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UNIVERSITY OF CALIFORNIA    SCRIPPS INSTITUTION OF OCEANOGRAPHY

## DATA REPORT

PHYSICAL AND CHEMICAL DATA  
CCOFI CRUISE 5210  
(MLR 42)  
8-22 October 1952

SIO Reference 57-13  
19 March 1957



UNIVERSITY OF CALIFORNIA  
SCRIPPS INSTITUTION OF OCEANOGRAPHY

PHYSICAL AND CHEMICAL DATA

CCOFI CRUISE 5210

(MLR 42)

8-22 October 1952

Sponsored by  
Marine Research Committee

SIO Reference 57-13

19 March 1957

Approved for distribution:

A handwritten signature in dark ink, reading "Roger Revelle". The signature is written in a cursive style with a horizontal line underneath the name.

Roger Revelle, Director



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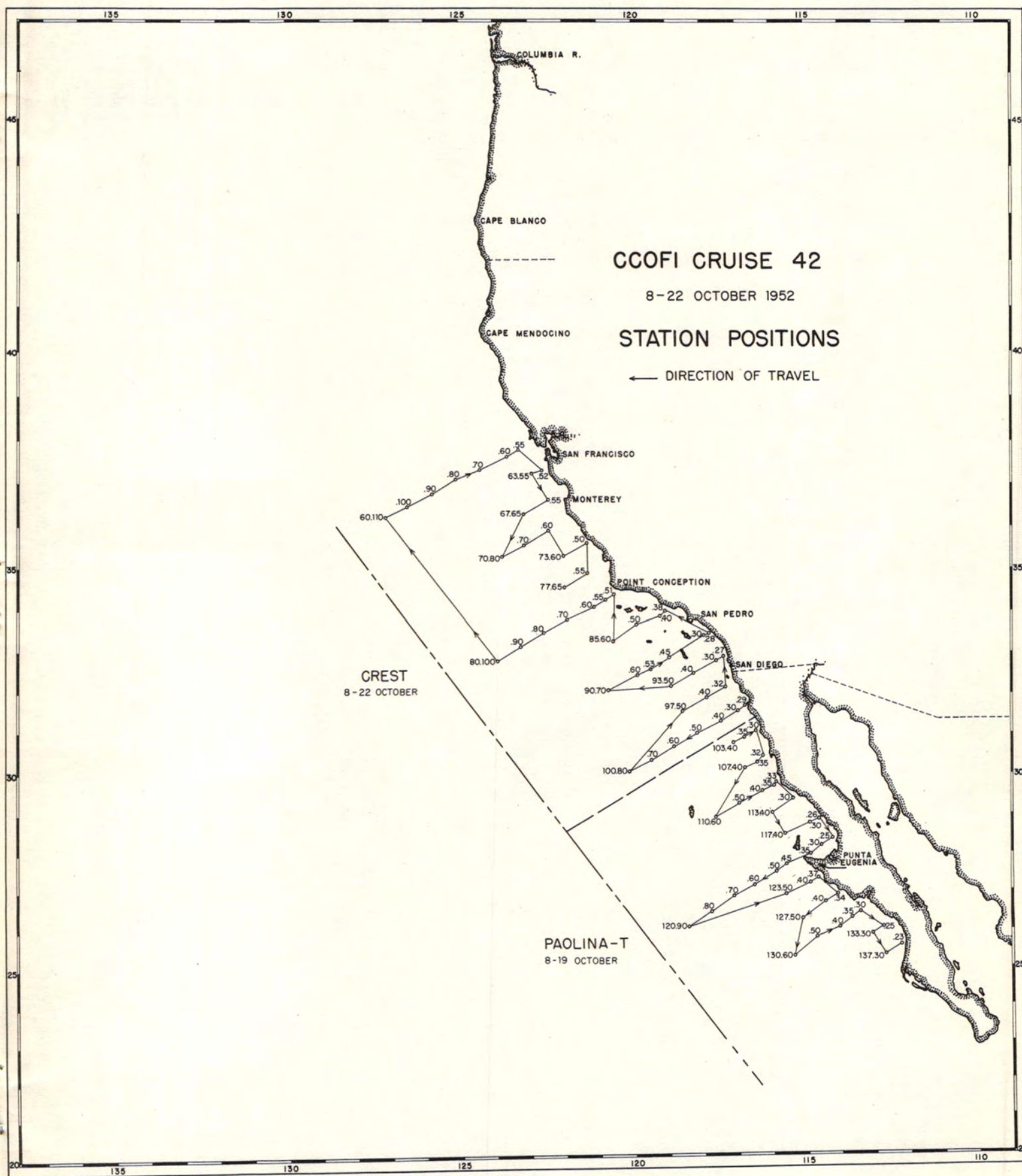


