.8 | 0    |
|          |           |           |                |        |      |       |         |                | 10  | 16.62 | 33.96 |    | 24.826 | 313.2 | .032 |
|          |           |           |                |        |      |       |         |                | 20  | 16.13 | 33.88 |    | 24.878 | 308.3 | .063 |
|          |           |           |                |        |      |       |         |                | 30  | 15.14 | 33.80 |    | 25.037 | 293.1 | .093 |
|          |           |           |                |        |      |       |         |                | 50  | 12.65 | 33.73 |    | 25.499 | 249.2 | .147 |
|          |           |           |                |        |      |       |         |                | 75  | 12.20 | 34.04 |    | 25.826 | 218.1 | .206 |
|          |           |           |                |        |      |       |         |                | 100 | 12.09 | 34.37 |    | 25.103 | 191.8 | .258 |
|          |           |           |                |        |      |       |         |                | 125 | 12.08 | 34.55 |    | 26.244 | 178.4 | .305 |
|          |           |           |                |        |      |       |         |                | 150 | 11.81 | 34.61 |    | 26.342 | 169.1 | .349 |

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6904

133040

| LATITUDE | LONGITUDE | MO/DAY/YR | MESSENGER TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |     |       |       |    |        |       |      |
|----------|-----------|-----------|----------------|--------|------|-------|---------|----------------|-----|-------|-------|----|--------|-------|------|
| 25 33.0N | 113 48.0W | 04/19/69  | 1449 GMT       | 3263M  | 320  | 20KT  | 2       | 320 05 05      |     |       |       |    |        |       |      |
| Z        | T         | S         | D2             | P04    | S103 | N02   | N03     | DT             | Z   | T     | S     | D2 | SIGT   | DT    | DD   |
|          |           |           |                |        |      |       |         |                | 0   | 16.64 | 33.85 |    | 24.737 | 321.7 | 0    |
|          |           |           |                |        |      |       |         |                | 10  | 16.64 | 33.85 |    | 24.737 | 321.7 | .032 |
|          |           |           |                |        |      |       |         |                | 20  | 16.64 | 33.85 |    | 24.737 | 321.7 | .064 |
|          |           |           |                |        |      |       |         |                | 30  | 16.54 | 33.83 |    | 24.745 | 320.9 | .097 |
|          |           |           |                |        |      |       |         |                | 50  | 15.91 | 33.76 |    | 24.836 | 312.3 | .160 |
|          |           |           |                |        |      |       |         |                | 75  | 15.23 | 33.75 |    | 24.979 | 298.6 | .237 |
|          |           |           |                |        |      |       |         |                | 100 | 12.74 | 33.70 |    | 25.459 | 253.0 | .307 |
|          |           |           |                |        |      |       |         |                | 125 | 11.32 | 33.87 |    | 25.859 | 215.0 | .366 |
|          |           |           |                |        |      |       |         |                | 150 | 11.90 | 34.31 |    | 26.092 | 192.8 | .417 |
|          |           |           |                |        |      |       |         |                | 200 | 11.33 | 34.55 |    | 26.385 | 165.0 | .509 |
|          |           |           |                |        |      |       |         |                | 250 | 10.86 | 34.62 |    | 26.524 | 151.8 | .591 |
|          |           |           |                |        |      |       |         |                | 300 | 9.97  | 34.58 |    | 26.649 | 139.9 | .667 |
|          |           |           |                |        |      |       |         |                | 400 | 8.58  | 34.51 |    | 26.821 | 123.6 | .806 |
|          |           |           |                |        |      |       |         |                | 500 | 7.30  | 34.49 |    | 26.996 | 107.0 | .929 |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 133050

| LATITUDE<br>24 14.5N | LONGITUDE<br>114 24.0W | MO/DAY/YR<br>04/19/69 | MESSENGER TIME<br>0949 GMT | BOTTOM<br>3414M | WIND<br>330 | SPEED<br>17KT | WEATHER | DOMINANT WAVES<br>320 05 05 |     |       |       |    |        |       |      |
|----------------------|------------------------|-----------------------|----------------------------|-----------------|-------------|---------------|---------|-----------------------------|-----|-------|-------|----|--------|-------|------|
| Z                    | T                      | S                     | D2                         | P04             | S103        | N02           | N03     | DT                          | Z   | T     | S     | D2 | SIGT   | DT    | DD   |
|                      |                        |                       |                            |                 |             |               |         |                             | 0   | 16.78 | 33.88 |    | 24.728 | 322.6 | 0    |
|                      |                        |                       |                            |                 |             |               |         |                             | 10  | 16.78 | 33.88 |    | 24.728 | 322.6 | .032 |
|                      |                        |                       |                            |                 |             |               |         |                             | 20  | 16.78 | 33.88 |    | 24.728 | 322.6 | .065 |
|                      |                        |                       |                            |                 |             |               |         |                             | 30  | 16.75 | 33.88 |    | 24.735 | 321.9 | .097 |
|                      |                        |                       |                            |                 |             |               |         |                             | 50  | 16.47 | 33.87 |    | 24.792 | 316.5 | .161 |
|                      |                        |                       |                            |                 |             |               |         |                             | 75  | 15.16 | 33.76 |    | 25.002 | 296.4 | .238 |
|                      |                        |                       |                            |                 |             |               |         |                             | 100 | 12.98 | 33.83 |    | 25.512 | 248.0 | .307 |
|                      |                        |                       |                            |                 |             |               |         |                             | 125 | 12.44 | 34.10 |    | 25.826 | 218.1 | .366 |
|                      |                        |                       |                            |                 |             |               |         |                             | 150 | 11.97 | 34.30 |    | 26.071 | 194.8 | .418 |
|                      |                        |                       |                            |                 |             |               |         |                             | 200 | 11.13 | 34.50 |    | 26.382 | 165.3 | .510 |
|                      |                        |                       |                            |                 |             |               |         |                             | 250 | 10.61 | 34.58 |    | 26.538 | 150.5 | .592 |
|                      |                        |                       |                            |                 |             |               |         |                             | 300 | 10.29 | 34.62 |    | 26.625 | 142.2 | .668 |
|                      |                        |                       |                            |                 |             |               |         |                             | 400 | 8.45  | 34.51 |    | 26.842 | 121.7 | .807 |
|                      |                        |                       |                            |                 |             |               |         |                             | 500 | 7.27  | 34.47 |    | 26.985 | 108.1 | .930 |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 133060

| LATITUDE<br>24 54.0N | LONGITUDE<br>115 02.5W | MO/DAY/YR<br>04/19/69 | MESSENGER TIME<br>0444 GMT | BOTTOM<br>3813M | WIND<br>330 | SPEED<br>16KT | WEATHER | DOMINANT WAVES<br>320 05 05 |     |       |       |    |        |       |      |
|----------------------|------------------------|-----------------------|----------------------------|-----------------|-------------|---------------|---------|-----------------------------|-----|-------|-------|----|--------|-------|------|
| Z                    | T                      | S                     | D2                         | P04             | S103        | N02           | N03     | DT                          | Z   | T     | S     | D2 | SIGT   | DT    | DD   |
|                      |                        |                       |                            |                 |             |               |         |                             | 0   | 17.31 | 33.98 |    | 24.679 | 327.2 | 0    |
|                      |                        |                       |                            |                 |             |               |         |                             | 10  | 17.31 | 33.98 |    | 24.679 | 327.2 | .033 |
|                      |                        |                       |                            |                 |             |               |         |                             | 20  | 17.31 | 33.98 |    | 24.679 | 327.2 | .066 |
|                      |                        |                       |                            |                 |             |               |         |                             | 30  | 16.96 | 33.93 |    | 24.724 | 323.0 | .098 |
|                      |                        |                       |                            |                 |             |               |         |                             | 50  | 16.72 | 33.91 |    | 24.765 | 319.1 | .163 |
|                      |                        |                       |                            |                 |             |               |         |                             | 75  | 16.58 | 34.01 |    | 24.874 | 308.7 | .242 |
|                      |                        |                       |                            |                 |             |               |         |                             | 100 | 15.68 | 33.87 |    | 24.972 | 299.4 | .318 |
|                      |                        |                       |                            |                 |             |               |         |                             | 125 | 13.07 | 33.74 |    | 25.424 | 256.3 | .388 |
|                      |                        |                       |                            |                 |             |               |         |                             | 150 | 12.20 | 34.09 |    | 25.865 | 214.4 | .448 |
|                      |                        |                       |                            |                 |             |               |         |                             | 200 | 11.11 | 34.38 |    | 26.293 | 173.8 | .547 |
|                      |                        |                       |                            |                 |             |               |         |                             | 250 | 10.39 | 34.48 |    | 26.499 | 154.2 | .632 |
|                      |                        |                       |                            |                 |             |               |         |                             | 300 | 9.73  | 34.52 |    | 26.643 | 140.5 | .708 |
|                      |                        |                       |                            |                 |             |               |         |                             | 400 | 8.46  | 34.51 |    | 26.840 | 121.8 | .846 |
|                      |                        |                       |                            |                 |             |               |         |                             | 500 | 7.23  | 34.50 |    | 27.014 | 105.3 | .968 |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 137023

