

John D. Jolly

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**MANUSCRIPT REPORT SERIES
(OCEANOGRAPHIC and LIMNOLOGICAL)**

No. 16

**Physical, Chemical and Plankton
Data Record
North Pacific Survey
March 11 to April 10, 1958**

**Pacific Oceanographic Group
Nanaimo, B.C.**

June 1, 1958

**Programmed
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THE CANADIAN JOINT COMMITTEE ON OCEANOGRAPHY

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TITLE

PHYSICAL, CHEMICAL AND PLANKTON
DATA RECORD

NORTH PACIFIC SURVEY

March 11 to April 10, 1958

AUTHORSHIP

Pacific Oceanographic Group
Nanaimo, B.C.

Establishment

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These data are a contribution to the
International Geophysical Year.



A photograph of the oceanographic vessel H.M.C.S. Oshawa.

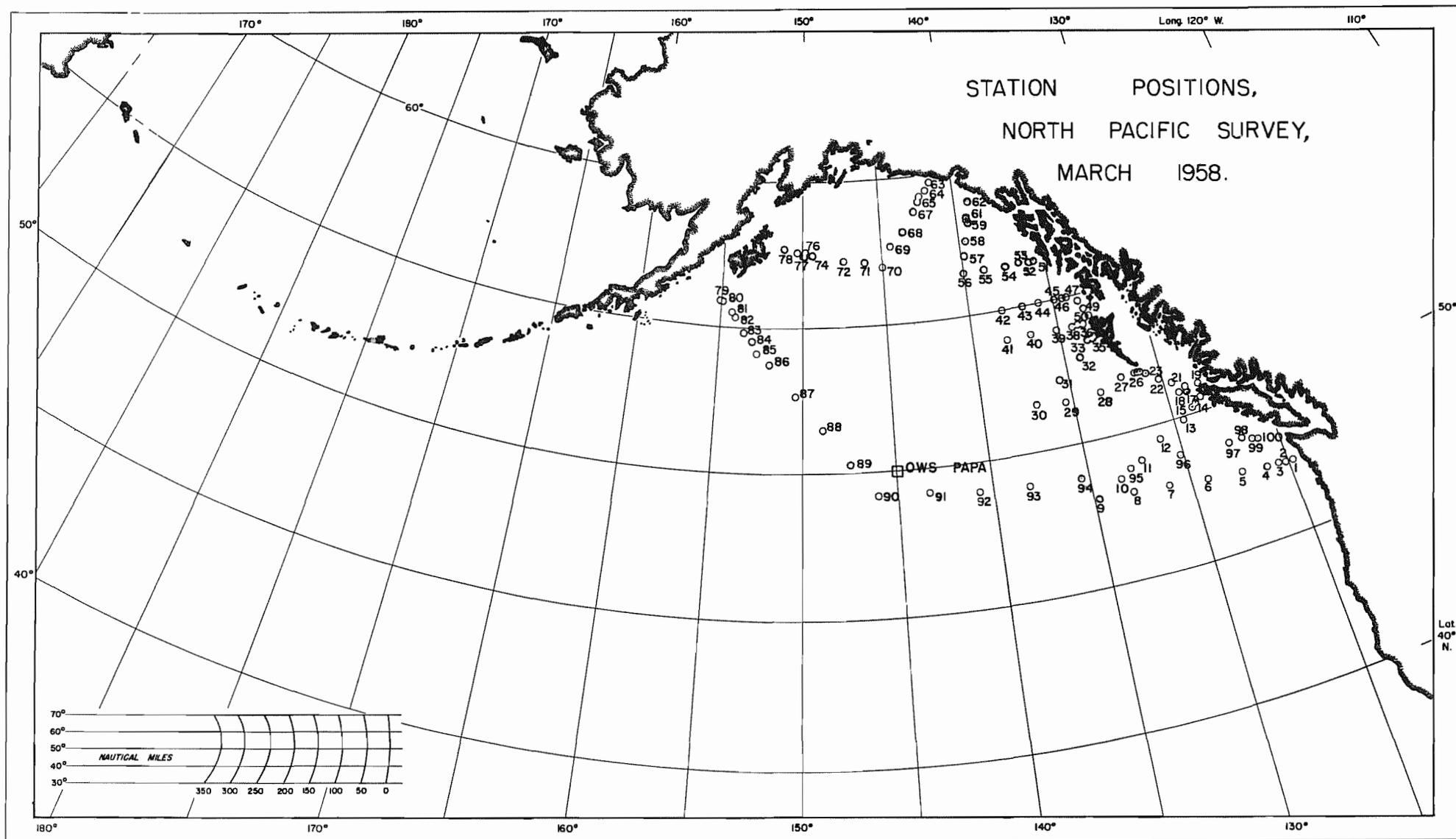


Figure 1. Track chart showing station positions, North Pacific survey
March 11 to April 10, 1958.

Introduction:

This report is concerned with the fifth of a series of surveys planned to describe the oceanography of the Northeast Pacific Ocean. These studies are designed to describe the physical and chemical environment, water masses and currents and their seasonal and yearly fluctuations, in the region of importance to salmon. It is part of Canada's contribution to the research program of the International North Pacific Fisheries Commission in the North Pacific Ocean.

The four previous surveys were accomplished in July - September, 1955¹; July - September, 1956²; January - March, 1957³; and July - August, 1957⁴. Analyses of these data led to a description of the principal features of the water structure, water masses, currents, and volume transport (Tully and Dodimead, 1957) (Bennett, 1958). However, there was a lack of data from the periphery of the region and from depths greater than 2500 meters.

This survey, made during the period March 10 to April 11, 1958, had the following objectives:

1. to monitor the oceanographic conditions in the area in relation to the existing knowledge;
2. to assess the water structure and possible accelerated circulation near the edge of the continental shelf;
3. to obtain data from depths greater than 2500 meters requisite to deep current studies.

The positions of the 99 occupied stations are shown in Figure 1.

¹ Physical, Chemical and Plankton Data Record. Project NorFac. July 26 to September 1, 1955. Fisheries Research Board of Canada, Pacific Oceanographic Group, February 1, 1956.

² Physical, Chemical and Plankton Data Record. North Pacific Survey. July 31 to September 2, 1956. Fisheries Research Board of Canada, Pacific Oceanographic Group, May 31, 1957.

³ Physical, Chemical and Plankton Data Record. North Pacific Survey. January 23 to March 4, 1957. Fisheries Research Board of Canada, Pacific Oceanographic Group, August 15, 1957.

⁴ Physical, Chemical and Plankton Data Record. North Pacific Survey. July 23 to August 30, 1957. Fisheries Research Board of Canada, Pacific Oceanographic Group, September 16, 1957.

Ship:

The ship used for this survey was H.M.C.S. Oshawa. She is an Algerine-class mine sweeper and has been assigned by the Royal Canadian Navy for research work on the west coast of Canada. The commanding officer was Lt.-Cdr. J. Barrick.

Scientific staff:

1. At sea

Bennett, E.B. - Scientist in Charge
Booth, K.S.
Johnston, R.L.
Kennedy, O.D.
Robertson, D.G.
Sinclair, M.P.

2. Base laboratory (calculations, computations, typing, etc.)

Hollister, H.J.
Smith, M.A. (Mrs.)
Tabata, S.

3. Plankton Analyses

LeBrasseur, R.J.

Station observations:

1. Serial observations were planned at depths of 0 (or 5), 20, 30, 50, 75, 100, 125, 150, 175, 200, 225, 250, 300, 400, 500, 600, 800, 1000, 1200, 1500, 2000, 2500, 3000, and 3500 meters. Usually two hydrographic casts were made, the first to a depth of 300 meters. When the water depth limited the cast to 1000 meters or less, a single cast was made.

Because of trouble with hydrographic wire, the maximum possible sampling depth changed during the survey. From station 1 to station 55 it was 3500 meters; from station 57 to station 72, 2500 meters; and from station 74 to station 100, 1500 meters (station consecutive number 73 has been omitted from the series).

2. Surface samples were obtained with a galvanized metal bucket.

3. Samples were drawn from Nansen and Fjarlie water sampling bottles for salinity and dissolved oxygen determinations and were analyzed on shipboard.

4. Temperatures were obtained by deep-sea reversing thermometers. One protected thermometer was used on each bottle.

One unprotected thermometer was used on the 300-meter bottle of the first cast. At least four and as many as six unprotected thermometers were used on the second cast, until five of them were lost at station 72. Only one was used on the deep cast of the remaining stations.

5. Up to station 81, bathythermograph observations were made to 270 meters depth at each station and between stations separated by more than 30 miles. At station 82, the last working bathythermograph was lost.

A surface temperature and a surface sample for salinity were taken with each BT cast.

6. A secchi disc reading was taken at some of the daylight stations.

7. Up to station 80, plankton samples were obtained by means of a vertical haul from 150 meters depth to the surface, using a one-half meter diameter nylon net of mesh size 0.33 mm., (standard NorPac net). The rate of haul-in was one-half to one meter per second. No flow meter was attached to the net to determine the volume of water strained, therefore in the calculation of the volume of water strained, the nets are assumed to be 100% efficient.

After station 72, no sounding weight heavy enough to haul down the plankton net was available. This predisposed to kinking of the only remaining length of hydrographic wire, so plankton hauls were suspended at station 80.

8. Marine life observations were recorded by the officer of the watch.

9. Weather observations were made by the ship's officers.

Methods of chemical analyses:

The determination of salinity was done using a conductivity salinometer. The Winkler method was used for dissolved oxygen analysis. Both determinations are described by Strickland (1957).

Fishing:

On previous surveys, an abundance of pomfret was observed; during this survey, even with varying depths of fishing (0 to 200 feet), time of fishing (night or day), and lures, not one fish of any kind was caught.

References:

Bennett, E.B. 1958. Some oceanographic features of the Northeast Pacific Ocean during August 1955. MSS submitted for M.A. thesis, University of British Columbia, Vancouver, B.C.

Strickland, J.D.H. 1957. Standard methods of seawater analyses, Volume I. MSS report, Fisheries Research Board of Canada, Pacific Oceanographic Group, Nanaimo, B.C.

Tully, J.P. and A.J. Dodimead, 1957. Canadian oceanographic research in the North Pacific Ocean. MSS report, Fisheries Research Board of Canada, Pacific Oceanographic Group, Nanaimo, B.C.

NORTH PACIFIC SURVEY
March 11 to April 10, 1958

SECTION I

Observed and Interpolated
Physical and Chemical Data

Explanation of Data Record Headings

Observed Data:

<u>Station:</u>	Indicates the chronological order in which the stations were taken.
<u>Time:</u>	The time (G.M.T.) when the messenger was released to trip the first cast (0 - 300 meters). The second deeper cast was usually tripped about 45 to 60 minutes later.
<u>Date:</u>	Day, month, year.
<u>Lat:</u> <u>Long:</u>	Position of the ship during the period of observation.
<u>Sounding:</u>	Depth in fathoms as determined from echo sounder observations.
<u>Weather:</u>	Reported in code as given in Table I.
<u>Wind:</u>	True direction and speed reported in knots.
<u>Air Temp:</u>	Dry and wet air temperatures (Fahrenheit) observed with a sling psychrometer.
<u>Baro:</u>	Reading of ship's barometer.
<u>Cloud:</u>	Type of predominating clouds (Table I) and sky coverage in tenths.
<u>Sea:</u> <u>Swell:</u>	True direction and height as described by code given in Table I.
<u>Secchi Disc:</u>	Depth in meters at which a white disc 30 cm. in diameter disappears from sight.
<u>Depth:</u> m.	The difference between the thermometric depths (Z) and meter wheel readings (L) were plotted against the meter wheel readings (L). From the smoothed curve, values L-Z were subtracted from wire length for each bottle depth to obtain the observed depth.
<u>Temp:</u> C°	Temperatures observed from reversing thermometers read to 0.01° C. Temperature values marked with an asterisk have been interpolated or extrapolated, using three-point parabolic interpolation.

<u>S ‰</u> :	Salinity as defined by $S = 0.03 + 1.805 Cl ‰$. Values are significantly different if they differ by more than 0.008 ‰. Values marked with an asterisk have been interpolated or extrapolated, using three-point parabolic interpolation.
<u>σ_t</u> :	"Sigma-T". Density as defined by: (specific gravity - 1) x 1000 expressed as milligrams per cm ³ .
<u>S/V:</u> <u>ft/sec</u>	Speed of sound as calculated using Del Grosso's formula at zero pressure, and corrected for pressure from Kuwahara's tables.
<u>O₂:</u> <u>mg.at/L</u>	Dissolved oxygen content expressed as milligram-atoms per liter to three places of decimal.

Interpolated Data at Standard Depths:

All calculations have been done on the ALWAC III-E digital computer at the computing center of the University of British Columbia.

Interpolated values are a result of three-point parabolic interpolation and are consistent with interpolations made from I.B.M. computations at the U.S. Navy Hydrographic Office, Washington, D.C.

<u>Depth:</u> m.	Standard depths in meters.
<u>Temp:</u> °C	Interpolated values at standard depths.
<u>S ‰</u> :	Interpolated values at standard depths.
<u>σ_t</u> :	"Sigma-T". Density as defined by: (specific gravity - 1) x 1000 expressed as milligrams per cm ³ .
<u>$\sigma_{s,t,p}$</u> :	Density in situ as defined by $\sigma_{s,t,p} = 10^3 (\rho_{s,t,p} - 1)$.
<u>P:</u>	Pressure in decibars.
<u>10⁵δ:</u>	Specific volume anomaly.
<u>ΔD:</u>	Anomaly of dynamic height, in dynamic meters, of the sea surface relative to the indicated pressure surface. The calculations have been done using actual pressures in decibars rather than assuming that pressure in decibars = depth in meters.

Table I

Meteorological Codes used in Data Record

STATE OF WEATHER (Abstracted from H.O. Pub. No. 606C)		CLOUD TYPES	
<u>Code</u>	<u>Description</u>	<u>Name</u>	<u>Code</u>
<u>00</u>	Cloud development not observable	Stratocumulus	Sc
<u>01</u>	Clouds generally dissolving	Stratus	St
<u>02</u>	State of sky unchanged	Fractostratus	Fs
<u>03</u>	Clouds developing	Nimbostratus	Ns
<u>04</u>	Smoke haze	Cumulus	Cu
<u>05</u>	Dry haze	Cumulonimbus	Cb
<u>10</u>	Light fog, vis. 1100 yds. or more	Fractocumulus	Fc
<u>11</u>	Shallow fog in patches	Altostratus	As
<u>13</u>	Lightning visible	Alto cumulus	Ac
<u>16</u>	Precipitation near ship	Cirrus	Ci
<u>18</u>	Squall(s)	Cirrocumulus	Cc
<u>41</u>	Fog in patches	Cirrostratus	Cs
<u>43</u>	Fog, thinning in last hour		
<u>45</u>	Fog, unchanging in last hour		
<u>47</u>	Fog, thicker in last hour, no sky		
<u>50</u>	Drizzle		
<u>57</u>	Drizzle, freezing		
<u>60</u>	Rain, slight, intermittent		
<u>62</u>	Rain, moderate, intermittent		
<u>63</u>	Rain, moderate, continuous		
<u>67</u>	Rain, freezing, moderate		
<u>69</u>	Rain and snow mixed, moderate		
<u>72</u>	Snow, moderate, intermittent		
<u>63</u>	Snow, moderate, continuous		
<u>81</u>	Rain shower(s), moderate		
<u>84</u>	Shower of rain and snow		
<u>86</u>	Snow shower(s), moderate		
<u>88</u>	Hail showers, moderate		
<u>95</u>	Thunderstorm, slight		
<u>97</u>	Thunderstorm, heavy		

STATE OF SEA AND SWELL	
<u>Code</u>	<u>Approx. Height</u>
<u>0</u>	0
<u>1</u>	Less than 1 foot
<u>2</u>	1 to 3 feet
<u>3</u>	3 to 5 feet
<u>4</u>	5 to 8 feet
<u>5</u>	8 to 12 feet
<u>6</u>	12 to 20 feet
<u>7</u>	20 to 40 feet
<u>8</u>	40 feet and over
<u>9</u>	Confused

STATION 1

TIME: 1809 DATE: 11-III-58 LAT: 47° 25' N LONG: 124°47' W SOUNDING: 102 fms.
 WEATHER: 01 WIND: Dir. 115° Speed 5 AIR TEMP: Dry 49° Wet 47° BARO: 1015.2 mb.
 CLOUD: Type Cu Amt 1 SEA: 115° - 1 SWELL: 310° - 3 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg./l.
0.	10.50	30.507	23.39	4877.0	0.696
10.	10.25	31.003	23.82	4876.5	.681
20.	10.85	32.231	24.67	4888.8	.583
30.	10.75	32.540	24.93	4889.3	.578
50.	10.70	32.713	25.07	4890.6	.549
75.	10.41	32.877	25.25	4889.2	.516
100.	8.37	33.637	26.17	4868.7	.318
125.	7.92	33.780	26.35	4865.1	.295
150.	7.72	33.852	26.43	4864.3	.258
175.	7.41	33.904	26.52	4862.0	.254

STATION 1

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	10.50	30.51	23.39	23.39	0.0	450.0	0.000
10.	10.25	31.00	23.82	23.86	10.0	409.5	.043
20.	10.85	32.23	24.67	24.76	20.1	328.5	.080
30.	10.75	32.54	24.93	25.06	30.1	304.2	.112
50.	10.70	32.71	25.07	25.30	50.3	291.0	.172
75.	10.41	32.88	25.25	25.59	75.4	274.6	.243
100.	8.37	33.64	26.17	26.63	100.6	187.2	.301
125.	7.92	33.78	26.35	26.93	125.8	170.5	.346
150.	7.72	33.85	26.43	27.13	150.9	162.7	.388
175.	7.41	33.90	26.52	27.33	176.1	155.0	.428