FIGURE 1



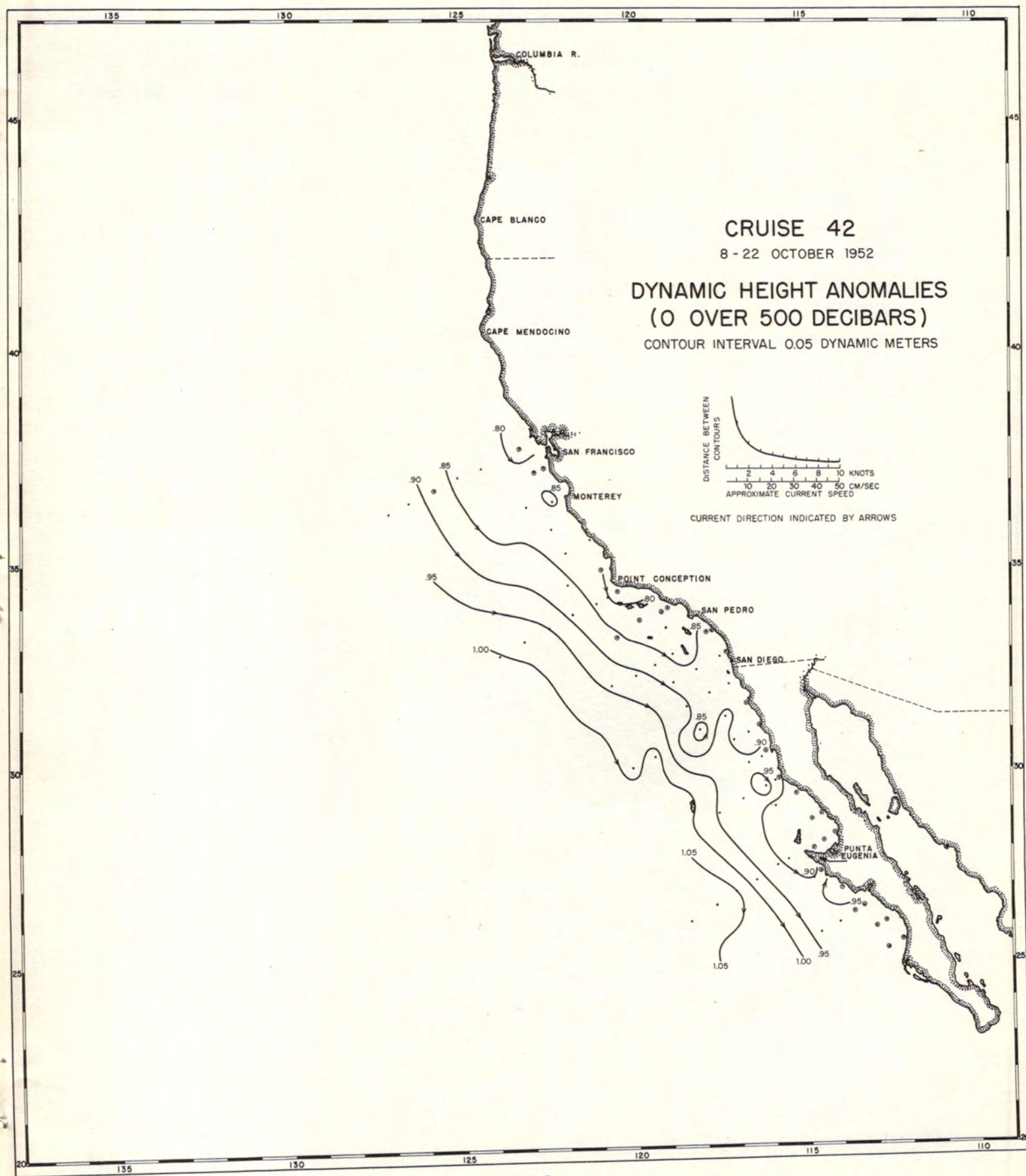


FIGURE 2



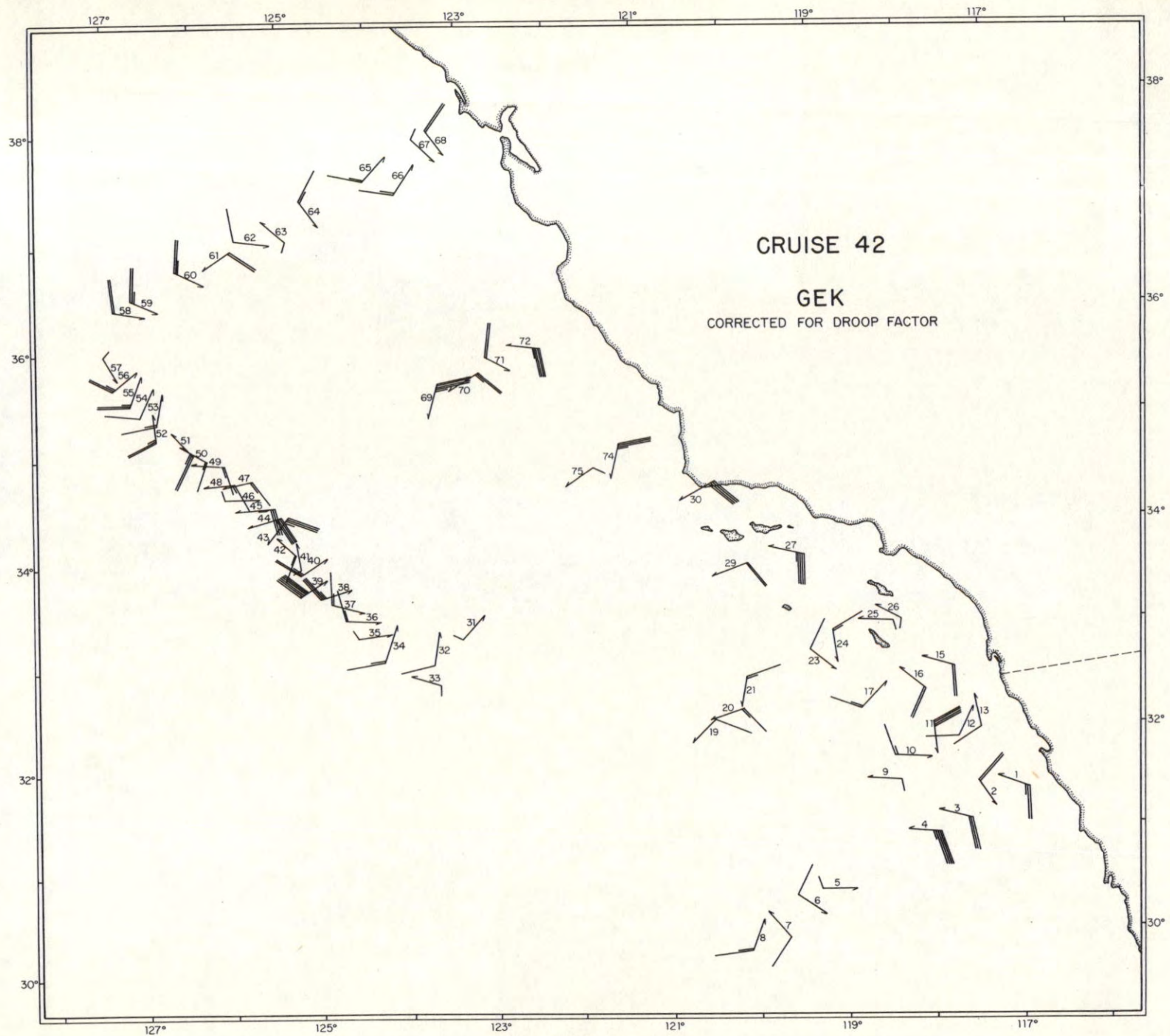


FIGURE 3



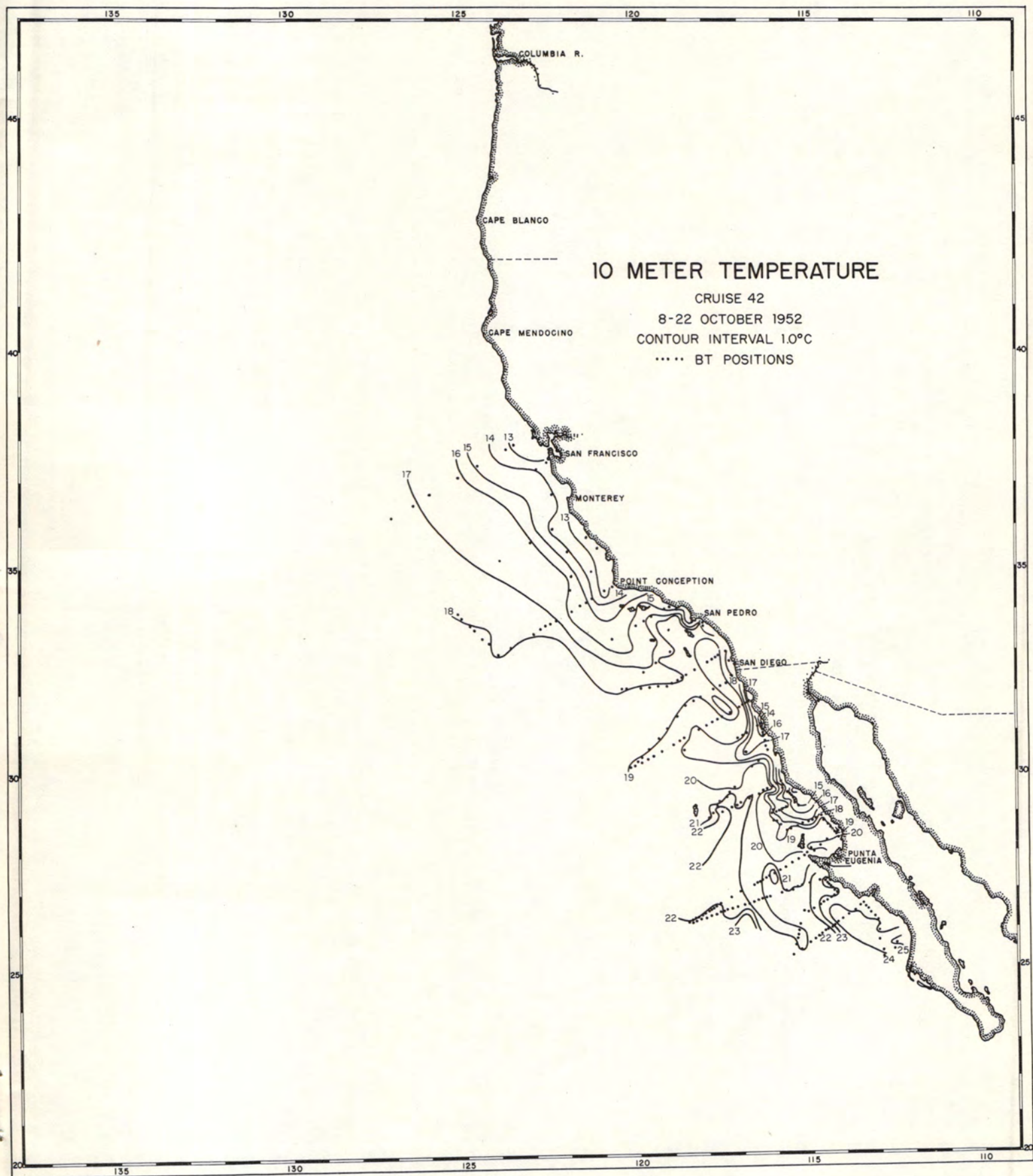


FIGURE 4



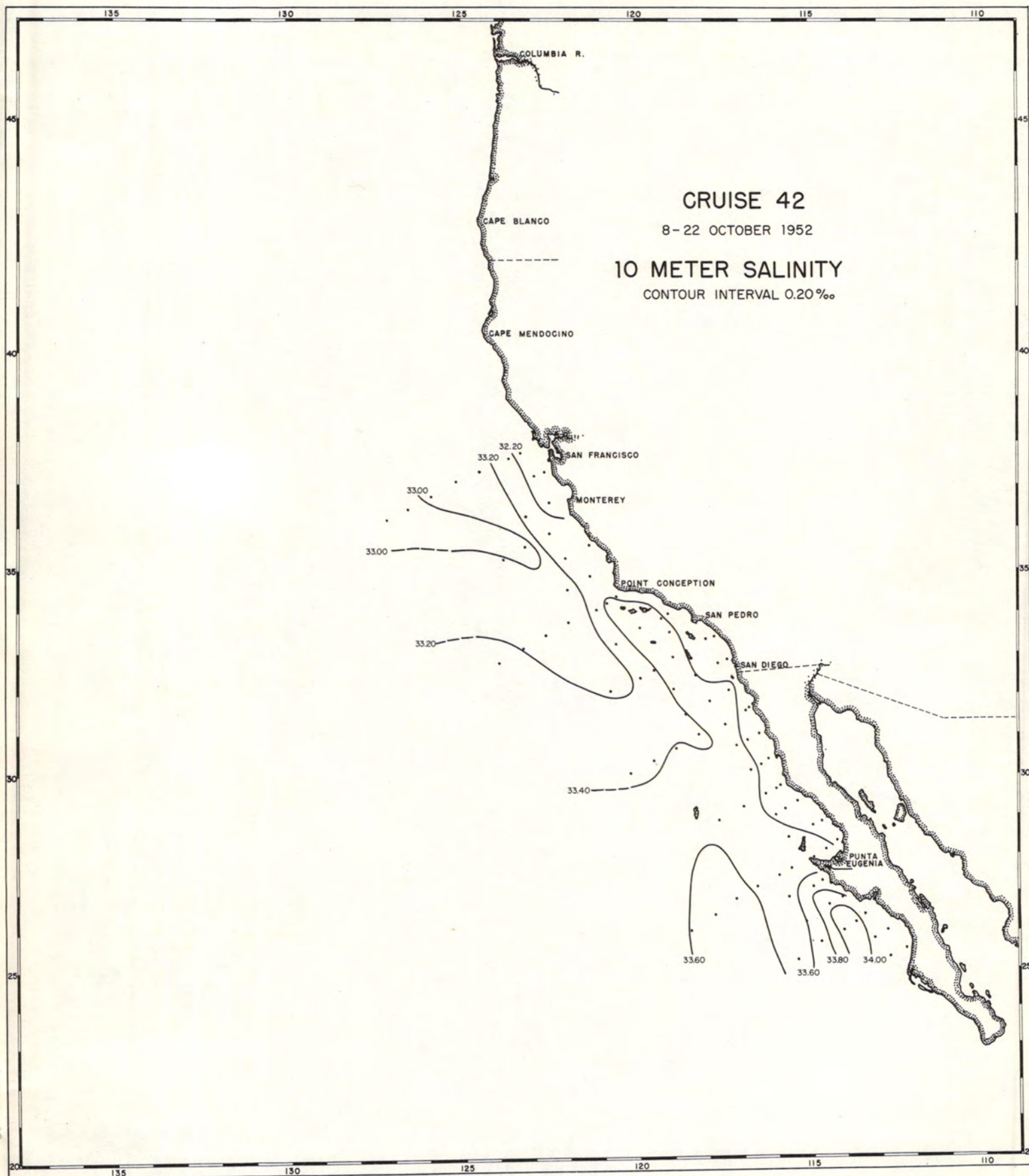


FIGURE 5



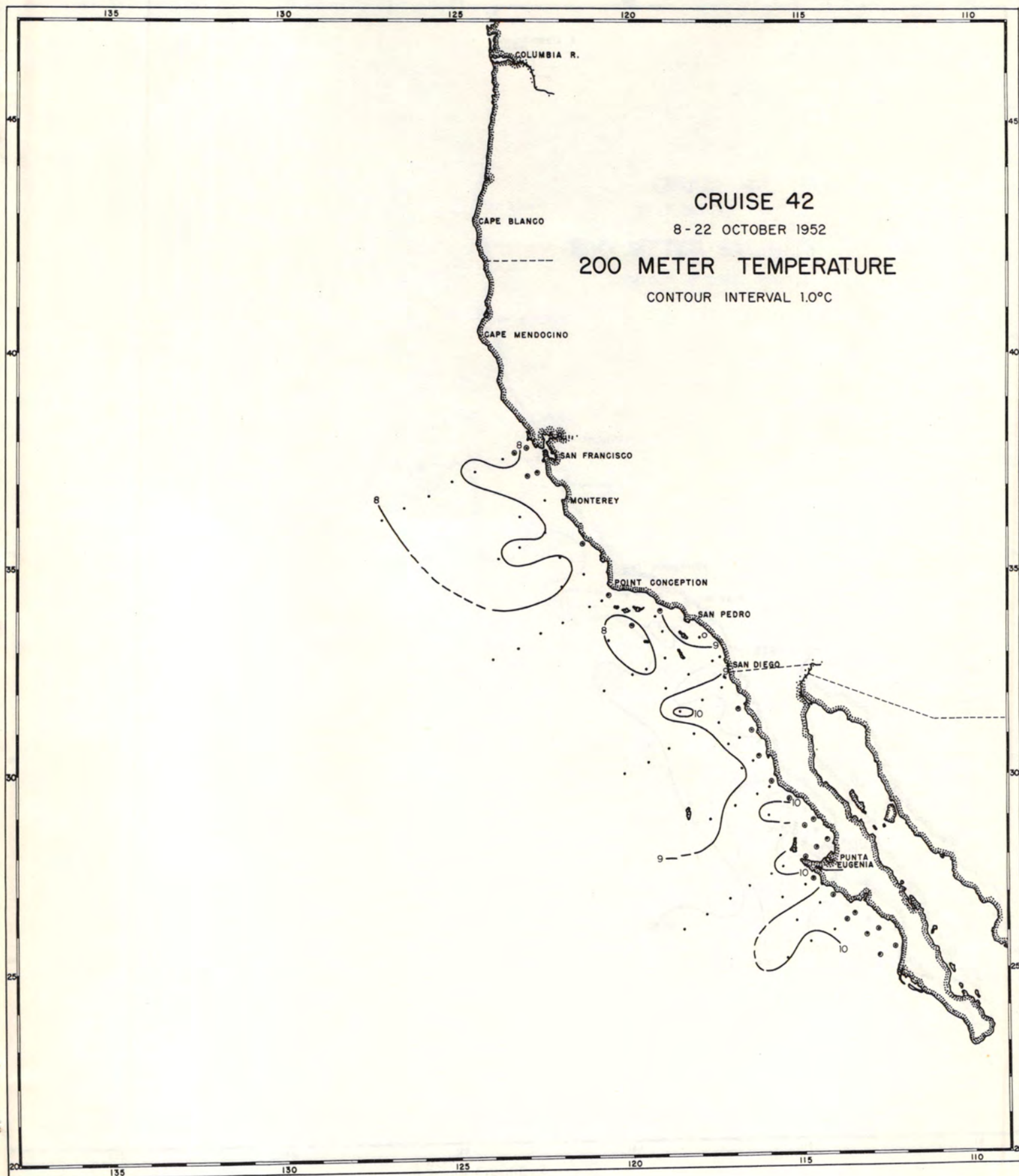


FIGURE 6



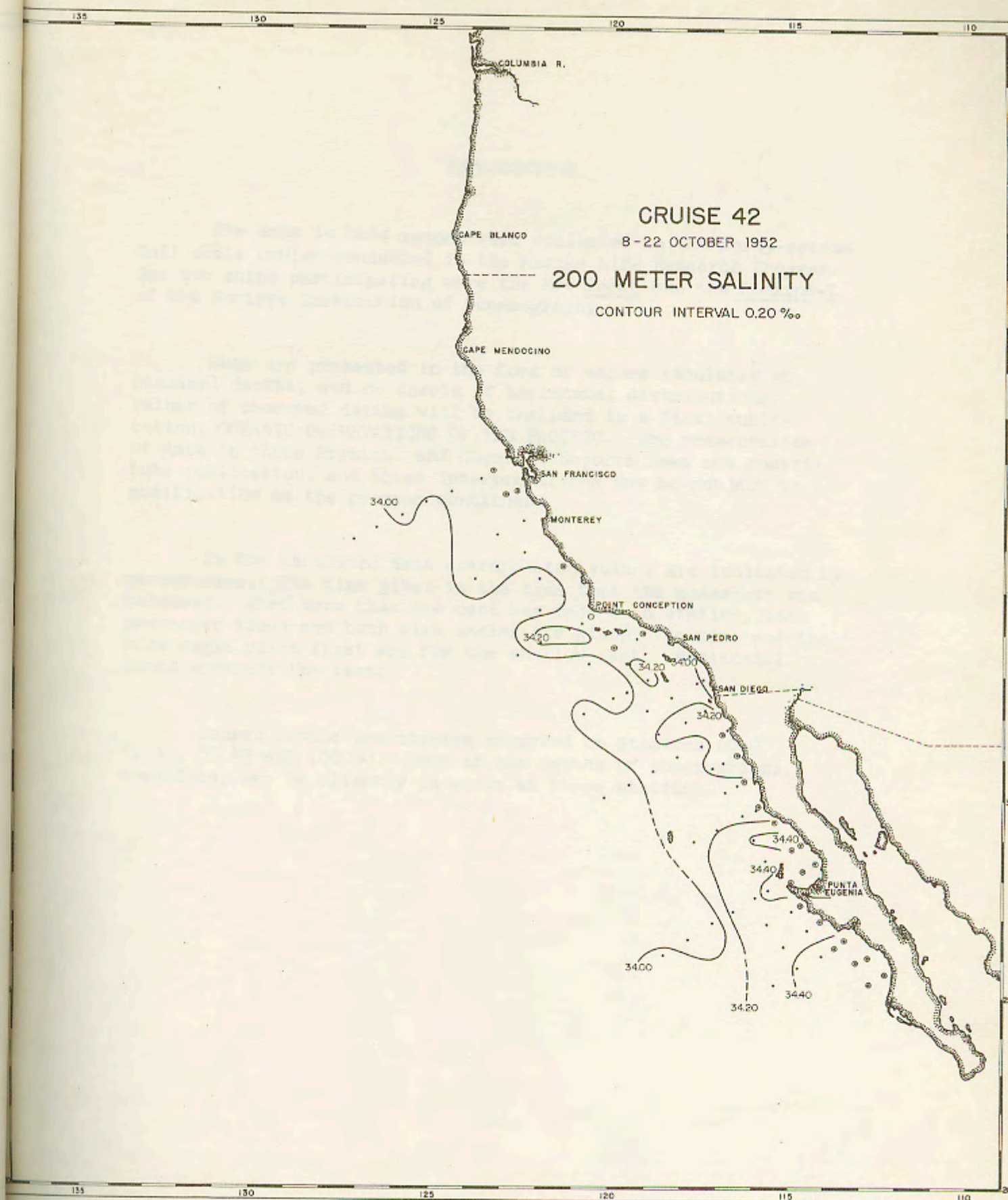


FIGURE 7



## INTRODUCTION.

The data in this report were collected on the forty-second full scale cruise conducted in the Marine Life Research Program. The two ships participating were the M/V Crest and the Paolina-T of the Scripps Institution of Oceanography.

Data are presented in the form of values tabulated at standard depths, and on charts of horizontal distributions. Values of observed depths will be included in a final publication, OCEANIC OBSERVATIONS OF THE PACIFIC. The presentation of data in these Physical and Chemical Reports does not constitute publication, and these interpretations may be subject to modification as the program continues.

In the tabulated data extrapolated values are indicated by parentheses. The time given is the time that the messenger was released. When more than one cast was made on a station, both messenger times and both wire angles are given; the time and the wire angle given first are for the shallow cast. Horizontal lines separate the casts.

Nansen bottle pretripping occurred on Stations 60.90, 63.52, 85.40 and 100.50. Some of the depths of observations, therefore, may be slightly in error at these stations.



## PERSONNEL

### Ships' Captains

Colbeth, Clifford W., RV CREST  
Newbegin, Robert, RV PAOLINA T

### PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

#### RV CREST

Gilkey, Robert W., Sr. Marine Technician  
Howell, Robert W., Marine Technician  
King, Robert D., Marine Technician  
Duiker, Wesley J., Marine Technician  
Whitney, Ralph E., Marine Technician

#### RV PAOLINA T

Coolidge, Richard N., Marine Technician (in charge)  
Wyllie, John G., Marine Technician  
Kircher, Robert J., Marine Technician  
Lamplugh, Robert W., Marine Technician



## STATION 60.55 (Interpolated Values at Standard Depths)

CREST: 37°48' 123°16'; October 19, 1952; 2003 GCT; wire angle: 8°; sounding: 85 fms; depth of observation: 123 m; weather: fog; sea: smooth; wind: 320°; force 3.

| Depth | T     | S     | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 12.95 | 33.06 | 24.92                 |               | .000       | 6.31           |
| 10    | 11.66 | 33.10 | 25.20                 |               | .029       | 6.10           |
| 20    | 10.77 | 33.17 | 25.41                 |               | .056       | 5.56           |
| 30    | 10.72 | 33.34 | 25.55                 |               | .081       | 4.93           |
| 50    | 9.87  | 33.55 | 25.86                 |               | .127       | 3.83           |
| 75    | 9.34  | 33.74 | 26.10                 |               | .178       | 2.90           |
| 100   | 9.26  | 33.84 | 26.19                 |               | .226       | 2.10           |

## STATION 60.60 (Interpolated Values at Standard Depths)

CREST: 37°38' 123°38'; October 19, 1952; 1649 GCT; wire angle: 0°; sounding: 1650 fms; depth of observation: 971 m; weather: fog; sea: smooth; wind: 25°, force 2.

|      |        |         |         |  |         |        |
|------|--------|---------|---------|--|---------|--------|
| 0    | 14.31  | 33.19   | 24.75   |  | .000    | 6.13   |
| 10   | 14.00  | 33.22   | 24.83   |  | .032    | 6.20   |
| 20   | 13.25  | 33.22   | 24.99   |  | .062    | 6.15   |
| 30   | 11.95  | 33.22   | 25.24   |  | .091    | 5.97   |
| 50   | 10.64  | 33.43   | 25.64   |  | .142    | 4.50   |
| 75   | 9.43   | 33.61   | 25.98   |  | .197    | 3.55   |
| 100  | 8.73   | 33.79   | 26.23   |  | .246    | 3.02   |
| 150  | 8.28   | 33.94   | 26.42   |  | .332    | 2.47   |
| 200  | 7.77   | 34.04   | 26.58   |  | .410    | 2.28   |
| 250  | 7.28   | 34.05   | 26.65   |  | .484    | 2.15   |
| 300  | 6.90   | 34.09   | 26.74   |  | .554    | 1.82   |
| 400  | 6.60   | 34.23   | 26.89   |  | .683    | 0.91   |
| 500  | 5.71   | 34.25   | 27.02   |  | .800    | 0.70   |
| 600  | 5.12   | 34.32   | 27.14   |  | .906    | 0.41   |
| 700  | 4.56   | 34.38   | 27.26   |  | 1.001   | 0.36   |
| 800  | 4.12   | 34.42   | 27.33   |  | 1.087   | 0.34   |
| 1000 | (3.71) | (34.43) | (27.38) |  | (1.248) | (0.41) |



## STATION 60.70 (Interpolated Values at Standard Depths)

CREST: 37° 20' 124° 23'; October 19, 1952; 1105 GCT; wire angle: 3°; sounding: 2000 fms; depth of observation: 586 m; weather: fog; sea: smooth; wind: 90°, force 2.

| Depth | T      | S       | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|--------|---------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)   | (‰)     | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 15.93  | 32.98   | 24.23                 |               | .000       | 5.33           |
| 10    | 14.05  | 33.14   | 24.76                 |               | .034       | 5.60           |
| 20    | 13.60  | 33.13   | 24.85                 |               | .066       | 6.20           |
| 30    | 12.12  | 33.12   | 25.13                 |               | .096       | 5.92           |
| 50    | 10.93  | 33.22   | 25.42                 |               | .150       | 5.37           |
| 75    | 9.00   | 33.32   | 25.82                 |               | .210       | 3.70           |
| 100   | 8.68   | 33.61   | 26.10                 |               | .261       | 2.83           |
| 150   | 8.34   | 33.94   | 26.41                 |               | .351       | 2.42           |
| 200   | 8.23   | 34.08   | 26.54                 |               | .431       | 2.21           |
| 250   | 7.52   | 34.08   | 26.64                 |               | .506       | 1.61           |
| 300   | 6.92   | 34.09   | 26.73                 |               | .576       | 1.29           |
| 400   | 6.25   | 34.15   | 26.87                 |               | .706       | 0.80           |
| 500   | 5.60   | 34.19   | 26.98                 |               | .825       | 0.61           |
| 600   | (5.16) | (34.30) | (27.12)               |               | (.933)     | -              |

## STATION 60.80 (Interpolated Values at Standard Depths)

CREST: 37° 04' 125° 07'; October 19, 1952; 0527 GCT; wire angle: 0°; sounding: 2000 fms; depth of observation: 1163 m; weather: partly cloudy; sea: smooth; wind: 160°, force 2.

|      |       |       |       |  |       |      |
|------|-------|-------|-------|--|-------|------|
| 0    | 16.89 | 33.04 | 24.06 |  | .000  | 5.62 |
| 10   | 16.56 | 33.04 | 24.13 |  | .038  | 5.65 |
| 20   | 16.05 | 33.05 | 24.26 |  | .076  | 5.88 |
| 30   | 15.00 | 33.07 | 24.51 |  | .111  | 5.87 |
| 50   | 10.46 | 33.07 | 25.39 |  | .172  | 5.47 |
| 75   | 9.00  | 33.27 | 25.79 |  | .232  | 4.70 |
| 100  | 8.54  | 33.46 | 26.01 |  | .285  | 3.99 |
| 150  | 7.86  | 33.87 | 26.43 |  | .377  | 3.06 |
| 200  | 7.48  | 33.99 | 26.58 |  | .455  | 2.59 |
| 250  | 6.90  | 34.05 | 26.71 |  | .527  | 1.81 |
| 300  | 6.52  | 34.12 | 26.81 |  | .594  | 1.31 |
| 400  | 5.78  | 34.15 | 26.93 |  | .718  | 0.87 |
| 500  | 5.19  | 34.23 | 27.06 |  | .830  | 0.52 |
| 600  | 4.86  | 34.33 | 27.18 |  | .931  | 0.38 |
| 700  | 4.50  | 34.39 | 27.27 |  | 1.023 | 0.36 |
| 800  | 4.18  | 34.42 | 27.33 |  | 1.109 | 0.36 |
| 1000 | 3.60  | 34.48 | 27.44 |  | 1.265 | 0.55 |



## STATION 60.90 (Interpolated Values at Standard Depths)

CREST: 36°46' 125°46'; October 19, 1952; 0052 GCT; wire angle: 6°; sounding: 2000 fms; depth of observation: 389 m; weather: partly cloudy; sea: smooth; wind: 200°, force 3.

| Depth | T     | S     | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 17.19 | 33.06 | 24.00                 |               | .000       | 5.62           |
| 10    | 16.78 | 33.06 | 24.10                 |               | .039       | 5.74           |
| 20    | 16.67 | 33.06 | 24.12                 |               | .077       | 5.60           |
| 30    | 16.58 | 33.02 | 24.11                 |               | .115       | 5.90           |
| 50    | 10.70 | 33.08 | 25.36                 |               | .180       | 5.62           |
| 75    | 8.86  | 33.40 | 25.91                 |               | .239       | 4.40           |
| 100   | 8.32  | 33.66 | 26.20                 |               | .289       | 3.71           |
| 150   | 7.53  | 33.91 | 26.51                 |               | .374       | 2.95           |
| 200   | 7.29  | 34.05 | 26.65                 |               | .448       | 2.23           |
| 250   | 6.67  | 34.04 | 26.73                 |               | .518       | 2.03           |
| 300   | 6.08  | 34.06 | 26.82                 |               | .584       | 1.76           |

## STATION 60.100 (Interpolated Values at Standard Depths)

CREST: 36°27' 126°30'; October 18, 1952; 1939 GCT; wire angle: 8°; sounding: 2000 fms; depth of observation: 1140 m; weather: partly cloudy; sea: smooth; wind: 190°, force 3.

|      |       |         |         |  |         |      |
|------|-------|---------|---------|--|---------|------|
| 0    | 17.27 | 32.83   | 23.81   |  | .000    | 5.31 |
| 10   | 17.17 | 32.84   | 23.84   |  | .041    | 5.42 |
| 20   | 16.87 | 32.87   | 23.93   |  | .081    | 5.60 |
| 30   | 15.91 | 32.90   | 24.18   |  | .120    | 5.82 |
| 50   | 13.81 | 32.81   | 24.56   |  | .192    | 6.13 |
| 75   | 10.35 | 32.84   | 25.23   |  | .269    | 5.81 |
| 100  | 9.12  | 32.97   | 25.53   |  | .334    | 5.55 |
| 150  | 8.19  | 33.55   | 26.13   |  | .444    | 4.31 |
| 200  | 7.55  | 33.88   | 26.48   |  | .532    | 3.82 |
| 250  | 7.02  | 33.98   | 26.63   |  | .608    | 3.11 |
| 300  | 6.50  | 34.01   | 26.73   |  | .678    | 2.39 |
| 400  | 5.69  | 34.11   | 26.91   |  | .807    | 1.20 |
| 500  | 5.05  | 34.16   | 27.03   |  | .922    | 0.83 |
| 600  | 4.68  | 34.31   | 27.19   |  | 1.024   | 0.53 |
| 700  | 4.34  | 34.36   | 27.26   |  | 1.116   | 0.73 |
| 800  | 4.08  | 34.40   | 27.32   |  | 1.202   | 0.82 |
| 1000 | 3.62  | (34.50) | (27.45) |  | (1.357) | -    |



## STATION 60.110 (Interpolated Values at Standard Depths)

CREST: 36°12' 127°07'; October 18, 1952; 1539 GCT; wire angle: 5°; sounding: 2000 fms; depth of observation: 579 m; weather: partly cloudy; sea: smooth; wind: 200°, force 3.

| Depth | T      | S       | $\sigma_t$            | $10^5 \sigma_s$ | $\Delta D$ | O <sub>2</sub> |
|-------|--------|---------|-----------------------|-----------------|------------|----------------|
| (m)   | (°C)   | (‰)     | (mg/cm <sup>3</sup> ) |                 | (dyn.m.)   | (ml/L)         |
| 0     | 17.49  | 32.92   | 23.83                 |                 | .000       | 5.69           |
| 10    | 17.51  | 32.97   | 23.86                 |                 | .041       | 5.42           |
| 20    | 17.34  | 32.97   | 23.90                 |                 | .081       | 6.08           |
| 30    | 17.32  | 32.97   | 23.90                 |                 | .121       | 5.44           |
| 50    | 13.22  | 32.86   | 24.71                 |                 | .194       | 6.47           |
| 75    | 10.80  | 32.90   | 25.20                 |                 | .270       | 6.30           |
| 100   | 9.34   | 33.07   | 25.58                 |                 | .335       | 5.01           |
| 150   | 8.62   | 33.52   | 26.04                 |                 | .446       | 3.90           |
| 200   | 8.09   | 33.89   | 26.41                 |                 | .538       | 3.29           |
| 250   | 7.47   | 33.99   | 26.58                 |                 | .617       | 2.88           |
| 300   | 6.81   | 34.01   | 26.69                 |                 | .690       | 2.54           |
| 400   | 5.97   | 34.11   | 26.88                 |                 | .822       | 1.15           |
| 500   | 5.36   | 34.20   | 27.02                 |                 | .939       | 0.71           |
| 600   | (4.82) | (34.22) | (27.10)               |                 | (1.046)    | -              |