| LATITUDE<br>25 34.0N | LONGITUDE<br>112 19.0W | MO/DAY/YR<br>04/20/69 | MESSENGER TIME<br>0826 GMT | BOTTOM<br>78M | WIND<br>330 | SPEED<br>10KT | WEATHER | DOMINANT WAVES<br>260 02 05 |    |       |       |    |        |       |      |
|----------------------|------------------------|-----------------------|----------------------------|---------------|-------------|---------------|---------|-----------------------------|----|-------|-------|----|--------|-------|------|
| Z                    | T                      | S                     | D2                         | P04           | S103        | N02           | N03     | DT                          | Z  | T     | S     | D2 | SIGT   | DT    | DD   |
|                      |                        |                       |                            |               |             |               |         |                             | 0  | 16.65 | 33.86 |    | 24.743 | 321.2 | 0    |
|                      |                        |                       |                            |               |             |               |         |                             | 10 | 16.65 | 33.87 |    | 24.750 | 320.4 | .032 |
|                      |                        |                       |                            |               |             |               |         |                             | 20 | 16.45 | 33.92 |    | 24.835 | 312.4 | .064 |
|                      |                        |                       |                            |               |             |               |         |                             | 30 | 14.98 | 33.85 |    | 25.111 | 286.1 | .094 |
|                      |                        |                       |                            |               |             |               |         |                             | 50 | 13.73 | 33.93 |    | 25.437 | 255.1 | .148 |
|                      |                        |                       |                            |               |             |               |         |                             | 75 | 13.00 | 34.34 |    | 25.901 | 210.9 | .207 |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 137023

| LATITUDE<br>25 34.0N | LONGITUDE<br>112 19.0W | MO/DAY/YR<br>04/20/69 | MESSENGER TIME<br>0906 GMT | BOTTOM<br>78M | WIND<br>330 | SPEED<br>10KT | WEATHER | DOMINANT WAVES<br>260 02 05 |   |       |       |    |      |    |    |
|----------------------|------------------------|-----------------------|----------------------------|---------------|-------------|---------------|---------|-----------------------------|---|-------|-------|----|------|----|----|
| Z                    | T                      | S                     | D2                         | P04           | S103        | N02           | N03     | DT                          | Z | T     | S     | D2 | SIGT | DT | DD |
| 1                    | 16.58                  | 5.89                  | .61                        | 4.            |             | .0            |         |                             |   |       |       |    |      |    |    |
| 11                   | 16.56                  | 33.88                 | 5.86                       | .61           | 3.          |               | .0      |                             |   | 317.7 |       |    |      |    |    |
| 21                   | 16.51                  | 5.90                  | .74                        | 3.            |             | .0            |         |                             |   |       |       |    |      |    |    |
| 31                   | 15.01                  | 33.90                 | 4.84                       | 1.13          | 7.          |               | 6.0     |                             |   | 283.1 |       |    |      |    |    |
| 40                   | 14.22                  | 4.03                  | 1.53                       | 11.           |             |               | 10.1    |                             |   |       |       |    |      |    |    |
| 60                   | 13.34                  | 34.15                 | 1.74                       | 2.32          | 25.         |               |         |                             |   | 19.9  | 231.4 |    |      |    |    |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 137030

| LATITUDE<br>25 20.0N | LONGITUDE<br>112 45.5W | MO/DAY/YR<br>04/20/69 | MESSENGER TIME<br>1415 GMT | BOTTOM<br>381M | WIND<br>340 | SPEED<br>12KT | WEATHER | DOMINANT WAVES<br>320 05 06 |     |       |       |    |        |       |      |
|----------------------|------------------------|-----------------------|----------------------------|----------------|-------------|---------------|---------|-----------------------------|-----|-------|-------|----|--------|-------|------|
| Z                    | T                      | S                     | D2                         | P04            | S103        | N02           | N03     | DT                          | Z   | T     | S     | D2 | SIGT   | DT    | DD   |
|                      |                        |                       |                            |                |             |               |         |                             | 0   | 17.28 | 33.96 |    | 24.671 | 328.0 | 0    |
|                      |                        |                       |                            |                |             |               |         |                             | 10  | 17.29 | 33.96 |    | 24.668 | 328.2 | .033 |
|                      |                        |                       |                            |                |             |               |         |                             | 20  | 17.29 | 33.97 |    | 24.676 | 327.5 | .066 |
|                      |                        |                       |                            |                |             |               |         |                             | 30  | 17.28 | 33.96 |    | 24.671 | 328.0 | .099 |
|                      |                        |                       |                            |                |             |               |         |                             | 50  | 14.83 | 33.89 |    | 25.174 | 280.1 | .160 |
|                      |                        |                       |                            |                |             |               |         |                             | 75  | 13.68 | 34.11 |    | 25.586 | 240.9 | .225 |
|                      |                        |                       |                            |                |             |               |         |                             | 100 | 13.10 | 34.32 |    | 25.866 | 214.3 | .283 |
|                      |                        |                       |                            |                |             |               |         |                             | 125 | 12.54 | 34.44 |    | 26.070 | 195.0 | .334 |
|                      |                        |                       |                            |                |             |               |         |                             | 150 | 12.21 | 34.55 |    | 26.219 | 180.8 | .382 |
|                      |                        |                       |                            |                |             |               |         |                             | 200 | 11.38 | 34.62 |    | 26.430 | 160.8 | .470 |
|                      |                        |                       |                            |                |             |               |         |                             | 250 | 10.90 | 34.62 |    | 26.517 | 152.5 | .551 |
|                      |                        |                       |                            |                |             |               |         |                             | 300 | 10.56 | 34.61 |    | 26.570 | 147.4 | .629 |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 137040

| LATITUDE | LONGITUDE | MD/DAY/YR | MESSENGER | TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |   |   |    |      |    |    |  |
|----------|-----------|-----------|-----------|------|--------|------|-------|---------|----------------|---|---|----|------|----|----|--|
| 25 20.0N | 112 45.5W | 04/20/69  | 1455      | GMT  | 381M   | 340  | 12KT  | 1       | 320 05 06      |   |   |    |      |    |    |  |
| Z        | T         | S         | D2        | P04  | S103   | N02  | N03   | DT      | Z              | T | S | D2 | SIGT | DT | DD |  |
| 0        |           | 34.96     | 6.02      | .56  | 1.     |      | .0    |         |                |   |   |    |      |    |    |  |
| 10       | 17.29     | 33.93     | 5.60      | .54  | 1.     |      | .0    | 330.4   |                |   |   |    |      |    |    |  |
| 30       |           |           | 5.70      | .52  | 1.     |      | .0    |         |                |   |   |    |      |    |    |  |
| 45       |           |           | 4.95      | .52  | 7.     |      | 3.8   |         |                |   |   |    |      |    |    |  |
| 60       |           | 33.98     | 3.81      | 1.30 | 12.    |      | 10.6  |         |                |   |   |    |      |    |    |  |
| 75       | 13.73     |           | 2.68      | 1.69 | 19.    |      | 15.8  |         |                |   |   |    |      |    |    |  |
| 90       |           |           | 1.59      | 1.73 | 25.    |      | 16.5  |         |                |   |   |    |      |    |    |  |
| 109      | 12.77     |           | 1.04      | 2.07 | 30.    |      | 18.6  |         |                |   |   |    |      |    |    |  |
| 134      |           |           | .62       | 2.54 | 34.    |      | 21.8  |         |                |   |   |    |      |    |    |  |
| 164      | 11.94     |           | .29       | 2.74 | 39.    |      | 21.4  |         |                |   |   |    |      |    |    |  |
| 198      |           |           | .18       | 2.88 | 41.    |      | 21.7  |         |                |   |   |    |      |    |    |  |
| 233      | 11.06     | 34.62     | .15       |      |        |      |       | 155.2   |                |   |   |    |      |    |    |  |
| 268      | 10.84     | 34.61     | .14       |      |        |      |       | 152.2   |                |   |   |    |      |    |    |  |
| 308      | 10.55     |           | .15       |      |        |      |       |         |                |   |   |    |      |    |    |  |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 137040