STATION 2

TIME: 2038 DATE: 11-III-58 LAT: 47° 26.5'N LONG: 125° 10' W SOUNDING: 350 fms.
 WEATHER: 00 WIND: Dir. 030° Speed 5 AIR TEMP: Dry 54° Wet 49° BARO: 1014.6 mb.
 CLOUD: Type Cu Amt 1 SEA: 030° - 1 SWELL: 280° - 3 SECCHI DISC: 9 meters

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	9.80	32.457	25.02	4875.9	0.685
10.	9.76	32.432	25.01	4875.9	.690
30.	9.65	32.419	25.02	4875.7	.706
50.	9.69	32.452	25.04	4877.5	.610
75.	9.51	32.994	25.49	4878.8	.520
100.	9.03	33.337	25.83	4875.7	.429
125.	8.57	33.524	26.05	4872.2	.374
150.	8.43	33.669	26.19	4872.5	.317
175.	8.01	33.798	26.35	4869.2	.281
200.	7.57	33.875	26.47	4865.4	.210
225.	7.29	33.926	26.55	4863.5	.247
250.	7.03	33.964	26.62	4861.8	.213
275.	6.87	33.978	26.65	4861.3	.194
300.	6.56	34.007	26.72	4858.9	.172
400.	5.76	34.062	26.86	4854.5	.117
500.	5.29	34.098	26.95	4854.3	.089
600.	4.60	34.186	27.10	4851.2	.048

STATION 2

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	9.80	32.46	25.02	25.02	0.0	294.4	0.000
10.	9.76	32.43	25.01	25.06	10.1	295.9	.030
20.	9.71	32.42	25.01	25.10	20.1	296.2	.059
30.	9.65	32.42	25.02	25.16	30.2	295.5	.089
50.	9.69	32.45	25.04	25.27	50.3	294.0	.148
75.	9.51	32.99	25.49	25.83	75.4	251.5	.217
100.	9.03	33.34	25.83	26.29	100.6	219.2	.276
125.	8.57	33.52	26.05	26.63	125.8	198.9	.329
150.	8.43	33.67	26.19	26.88	151.0	186.5	.377
175.	8.01	33.80	26.35	27.16	176.1	171.3	.423
200.	7.57	33.88	26.47	27.40	201.3	159.7	.464
225.	7.29	33.93	26.55	27.60	226.5	152.4	.504
250.	7.03	33.96	26.62	27.78	251.7	146.5	.541
300.	6.56	34.01	26.72	28.11	302.2	137.7	.613
400.	5.76	34.06	26.86	28.73	403.0	124.6	.745
500.	5.29	34.10	26.95	29.28	504.0	117.3	.867
600.	4.60	34.19	27.10	29.90	605.0	103.5	.979

STATION 3

TIME: 2336 DATE: 11-III-58 LAT: 47° 28' N LONG: 125° 30' W SOUNDING: 790 fms.
 WEATHER: 01 WIND: Dir. 030° Speed 10 AIR TEMP: Dry 55° Wet 50° BARO: 1012.9 mb.
 CLOUD: Type Cu Amt 1 SEA: 030° - 2 SWELL: 290° - 3 SECCHI DISC: 17 meters

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft./sec.	O ₂ mg.at./l.
0.	9.94*	32.523*	25.05	4877.8	
5.	9.84	32.524	25.07	4876.9	0.610
20.	9.70	32.526	25.09	4876.1	.620
30.	9.73	32.526	25.09	4877.1	.611
49.	9.71	32.522	25.09	4877.9	.582
74.	9.64	32.619	25.18	4878.9	.449
98.	8.11	33.297	25.94	4864.0	.364
123.	8.00	33.588	26.19	4865.2	.344
148.	7.71	33.700	26.32	4863.5	.302
172.	7.58	33.824	26.43	4863.7	.251
197.	7.39	33.912	26.53	4863.1	.210
222.	7.24	33.957	26.59	4862.8	.222
246.	6.83	33.962	26.65	4859.0	.184
296.	6.51	33.995	26.71	4857.9	.141
392.	5.78	34.076	26.87	4854.3	.068
491.	5.43	34.125	26.95	4855.7	.051
590.	4.69	34.186	27.09	4851.9	.045
788.	4.08	34.300	27.24	4855.7	.026
986.	3.58	34.395	27.37	4860.9	.026
1000.	3.55*	34.401*	27.38	4861.3	

STATION 3

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	9.94	32.52	25.05	25.05	0.0	291.7	0.000
10.	9.77	32.52	25.08	25.13	10.1	289.1	.029
20.	9.70	32.53	25.09	25.19	20.1	288.1	.058
30.	9.73	32.53	25.09	25.23	30.2	288.8	.087
50.	9.71	32.52	25.09	25.32	50.3	289.0	.145
75.	9.60	32.64	25.19	25.54	75.4	279.5	.217
100.	8.05	33.34	25.98	26.44	100.6	204.8	.278
125.	7.98	33.60	26.20	26.78	125.8	184.5	.327
150.	7.69	33.71	26.33	27.02	151.0	172.9	.372
175.	7.56	33.84	26.45	27.26	176.2	162.0	.414
200.	7.37	33.92	26.54	27.46	201.3	153.6	.454
225.	7.20	33.96	26.59	27.63	226.5	148.8	.492
250.	6.78	33.96	26.65	27.81	251.8	143.1	.529
300.	6.48	34.00	26.72	28.11	302.2	137.4	.599
400.	5.74	34.08	26.88	28.74	403.1	122.9	.731
500.	5.38	34.13	26.96	29.29	504.0	116.0	.851
600.	4.63	34.19	27.10	29.90	605.0	103.5	.962
700.	4.21	34.25	27.19	30.47	706.1	95.1	1.062
800.	4.05	34.31	27.25	31.00	807.2	90.0	1.156
1000.	3.55	34.40	27.38	32.06	1009.6	78.8	1.327

STATION 4

TIME: 0445 DATE: 12-III-58 LAT: 47° 30' N LONG: 126° 05' W SOUNDING: 900 fms.
 WEATHER: 02 WIND: Dir. 340° Speed 15 AIR TEMP: Dry 49° Wet 48° BARO: 1012.2 mb.
 CLOUD: Type Cb Amt 1 SEA: 340° - 1 SWELL: 320° - 2 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/v ft/sec.	O ₂ mg. % / l.
0.	9.25*	32.436*	25.10	4869.1	
5.	9.26	32.434	25.09	4869.5	0.640
20.	9.25	32.434	25.09	4870.3	.630
29.	9.21	32.438	25.10	4870.3	.641
49.	9.23	32.446	25.11	4871.8	.625
74.	8.80	32.792	25.44	4869.3	.566
98.	7.74	33.459	26.12	4860.0	.407
123.	7.72	33.608	26.24	4861.8	.362
147.	7.73	33.793	26.39	4864.0	.282
172.	7.33	33.850	26.49	4860.6	.293
196.	7.08	33.881	26.55	4859.0	.303
221.	6.91	33.934	26.61	4858.5	.278
245.	6.56	33.928	26.66	4855.3	.264
294.	5.91	33.997	26.79	4849.9	.168
392.	5.16	34.014	26.90	4845.8	.135
490.	4.83	34.058	26.97	4847.3	.099
588.	4.55	34.168	27.09	4849.8	.060
785.	3.97	34.288	27.25	4854.0	.051
970.	3.56	34.400	27.38	4859.7	.044
1000.	3.51*	34.418*	27.40	4860.8	

STATION 4

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	9.25	32.44	25.10	25.10	0.0	287.6	0.000
10.	9.26	32.43	25.09	25.14	10.1	288.2	.029
20.	9.25	32.43	25.09	25.19	20.1	288.1	.058
30.	9.21	32.44	25.10	25.24	30.2	287.3	.087
50.	9.22	32.45	25.11	25.34	50.3	286.8	.145
75.	8.77	32.81	25.47	25.81	75.4	253.7	.213
100.	7.70	33.49	26.16	26.62	100.6	188.4	.268
125.	7.72	33.62	26.25	26.83	125.8	179.4	.315
150.	7.70	33.81	26.40	27.10	151.0	165.8	.358
175.	7.29	33.86	26.50	27.31	176.2	157.0	.399
200.	7.05	33.89	26.56	27.49	201.4	151.6	.438
225.	6.86	33.94	26.62	27.67	226.6	145.9	.475
250.	6.49	33.93	26.67	27.83	251.8	141.8	.511
300.	5.84	34.00	26.81	28.20	302.2	128.8	.579
400.	5.12	34.02	26.90	28.77	403.1	120.2	.705
500.	4.80	34.07	26.98	29.32	504.0	113.8	.823
600.	4.52	34.18	27.10	29.91	605.0	103.0	.933
700.	4.22	34.25	27.19	30.47	706.1	95.1	1.033
800.	3.93	34.30	27.26	31.00	807.2	89.3	1.126
1000.	3.51	34.42	27.40	32.08	1009.6	77.1	1.294

STATION 5

TIME: 2155 DATE: 12-III-58 LAT: 47° 35' N LONG: 127° 21' W SOUNDING: 1396 fms.
 WEATHER: 02 WIND: Dir. 010° Speed 5 AIR TEMP: Dry 47° Wet 45° BARO: 1012.2 mb.
 CLOUD: Typ- Cu Amt 1 SEA: 010° - 2 SWELL: 290° - 4 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. C	S ‰	σ_t	S/V m/sec.	O ₂ mg./l.
0.	8.72*	32.431*	25.17	4862.6	
5.	8.73	32.426	25.17	4863.0	0.606
20.	8.73	32.421	25.16	4863.8	.600
30.	8.71	32.426	25.17	4864.2	.601
50.	8.75	32.430	25.17	4865.9	.589
75.	7.31	32.824	25.69	4850.7	.546
100.	7.31	33.300	26.06	4854.0	.448
125.	7.28	33.597	26.30	4856.2	.388
150.	7.22	33.798	26.46	4857.7	.328
175.	7.07	33.891	26.56	4857.6	.292
200.	6.87	33.926	26.61	4856.7	.282
225.	6.63	33.954	26.67	4855.1	.224
250.	6.35	33.963	26.71	4853.0	.209
300.	6.00	33.994	26.78	4851.5	.163
398.	5.34	34.053	26.91	4848.7	.107
497.	4.92	34.122	27.01	4849.2	.066
597.	4.50	34.200	27.12	4849.7	.044
797.	3.93	34.321	27.28	4854.2	.030
993.	3.46	34.407	27.39	4859.7	.028
1190.	3.03	34.464	27.48	4865.5	.040
1487.	2.49	34.528	27.58	4875.7	.068
1982.	1.94	34.602	27.68	4897.5	.128
2000.	1.93*	34.604*	27.68	4898.4	

STATION 5

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	8.72	32.43	25.17	25.17	0.0	280.1	0.000
10.	8.73	32.42	25.17	25.21	10.1	281.1	.028
20.	8.73	32.42	25.16	25.26	20.1	281.3	.057
30.	8.71	32.43	25.17	25.31	30.2	280.8	.085
50.	8.75	32.43	25.17	25.40	50.3	281.5	.141
75.	7.31	32.82	25.69	26.03	75.4	232.4	.206
100.	7.31	33.30	26.06	26.52	100.6	197.4	.260
125.	7.28	33.60	26.30	26.88	125.8	175.2	.307
150.	7.22	33.80	26.46	27.16	151.0	159.8	.349
175.	7.07	33.89	26.56	27.37	176.2	151.3	.388
200.	6.87	33.93	26.61	27.54	201.4	146.4	.426
225.	6.63	33.95	26.67	27.71	226.6	141.5	.462
250.	6.35	33.96	26.71	27.87	251.8	137.5	.497
300.	6.00	33.99	26.78	28.18	302.2	131.4	.565
400.	5.33	34.05	26.91	28.78	403.1	119.9	.692
500.	4.91	34.12	27.01	29.35	504.1	110.7	.808
600.	4.49	34.20	27.12	29.93	605.1	101.0	.915
700.	4.16	34.27	27.21	30.49	706.1	93.3	1.013
800.	3.92	34.32	27.28	31.02	807.2	87.3	1.105
1000.	3.44	34.41	27.39	32.08	1009.6	77.0	1.271
1200.	3.01	34.47	27.48	33.11	1212.2	69.2	1.419
1500.	2.47	34.53	27.58	34.61	1516.5	60.0	1.616
2000.	1.93	34.60	27.68	37.04	2024.6	50.5	1.897

STATION 6

TIME: 2054 DATE: 12-III-58 LAT: 47° 41' N LONG: 129° 09' W SOUNDING: 1395 fms.
 WEATHER: 03 WIND: Dir. 060° Speed 12 AIR TEMP: Dry 59° Wet 57° BARO: 1012.5 mb.
 CLOUD: Type Cb Amt 2 SEA: 060° - 1 SWELL: 310° - 3 SECCHI DISC: 21 meters

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft./sec.	O ₂ mg.at/l.
0.	8.80*	32.409*	25.15	4863.4	
5.	8.71	32.408	25.16	4862.6	0.599
18.	8.59	32.406	25.17	4861.9	.600
28.	8.60	32.406	25.17	4862.6	.597
46.	8.59	32.407	25.17	4863.6	.599
69.	8.55	32.428	25.20	4864.5	.592
92.	6.93	32.977	25.86	4847.4	.519
115.	6.88	33.215	26.05	4849.0	.494
138.	6.99	33.481	26.25	4852.8	.426
161.	6.93	33.668	26.40	4854.1	.413
184.	6.93	33.845	26.54	4856.2	.314
207.	6.57	33.899	26.63	4853.1	.299
230.	6.33	33.935*	26.69	4851.4	
275.	5.89	33.956	26.76	4848.4	.202
394.	5.17	34.038	26.92	4846.2	.123
493.	4.71	34.180	27.08	4846.4	.087
592.	4.41	34.197	27.13	4848.2	.047
792.	3.99	34.307	27.26	4854.7	.031
991.	3.42	34.394	27.38	4858.9	.028
1190.	2.97	34.452	27.47	4864.6	.040
1487.	2.47	34.524	27.57	4875.4	.084
1985.	1.95	34.606	27.68	4897.8	.129
2482.	1.79	34.590	27.68	4924.9	.126
2500.	1.79*	34.588*	27.68	4925.9	

STATION 6

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	8.80	32.41	25.15	25.15	0.0	282.8	0.000
10.	8.65	32.41	25.17	25.21	10.1	281.0	.028
20.	8.58	32.41	25.17	25.27	20.1	280.4	.057
30.	8.60	32.41	25.17	25.31	30.2	280.7	.085
50.	8.59	32.41	25.18	25.41	50.3	280.6	.141
75.	8.28	32.52	25.31	25.66	75.4	268.4	.210
100.	6.73	33.10	25.98	26.44	100.6	205.1	.270
125.	6.91	33.33	26.14	26.72	125.8	190.4	.320
150.	6.98	33.59	26.33	27.03	151.0	172.2	.365
175.	6.92	33.78	26.49	27.30	176.2	157.8	.407
200.	6.72	33.90	26.61	27.54	201.4	146.6	.445
225.	6.37	33.93	26.68	27.73	226.6	140.0	.481
250.	6.13	33.95	26.73	27.89	251.8	135.5	.516
300.	5.69	33.97	26.80	28.20	302.2	129.3	.583
400.	5.14	34.04	26.92	28.79	403.1	118.3	.708
500.	4.68	34.19	27.09	29.43	504.0	103.6	.820
600.	4.39	34.20	27.13	29.94	605.1	100.1	.923
700.	4.15	34.24	27.19	30.47	706.1	95.0	1.021
800.	3.97	34.31	27.26	31.01	807.2	88.8	1.114
1000.	3.40	34.40	27.39	32.08	1009.6	77.4	1.282
1200.	2.95	34.45	27.48	33.10	1212.2	69.4	1.431
1500.	2.45	34.53	27.58	34.61	1516.5	60.1	1.628
2000.	1.94	34.61	27.68	37.05	2024.6	50.4	1.909
2500.	1.79	34.59	27.68	39.34	2533.8	51.8	2.169

STATION 7

TIME: 0535 DATE: 13-III-58 LAT: 47°49' N LONG: 131° 05' W SOUNDING: 1550 fms.
 WEATHER: 01 WIND: Dir. 030° Speed 10 AIR TEMP: Dry 47° Wet 46° BARO: 1014.6 mb.
 CLOUD: Type Cu Amt 4 SEA: 030° - 2 SWELL: 310° - 3 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at./l.
0.	7.91*	32.446*	25.31	4852.4	
5.	7.90	32.444	25.31	4852.6	0.604
20.	7.89	32.444	25.31	4853.4	.613
30.	7.90	32.448	25.31	4854.1	.610
50.	7.90	32.440	25.30	4855.3	.602
74.	7.89	32.448	25.31	4856.6	.604
99.	7.46	32.582	25.48	4853.1	.574
124.	6.46	33.167	26.07	4843.9	.489
149.	6.22	33.447	26.32	4843.3	.448
174.	6.31	33.734	26.54	4847.1	.391
199.	6.34	33.859	26.63	4849.4	.320
224.	6.05	33.914	26.71	4847.3	.271
248.	5.83	33.955*	26.77	4846.0	
297.	5.37	34.001	26.86	4842.9	.184
367.	5.04	33.981	26.89	4842.6	.147
460.	4.62	34.080	27.01	4842.8	.080
554.	4.29	34.158	27.11	4844.1	.060
742.	3.84	34.276	27.25	4849.6	.039
929.	3.38	34.360	27.36	4854.6	.029
1118.	2.96	34.430	27.46	4860.1	.035
1405.	2.53	34.508	27.56	4871.4	.061
1896.	1.97	34.594	27.67	4892.8	.120
2394.	1.73	34.577	27.68	4918.7	.195
2500.	1.72*	34.560*	27.66	4924.8	