## STATION 63.52 (Interpolated Values at Standard Depths)

CREST: 37°19' 122°36'; October 20, 1952; 0150 GCT; wire angle: 14°; sounding: 40 fms; depth of observation: 48 m; weather: overcast; sea: moderate; wind: 350°, force 5.

|    |       |       |       |      |      |
|----|-------|-------|-------|------|------|
| 0  | 13.28 | 33.21 | 24.97 | .000 | 6.15 |
| 10 | 13.17 | 33.17 | 24.96 | .030 | 6.18 |
| 20 | 13.03 | 33.22 | 25.03 | .060 | 6.14 |



## STATION 63.55 (Interpolated Values at Standard Depths)

CREST: 37°14' 122°50'; October 20, 1952; 0250 GCT; wire angle: 8°; sounding: 155 fms; depth of observation: 153 m; weather: fog; sea: slight; wind: 340°, force 4.

| Depth | T     | S     | $\sigma_t$            | $10^5 \sigma$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 14.23 | 33.06 | 24.66                 |               | .000       | 5.90           |
| 10    | 14.20 | 33.12 | 24.71                 |               | .033       | 6.13           |
| 20    | 11.30 | 33.13 | 25.29                 |               | .062       | 5.89           |
| 30    | 10.58 | 33.14 | 25.42                 |               | .089       | 5.50           |
| 50    | 10.01 | 33.29 | 25.64                 |               | .138       | 4.84           |
| 75    | 9.65  | 33.49 | 25.85                 |               | .195       | 4.33           |
| 100   | 9.49  | 33.63 | 25.99                 |               | .248       | 3.51           |
| 150   | 8.30  | 33.85 | 26.35                 |               | .341       | 2.76           |

## STATION 67.55 (Interpolated Values at Standard Depths)

CREST: 36°39' 122°26'; October 20, 1952; 0709 GCT; wire angle: 7°; sounding: 1150 fms; depth of observation: 581 m; weather: fog; sea: smooth; wind: 340°, force 5.

|     |       |       |       |      |      |
|-----|-------|-------|-------|------|------|
| 0   | 14.36 | 33.10 | 24.67 | .000 | 5.97 |
| 10  | 14.36 | 33.12 | 24.68 | .033 | 5.91 |
| 20  | 14.24 | 33.08 | 24.68 | .066 | 6.03 |
| 30  | 13.20 | 33.10 | 24.90 | .097 | 5.97 |
| 50  | 11.15 | 33.37 | 25.50 | .153 | 5.01 |
| 75  | 9.89  | 33.45 | 25.78 | .212 | 4.32 |
| 100 | 9.50  | 33.75 | 26.08 | .265 | 3.00 |
| 150 | 8.94  | 33.95 | 26.33 | .357 | 2.12 |
| 200 | 8.64  | 34.06 | 26.46 | .441 | 1.81 |
| 250 | 8.34  | 34.14 | 26.57 | .519 | 1.50 |
| 300 | 7.82  | 34.14 | 26.65 | .593 | 1.46 |
| 400 | 6.81  | 34.18 | 26.82 | .731 | 0.95 |
| 500 | 5.60  | 34.15 | 26.95 | .854 | 0.99 |



## STATION 67.65 (Interpolated Values at Standard Depths)

CREST: 36°19' 123°09'; October 20, 1952; 1154 GGT; wire angle: 10°; sounding: 1750 fms; depth of observation: 630 m; weather: cloudy; sea: smooth; wind: 330°, force 5.

| Depth | T     | S     | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 14.43 | 33.19 | 24.72                 |               | .000       | 6.08           |
| 10    | 14.48 | 33.21 | 24.73                 |               | .032       | 6.08           |
| 20    | 14.27 | 33.31 | 24.85                 |               | .064       | 6.03           |
| 30    | 12.74 | 33.35 | 25.19                 |               | .094       | 5.89           |
| 50    | 11.05 | 33.46 | 25.59                 |               | .146       | 4.64           |
| 75    | 9.54  | 33.54 | 25.91                 |               | .202       | 3.50           |
| 100   | 8.84  | 33.71 | 26.15                 |               | .252       | 3.09           |
| 150   | 8.26  | 33.94 | 26.42                 |               | .341       | 2.60           |
| 200   | 7.90  | 34.02 | 26.54                 |               | .420       | 2.27           |
| 250   | 7.82  | 34.15 | 26.65                 |               | .494       | 1.65           |
| 300   | 7.34  | 34.20 | 26.76                 |               | .564       | 1.19           |
| 400   | 6.35  | 34.24 | 26.93                 |               | .690       | 0.80           |
| 500   | 5.70  | 34.28 | 27.04                 |               | .804       | 0.59           |
| 600   | 5.10  | 34.34 | 27.16                 |               | .908       | 0.42           |

## STATION 70.60 (Interpolated Values at Standard Depths)

CREST: 35°52' 122°23'; October 21, 1952; 0552 GGT; wire angle: 26°; sounding: not taken; depth of observation: 1093 m; weather: overcast; sea: slight; wind: 330°, force 5.

|      |       |       |       |  |       |      |
|------|-------|-------|-------|--|-------|------|
| 0    | 13.62 | 33.27 | 24.95 |  | .000  | 6.09 |
| 10   | 13.51 | 33.27 | 24.97 |  | .030  | 6.01 |
| 20   | 13.31 | 33.30 | 25.04 |  | .060  | 6.00 |
| 30   | 13.10 | 33.29 | 25.07 |  | .089  | 5.93 |
| 50   | 11.60 | 33.26 | 25.33 |  | .145  | 4.50 |
| 75   | 10.10 | 33.57 | 25.84 |  | .205  | 3.68 |
| 100  | 9.30  | 33.72 | 26.09 |  | .257  | 3.56 |
| 150  | 8.61  | 34.00 | 26.42 |  | .347  | 2.20 |
| 200  | 8.00  | 34.08 | 26.57 |  | .426  | 1.99 |
| 250  | 7.64  | 34.13 | 26.66 |  | .499  | 1.60 |
| 300  | 6.99  | 34.16 | 26.78 |  | .568  | 1.31 |
| 400  | 5.87  | 34.14 | 26.91 |  | .694  | 0.98 |
| 500  | 5.20  | 34.23 | 27.06 |  | .807  | 0.54 |
| 600  | 4.94  | 34.31 | 27.16 |  | .909  | 0.45 |
| 700  | 4.69  | 34.39 | 27.25 |  | 1.004 | 0.35 |
| 800  | 4.36  | 34.46 | 27.34 |  | 1.090 | 0.40 |
| 1000 | 3.81  | 34.53 | 27.45 |  | 1.245 | 0.55 |



## STATION 70.70 (Interpolated Values at Standard Depths)

CREST: 35°33'123°06'; October 21, 1952; 0013 GCT; wire angle: 18°; sounding: 2000 fms; depth of observation: 614 m; weather: partly cloudy; sea: slight; wind: 340°, force 5.

| Depth | T     | S     | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 16.67 | 32.97 | 24.06                 |               | .000       | 5.28           |
| 10    | 16.64 | 32.97 | 24.06                 |               | .039       | 5.26           |
| 20    | 14.05 | 32.83 | 24.52                 |               | .075       | 5.45           |
| 30    | 12.90 | 32.98 | 24.87                 |               | .108       | 3.77           |
| 50    | 10.81 | 32.90 | 25.20                 |               | .167       | 4.67           |
| 75    | 10.31 | 33.50 | 25.75                 |               | .230       | 3.93           |
| 100   | 9.56  | 33.72 | 26.05                 |               | .283       | 2.28           |
| 150   | 9.04  | 33.97 | 26.33                 |               | .376       | 2.04           |
| 200   | 8.70  | 34.15 | 26.52                 |               | .458       | 1.69           |
| 250   | 8.30  | 34.24 | 26.65                 |               | .533       | 1.36           |
| 300   | 7.64  | 34.20 | 26.72                 |               | .604       | 1.49           |
| 400   | 6.89  | 34.29 | 26.90                 |               | .734       | 0.77           |
| 500   | 5.68  | 34.23 | 27.01                 |               | .852       | 0.61           |
| 600   | 5.24  | 34.32 | 27.13                 |               | .959       | 0.34           |

## STATION 70.80 (Interpolated Values at Standard Depths)

CREST: 35°17' 123°46'; October 20, 1952; 1911 GCT; wire angle: 20°; sounding: 2000 fms; depth of observation: 1072 m; weather: partly cloudy; sea: moderate; wind: 340°, force 4.

|      |       |       |       |  |       |      |
|------|-------|-------|-------|--|-------|------|
| 0    | 16.47 | 33.04 | 24.16 |  | .000  | 5.60 |
| 10   | 16.30 | 33.01 | 24.17 |  | .038  | 5.67 |
| 20   | 15.80 | 33.26 | 24.48 |  | .074  | 5.82 |
| 30   | 15.13 | 33.17 | 24.55 |  | .108  | 5.98 |
| 50   | 11.70 | 33.08 | 25.18 |  | .170  | 5.98 |
| 75   | 10.38 | 33.30 | 25.58 |  | .236  | 4.92 |
| 100  | 9.82  | 33.57 | 25.89 |  | .293  | 4.00 |
| 150  | 8.42  | 33.88 | 26.35 |  | .389  | 2.63 |
| 200  | 7.90  | 34.01 | 26.53 |  | .470  | 2.36 |
| 250  | 7.36  | 34.11 | 26.69 |  | .544  | 1.92 |
| 300  | 6.79  | 34.11 | 26.77 |  | .612  | 1.60 |
| 400  | 6.01  | 34.18 | 26.93 |  | .738  | 1.00 |
| 500  | 5.76  | 34.30 | 27.05 |  | .852  | 0.49 |
| 600  | 5.30  | 34.39 | 27.18 |  | .954  | 0.42 |
| 700  | 4.85  | 34.42 | 27.25 |  | 1.048 | 0.41 |
| 800  | 4.50  | 34.45 | 27.32 |  | 1.135 | 0.42 |
| 1000 | 3.90  | 34.51 | 27.43 |  | 1.295 | 0.60 |



## STATION 73.50 (Interpolated Values at Standard Depths)

CREST: 35°36' 121°18'; October 21, 1952; 1613 GCT; wire angle: 0°; sounding: 60 fms; depth of observation: 75 m; weather: overcast; sea: moderate; wind: 230°, force 2.

| Depth | T     | S     | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 12.14 | 33.33 | 25.29                 |               | .000       | 5.31           |
| 10    | 12.14 | 33.38 | 25.33                 |               | .027       | 5.23           |
| 20    | 11.98 | 33.40 | 25.37                 |               | .053       | 5.08           |
| 30    | 11.96 | 33.40 | 25.38                 |               | .079       | 5.04           |
| 50    | 10.92 | 33.55 | 25.68                 |               | .129       | 3.89           |
| 75    | 10.42 | 33.64 | 25.84                 |               | .185       | 3.31           |

## STATION 73.60 (Interpolated Values at Standard Depths)

CREST: 35°18' 121°58'; October 21, 1952; 1042, 1053 GCT; wire angle: 20°, 20°; sounding: 1000 fms; depth of observation: 574 m; weather: overcast; sea: slight; wind: 340°, force 5.

|     |       |       |       |  |      |      |
|-----|-------|-------|-------|--|------|------|
| 0   | 14.26 | 33.31 | 24.85 |  | .000 | 5.77 |
| 10  | 14.25 | 33.33 | 24.87 |  | .031 | 6.00 |
| 20  | 14.10 | 33.30 | 24.87 |  | .062 | 5.56 |
| 30  | 13.67 | 33.31 | 24.97 |  | .092 | 5.56 |
| 50  | 11.50 | 33.34 | 25.41 |  | .148 | 5.47 |
| 75  | 10.05 | 33.55 | 25.83 |  | .208 | 3.90 |
| 100 | 9.15  | 33.72 | 26.11 |  | .259 | 3.03 |
| 150 | 8.19  | 33.90 | 26.40 |  | .349 | 2.63 |
| 200 | 7.45  | 33.97 | 26.57 |  | .428 | 2.80 |
| 250 | 7.20  | 34.04 | 26.66 |  | .502 | 2.07 |
| 300 | 6.89  | 34.16 | 26.79 |  | .570 | 1.47 |
| 400 | 6.25  | 34.24 | 26.94 |  | .694 | 0.88 |
| 500 | 5.83  | 34.33 | 27.07 |  | .807 | 0.49 |



## STATION 77.55 (Interpolated Values at Standard Depths)

CREST: 37°52' 121°13'; October 21, 1952; 2038 GCT; wire angle: 10°; sounding: 200 fms; depth of observation: 288 m; weather: overcast; sea: slight; wind: 330°, force 4.

| Depth | T     | S     | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 13.99 | 33.27 | 24.87                 |               | .000       | 5.68           |
| 10    | 13.58 | 33.30 | 24.98                 |               | .030       | 5.78           |
| 20    | 13.40 | 33.30 | 25.02                 |               | .060       | 5.78           |
| 30    | 13.10 | 33.30 | 25.08                 |               | .089       | 5.72           |
| 50    | 11.81 | 33.33 | 25.35                 |               | .145       | 5.28           |
| 75    | 9.90  | 33.35 | 25.70                 |               | .207       | 4.36           |
| 100   | 9.14  | 33.35 | 25.83                 |               | .263       | 4.24           |
| 150   | 8.95  | 33.66 | 26.10                 |               | .367       | 3.35           |
| 200   | 8.70  | 34.00 | 26.40                 |               | .457       | 2.11           |
| 250   | 8.00  | 34.10 | 26.59                 |               | .537       | 1.83           |

## STATION 77.65 (Interpolated Values at Standard Depths)

CREST: 34°34' 121°55'; October 22, 1952; 0124 GCT; wire angle: 15°; sounding: not taken; depth of observation: 579 m; weather: overcast; sea: slight; wind: 350°, force 4.

|     |       |       |       |  |      |      |
|-----|-------|-------|-------|--|------|------|
| 0   | 15.78 | 33.09 | 24.35 |  | .000 | 5.68 |
| 10  | 15.78 | 33.09 | 24.35 |  | .036 | 5.76 |
| 20  | 15.69 | 33.12 | 24.39 |  | .072 | 5.75 |
| 30  | 14.80 | 33.01 | 24.50 |  | .107 | 6.23 |
| 50  | 10.78 | 32.97 | 25.26 |  | .168 | 5.64 |
| 75  | 9.45  | 33.31 | 25.75 |  | .231 | 4.35 |
| 100 | 9.16  | 33.59 | 26.01 |  | .285 | 3.58 |
| 150 | 8.33  | 33.81 | 26.31 |  | .379 | 3.59 |
| 200 | 7.97  | 33.95 | 26.48 |  | .462 | 2.53 |
| 250 | 7.56  | 34.04 | 26.61 |  | .539 | 2.35 |
| 300 | 7.15  | 34.11 | 26.72 |  | .611 | 1.41 |
| 400 | 6.21  | 34.13 | 26.86 |  | .743 | 1.18 |
| 500 | 5.65  | 34.19 | 26.98 |  | .863 | 0.58 |



## STATION 80.51 (Interpolated Values at Standard Depths)

CREST: 34°26' 120°32'; October 15, 1952; 2107 GCT; wire angle: 15°; sounding: 50 fms; depth of observation: 72 m; weather: cloudy; sea: moderate; wind: 340°, force 6.

| Depth | T       | S       | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|---------|---------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)    | (‰)     | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 13.84   | 33.39   | 25.00                 | 296.9         | .000       | 5.77           |
| 10    | 12.90   | 33.35   | 25.16                 | 282.1         | .029       | 5.52           |
| 20    | 11.07   | 33.39   | 25.53                 | 246.6         | .055       | 4.42           |
| 30    | 10.81   | 33.45   | 25.62                 | 238.0         | .080       | 4.11           |
| 50    | 10.45   | 33.53   | 25.75                 | 226.5         | .126       | 3.75           |
| 75    | (10.08) | (33.62) | (25.83)               | (214.3)       | (.181)     | (3.25)         |

## STATION 80.55 (Interpolated Values at Standard Depths)

CREST: 34°19' 120°48'; October 15, 1952; 2331 GCT; wire angle: 14°; sounding: 400 fms; depth of observation: 568 m; weather: overcast; sea: rough; wind: 330°, force 5.

|     |       |       |       |       |      |      |
|-----|-------|-------|-------|-------|------|------|
| 0   | 12.94 | 33.42 | 25.20 | 277.4 | .000 | 5.47 |
| 10  | 12.70 | 33.46 | 25.28 | 270.3 | .027 | 5.63 |
| 20  | 12.53 | 33.42 | 25.28 | 270.3 | .054 | 5.63 |
| 30  | 12.53 | 33.42 | 25.28 | 270.6 | .081 | 5.35 |
| 50  | 10.40 | 33.12 | 25.44 | 256.0 | .134 | 5.10 |
| 75  | 9.35  | 33.56 | 25.96 | 207.2 | .192 | 3.85 |
| 100 | 9.08  | 33.77 | 26.16 | 187.9 | .241 | 3.20 |
| 150 | 9.04  | 34.09 | 26.42 | 164.6 | .329 | 2.14 |
| 200 | 8.19  | 34.09 | 26.55 | 152.7 | .409 | 2.14 |
| 250 | 7.87  | 34.17 | 26.66 | 143.0 | .483 | 1.55 |
| 300 | 7.75  | 34.23 | 26.73 | 137.6 | .553 | 1.06 |
| 400 | 6.23  | 34.18 | 26.90 | 121.9 | .682 | 1.04 |
| 500 | 5.97  | 34.27 | 27.00 | 113.2 | .800 | 0.58 |



## STATION 80.60 (Interpolated Values at Standard Depths)

CREST: 34°09' 121°09'; October 16, 1952; 0236 GCT; wire angle: 28°; sounding: 1200 fms; depth of observation: 1080 m; weather: cloudy; sea: moderate; wind: 330°, force 5.

| Depth | T     | S     | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 14.13 | 33.24 | 24.82                 | 313.6         | .000       | 5.86           |
| 10    | 14.12 | 33.22 | 24.81                 | 315.2         | .031       | 5.87           |
| 20    | 14.10 | 33.22 | 24.81                 | 315.0         | .063       | 5.87           |
| 30    | 13.92 | 33.24 | 24.87                 | 310.3         | .094       | 5.80           |
| 50    | 10.89 | 33.58 | 25.71                 | 230.2         | .148       | 4.14           |
| 75    | 9.90  | 33.74 | 26.01                 | 202.5         | .202       | 3.25           |
| 100   | 9.26  | 34.00 | 26.31                 | 173.7         | .249       | 2.45           |
| 150   | 8.97  | 34.19 | 26.51                 | 156.1         | .332       | 1.96           |
| 200   | 8.72  | 34.24 | 26.59                 | 149.5         | .408       | 1.70           |
| 250   | 8.60  | 34.26 | 26.62                 | 147.1         | .482       | 1.43           |
| 300   | 8.32  | 34.29 | 26.69                 | 141.6         | .554       | 1.18           |
| 400   | 7.92  | 34.32 | 26.77                 | 135.2         | .693       | 0.88           |
| 500   | 7.33  | 34.30 | 26.84                 | 129.6         | .825       | 0.74           |
| 600   | 6.37  | 34.38 | 27.04                 | 111.7         | .946       | 0.61           |
| 700   | 5.48  | 34.52 | 27.26                 | 90.8          | 1.047      | 0.39           |
| 800   | 4.87  | 34.48 | 27.30                 | 87.1          | 1.136      | 0.41           |
| 1000  | 4.02  | 34.48 | 27.39                 | 78.6          | 1.301      | 0.53           |