| LATITUDE | LONGITUDE | MD/DAY/YR | MESSENGER | TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |       |       |    |        |       |      |
|----------|-----------|-----------|-----------|------|--------|------|-------|---------|----------------|-------|-------|----|--------|-------|------|
| 24 58.0N | 113 25.0W | 04/20/69  | 2022      | GMT  | 373RM  | 320  | 10KT  | 2       | 320 04 08      |       |       |    |        |       |      |
| Z        | T         | S         | D2        | P04  | S103   | N02  | N03   | DT      | Z              | T     | S     | D2 | SIGT   | DT    | DD   |
| 0        |           |           |           |      |        |      |       |         | 0              | 17.93 | 34.04 |    | 24.575 | 337.1 | 0    |
| 10       |           |           |           |      |        |      |       |         | 10             | 17.75 | 34.03 |    | 24.611 | 333.7 | .034 |
| 20       |           |           |           |      |        |      |       |         | 20             | 17.67 | 34.04 |    | 24.638 | 331.1 | .067 |
| 30       |           |           |           |      |        |      |       |         | 30             | 17.65 | 34.05 |    | 24.651 | 329.9 | .100 |
| 50       |           |           |           |      |        |      |       |         | 50             | 16.29 | 33.83 |    | 24.803 | 315.4 | .165 |
| 75       |           |           |           |      |        |      |       |         | 75             | 13.05 | 33.72 |    | 25.413 | 257.4 | .237 |
| 100      |           |           |           |      |        |      |       |         | 100            | 12.41 | 34.00 |    | 25.755 | 224.9 | .298 |
| 125      |           |           |           |      |        |      |       |         | 125            | 12.24 | 34.37 |    | 26.074 | 194.6 | .351 |
| 150      |           |           |           |      |        |      |       |         | 150            | 11.81 | 34.50 |    | 26.256 | 177.2 | .398 |
| 200      |           |           |           |      |        |      |       |         | 200            | 11.20 | 34.60 |    | 26.447 | 159.1 | .484 |
| 250      |           |           |           |      |        |      |       |         | 250            | 10.66 | 34.62 |    | 26.560 | 148.4 | .564 |
| 300      |           |           |           |      |        |      |       |         | 300            | 10.07 | 34.60 |    | 26.648 | 140.1 | .639 |
| 400      |           |           |           |      |        |      |       |         | 400            | 8.76  | 34.51 |    | 26.793 | 126.3 | .779 |
| 500      |           |           |           |      |        |      |       |         | 500            | 7.46  | 34.45 |    | 25.942 | 112.2 | .906 |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 137040

| LATITUDE | LONGITUDE | MD/DAY/YR | MESSENGER | TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |   |   |    |      |    |    |  |
|----------|-----------|-----------|-----------|------|--------|------|-------|---------|----------------|---|---|----|------|----|----|--|
| 24 58.0N | 113 25.0W | 04/20/69  | 2133      | GMT  | 373RM  | 320  | 10KT  | 2       | 320 04 08      |   |   |    |      |    |    |  |
| Z        | T         | S         | D2        | P04  | S103   | N02  | N03   | DT      | Z              | T | S | D2 | SIGT | DT | DD |  |
| 0        |           | 34.04     | 5.66      | .49  | 0.     |      | .0    |         |                |   |   |    |      |    |    |  |
| 10       | 17.81     | 34.03     | 5.63      | .49  | 0.     |      | .0    | 335.1   |                |   |   |    |      |    |    |  |
| 31       |           |           | 5.66      | .47  | 0.     |      | .0    |         |                |   |   |    |      |    |    |  |
| 41       |           |           | 5.70      | .47  | 0.     |      | .0    |         |                |   |   |    |      |    |    |  |
| 50       |           | 33.90     | 5.78      | .49  | 0.     |      | .0    |         |                |   |   |    |      |    |    |  |
| 64       | 15.32     |           | 5.58      | .56  | 2.     |      | .4    |         |                |   |   |    |      |    |    |  |
| 80       |           |           | 4.13      | 1.13 | 10.    |      | 10.4  |         |                |   |   |    |      |    |    |  |
| 99       | 12.53     |           | 2.94      | 1.73 | 19.    |      | 18.1  |         |                |   |   |    |      |    |    |  |
| 126      |           |           | 1.71      | 2.36 | 28.    |      | 23.8  |         |                |   |   |    |      |    |    |  |
| 145      | 12.06     |           | 1.20      | 2.63 | 31.    |      | 25.0  |         |                |   |   |    |      |    |    |  |
| 176      |           |           | .98       | 2.68 | 33.    |      | 25.1  |         |                |   |   |    |      |    |    |  |
| 204      | 11.20     |           | .54       | 2.72 | 35.    |      | 26.3  |         |                |   |   |    |      |    |    |  |
| 235      |           |           | .45       |      |        |      |       |         |                |   |   |    |      |    |    |  |
| 274      | 10.34     |           | .31       |      |        |      |       |         |                |   |   |    |      |    |    |  |
| 335      |           |           | .32       |      |        |      |       |         |                |   |   |    |      |    |    |  |
| 408      | 8.68      | 34.50     | .34       |      |        |      |       | 125.8   |                |   |   |    |      |    |    |  |
| 483      | 7.54      | 34.44     | .35       |      |        |      |       | 114.0   |                |   |   |    |      |    |    |  |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 137050

| LATITUDE | LONGITUDE | MD/DAY/YR | MESSENGER | TIME | BOTTOM | WIND | SPEED | WEATHER | DOMINANT WAVES |       |       |    |        |       |      |
|----------|-----------|-----------|-----------|------|--------|------|-------|---------|----------------|-------|-------|----|--------|-------|------|
| 24 39.0N | 114 03.0W | 04/21/69  | 0239      | GMT  | 3823M  | 340  | 16KT  | 1       | 340 08 10      |       |       |    |        |       |      |
| Z        | T         | S         | D2        | P04  | S103   | N02  | N03   | DT      | Z              | T     | S     | D2 | SIGT   | DT    | DD   |
| 0        |           |           |           |      |        |      |       |         | 0              | 17.25 | 33.85 |    | 24.594 | 335.3 | 0    |
| 10       |           |           |           |      |        |      |       |         | 10             | 17.19 | 33.85 |    | 24.608 | 334.0 | .033 |
| 20       |           |           |           |      |        |      |       |         | 20             | 17.08 | 33.88 |    | 24.657 | 329.3 | .067 |
| 30       |           |           |           |      |        |      |       |         | 30             | 17.08 | 33.88 |    | 24.657 | 329.3 | .100 |
| 50       |           |           |           |      |        |      |       |         | 50             | 15.93 | 33.82 |    | 24.877 | 308.4 | .164 |
| 75       |           |           |           |      |        |      |       |         | 75             | 14.53 | 33.75 |    | 25.131 | 284.2 | .238 |
| 100      |           |           |           |      |        |      |       |         | 100            | 12.31 | 33.78 |    | 25.604 | 239.2 | .304 |
| 125      |           |           |           |      |        |      |       |         | 125            | 12.28 | 34.22 |    | 25.950 | 206.3 | .361 |
| 150      |           |           |           |      |        |      |       |         | 150            | 11.21 | 34.32 |    | 26.228 | 179.9 | .410 |
| 200      |           |           |           |      |        |      |       |         | 200            | 10.49 | 34.41 |    | 26.427 | 161.0 | .497 |
| 250      |           |           |           |      |        |      |       |         | 250            | 10.03 | 34.50 |    | 26.577 | 146.8 | .576 |
| 300      |           |           |           |      |        |      |       |         | 300            | 9.58  | 34.52 |    | 26.668 | 138.2 | .650 |
| 400      |           |           |           |      |        |      |       |         | 400            | 8.11  | 34.45 |    | 26.847 | 121.2 | .787 |
| 500      |           |           |           |      |        |      |       |         | 500            | 7.33  | 34.45 |    | 26.961 | 110.4 | .910 |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 137050

| LATITUDE<br>24 39.0N | LONGITUDE<br>114 03.0W | MO/DAY/YR<br>04/21/69 | MESSENGER<br>0336 | TIME<br>GMT | BOTTOM<br>3823M | WIND<br>340 | SPEED<br>16KT | WEATHER<br>1 | DOMINANT WAVES<br>340 08 10 |
|----------------------|------------------------|-----------------------|-------------------|-------------|-----------------|-------------|---------------|--------------|-----------------------------|
| Z T S                | D2                     | P04                   | S103              | N02         | N03             | DT          | Z T S         | D2           | SIGT DT DD                  |
| 0 17.24              | 33.86 33.85            | 5.60 5.64             | .58 .61           | 1. 1.       | .0 .0           | 335.1       |               |              |                             |
| 30                   | 5.75                   | .54                   | 1.                | .0          |                 |             |               |              |                             |
| 40                   | 5.71                   | .65                   | 1.                | .0          |                 |             |               |              |                             |
| 50 65                | 33.82                  | 5.30                  | .65               | 1.          | .0              |             |               |              |                             |
| 65 70                | 15.04                  | 5.31                  | .74               | 3.          | 1.8             |             |               |              |                             |
| 80                   | 4.58                   | 1.10                  | 8.                |             | 7.3             |             |               |              |                             |
| 99 12.37             | 3.64                   | 1.60                  | 14.               |             | 14.3            |             |               |              |                             |
| 125                  | 2.15                   | 2.30                  | 23.               |             | 22.1            |             |               |              |                             |
| 145                  | 1.61                   | 2.50                  | 29.               |             | 25.4            |             |               |              |                             |
| 177                  | 1.35                   | 2.81                  | 33.               |             | 27.2            |             |               |              |                             |
| 205 235              | 1.18                   | 2.77                  | 36.               |             | 28.0            |             |               |              |                             |
| 274                  | .72                    |                       |                   |             |                 |             |               |              |                             |
| 336                  | .49                    |                       |                   |             |                 |             |               |              |                             |
| 408                  | .802 34.64             | .31                   |                   |             |                 | 120.7       |               |              |                             |
| 482                  | 7.45 34.45             | .23                   |                   |             |                 | 112.0       |               |              |                             |
| 560                  | 6.81                   | .18                   |                   |             |                 |             |               |              |                             |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 137060