STATION 7

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	7.91	32.45	25.31	25.31	0.0	267.6	0.000
10.	7.89	32.44	25.31	25.35	10.1	267.7	.027
20.	7.89	32.44	25.31	25.40	20.1	267.8	.054
30.	7.90	32.45	25.31	25.45	30.2	267.8	.081
50.	7.90	32.44	25.30	25.53	50.3	268.6	.135
75.	7.88	32.45	25.31	25.66	75.4	267.9	.202
100.	7.43	32.60	25.49	25.96	100.6	251.3	.268
125.	6.44	33.18	26.09	26.67	125.8	195.0	.324
150.	6.22	33.46	26.33	27.03	151.0	172.1	.370
175.	6.31	33.74	26.54	27.36	176.2	152.5	.411
200.	6.33	33.86	26.63	27.56	201.4	144.1	.448
225.	6.04	33.92	26.71	27.76	226.6	136.8	.484
250.	5.81	33.96	26.77	27.94	251.8	131.2	.517
300.	5.35	34.00	26.87	28.27	302.2	122.8	.581
400.	4.89	34.00	26.92	28.79	403.1	118.7	.703
500.	4.47	34.12	27.06	29.40	504.0	106.2	.817
600.	4.15	34.19	27.15	29.96	605.1	98.0	.920
700.	3.92	34.25	27.22	30.51	706.1	91.5	1.016
800.	3.70	34.31	27.29	31.04	807.2	86.1	1.106
1000.	3.22	34.39	27.40	32.09	1009.6	76.0	1.270
1200.	2.81	34.46	27.49	33.12	1212.2	67.7	1.415
1500.	2.40	34.53	27.58	34.62	1516.5	59.4	1.609
2000.	1.89	34.60	27.68	37.05	2024.6	50.4	1.887
2500.	1.72	34.56	27.66	39.33	2533.8	52.9	2.150

STATION 8

TIME: 1405 DATE: 13-III-58 L.A.T. 47° 56' N LONG: 132° 56' W SOUNDING: 1400 fms.
 WEATHER: 13 WIND: Dir. 010° Speed 10 AIR TEMP: Dry 46° Wet 45° BARO: 1016.3 mb.
 CLOUD: Type Cu AM 2 SEA: 010° - 2 SWELL: 290° - 4 SMOCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/T ft./sec.	O ₂ mg./l.
0.	7.87*	32.455*	25.32	4852.0	
5.	7.86	32.454	25.32	4852.1	0.590
20.	7.83	32.451	25.32	4852.6	.589
30.	7.82	32.449	25.32	4853.1	.592
50.	7.80	32.454	25.33	4854.0	.590
75.	7.76	32.462	25.34	4855.0	.593
100.	6.70	32.778	25.73	4844.1	.542
125.	6.16	33.143	26.09	4839.9	.505
149.	5.95	33.406	26.32	4839.6	.456
174.	5.83	33.684	26.56	4840.5	.407
199.	5.84	33.826	26.67	4842.7	.363
224.	5.72	33.860	26.71	4842.7	.337
249.	5.52	33.880	26.75	4841.6	.292
299.	5.14	33.929	26.83	4839.7	.206
384.	4.56	33.983	26.94	4837.1	.129
481.	4.08	34.066	27.06	4836.6	.085
578.	3.88	34.138	27.14	4839.8	.057
776.	3.62	34.286	27.28	4848.5	.036
971.	3.15	34.367	27.39	4853.9	.032
1172.	2.84	34.436	27.47	4861.7	.036
1463.	2.40	34.514	27.57	4873.0	.063
1955.	1.91	34.592	27.67	4895.4	.121
2235.	1.82	34.625	27.71	4910.8	.151

STATION 8

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	7.87	32.45	25.32	25.32	0.0	266.4	0.000
10.	7.85	32.45	25.32	25.37	10.1	266.4	.027
20.	7.83	32.45	25.32	25.41	20.1	266.4	.054
30.	7.82	32.45	25.32	25.46	30.2	266.6	.080
50.	7.80	32.45	25.33	25.56	50.3	266.2	.134
75.	7.76	32.46	25.34	25.69	75.5	265.5	.201
100.	6.70	32.78	25.73	26.20	100.6	228.3	.263
125.	6.16	33.14	26.09	26.67	125.8	194.7	.316
150.	5.94	33.42	26.33	27.03	151.0	171.9	.362
175.	5.83	33.69	26.56	27.38	176.2	150.2	.403
200.	5.84	33.83	26.67	27.60	201.4	140.4	.440
225.	5.71	33.86	26.71	27.76	226.6	136.9	.475
250.	5.51	33.88	26.75	27.92	251.8	133.3	.509
300.	5.13	33.93	26.83	28.24	302.2	125.7	.574
400.	4.47	34.00	26.96	28.84	403.1	114.3	.695
500.	4.02	34.08	27.08	29.42	504.1	103.8	.805
600.	3.84	34.15	27.15	29.97	605.1	97.3	.907
700.	3.70	34.23	27.23	30.51	706.1	90.9	1.002
800.	3.57	34.30	27.29	31.05	807.3	85.1	1.091
1000.	3.09	34.38	27.40	32.10	1009.7	75.4	1.253
1200.	2.80	34.44	27.48	33.12	1212.2	68.4	1.399
1500.	2.35	34.52	27.58	34.62	1516.5	59.3	1.593
2000.	1.89	34.60	27.68	37.05	2024.6	50.4	1.872

STATION 9

CIME: 2306 DATE: 13-III-58 LAT: 48° 03' N LONG: 134° 44' W SOUNDING: 2200 fms.
 WEATHER: 00 WIND: Dir. 030° Speed 15 AIR TEMP: Dry 42° Wet 41° BARO: 1020.3 mb.
 CLOUD: Type: Amt 0 SEA: 030° - 3 SWELL: 310° - 3 SECCHI DISC: 19 meters

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	7.96*	32.461*	25.31	4853.2	
5.	7.90	32.463	25.32	4852.7	0.593
20.	7.80	32.465	25.34	4852.3	.594
30.	7.81	32.464	25.33	4853.0	.591
50.	7.80	32.464	25.34	4854.1	.585
75.	7.72	32.475	25.36	4854.6	.595
100.	6.42	33.010	25.95	4841.3	.511
125.	6.16	33.522	26.39	4841.4	.438
150.	6.24	33.765	26.57	4844.9	.378
175.	6.08	33.809	26.62	4844.4	.390
200.	5.84	33.860	26.69	4842.9	.391
225.	5.61	33.883	26.74	4841.4	.366
250.	5.38	33.906	26.79	4839.9	.313
300.	5.06	33.931	26.84	4838.7	.258
400.	4.45	33.987	26.96	4836.5	.164
501.	4.10	34.062	27.05	4838.0	.111
602.	3.90	34.174	27.16	4841.7	.064
803.	3.58	34.315	27.31	4849.7	.029
1004.	3.12	34.406	27.42	4855.5	.027
1206.	2.76	34.464	27.50	4862.7	.039
1509.	2.34	34.529	27.59	4874.9	.068
2013.	1.89	34.605	27.69	4898.6	.105

STATION 9

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	7.96	32.46	25.31	25.31	0.0	267.2	0.000
10.	7.85	32.46	25.33	25.37	10.1	265.6	.027
20.	7.80	32.47	25.34	25.43	20.1	265.0	.053
30.	7.81	32.46	25.33	25.47	30.2	265.3	.080
50.	7.80	32.46	25.34	25.57	50.3	265.5	.134
75.	7.72	32.47	25.36	25.70	75.5	263.9	.200
100.	6.42	33.01	25.95	26.42	100.6	207.5	.259
125.	6.16	33.52	26.39	26.97	125.8	166.4	.307
150.	6.24	33.77	26.57	27.27	151.0	149.6	.346
175.	6.08	33.81	26.62	27.44	176.2	144.6	.383
200.	5.84	33.86	26.69	27.63	201.4	138.2	.419
225.	5.61	33.88	26.74	27.79	226.6	134.0	.453
250.	5.38	33.91	26.79	27.95	251.8	129.8	.487
300.	5.06	33.93	26.84	28.25	302.2	124.8	.551
400.	4.45	33.99	26.96	28.83	403.1	114.7	.672
500.	4.10	34.06	27.05	29.40	504.1	106.2	.783
600.	3.90	34.17	27.16	29.98	605.1	96.7	.886
700.	3.73	34.26	27.24	30.53	706.2	89.3	.980
800.	3.58	34.31	27.30	31.06	807.3	84.2	1.067
1000.	3.13	34.40	27.42	32.11	1009.7	73.8	1.227
1200.	2.77	34.46	27.50	33.13	1212.3	66.8	1.369
1500.	2.35	34.53	27.59	34.63	1516.5	58.9	1.561
2000.	1.90	34.60	27.68	37.05	2024.6	50.2	1.838

STATION 10

TIME: 0748 DATE: 14-III-58 LAT: 48°32' N LONG: 133° 26' W SOUNDING: 1950 fms.
 WEATHER: 00 WIND: Dir. 030° Speed 15 AIR TEMP: Dry 45° Wet 44° BARO: 1021.0 mb.
 CLOUD: Type Amt 0 SEA: 030° - 1 SWELL: 340° - 2 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	7.44*	32.515*	25.43	4846.7	
5.	7.42	32.516	25.43	4846.8	0.623
20.	7.39	32.521	25.44	4847.3	.621
30.	7.39	32.526	25.44	4847.9	.612
50.	7.28	32.543	25.47	4847.7	.610
75.	7.12	32.556	25.50	4847.2	.611
100.	6.39	32.941	25.90	4840.7	.552
125.	5.91	33.332	26.27	4837.3	.498
150.	6.13	33.639	26.48	4842.9	.422
175.	6.18	33.782	26.59	4845.6	.378
200.	5.91	33.866	26.69	4843.9	.341
225.	5.50	33.885	26.76	4840.0	.334
250.	5.25	33.950	26.84	4838.3	.241
300.	4.68	33.919	26.88	4833.5	.230
381.	4.38	34.009	26.98	4834.5	.143
476.	4.02	34.084	27.08	4835.5	.090
572.	3.92	34.186	27.17	4840.2	.052
764.	3.44	34.287	27.30	4845.3	.043
957.	3.15	34.375	27.39	4853.1	.034
1151.	2.85	34.447	27.48	4860.6	.043
1441.	2.39	34.514	27.57	4871.5	.061
1924.	1.92	34.606	27.68	4893.8	.129
2408.	1.72	34.641	27.73	4919.7	.185
2891.	1.60	34.667	27.76	4946.6	.216
3000.	1.58*	34.672*	27.76	4952.8	

STATION 10

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	7.44	32.51	25.43	25.43	0.0	256.1	0.000
10.	7.41	32.52	25.43	25.48	10.1	255.7	.026
20.	7.39	32.52	25.44	25.53	20.1	255.3	.051
30.	7.39	32.53	25.44	25.58	30.2	255.1	.077
50.	7.28	32.54	25.47	25.70	50.3	252.6	.128
75.	7.12	32.56	25.50	25.85	75.5	249.9	.191
100.	6.39	32.94	25.90	26.37	100.6	212.3	.250
125.	5.91	33.33	26.27	26.85	125.8	177.5	.299
150.	6.13	33.64	26.48	27.18	151.0	157.6	.341
175.	6.18	33.78	26.59	27.40	176.2	147.9	.379
200.	5.91	33.87	26.69	27.62	201.4	138.6	.415
225.	5.50	33.89	26.76	27.81	226.6	132.5	.450
250.	5.25	33.95	26.84	28.01	251.8	125.0	.482
300.	4.68	33.92	26.88	28.28	302.2	121.4	.544
400.	4.31	34.03	27.00	28.88	403.1	110.2	.661
500.	3.97	34.11	27.10	29.45	504.1	101.4	.768
600.	3.87	34.21	27.19	30.01	605.1	93.5	.866
700.	3.64	34.27	27.26	30.55	706.2	87.4	.958
800.	3.37	34.30	27.32	31.08	807.3	82.5	1.044
1000.	3.08	34.39	27.41	32.11	1009.7	74.2	1.202
1200.	2.77	34.46	27.50	33.13	1212.3	66.9	1.345
1500.	2.31	34.53	27.59	34.63	1516.6	58.5	1.536
2000.	1.87	34.62	27.70	37.06	2024.7	49.0	1.809
2500.	1.69	34.65	27.73	39.40	2533.9	46.2	2.051
3000.	1.58	34.67	27.76	41.70	3044.3	44.6	2.283

STATION 11

TIME: 1526 DATE: 14-III-58 LAT: 48° 57' N LONG: 132° 13' W SOUNDING: 1620 fms.
 WEATHER: 03 WIND: Dir. 300° Speed 5 AIR TEMP: Dry 45° Wet 44° BARO: 1016.9 mb.
 CLOUD: Type Sc Amt 10 SEA: 300° - 1 SWELL: 330° - 2 SECCHI DISC: 20 meters

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft./sec.	O ₂ mg.at/l.
0.	7.58*	32.488*	25.39	4848.4	
5.	7.56	32.491	25.39	4848.5	0.604
20.	7.54	32.490	25.39	4849.1	.593
30.	7.56	32.481	25.38	4849.9	.585
50.	7.55	32.481	25.38	4851.0	.588
75.	7.46	32.516	25.42	4851.4	.590
100.	5.98	33.056	26.04	4835.7	.505
125.	5.76	33.430	26.36	4835.7	.434
150.	5.54	33.636	26.55	4835.1	.397
175.	5.43	33.768	26.67	4835.6	.360
200.	5.34	33.830	26.73	4836.1	.320
225.	5.16	33.876	26.79	4835.4	.272
250.	5.00	33.907	26.83	4834.8	.227
301.	4.71	33.940	26.89	4834.0	.167
388.	4.29	34.004	26.99	4833.7	.120
484.	4.02	34.102	27.09	4836.0	.073
581.	3.91	34.178	27.16	4840.6	.050
777.	3.47	34.300	27.30	4846.6	.036
969.	3.13	34.371	27.39	4853.5	.060
1163.	2.86	34.452	27.48	4861.5	.045
1455.	2.32	34.512	27.58	4871.3	.064
1946.	1.90	34.603	27.68	4894.8	.123
2436.	1.70	34.645	27.73	4921.1	.182
2500.	1.69*	34.647*	27.73	4924.7	

STATION 11

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	7.58	32.49	25.39	25.39	0.0	260.0	0.000
10.	7.55	32.49	25.39	25.44	10.1	259.4	.026
20.	7.54	32.49	25.39	25.49	20.1	259.6	.052
30.	7.56	32.48	25.38	25.52	30.2	260.7	.078
50.	7.55	32.48	25.38	25.62	50.3	260.8	.131
75.	7.46	32.52	25.42	25.77	75.5	257.4	.196
100.	5.98	33.06	26.04	26.51	100.6	198.7	.253
125.	5.76	33.43	26.36	26.95	125.8	168.4	.300
150.	5.54	33.64	26.55	27.26	151.0	150.7	.340
175.	5.43	33.77	26.67	27.49	176.2	139.9	.376
200.	5.34	33.83	26.73	27.67	201.4	134.5	.411
225.	5.16	33.88	26.79	27.84	226.6	129.2	.444
250.	5.00	33.91	26.83	28.00	251.8	125.3	.476
300.	4.72	33.94	26.89	28.30	302.2	120.2	.538
400.	4.25	34.01	27.00	28.88	403.1	110.4	.655
500.	3.99	34.12	27.11	29.45	504.1	100.9	.761
600.	3.88	34.19	27.18	29.99	605.1	94.9	.860
700.	3.68	34.26	27.25	30.54	706.2	88.6	.953
800.	3.42	34.31	27.32	31.08	807.3	82.6	1.039
1000.	3.08	34.38	27.41	32.10	1009.7	74.9	1.199
1200.	2.80	34.46	27.50	33.13	1212.3	67.0	1.343
1500.	2.26	34.52	27.59	34.63	1516.6	58.3	1.533
2000.	1.87	34.61	27.69	37.06	2024.7	49.3	1.807
2500.	1.69	34.65	27.73	39.40	2533.9	46.2	2.050

STATION 12

TIME: 2333 DATE: 14-III-58 LAT: 49° 30' N LONG: 130° 58' W SOUNDING: 1375 fms.
 WEATHER: 02 WIND: Dir. 200° Speed 5 AIR TEMP: Dry 53° Wet 51° BARO: 1014.2 mb.
 CLOUD: Type Sc Amt 8 SEA: 200° - 1 SWELL: 000° - 2 SECCHI DISC: 19 meters

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft./sec.	O ₂ mg.at/l.
0.	7.91*	32.454*	25.31	4852.5	
5.	7.78	32.454	25.33	4851.1	0.624
20.	7.56	32.452	25.36	4849.2	.619
30.	7.56	32.450	25.36	4849.8	.619
50.	7.56	32.451	25.36	4851.0	.615
75.	7.54	32.458	25.37	4852.2	.616
100.	7.27	32.534	25.46	4850.5	.600
125.	6.09	33.198	26.14	4839.2	.499
150.	6.41	33.656	26.46	4846.7	.390
175.	6.28	33.850	26.63	4847.2	.326
200.	6.07	33.899	26.70	4846.1	.275
225.	5.72	33.921	26.76	4843.0	.239
250.	5.41	33.937	26.81	4840.4	.201
300.	4.94	33.949	26.87	4837.1	.173
400.	4.53	34.004	26.96	4837.7	.140
500.	4.17	34.078	27.06	4839.0	.099
600.	4.02	34.175	27.15	4843.2	.064
800.	3.54	34.307	27.30	4848.9	.036
1000.	3.20	34.390	27.40	4856.4	.028
1200.	2.82	34.451	27.49	4863.1	.041
1499.	2.39	34.519	27.58	4875.0	.063
1997.	1.90	34.604	27.68	4897.8	.080
2393.	1.76	34.642	27.73	4919.4	.134
2500.	1.76*	34.648*	27.73	4925.7	