## STATION 80.70 (Interpolated Values at Standard Depths)

CREST: 33°49' 121°51'; October 16, 1952; 0802 GCT; wire angle: 17°; sounding: 2000 fms; depth of observation: 580 m; weather: overcast; sea: moderate; wind: 330°, force 5.

|     |        |         |         |         |        |      |
|-----|--------|---------|---------|---------|--------|------|
| 0   | 15.95  | 33.12   | 24.34   | 360.0   | .000   | 5.31 |
| 10  | 15.90  | 33.12   | 24.35   | 359.2   | .036   | 5.35 |
| 20  | 15.79  | 33.12   | 24.37   | 357.2   | .072   | 5.46 |
| 30  | 15.64  | 33.13   | 24.41   | 353.5   | .107   | 5.51 |
| 50  | 12.20  | 32.90   | 24.94   | 303.2   | .173   | 6.00 |
| 75  | 10.40  | 32.87   | 25.24   | 275.0   | .245   | 5.65 |
| 100 | 9.42   | 33.30   | 25.74   | 228.0   | .308   | 4.45 |
| 150 | 9.40   | 34.08   | 26.35   | 170.9   | .408   | 1.91 |
| 200 | 8.94   | 34.21   | 26.53   | 155.1   | .489   | 1.71 |
| 250 | 8.28   | 34.21   | 26.63   | 146.0   | .565   | 1.49 |
| 300 | 7.42   | 34.15   | 26.71   | 138.8   | .636   | 1.50 |
| 400 | 6.38   | 34.19   | 26.89   | 123.1   | .767   | 0.95 |
| 500 | 5.82   | 34.26   | 27.01   | 112.0   | .884   | 0.51 |
| 600 | (5.62) | (34.38) | (27.13) | (101.8) | (.991) | -    |



## STATION 80.80 (Interpolated Values at Standard Depths)

CREST: 33°29' 122°33'; October 16, 1952; 1322 GCT; wire angle: 18°; sounding: 2000 fms; depth of observation: 1081 m; weather: cloudy; sea: moderate; wind: 330°, force 5.

| Depth | T     | S     | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 17.52 | 33.15 | 23.99                 |               | .000       | 5.41           |
| 10    | 17.52 | 33.13 | 23.98                 |               | .039       | 5.36           |
| 20    | 17.52 | 33.12 | 23.97                 |               | .079       | 5.39           |
| 30    | 17.53 | 33.11 | 23.96                 |               | .118       | 5.46           |
| 50    | 15.48 | 32.94 | 24.30                 |               | .195       | 5.90           |
| 75    | 13.12 | 33.04 | 24.87                 |               | .279       | 6.03           |
| 100   | 11.43 | 32.99 | 25.16                 |               | .353       | 5.74           |
| 150   | 9.31  | 33.35 | 25.80                 |               | .480       | 4.46           |
| 200   | 8.43  | 33.92 | 26.38                 |               | .578       | 3.20           |
| 250   | 7.54  | 34.01 | 26.58                 |               | .658       | 3.06           |
| 300   | 7.10  | 34.06 | 26.69                 |               | .731       | 2.24           |
| 400   | 6.55  | 34.21 | 26.88                 |               | .863       | 1.00           |
| 500   | 5.88  | 34.26 | 27.00                 |               | .981       | 0.56           |
| 600   | 5.36  | 34.36 | 27.15                 |               | 1.088      | 0.39           |
| 700   | 4.95  | 34.39 | 27.22                 |               | 1.184      | 0.31           |
| 800   | 4.56  | 34.43 | 27.30                 |               | 1.275      | 0.32           |
| 1000  | 3.90  | 34.51 | 27.43                 |               | 1.436      | 0.55           |

## STATION 80.90 (Interpolated Values at Standard Depths)

CREST: 33°09' 123°13'; October 16, 1952; 1845 GCT; wire angle: 10°; sounding: 2150 fms; depth of observation: 571 m; weather: partly cloudy; sea: slight; wind: 350°, force 4.

|     |       |       |       |  |      |      |
|-----|-------|-------|-------|--|------|------|
| 0   | 17.90 | 33.19 | 23.93 |  | .000 | 5.68 |
| 10  | 17.87 | 33.19 | 23.94 |  | .040 | 5.53 |
| 20  | 17.88 | 33.19 | 23.94 |  | .080 | 5.71 |
| 30  | 17.91 | 33.18 | 23.92 |  | .120 | 5.74 |
| 50  | 16.70 | 33.04 | 24.10 |  | .198 | 6.00 |
| 75  | 12.37 | 32.90 | 24.91 |  | .284 | 6.18 |
| 100 | 10.98 | 32.96 | 25.21 |  | .357 | 6.15 |
| 150 | 9.31  | 33.40 | 25.84 |  | .482 | 4.50 |
| 200 | 8.62  | 33.81 | 26.27 |  | .582 | 3.06 |
| 250 | 7.93  | 34.02 | 26.54 |  | .666 | 2.47 |
| 300 | 7.44  | 34.12 | 26.69 |  | .740 | 1.85 |
| 400 | 6.48  | 34.15 | 26.84 |  | .874 | 1.08 |
| 500 | 5.71  | 34.25 | 27.02 |  | .993 | 0.60 |



## STATION 80.100 (Interpolated Values at Standard Depths)

CREST: 32°48' 123°54'; October 16, 1952; 2352 GGT; wire angle: 4°; sounding: 2000 fms; depth of observation: 1162 m; weather: partly cloudy; sea: slight; wind: 300°, force 3.

| Depth | T     | S     | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 18.35 | 33.30 | 23.91                 |               | .000       | 5.30           |
| 10    | 18.22 | 33.31 | 23.95                 |               | .040       | 5.31           |
| 20    | 18.20 | 33.30 | 23.94                 |               | .080       | 5.32           |
| 30    | 18.18 | 33.30 | 23.95                 |               | .119       | 5.45           |
| 50    | 15.68 | 33.31 | 24.54                 |               | .193       | 6.01           |
| 75    | 13.99 | 33.33 | 24.92                 |               | .274       | 6.01           |
| 100   | 13.05 | 33.33 | 25.11                 |               | .349       | 5.74           |
| 150   | 10.22 | 33.24 | 25.56                 |               | .482       | 5.22           |
| 200   | 8.72  | 33.62 | 26.10                 |               | .593       | 4.17           |
| 250   | 7.94  | 33.97 | 26.50                 |               | .681       | 3.29           |
| 300   | 7.33  | 34.05 | 26.65                 |               | .757       | 2.87           |
| 400   | 6.29  | 34.08 | 26.81                 |               | .895       | 1.73           |
| 500   | 5.58  | 34.19 | 26.99                 |               | 1.017      | 0.92           |
| 600   | 5.08  | 34.31 | 27.14                 |               | 1.124      | 0.50           |
| 700   | 4.69  | 34.38 | 27.24                 |               | 1.219      | 0.39           |
| 800   | 4.33  | 34.43 | 27.32                 |               | 1.307      | 0.38           |
| 1000  | 3.78  | 34.51 | 27.44                 |               | 1.465      | 0.67           |

## STATION 85.38 (Interpolated Values at Standard Depths)

CREST: 34°00' 119°02'; October 15, 1952; 0035 GCT; wire angle: 4°; sounding: 50 fms; depth of observation: 75 m; weather: cloudy; sea: slight; wind: 290°, force 5.

|    |       |       |       |       |      |      |
|----|-------|-------|-------|-------|------|------|
| 0  | 15.73 | 33.36 | 24.57 | 337.8 | .000 | 6.06 |
| 10 | 15.12 | 33.32 | 24.67 | 328.2 | .033 | 6.06 |
| 20 | 13.90 | 33.29 | 24.91 | 306.0 | .065 | 6.58 |
| 30 | 11.97 | 33.20 | 25.22 | 276.6 | .094 | 5.56 |
| 50 | 10.81 | 33.28 | 25.49 | 251.0 | .147 | 4.59 |
| 75 | 10.06 | 33.39 | 25.71 | 231.0 | .207 | 4.18 |



## STATION 85.40 (Interpolated Values at Standard Depths)

CREST: 33°54' 119°10'; October 15, 1952; 0211 GCT; wire angle: 3°; sounding: 410 fms; depth of observation: 381 m; weather: overcast; sea: slight; wind: 310°; force 3.

| Depth | T     | S     | $\sigma_t$            | $10^5 \sigma$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 15.97 | 33.48 | 24.61                 | 334.1         | .000       | 6.00           |
| 10    | 15.68 | 33.44 | 24.64                 | 331.2         | .033       | 5.27           |
| 20    | 14.28 | 33.42 | 24.93                 | 304.0         | .065       | 5.76           |
| 30    | 12.36 | 33.27 | 25.20                 | 278.5         | .094       | 6.00           |
| 50    | 11.02 | 33.30 | 25.47                 | 253.0         | .147       | 4.98           |
| 75    | 10.28 | 33.53 | 25.78                 | 224.2         | .207       | 5.05           |
| 100   | 9.78  | 33.66 | 25.96                 | 207.0         | .261       | 3.49           |
| 150   | 9.29  | 33.99 | 26.30                 | 175.9         | .357       | 2.53           |
| 200   | 8.96  | 34.17 | 26.50                 | 158.4         | .440       | 1.54           |
| 250   | 8.53  | 34.22 | 26.60                 | 149.0         | .517       | 1.38           |
| 300   | 8.05  | 34.25 | 26.70                 | 140.5         | .589       | 1.35           |

## STATION 85.50 (Interpolated Values at Standard Depths)

CREST: 33°40' 119°54'; October 15, 1952; 0654 GCT; wire angle: 0°; sounding: 75 fms; depth of observation: 100 m; weather: overcast; sea: slight; wind: 300°, force 4.

|     |       |       |       |       |      |      |
|-----|-------|-------|-------|-------|------|------|
| 0   | 16.73 | 33.44 | 24.40 | 353.7 | .000 | 5.72 |
| 10  | 16.25 | 33.48 | 24.54 | 340.5 | .035 | 5.65 |
| 20  | 13.17 | 33.39 | 25.13 | 284.5 | .066 | 5.57 |
| 30  | 12.21 | 33.40 | 25.33 | 266.2 | .093 | 5.19 |
| 50  | 10.55 | 33.51 | 25.72 | 229.6 | .143 | 4.16 |
| 75  | 9.53  | 33.75 | 26.07 | 196.7 | .196 | 3.15 |
| 100 | 9.30  | 33.89 | 26.22 | 182.4 | .244 | 2.76 |



## STATION 85.60 (Interpolated Values at Standard Depths)

CREST: 33°18' 120°33'; October 15, 1952; 1208 GCT; wire angle: 20°; sounding: 600 fms; depth of observation: 595 m; weather: overcast; sea: moderate; wind: 320°, force 5.

| Depth | T      | S       | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|--------|---------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)   | (‰)     | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 15.62  | 33.19   | 24.46                 | 347.9         | .000       | 5.77           |
| 10    | 15.62  | 33.24   | 24.50                 | 344.5         | .035       | 5.65           |
| 20    | 15.60  | 33.25   | 24.51                 | 343.6         | .069       | 5.56           |
| 30    | 15.59  | 33.23   | 24.50                 | 345.2         | .103       | 5.55           |
| 50    | 13.10  | 33.17   | 24.98                 | 300.1         | .168       | 6.00           |
| 75    | 10.58  | 33.48   | 25.69                 | 232.9         | .235       | 4.69           |
| 100   | 9.54   | 33.50   | 25.88                 | 215.0         | .291       | 3.80           |
| 150   | 8.55   | 33.84   | 26.30                 | 175.6         | .388       | 3.27           |
| 200   | 7.99   | 33.99   | 26.50                 | 157.2         | .471       | 2.50           |
| 250   | 7.58   | 34.06   | 26.62                 | 147.0         | .547       | 1.93           |
| 300   | 7.12   | 34.12   | 26.73                 | 136.9         | .618       | 1.43           |
| 400   | 6.46   | 34.23   | 26.91                 | 121.2         | .747       | 0.82           |
| 500   | 6.25   | 34.31   | 27.00                 | 113.9         | .865       | 0.44           |
| 600   | (5.47) | (34.36) | (27.13)               | (101.3)       | (.972)     | (0.42)         |

## STATION 90.28 (Interpolated Values at Standard Depths)

CREST: 33°29' 117°47'; October 14, 1952; 1652 GCT; wire angle: 3°; sounding: 100 fms; depth of observation: 100 m; weather: overcast; sea: smooth; wind: 300°; force 2.

|     |       |       |       |       |      |      |
|-----|-------|-------|-------|-------|------|------|
| 0   | 18.16 | 33.40 | 24.03 | 389.1 | .000 | 5.33 |
| 10  | 17.66 | 33.38 | 24.14 | 379.3 | .038 | 5.59 |
| 20  | 16.10 | 33.31 | 24.45 | 350.0 | .075 | 5.87 |
| 30  | 14.60 | 33.26 | 24.74 | 322.4 | .108 | 5.93 |
| 50  | 11.17 | 33.28 | 25.43 | 257.1 | .166 | 5.08 |
| 75  | 9.90  | 33.39 | 25.73 | 228.4 | .227 | 4.33 |
| 100 | 10.16 | 33.62 | 25.87 | 216.1 | .283 | 3.18 |



## STATION 90.30 (Interpolated Values at Standard Depths)

CREST: 33°26' 117°55'; October 14, 1952; 1514 GCT; wire angle: 5°; sounding: 300 fms; depth of observation: 390 m; weather: overcast; sea: smooth; wind: 250°, force 2.

| Depth | T      | S       | $\sigma_t$            | $10^5 \sigma_s$ | $\Delta D$ | O <sub>2</sub> |
|-------|--------|---------|-----------------------|-----------------|------------|----------------|
| (m)   | (°C)   | (‰)     | (mg/cm <sup>3</sup> ) |                 | (dyn.m.)   | (ml/L)         |
| 0     | 18.67  | 33.41   | 23.91                 | 400.4           | .000       | 5.43           |
| 10    | 18.64  | 33.37   | 23.89                 | 403.0           | .040       | 5.40           |
| 20    | 17.40  | 33.28   | 24.12                 | 381.0           | .079       | 5.95           |
| 30    | 14.82  | 33.20   | 24.64                 | 331.3           | .115       | 6.10           |
| 50    | 11.71  | 33.13   | 25.21                 | 277.6           | .176       | 5.58           |
| 75    | 10.59  | 33.46   | 25.67                 | 234.5           | .240       | 3.99           |
| 100   | 10.25  | 33.61   | 25.85                 | 218.3           | .296       | 3.32           |
| 150   | 9.92   | 33.95   | 26.17                 | 188.9           | .398       | 2.48           |
| 200   | 9.64   | 34.15   | 26.37                 | 170.6           | .488       | 1.92           |
| 250   | 9.52   | 34.29   | 26.50                 | 159.4           | .571       | 1.40           |
| 300   | 8.10   | 34.23   | 26.68                 | 142.8           | .646       | 1.29           |
| 400   | (7.13) | (34.34) | (26.90)               | (122.3)         | (.778)     | (0.68)         |

## STATION 90.45 (Interpolated Values at Standard Depths)

CREST: 32°54' 118°56'; October 13, 1952; 2113 GCT; wire angle: 7°; sounding: 800 fms; depth of observation: 627 m; weather: overcast; sea: moderate; wind: 300°, force 4.

|     |       |       |       |       |      |      |
|-----|-------|-------|-------|-------|------|------|
| 0   | 16.91 | 33.42 | 24.34 | 359.1 | .000 | 5.60 |
| 10  | 16.86 | 33.41 | 24.35 | 359.0 | .036 | 5.67 |
| 20  | 15.99 | 33.44 | 24.57 | 338.1 | .071 | 5.92 |
| 30  | 13.70 | 33.44 | 25.06 | 291.3 | .102 | 5.59 |
| 50  | 11.30 | 33.46 | 25.54 | 246.1 | .156 | 4.49 |
| 75  | 9.61  | 33.60 | 25.95 | 208.3 | .213 | 3.58 |
| 100 | 9.03  | 33.81 | 26.20 | 184.2 | .262 | 3.11 |
| 150 | 8.47  | 34.04 | 26.47 | 159.6 | .348 | 2.70 |
| 200 | 8.42  | 34.22 | 26.62 | 146.5 | .424 | 1.65 |
| 250 | 8.11  | 34.29 | 26.72 | 137.6 | .495 | 1.15 |
| 300 | 7.61  | 34.29 | 26.79 | 131.2 | .562 | 0.96 |
| 400 | 6.94  | 34.31 | 26.90 | 121.8 | .689 | 0.54 |
| 500 | 6.32  | 34.33 | 27.00 | 113.4 | .806 | 0.34 |
| 600 | 5.80  | 34.25 | 27.01 | 113.7 | .920 | 0.42 |



## STATION 90.53 (Interpolated Values at Standard Depths)

CREST: 32°38' 119°29'; October 13, 1952; 1630 GCT; wire angle: 36°; sounding: 700 fms; depth of observation: 850 m; weather: cloudy; sea: moderate; wind: 330°, force 5.

| Depth | T     | S     | $\sigma_t$            | $10^5 s$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|----------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |          | (dyn.m.)   | (ml/L)         |
| 0     | 16.23 | 33.37 | 24.46                 | 347.8    | .000       | 5.64           |
| 10    | 16.25 | 33.39 | 24.47                 | 347.1    | .035       | 5.74           |
| 20    | 16.21 | 33.38 | 24.48                 | 347.2    | .069       | 5.69           |
| 30    | 14.80 | 33.29 | 24.72                 | 324.3    | .103       | 5.70           |
| 50    | 12.59 | 33.11 | 25.03                 | 294.9    | .165       | 5.83           |
| 75    | 10.65 | 33.22 | 25.47                 | 253.2    | .233       | 5.00           |
| 100   | 9.67  | 33.49 | 25.85                 | 217.8    | .292       | 4.05           |
| 150   | 8.68  | 33.88 | 26.31                 | 174.6    | .390       | 2.82           |
| 200   | 7.98  | 33.99 | 26.51                 | 157.0    | .473       | 2.60           |
| 250   | 7.79  | 34.11 | 26.63                 | 146.2    | .549       | 1.82           |
| 300   | 7.58  | 34.17 | 26.70                 | 139.6    | .621       | 1.32           |
| 400   | 6.97  | 34.28 | 26.88                 | 124.5    | .753       | 0.90           |
| 500   | 6.18  | 34.34 | 27.03                 | 110.7    | .870       | 0.40           |
| 600   | 5.60  | 34.20 | 26.99                 | 114.8    | .983       | 0.38           |
| 700   | 5.08  | 34.23 | 27.08                 | 107.2    | 1.094      | 0.34           |
| 800   | 4.61  | 34.26 | 27.15                 | 100.2    | 1.197      | 0.41           |

## STATION 90.60 (Interpolated Values at Standard Depths)

CREST: 32°28' 119°51'; October 13, 1952; 1222 GCT; wire angle: 36°; sounding: 750 fms; depth of observation: 509 m; weather: overcast; sea: moderate; wind: 330°, force 4.