| LATITUDE<br>24 20.0N | LONGITUDE<br>114 39.5W | MO/DAY/YR<br>04/21/69 | MESSENGER<br>0803 | TIME<br>GMT | BOTTOM<br>3700M | WIND<br>350 | SPEED<br>11KT | WEATHER<br>1 | DOMINANT WAVES<br>340 08 10 |
|----------------------|------------------------|-----------------------|-------------------|-------------|-----------------|-------------|---------------|--------------|-----------------------------|
| Z T S                | D2                     | P04                   | S103              | N02         | N03             | DT          | Z T S         | D2           | SIGT DT DD                  |
| 0 10                 | 16.90 16.88            | 33.84 33.84           | 24.669 24.674     | 328.2 327.8 | .033            |             |               |              |                             |
| 20                   | 16.63                  | 33.81                 | 24.709            | 324.4       | .098            |             |               |              |                             |
| 30                   | 16.39                  | 33.81                 | 24.764            | 319.1       | .163            |             |               |              |                             |
| 50                   | 15.55                  | 33.75                 | 24.909            | 305.4       | .241            |             |               |              |                             |
| 75                   | 14.03                  | 33.74                 | 25.228            | 274.9       | .315            |             |               |              |                             |
| 100                  | 12.58                  | 34.03                 | 25.745            | 225.8       | .378            |             |               |              |                             |
| 125                  | 11.40                  | 34.08                 | 26.007            | 200.9       | .432            |             |               |              |                             |
| 150                  | 10.63                  | 34.35                 | 26.356            | 167.8       | .526            |             |               |              |                             |
| 200                  | 9.69                   | 34.35                 | 26.517            | 152.5       | .609            |             |               |              |                             |
| 250                  | 9.22                   | 34.47                 | 26.688            | 136.2       | .684            |             |               |              |                             |
| 300                  | 8.51                   | 34.53                 | 26.848            | 121.1       | .819            |             |               |              |                             |
| 400                  | 7.38                   | 34.50                 | 26.993            | 107.4       | .941            |             |               |              |                             |

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6904 137060

| LATITUDE<br>24 20.0N | LONGITUDE<br>114 39.5W | MO/DAY/YR<br>04/21/69 | MESSENGER<br>0923 | TIME<br>GMT | BOTTOM<br>3700M | WIND<br>350 | SPEED<br>11KT | WEATHER<br>1 | DOMINANT WAVES<br>340 08 10 |
|----------------------|------------------------|-----------------------|-------------------|-------------|-----------------|-------------|---------------|--------------|-----------------------------|
| Z T S                | D2                     | P04                   | S103              | N02         | N03             | DT          | Z T S         | D2           | SIGT DT DD                  |
| 0 11                 | 33.82 16.89            | 5.73 5.75             | .54 .54           | 1. 1.       | .0 .0           | 329.4       |               |              |                             |
| 31                   | 5.84                   | .49                   | 1.                | .0          |                 |             |               |              |                             |
| 40                   | 5.72                   | .47                   | 1.                | .0          |                 |             |               |              |                             |
| 50 64                | 33.81 15.84            | 5.80 5.80             | .45 .43           | 1. 1.       | .0 .0           |             |               |              |                             |
| 79                   | 5.57                   | .40                   | 2.                | .0          |                 |             |               |              |                             |
| 100 100              | 14.03 14.03            | 4.74 4.74             | .49 .49           | 7. 7.       | .3 .3           |             |               |              |                             |
| 123                  | 2.59                   | 1.46                  | 20.               |             | 13.7            |             |               |              |                             |
| 144                  | 2.40                   | 1.91                  | 25.               |             | 18.2            |             |               |              |                             |
| 174                  | 1.35                   | 2.41                  | 33.               |             | 23.2            |             |               |              |                             |
| 204                  | 1.42                   | 2.18U                 | 37.               |             | 22.0U           |             |               |              |                             |
| 234                  | .22                    |                       |                   |             |                 |             |               |              |                             |
| 274                  | .921                   | .95                   |                   |             |                 |             |               |              |                             |
| 334                  | .34                    |                       |                   |             |                 |             |               |              |                             |
| 409                  | 8.32 34.51             | .15                   |                   |             |                 | 119.8       |               |              |                             |
| 483                  | 7.43 34.48             | .15                   |                   |             |                 | 109.5       |               |              |                             |
| 560                  | 6.61                   | .16                   |                   |             |                 |             |               |              |                             |

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TEN METER DATA

|  | Z  | T       | S      | D2 | P04  | S103 | N02 | N03  | DT    |
|--|----|---------|--------|----|------|------|-----|------|-------|
|  | 10 | 12.10   | 32.967 |    | .31  | 3.   | .08 | .0   | 295.4 |
| 77.080 04/14/69 1920GMT 34 04.0N 122 57.0W<br>BOTTOM 4309M WIND 330 20KT WEATHER 1<br>DOMINANT WAVES 330 12 08 | 10 | 13.54   | 33.073 |    | .29  | 2.   | .00 | .0   | 314.4 |
| 77.090 04/14/69 1439GMT 33 43.0N 123 39.0W<br>BOTTOM 4404M WIND 360 22KT WEATHER 1<br>DOMINANT WAVES 330 12 08 | 10 | 10.84   | 33.703 |    | 1.55 | 21.  | .34 | 17.0 | 219.2 |
| 80.051 04/13/69 0925GMT 34 26.0N 120 32.5W<br>BOTTOM 97M WIND 310 22KT WEATHER 1<br>DOMINANT WAVES 290 05 06   | 10 | 13.42   | 33.202 |    | .31  | 2.   | .00 | .4   | 302.6 |
| 80.065 04/13/69 1922GMT 33 59.0N 121 30.0W<br>BOTTOM 3447M WIND 320 20KT WEATHER 1<br>DOMINANT WAVES 310 15 08 | 10 | 12.38 A | 33.570 |    | .92  | 14.  | .22 | 8.1  | 256.0 |
| 83.040 04/12/69 2355GMT 34 14.0N 119 22.0W<br>BOTTOM 19M WIND 270 07KT WEATHER 0<br>DOMINANT WAVES 250 02 06   | 10 | 13.66   | 33.581 |    | .73  | 11.  | .15 | 4.6  | 279.4 |
| 83.055 04/12/69 1510GMT 33 44.0N 120 24.5W<br>BOTTOM 898M WIND 320 20KT WEATHER 2<br>DOMINANT WAVES 280 08 07  | 10 | 12.61   | 33.494 |    | .76  | 9.   | .16 | 5.0  | 265.9 |
| 83.055 04/25/69 1158GMT 33 44.0N 120 24.5W<br>BOTTOM 1055M WIND 310 24KT WEATHER 1<br>DOMINANT WAVES 300 10 09 | 10 | 11.92   | 33.595 |    |      |      |     |      | 245.9 |
| 83.060 04/12/69 1252GMT 33 34.0N 120 45.0W<br>BOTTOM 1479M WIND 320 14KT WEATHER 6<br>DOMINANT WAVES 99        | 10 | 12.30   | 33.488 |    | .76  | 10.  | .14 | 5.9  | 260   |
| 83.060 04/25/69 1519GMT 33 34.0N 120 45.0W<br>BOTTOM 1479M WIND 320 28KT WEATHER 2<br>DOMINANT WAVES 320 14 08 | 10 | 12.30   | 33.229 |    | .55  | 5.   | .08 | 2.4  | 279   |
| 83.070 04/12/69 0534GMT 33 14.5N 121 26.0W<br>BOTTOM 3738M WIND 320 16KT WEATHER 2<br>DOMINANT WAVES 310 06 07 | 10 | 13.76   | 33.160 |    | .34  | 2.   | .00 | .0   | 312   |
| 83.070 04/25/69 2020GMT 33 14.5N 121 26.0W<br>BOTTOM 3926M WIND 320 30KT WEATHER 0<br>DOMINANT WAVES 330 14 08 | 10 | 13.60   | 33.184 |    | .37  | 3.   | .00 | .0   | 307   |

A) ALTERNATE VALUE, 12.23 DEGREES.