STATION 12

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	7.91	32.45	25.31	25.31	0.0	267.0	0.000
10.	7.68	32.45	25.34	25.39	10.1	264.0	.027
20.	7.56	32.45	25.36	25.45	20.1	262.7	.053
30.	7.56	32.45	25.36	25.50	30.2	263.0	.080
50.	7.56	32.45	25.36	25.59	50.3	263.2	.133
75.	7.54	32.46	25.37	25.72	75.5	262.8	.199
100.	7.27	32.53	25.46	25.93	100.6	253.9	.264
125.	6.09	33.20	26.14	26.72	125.8	189.7	.320
150.	6.41	33.66	26.46	27.16	151.0	159.8	.364
175.	6.28	33.85	26.63	27.45	176.2	144.1	.402
200.	6.07	33.90	26.70	27.63	201.4	138.1	.437
225.	5.72	33.92	26.76	27.81	226.6	132.5	.471
250.	5.41	33.94	26.81	27.98	251.8	127.9	.504
300.	4.94	33.95	26.87	28.28	302.2	122.1	.567
400.	4.53	34.00	26.96	28.84	403.1	114.3	.687
500.	4.17	34.08	27.06	29.40	504.1	105.7	.798
600.	4.02	34.17	27.15	29.96	605.1	97.7	.900
700.	3.81	34.25	27.23	30.52	706.1	90.5	.996
800.	3.54	34.31	27.30	31.06	807.3	84.2	1.084
1000.	3.20	34.39	27.40	32.10	1009.7	75.7	1.246
1200.	2.82	34.45	27.49	33.12	1212.3	68.2	1.391
1500.	2.39	34.52	27.58	34.61	1516.5	59.9	1.586
2000.	1.90	34.60	27.68	37.05	2024.6	50.1	1.866
2500.	1.76	34.65	27.73	39.39	2533.8	47.1	2.113

STATION 13

TIME: 0610 DATE: 15-III-58 LAT: 49° 48' N LONG: 129° 30' W SOUNDING: 815 fms.
 WEATHER: 02 WIND: Dir. 150° Speed 3 AIR TEMP: Dry 47° Wet 46° BARO: 1013.5 mb.
 CLOUD: Type Cu Amt 1 SEA: 150° - 1 SWELL: 330° - 2 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	8.76*	31.434*	24.39	4859.3	
5.	8.47	31.742	24.67	4857.1	0.741
20.	7.99	32.314	25.19	4854.1	.606
30.	8.00	32.402	25.26	4855.2	.581
50.	7.86	32.442	25.31	4854.8	.596
75.	7.81	32.443	25.32	4855.6	.595
100.	6.74	33.129	26.00	4846.0	.464
125.	6.64	33.509	26.32	4847.6	.420
150.	6.66	33.776	26.52	4850.4	.357
175.	6.48	33.882	26.63	4849.9	.291
200.	6.16	33.904	26.69	4847.3	.264
224.	5.95	33.921	26.73	4846.0	.241
249.	5.79	33.951	26.77	4845.5	.188
299.	5.44	33.982	26.84	4843.9	.150
394.	5.05	34.064	26.95	4844.6	.092
493.	4.62	34.133	27.05	4844.9	.059
592.	4.26	34.189	27.14	4846.1	.047
790.	3.80	34.340	27.30	4852.1	.029
988.	3.33	34.420	27.41	4857.6	.032
1188.	2.90	34.461	27.49	4863.6	.043
1388.	2.49	34.514	27.56	4869.8	.067
1500.	2.27*	34.549*	27.61	4873.4	

STATION 13

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	8.76	31.43	24.39	24.39	0.0	354.9	0.000
10.	8.24	31.99	24.90	24.95	10.1	306.2	.033
20.	7.99	32.31	25.19	25.28	20.1	278.8	.063
30.	8.00	32.40	25.26	25.40	30.2	272.6	.090
50.	7.86	32.44	25.31	25.54	50.3	267.9	.145
75.	7.81	32.44	25.32	25.66	75.4	267.6	.212
100.	6.74	33.13	26.00	26.47	100.6	202.6	.271
125.	6.64	33.51	26.32	26.90	125.8	173.4	.319
150.	6.66	33.78	26.52	27.22	151.0	154.1	.360
175.	6.48	33.88	26.63	27.44	176.2	144.2	.397
200.	6.16	33.90	26.69	27.62	201.4	138.9	.433
225.	5.94	33.92	26.73	27.78	226.6	135.1	.468
250.	5.78	33.95	26.77	27.94	251.8	131.3	.501
300.	5.43	33.98	26.84	28.24	302.2	125.3	.566
400.	5.02	34.07	26.96	28.83	403.1	115.2	.687
500.	4.59	34.14	27.06	29.40	504.1	106.1	.799
600.	4.23	34.19	27.14	29.95	605.1	98.7	.902
700.	3.97	34.26	27.23	30.51	706.1	91.3	.998
800.	3.78	34.35	27.31	31.06	807.3	84.0	1.087
1000.	3.30	34.42	27.42	32.11	1009.7	74.4	1.247
1200.	2.87	34.46	27.49	33.12	1212.3	67.9	1.391
1500.	2.27	34.55	27.61	34.65	1516.5	56.4	1.580

STATION 14

TIME: 1033 DATE: 15-III-58 LAT: 50° 18' N LONG: 128° 35' W SOUNDING: 800 fms.
 WEATHER: 03 WIND: Dir. 000° Speed 10 AIR TEMP: Dry 46° Wet 45° BARO: 1011.9 mb.
 CLOUD: Type Cu Amt 1 SEA: calm SWELL: calm SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	8.69*	31.558*	24.50	4858.9	
5.	9.01	31.716	24.57	4863.7	0.658
20.	9.29	32.049	24.79	4869.3	.619
30.	8.91	32.153	24.93	4865.6	.595
50.	7.97	32.354	25.22	4855.8	.603
75.	7.74	32.525	25.39	4855.0	.567
100.	7.14	32.952	25.81	4850.5	.502
125.	6.89	33.253	26.08	4849.9	.450
150.	6.78	33.488	26.28	4850.8	.415
175.	6.69	33.723	26.48	4852.1	.394
200.	6.62	33.828	26.57	4853.0	.361
225.	6.39	33.894	26.65	4851.8	.307
250.	6.16	33.934	26.71	4850.4	.248
300.	5.88	33.957	26.77	4849.7	.198
385.	5.46	34.051	26.89	4849.6	.101
480.	4.80	34.085	26.99	4846.4	.082
574.	4.54	34.170	27.09	4848.8	.047
761.	4.06	34.276	27.23	4853.7	.030
947.	3.41	34.391	27.38	4856.2	.032
1130.	2.94	34.449	27.47	4860.6	.037
1200.	2.80*	34.457*	27.49	4862.9	

STATION 14

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	8.69	31.56	24.50	24.50	0.0	344.6	0.000
10.	9.22	31.85	24.64	24.69	10.1	330.7	.034
20.	9.29	32.05	24.79	24.88	20.1	317.2	.067
30.	8.91	32.15	24.93	25.07	30.2	304.0	.098
50.	7.97	32.35	25.22	25.46	50.3	276.0	.156
75.	7.74	32.53	25.39	25.74	75.4	260.5	.224
100.	7.14	32.95	25.81	26.27	100.6	221.0	.284
125.	6.89	33.25	26.08	26.66	125.8	195.7	.337
150.	6.78	33.49	26.28	26.98	150.9	177.1	.384
175.	6.69	33.72	26.48	27.29	176.1	158.8	.426
200.	6.62	33.83	26.57	27.50	201.3	150.4	.465
225.	6.39	33.89	26.65	27.70	226.5	142.9	.502
250.	6.16	33.93	26.71	27.88	251.7	137.3	.537
300.	5.88	33.96	26.77	28.16	302.2	132.7	.605
400.	5.37	34.06	26.91	28.78	403.1	119.9	.732
500.	4.71	34.10	27.02	29.35	504.0	110.3	.849
600.	4.47	34.19	27.11	29.92	605.0	101.7	.956
700.	4.21	34.25	27.19	30.47	706.1	95.1	1.055
800.	3.94	34.30	27.26	31.00	807.2	89.3	1.148
1000.	3.26	34.41	27.42	32.11	1009.6	74.6	1.314
1200.	2.80	34.46	27.49	33.12	1212.2	67.6	1.458

STATION 15

TIME: 2351 DATE: 15-III-58 LAT: 50° 13' N LONG: 128° 46' W SOUNDING: 890 fms.
 WEATHER: 01 WIND: Dir. 050° Speed 5 AIR TEMP: Dry 46° Wet 45° BARO: 1011.9 mb.
 CLOUD: Type Sc Amt 1 SEA: 050° - 1 SWELL: calm SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	9.10*	31.822*	24.64	4865.0	
5.	8.94	31.665	24.54	4862.7	0.632
19.	8.93	31.664	24.54	4863.4	.626
29.	9.33	32.060	24.79	4870.4	.600
48.	9.74	32.535	25.09	4878.3	.559
72.	8.42	32.393	25.19	4862.9	.577
97.	7.91	32.418	25.28	4858.1	.587
121.	8.54	33.071	25.70	4869.9	.455
145.	6.78	33.244	26.09	4849.6	.446
169.	6.74	33.543	26.33	4851.6	.391
193.	6.67	33.648	26.42	4852.6	.369
218.	6.58	33.826	26.57	4853.6	.370
242.	6.41	33.902	26.65	4853.1	.300
290.	5.82	33.971	26.78	4848.4	.181
389.	5.18	34.020	26.90	4845.9	.126
488.	4.85	34.086	26.99	4847.6	.084
587.	4.51	34.191	27.11	4849.2	.051
784.	3.94	34.295	27.25	4853.5	.032
982.	3.44	34.377	27.37	4858.6	.035
1180.	3.00	34.446	27.47	4864.4	.042
1200.	2.96*	34.452*	27.47	4865.1	

STATION 15

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	9.10	31.82	24.64	24.64	0.0	331.0	0.000
10.	8.86	31.59	24.50	24.54	10.1	344.8	.034
20.	8.95	31.69	24.56	24.65	20.1	339.0	.068
30.	9.36	32.09	24.81	24.95	30.2	315.2	.101
50.	9.71	32.55	25.11	25.34	50.3	286.7	.162
75.	8.31	32.39	25.20	25.55	75.4	278.8	.233
100.	7.93	32.47	25.32	25.78	100.6	267.9	.302
125.	8.41	33.13	25.77	26.35	125.7	225.6	.364
150.	6.63	33.30	26.15	26.85	150.9	189.4	.416
175.	6.73	33.59	26.37	27.18	176.1	169.3	.461
200.	6.65	33.69	26.46	27.39	201.3	160.9	.503
225.	6.54	33.86	26.60	27.65	226.5	147.5	.542
250.	6.33	33.92	26.68	27.84	251.7	140.5	.578
300.	5.72	33.98	26.81	28.20	302.1	128.9	.646
400.	5.13	34.03	26.91	28.78	403.0	119.6	.771
500.	4.81	34.10	27.00	29.34	504.0	111.6	.888
600.	4.47	34.20	27.12	29.93	605.0	100.8	.995
700.	4.17	34.27	27.21	30.49	706.0	93.3	1.093
800.	3.90	34.30	27.26	31.01	807.2	88.5	1.185
1000.	3.40	34.38	27.38	32.07	1009.5	78.4	1.354
1200.	2.96	34.45	27.47	33.10	1212.1	69.7	1.504

STATION 16

TIME: 1635 DATE: 15-III-58 LAT: 50° 24.5' N LONG: 128° 18.5' W SOUNDING: 100 fms.
WEATHER: 02 WIND: Dir. 050° Speed 5 AIR TEMP: Dry 50° Wet 49° BARO: 1011.9 mb.
CLOUD: Type Sc Amt 2 SEA: calm SWELL: calm SECCHI DISC: 7 meters

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	8.60	31.830	24.72	4858.8	0.646
10.	8.82	31.816	24.68	4862.1	.650
20.	8.83	31.864	24.71	4863.0	.603
30.	8.82	32.009	24.83	4864.0	.595
50.	8.22	32.329	25.17	4858.9	.593
75.	8.02	32.461	25.30	4858.3	.519
100.	7.56	32.928	25.73	4855.8	.494
125.	7.25	33.374	26.13	4855.0	.403
150.	7.22	33.685	26.37	4857.3	.303
170.	6.94	33.839	26.53	4855.4	.241

STATION 16

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	8.60	31.83	24.72	24.72	0.0	323.1	0.000
10.	8.82	31.82	24.68	24.72	10.1	327.4	.033
20.	8.83	31.86	24.71	24.81	20.1	324.2	.065
30.	8.82	32.01	24.83	24.97	30.2	313.4	.098
50.	8.22	32.33	25.17	25.40	50.3	281.4	.157
75.	8.02	32.46	25.30	25.65	75.4	269.1	.227
100.	7.56	32.93	25.73	26.20	100.6	228.4	.289
125.	7.25	33.37	26.13	26.71	125.8	191.4	.342
150.	7.22	33.69	26.37	27.07	150.9	168.2	.387

STATION 17

TIME: 2050 DATE: 15-III-58 LAT: 50°42.1' N LONG: 128° 55' W SOUNDING: 100 fms.
 WEATHER: 00 WIND: Dir. 300° Speed 5 AIR TEMP: Dry 47° Wet 45° BARO: 1012.3 mb.
 CLOUD: Type Amt 0 SEA: 300° - 1 SWELL: 270° - 2 SECCHI DISC: 5 meters

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	8.72*	31.790*	24.67	4860.1	
5.	8.72	31.720	24.62	4860.2	0.742
20.	8.66	31.842	24.72	4860.8	.657
30.	8.56	32.199	25.02	4861.5	.602
50.	8.84	32.407	25.14	4866.9	.592
74.	8.49	32.598	25.34	4864.7	.545
99.	8.32	32.825	25.54	4864.9	.491
124.	7.84	33.144	25.86	4861.6	
149.	6.85	33.647	26.40	4852.3	.334
173.	6.71	33.854	26.58	4852.7	.253
175.	6.73*	33.859*	26.58	4853.2	

STATION 17

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	8.72	31.79	24.67	24.67	0.0	327.8	0.000
10.	8.71	31.71	24.61	24.65	10.1	334.1	.033
20.	8.66	31.84	24.72	24.82	20.1	323.4	.066
30.	8.56	32.20	25.02	25.16	30.2	295.5	.097
50.	8.84	32.41	25.14	25.37	50.3	284.5	.156
75.	8.48	32.61	25.35	25.69	75.4	264.8	.225
100.	8.31	32.84	25.55	26.01	100.6	245.7	.289
125.	7.81	33.16	25.88	26.46	125.8	214.9	.347
150.	6.83	33.66	26.41	27.11	150.9	164.8	.395
175.	6.73	33.86	26.58	27.39	176.1	149.2	.434

STATION 18

TIME: 2249 DATE: 15-III-58 LAT: 50° 50' N LONG: 129° 20' W SOUNDING: 77 fms.
 WEATHER: 00 WIND: Dir. 250° Speed 5 AIR TEMP: Dry 47° Wet 45° BARO: 1011.5 mb.
 CLOUD: Type Amt 0 SEA: 250° - 1 SWELL: 280° - 2 SECCHI DISC: 5 meters

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	9.07*	31.286*	24.23	4862.5	
5.	9.02	31.414	24.33	4862.7	0.769
20.	8.87	31.670	24.56	4862.7	.605
30.	8.76	31.734	24.62	4862.2	.605
49.	9.01	32.087	24.86	4867.7	.585
74.	8.86	32.322	25.07	4868.2	.529
99.	8.72	32.690	25.38	4869.4	.476
124.	7.66	33.528	26.19	4860.7	.300
125.	7.60*	33.571*	26.23	4860.2	

STATION 18

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	9.07	31.29	24.23	24.23	0.0	370.3	0.000
10.	8.97	31.52	24.42	24.47	10.0	351.6	.036
20.	8.87	31.67	24.56	24.65	20.1	339.2	.071
30.	8.76	31.73	24.62	24.76	30.2	333.0	.105
50.	9.01	32.10	24.87	25.10	50.3	309.7	.169
75.	8.85	32.33	25.08	25.42	75.4	290.5	.245
100.	8.70	32.71	25.40	25.86	100.6	260.4	.314
125.	7.60	33.57	26.23	26.81	125.7	181.5	.370

STATION 19

TIME: 0511 DATE: 16-III-58 LAT: 51° 00' N LONG: 128° 10' W SOUNDING: 45 fms.
WEATHER: 01 WIND: Dir. 010° Speed 8 AIR TEMP: Dry 49° Wet 48° BARO: 1011.2 mb.
CLOUD: Type Sc Amt 2 SEA: 010° - 1 SWELL: 000° - 1 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at./l.
0.	8.40	31.332	24.36	4854.4	0.605
10.	8.44	31.306	24.34	4855.4	.614
20.	8.52	31.340	24.35	4857.1	.614
30.	8.42	31.420	24.43	4856.7	.616
50.	8.68	31.683	24.60	4862.2	.625
70.	8.82	32.080	24.88	4866.6	.616

STATION 19

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	8.40	31.33	24.36	24.36	0.0	357.3	0.000
10.	8.44	31.31	24.34	24.38	10.0	360.0	.036
20.	8.52	31.34	24.35	24.44	20.1	358.7	.072
30.	8.42	31.42	24.43	24.57	30.1	351.5	.108
50.	8.68	31.68	24.60	24.83	50.3	335.9	.177

STATION 20

TIME: 0823 DATE: 16-III-58 LAT: 51° 00' N LONG: 128° 55' W SOUNDING: 35 fms.
WEATHER: 00 WIND: Dir. 320° Speed 5 AIR TEMP: Dry 47° Wet 45° BARO: 1010.6 mb.
CLOUD: Type Amt 0 SEA: calm SWELL: calm SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	8.60	31.374	24.37	4857.1	0.795
10.	8.78	31.407	24.37	4860.0	.576
20.	8.80	31.688	24.58	4861.9	.585
30.	8.76	31.814	24.69	4862.5	.606
50.	8.80	31.874	24.73	4864.4	.738