|     |       |       |       |       |      |      |
|-----|-------|-------|-------|-------|------|------|
| 0   | 17.05 | 33.19 | 24.14 | 379.0 | .000 | 6.00 |
| 10  | 16.72 | 33.19 | 24.21 | 372.0 | .038 | 5.41 |
| 20  | 16.32 | 33.25 | 24.35 | 359.1 | .074 | 5.75 |
| 30  | 16.18 | 33.26 | 24.39 | 355.6 | .110 | 5.05 |
| 50  | 14.70 | 33.14 | 24.62 | 333.8 | .179 | 6.00 |
| 75  | 11.40 | 33.17 | 25.30 | 269.7 | .254 | 5.20 |
| 100 | 9.96  | 33.32 | 25.67 | 235.0 | .317 | 4.60 |
| 150 | 8.75  | 33.79 | 26.23 | 182.3 | .422 | 3.20 |
| 200 | 8.07  | 33.98 | 26.48 | 159.1 | .507 | 3.21 |
| 250 | 7.62  | 34.05 | 26.60 | 148.3 | .584 | 2.20 |
| 300 | 7.28  | 34.18 | 26.76 | 134.6 | .654 | 1.42 |
| 400 | 6.29  | 34.18 | 26.89 | 122.7 | .783 | 0.83 |
| 500 | 5.79  | 34.23 | 26.99 | 113.8 | .901 | 0.55 |



## STATION 90.70 (Interpolated Values at Standard Depths)

CREST: 32°04' 120°40'; October 13, 1952; 0613 GCT; wire  
 angle: 30°; sounding: 2000 fms; depth of observation: 1181 m;  
 weather: overcast; sea: moderate; wind: 340°, force 5.

| Depth | T     | S     | $\sigma_t$            | $10^5 \sigma_s$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|-----------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |                 | (dyn.m.)   | (ml/L)         |
| 0     | 17.41 | 33.22 | 24.07                 | 385.0           | .000       | 5.69           |
| 10    | 17.40 | 33.21 | 24.07                 | 385.8           | .039       | 5.64           |
| 20    | 17.40 | 33.20 | 24.06                 | 386.8           | .077       | 5.56           |
| 30    | 17.38 | 33.17 | 24.04                 | 388.8           | .116       | 5.70           |
| 50    | 14.28 | 33.07 | 24.66                 | 330.4           | .188       | 6.34           |
| 75    | 11.81 | 33.10 | 25.17                 | 282.1           | .264       | 5.52           |
| 100   | 10.22 | 33.29 | 25.60                 | 241.5           | .330       | 4.80           |
| 150   | 9.00  | 33.72 | 26.14                 | 191.3           | .438       | 3.43           |
| 200   | 8.39  | 34.02 | 26.47                 | 160.8           | .526       | 2.69           |
| 250   | 8.01  | 34.15 | 26.63                 | 146.5           | .603       | 1.85           |
| 300   | 7.65  | 34.25 | 26.76                 | 134.7           | .673       | 1.42           |
| 400   | 6.77  | 34.29 | 26.91                 | 121.0           | .801       | 0.88           |
| 500   | 6.02  | 34.35 | 27.06                 | 107.9           | .915       | 0.61           |
| 600   | 5.46  | 34.39 | 27.16                 | 99.0            | 1.019      | 0.41           |
| 700   | 4.83  | 34.41 | 27.25                 | 90.7            | 1.113      | 0.49           |
| 800   | 4.48  | 34.44 | 27.31                 | 85.2            | 1.201      | 0.56           |
| 1000  | 3.98  | 34.54 | 27.44                 | 73.7            | 1.360      | 0.72           |

## STATION 93.27 (Interpolated Values at Standard Depths)

CREST: 32°55' 117°21'; October 12, 1952; 0625 GCT; wire  
 angle: 20°; sounding: 200 fms; depth of observation: 280 m;  
 weather: overcast; sea: smooth; wind: 320°, force 2.

|     |       |       |       |       |      |      |
|-----|-------|-------|-------|-------|------|------|
| 0   | 18.30 | 33.40 | 24.00 | 392.4 | .000 | 5.64 |
| 10  | 18.13 | 33.39 | 24.03 | 389.5 | .039 | 5.83 |
| 20  | 16.48 | 33.30 | 24.35 | 359.0 | .077 | 6.50 |
| 30  | 13.55 | 33.17 | 24.89 | 308.2 | .110 | 6.67 |
| 50  | 11.14 | 33.15 | 25.33 | 266.2 | .167 | 5.95 |
| 75  | 10.18 | 33.44 | 25.73 | 229.2 | .229 | 4.28 |
| 100 | 9.83  | 33.67 | 25.96 | 207.1 | .284 | 3.85 |
| 150 | 8.91  | 33.87 | 26.27 | 178.8 | .380 | 3.48 |
| 200 | 8.32  | 33.96 | 26.43 | 164.2 | .466 | 3.04 |
| 250 | 8.12  | 34.15 | 26.61 | 148.1 | .544 | 1.98 |



## STATION 93.30 (Interpolated Values at Standard Depths)

CREST: 32°50' 117°32'; October 12, 1952; 0911 GCT; wire angle: 20°; sounding: 510 fms; depth of observation: 517 m; weather: cloudy; sea: smooth; wind: 360°, force 2.

| Depth | T     | S     | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 19.00 | 33.35 | 23.78                 | 412.7         | .000       | 5.41           |
| 10    | 19.00 | 33.35 | 23.78                 | 413.0         | .041       | 5.15           |
| 20    | 18.90 | 33.33 | 23.79                 | 412.4         | .083       | 5.80           |
| 30    | 14.85 | 33.22 | 24.65                 | 330.5         | .120       | 5.90           |
| 50    | 12.22 | 33.22 | 25.19                 | 280.1         | .181       | 5.78           |
| 75    | 11.08 | 33.43 | 25.56                 | 245.0         | .246       | 4.30           |
| 100   | 9.96  | 33.55 | 25.85                 | 218.0         | .304       | 3.80           |
| 150   | 9.83  | 34.04 | 26.25                 | 180.8         | .404       | 2.02           |
| 200   | 8.92  | 34.13 | 26.47                 | 160.7         | .489       | 2.38           |
| 250   | 8.61  | 34.20 | 26.57                 | 151.7         | .567       | 1.80           |
| 300   | 8.25  | 34.30 | 26.71                 | 139.8         | .640       | 1.10           |
| 400   | 7.12  | 34.33 | 26.90                 | 122.9         | .772       | 0.75           |
| 500   | 6.35  | 34.35 | 27.02                 | 112.3         | .889       | 0.59           |

## STATION 93.40 (Interpolated Values at Standard Depths)

CREST: 32°30' 118°12'; October 12, 1952; 1427 GCT; wire angle: 2°; sounding: 800 fms; depth of observation: 630 m; weather: cloudy; sea: smooth; wind: 220°, force 4.

|     |       |       |       |       |      |      |
|-----|-------|-------|-------|-------|------|------|
| 0   | 18.61 | 33.39 | 23.91 | 400.5 | .000 | 5.51 |
| 10  | 18.60 | 33.40 | 23.92 | 399.8 | .040 | 5.42 |
| 20  | 17.18 | 33.40 | 24.27 | 367.2 | .078 | 5.91 |
| 30  | 15.12 | 33.30 | 24.66 | 330.2 | .113 | 6.02 |
| 50  | 12.08 | 33.13 | 25.14 | 284.2 | .175 | 5.50 |
| 75  | 10.73 | 33.26 | 25.49 | 251.6 | .242 | 4.85 |
| 100 | 9.72  | 33.50 | 25.85 | 217.9 | .300 | 4.30 |
| 150 | 9.21  | 33.98 | 26.31 | 175.4 | .399 | 2.74 |
| 200 | 8.55  | 34.10 | 26.50 | 157.3 | .482 | 2.63 |
| 250 | 7.87  | 34.15 | 26.65 | 144.4 | .557 | 2.00 |
| 300 | 7.37  | 34.19 | 26.75 | 135.2 | .627 | 1.45 |
| 400 | 6.82  | 34.31 | 26.92 | 120.2 | .755 | 0.75 |
| 500 | 6.22  | 34.37 | 27.05 | 109.0 | .869 | 0.48 |
| 600 | 5.68  | 34.38 | 27.12 | 102.5 | .975 | 0.38 |



## STATION 93.50 (Interpolated Values at Standard Depths)

CREST: 32°11' 118°53'; October 12, 1952; 1929 GCT; wire angle: 20°; sounding: 750 fms; depth of observation: 1070 m; weather: overcast; sea: moderate; wind: 300°, force 4.

| Depth | T     | S     | $\sigma_t$            | 10 <sup>5</sup> $\delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|--------------------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |                          | (dyn.m.)   | (ml/L)         |
| 0     | 17.50 | 33.48 | 24.25                 | 368.1                    | .000       | 5.90           |
| 10    | 17.48 | 33.46 | 24.24                 | 369.4                    | .037       | 5.45           |
| 20    | 17.46 | 33.46 | 24.24                 | 369.2                    | .074       | 5.26           |
| 30    | 17.20 | 33.45 | 24.30                 | 364.4                    | .110       | 5.47           |
| 50    | 13.38 | 33.13 | 24.89                 | 308.4                    | .178       | 6.09           |
| 75    | 11.15 | 33.25 | 25.41                 | 259.5                    | .249       | 4.93           |
| 100   | 9.96  | 33.46 | 25.78                 | 224.7                    | .309       | 3.43           |
| 150   | 8.81  | 33.84 | 26.26                 | 179.6                    | .410       | 3.14           |
| 200   | 8.42  | 34.05 | 26.49                 | 159.1                    | .495       | 2.65           |
| 250   | 8.18  | 34.14 | 26.59                 | 149.7                    | .572       | 1.90           |
| 300   | 7.80  | 34.26 | 26.74                 | 136.1                    | .644       | 1.10           |
| 400   | 7.07  | 34.30 | 26.88                 | 124.4                    | .774       | 0.64           |
| 500   | 6.42  | 34.36 | 27.01                 | 112.5                    | .892       | 0.42           |
| 600   | 5.73  | 34.38 | 27.12                 | 103.2                    | 1.000      | 0.42           |
| 700   | 5.12  | 34.42 | 27.22                 | 93.6                     | 1.098      | 0.39           |
| 800   | 4.61  | 34.46 | 27.31                 | 85.4                     | 1.188      | 0.42           |
| 1000  | 3.90  | 34.51 | 27.43                 | 74.9                     | 1.348      | 0.64           |

## STATION 97.32 (Interpolated Values at Standard Depths)

CREST: 32°11' 117°18'; October 10, 1952; 1328 GCT; wire angle: 2°; sounding: 720 fms; depth of observation: 626 m; weather: cloudy; sea: moderate; wind: 330°, force 3.

|     |       |       |       |       |      |   |
|-----|-------|-------|-------|-------|------|---|
| 0   | 19.34 | 33.40 | 23.73 | 417.3 | .000 | - |
| 10  | 19.35 | 33.43 | 23.75 | 415.7 | .042 | - |
| 20  | 17.64 | 33.35 | 24.12 | 381.4 | .081 | - |
| 30  | 13.95 | 33.19 | 24.82 | 314.5 | .116 | - |
| 50  | 11.23 | 33.33 | 25.46 | 254.4 | .173 | - |
| 75  | 10.34 | 33.53 | 25.77 | 225.2 | .233 | - |
| 100 | 10.01 | 33.73 | 25.98 | 205.6 | .287 | - |
| 150 | 9.42  | 34.02 | 26.30 | 175.7 | .382 | - |
| 200 | 9.38  | 34.28 | 26.51 | 156.8 | .465 | - |
| 250 | 8.87  | 34.31 | 26.62 | 147.6 | .541 | - |
| 300 | 8.51  | 34.33 | 26.69 | 141.5 | .614 | - |
| 400 | 7.07  | 34.34 | 26.91 | 121.4 | .745 | - |
| 500 | 6.42  | 34.35 | 27.01 | 113.2 | .862 | - |
| 600 | 5.73  | 34.39 | 27.13 | 102.4 | .970 | - |



## STATION 97.40 (Interpolated Values at Standard Depths)

CREST: 31°55' 117°50'; October 10, 1952; 0743,0800 GCT; wire angle: 22°,25°; sounding: 850 fms; depth of observation: 567 m; weather: partly cloudy; sea: slight; wind: 340°, force 3.

| Depth<br>(m) | T<br>(°C) | S<br>(‰) | $\sigma_t$<br>(mg/cm <sup>3</sup> ) | $10^5 \delta$ | $\Delta D$<br>(dyn.m.) | O <sub>2</sub><br>(ml/L) |
|--------------|-----------|----------|-------------------------------------|---------------|------------------------|--------------------------|
| 0            | 18.90     | 33.44    | 23.88                               | 403.8         | .000                   | -                        |
| 10           | 18.89     | 33.41    | 23.86                               | 406.0         | .040                   | -                        |
| 20           | 18.91     | 33.44    | 23.87                               | 404.6         | .081                   | -                        |
| 30           | 14.20     | 33.33    | 24.88                               | 309.2         | .117                   | -                        |
| 50           | 11.28     | 33.37    | 25.48                               | 252.3         | .173                   | -                        |
| 75           | 10.03     | 33.55    | 25.84                               | 218.7         | .232                   | -                        |
| 100          | 9.68      | 33.79    | 26.08                               | 195.8         | .284                   | -                        |
| 150          | 9.72      | 34.12    | 26.33                               | 173.1         | .376                   | -                        |
| 200          | 9.47      | 34.24    | 26.47                               | 161.2         | .459                   | -                        |
| 250          | 8.41      | 34.18    | 26.59                               | 150.2         | .537                   | -                        |
| 300          | 8.26      | 34.29    | 26.70                               | 140.7         | .610                   | -                        |
| 400          | 7.17      | 34.27    | 26.84                               | 128.0         | .744                   | -                        |
| 500          | 6.58      | 34.36    | 26.99                               | 114.6         | .865                   | -                        |

## STATION 97.50 (Interpolated Values at Standard Depths)

CREST: 31°35' 118°30'; October 10, 1952; 0145 GCT; wire angle: 15°; sounding: 600 fms; depth of observation: 616 m; weather: partly cloudy; sea: moderate; wind: 320°, force 4.

|     |       |       |       |       |       |   |
|-----|-------|-------|-------|-------|-------|---|
| 0   | 18.54 | 33.40 | 23.94 | 398.1 | .000  | - |
| 10  | 18.52 | 33.40 | 23.94 | 397.9 | .040  | - |
| 20  | 18.53 | 33.37 | 23.92 | 400.7 | .080  | - |
| 30  | 17.35 | 33.30 | 24.15 | 378.7 | .119  | - |
| 50  | 11.63 | 33.26 | 25.33 | 266.6 | .183  | - |
| 75  | 10.22 | 33.60 | 25.84 | 218.1 | .244  | - |
| 100 | 10.06 | 33.84 | 26.06 | 198.2 | .296  | - |
| 150 | 10.08 | 34.10 | 26.26 | 180.4 | .390  | - |
| 200 | 10.04 | 34.22 | 26.36 | 172.0 | .479  | - |
| 250 | 9.73  | 34.32 | 26.49 | 160.5 | .562  | - |
| 300 | 9.27  | 34.37 | 26.60 | 150.4 | .639  | - |
| 400 | 8.19  | 34.35 | 26.76 | 137.0 | .783  | - |
| 500 | 7.04  | 34.34 | 26.91 | 122.5 | .913  | - |
| 600 | 6.32  | 34.39 | 27.05 | 110.3 | 1.029 | - |



## STATION 100.29 (Interpolated Values at Standard Depths)

CREST: 31°42' 116°46'; October 8, 1952; 0437 GCT; wire  
 angle: 30°; sounding: 200 fms; depth of observation: 262 m;  
 weather: clear; sea: moderate; wind: 340°, force 5.

| Depth | T     | S     | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 16.24 | 33.35 | 24.45                 |               | .000       | 6.73           |
| 10    | 14.28 | 33.29 | 24.83                 |               | .033       | 6.11           |
| 20    | 12.89 | 33.26 | 25.09                 |               | .063       | 5.86           |
| 30    | 11.90 | 33.30 | 25.31                 |               | .091       | 5.40           |
| 50    | 10.96 | 33.49 | 25.63                 |               | .142       | 4.21           |
| 75    | 10.57 | 33.56 | 25.75                 |               | .200       | 3.62           |
| 100   | 10.39 | 33.66 | 25.86                 |               | .255       | 3.30           |
| 150   | 9.82  | 34.02 | 26.24                 |               | .355       | 2.33           |
| 200   | 9.71  | 34.22 | 26.41                 |               | .442       | 1.55           |
| 250   | 9.30  | 34.32 | 26.56                 |               | .522       | 1.22           |

## STATION 100.30 (Interpolated Values at Standard Depths)

CREST: 31°40' 116°46'; October 8, 1952; 0608 GCT; wire  
 angle: 12°; sounding: 50 fms; depth of observation: 73 m;  
 weather: clear; sea: moderate; wind: 330°, force 5.

|    |         |         |         |  |        |        |
|----|---------|---------|---------|--|--------|--------|
| 0  | 17.66   | 33.38   | 24.14   |  | .000   | 5.64   |
| 10 | 17.64   | 33.37   | 24.13   |  | .038   | 5.69   |
| 20 | 13.55   | 33.31   | 24.99   |  | .072   | 6.10   |
| 30 | 13.02   | 33.28   | 25.08   |  | .101   | 5.88   |
| 50 | 10.92   | 33.46   | 25.61   |  | .154   | 4.02   |
| 75 | (10.45) | (33.61) | (25.81) |  | (.212) | (3.46) |



## STATION 100.40 (Interpolated Values at Standard Depths)

CREST: 31°19' 117°26'; October 8, 1952; 1135 GCT; wire angle: 35°; sounding: 1100 fms; depth of observation: 972 m; weather: clear; sea: moderate; wind: 330°, force 5.

| Depth | T      | S       | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|--------|---------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)   | (‰)     | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 19.17  | 33.46   | 23.82                 |               | .000       | 5.13           |
| 10    | 19.15  | 33.42   | 23.80                 |               | .041       | 5.16           |
| 20    | 19.14  | 33.42   | 23.80                 |               | .082       | 5.18           |
| 30    | 17.25  | 33.38   | 24.23                 |               | .121       | 5.18           |
| 50    | 13.56  | 33.23   | 24.93                 |               | .189       | 5.21           |
| 75    | 10.83  | 33.34   | 25.53                 |               | .258       | 5.25           |
| 100   | 10.50  | 33.69   | 25.86                 |               | .316       | 2.40           |
| 150   | 10.34  | 34.03   | 26.16                 |               | .417       | 1.54           |
| 200   | 9.91   | 34.14   | 26.32                 |               | .509       | 1.72           |
| 250   | 9.38   | 34.26   | 26.50                 |               | .592       | 1.62           |
| 300   | 9.01   | 34.33   | 26.61                 |               | .670       | 1.19           |
| 400   | 7.33   | 34.29   | 26.83                 |               | .809       | 0.81           |
| 500   | 6.47   | 34.34   | 26.99                 |               | .930       | 0.44           |
| 600   | 5.74   | 34.41   | 27.14                 |               | 1.038      | 0.28           |
| 700   | 5.22   | 34.43   | 27.22                 |               | 1.136      | 0.28           |
| 800   | 4.80   | 34.46   | 27.29                 |               | 1.226      | 0.36           |
| 1000  | (4.06) | (34.52) | (27.42)               |               | (1.390)    | (0.51)         |

## STATION 100.50 (Interpolated Values at Standard Depths)

CREST: 31°01' 118°07'; October 8, 1952; 1805 GCT; wire angle: 10°; sounding: 900 fms; depth of observation: 583 m; weather: clear; sea: moderate; wind: 330°, force 5.