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TEN METER DATA

|        |   | Z  | T     | S      | 02 | P04 | S103 | N02 | N03 | DT    |
|--------|---|----|-------|--------|----|-----|------|-----|-----|-------|
| 83.080 | 04/12/69 0045GMT 32 53.0N 122 08.5W<br>BOTTOM 4213M WIND 300 16KT WEATHER 2<br>DOMINANT WAVES 310 07 07 | 10 | 13.68 | 33.027 |    | .34 | 2.   | .00 | .0  | 320.4 |
| 83.080 | 04/26/69 0234GMT 32 54.0N 122 08.0W<br>BOTTOM 4213M WIND 330 30KT WEATHER 0<br>DOMINANT WAVES 300 15 08 | 10 | 13.30 | 33.074 |    | .34 | 3.   | .00 | .0  | 309.7 |
| 83.090 | 04/11/69 2007GMT 32 34.5N 122 50.0W<br>BOTTOM 4309M WIND 330 16KT WEATHER 2<br>DOMINANT WAVES 310 12 07 | 10 | 14.12 | 33.093 |    | .31 | 2.   | .00 | .0  | 324.2 |
| 85.060 | 04/12/69 1015GMT 33 20.0N 120 34.0W<br>BOTTOM 1202M WIND 320 05KT WEATHER 2<br>DOMINANT WAVES 320 05 07 | 10 | 13.36 | 33.205 |    | .37 | 2.   | .00 | .0  | 301.2 |
| 87.033 | 04/10/69 0936GMT 33 54.0N 118 29.5W<br>BOTTOM 48M WIND 290 08KT WEATHER 2<br>DOMINANT WAVES 00          | 10 | 13.27 | 33.509 |    | .79 | 9.   | .10 | 3.5 | 277.2 |
| 87.050 | 04/10/69 2007GMT 33 20.0N 119 39.5W<br>BOTTOM 75M WIND 310 16KT WEATHER 0<br>DOMINANT WAVES 310 06 08   | 10 | 13.90 | 33.496 |    | .58 | 5.   | .07 | 1.1 | 290.3 |
| 87.055 | 04/10/69 2310GMT 33 10.5N 119 59.5W<br>BOTTOM 1202M WIND 290 20KT WEATHER 1<br>DOMINANT WAVES 280 08 08 | 10 |       | 33.324 |    | .45 | 6.   | .00 | .0  |       |
| 87.070 | 04/11/69 0544GMT 32 39.5N 121 02.0W<br>BOTTOM 3926M WIND 080 25KT WEATHER 1<br>DOMINANT WAVES 330 13 08 | 10 | 14.30 | 33.237 |    | .37 | 2.   | .06 | .0  | 317.3 |
| 87.080 | 04/11/69 1040GMT 32 19.5N 121 43.0W<br>BOTTOM 3926M WIND 320 22KT WEATHER 1<br>DOMINANT WAVES 320 12    | 10 | 13.84 | 33.175 |    | .37 | 3.   | .05 | .0  | 312.7 |
| 87.090 | 04/11/69 1450GMT 31 59.0N 122 24.0W<br>BOTTOM 4117M WIND 330 23KT WEATHER 2<br>DOMINANT WAVES 300 12 07 | 10 | 13.81 | 33.062 |    | .34 | 2.   | .00 | .0  | 320.4 |
| 90.039 | 04/09/69 1710GMT 33 07.0N 118 30.5W<br>BOTTOM 1073M WIND 270 03KT WEATHER 2<br>DOMINANT WAVES 000 00 00 | 10 | 15.37 | 33.469 |    | .31 | 2.   | .00 | .2  | 322.2 |
| 93.027 | 04/05/69 0115GMT 32 56.0N 117 19.0W<br>BOTTOM 88M WIND 290 06KT WEATHER 0<br>DOMINANT WAVES 270 02 07   | 10 | 14.77 | 33.435 |    | .31 | 3.   | .10 | .4  | 312.3 |
| 93.045 | 04/05/69 1455GMT 32 20.0N 118 33.0W<br>BOTTOM 1433M WIND 270 02KT WEATHER 1<br>DOMINANT WAVES 00        | 10 | 15.13 | 33.524 |    | .34 | 1.   | .00 | .2  | 313.2 |

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TEN METER DATA

|  | Z  | T     | S      | D2  | P04 | S103 | N02 | N03 | DT    |
|--|----|-------|--------|-----|-----|------|-----|-----|-------|
| 93.050 04/05/69 1730GMT 32 11.0N 118 53.5W<br>BOTTOM 1572M WIND 180 08KT WEATHER 1<br>DOMINANT WAVES 240 02 07 | 10 | 14.36 | 33.477 | .34 | 3.  | .08  | .0  |     | 300.9 |
| 93.055 04/05/69 2017GMT 32 02.0N 119 13.5W<br>BOTTOM 1531M WIND 190 12KT WEATHER 1<br>DOMINANT WAVES 220 04 06 | 10 | 13.64 | 33.301 | .37 | 3.  | .11  | .1  |     | 299.6 |
| 93.060 04/05/69 2319GMT 31 52.5N 119 33.0W<br>BOTTOM 2322M WIND 200 08KT WEATHER 2<br>DOMINANT WAVES 210 05 06 | 10 | 14.43 | 33.231 | .29 | 2.  | .06  | .0  |     | 320.3 |
| 93.070 04/06/69 0355GMT 31 30.0N 120 14.0W<br>BOTTOM 4117M WIND 330 14KT WEATHER 5<br>DOMINANT WAVES 310 04    | 10 | 15.04 | 33.221 | .29 | 2.  | .05  | .0  |     | 333.5 |
| 93.080 04/06/69 0835GMT 31 10.0N 120 54.5W<br>BOTTOM 3926M WIND 300 07KT WEATHER 1<br>DOMINANT WAVES           | 10 | 14.96 | 33.231 | .31 | 1.  | .04  | .1  |     | 331.1 |
| 93.090 04/06/69 1248GMT 30 52.0N 121 35.0W<br>BOTTOM 4213M WIND 310 12KT WEATHER 1<br>DOMINANT WAVES           | 10 | 14.52 | 33.141 | .31 | 2.  | .03  | .0  |     | 328.7 |
| 93.100 04/06/69 1735GMT 30 30.0N 122 14.0W<br>BOTTOM 4309M WIND 340 10KT WEATHER 1<br>DOMINANT WAVES 320 06 07 | 10 | 14.78 | 33.124 | .34 | 2.  | .05  | .0  |     | 335.2 |
| 93.120 04/07/69 0434GMT 29 49.0N 123 35.0W<br>BOTTOM 4213M WIND 050 10KT WEATHER 1<br>DOMINANT WAVES 99        | 10 | 15.52 | 33.268 | .31 | 1.  | .00  | .0  |     | 340.0 |
| 93.140 04/07/69 1226GMT 29 05.0N 124 53.0W<br>BOTTOM 8224M WIND 150 05KT WEATHER 1<br>DOMINANT WAVES 99        | 10 | 16.32 | 33.564 | .26 | 1.  | .00  | .0  |     | 335.6 |

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TEN METER DATA

|         |                    | Z        | T              | S      | O2   | P04 | S103 | N02 | N03   | DT |
|---------|--------------------|----------|----------------|--------|------|-----|------|-----|-------|----|
|         |                    | 10       | 13.10          | 33.625 | 1.35 | 10. | .17  | 5.0 | 265.4 |    |
| 97.029  | 04/02/69 2020GMT   | 32 17.5N | 117 04.5W      |        |      |     |      |     |       |    |
|         | BOTTOM 56M         | WIND 030 | 10KT WEATHER 2 |        |      |     |      |     |       |    |
|         | DOMINANT WAVES 280 | 04       | 04             |        |      |     |      |     |       |    |
| 97.030  | 04/02/69 2115GMT   | 32 16.0N | 117 07.0W      |        |      |     |      |     |       |    |
|         | BOTTOM 60M         | WIND 030 | 11KT WEATHER 2 |        |      |     |      |     |       |    |
|         | DOMINANT WAVES 280 | 04       | 04             |        |      |     |      |     |       |    |
| 97.045  | 04/03/69 1020GMT   | 31 45.0N | 118 08.0W      |        |      |     |      |     |       |    |
|         | BOTTOM M           | WIND 290 | 13KT WEATHER 1 |        |      |     |      |     |       |    |
|         | DOMINANT WAVES 250 | 03       | 04             |        |      |     |      |     |       |    |
| 97.050  | 04/03/69 1410GMT   | 31 33.0N | 118 30.0W      |        |      |     |      |     |       |    |
|         | BOTTOM 2499M       | WIND 330 | 17KT WEATHER 1 |        |      |     |      |     |       |    |
|         | DOMINANT WAVES 310 | 04       | 04             |        |      |     |      |     |       |    |
| 97.055  | 04/03/69 1655GMT   | 31 23.0N | 118 51.0W      |        |      |     |      |     |       |    |
|         | BOTTOM 1210M       | WIND 320 | 10KT WEATHER 2 |        |      |     |      |     |       |    |
|         | DOMINANT WAVES 320 | 04       | 07             |        |      |     |      |     |       |    |
| 97.060  | 04/03/69 1945GMT   | 31 12.0N | 119 11.0W      |        |      |     |      |     |       |    |
|         | BOTTOM 3584M       | WIND 320 | 11KT WEATHER 1 |        |      |     |      |     |       |    |
|         | DOMINANT WAVES 320 | 04       | 07             |        |      |     |      |     |       |    |
| 97.070  | 04/04/69 0038GMT   | 30 55.0N | 119 50.5W      |        |      |     |      |     |       |    |
|         | BOTTOM 3775M       | WIND 340 | 07KT WEATHER 1 |        |      |     |      |     |       |    |
|         | DOMINANT WAVES 360 | 04       | 08             |        |      |     |      |     |       |    |
| 97.080  | 04/04/69 0525GMT   | 30 35.0N | 120 30.5W      |        |      |     |      |     |       |    |
|         | BOTTOM 3888M       | WIND 350 | 06KT WEATHER 1 |        |      |     |      |     |       |    |
|         | DOMINANT WAVES 320 | 09       | 08             |        |      |     |      |     |       |    |
| 97.090  | 04/04/69 1030GMT   | 30 16.0N | 121 09.0W      |        |      |     |      |     |       |    |
|         | BOTTOM 3898M       | WIND 360 | 02KT WEATHER 2 |        |      |     |      |     |       |    |
|         | DOMINANT WAVES 360 | 04       | 08             |        |      |     |      |     |       |    |
| 100.029 | 04/06/69 1120GMT   | 31 42.5N | 116 43.5W      |        |      |     |      |     |       |    |
|         | BOTTOM 155M        | WIND 320 | 12KT WEATHER 5 |        |      |     |      |     |       |    |
|         | DOMINANT WAVES 03  |          |                |        |      |     |      |     |       |    |
| 100.045 | 04/05/69 2155GMT   | 31 10.0N | 117 46.0W      |        |      |     |      |     |       |    |
|         | BOTTOM 1586M       | WIND 230 | 07KT WEATHER 1 |        |      |     |      |     |       |    |
|         | DOMINANT WAVES 290 | 04       | C6             |        |      |     |      |     |       |    |
| 100.055 | 04/05/69 1505GMT   | 30 50.0N | 118 27.5W      |        |      |     |      |     |       |    |
|         | BOTTOM 2537M       | WIND 320 | 06KT WEATHER 2 |        |      |     |      |     |       |    |
|         | DOMINANT WAVES 320 | 04       | 05             |        |      |     |      |     |       |    |
| 103.029 | 04/07/69 0535GMT   | 31 07.5N | 116 22.0W      |        |      |     |      |     |       |    |
|         | BOTTOM 41M         | WIND 310 | 20KT WEATHER 0 |        |      |     |      |     |       |    |
|         | DOMINANT WAVES     |          |                |        |      |     |      |     |       |    |