STATION 20

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	8.60	31.37	24.37	24.37	0.0	357.0	0.000
10.	8.78	31.41	24.37	24.41	10.0	357.3	.036
20.	8.80	31.69	24.58	24.67	20.1	336.8	.071
30.	8.76	31.81	24.69	24.82	30.2	327.0	.104
50.	8.80	31.87	24.73	24.96	50.3	323.5	.170

STATION 21

TIME: 0316 DATE: 16-III-58 LAT: 51° 16' N LONG: 129° 33' W SOUNDING: 128 fms.
 WEATHER: 03 WIND: Dir. calm Speed 0 AIR TEMP: Dry 47° Wet 46° BARO: 1010.8 mb.
 CLOUD: Type Cu Amt 5 SEA: calm SWELL: calm SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	8.44*	31.437*	24.44	4855.3	
5.	8.52	31.501	24.48	4856.8	0.597
20.	8.70	31.688	24.60	4860.7	.582
30.	8.78	31.808	24.68	4862.7	.554
50.	9.02	32.196	24.94	4868.3	.564
75.	8.98	32.554	25.23	4870.7	.530
100.	8.62	32.883	25.54	4868.9	.462
125.	7.52	33.557	26.23	4859.1	.297
150.	6.45	33.929	26.67	4848.2	.182
175.	6.24	33.961	26.72	4847.1	.175
200.	6.04	33.994	26.77	4846.1	.158
225.	5.91	33.999	26.80	4845.9	.150

STATION 21

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	8.44	31.44	24.44	24.44	0.0	350.1	0.000
10.	8.59	31.56	24.52	24.56	10.1	342.8	.035
20.	8.70	31.69	24.60	24.69	20.1	335.4	.069
30.	8.78	31.81	24.68	24.82	30.2	327.8	.102
50.	9.02	32.20	24.94	25.17	50.3	302.8	.166
75.	8.98	32.55	25.23	25.58	75.4	276.1	.238
100.	8.62	32.88	25.54	26.00	100.6	246.8	.304
125.	7.52	33.56	26.23	26.81	125.7	181.5	.358
150.	6.45	33.93	26.67	27.37	150.9	140.0	.399
175.	6.24	33.96	26.72	27.54	176.1	135.3	.433
200.	6.04	33.99	26.77	27.71	201.3	130.6	.467
225.	5.91	34.00	26.80	27.84	226.5	129.0	.499

STATION 22

TIME: 1444 DATE: 16-III-58 LAT: 51° 32' N LONG: 130° 11' W SOUNDING: 510 fms.
 WEATHER: 03 WIND: Dir. calm Speed 0 AIR TEMP: Dry 47° Wet 46° BARO: 1010.0 mb.
 CLOUD: Type Sc Amt 9 SEA: calm SWELL: calm SECCHI DISC: 6 meters

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft./sec.	O ₂ mg.at/l.
0.	8.52*	31.427*	24.42	4856.3	
5.	8.39	31.393	24.41	4854.8	0.629
20.	8.29	31.399	24.43	4854.4	.628
30.	8.47	31.493	24.48	4857.6	.625
50.	8.88	31.794	24.65	4865.1	.586
75.	8.98	32.298	25.03	4869.7	.566
100.	8.72	32.620	25.32	4869.2	.518
125.	8.13	33.278	25.93	4865.8	.393
150.	7.15	33.538	26.27	4855.8	.375
175.	7.18	33.789	26.46	4858.6	.269
200.	6.78	33.886	26.59	4855.3	.244
225.	6.56	33.907	26.64	4854.0	.234
250.	6.37	33.934	26.69	4853.1	.218
300.	5.94	33.965	26.76	4850.6	.198
399.	5.20	34.044	26.92	4846.9	.128
499.	4.82	34.122	27.02	4848.0	.084
599.	4.32	34.196	27.14	4847.4	.055
798.	3.74	34.292	27.27	4851.5	.053
898.	3.66	34.313	27.30	4856.4	.048

STATION 22

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	8.52	31.43	24.42	24.42	0.0	352.0	0.000
10.	8.31	31.38	24.41	24.46	10.0	352.8	.035
20.	8.29	31.40	24.43	24.52	20.1	351.1	.071
30.	8.47	31.49	24.48	24.62	30.2	346.8	.106
50.	8.88	31.79	24.65	24.88	50.3	330.6	.174
75.	8.98	32.30	25.03	25.38	75.4	295.1	.253
100.	8.72	32.62	25.32	25.78	100.6	267.7	.323
125.	8.13	33.28	25.93	26.50	125.7	210.8	.384
150.	7.15	33.54	26.27	26.96	150.9	178.2	.433
175.	7.18	33.79	26.46	27.27	176.1	160.4	.475
200.	6.78	33.89	26.59	27.52	201.3	148.2	.514
225.	6.56	33.91	26.64	27.68	226.5	144.1	.551
250.	6.37	33.93	26.69	27.85	251.7	140.0	.587
300.	5.94	33.97	26.76	28.16	302.1	132.8	.655
400.	5.19	34.04	26.92	28.79	403.0	119.0	.783
500.	4.82	34.12	27.02	29.36	504.0	109.8	.898
600.	4.32	34.20	27.14	29.95	605.0	99.4	1.004
700.	3.96	34.25	27.22	30.50	706.0	92.0	1.100
800.	3.74	34.29	27.27	31.02	807.2	87.5	1.191

STATION 23

TIME: 1745 DATE: 16-III-58 LAT: 51°50.5' N LONG: 130° 48' W SOUNDING: 130 fms.
WEATHER: 02 WIND: Dir. 020° Speed 8 AIR TEMP: Dry 51° Wet 50° BARO: 1010.2 mb.
CLOUD: Type Cu Amt 10 SEA: 020° - 1 SWELL: 300° - 2 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	8.20	31.729	24.70	4853.4	0.622
10.	8.46	31.851	24.76	4857.7	.620
20.	8.50	31.986	24.86	4859.3	.616
29.	8.49	31.996	24.87	4859.8	.609
49.	8.55	32.101	24.94	4862.1	.620
73.	8.54	32.204	25.02	4863.8	.595
98.	8.55	32.252	25.06	4865.5	.581
122.	8.62	32.462	25.21	4868.6	.576
147.	8.25	32.737	25.48	4866.5	.497
171.	7.50	33.183	25.94	4860.2	.391
196.	6.67	33.599	26.38	4852.6	.287
220.	5.84	33.916	26.74	4844.3	.194

STATION 23

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	8.20	31.73	24.70	24.70	0.0	325.0	0.000
10.	8.46	31.85	24.76	24.81	10.1	319.7	.032
20.	8.50	31.99	24.86	24.95	20.1	310.4	.064
30.	8.49	32.00	24.87	25.01	30.2	309.4	.095
50.	8.55	32.11	24.95	25.18	50.3	302.7	.157
75.	8.54	32.21	25.03	25.37	75.4	295.1	.232
100.	8.55	32.26	25.07	25.53	100.6	291.8	.306
125.	8.60	32.49	25.24	25.82	125.7	275.9	.377
150.	8.18	32.78	25.53	26.22	150.9	248.6	.443
175.	7.37	33.25	26.01	26.82	176.1	202.8	.500
200.	6.53	33.66	26.45	27.38	201.3	162.0	.546

STATION 24

TIME: 0307 DATE: 18-III-58 LAT: 51° 56' N LONG: 131° 05' W SOUNDING: 98 fms.
WEATHER: 03 WIND: Dir. Light airs AIR TEMP: Dry 50° Wet 49° BARO: 1014.2 mb.
CLOUD: Type Sc Amt 10 SEA: calm SWELL: calm SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	8.60	32.310	25.10	4860.6	0.582
10.	8.67	32.234	25.03	4861.8	.608
20.	8.62	32.244	25.04	4861.8	.583
30.	8.62	32.267	25.06	4862.5	.573
50.	8.55	32.284	25.08	4862.8	.575
75.	8.48	32.369	25.16	4863.8	.537
100.	8.44	32.409	25.20	4864.9	.536
125.	8.47	32.495	25.26	4867.1	.522
150.	8.34	32.749	25.48	4867.9	.476
175.	8.27	32.832	25.56	4868.8	.455

STATION 24

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	8.60	32.31	25.10	25.10	0.0	287.4	0.000
10.	8.67	32.23	25.03	25.07	10.1	294.2	.029
20.	8.62	32.24	25.04	25.14	20.1	292.9	.059
30.	8.62	32.27	25.06	25.20	30.2	291.3	.088
50.	8.55	32.28	25.08	25.32	50.3	289.4	.147
75.	8.48	32.37	25.16	25.51	75.4	282.5	.218
100.	8.44	32.41	25.20	25.66	100.6	279.3	.289
125.	8.47	32.50	25.26	25.84	125.7	273.8	.359
150.	8.34	32.75	25.48	26.17	150.9	253.4	.425
175.	8.27	32.83	25.56	26.36	176.1	246.7	.488

STATION 25

TIME: 0424 DATE: 18-III-58 LAT: 51° 56' N LONG: 131° 13' W SOUNDING: 505 fms.
 WEATHER: 03 WIND: Dir. Light airs AIR TEMP: Dry 50° Wet 49° BARO: 1014.6 mb.
 CLOUD: Type Sc Amt 10 SEA: calm SWELL: 300° - 2 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	8.65*	32.228*	25.03	4860.9	
5.	8.66	32.232	25.03	4861.3	0.600
20.	8.66	32.239	25.03	4862.3	.603
30.	8.64	32.240	25.04	4862.6	.599
50.	8.69	32.299	25.08	4864.6	.583
73.	8.72	32.338	25.10	4866.5	.572
100.	8.72	32.386	25.14	4868.3	.557
125.	8.66	32.539	25.27	4869.6	.536
150.	8.28	32.886	25.60	4867.7	.463
174.	7.92	33.158	25.86	4865.6	.392
199.	7.42	33.586	26.27	4862.4	.310
224.	6.90	33.854	26.55	4858.2	.247
249.	6.36	33.906	26.66	4852.8	.218
299.	5.59	33.972	26.81	4845.9	.165
398.	4.78	34.072	26.99	4841.2	.098
498.	4.51	34.136	27.07	4843.7	.070
598.	4.32	34.177	27.12	4847.2	.062
798.	3.73	34.286	27.27	4851.4	.043
898.	3.52	34.322	27.32	4854.5	.042

STATION 25

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	8.65	32.23	25.03	25.03	0.0	294.2	0.000
10.	8.66	32.24	25.03	25.08	10.1	294.0	.030
20.	8.66	32.24	25.03	25.13	20.1	293.8	.059
30.	8.64	32.24	25.04	25.18	30.2	293.6	.089
50.	8.69	32.30	25.08	25.31	50.3	290.3	.147
75.	8.72	32.34	25.10	25.45	75.4	288.0	.220
100.	8.72	32.39	25.14	25.60	100.6	285.1	.292
125.	8.66	32.54	25.27	25.84	125.7	273.3	.362
150.	8.28	32.89	25.60	26.29	150.9	242.4	.427
175.	7.90	33.17	25.88	26.68	176.1	216.2	.485
200.	7.40	33.60	26.28	27.21	201.3	177.8	.535
225.	6.88	33.86	26.56	27.60	226.5	151.8	.576
250.	6.34	33.91	26.67	27.83	251.7	141.5	.613
300.	5.58	33.97	26.82	28.21	302.1	127.8	.681
400.	4.77	34.07	26.99	28.86	403.0	111.8	.802
500.	4.51	34.14	27.07	29.41	503.9	105.1	.911
600.	4.32	34.18	27.12	29.93	605.0	100.8	1.015
700.	4.05	34.23	27.19	30.47	706.0	95.0	1.114
800.	3.73	34.29	27.27	31.02	807.1	87.7	1.207

STATION 26

TIME: 0552 DATE: 18-III-58 LAT: 51° 55' N LONG: 131° 23' W SOUNDING: 1090 fms.
 WEATHER: 01 WIND: Dir. calm Speed 0 AIR TEMP: Dry Wet BARO: 1014.6 mb.
 CLOUD: Type Cu Amt 10 SEA: calm SWELL: 290° - 2 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	8.41*	31.756*	24.69	4856.1	
5.	8.54	31.748	24.67	4858.0	0.622
20.	8.62	31.896	24.77	4860.5	.644
30.	8.42	32.137	24.99	4859.5	.646
50.	8.56	32.232	25.04	4862.8	.595
75.	8.58	32.434	25.20	4865.3	.543
100.	8.18	32.602	25.39	4862.4	.494
125.	8.50	32.976	25.63	4869.3	.423
150.	7.76	33.449	26.11	4863.3	.329
175.	7.44	33.626	26.30	4861.3	.295
200.	7.28	33.723	26.40	4861.2	.290
225.	6.89	33.872	26.57	4858.2	.255
250.	6.60	33.925	26.65	4856.1	.223
300.	6.09	33.960	26.74	4852.5	.195
398.	5.28	34.026	26.89	4847.8	.125
497.	4.89	34.098	27.00	4848.7	.083
596.	4.27	34.149	27.10	4846.3	.064
794.	3.66	34.306	27.29	4850.2	.050
992.	3.23	34.380	27.39	4856.3	.040
1191.	2.88	34.435	27.47	4863.4	.043
1489.	2.32	34.500	27.57	4873.3	.066
1500.	2.30*	34.502*	27.57	4873.7	

STATION 26

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	8.41	31.76	24.69	24.69	0.0	326.0	0.000
10.	8.62	31.77	24.67	24.72	10.1	328.0	.033
20.	8.62	31.90	24.77	24.86	20.1	318.8	.065
30.	8.42	32.14	24.99	25.13	30.2	298.2	.096
50.	8.56	32.23	25.04	25.27	50.3	293.4	.156
75.	8.58	32.43	25.20	25.54	75.4	279.1	.228
100.	8.18	32.60	25.39	25.85	100.6	261.3	.296
125.	8.50	32.98	25.63	26.21	125.7	238.5	.359
150.	7.76	33.45	26.11	26.81	150.9	193.2	.413
175.	7.44	33.63	26.30	27.11	176.1	176.0	.460
200.	7.28	33.72	26.40	27.32	201.3	167.0	.503
225.	6.89	33.87	26.57	27.61	226.5	151.0	.543
250.	6.60	33.92	26.65	27.81	251.7	143.6	.580
300.	6.09	33.96	26.74	28.14	302.1	135.1	.650
400.	5.27	34.03	26.90	28.76	403.0	121.2	.780
500.	4.87	34.10	27.00	29.33	504.0	112.2	.897
600.	4.25	34.15	27.11	29.92	605.0	102.0	1.005
700.	3.84	34.22	27.21	30.49	706.0	93.1	1.104
800.	3.64	34.31	27.30	31.05	807.1	85.2	1.194
1000.	3.21	34.38	27.39	32.09	1009.5	76.4	1.358
1200.	2.86	34.44	27.47	33.10	1212.1	69.7	1.506
1500.	2.30	34.50	27.57	34.61	1516.4	60.1	1.703

STATION 27

TIME: 0948 DATE: 18-III-58 LAT: 51° 51' N LONG: 132° 11' W SOUNDING: 1353 fms.
 WEATHER: 60 WIND: Dir. 070° Speed 8 AIR TEMP: Dry 46° Wet 45° BARO: 1015.6 mb.
 CLOUD: Type St Amt 8 SEA: 070° - 1 SWELL: 290° - 2 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	7.45*	32.243*	25.21	4845.8	
5.	7.47	32.302	25.25	4846.6	0.619
20.	7.50	32.426	25.35	4848.3	.643
30.	7.49	32.464	25.38	4848.9	.624
50.	7.48	32.545	25.44	4850.3	.596
75.	6.96	32.818	25.73	4846.1	.539
100.	6.84	33.370	26.18	4848.2	.420
125.	6.92	33.609	26.36	4851.6	.328
150.	6.66	33.734	26.49	4850.2	.323
175.	6.54	33.853	26.60	4850.6	.292
200.	6.43	33.911	26.66	4850.9	.257
225.	6.14	33.926	26.71	4848.6	.241
250.	5.93	33.960	26.76	4847.5	.204
300.	5.57	33.978	26.82	4845.7	.155
402.	4.95	34.022	26.93	4843.6	.102
503.	4.56	34.123	27.05	4844.7	.072
604.	4.03	34.156	27.13	4843.5	.051
805.	3.62	34.276	27.27	4850.2	.061
1004.	3.13	34.390	27.41	4855.6	.056
1202.	2.77	34.449	27.49	4862.5	.064
1500.	2.30	34.499	27.57	4873.7	.069
1995.	1.87	34.613	27.69	4897.3	.139
2391.	1.73	34.630	27.72	4918.8	.181
2500.	1.72*	34.623*	27.71	4925.1	

STATION 27

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	7.45	32.24	25.21	25.21	0.0	276.5	0.000
10.	7.49	32.35	25.29	25.34	10.1	269.0	.027
20.	7.50	32.43	25.35	25.44	20.1	263.8	.054
30.	7.49	32.46	25.38	25.52	30.2	261.0	.081
50.	7.48	32.55	25.44	25.68	50.3	255.1	.133
75.	6.96	32.82	25.73	26.08	75.5	228.3	.193
100.	6.84	33.37	26.18	26.64	100.6	185.9	.246
125.	6.92	33.61	26.36	26.94	125.8	169.5	.290
150.	6.66	33.73	26.49	27.19	151.0	157.2	.331
175.	6.54	33.85	26.60	27.41	176.2	147.1	.370
200.	6.43	33.91	26.66	27.59	201.4	141.8	.406
225.	6.14	33.93	26.71	27.76	226.6	137.3	.441
250.	5.93	33.96	26.76	27.93	251.8	132.5	.475
300.	5.57	33.98	26.82	28.22	302.2	127.3	.541
400.	4.96	34.02	26.93	28.80	403.1	118.0	.665
500.	4.57	34.12	27.05	29.39	504.1	107.1	.778
600.	4.05	34.16	27.13	29.95	605.1	99.5	.883
700.	3.73	34.20	27.20	30.49	706.2	93.1	.980
800.	3.62	34.27	27.27	31.02	807.3	87.7	1.071
1000.	3.14	34.39	27.41	32.10	1009.7	75.2	1.236
1200.	2.77	34.45	27.49	33.12	1212.3	67.8	1.381
1500.	2.30	34.50	27.57	34.61	1516.5	60.4	1.576
2000.	1.87	34.61	27.69	37.06	2024.6	49.1	1.854
2500.	1.72	34.62	27.71	39.38	2533.9	48.4	2.102