|     |       |         |         |  |        |   |
|-----|-------|---------|---------|--|--------|---|
| 0   | 18.44 | 33.35   | 23.92   |  | .000   | - |
| 10  | 18.45 | 33.37   | 23.94   |  | .040   | - |
| 20  | 17.74 | 33.37   | 24.11   |  | .079   | - |
| 30  | 16.26 | 33.27   | 24.38   |  | .116   | - |
| 50  | 12.05 | 33.40   | 25.36   |  | .178   | - |
| 75  | 9.61  | 33.57   | 25.92   |  | .237   | - |
| 100 | 9.25  | 33.77   | 26.14   |  | .287   | - |
| 150 | 8.93  | 34.02   | 26.38   |  | .377   | - |
| 200 | 8.24  | 34.12   | 26.57   |  | .457   | - |
| 250 | 7.97  | 34.21   | 26.68   |  | .530   | - |
| 300 | 7.54  | 34.24   | 26.77   |  | .599   | - |
| 400 | 6.82  | 34.29   | 26.91   |  | .726   | - |
| 500 | 6.22  | 34.35   | 27.03   |  | .842   | - |
| 600 | 5.63  | (34.43) | (27.16) |  | (.947) | - |



## STATION 100.60 (Interpolated Values at Standard Depths)

CREST: 30°41' 118°48'; October 8, 1952; 2346 GCT; wire angle: 38°; sounding: 1250 fms; depth of observation: 823 m; weather: partly cloudy; sea: moderate; wind: 340°, force 5.

| Depth | T     | S     | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 19.36 | 33.49 | 23.80                 |               | .000       | -              |
| 10    | 19.32 | 33.47 | 23.79                 |               | .041       | -              |
| 20    | 19.29 | 33.42 | 23.76                 |               | .083       | -              |
| 30    | 18.32 | 33.35 | 23.95                 |               | .123       | -              |
| 50    | 14.00 | 33.34 | 24.93                 |               | .193       | -              |
| 75    | 11.43 | 33.41 | 25.48                 |               | .263       | -              |
| 100   | 10.05 | 33.64 | 25.90                 |               | .321       | -              |
| 150   | 9.32  | 33.95 | 26.27                 |               | .419       | -              |
| 200   | 8.87  | 34.17 | 26.51                 |               | .503       | -              |
| 250   | 8.07  | 34.19 | 26.65                 |               | .579       | -              |
| 300   | 7.83  | 34.29 | 26.76                 |               | .648       | -              |
| 400   | 7.00  | 34.31 | 26.90                 |               | .777       | -              |
| 500   | 6.31  | 34.32 | 27.00                 |               | .895       | -              |
| 600   | 5.69  | 34.36 | 27.11                 |               | 1.004      | -              |
| 700   | 5.14  | 34.43 | 27.23                 |               | 1.103      | -              |
| 800   | 4.69  | 34.49 | 27.33                 |               | 1.191      | -              |

## STATION 100.70 (Interpolated Values at Standard Depths)

CREST: 30°20' 119°27'; October 9, 1952; 0546 GCT; wire angle: 23°; sounding: 2000 fms; depth of observation: 586 m; weather: clear; sea: moderate; wind: 320°, force 5.

|     |        |         |         |  |         |   |
|-----|--------|---------|---------|--|---------|---|
| 0   | 19.39  | 33.37   | 23.70   |  | .000    | - |
| 10  | 19.39  | 33.37   | 23.70   |  | .042    | - |
| 20  | 19.37  | 33.39   | 23.72   |  | .084    | - |
| 30  | 19.00  | 33.32   | 23.76   |  | .126    | - |
| 50  | 17.26  | 33.28   | 24.15   |  | .205    | - |
| 75  | 15.08  | 33.39   | 24.73   |  | .293    | - |
| 100 | 12.61  | 33.22   | 25.11   |  | .370    | - |
| 150 | 9.60   | 33.44   | 25.82   |  | .497    | - |
| 200 | 8.81   | 33.87   | 26.28   |  | .597    | - |
| 250 | 7.98   | 34.05   | 26.55   |  | .680    | - |
| 300 | 7.46   | 34.11   | 26.67   |  | .754    | - |
| 400 | 6.62   | 34.22   | 26.88   |  | .887    | - |
| 500 | 5.97   | 34.30   | 27.03   |  | 1.005   | - |
| 600 | (5.42) | (34.34) | (27.12) |  | (1.111) | - |



## STATION 100.80 (Interpolated Values at Standard Depths)

CREST: 30°02' 120°07'; October 9, 1952; 1124 GCT; wire angle: 22°; sounding: 1350 fms; depth of observation: 1234 m; weather: partly cloudy; sea: moderate; wind: 330°, force 5.

| Depth | T     | S     | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 18.93 | 33.35 | 23.80                 |               | .000       | -              |
| 10    | 18.94 | 33.39 | 23.83                 |               | .041       | -              |
| 20    | 18.96 | 33.40 | 23.83                 |               | .082       | -              |
| 30    | 18.95 | 33.39 | 23.83                 |               | .123       | -              |
| 50    | 15.10 | 33.32 | 24.68                 |               | .197       | -              |
| 75    | 13.82 | 33.18 | 24.84                 |               | .277       | -              |
| 100   | 12.17 | 33.10 | 25.10                 |               | .352       | -              |
| 150   | 9.44  | 33.46 | 25.86                 |               | .479       | -              |
| 200   | 8.69  | 33.91 | 26.33                 |               | .577       | -              |
| 250   | 7.89  | 34.05 | 26.57                 |               | .658       | -              |
| 300   | 7.16  | 34.13 | 26.73                 |               | .730       | -              |
| 400   | 6.46  | 34.23 | 26.91                 |               | .859       | -              |
| 500   | 5.99  | 34.34 | 27.05                 |               | .974       | -              |
| 600   | 5.32  | 34.42 | 27.20                 |               | 1.075      | -              |
| 700   | 4.88  | 34.47 | 27.29                 |               | 1.166      | -              |
| 800   | 4.52  | 34.51 | 27.36                 |               | 1.250      | -              |
| 1000  | 3.91  | 34.56 | 27.47                 |               | 1.402      | -              |

## STATION 103.30 (Interpolated Values at Standard Depths)

PAOLINA T.: 31°04' 116°25'; October 8, 1952; 2140 GCT; wire angle: 6°; sounding: 43 fms; depth of observation: 30 m; weather: clear; sea: moderate; wind: 300°, force 4.

|    |       |       |       |      |      |
|----|-------|-------|-------|------|------|
| 0  | 14.65 | 33.26 | 24.73 | .000 | 6.04 |
| 10 | 14.62 | 33.28 | 24.75 | .032 | 6.29 |
| 20 | 13.91 | 33.24 | 24.87 | .064 | 6.31 |
| 30 | 12.10 | 33.22 | 25.21 | .093 | 5.84 |



## STATION 103.35 (Interpolated Values at Standard Depths)

PAOLINA T.: 30°54' 116°48'; October 8, 1952; 1640, 1707 GCT;  
 wire angle: 5°, 10°; sounding: 1200 fms; depth of observa-  
 tion: 688 m; weather: clear; sea: rough; wind: 330°, force 4.

| Depth | T      | S       | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|--------|---------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)   | (‰)     | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 18.48  | 33.46   | 24.00                 |               | .000       | 5.38           |
| 10    | 18.48  | 33.35   | 23.91                 |               | .040       | 5.43           |
| 20    | 18.44  | 33.38   | 23.95                 |               | .080       | 5.47           |
| 30    | 16.50  | 33.38   | 24.41                 |               | .117       | 5.51           |
| 50    | 11.44  | 33.30   | 25.39                 |               | .179       | 5.30           |
| 75    | 10.20  | 33.56   | 25.82                 |               | .239       | 4.00           |
| 100   | 9.81   | 33.67   | 25.97                 |               | .292       | 3.61           |
| 150   | 9.24   | 34.09   | 26.39                 |               | .386       | 2.52           |
| 200   | 9.25   | 34.26   | 26.52                 |               | .467       | 1.57           |
| 250   | 8.92   | 34.30   | 26.60                 |               | .543       | 1.20           |
| 300   | 8.46   | 34.35   | 26.71                 |               | .615       | 1.07           |
| 400   | 7.15   | 34.34   | 26.90                 |               | .746       | 0.73           |
| 500   | 6.29   | 34.35   | 27.02                 |               | .863       | 0.42           |
| 600   | 5.69   | 34.39   | 27.13                 |               | .969       | 0.31           |
| 700   | (5.20) | (34.42) | (27.21)               |               | (1.068)    | -              |

## STATION 103.40 (Interpolated Values at Standard Depths)

PAOLINA T.: 30°46' 117°06'; October 8, 1952; 1056, 1211 GCT;  
 wire angle: 27°; sounding: 940 fms; depth of observation:  
 508 m; weather: clear; sea: rough; wind: 280°, force 4.

|     |       |       |       |      |      |
|-----|-------|-------|-------|------|------|
| 0   | 19.12 | 33.44 | 23.82 | .000 | 5.47 |
| 10  | 19.09 | 33.42 | 23.81 | .041 | 5.73 |
| 20  | 19.08 | 33.46 | 23.85 | .082 | 6.99 |
| 30  | 15.65 | 33.29 | 24.53 | .119 | 6.65 |
| 50  | 12.72 | 33.34 | 25.18 | .182 | 5.60 |
| 75  | 11.25 | 33.41 | 25.51 | .248 | 4.49 |
| 100 | 10.17 | 33.64 | 25.88 | .306 | 3.07 |
| 150 | 9.55  | 33.89 | 26.18 | .406 | 2.81 |
| 200 | 9.21  | 34.22 | 26.49 | .493 | 1.56 |
| 250 | 8.72  | 34.43 | 26.74 | .566 | 0.93 |
| 300 | 8.47  | 34.44 | 26.78 | .634 | 0.54 |
| 400 | 7.26  | 34.35 | 26.89 | .762 | 0.16 |
| 500 | 6.26  | 34.25 | 26.95 | .883 | 0.11 |



## STATION 107.32 (Interpolated Values at Standard Depths)

PAOLINA T.: 30°26' 116°12'; October 9, 1952; 0258 GCT; wire angle: 3°; sounding: 360 fms; depth of observation: 99 m; weather: clear; sea: rough; wind: 320°, force 1.

| Depth | T       | S       | $\sigma_t$            | $10^5 s$ | $\Delta D$ | O <sub>2</sub> |
|-------|---------|---------|-----------------------|----------|------------|----------------|
| (m).  | (°C)    | (‰)     | (mg/cm <sup>3</sup> ) |          | (dyn.m.)   | (ml/L)         |
| 0     | 16.10   | 33.26   | 24.41                 |          | .000       | 5.87           |
| 10    | 16.12   | 33.24   | 24.39                 |          | .035       | 5.84           |
| 20    | 15.86   | 33.24   | 24.45                 |          | .071       | 5.94           |
| 30    | 14.62   | 33.17   | 24.66                 |          | .105       | 6.26           |
| 50    | 12.82   | 33.30   | 25.13                 |          | .166       | 5.63           |
| 75    | 11.09   | 33.42   | 25.55                 |          | .232       | 4.35           |
| 100   | (10.52) | (33.68) | (25.85)               |          | (.290)     | (3.21)         |

## STATION 107.35 (Interpolated Values at Standard Depths)

PAOLINA T.: 30°18' 116°24'; October 9, 1952; 0536 GCT; wire angle: 18°; sounding: 1050 fms; depth of observation: 608 m; weather: clear; sea: rough; wind: 300°, force 4.

|     |       |       |       |  |       |      |
|-----|-------|-------|-------|--|-------|------|
| 0   | 19.19 | 33.37 | 23.75 |  | .000  | 5.04 |
| 10  | 19.17 | 33.39 | 23.77 |  | .042  | 5.45 |
| 20  | 19.17 | 33.40 | 23.78 |  | .083  | 5.32 |
| 30  | 18.75 | 33.31 | 23.81 |  | .124  | 5.26 |
| 50  | 15.00 | 33.20 | 24.61 |  | .199  | 5.19 |
| 75  | 12.20 | 33.19 | 25.17 |  | .276  | 5.18 |
| 100 | 10.20 | 33.36 | 25.66 |  | .341  | 4.53 |
| 150 | 9.37  | 33.91 | 26.23 |  | .446  | 2.76 |
| 200 | 9.16  | 34.18 | 26.47 |  | .531  | 2.04 |
| 250 | 9.08  | 34.33 | 26.60 |  | .609  | 1.21 |
| 300 | 8.29  | 34.33 | 26.72 |  | .681  | 0.97 |
| 400 | 7.18  | 34.32 | 26.88 |  | .812  | 0.73 |
| 500 | 6.52  | 34.36 | 27.00 |  | .931  | 0.63 |
| 600 | 5.58  | 34.38 | 27.14 |  | 1.039 | 0.38 |



## STATION 107.40 (Interpolated Values at Standard Depths)

PAOLINA T.: 30°10' 116°12'; October 9, 1952; 0933 GCT; wire angle: 22°; sounding: 1690 fms; depth of observation: 594 m; weather: partly cloudy; sea: moderate; wind: 310°, force 4.

| Depth | T      | S       | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|--------|---------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)   | (‰)     | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 20.03  | 33.49   | 23.62                 |               | .000       | 5.23           |
| 10    | 20.00  | 33.42   | 23.58                 |               | .043       | 5.21           |
| 20    | 19.68  | 33.42   | 23.66                 |               | .086       | 5.24           |
| 30    | 19.51  | 33.36   | 23.66                 |               | .128       | 5.30           |
| 50    | 15.70  | 33.27   | 24.51                 |               | .205       | 5.98           |
| 75    | 13.40  | 33.40   | 25.09                 |               | .285       | 5.79           |
| 100   | 11.08  | 33.39   | 25.53                 |               | .352       | 4.08           |
| 150   | 9.50   | 33.88   | 26.18                 |               | .461       | 3.32           |
| 200   | 8.97   | 34.12   | 26.45                 |               | .548       | 2.58           |
| 250   | 8.98   | 34.34   | 26.63                 |               | .626       | 1.36           |
| 300   | 8.90   | 34.46   | 26.73                 |               | .697       | 0.78           |
| 400   | 7.73   | 34.44   | 26.89                 |               | .827       | 0.53           |
| 500   | 6.36   | 34.37   | 27.03                 |               | .945       | 0.53           |
| 600   | (5.63) | (34.36) | (27.11)               |               | (1.052)    | (0.32)         |

## STATION 110.33 (Interpolated Values at Standard Depths)

PAOLINA T.: 29°48' 115°51'; October 10, 1952; 1724 GCT; wire angle: 5°; sounding: 40 fms; depth of observation: 30 m; weather: overcast; sea: slight; wind: 300°, force 3.

|    |       |       |       |      |      |
|----|-------|-------|-------|------|------|
| 0  | 16.25 | 33.33 | 24.43 | .000 | 5.91 |
| 10 | 16.14 | 33.30 | 24.43 | .035 | 5.99 |
| 20 | 14.22 | 33.22 | 24.79 | .069 | 6.15 |
| 30 | 13.47 | 33.24 | 24.96 | .099 | 5.97 |



## STATION 110.35 (Interpolated Values at Standard Depths)

PAOLINA T.: 29°42' 115°56'; October 10, 1952; 1512 GCT; wire angle: 13°; sounding: 650 fms; depth of observation: 582 m; weather: overcast; sea: slight; wind: 300°, force 3.

| Depth | T      | S       | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | $O_2$  |
|-------|--------|---------|-----------------------|---------------|------------|--------|
| (m)   | (°C)   | (‰)     | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L) |
| 0     | 18.03  | 33.34   | 24.02                 |               | .000       | 5.54   |
| 10    | 18.04  | 33.37   | 24.04                 |               | .039       | 5.52   |
| 20    | 18.01  | 33.35   | 24.03                 |               | .078       | 5.50   |
| 30    | 17.84  | 33.36   | 24.08                 |               | .117       | 6.00   |
| 50    | 12.97  | 33.19   | 25.02                 |               | .185       | 5.82   |
| 75    | 11.67  | 33.46   | 25.48                 |               | .253       | 4.67   |
| 100   | 10.95  | 33.54   | 25.67                 |               | .315       | 4.04   |
| 150   | 9.49   | 33.91   | 26.21                 |               | .420       | 3.03   |
| 200   | 9.22   | 34.16   | 26.45                 |               | .507       | 2.19   |
| 250   | 8.70   | 34.29   | 26.63                 |               | .584       | 1.43   |
| 300   | 8.64   | 34.39   | 26.72                 |               | .655       | 0.88   |
| 400   | 7.98   | 34.42   | 26.84                 |               | .789       | 0.52   |
| 500   | 6.76   | 34.38   | 26.98                 |               | .911       | 0.37   |
| 600   | (5.75) | (34.38) | (27.12)               |               | (1.021)    | -      |

## STATION 110.40 (Interpolated Values at Standard Depths)

PAOLINA T.: 29°33' 116°16'; October 10, 1952; 1110 GCT; wire angle: 16°; sounding: 1350 fms; depth of observation: 574 m; weather: overcast; sea: moderate; wind: 290°, force 3.

|     |       |       |       |      |      |
|-----|-------|-------|-------|------|------|
| 0   | 19.65 | 33.42 | 23.67 | .000 | 5.22 |
| 10  | 19.65 | 33.37 | 23.63 | .043 | 5.20 |
| 20  | 19.56 | 33.37 | 23.66 | .085 | 5.24 |
| 30  | 19.17 | 33.36 | 23.75 | .127 | 5.50 |
| 50  | 16.70 | 33.31 | 24.31 | .205 | 6.08 |
| 75  | 13.89 | 33.30 | 24.92 | .289 | 6.06 |
| 100 | 11.97 | 33.46 | 25.42 | .360 | 4.75 |
| 150 | 9.72  | 33.70 | 26.01 | .476 | 3.80 |
| 200 | 9.39  | 34.14 | 26.40 | .568 | 2.21 |
| 250 | 9.07  | 34.29 | 26.57 | .648 | 1.44 |
| 300 | 8.55  | 34.36 | 26.71 | .721 | 0.97 |
| 400 | 7.66  | 34.41 | 26.88 | .854 | 0.54 |
| 500 | 6.93  | 34.42 | 26.99 | .973 | 0.36 |



## STATION 110.50 (Interpolated Values at Standard Depths)

PAOLINA T.: 29°14' 116°56'; October 10, 1952; 0355 GCT; wire angle: 10°; sounding: 2150 fms; depth of observation: 1360 m; weather: cloudy; sea: rough; wind: 340°, force 4.

| Depth | T     | S     | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 20.21 | 33.46 | 23.55                 |               | .000       | 5.17           |
| 10    | 20.20 | 33.44 | 23.54                 |               | .044       | 5.20           |
| 20    | 20.15 | 33.38 | 23.51                 |               | .087       | 5.40           |
| 30    | 18.07 | 33.30 | 23.98                 |               | .129       | 5.71           |
| 50    | 15.80 | 33.28 | 24.49                 |               | .203       | 5.95           |
| 75    | 13.22 | 33.32 | 25.07                 |               | .283       | 5.74           |
| 100   | 11.40 | 33.51 | 25.56                 |               | .350       | 4.43           |
| 150   | 9.57  | 33.91 | 26.19                 |               | .458       | 3.27           |
| 200   | 9.09  | 34.20 | 26.50                 |               | .544       | 2.23           |
| 250   | 8.81  | 34.20 | 26.54                 |               | .622       | 1.62           |
| 300   | 8.29  | 34.24 | 26.65                 |               | .697       | 1.48           |
| 400   | 7.30  | 34.39 | 26.92                 |               | .830       | 0.56           |
| 500   | 6.54  | 34.37 | 27.01                 |               | .947       | 0.30           |
| 600   | 5.83  | 34.36 | 27.09                 |               | 1.057      | 0.29           |
| 700   | 5.18  | 34.40 | 27.20                 |               | 1.158      | 0.41           |
| 800   | 4.75  | 34.46 | 27.30                 |               | 1.249      | 0.42           |
| 1000  | 4.14  | 34.55 | 27.44                 |               | 1.411      | 0.51           |
| 1200  | 3.48  | 34.56 | 27.51                 |               | 1.553      | 0.87           |