10 12.26 33.61 1.26 14. 10.8 250.9

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TEN METER DATA

|         |          |                | Z         | T             | S         | D2 | P04   | S103  | N02 | N03 | DT    |
|---------|----------|----------------|-----------|---------------|-----------|----|-------|-------|-----|-----|-------|
| 103.030 | 04/07/69 | 0620GMT        | 31 06.0N  | 116 24.5W     |           | 10 | 12.50 | 33.57 |     |     |       |
|         |          | BOTTOM         | 65M       | WIND 330 22KT | WEATHER 0 |    | .95   | 10.   |     |     |       |
|         |          | DOMINANT WAVES |           |               |           |    |       |       |     |     |       |
| 103.035 | 04/07/69 | 0903GMT        | 30 56.5N  | 116 45.0W     |           | 10 | 15.12 | 33.53 |     |     |       |
|         |          | BOTTOM         | 3730M     | WIND 340 23KT | WEATHER 1 |    | .43   | 0.    |     |     |       |
|         |          | DOMINANT WAVES | 340 04 05 |               |           |    |       |       |     |     |       |
| 103.040 | 04/07/69 | 1215GMT        | 30 47.0N  | 117 05.5W     |           | 10 | 15.09 | 33.53 |     |     |       |
|         |          | BOTTOM         | 3737M     | WIND 330 21KT | WEATHER 1 |    |       |       |     |     | 311.9 |
|         |          | DOMINANT WAVES | 330 05    |               |           |    |       |       |     |     |       |
| 103.045 | 04/07/69 | 1446GMT        | 30 39.0N  | 117 27.0W     |           | 10 | 15.14 | 33.54 |     |     |       |
|         |          | BOTTOM         | 2190M     | WIND 320 15KT | WEATHER 1 |    |       |       |     |     | 312.2 |
|         |          | DOMINANT WAVES | 330 12 12 |               |           |    |       |       |     |     |       |
| 103.050 | 04/07/69 | 1735GMT        | 30 25.0N  | 117 44.5W     |           | 10 | 15.50 | 33.56 |     |     |       |
|         |          | BOTTOM         | 2153M     | WIND 320 13KT | WEATHER 1 |    | .47   | 0.    |     |     |       |
|         |          | DOMINANT WAVES | 320 12 12 |               |           |    |       |       |     |     |       |
| 103.055 | 04/07/69 | 2030GMT        | 30 16.0N  | 118 05.0W     |           | 10 | 15.54 | 33.44 |     |     |       |
|         |          | BOTTOM         | 2350M     | WIND 320 12KT | WEATHER 1 |    | .47   | 0.    |     |     |       |
|         |          | DOMINANT WAVES | 320 08 08 |               |           |    |       |       |     |     |       |
| 103.060 | 04/07/69 | 2330GMT        | 30 06.0N  | 118 25.5W     |           | 10 | 15.78 | 33.55 |     |     |       |
|         |          | BOTTOM         | 3508M     | WIND 320 12KT | WEATHER 1 |    | .45   | 0.    |     |     |       |
|         |          | DOMINANT WAVES | 320 08 10 |               |           |    |       |       |     |     |       |
| 103.070 | 04/08/69 | 0445GMT        | 29 46.5N  | 119 05.0W     |           | 10 | 15.61 | 33.46 |     |     |       |
|         |          | BOTTOM         | 3481M     | WIND 310 10KT | WEATHER   |    | .47   | 0.    |     |     |       |
|         |          | DOMINANT WAVES | 320 09 10 |               |           |    |       |       |     |     |       |
| 103.080 | 04/08/69 | 0940GMT        | 29 26.0N  | 119 43.5W     |           | 10 | 15.40 | 33.36 |     |     |       |
|         |          | BOTTOM         | 3794M     | WIND 320 10KT | WEATHER   |    | .47   | 1.    |     |     |       |
|         |          | DOMINANT WAVES | 320 08 10 |               |           |    |       |       |     |     |       |
| 107.031 | 04/09/69 | 1715GMT        | 30 27.5N  | 116 07.0W     |           | 10 | 12.64 | 33.58 |     |     |       |
|         |          | BOTTOM         | 41M       | WIND 310 13KT | WEATHER 2 |    | .95   | 5.    |     |     |       |
|         |          | DOMINANT WAVES | 320 03    |               |           |    |       |       |     |     |       |
| 107.032 | 04/09/69 | 1606GMT        | 30 26.0N  | 116 11.0W     |           | 10 | 13.66 | 33.55 |     |     |       |
|         |          | BOTTOM         | 316M      | WIND 310 10KT | WEATHER 2 |    | 1.04  | 5.    |     |     |       |
|         |          | DOMINANT WAVES | 320 04 06 |               |           |    |       |       |     |     |       |
| 107.035 | 04/09/69 | 1405GMT        | 30 20.5N  | 116 21.5W     |           | 10 | 15.18 | 33.52 |     |     |       |
|         |          | BOTTOM         | 1762M     | WIND 310 10KT | WEATHER 2 |    | .49   | 0.    |     |     |       |
|         |          | DOMINANT WAVES | 320 04 06 |               |           |    |       |       |     |     |       |
| 107.040 | 04/09/69 | 1115GMT        | 30 10.5N  | 116 41.5W     |           | 10 | 15.46 | 33.55 |     |     |       |
|         |          | BOTTOM         | 2565M     | WIND 310 15KT | WEATHER 2 |    | .49   | 1.    |     |     |       |
|         |          | DOMINANT WAVES | 320 04 08 |               |           |    |       |       |     |     |       |