STATION 28

TIME: 1708 DATE: 18-III-58 LAT: 51° 34' N LONG: 133° 27' W SOUNDING: 1640 fms.
 WEATHER: 03 WIND: Dir. Light airs AIR TEMP: Dry 54° Wet BARO: 1015.2 mb.
 CLOUD: Type Sc Amt 6 SEA: calm SWELL: 070° - 2 SECCHI DISC: 19.5 meters
 CuAe

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/1.
0.	7.38*	32.463*	25.39	4845.8	
5.	7.40	32.486	25.41	4846.4	0.612
20.	7.40	32.503	25.42	4847.3	.604
30.	7.36	32.470	25.40	4847.3	.509
50.	7.34	32.499	25.43	4848.3	.534
75.	7.33	32.549	25.47	4849.9	.448
100.	7.52	33.198	25.95	4856.3	.354
125.	7.26	33.552	26.26	4855.8	.304
150.	7.10	33.709	26.41	4855.8	.254
175.	6.86	33.805	26.52	4854.6	.227
200.	6.64	33.876	26.60	4853.5	.222
225.	6.38	33.910	26.66	4851.7	.193
250.	6.12	33.978	26.75	4850.0	.172
300.	5.48	33.965	26.82	4844.5	.186
400.	5.34	33.989	26.86	4848.6	.141
500.	4.50	34.116	27.05	4843.7	.073
600.	4.04	34.166	27.14	4843.5	.059
800.	3.60	34.272	27.27	4849.6	.045
1000.	3.20	34.368	27.38	4856.3	.045
1200.	2.82	34.428	27.47	4863.0	.046
1500.	2.36	34.510	27.57	4874.6	.077
2000.	1.88	34.606	27.69	4897.7	.139
2502.	1.71	34.638	27.73	4925.1	.192
2900.	1.59	34.662	27.75	4947.0	.223
3000.	1.56*	34.668*	27.76	4952.5	

STATION 28

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	7.38	32.46	25.39	25.39	0.0	259.3	0.000
10.	7.41	32.50	25.42	25.47	10.1	256.9	.026
20.	7.40	32.50	25.42	25.51	20.1	256.8	.052
30.	7.36	32.47	25.40	25.54	30.2	258.9	.078
50.	7.34	32.50	25.43	25.66	50.3	256.7	.130
75.	7.33	32.55	25.47	25.82	75.5	253.2	.194
100.	7.52	33.20	25.95	26.41	100.6	207.8	.252
125.	7.26	33.55	26.26	26.84	125.8	178.3	.300
150.	7.10	33.71	26.41	27.11	151.0	164.9	.344
175.	6.86	33.81	26.52	27.33	176.2	154.9	.384
200.	6.64	33.88	26.60	27.53	201.4	147.1	.422
225.	6.38	33.91	26.66	27.71	226.6	141.5	.458
250.	6.12	33.98	26.75	27.92	251.8	133.5	.493
300.	5.48	33.97	26.82	28.22	302.2	127.2	.559
400.	5.34	33.99	26.86	28.72	403.1	124.9	.686
500.	4.50	34.12	27.05	29.39	504.1	106.6	.803
600.	4.04	34.17	27.14	29.96	605.1	98.6	.906
700.	3.74	34.22	27.21	30.50	706.1	92.2	1.003
800.	3.60	34.27	27.27	31.02	807.3	87.4	1.094
1000.	3.20	34.37	27.38	32.08	1009.6	77.3	1.260
1200.	2.82	34.43	27.47	33.10	1212.2	69.9	1.409
1500.	2.36	34.51	27.57	34.61	1516.5	60.3	1.607
2000.	1.88	34.61	27.69	37.05	2024.6	49.8	1.887
2500.	1.71	34.64	27.73	39.39	2533.8	47.1	2.134
3000.	1.56	34.67	27.76	41.70	3044.2	44.5	2.367

STATION 29

TIME: 0148 DATE: 19-III-58 LAT: 51° 34' N LONG: 135° 26' W SOUNDING: 1926 fms.
 WEATHER: 01 WIND: Dir. Light airs AIR TEMP: Dry 48° Wet 46° BARO: 1014.9 mb.
 CLOUD: Type Cu Amt 3 SEA: calm SWELL: 000° - 3 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	7.47*	32.473*	25.39	4847.0	
5.	7.39	32.478	25.40	4846.2	
20.	7.21	32.490	25.44	4844.9	
30.	7.15	32.496	25.45	4844.7	
49.	7.17	32.503	25.45	4846.1	
74.	7.15	32.548	25.49	4847.5	
99.	7.03	33.243	26.05	4850.1	
124.	6.65	33.544	26.34	4847.8	
149.	6.43	33.722	26.51	4847.1	
173.	6.45	33.874	26.63	4849.4	
198.	6.42	33.941	26.68	4850.7	
223.	6.11	33.955	26.74	4848.2	
247.	5.84	33.949	26.76	4846.0	
297.	5.51	33.982	26.83	4844.7	
400.	4.93	34.063	26.96	4843.4	0.094
500.	5.03	34.132*	27.01	4850.9	
600.	4.18	34.192	27.15	4845.5	.050
800.	3.61	34.311	27.30	4849.9	.036
1000.	3.19	34.390	27.40	4856.2	.039
1200.	2.81	34.454	27.49	4863.0	.042
1501.	2.36	34.521	27.58	4874.7	.067
1952.	1.96	34.606	27.68	4896.0	.122
2452.	1.74	34.647	27.73	4922.6	.169
2953.	1.59	34.672	27.76	4950.2	.216
3454.	1.55	34.683	27.77	4979.1	
3500.	1.55*	34.683*	27.77	4981.9	

STATION 29

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	7.47	32.47	25.39	25.39	0.0	259.7	0.000
10.	7.32	32.48	25.42	25.46	10.1	257.1	.026
20.	7.21	32.49	25.44	25.53	20.1	255.3	.052
30.	7.15	32.50	25.45	25.59	30.2	254.2	.077
50.	7.17	32.50	25.45	25.69	50.3	254.1	.129
75.	7.15	32.56	25.50	25.85	75.5	249.7	.192
100.	7.02	33.26	26.07	26.53	100.6	196.3	.248
125.	6.64	33.55	26.35	26.93	125.8	170.0	.294
150.	6.43	33.73	26.52	27.21	151.0	154.6	.335
175.	6.45	33.88	26.63	27.45	176.2	143.8	.373
200.	6.41	33.94	26.69	27.62	201.4	139.0	.408
225.	6.09	33.96	26.74	27.79	226.6	134.4	.443
250.	5.81	33.95	26.77	27.93	251.8	131.8	.476
300.	5.49	33.98	26.83	28.24	302.2	125.9	.541
400.	4.93	34.06	26.96	28.83	403.1	114.5	.663
500.	5.03	34.13	27.01	29.34	504.1	111.6	.777
600.	4.18	34.19	27.15	29.96	605.1	98.2	.883
700.	3.71	34.25	27.24	30.53	706.2	89.4	.977
800.	3.61	34.31	27.30	31.05	807.3	84.7	1.065
1000.	3.19	34.39	27.40	32.10	1009.7	75.6	1.228
1200.	2.81	34.45	27.49	33.12	1212.3	67.9	1.373
1500.	2.36	34.52	27.58	34.62	1516.5	59.5	1.567
2000.	1.93	34.61	27.69	37.05	2024.6	49.9	1.844
2500.	1.72	34.65	27.73	39.40	2533.9	46.4	2.090
3000.	1.58	34.67	27.76	41.70	3044.3	44.4	2.321
3500.	1.55	34.68	27.77	43.97	3555.8	44.7	2.549

STATION 30

TIME: 0851 DATE: 19-III-58 LAT: 51°26' N LONG: 137° 00' W SOUNDING: 1950 fms.
WEATHER: 03 WIND: Dir. 350° Speed 10 AIR TEMP: Dry 43° Wet 41° BARO: 1014.6 mb.
CLOUD: Type Cu Amt 9 SEA: 350° - 2 SWELL: 300° - 2 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	O ₂ mg.at/l.
0.	6.69*	
5.	6.72	0.632
20.	6.74	.641
29.	6.71	.625
49.	6.73	.620
73.	6.78	.580
98.	6.60	.378
123.	6.54	.318
147.	6.37	.271
171.	6.14	.228
196.	6.00	.205
221.	5.68	.190
245.	5.51	.174
294.	5.18	.144
400.	4.61	.097
500.	4.30	.060
600.	3.98	.048
801.	3.56	.031
1002.	3.10	.035
1203.	2.72	.056
1504.	2.30	.074
2004.	1.90	.128
2505.	1.72	.179
3006.	1.58	.230
3507.	1.55	.146

Salinity determinations unreliable.

STATION 31

TIME: 1755 DATE: 19-III-58 LAT: 51° 21' N LONG: 135° 32' W SOUNDING: 1945 fms.
WEATHER: 81 WIND: Dir. 010° Speed 25 AIR TEMP: Dry 45° Wet 43° BARO: 1011.2 mb.
CLOUD: Type Cu Amt 9 SEA: 350° - 3 SWELL: 350° - 3 SECCHI DISC: 16 meters

OBSERVED DATA

Depth m.	Temp. °C	O ₂ mg.at/l.
0.	7.12	0.590
19.	7.14	.604
29.	7.11	.606
48.	7.15	.626
72.	7.09	.556
96.	7.28	.455
120.	7.14	.312
144.	7.10	.287
168.	6.82	.267
192.	6.74	.238
216.	6.50	.225
240.	6.29	.216
288.	5.85	.201
390.	5.06	.138
490.	4.67	.098
590.	4.28	.072
790.	3.69	.044
991.	3.24	.035
1192.	2.86	.038
1494.	2.44	.063
1998.	1.96	.128
2468	1.87	.164
2970.	1.62	.229
3372.	1.58	.249

Salinity determinations unreliable.

STATION 32

TIME: 0302 DATE: 20-III-58 LAT: 52° 55' N LONG: 134° 04' W SOUNDING: 1519 fms.
WEATHER: 01 WIND: Dir. 000° Speed 30 AIR TEMP: Dry 42° Wet 42° BARO: 1008.8 mb.
CLOUD: Type As Amt 2 SEA: 000° ~ 3 SWELL: 000° ~ 5 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	O ₂ mg.at/l.
5.	8.40	0.623
20.	8.40	.627
30.	8.39	.541
50.	7.89	.576
75.	8.39	.530
99.	8.53	.502
124.	8.35	.463
149.	7.80	.371
174.	7.58	.301
199.	7.25	.262
223.	7.09	.259
248.	6.94	.247
298.	6.18	.200
397.	5.25	.127
497.	5.75	.095
596.	4.09	.055
796.	3.63	.045
995.	3.21	.036
1193.	2.83	.053
1490.	2.35	.067
1985.	1.88	.110
2480.	1.67	.164
2725.	1.65	.190

Salinity determinations unreliable.

STATION 33

TIME: 0905 DATE: 20-III-58 LAT: 53° 23' N LONG: 133° 32' W SOUNDING: 1150 fms.
WEATHER: 03 WIND: Dir. 000° Speed 20 AIR TEMP: Dry 40° Wet 39° BARO: 1005.4 mb.
CLOUD: Type Sc Amt 5 SEA: 000° - 2 SWELL: 000° - 3 SECCHI DISC:

Depth m.	Temp. °C	O ₂ mg.at/l.
5.	7.58	0.652
19.	7.63	.629
29.	7.46	.619
49.	7.02	.614
73.	6.98	.614
97.	7.14	.554
122.	7.64	.403
146.	6.93	.384
170.	6.74	.320
194.	6.61	.264
219.	6.43	.241
243.	6.24	.221
292.	5.70	.184
347.	5.32	.153
439.	4.80	.102
531.	4.44	.071
710.	3.74	.051
890.	3.37	.035
1073.	3.07	.034
1350.	2.50	.060
1820	1.98	.116

Salinity determinations unreliable.

STATION 34

TIME: 1232 DATE: 20-III-58 LAT: 53° 25' N LONG: 133° 14' W SOUNDING: 550 fms.
WEATHER: 01 WIND: Dir. 000° Speed 20 AIR TEMP: Dry 40° Wet 39° BARO: 1004.1 mb.
CLOUD: Type Cu Amt 1 SEA: 000° - 2 SWELL: 000° - 4 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	8.01*	32.301*	25.18	4853.2	
5.	8.00	32.299	25.18	4853.3	0.601
20.	8.00	32.299	25.18	4854.2	.593
29.	8.02	32.304	25.18	4855.0	.602
49.	7.52	32.501	25.40	4850.6	.596
73.	7.08	32.552	25.50	4846.5	.599
98.	6.72	32.549	25.55	4843.3	.617
122.	6.38	32.554	25.60	4840.3	.617
146.	6.90	33.194	26.03	4851.0	.421
171.	7.08	33.636	26.36	4856.5	.282
195.	6.90	33.797	26.51	4856.2	.272
220.	6.80	33.871	26.58	4856.7	.271
244.	6.64	33.896	26.62	4856.2	.256
293.	6.27	33.931	26.70	4854.4	.216
392.	5.37	33.981	26.85	4848.5	.159
489.	4.47	34.069	27.02	4842.4	.094
587.	4.16	34.146	27.11	4844.3	.062
783.	3.59	34.292	27.29	4848.6	.054
881.	3.46	34.314	27.32	4852.6	.038

STATION 34

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	8.01	32.30	25.18	25.18	0.0	279.7	0.000
10.	8.00	32.30	25.18	25.22	10.1	279.9	.028
20.	8.00	32.30	25.18	25.27	20.1	280.1	.056
30.	8.01	32.31	25.18	25.32	30.2	279.7	.084
50.	7.50	32.51	25.41	25.64	50.3	258.2	.139
75.	7.05	32.55	25.51	25.86	75.4	249.1	.202
100.	6.69	32.55	25.55	26.02	100.6	245.3	.265
125.	6.40	32.60	25.63	26.21	125.8	238.2	.325
150.	6.95	33.28	26.09	26.79	151.0	194.8	.380
175.	7.07	33.68	26.39	27.20	176.1	167.0	.425
200.	6.87	33.82	26.53	27.46	201.3	154.3	.466
225.	6.77	33.88	26.59	27.63	226.5	148.9	.504
250.	6.60	33.90	26.63	27.79	251.7	145.3	.541
300.	6.21	33.94	26.71	28.10	302.2	138.5	.613
400.	5.30	33.99	26.86	28.73	403.0	124.5	.745
500.	4.41	34.08	27.03	29.38	504.0	108.3	.863
600.	4.12	34.16	27.12	29.94	605.0	100.2	.968
700.	3.82	34.23	27.22	30.50	706.1	92.1	1.066
800.	3.56	34.30	27.29	31.05	807.2	85.0	1.155

STATION 35

TIME: 1415 DATE: 20-III-58 LAT: 53° 30' N LONG: 133° 01' W SOUNDING: 101 fms.
 WEATHER: 02 WIND: Dir. 000° Speed 10 AIR TEMP: Dry 39° Wet 38° BARO: 1002.7 mb.
 CLOUD: Type Cu Amt 3 SEA: 000° - 1 SWELL: 000° - 3 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft./sec.	O ₂ mg.at/l.
0.	8.38*	32.174*	25.02	4857.3	
5.	8.28	32.178	25.04	4856.4	0.643
20.	8.15	32.228	25.10	4855.8	.603
30.	8.20	32.293	25.14	4857.3	.594
50.	8.27	32.327	25.16	4859.5	.585
75.	8.28	32.385	25.20	4861.3	.570
99.	8.18	32.551	25.35	4862.1	.540
124.	8.12	32.729	25.50	4863.5	.476
149.	8.20	32.817	25.55	4866.3	.457
174.	8.07	33.006	25.72	4866.9	.427
175.	8.06*	33.016*	25.73	4866.9	

STATION 35

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	8.38	32.17	25.02	25.02	0.0	294.3	0.000
10.	8.21	32.19	25.06	25.11	10.1	291.1	.029
20.	8.15	32.23	25.10	25.19	20.1	287.4	.059
30.	8.20	32.29	25.14	25.28	30.2	283.4	.087
50.	8.27	32.33	25.16	25.39	50.3	282.2	.144
75.	8.28	32.39	25.20	25.55	75.4	278.4	.215
100.	8.18	32.56	25.35	25.82	100.6	264.5	.283
125.	8.12	32.73	25.50	26.08	125.8	251.0	.348
150.	8.20	32.82	25.56	26.25	150.9	245.9	.410
175.	8.06	33.02	25.73	26.54	176.1	230.0	.470

STATION 36

TIME: 1757 DATE: 20-III-58 LAT: 54° 00' N LONG: 133° 30' W SOUNDING: 105 fms.
 WEATHER: 02 WIND: Dir. 000° Speed 15 AIR TEMP: Dry 35° Wet 34° BARO: 1000.7 mb.
 CLOUD: Type CuSc Amt 4 SEA: 000° - 2 SWELL: 000° - 3 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	8.09*	32.339*	25.20	4854.4	
5.	8.07	32.334	25.19	4854.3	0.607
20.	8.07	32.336	25.20	4855.2	.600
30.	8.13	32.351	25.20	4856.6	.597
50.	8.10	32.500	25.32	4858.0	.541
75.	7.19	32.558	25.49	4848.1	.592
100.	6.73	32.636	25.62	4843.9	.588
125.	7.39	33.313	26.06	4856.5	.406
150.	7.20	33.752	26.43	4857.3	.278
175.	6.65	33.886	26.61	4852.2	.231