## STATION 110.60 (Interpolated Values at Standard Depths)

PAOLINA T.: 28°55' 117°38'; October 9, 1952; 2105 GCT; wire angle: 28°; sounding: 2100 fms; depth of observation: 548 m; weather: cloudy; sea: moderate; wind: 320°, force 3.

|     |       |       |       |  |      |      |
|-----|-------|-------|-------|--|------|------|
| 0   | 20.75 | 33.55 | 23.48 |  | .000 | 5.21 |
| 10  | 20.73 | 33.57 | 23.50 |  | .044 | 5.18 |
| 20  | 20.65 | 33.55 | 23.51 |  | .088 | 5.27 |
| 30  | 20.61 | 33.57 | 23.53 |  | .132 | 5.21 |
| 50  | 14.90 | 33.39 | 24.77 |  | .208 | 6.21 |
| 75  | 11.82 | 33.46 | 25.45 |  | .280 | 4.91 |
| 100 | 10.10 | 33.47 | 25.76 |  | .340 | 4.25 |
| 150 | 9.00  | 33.88 | 26.26 |  | .441 | 3.40 |
| 200 | 8.69  | 34.19 | 26.55 |  | .524 | 2.18 |
| 250 | 8.24  | 34.20 | 26.63 |  | .599 | 1.88 |
| 300 | 7.34  | 34.17 | 26.74 |  | .670 | 1.43 |
| 400 | 6.67  | 34.24 | 26.89 |  | .799 | 0.73 |
| 500 | 6.24  | 34.38 | 27.05 |  | .915 | 0.39 |



## STATION 113.30 (Interpolated Values at Standard Depths)

PAOLINA T.: 29°22' 115°22'; October 10, 1952; 2223 GCT; wire angle: 15°; sounding: 42 fms; depth of observation: 29 m; weather: clear; sea: moderate; wind: 340°, force 3.

| Depth | T     | S     | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 17.51 | 33.37 | 24.16                 |               | .000       | 6.01           |
| 10    | 15.20 | 33.26 | 24.61                 |               | .036       | 5.55           |
| 20    | 14.52 | 33.31 | 24.79                 |               | .068       | 5.37           |

## STATION 113.40 (Interpolated Values at Standard Depths)

PAOLINA T.: 29°02' 115°58'; October 11, 1952; 0409 GCT; wire angle: 6°; sounding: 1050 fms; depth of observation: 656 m; weather: clear; sea: rough; wind: 330°, force 4.

|     |       |       |       |  |      |      |
|-----|-------|-------|-------|--|------|------|
| 0   | 18.21 | 33.33 | 23.96 |  | .000 | 5.56 |
| 10  | 17.98 | 33.31 | 24.00 |  | .039 | 5.67 |
| 20  | 15.65 | 33.33 | 24.56 |  | .076 | 5.98 |
| 30  | 15.20 | 33.36 | 24.69 |  | .109 | 5.97 |
| 50  | 12.90 | 33.41 | 25.20 |  | .170 | 4.69 |
| 75  | 10.72 | 33.47 | 25.66 |  | .234 | 4.68 |
| 100 | 11.21 | 33.98 | 25.96 |  | .290 | 1.38 |
| 150 | 10.21 | 34.26 | 26.36 |  | .384 | 1.80 |
| 200 | 10.04 | 34.41 | 26.50 |  | .466 | 1.20 |
| 250 | 9.80  | 34.52 | 26.63 |  | .542 | 0.80 |
| 300 | 9.07  | 34.45 | 26.70 |  | .614 | 0.79 |
| 400 | 7.54  | 34.36 | 26.86 |  | .748 | 0.57 |
| 500 | 6.76  | 34.36 | 26.97 |  | .870 | 0.39 |
| 600 | 5.95  | 34.39 | 27.10 |  | .981 | 0.33 |



## STATION 117.26 (Interpolated Values at Standard Depths)

PAOLINA T.: 28°54' 114°40'; October 11, 1952; 1918 GCT; wire angle: 3°; sounding: 42 fms; depth of observation: 50 m; weather: cloudy; sea: moderate; wind: 320°, force 3.

| Depth | T     | S     | $\sigma_t$            | $10^5 s$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|----------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |          | (dyn.m.)   | (ml/L)         |
| 0     | 19.06 | 33.37 | 23.78                 |          | .000       | 5.39           |
| 10    | 18.07 | 33.35 | 24.01                 |          | .040       | 5.57           |
| 20    | 16.53 | 33.33 | 24.36                 |          | .078       | 5.81           |
| 30    | 14.68 | 33.28 | 24.74                 |          | .112       | 5.73           |
| 50    | 12.26 | 33.37 | 25.30                 |          | .171       | 4.24           |

## STATION 117.30 (Interpolated Values at Standard Depths)

PAOLINA T.: 28°47' 114°56'; October 11, 1952; 1639 GCT; wire angle: 3°; sounding: 58 fms; depth of observation: 50 m; weather: overcast; sea: moderate; wind: 300°, force 4.

|    |       |       |       |  |      |      |
|----|-------|-------|-------|--|------|------|
| 0  | 17.47 | 33.34 | 24.15 |  | .000 | 5.77 |
| 10 | 17.34 | 33.30 | 24.15 |  | .038 | 5.65 |
| 20 | 13.88 | 33.34 | 24.95 |  | .072 | 5.54 |
| 30 | 12.71 | 33.22 | 25.09 |  | .101 | 5.66 |
| 50 | 12.32 | 33.44 | 25.34 |  | .157 | 4.22 |

## STATION 117.40 (Interpolated Values at Standard Depths)

PAOLINA T.: 28°29' 115°37'; October 11, 1952; 1004 GCT; wire angle: 17°; sounding: 600 fms; depth of observation: 576 m; weather: cloudy; sea: moderate; wind: 300°, force 3.

|     |       |       |       |  |      |      |
|-----|-------|-------|-------|--|------|------|
| 0   | 18.46 | 33.48 | 24.02 |  | .000 | 5.52 |
| 10  | 18.47 | 33.46 | 24.00 |  | .039 | 5.54 |
| 20  | 15.46 | 33.30 | 24.58 |  | .076 | 5.69 |
| 30  | 14.78 | 33.30 | 24.73 |  | .109 | 5.98 |
| 50  | 13.00 | 33.34 | 25.13 |  | .169 | 5.40 |
| 75  | 11.45 | 33.70 | 25.70 |  | .234 | 3.27 |
| 100 | 11.72 | 33.98 | 25.87 |  | .290 | 2.27 |
| 150 | 10.16 | 34.11 | 26.25 |  | .389 | 2.10 |
| 200 | 9.70  | 34.25 | 26.44 |  | .476 | 1.69 |
| 250 | 9.61  | 34.38 | 26.55 |  | .555 | 1.13 |
| 300 | 9.03  | 34.40 | 26.66 |  | .630 | 0.83 |
| 400 | 7.85  | 34.36 | 26.81 |  | .768 | 0.59 |
| 500 | 6.66  | 34.36 | 26.98 |  | .891 | 0.42 |



## STATION 120.25 (Interpolated Values at Standard Depths)

PAOLINA T.: 28°24' 114°16'; October 12, 1952; 0009 GCT; wire angle: 5°; sounding: 44 fms; depth of observation: 31 m; weather: overcast; sea: slight; wind: 300°, force 2.

| Depth | T     | S     | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 18.94 | 33.37 | 23.81                 |               | .000       | 5.43           |
| 10    | 18.70 | 33.35 | 23.86                 |               | .041       | 5.47           |
| 20    | 17.82 | 33.35 | 24.07                 |               | .080       | 5.59           |
| 30    | 16.36 | 33.37 | 24.43                 |               | .117       | 5.82           |

## STATION 120.30 (Interpolated Values at Standard Depths)

PAOLINA T.: 28°11' 114°35'; October 13, 1952; 0817 GCT; wire angle: 4°; sounding: 50 fms; depth of observation: 50 m; weather: overcast; sea: slight; wind: 330°, force 3.

|    |       |       |       |  |      |      |
|----|-------|-------|-------|--|------|------|
| 0  | 20.14 | 33.49 | 23.60 |  | .000 | 5.25 |
| 10 | 20.14 | 33.46 | 23.57 |  | .043 | 5.18 |
| 20 | 20.16 | 33.48 | 23.58 |  | .086 | 5.24 |
| 30 | 20.13 | 33.49 | 23.60 |  | .130 | 5.25 |
| 50 | 18.56 | 33.44 | 23.96 |  | .212 | 5.35 |

## STATION 120.35 (Interpolated Values at Standard Depths)

PAOLINA T.: 27°59' 114°57'; October 13, 1952; 1141 GCT; wire angle: 2°; sounding: 47 fms; depth of observation: 50 m; weather: cloudy; sea: slight; wind: 300°, force 2.

|    |       |       |       |  |      |      |
|----|-------|-------|-------|--|------|------|
| 0  | 19.80 | 33.48 | 23.68 |  | .000 | 5.30 |
| 10 | 19.83 | 33.46 | 23.65 |  | .042 | 5.25 |
| 20 | 19.79 | 33.48 | 23.68 |  | .085 | 5.18 |
| 30 | 19.70 | 33.44 | 23.67 |  | .127 | 5.23 |
| 50 | 18.44 | 33.38 | 23.95 |  | .209 | 5.35 |



## STATION 120.45 (Interpolated Values at Standard Depths)

PAOLINA T.: 27°42' 115°36'; October 13, 1952; 2220 GCT; wire angle: 7°; sounding: 1470 fms; depth of observation: 1203 m; weather: partly cloudy; sea: moderate; wind: 330°, force 3.

| Depth | T     | S     | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 19.19 | 33.44 | 23.80                 |               | .000       | 5.36           |
| 10    | 19.18 | 33.44 | 23.81                 |               | .041       | 5.36           |
| 20    | 19.00 | 33.33 | 23.77                 |               | .082       | 5.91           |
| 30    | 15.60 | 33.33 | 24.57                 |               | .120       | 6.00           |
| 50    | 13.77 | 33.34 | 24.97                 |               | .184       | 5.22           |
| 75    | 11.18 | 33.80 | 25.83                 |               | .249       | 4.20           |
| 100   | 10.40 | 33.71 | 25.90                 |               | .303       | 3.48           |
| 150   | 10.05 | 34.06 | 26.23                 |               | .402       | 2.12           |
| 200   | 10.83 | 34.59 | 26.51                 |               | .487       | 0.50           |
| 250   | 10.28 | 34.51 | 26.54                 |               | .566       | 0.58           |
| 300   | 9.07  | 34.45 | 26.70                 |               | .640       | 0.60           |
| 400   | 7.62  | 34.42 | 26.90                 |               | .772       | 0.50           |
| 500   | 6.83  | 34.42 | 27.00                 |               | .891       | 0.28           |
| 600   | 5.60  | 34.42 | 27.17                 |               | .997       | 0.27           |
| 700   | 5.07  | 34.43 | 27.24                 |               | 1.093      | 0.30           |
| 800   | 4.66  | 34.45 | 27.30                 |               | 1.182      | 0.36           |
| 1000  | 3.89  | 34.56 | 27.47                 |               | 1.340      | 0.61           |
| 1200  | 3.51  | 34.72 | 27.63                 |               | 1.467      | 0.80           |

## STATION 120.50 (Interpolated Values at Standard Depths)

PAOLINA T.: 27°32' 115°52'; October 14, 1952; 0334 GCT; wire angle: 23°; sounding: 2150 fms; depth of observation: 612 m; weather: partly cloudy; sea: slight; wind: 320°, force 2.

|     |       |       |       |  |       |      |
|-----|-------|-------|-------|--|-------|------|
| 0   | 20.52 | 33.60 | 23.58 |  | .000  | 5.19 |
| 10  | 19.29 | 33.53 | 23.85 |  | .042  | 5.39 |
| 20  | 18.75 | 33.50 | 23.96 |  | .082  | 5.38 |
| 30  | 17.66 | 33.44 | 24.18 |  | .121  | 6.22 |
| 50  | 14.42 | 33.49 | 24.95 |  | .189  | 6.11 |
| 75  | 11.68 | 33.46 | 25.47 |  | .258  | 3.83 |
| 100 | 10.70 | 33.75 | 25.88 |  | .317  | 3.24 |
| 150 | 9.96  | 34.05 | 26.24 |  | .416  | 2.23 |
| 200 | 9.42  | 34.26 | 26.49 |  | .501  | 1.75 |
| 250 | 8.96  | 34.31 | 26.60 |  | .578  | 1.28 |
| 300 | 8.74  | 34.23 | 26.58 |  | .654  | 0.81 |
| 400 | 7.30  | 34.27 | 26.82 |  | .795  | 0.54 |
| 500 | 6.64  | 34.44 | 27.05 |  | .914  | 0.42 |
| 600 | 5.97  | 34.47 | 27.16 |  | 1.019 | 0.37 |



## STATION 120.60 (Interpolated Values at Standard Depths)

PAOLINA T.: 27°11' 116°30'; October 14, 1952; 1015 GCT; wire angle: 21°; sounding: 2150 fms; depth of observation: 1117 m; weather: partly cloudy; sea: moderate; wind: 330°, force 2.

| Depth | T     | S     | $\sigma_t$            | $10^5 s$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|----------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |          | (dyn.m.)   | (ml/L)         |
| 0     | 20.73 | 33.57 | 23.50                 |          | .000       | 5.20           |
| 10    | 20.73 | 33.53 | 23.47                 |          | .044       | 5.16           |
| 20    | 20.73 | 33.51 | 23.45                 |          | .088       | 5.15           |
| 30    | 20.70 | 33.49 | 23.45                 |          | .133       | 5.22           |
| 50    | 16.41 | 33.28 | 24.35                 |          | .214       | 5.79           |
| 75    | 15.45 | 33.61 | 24.82                 |          | .298       | 5.77           |
| 100   | 12.90 | 33.47 | 25.25                 |          | .372       | 5.44           |
| 150   | 9.69  | 33.71 | 26.02                 |          | .491       | 4.01           |
| 200   | 9.75  | 34.29 | 26.46                 |          | .583       | 1.73           |
| 250   | 9.96  | 34.45 | 26.55                 |          | .662       | 0.67           |
| 300   | 9.21  | 34.45 | 26.67                 |          | .736       | 0.50           |
| 400   | 7.97  | 34.40 | 26.83                 |          | .873       | 0.39           |
| 500   | 6.93  | 34.39 | 26.97                 |          | .997       | 0.28           |
| 600   | 6.10  | 34.40 | 27.09                 |          | 1.109      | 0.27           |
| 700   | 5.46  | 34.40 | 27.17                 |          | 1.211      | 0.32           |
| 800   | 4.89  | 34.42 | 27.25                 |          | 1.307      | 0.40           |
| 1000  | 4.06  | 34.48 | 27.39                 |          | 1.478      | 0.63           |

## STATION 120.70 (Interpolated Values at Standard Depths)

PAOLINA T.: 26°50' 117°09'; October 14, 1952; 1700 GCT; wire angle: 6°; sounding: 2100 fms; depth of observation: 648 m; weather: cloudy; sea: moderate; wind: 310°, force 2.

|     |       |       |       |  |       |      |
|-----|-------|-------|-------|--|-------|------|
| 0   | 21.68 | 33.75 | 23.38 |  | .000  | 5.17 |
| 10  | 21.68 | 33.75 | 23.38 |  | .045  | 5.08 |
| 20  | 21.67 | 33.73 | 23.37 |  | .090  | 5.09 |
| 30  | 21.66 | 33.69 | 23.34 |  | .136  | 5.19 |
| 50  | 18.02 | 33.47 | 24.12 |  | .220  | 5.50 |
| 75  | 15.64 | 33.48 | 24.68 |  | .309  | 5.68 |
| 100 | 14.33 | 33.45 | 24.94 |  | .388  | 5.48 |
| 150 | 10.47 | 33.41 | 25.65 |  | .524  | 4.54 |
| 200 | 9.37  | 33.87 | 26.20 |  | .630  | 3.38 |
| 250 | 8.37  | 34.01 | 26.46 |  | .717  | 2.64 |
| 300 | 8.18  | 34.17 | 26.62 |  | .795  | 1.33 |
| 400 | 7.47  | 34.26 | 26.79 |  | .935  | 0.78 |
| 500 | 6.50  | 34.34 | 26.99 |  | 1.059 | 0.41 |
| 600 | 5.84  | 34.35 | 27.08 |  | 1.170 | 0.28 |



## STATION 120.80 (Interpolated Values at Standard Depths)

PAOLINA T.: 26°29' 117°48'; October 14, 1952; 2328 GCT; wire angle: 90°; sounding: 2140 fms; depth of observation: 1180 m; weather: cloudy; sea: slight; wind: 330°, force 2.

| Depth | T     | S     | $\sigma_t$            | $10^5 s$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|----------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |          | (dyn.m.)   | (ml/L)         |
| 0     | 22.33 | 33.77 | 23.21                 |          | .000       | 4.89           |
| 10    | 22.33 | 33.68 | 23.15                 |          | .047       | 4.96           |
| 20    | 22.29 | 33.76 | 23.22                 |          | .094       | 4.93           |
| 30    | 22.23 | 33.77 | 23.24                 |          | .141       | 4.97           |
| 50    | 19.59 | 33.60 | 23.82                 |          | .228       | 5.60           |
| 75    | 16.55 | 33.46 | 24.46                 |          | .323       | 5.78           |
| 100   | 15.08 | 33.48 | 24.80                 |          | .407       | 5.62           |
| 150   | 11.31 | 33.61 | 25.66                 |          | .546       | 4.07           |
| 200   | 9.77  | 33.88 | 26.14                 |          | .653       | 3.16           |
| 250   | 9.03  | 34.09 | 26.42                 |          | .743       | 2.41           |
| 300   | 8.78  | 34.24 | 26.58                 |          | .823       | 1.39           |
| 400   | 7.58  | 34.31 | 26.81                 |          | .964       | 0.69           |
| 500   | 6.44  | 34.26 | 26.93                 |          | 1.090      | 0.49           |
| 600   | 5.77  | 34.35 | 27.09                 |          | 1.203      | 0.33           |
| 700   | 5.30  | 34.39 | 27.18                 |          | 1.305      | 0.36           |
| 800   | 4.90  | 34.43 | 27.26                 |          | 1.399      | 0.39           |
| 1000  | 4.06  | 34.49 | 27.40                 |          | 1.569      | 0.64           |

## STATION 120.90 (Interpolated Values at Standard Depths)

PAOLINA T.: 26°08' 118°26'; October 15, 1952; 0606 GCT; wire angle: 100°; sounding: 2500 fms; depth of observation: 615 m; weather: overcast; sea: moderate; wind: 330°, force 3.

| Depth | T     | S     | $\sigma_t$            | $10^5 s$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|----------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |          | (dyn.m.)   | (ml/L)         |
| 0     | 21.82 | 33.60 | 23.23                 |          | .000       | 5.23           |
| 10    | 21.84 | 33.60 | 23.22                 |          | .047       | 4.96           |
| 20    | 21.81 | 33.60 | 23.23                 |          | .093       | 5.12           |
| 30    | 21.83 | 33.60 | 23.22                 |          | .140       | 5.05           |
| 50    | 19.90 | 33.69 | 23.81                 |          | .228       | 5.69           |
| 75    | 16.70 | 33.71 | 24.62                 |          | .321       | 5.85           |
| 100   | 15.72 | 33.73 | 24.85                 |          | .402       | 5.63           |
| 150   | 11.27 | 33.82 | 25.83                 |          | .536       | 4.08           |
| 200   | 9.96  | 34.03 | 26.22                 |          | .637       | 3.26           |
| 250   | 9.47  | 34.25 | 26.48                 |          | .724       | 2.18           |
| 300   | 8.78  | 34.34 | 26.66                 |          | .801       | 1.33           |
| 400   | 7.63  | 34.34 | 26.83                 |          | .938       | 0.59           |
| 500   | 6.67  | 34.41 | 27.02                 |          | 1.058      | 0.56           |
| 600   | 5.96  | 34.39 | 27.10                 |          | 1.167      | 0.33           |