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TEN METER DATA

|         |   | Z  | T       | S       | 02 | P04  | S103 | N02 | N03  | DT    |
|---------|---|----|---------|---------|----|------|------|-----|------|-------|
| 107.045 | 04/09/69 0810GMT 30 01.ON 117 00.5W<br>BOTTOM 1968M WIND 320 09KT WEATHER 2<br>DOMINANT WAVES 320 04 06 | 10 | 15.83   | 33.56   |    | .45  | 1.   |     | .0   | 325.3 |
| 107.050 | 04/09/69 0527GMT 29 51.ON 117 21.0W<br>BOTTOM 2209M WIND 320 09KT WEATHER 2<br>DOMINANT WAVES 320 05 06 | 10 | 15.83   | 33.52   |    | .45  | 1.   |     | .0   | 328.2 |
| 107.055 | 04/09/69 0235GMT 29 41.ON 117 42.0W<br>BOTTOM 3206M WIND 310 08KT WEATHER 2<br>DOMINANT WAVES 280 03 04 | 10 | 15.45   | 33.39   |    | .54  | 1.   |     | .0   | 329.7 |
| 107.060 | 04/09/69 0005GMT 29 31.5N 118 01.5W<br>BOTTOM 3622M WIND 30C 13KT WEATHER 2<br>DOMINANT WAVES 300 10 10 | 10 | 15.40   | 33.40   |    | .47  | 1.   |     | .0   | 327.9 |
| 107.070 | 04/08/69 1924GMT 29 11.ON 118 42.0W<br>BOTTOM 3888M WIND 330 11KT WEATHER 1<br>DOMINANT WAVES 310 10 10 | 10 | 15.55   | 33.36   |    | .45  | 1.   |     | .0   | 334.0 |
| 107.080 | 04/08/69 1417GMT 28 51.5N 119 20.0W<br>BOTTOM 3680M WIND 280 05KT WEATHER 2<br>DOMINANT WAVES 330 08 08 | 10 | 16.41   | 33.74   |    | .43  | 1.   |     | .0   | 324.7 |
| 110.032 | 04/09/69 2122GMT 29 52.ON 115 47.5W<br>BOTTOM 22M WIND 280 12KT WEATHER 1<br>DOMINANT WAVES 260 04 06   | 10 | 12.20 A | 33.85   |    | 1.89 | 21.  |     | 15.6 | 232.1 |
| 110.045 | 04/10/69 0635GMT 29 24.5N 116 40.0W<br>BOTTOM 2302M WIND 310 13KT WEATHER 0<br>DOMINANT WAVES 310 06 05 | 10 | 14.69   | 33.53   |    | .47  | 1.   |     | .0   | 303.7 |
| 113.029 | 04/12/69 1337GMT 29 24.ON 115 13.0W<br>BOTTOM 24M WIND 350 05KT WEATHER 1<br>DOMINANT WAVES 260 02 C3   | 10 | 12.74   | 33.658  |    | .88  | 13.  |     | 7.0  | 256.2 |
| 113.030 | 04/12/69 1237GMT 29 22.ON 115 18.0W<br>BOTTOM 60M WIND 300 14KT WEATHER 1<br>DOMINANT WAVES 300 02 06   | 10 | 12.82   | 33.76 B |    | .54  | 6.   |     | 7.7  | 250.2 |
| 113.035 | 04/12/69 0945GMT 29 11.5N 115 39.5W<br>BOTTOM 1354M WIND 320 13KT WEATHER 2<br>DOMINANT WAVES 320 04 06 | 10 | 14.60   | 33.60   |    | .43  | 0.   |     | 2.8  | 296.7 |
| 113.040 | 04/12/69 0705GMT 29 02.5N 116 00.0W<br>BOTTOM 1931M WIND 320 10KT WEATHER<br>DOMINANT WAVES 320 04 06   | 10 | 14.44   | 33.509  |    | .38  | 0.   |     | 1.7  | 300.1 |

A) ALTERNATE VALUE, 12.50 DEGREES.

B) MEAN VALUE OF 33.74 AND 33.78.

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TEN METER DATA

|         |   | Z  | T     | S      | 02 | P04  | S103 | N02 | N03  | DT    |
|---------|---|----|-------|--------|----|------|------|-----|------|-------|
| 113.045 | 04/12/69 0405GMT 28 52.ON 116 18.0W<br>BOTTOM 2033M WIND 320 13KT WEATHER 2<br>DOMINANT WAVES 330 06 08 | 10 | 15.92 | 33.57  |    | .18U | 0.U  |     | 1.6U | 326.5 |
| 113.050 | 04/12/69 0141GMT 28 42.5N 116 36.0W<br>BOTTOM 3724M WIND 300 17KT WEATHER 2<br>DOMINANT WAVES 300 06 10 | 10 | 15.95 | 33.600 |    | .49  | 1.   |     | .0   | 324.9 |
| 113.060 | 04/11/69 2028GMT 28 20.5N 117 15.0W<br>BOTTOM 3593M WIND 280 07KT WEATHER 2<br>DOMINANT WAVES 300 06 08 | 10 | 15.76 | 33.570 |    | .49  | 2.   |     | .0   | 323.1 |
| 113.070 | 04/11/69 1503GMT 28 03.ON 117 57.0W<br>BOTTOM 4040M WIND 300 14KT WEATHER 2<br>DOMINANT WAVES 320 08 08 | 10 | 15.94 | 33.566 |    | .45  | 2.   |     | .0   | 327.2 |
| 113.080 | 04/11/69 0939GMT 27 44.ON 118 36.0W<br>BOTTOM 3813M WIND 300 17KT WEATHER 2<br>DOMINANT WAVES 10 08     | 10 | 16.71 | 33.705 |    | .34  | 1.   |     | .0   | 333.9 |
| 117.025 | 04/12/69 1740GMT 28 58.ON 114 37.0W<br>BOTTOM 60M WIND 280 08KT WEATHER 1<br>DOMINANT WAVES 270 05 06   | 10 | 13.74 | 33.726 |    | 1.35 | 17.  |     | 8.8  | 270.3 |
| 117.026 | 04/12/69 1822GMT 28 56.ON 114 41.5W<br>BOTTOM 73M WIND 300 12KT WEATHER 2<br>DOMINANT WAVES 270 06 06   | 10 | 14.57 | 33.691 |    | .16  | 0.   |     | 4.8  | 289.4 |
| 117.030 | 04/13/69 1105GMT 28 48.ON 114 56.0W<br>BOTTOM 101M WIND 260 22KT WEATHER 2<br>DOMINANT WAVES 490        | 10 | 14.53 | 33.717 |    | .36  | 0.   |     | 5.7  | 286.7 |
| 117.035 | 04/13/69 1347GMT 28 37.ON 115 16.5W<br>BOTTOM 201M WIND 330 17KT WEATHER 2<br>DOMINANT WAVES 320 05 06  | 10 | 15.17 | 33.530 |    | .45  | 0.   |     | 2.1  | 313.6 |
| 117.040 | 04/14/69 0054GMT 28 28.ON 115 36.0W<br>BOTTOM 1003M WIND 320 20KT WEATHER 2<br>DOMINANT WAVES 310 06 05 | 10 | 15.44 | 33.546 |    | .45  | 0.   |     | 2.1  | 318.0 |
| 117.045 | 04/14/69 0326GMT 28 17.5N 115 56.0W<br>BOTTOM 3641M WIND 320 17KT WEATHER 2<br>DOMINANT WAVES 320 05 03 | 10 | 15.68 | 33.553 |    | .43  | 0.   |     | 2.1  | 322.6 |
| 117.050 | 04/14/69 0615GMT 28 07.5N 116 14.0W<br>BOTTOM 3832M WIND 320 19KT WEATHER 2<br>DOMINANT WAVES 330 06 07 | 10 | 15.54 | 33.569 |    | .45  | 0.   |     | 2.2  | 318.5 |
| 117.060 | 04/14/69 1053GMT 27 47.ON 116 53.0W<br>BOTTOM 3545M WIND 350 19KT WEATHER<br>DOMINANT WAVES 330 08 07   | 10 | 15.74 | 33.614 |    | .45  | 0.   |     | 2.6  | 319.4 |