STATION 36

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	8.09	32.34	25.20	25.20	0.0	278.1	0.000
10.	8.06	32.33	25.19	25.24	10.1	278.3	.028
20.	8.07	32.34	25.20	25.29	20.1	278.3	.056
30.	8.13	32.35	25.20	25.34	30.2	278.2	.084
50.	8.10	32.50	25.32	25.55	50.3	267.0	.139
75.	7.19	32.56	25.49	25.84	75.4	250.7	.204
100.	6.73	32.64	25.62	26.08	100.6	239.3	.266
125.	7.39	33.31	26.06	26.64	125.8	197.8	.321
150.	7.20	33.75	26.43	27.13	151.0	163.0	.366
175.	6.65	33.89	26.61	27.42	176.2	146.1	.405

STATION 37

TIME: 1937 DATE: 20-III-58 LAT: 54° 00' N LONG: 133° 44' W SOUNDING: 542 fms.
 WEATHER: 02 WIND: Dir. 000° Speed 15 AIR TEMP: Dry 40° Wet 37° BARO: 1000.7 mb.
 CLOUD: Type ScCu Amt 3 SEA: 000° - 2 SWELL: 330° - 3 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	7.29*	32.489*	25.43	4844.7	
5.	7.50	32.434	25.35	4847.5	0.638
19.	7.50	32.422	25.34	4848.3	.639
28.	7.04	32.525	25.49	4843.3	.627
47.	6.42	32.545	25.59	4836.4	.634
71.	6.37	32.563	25.61	4837.2	.624
94.	6.06	32.785	25.82	4835.4	.575
118.	7.02	33.587	26.33	4852.4	.343
142.	7.13	33.764	26.45	4856.0	.288
165.	6.82	33.813	26.53	4853.5	.257
189.	6.60	33.857	26.59	4852.2	.258
212.	5.83	33.848	26.69	4843.4	.267
236.	5.81	33.902	26.73	4844.8	.216
283.	5.30	33.982	26.86	4841.1	.150
378.	4.48	33.991	26.96	4835.6	.128
472.	4.20	34.073	27.05	4837.7	.080
567.	4.08	34.156	27.13	4842.0	.059
756.	3.60	34.266	27.26	4847.0	.044
850.	3.46	34.310	27.31	4850.8	.037

STATION 37

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	7.29	32.49	25.43	25.43	0.0	256.1	0.000
10.	7.60	32.41	25.32	25.36	10.1	265.6	.026
20.	7.47	32.43	25.35	25.45	20.1	263.2	.053
30.	6.95	32.54	25.51	25.65	30.2	248.4	.079
50.	6.37	32.55	25.59	25.83	50.3	240.8	.128
75.	6.33	32.59	25.63	25.98	75.5	237.7	.188
100.	6.18	32.93	25.92	26.39	100.6	210.4	.244
125.	7.14	33.70	26.40	26.98	125.8	165.4	.292
150.	7.07	33.79	26.48	27.18	151.0	158.1	.333
175.	6.72	33.83	26.56	27.37	176.2	151.0	.371
200.	6.30	33.86	26.64	27.57	201.4	144.0	.409
225.	5.72	33.87	26.72	27.77	226.6	136.3	.444
250.	5.72	33.93	26.76	27.93	251.8	132.2	.478
300.	5.13	34.00	26.89	28.29	302.2	120.6	.542
400.	4.37	34.00	26.98	28.85	403.1	112.5	.639
500.	4.15	34.10	27.08	29.42	504.1	104.0	.768
600.	4.02	34.18	27.15	29.97	605.1	97.3	.870
700.	3.78	34.24	27.23	30.51	706.2	90.9	.965
800.	3.53	34.29	27.29	31.04	807.3	85.5	1.054

STATION 38

TIME: 2153 DATE: 20-III-58 LAT: 53° 58' N LONG: 134° 09' W SOUNDING: 1234 fms.
 WEATHER: 02 WIND: Dir. 020° Speed 30 AIR TEMP: Dry 38° Wet 35° BARO: 988.6 mb.
 CLOUD: Type Cu Amt 1 SEA: 020° - 4 SWELL: 340° - 4 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	7.26*	32.526*	25.46	4844.4	
5.	7.24	32.518	25.46	4844.5	0.642
19.	7.22	32.513	25.45	4845.0	.627
28.	7.23	32.523	25.46	4845.7	.621
47.	7.26	32.492	25.43	4847.1	.619
71.	6.78	32.920	25.83	4844.0	.497
95.	7.56	33.330	26.05	4857.0	.374
118.	7.31	33.626	26.32	4856.3	.336
142.	7.12	33.790	26.47	4855.9	.282
166.	6.96	33.826	26.52	4855.4	.258
190.	6.74	33.869	26.59	4854.2	.246
213.	6.61	33.902	26.63	4854.0	.246
237.	6.22	33.930	26.70	4850.4	.226
284.	5.78	33.964	26.78	4847.5	.183
376.	4.64	33.969	26.92	4837.6	.155
471.	4.18	34.020	27.01	4837.2	.113
567.	3.97	34.117	27.11	4840.3	.075
760.	3.59	34.276	27.27	4847.1	.053
955.	3.12	34.363	27.39	4852.5	.048
1152.	2.87	34.418	27.45	4860.8	.049
1454.	2.35	34.516	27.58	4871.7	.074
1968.	1.94	34.592	27.67	4896.6	.129
2000.	1.93*	34.593*	27.67	4898.4	

STATION 38

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	7.26	32.53	25.46	25.46	0.0	252.9	0.000
10.	7.23	32.51	25.45	25.50	10.1	253.6	.025
20.	7.22	32.51	25.46	25.55	20.1	253.6	.051
30.	7.23	32.52	25.46	25.60	30.2	253.2	.076
50.	7.23	32.52	25.46	25.69	50.3	253.9	.128
75.	6.82	32.99	25.88	26.23	75.5	213.7	.186
100.	7.59	33.40	26.10	26.56	100.6	193.5	.238
125.	7.25	33.69	26.37	26.95	125.8	167.9	.283
150.	7.06	33.82	26.50	27.20	151.0	156.4	.324
175.	6.88	33.84	26.54	27.36	176.2	152.5	.363
200.	6.67	33.88	26.61	27.53	201.4	146.9	.401
225.	6.45	33.92	26.66	27.71	226.6	141.9	.437
250.	6.06	33.94	26.73	27.90	251.8	135.4	.472
300.	5.61	33.97	26.81	28.21	302.2	128.3	.538
400.	4.45	33.98	26.95	28.82	403.1	115.5	.661
500.	4.09	34.04	27.04	29.39	504.1	107.3	.774
600.	3.90	34.15	27.14	29.96	605.1	98.4	.878
700.	3.70	34.23	27.23	30.51	706.2	90.8	.973
800.	3.50	34.30	27.30	31.06	807.3	84.3	1.062
1000.	3.04	34.38	27.41	32.10	1009.7	74.8	1.223
1200.	2.80	34.43	27.47	33.11	1212.3	69.3	1.369
1500.	2.29	34.53	27.59	34.63	1516.5	58.2	1.563
2000.	1.93	34.59	27.67	37.04	2024.6	51.4	1.841

STATION 39

TIME: 0316 DATE: 21-III-58 LAT: 54° 00' N LONG: 135° 06' W SOUNDING: 1430 fms.
 WEATHER: 02 WIND: Dir. 030° Speed 20 AIR TEMP: Dry 38° Wet 37° BARO: 997.0 mb.
 CLOUD: Type Sc Amt 1 SEA: 030° 0 3 SWELL: 000° - 5 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	6.93*	32.526*	25.50	4840.2	
5.	6.93	32.525	25.50	4840.5	0.583
19.	6.93	32.526	25.50	4841.3	.595
29.	6.94	32.529	25.50	4842.0	.617
48.	6.45	32.575	25.60	4837.0	.602
73.	6.20	32.685	25.72	4835.6	.573
97.	5.74	33.020	26.04	4832.2	.515
121.	5.39	33.328	26.33	4830.1	.466
145.	5.23	33.540	26.51	4830.2	.417
170.	5.25	33.729	26.66	4832.7	.330
194.	5.22	33.818	26.74	4834.1	.301
218.	5.14	33.868	26.78	4834.6	.273
243.	5.05	33.913*	26.83	4835.1	.238
291.	5.07	33.977	26.88	4838.5	.142
375.	4.39	33.978	26.96	4834.2	.133
470.	4.11	34.069	27.06	4836.3	.085
566.	3.95	34.168	27.15	4840.2	.062
764.	3.54	34.302	27.30	4846.8	.041
958.	3.15	34.389*	27.41	4853.2	.041
1151.	2.83	34.432	27.47	4860.3	.041
1440.	2.43	34.512	27.57	4872.0	.060
2017.	1.90	34.600	27.68	4899.0	.141
2400.	1.72	34.643	27.73	4919.2	.179
2500.	1.70*	34.652*	27.74	4924.8	

STATION 39

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	6.93	32.53	25.50	25.50	0.0	248.8	0.000
10.	6.93	32.52	25.50	25.55	10.1	248.9	.025
20.	6.93	32.53	25.50	25.60	20.1	249.0	.050
30.	6.93	32.53	25.51	25.65	30.2	248.8	.075
50.	6.41	32.58	25.61	25.85	50.3	238.8	.124
75.	6.17	32.70	25.74	26.09	75.5	227.0	.183
100.	5.69	33.06	26.08	26.55	100.6	195.0	.236
125.	5.35	33.37	26.37	26.95	125.8	168.1	.282
150.	5.22	33.58	26.55	27.25	151.0	151.2	.322
175.	5.25	33.76	26.68	27.50	176.2	138.7	.358
200.	5.20	33.83	26.75	27.69	201.4	132.6	.393
225.	5.12	33.88	26.80	27.85	226.6	128.3	.425
250.	5.04	33.92	26.84	28.01	251.8	124.5	.457
300.	5.04	33.98	26.89	28.29	302.3	120.6	.519
400.	4.27	33.99	26.98	28.86	403.2	112.2	.637
500.	4.05	34.10	27.09	29.43	504.1	102.8	.745
600.	3.89	34.20	27.18	30.00	605.1	94.5	.845
700.	3.68	34.27	27.26	30.55	706.2	87.8	.937
800.	3.47	34.32	27.32	31.08	807.3	82.3	1.023
1000.	3.07	34.40	27.42	32.12	1009.7	73.4	1.181
1200.	2.76	34.44	27.49	33.12	1212.3	68.0	1.324
1500.	2.36	34.53	27.58	34.62	1516.6	59.1	1.517
2000.	1.91	34.60	27.68	37.04	2024.7	50.7	1.796
2500.	1.70	34.65	27.74	39.40	2533.9	45.9	2.042

STATION 40

TIME: 1035 DATE: 21-III-58 LAT: 54° 00' N LONG: 136° 36' W SOUNDING: 1700 fms.
 WEATHER: 02 WIND: Dir. 020° Speed 30 AIR TEMP: Dry 32° Wet 30° BARO: 996.3 mb.
 CLOUD: Type Cu Amt 2 SEA: 020° - 4 SWELL: 350° - 4 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/1.
0.	6.32*	32.613*	25.65	4832.5	
5.	6.30	32.609	25.65	4832.6	0.646
20.	6.28	32.601	25.65	4833.2	.636
30.	6.29	32.600	25.64	4833.9	.634
50.	6.27	32.605	25.65	4834.8	.633
75.	5.96	32.588	25.68	4832.1	.631
99.	5.82	32.860	25.91	4832.8	.568
124.	6.43	33.605	26.42	4845.2	.383
149.	6.20	33.764	26.57	4844.3	.347
174.	6.08	33.855	26.66	4844.5	.302
199.	6.01	33.888	26.70	4845.2	.280
224.	5.89	33.920	26.74	4845.2	.236
29.	5.74	33.927	26.76	4831.7	.220
298.	4.82	33.919	26.86	4835.3	.225
394.	4.74	34.024	26.95	4840.3	.115
493.	4.14	34.070	27.05	4838.1	.090
592.	3.86	34.175	27.17	4840.5	.060
789.	3.48	34.287	27.29	4847.4	.041
988.	3.10	34.359	27.39	4854.1	.041
1185.	2.76	34.428	27.47	4861.3	.048
1482.	2.37	34.504	27.57	4873.6	.062
1976.	1.93	34.604	27.68	4897.0	.128
2470.	1.72	34.636	27.72	4923.3	.188
2965.	1.61	34.665	27.75	4951.1	.228
3000.	1.61*	34.667*	27.76	4953.1	

STATION 40

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	6.32	32.61	25.65	25.65	0.0	234.6	0.000
10.	6.29	32.61	25.65	25.70	10.1	235.0	.024
20.	6.28	32.60	25.65	25.74	20.1	235.4	.047
30.	6.29	32.60	25.64	25.79	30.2	235.7	.071
50.	6.27	32.61	25.65	25.88	50.3	235.3	.118
75.	5.96	32.59	25.68	26.03	75.5	233.2	.177
100.	5.83	32.88	25.92	26.39	100.6	210.0	.233
125.	6.44	33.62	26.43	27.01	125.8	162.3	.280
150.	6.19	33.77	26.58	27.28	151.0	148.7	.319
175.	6.08	33.86	26.66	27.48	176.2	141.0	.356
200.	6.01	33.89	26.70	27.63	201.4	138.0	.391
225.	5.88	33.92	26.74	27.79	226.6	134.5	.425
250.	5.58	33.92	26.77	27.94	251.8	131.3	.459
300.	4.82	33.92	26.86	28.27	302.3	122.8	.523
400.	4.72	34.03	26.96	28.83	403.2	114.6	.642
500.	4.11	34.08	27.06	29.41	504.1	105.2	.753
600.	3.84	34.18	27.17	29.99	605.1	95.2	.855
700.	3.62	34.25	27.25	30.54	706.2	88.4	.947
800.	3.46	34.29	27.30	31.06	807.3	84.4	1.035
1000.	3.08	34.36	27.39	32.09	1009.7	76.3	1.197
1200.	2.74	34.43	27.48	33.11	1212.3	68.6	1.344
1500.	2.35	34.51	27.57	34.61	1516.6	60.3	1.540
2000.	1.91	34.61	27.69	37.05	2024.6	50.1	1.821
2500.	1.71	34.64	27.73	39.39	2533.9	47.1	2.068
3000.	1.61	34.67	27.76	41.70	3044.3	45.2	2.304

STATION 41

TIME:1731 DATE: 21-III-58 LAT: 54° 00' N LONG: 138° 00' W SOUNDING: 1767 fms.
 WEATHER: 03 WIND: Dir. 020° Speed 30 AIR TEMP: Dry 41° Wet 39° BARO: 997.6 mb.
 CLOUD: Type CuSc Amt 7 SEA: 020° - 3 SWELL: 000° - 4 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	6.19*	32.624*	25.68	4830.9	
5.	6.18	32.623	25.68	4831.0	0.643
17.	6.16	32.619	25.68	4831.5	.627
30.	6.16	32.612	25.67	4832.2	.635
50.	5.97	32.616	25.70	4830.9	.630
75.	5.78	32.624	25.73	4829.9	.630
100.	5.63	32.697	25.80	4829.6	.575
125.	4.88	33.414	26.45	4823.8	.452
150.	4.87	33.633	26.63	4826.0	.381
175.	4.67	33.720	26.72	4825.1	.346
200.	4.56	33.818	26.81	4825.5	.288
225.	4.52	33.869	26.85	4826.6	.231
250.	4.36	33.897	26.89	4826.0	.224
300.	4.21	33.942	26.95	4827.1	.169
388.	4.01	34.044	27.05	4830.0	.106
485.	3.82	34.140	27.14	4833.5	.081
583.	3.68	34.219	27.22	4837.7	.062
777.	3.27	34.314	27.33	4843.8	.048
971.	2.98	34.388	27.42	4851.5	.050
1165.	2.70	34.440	27.49	4859.3	.065
1456.	2.35	34.504	27.57	4871.8	.068
1941.	1.93	34.589	27.67	4894.9	.131
2427.	1.72	34.630	27.72	4920.8	.184
2915.	1.60	34.657	27.75	4948.0	.240
3000.	1.59*	34.660*	27.75	4952.9	

STATION 41

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	6.19	32.62	25.68	25.68	0.0	232.4	0.000
10.	6.17	32.62	25.68	25.72	10.1	232.4	.023
20.	6.16	32.62	25.68	25.77	20.1	232.7	.047
30.	6.16	32.61	25.67	25.81	30.2	233.2	.070
50.	5.97	32.62	25.70	25.93	50.3	230.9	.117
75.	5.78	32.62	25.73	26.08	75.5	228.4	.175
100.	5.63	32.70	25.80	26.27	100.6	221.4	.231
125.	4.88	33.41	26.45	27.04	125.8	159.6	.279
150.	4.87	33.63	26.63	27.33	151.0	143.4	.317
175.	4.67	33.72	26.72	27.54	176.2	134.9	.353
200.	4.56	33.82	26.81	27.75	201.4	126.6	.385
225.	4.52	33.87	26.85	27.91	226.6	122.6	.417
250.	4.36	33.90	26.89	28.07	251.8	119.0	.447
300.	4.21	33.94	26.95	28.36	302.3	114.5	.506
400.	3.98	34.06	27.06	28.94	403.2	104.4	.617
500.	3.80	34.15	27.16	29.51	504.1	96.0	.718
600.	3.65	34.23	27.23	30.05	605.2	89.5	.812
700.	3.45	34.29	27.30	30.59	706.2	84.0	.899
800.	3.23	34.32	27.35	31.11	807.4	79.5	.982
1000.	2.94	34.40	27.43	32.13	1009.8	72.2	1.136
1200.	2.65	34.45	27.50	33.14	1212.4	66.5	1.276
1500.	2.30	34.51	27.58	34.62	1516.6	59.4	1.468
2000.	1.89	34.60	27.68	37.04	2024.7	50.6	1.747
2500.	1.70	34.63	27.72	39.39	2534.0	47.1	1.996
3000.	1.59	34.66	27.75	41.69	3044.3	45.5	2.233