## STATION 123.37 (Interpolated Values at Standard Depths)

PAOLINA T.: 27°24' 114°39'; October 16, 1952; 1455 GCT; wire angle: 0°; sounding: 40 fms; depth of observation: 51 m; weather: overcast; sea: smooth; wind: 320°, force 1.

| Depth | T     | S     | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 21.92 | 33.79 | 23.34                 |               | .000       | 5.09           |
| 10    | 20.56 | 33.68 | 23.63                 |               | .044       | 4.83           |
| 20    | 18.35 | 33.57 | 24.11                 |               | .085       | 5.29           |
| 30    | 16.32 | 33.52 | 24.56                 |               | .121       | 5.18           |
| 50    | 15.36 | 33.53 | 24.78                 |               | .187       | 4.57           |

## STATION 123.40 (Interpolated Values at Standard Depths)

PAOLINA T.: 27°16' 114°56'; October 16, 1952; 1141 GCT; wire angle: 0°; sounding: 540 fms; depth of observation: 606 m; weather: clear; sea: slight; wind: 320°, force 2.

|     |       |       |       |      |      |
|-----|-------|-------|-------|------|------|
| 0   | 21.57 | 33.82 | 23.46 | .000 | 5.18 |
| 10  | 21.39 | 33.78 | 23.48 | .044 | 5.12 |
| 20  | 16.30 | 33.31 | 24.40 | .084 | 5.98 |
| 30  | 14.94 | 33.33 | 24.72 | .118 | 5.94 |
| 50  | 13.97 | 33.57 | 25.11 | .179 | 4.48 |
| 75  | 11.90 | 33.58 | 25.53 | .246 | 3.93 |
| 100 | 11.63 | 33.85 | 25.79 | .305 | 2.92 |
| 150 | 10.17 | 34.03 | 26.19 | .408 | 2.35 |
| 200 | 9.79  | 34.23 | 26.41 | .497 | 1.76 |
| 250 | 9.60  | 34.45 | 26.61 | .576 | 0.85 |
| 300 | 9.02  | 34.42 | 26.68 | .648 | 0.65 |
| 400 | 7.79  | 34.42 | 26.87 | .783 | 0.45 |
| 500 | 6.59  | 34.34 | 26.98 | .904 | 0.32 |
| 600 | 5.90  | -     | -     | -    | 0.22 |



## STATION 123.50 (Interpolated Values at Standard Depths)

PAOLINA T.: 26°54' 115°37'; October 16, 1952; 0429 GCT; wire angle: 15°; sounding: 1970 fms; depth of observation: 566 m; weather: cloudy; sea: slight; wind: 320°, force 2.

| Depth | T     | S     | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 21.04 | 33.58 | 23.42                 |               | .000       | 5.32           |
| 10    | 21.04 | 33.58 | 23.42                 |               | .045       | 5.16           |
| 20    | 20.92 | 33.57 | 23.45                 |               | .089       | 5.22           |
| 30    | 20.53 | 33.57 | 23.55                 |               | .133       | 5.32           |
| 50    | 14.84 | 33.35 | 24.76                 |               | .209       | 6.17           |
| 75    | 12.75 | 33.47 | 25.28                 |               | .283       | 4.95           |
| 100   | 11.03 | 33.54 | 25.65                 |               | .347       | 3.50           |
| 150   | 10.02 | 34.02 | 26.20                 |               | .452       | 2.45           |
| 200   | 9.62  | 34.25 | 26.45                 |               | .539       | 1.93           |
| 250   | 8.26  | 34.17 | 26.60                 |               | .617       | 2.00           |
| 300   | 8.08  | 34.34 | 26.76                 |               | .688       | 1.05           |
| 400   | 7.87  | 34.42 | 26.86                 |               | .818       | 0.38           |
| 500   | 6.48  | 34.38 | 27.02                 |               | .938       | 0.33           |

## STATION 127.34 (Interpolated Values at Standard Depths)

PAOLINA T.: 26°55' 114°06'; October 16, 1952; 2145 GCT; wire angle: 2°; sounding: 46 fms; depth of observation: 51 m; weather: cloudy; sea: smooth; wind: 320°, force 1.

|    |       |       |       |      |      |
|----|-------|-------|-------|------|------|
| 0  | 23.56 | 33.78 | 22.87 | .000 | 4.96 |
| 10 | 23.07 | 33.80 | 23.03 | .049 | 5.02 |
| 20 | 22.26 | 33.69 | 23.17 | .097 | 5.13 |
| 30 | 17.80 | 33.51 | 24.20 | .139 | 5.89 |
| 50 | 15.30 | 33.53 | 24.79 | .208 | 5.16 |



## STATION 127.40 (Interpolated Values at Standard Depths)

PAOLINA T.: 26°43' 114°30'; October 17, 1952; 0129 GCT; wire angle: 2°; sounding: 1650 fms; depth of observation: 613 m; weather: cloudy; sea: slight; wind: 270°, force 1.

| Depth | T     | S     | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 23.99 | 33.93 | 22.86                 |               | .000       | 5.31           |
| 10    | 23.94 | 33.91 | 22.86                 |               | .050       | 5.29           |
| 20    | 23.76 | 33.93 | 22.92                 |               | .100       | 5.14           |
| 30    | 21.00 | 33.50 | 23.37                 |               | .147       | 6.20           |
| 50    | 13.55 | 33.53 | 25.16                 |               | .221       | 5.03           |
| 75    | 12.55 | 33.76 | 25.54                 |               | .287       | 2.92           |
| 100   | 11.74 | 33.96 | 25.85                 |               | .345       | 2.70           |
| 150   | 11.49 | 34.31 | 26.17                 |               | .447       | 1.20           |
| 200   | 10.18 | 34.31 | 26.40                 |               | .536       | 1.48           |
| 250   | 9.75  | 34.39 | 26.54                 |               | .617       | 0.90           |
| 300   | 9.45  | 34.45 | 26.63                 |               | .693       | 0.38           |
| 400   | 7.79  | 34.38 | 26.84                 |               | .831       | 0.42           |
| 500   | 6.94  | 34.43 | 27.00                 |               | .952       | 0.20           |
| 600   | 6.17  | 34.47 | 27.13                 |               | 1.061      | 0.22           |

## STATION 127.50 (Interpolated Values at Standard Depths)

PAOLINA T.: 26°28' 115°10'; October 17, 1952; 0744 GCT; wire angle: 0°; sounding: 2200 fms; depth of observation: 604 m; weather: cloudy; sea: calm; wind: calm.

|     |       |       |       |  |       |      |
|-----|-------|-------|-------|--|-------|------|
| 0   | 21.26 | 33.64 | 23.41 |  | .000  | 5.36 |
| 10  | 21.04 | 33.60 | 23.44 |  | .045  | 5.32 |
| 20  | 19.62 | 33.49 | 23.73 |  | .088  | 5.50 |
| 30  | 17.23 | 33.29 | 24.17 |  | .128  | 5.92 |
| 50  | 14.58 | 33.28 | 24.76 |  | .197  | 5.95 |
| 75  | 13.10 | 33.63 | 25.33 |  | .271  | 4.13 |
| 100 | 10.57 | 33.64 | 25.81 |  | .332  | 3.72 |
| 150 | 9.93  | 34.05 | 26.24 |  | .433  | 2.44 |
| 200 | 10.06 | 34.33 | 26.44 |  | .519  | 0.97 |
| 250 | 9.68  | 34.51 | 26.64 |  | .597  | 0.64 |
| 300 | 9.20  | 34.52 | 26.73 |  | .668  | 0.31 |
| 400 | 7.76  | 34.53 | 26.96 |  | .795  | 0.27 |
| 500 | 6.77  | 34.44 | 27.03 |  | .910  | 0.28 |
| 600 | 6.03  | 34.43 | 27.12 |  | 1.017 | 0.24 |



## STATION 130.30 (Interpolated Values at Standard Depths)

PAOLINA T.: 26°30' 113°28'; October 18, 1952; 1244 GCT; wire angle: 0°; sounding: 41 fms; depth of observation: 51 m; weather: clear; sea: slight; wind: 350°, force 2.

| Depth | T     | S     | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|-------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 23.54 | 33.86 | 22.94                 |               | .000       | 4.98           |
| 10    | 23.55 | 33.87 | 22.94                 |               | .049       | 5.03           |
| 20    | 22.22 | 33.78 | 23.25                 |               | .097       | 5.09           |
| 30    | 18.67 | 33.57 | 24.03                 |               | .140       | 5.65           |
| 50    | 16.28 | 33.49 | 24.54                 |               | .213       | 5.48           |

## STATION 130.35 (Interpolated Values at Standard Depths)

PAOLINA T.: 26°18' 113°43'; October 18, 1952; 0932 GCT; wire angle: 8°; sounding: 70 fms; depth of observation: 74 m; weather: clear; sea: moderate; wind: 320°, force 4.

|    |         |         |         |  |        |        |
|----|---------|---------|---------|--|--------|--------|
| 0  | 24.19   | 34.07   | 22.90   |  | .000   | 4.96   |
| 10 | 24.18   | 34.11   | 22.94   |  | .050   | 4.81   |
| 20 | 24.21   | 34.09   | 22.91   |  | .099   | 4.78   |
| 30 | 18.60   | 33.43   | 23.94   |  | .144   | 5.59   |
| 50 | 15.90   | 33.51   | 24.65   |  | .217   | 5.65   |
| 75 | (13.68) | (33.81) | (25.35) |  | (.291) | (3.87) |



## STATION 130.40 (Interpolated Values at Standard Depths)

PAOLINA T.: 26°09' 114°05'; October 18, 1952; 0543 GCT; wire angle: 15°; sounding: 1150 fms; depth of observation: 1186 m; weather: clear; sea: moderate; wind: 360°, force 2.

| Depth | T     | S     | $\sigma_t$            | $10^5 s$ | $\Delta D$ | $O_2$  |
|-------|-------|-------|-----------------------|----------|------------|--------|
| (m)   | (°C)  | (‰)   | (mg/cm <sup>3</sup> ) |          | (dyn.m.)   | (ml/L) |
| 0     | 24.47 | 34.05 | 22.81                 |          | .000       | 4.85   |
| 10    | 24.45 | 34.09 | 22.84                 |          | .050       | 5.00   |
| 20    | 24.44 | 33.86 | 22.67                 |          | .102       | 5.20   |
| 30    | 18.60 | 33.46 | 23.97                 |          | .147       | 5.51   |
| 50    | 14.47 | 33.28 | 24.78                 |          | .219       | 6.23   |
| 75    | 12.77 | 33.61 | 25.38                 |          | .291       | 4.25   |
| 100   | 11.49 | 33.79 | 25.77                 |          | .353       | 3.05   |
| 150   | 10.82 | 34.24 | 26.24                 |          | .455       | 1.73   |
| 200   | 10.48 | 34.47 | 26.48                 |          | .541       | 0.83   |
| 250   | 9.57  | 34.43 | 26.60                 |          | .618       | 1.01   |
| 300   | 9.64  | 34.54 | 26.67                 |          | .692       | 0.40   |
| 400   | 7.84  | 34.48 | 26.91                 |          | .825       | 0.32   |
| 500   | 6.60  | 34.40 | 27.02                 |          | .942       | 0.26   |
| 600   | 5.78  | 34.43 | 27.15                 |          | 1.048      | 0.27   |
| 700   | 5.23  | 34.47 | 27.25                 |          | 1.143      | 0.30   |
| 800   | 4.75  | 34.49 | 27.32                 |          | 1.231      | 0.37   |
| 1000  | 3.98  | 34.52 | 27.43                 |          | 1.391      | 0.61   |

## STATION 130.50 (Interpolated Values at Standard Depths)

PAOLINA T.: 25°49' 114°46'; October 17, 1952; 2325 GCT; wire angle: 5°; sounding: 2060 fms; depth of observation: 599 m; weather: clear; sea: smooth; wind: 320°, force 1.

|     |        |         |         |  |         |        |
|-----|--------|---------|---------|--|---------|--------|
| 0   | 21.94  | 33.71   | 23.28   |  | .000    | 5.15   |
| 10  | 21.45  | 33.69   | 23.40   |  | .046    | 5.23   |
| 20  | 21.25  | 33.71   | 23.47   |  | .090    | 5.27   |
| 30  | 19.60  | 33.44   | 23.70   |  | .133    | 5.90   |
| 50  | 14.57  | 33.31   | 24.78   |  | .208    | 5.94   |
| 75  | 11.90  | 33.43   | 25.41   |  | .280    | 4.70   |
| 100 | 10.98  | 33.75   | 25.83   |  | .340    | 3.29   |
| 150 | 9.75   | 34.11   | 26.32   |  | .438    | 2.27   |
| 200 | 9.65   | 34.46   | 26.61   |  | .519    | 1.36   |
| 250 | 9.58   | 34.47   | 26.63   |  | .593    | 0.54   |
| 300 | 8.69   | 34.47   | 26.77   |  | .663    | 0.39   |
| 400 | 7.41   | 34.46   | 26.96   |  | .788    | 0.33   |
| 500 | 6.42   | 34.42   | 27.06   |  | .901    | 0.29   |
| 600 | (5.66) | (34.42) | (27.16) |  | (1.005) | (0.22) |



## STATION 130.60 (Interpolated Values at Standard Depths)

PAOLINA T.: 25°20' 115°26'; October 17, 1952; 1653 GCT; wire angle: 7°; sounding: 2200 fms; depth of observation: 1178 m; weather: partly cloudy; sea: smooth; wind: 270°, force 1.

| Depth | T     | S       | $\sigma_t$            | $10^5 \delta$ | $\Delta D$ | O <sub>2</sub> |
|-------|-------|---------|-----------------------|---------------|------------|----------------|
| (m)   | (°C)  | (‰)     | (mg/cm <sup>3</sup> ) |               | (dyn.m.)   | (ml/L)         |
| 0     | 21.75 | 33.57   | 23.22                 |               | .000       | 4.91           |
| 10    | 21.76 | 33.55   | 23.21                 |               | .047       | 4.95           |
| 20    | 21.73 | 33.57   | 23.23                 |               | .093       | 5.01           |
| 30    | 21.68 | 33.58   | 23.25                 |               | .140       | 5.09           |
| 50    | 19.25 | 33.68   | 23.97                 |               | .226       | 5.64           |
| 75    | 16.44 | 33.75   | 24.71                 |               | .316       | 5.50           |
| 100   | 13.59 | 33.64   | 25.24                 |               | .392       | 4.33           |
| 150   | 11.02 | 34.04   | 26.04                 |               | .511       | 2.79           |
| 200   | 10.00 | 34.27   | 26.40                 |               | .603       | 1.76           |
| 250   | 9.33  | 34.35   | 26.58                 |               | .683       | 1.28           |
| 300   | 9.23  | 34.45   | 26.67                 |               | .757       | 0.68           |
| 400   | 7.88  | 34.45   | 26.88                 |               | .891       | 0.34           |
| 500   | 6.88  | 34.41   | 26.99                 |               | 1.011      | 0.25           |
| 600   | 6.18  | 34.40   | 27.08                 |               | 1.123      | 0.25           |
| 700   | 5.54  | 34.41   | 27.17                 |               | 1.226      | 0.30           |
| 800   | 4.96  | 34.43   | 27.25                 |               | 1.322      | 0.36           |
| 1000  | 4.18  | (34.53) | 27.42                 |               | 1.491      | (0.51)         |

## STATION 133.25 (Interpolated Values at Standard Depths)

PAOLINA T.: 26°04' 112°48'; October 18, 1952; 1822 GCT; wire angle: 5°; sounding: 55 fms; depth of observation: 50 m; weather: clear; sea: rough; wind: 330°, force 4.

|    |       |       |       |      |      |
|----|-------|-------|-------|------|------|
| 0  | 23.81 | 33.82 | 22.83 | .000 | 4.81 |
| 10 | 23.80 | 33.82 | 22.83 | .050 | 4.92 |
| 20 | 17.25 | 33.62 | 24.42 | .093 | 5.04 |
| 30 | 15.81 | 33.58 | 24.72 | .127 | 5.22 |
| 50 | 13.58 | 33.68 | 25.27 | .187 | 4.01 |



## STATION 133.30 (Interpolated Values at Standard Depths)

PAOLINA T.: 25°55' 113°08'; October 18, 1952; 2046 GCT; wire angle: 2°; sounding: 100 fms; depth of observation: 100 m; weather: clear; sea: moderate; wind: 360°, force 3.

| Depth<br>(m) | T<br>(°C) | S<br>(‰) | $\sigma_t$<br>(mg/cm <sup>3</sup> ) | $10^5 \delta$ | $\Delta D$<br>(dyn.m.) | O <sub>2</sub><br>(ml/L) |
|--------------|-----------|----------|-------------------------------------|---------------|------------------------|--------------------------|
| 0            | 23.82     | 33.85    | 22.85                               |               | .000                   | 5.00                     |
| 10           | 23.78     | 33.84    | 22.85                               |               | .050                   | 5.03                     |
| 20           | 18.27     | 33.55    | 24.12                               |               | .094                   | 5.60                     |
| 30           | 16.41     | 33.57    | 24.58                               |               | .130                   | 5.34                     |
| 50           | 14.60     | 33.53    | 24.95                               |               | .194                   | 5.09                     |
| 75           | 12.98     | 33.71    | 25.42                               |               | .265                   | 3.80                     |
| 100          | 12.66     | 33.96    | 25.67                               |               | .326                   | 2.57                     |

## STATION 137.23 (Interpolated Values at Standard Depths)

PAOLINA T.: 25°34' 112°19'; October 19, 1952; 0610 GCT; wire angle: 0°; sounding: 45 fms; depth of observation: 50 m; weather: clear; sea: slight; wind: 300°, force 2.

|    |       |       |       |  |      |      |
|----|-------|-------|-------|--|------|------|
| 0  | 24.72 | 33.93 | 22.64 |  | .000 | 4.79 |
| 10 | 24.74 | 33.95 | 22.65 |  | .052 | 4.78 |
| 20 | 23.04 | 33.95 | 23.15 |  | .102 | 5.08 |
| 30 | 19.61 | 33.73 | 23.92 |  | .146 | 5.54 |
| 50 | 15.78 | 33.48 | 24.65 |  | .219 | 5.75 |

## STATION 137.30 (Interpolated Values at Standard Depths)

PAOLINA T.: 25°20' 112°44'; October 19, 1952; 0201 GCT; wire angle: 10°; sounding: 140 fms; depth of observation: 124 m; weather: clear; sea: rough; wind: 320°, force 4.

|     |       |       |       |  |      |      |
|-----|-------|-------|-------|--|------|------|
| 0   | 24.10 | 33.86 | 22.77 |  | .000 | 5.14 |
| 10  | 24.09 | 33.86 | 22.77 |  | .051 | 4.86 |
| 20  | 23.98 | 33.89 | 22.83 |  | .102 | 4.88 |
| 30  | 21.00 | 33.89 | 23.67 |  | .148 | 5.47 |
| 50  | 17.10 | 33.74 | 24.54 |  | .225 | 5.50 |
| 75  | 14.40 | 33.46 | 24.93 |  | .305 | 5.42 |
| 100 | 12.83 | 33.70 | 25.44 |  | .376 | 3.40 |



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