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TEN METER DATA

|         |                    | Z        | T              | S      | 02 | P04 | S103 | N02 | N03 | DT    |
|---------|--------------------|----------|----------------|--------|----|-----|------|-----|-----|-------|
|         |                    | 10       | 16.29          | 33.624 |    | .47 | 0.   |     | 2.2 | 330.6 |
| 117.070 | 04/14/69 1638GMT   | 27 27.5N | 117 32.5W      |        |    |     |      |     |     |       |
|         | BOTTOM 3935M       | WIND 330 | 20KT WEATHER 1 |        |    |     |      |     |     |       |
|         | DOMINANT WAVES 320 | 08       | 05             |        |    |     |      |     |     |       |
| 117.080 | 04/14/69 2055GMT   | 27 08.0N | 118 10.5W      |        |    |     |      |     |     |       |
|         | BOTTOM 3964M       | WIND 340 | 21KT WEATHER 1 |        |    |     |      |     |     |       |
|         | DOMINANT WAVES 330 | 15       | 08             |        |    |     |      |     |     |       |
| 120.024 | 04/12/69 2220GMT   | 28 25.0N | 114 10.5W      |        |    |     |      |     |     |       |
|         | BOTTOM 34M         | WIND 290 | 12KT WEATHER 2 |        |    |     |      |     |     |       |
|         | DOMINANT WAVES 290 | 06       | 06             |        |    |     |      |     |     |       |
| 120.025 | 04/12/69 2305GMT   | 28 22.5N | 114 15.0W      |        |    |     |      |     |     |       |
|         | BOTTOM 56M         | WIND 290 | 18KT WEATHER 2 |        |    |     |      |     |     |       |
|         | DOMINANT WAVES 290 | 06       | 06             |        |    |     |      |     |     |       |
| 120.030 | 04/13/69 0122GMT   | 28 13.0N | 114 34.0W      |        |    |     |      |     |     |       |
|         | BOTTOM 93M         | WIND 350 | 20KT WEATHER 2 |        |    |     |      |     |     |       |
|         | DOMINANT WAVES 310 | 07       | 08             |        |    |     |      |     |     |       |
| 120.035 | 04/13/69 0350GMT   | 28 02.5N | 114 54.5W      |        |    |     |      |     |     |       |
|         | BOTTOM 78M         | WIND 350 | 10KT WEATHER 1 |        |    |     |      |     |     |       |
|         | DOMINANT WAVES 340 | 04       | 08             |        |    |     |      |     |     |       |
| 120.040 | 04/16/69 0321GMT   | 27 56.5N | 115 14.0W      |        |    |     |      |     |     |       |
|         | BOTTOM 41M         | WIND 320 | 23KT WEATHER 1 |        |    |     |      |     |     |       |
|         | DOMINANT WAVES 320 | 08       | 05             |        |    |     |      |     |     |       |
| 123.036 | 04/16/69 1449GMT   | 27 26.0N | 114 36.0W      |        |    |     |      |     |     |       |
|         | BOTTOM 47M         | WIND 280 | 03KT WEATHER 0 |        |    |     |      |     |     |       |
|         | DOMINANT WAVES 290 | 05       | 07             |        |    |     |      |     |     |       |
| 123.037 | 04/16/69 1544GMT   | 27 24.0N | 114 39.5W      |        |    |     |      |     |     |       |
|         | BOTTOM 75M         | WIND 280 | 12KT WEATHER 0 |        |    |     |      |     |     |       |
|         | DOMINANT WAVES 290 | 06       | 07             |        |    |     |      |     |     |       |
| 123.042 | 04/16/69 1835GMT   | 27 14.0N | 114 59.0W      |        |    |     |      |     |     |       |
|         | BOTTOM 1522M       | WIND 310 | 19KT WEATHER 0 |        |    |     |      |     |     |       |
|         | DOMINANT WAVES 310 | 06       | 06             |        |    |     |      |     |     |       |
| 123.045 | 04/16/69 2015GMT   | 27 08.0N | 115 10.5W      |        |    |     |      |     |     |       |
|         | BOTTOM 4116M       | WIND 330 | 18KT WEATHER 0 |        |    |     |      |     |     |       |
|         | DOMINANT WAVES 310 | 08       | 06             |        |    |     |      |     |     |       |
| 123.050 | 04/16/69 2311GMT   | 26 58.0N | 115 30.0W      |        |    |     |      |     |     |       |
|         | BOTTOM 3357M       | WIND 340 | 20KT WEATHER 1 |        |    |     |      |     |     |       |
|         | DOMINANT WAVES 340 | 08       | 07             |        |    |     |      |     |     |       |
| 123.060 | 04/17/69 0421GMT   | 26 38.5N | 116 09.0W      |        |    |     |      |     |     |       |
|         | BOTTOM 3832M       | WIND 340 | 23KT WEATHER 1 |        |    |     |      |     |     |       |
|         | DOMINANT WAVES 320 | 08       | 08             |        |    |     |      |     |     |       |

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TEN METER DATA

|         |                    | Z        | T              | S     | 02 | P04  | S103 | N02 | N03 | DT    |
|---------|--------------------|----------|----------------|-------|----|------|------|-----|-----|-------|
|         |                    | 10       | 13.40          | 33.84 |    | 1.30 | 13.  |     | 9.6 | 255.3 |
| 127.033 | 04/17/69 2337GMT   | 26 57.5N | 114 02.5W      |       |    |      |      |     |     |       |
|         | BOTTOM 65M         | WIND 320 | 19KT WEATHER 0 |       |    |      |      |     |     |       |
|         | DOMINANT WAVES 310 | 04 05    |                |       |    |      |      |     |     |       |
| 127.034 | 04/17/69 2250GMT   | 26 55.5N | 114 06.0W      |       |    |      |      |     |     |       |
|         | BOTTOM 75M         | WIND 320 | 17KT WEATHER 0 |       |    |      |      |     |     |       |
|         | DOMINANT WAVES 310 | 04 05    |                |       |    |      |      |     |     |       |
| 127.040 | 04/17/69 1959GMT   | 26 43.5N | 114 29.5W      |       |    |      |      |     |     |       |
|         | BOTTOM 3075M       | WIND 320 | 10KT WEATHER 0 |       |    |      |      |     |     |       |
|         | DOMINANT WAVES 310 | 05 05    |                |       |    |      |      |     |     |       |
| 127.045 | 04/17/69 1635GMT   | 26 35.0N | 114 49.0W      |       |    |      |      |     |     |       |
|         | BOTTOM 3150M       | WIND 340 | 08KT WEATHER 0 |       |    |      |      |     |     |       |
|         | DOMINANT WAVES 310 | 07 08    |                |       |    |      |      |     |     |       |
| 127.050 | 04/17/69 1355GMT   | 26 23.5N | 115 08.0W      |       |    |      |      |     |     |       |
|         | BOTTOM 3603M       | WIND 330 | 13KT WEATHER 0 |       |    |      |      |     |     |       |
|         | DOMINANT WAVES 330 | 07 C6    |                |       |    |      |      |     |     |       |
| 127.060 | 04/17/69 0857GMT   | 26 01.0N | 115 44.5W      |       |    |      |      |     |     |       |
|         | BOTTOM 3737M       | WIND 350 | 18KT WEATHER   |       |    |      |      |     |     |       |
|         | DOMINANT WAVES 330 | 10 C7    |                |       |    |      |      |     |     |       |
| 130.028 | 04/18/69 0348GMT   | 26 33.0N | 113 21.0W      |       |    |      |      |     |     |       |
|         | BOTTOM 60M         | WIND 300 | 13KT WEATHER 0 |       |    |      |      |     |     |       |
|         | DOMINANT WAVES 280 | 04 05    |                |       |    |      |      |     |     |       |
| 130.035 | 04/18/69 0805GMT   | 26 19.0N | 113 49.0W      |       |    |      |      |     |     |       |
|         | BOTTOM 604M        | WIND 320 | 07KT WEATHER 0 |       |    |      |      |     |     |       |
|         | DOMINANT WAVES 320 | 04 06    |                |       |    |      |      |     |     |       |
| 130.045 | 04/18/69 1455GMT   | 25 58.5N | 114 26.5W      |       |    |      |      |     |     |       |
|         | BOTTOM 3527M       | WIND 320 | 11KT WEATHER 0 |       |    |      |      |     |     |       |
|         | DOMINANT WAVES 320 | 05 C6    |                |       |    |      |      |     |     |       |
| 133.023 | 04/20/69 0135GMT   | 26 08.5N | 112 40.0W      |       |    |      |      |     |     |       |
|         | BOTTOM 75M         | WIND 300 | 11KT WEATHER 0 |       |    |      |      |     |     |       |
|         | DOMINANT WAVES 320 | 03 05    |                |       |    |      |      |     |     |       |
| 133.025 | 04/20/69 0015GMT   | 26 05.0N | 112 48.5W      |       |    |      |      |     |     |       |
|         | BOTTOM 84M         | WIND 300 | 19KT WEATHER 0 |       |    |      |      |     |     |       |
|         | DOMINANT WAVES 320 | 04 06    |                |       |    |      |      |     |     |       |
| 133.030 | 04/19/69 2130GMT   | 25 54.5N | 113 07.5W      |       |    |      |      |     |     |       |
|         | BOTTOM 187M        | WIND 300 | 17KT WEATHER 0 |       |    |      |      |     |     |       |
|         | DOMINANT WAVES 320 | 05 07    |                |       |    |      |      |     |     |       |
| 133.035 | 04/19/69 1815GMT   | 25 46.0N | 113 28.5W      |       |    |      |      |     |     |       |
|         | BOTTOM 836M        | WIND 320 | 13KT WEATHER 1 |       |    |      |      |     |     |       |
|         | DOMINANT WAVES 340 | 04 05    |                |       |    |      |      |     |     |       |

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TEN METER DATA

|         |   | Z  | T     | S     | 02 | P04 | S103 | N02 | N03 | DT    |
|---------|---|----|-------|-------|----|-----|------|-----|-----|-------|
| 133.040 | 04/19/69 1517GMT 25 33.0N 113 48.0W<br>BOTTOM 3263M WIND 320 20KT WEATHER 2<br>DOMINANT WAVES 320 06 05 | 10 | 16.60 | 33.79 |    | .27 | 1.   |     | .0  | 325.2 |
| 133.050 | 04/19/69 1020GMT 24 14.5N 114 24.0W<br>BOTTOM 3414M WIND 330 17KT WEATHER<br>DOMINANT WAVES 320 05 05   | 10 | 16.80 | 33.85 |    | .47 | 2.   |     | .0  | 325.3 |
| 133.060 | 04/19/69 0520GMT 24 54.0N 115 02.6W<br>BOTTOM 3813M WIND 330 16KT WEATHER 1<br>DOMINANT WAVES 320 05 05 | 10 | 17.29 | 33.94 |    | .47 | 1.   |     | .0  | 329.8 |
| 137.022 | 04/20/69 0732GMT 25 36.0N 112 15.0W<br>BOTTOM 56M WIND 330 09KT WEATHER 0<br>DOMINANT WAVES 270 03 05   | 10 | 16.18 | 33.92 |    | .54 | 3.   |     | .0  | 306.6 |
| 137.035 | 04/20/69 1741GMT 25 10.0N 113 04.0W<br>BOTTOM 1336M WIND 320 12KT WEATHER 1<br>DOMINANT WAVES 320 06 10 | 10 | 17.16 | 33.92 |    | .52 | 3.   |     | .0  | 328.3 |

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