STATION 42

TIME: 0118 DATE: 22-III-58 LAT: 55° 00' N LONG: 138° 00' W SOUNDING: 2588 fms.
 WEATHER: 01 WIND: Dir. 350° Speed 12 AIR TEMP: Dry 44° Wet 44° BARO: 1000.7 mb.
 CLOUD: Type ScAs Amt 4 SEA: SWELL: SECCHI DISC: 6 meters

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	5.76*	32.569*	25.69	4825.0	
5.	5.76	32.570	25.69	4825.3	0.629
20.	5.72	32.571	25.69	4825.6	.638
30.	5.67	32.570	25.70	4825.5	.641
50.	5.65	32.569	25.70	4826.5	.636
75.	5.69	32.568	25.69	4828.5	.630
100.	5.83	33.016	26.03	4833.6	.506
125.	6.08	33.512	26.39	4840.3	.363
150.	5.26	33.605	26.56	4831.2	.384
175.	5.35	33.777	26.69	4834.6	.310
200.	5.07	33.820	26.75	4832.4	.289
225.	4.63	33.838	26.82	4828.0	.271
250.	4.83	33.909	26.85	4832.5	.189
300.	4.65	33.965	26.92	4833.2	.139
402.	4.37	34.035	27.00	4835.7	.096
503.	4.12	34.112	27.09	4838.6	.073
604.	3.83	34.174	27.17	4840.8	.049
805.	3.39	34.306	27.32	4847.1	.044
1006.	3.05	34.391	27.42	4854.6	.038
1208.	2.73	34.441	27.49	4862.3	.048
1510.	2.27	34.513	27.58	4873.9	.075
2014.	1.89	34.596	27.68	4898.6	.136
2516.	1.69	34.644	27.73	4925.7	.186
2868.	1.57	34.669	27.76	4944.8	.224
3000.	1.53*	34.677*	27.77	4952.1	

STATION 42

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	5.76	32.57	25.69	25.69	0.0	231.5	0.000
10.	5.75	32.57	25.69	25.73	10.1	231.3	.023
20.	5.72	32.57	25.69	25.79	20.1	231.1	.047
30.	5.67	32.57	25.70	25.84	30.2	230.7	.070
50.	5.65	32.57	25.70	25.93	50.3	230.7	.116
75.	5.69	32.57	25.69	26.04	75.5	231.5	.174
100.	5.83	33.02	26.03	26.50	100.6	199.9	.229
125.	6.08	33.51	26.39	26.97	125.8	166.1	.275
150.	5.26	33.61	26.56	27.26	151.0	149.8	.315
175.	5.35	33.78	26.69	27.51	176.2	138.3	.351
200.	5.07	33.82	26.75	27.69	201.4	132.1	.385
225.	4.63	33.84	26.82	27.87	226.6	126.1	.417
250.	4.83	33.91	26.85	28.02	251.8	123.3	.449
300.	4.65	33.97	26.92	28.32	302.3	117.6	.510
400.	4.37	34.03	27.00	28.88	403.2	110.3	.625
500.	4.13	34.11	27.09	29.43	504.1	102.9	.732
600.	3.84	34.17	27.17	29.98	605.1	96.0	.833
700.	3.60	34.24	27.24	30.53	706.2	89.3	.926
800.	3.40	34.30	27.31	31.07	807.3	82.9	1.013
1000.	3.06	34.39	27.41	32.11	1009.7	74.2	1.172
1200.	2.74	34.44	27.48	33.12	1212.3	68.2	1.317
1500.	2.28	34.51	27.58	34.62	1516.6	59.4	1.511
2000.	1.89	34.59	27.68	37.04	2024.7	50.8	1.790
2500.	1.69	34.64	27.73	39.40	2533.9	46.5	2.038
3000.	1.53	34.68	27.77	41.71	3044.3	43.5	2.268

STATION 43

TIME: 0653 DATE: 22-III-58 LAT: 55° 00' N LONG: 136°48.5' W SOUNDING: 1600 fms.
 WEATHER: 02 WIND: Dir. 020° Speed 10 AIR TEMP: Dry Wet BARO:
 CLOUD: Type CuSc Amt 2 SEA: 020° - 2 SWELL: 040° - 4 SECCHI DISC:

OBSERVED DATA

Depth f.	Temp. °C	S ‰	σ_t	S/V ft./sec.	O ₂ mg.at/l.
0.	5.83*	32.592*	25.69	4826.0	
5.	5.83	32.590	25.69	4826.3	0.634
20.	5.83	32.590	25.69	4827.2	.632
30.	5.83	32.594	25.70	4827.8	.637
50.	5.73	32.600	25.71	4827.6	.635
75.	5.59	32.674	25.79	4827.5	.608
100.	5.49	32.986	26.05	4828.9	.532
125.	5.41	33.506	26.47	4831.3	.403
150.	5.31	33.747	26.67	4832.4	.316
175.	5.36	33.912	26.79	4835.2	.255
200.	5.21	33.900	26.80	4834.6	.219
225.	4.92	33.908	26.84	4832.2	.205
250.	4.77	33.914	26.86	4831.7	.185
300.	4.50	33.965	26.93	4831.2	.147
399.	4.19	34.031	27.02	4833.1	.098
499.	3.92	34.117	27.11	4835.6	.082
598.	3.73	34.186	27.19	4839.1	.056
798.	3.42	34.318	27.32	4847.2	.038
997.	3.03	34.393	27.42	4853.8	.037
1197.	2.73	34.446	27.49	4861.6	.055
1496.	2.29	34.514	27.58	4873.4	.072
1995.	1.89	34.594	27.68	4897.5	.138
2494.	1.70	34.644	27.73	4924.5	.193
2500.	1.70*	34.644*	27.73	4924.9	

STATION 43

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	5.83	32.59	25.69	25.69	0.0	230.6	0.000
10.	5.83	32.59	25.69	25.74	10.1	230.8	.023
20.	5.83	32.59	25.69	25.79	20.1	230.9	.046
30.	5.83	32.59	25.70	25.84	30.2	230.7	.070
50.	5.73	32.60	25.71	25.95	50.3	229.3	.116
75.	5.59	32.67	25.79	26.14	75.5	222.4	.173
100.	5.49	32.99	26.05	26.51	100.7	198.2	.226
125.	5.41	33.51	26.47	27.05	125.8	158.7	.271
150.	5.31	33.75	26.67	27.37	151.0	139.8	.308
175.	5.36	33.91	26.79	27.61	176.2	128.3	.342
200.	5.21	33.90	26.80	27.74	201.4	127.7	.374
225.	4.92	33.91	26.84	27.90	226.6	124.1	.406
250.	4.77	33.91	26.86	28.04	251.8	122.2	.437
300.	4.50	33.97	26.93	28.34	302.3	115.9	.497
400.	4.19	34.03	27.02	28.90	403.2	108.5	.610
500.	3.92	34.12	27.12	29.46	504.1	100.0	.716
600.	3.73	34.19	27.19	30.01	605.2	93.6	.813
700.	3.56	34.25	27.26	30.55	706.2	87.5	.905
800.	3.42	34.32	27.32	31.08	807.4	81.9	.991
1000.	3.02	34.39	27.42	32.12	1009.8	73.4	1.148
1200.	2.73	34.45	27.49	33.13	1212.4	67.4	1.291
1500.	2.29	34.51	27.58	34.62	1516.6	59.1	1.483
2000.	1.89	34.59	27.68	37.04	2024.7	50.7	1.762
2500.	1.70	34.64	27.73	39.40	2533.9	46.5	2.009

STATION 44

TIME: 1239 DATE: 22-III-58 LAT: 55° 00' N LONG: 135° 45' W SOUNDING: 1425 fms.
 WEATHER: 03 WIND: Dir. 000° Speed 12 AIR TEMP: Dry 42° Wet 40° BARO: 1002.0 mb.
 CLOUD: Type Sc Amt 10 SEA: 000° - 2 SWELL: 000° - 3 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft./sec.	O ₂ mg.at/l.
0.	7.37*	32.525*	25.44	4845.8	
5.	7.09	32.535	25.49	4842.6	0.602
20.	6.43	32.560	25.60	4835.0	.617
30.	6.13	32.572	25.64	4831.7	.625
50.	6.10	32.582	25.65	4832.5	.623
75.	6.23	32.680	25.72	4836.1	.582
100.	6.64	33.293	26.15	4845.3	.413
125.	5.74	33.532	26.45	4835.9	.390
150.	5.84	33.761	26.62	4839.6	.313
175.	5.82	33.843	26.68	4841.1	.277
200.	5.79	33.917	26.75	4842.5	.218
225.	5.38	33.932	26.81	4838.5	.204
250.	5.14	33.961	26.86	4836.9	.168
300.	4.87	34.008	26.93	4836.4	.145
400.	4.63	34.065	27.00	4839.3	.100
500.	4.12	34.130	27.10	4838.5	.084
600.	3.89	34.214	27.19	4841.6	.048
800.	3.40	34.306	27.32	4847.0	.037
1000.	3.03	34.386	27.41	4854.0	.041
1200.	2.69	34.444	27.49	4861.2	.042
1500.	2.30	34.513	27.58	4873.7	.070
2000.	1.89	34.592	27.68	4897.8	.135
2500.	1.69	34.626*	27.72	4924.6	.190

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STATION 44

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	7.37	32.52	25.44	25.44	0.0	254.4	0.000
10.	6.84	32.54	25.53	25.58	10.1	246.4	.025
20.	6.43	32.56	25.60	25.69	20.1	240.2	.050
30.	6.13	32.57	25.64	25.78	30.2	235.9	.074
50.	6.10	32.58	25.65	25.89	50.3	235.0	.121
75.	6.23	32.68	25.72	26.07	75.5	229.5	.179
100.	6.64	33.29	26.15	26.61	100.6	189.1	.232
125.	5.74	33.53	26.45	27.03	125.8	160.6	.276
150.	5.84	33.76	26.62	27.32	151.0	144.9	.315
175.	5.82	33.84	26.68	27.50	176.2	138.9	.350
200.	5.79	33.92	26.75	27.68	201.4	133.3	.385
225.	5.38	33.93	26.81	27.86	226.6	127.6	.418
250.	5.14	33.96	26.86	28.03	251.8	122.9	.449
300.	4.87	34.01	26.93	28.33	302.3	116.9	.510
400.	4.63	34.06	27.00	28.87	403.2	110.9	.625
500.	4.12	34.13	27.10	29.45	504.1	101.3	.732
600.	3.89	34.21	27.19	30.01	605.1	93.4	.830
700.	3.65	34.27	27.27	30.55	706.2	87.2	.921
800.	3.40	34.31	27.32	31.07	807.3	82.7	1.007
1000.	3.03	34.39	27.41	32.11	1009.7	74.1	1.166
1200.	2.69	34.44	27.49	33.13	1212.3	67.3	1.309
1500.	2.30	34.51	27.58	34.62	1516.6	59.4	1.502
2000.	1.89	34.59	27.68	37.04	2024.7	50.9	1.782
2500.	1.69	34.63	27.72	39.38	2533.9	47.7	2.033

STATION 45

TIME: 1816 DATE: 22-III-58 LAT: 54° 58' N LONG: 134° 58' W SOUNDING: 1150 fms.
 WEATHER: 02 WIND: Dir. 040° Speed 15 AIR TEMP: Dry 43° Wet 43° BARO: 1004.1 mb.
 CLOUD: Type Sc Amt 8 SEA: 040° - 2 SWELL: 040° - 3 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	6.12*	32.529*	25.61	4829.6	
5.	6.16	32.536	25.61	4830.4	0.637
19.	6.15	32.544	25.62	4831.2	.657
29.	6.04	32.540	25.63	4830.3	.653
48.	5.74	32.581	25.70	4827.6	.642
73.	5.68	32.584	25.71	4828.3	.647
97.	5.74	32.657	25.76	4830.8	.616
121.	5.62	33.122	26.14	4832.4	.508
145.	5.46	33.549	26.49	4833.4	.390
170.	5.64	33.782	26.66	4838.2	.308
194.	5.34	33.830	26.73	4835.8	.295
218.	5.00	33.864	26.80	4832.7	.277
242.	4.83	33.900	26.85	4832.0	.211
291.	4.60	33.960	26.92	4832.0	.149
395.	4.28	34.071	27.04	4834.2	.099
494.	4.14	34.102	27.08	4838.3	.084
592.	4.01	34.143	27.13	4842.5	.072
790.	3.62	34.261	27.26	4849.3	.050
988.	3.12	34.370	27.39	4854.5	.045
1285.	2.78	34.423	27.47	4867.5	.051
1480.	2.38	34.507	27.57	4873.7	.075
1826.	2.01	34.582	27.66	4889.2	.118
2000.	1.99*	34.584*	27.66	4899.2	

STATION 45

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	6.12	32.53	25.61	25.61	0.0	238.6	0.000
10.	6.18	32.54	25.61	25.66	10.1	238.5	.024
20.	6.14	32.54	25.62	25.71	20.1	238.0	.048
30.	6.03	32.54	25.63	25.77	30.2	237.0	.072
50.	5.72	32.58	25.70	25.94	50.3	230.5	.119
75.	5.68	32.59	25.71	26.06	75.5	230.0	.177
100.	5.73	32.69	25.79	26.25	100.6	222.9	.234
125.	5.60	33.20	26.20	26.78	125.8	184.0	.285
150.	5.47	33.61	26.54	27.25	151.0	151.6	.327
175.	5.62	33.81	26.68	27.50	176.2	139.2	.364
200.	5.26	33.84	26.75	27.68	201.4	132.8	.398
225.	4.93	33.87	26.81	27.87	226.6	126.8	.431
250.	4.78	33.91	26.86	28.03	251.8	122.6	.462
300.	4.56	33.97	26.93	28.34	302.3	116.2	.523
400.	4.27	34.07	27.04	28.92	403.2	106.2	.635
500.	4.13	34.10	27.08	29.43	504.1	103.3	.741
600.	4.00	34.15	27.13	29.95	605.1	99.5	.843
700.	3.82	34.20	27.19	30.48	706.2	94.3	.941
800.	3.60	34.27	27.27	31.02	807.3	87.8	1.033
1000.	3.10	34.37	27.40	32.10	1009.7	75.7	1.199
1200.	2.83	34.42	27.46	33.09	1212.3	70.5	1.347
1500.	2.35	34.51	27.58	34.62	1516.6	59.8	1.545
2000.	1.99	34.58	27.66	37.02	2024.6	52.7	1.831

STATION 46

TIME: 2110 DATE: 22-III-58 LAT: 54° 58' N LONG: 134° 29' W SOUNDING: 440 fms.
 WEATHER: 02 WIND: Dir. 020° Speed 10 AIR TEMP: Dry 46° Wet 43° BARO: 1004.4 mb.
 CLOUD: Type Sc Amt 10 SEA: 020° - 2 SWELL: 030° - 3 SECCHI DISC: 6 meters

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	7.00	32.490	25.47	4841.0	
5.	6.92	32.495	25.48	4840.2	0.632
20.	6.02	32.574	25.66	4829.6	.636
30.	5.95	32.576	25.67	4829.3	.635
50.	5.92	32.580	25.67	4830.1	.630
74.	5.85	32.604	25.70	4830.7	.631
99.	5.75	33.004	26.03	4832.4	.524
124.	5.50	33.396	26.37	4832.1	.446
149.	5.45	33.575	26.52	4833.6	.400
174.	5.67	33.786	26.66	4838.8	.313
199.	5.43	33.871	26.75	4837.4	.259
223.	5.17	33.898	26.80	4835.5	.220
248.	5.06	33.920	26.83	4835.5	.208
298.	4.82	33.934	26.87	4835.3	.182
397.	4.40	34.025	26.99	4835.8	.110
496.	4.05	34.108	27.09	4837.2	.064
595.	3.83	34.208	27.20	4840.4	.044
744.	3.57	34.275	27.27	4845.9	.044
800.	3.49*	34.274*	27.28	4848.2	

STATION 46

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	7.00	32.49	25.47	25.47	0.0	252.3	0.000
10.	6.73	32.51	25.52	25.56	10.1	247.5	.025
20.	6.02	32.57	25.66	25.75	20.1	234.3	.049
30.	5.95	32.58	25.67	25.81	30.2	233.4	.073
50.	5.92	32.58	25.67	25.91	50.3	233.0	.120
75.	5.85	32.61	25.71	26.06	75.5	230.0	.178
100.	5.74	33.02	26.04	26.51	100.6	198.6	.232
125.	5.49	33.41	26.38	26.96	125.8	167.0	.278
150.	5.45	33.58	26.52	27.22	151.0	153.7	.318
175.	5.67	33.79	26.66	27.48	176.2	140.9	.356
200.	5.42	33.87	26.76	27.69	201.4	132.2	.390
225.	5.16	33.90	26.81	27.86	226.6	127.4	.423
250.	5.05	33.92	26.84	28.01	251.8	124.9	.454
300.	4.81	33.94	26.87	28.28	302.3	121.6	.517
400.	4.39	34.03	26.99	28.87	403.2	111.0	.634
500.	4.04	34.11	27.10	29.45	504.1	101.8	.741
600.	3.82	34.21	27.20	30.02	605.1	92.7	.840
700.	3.64	34.27	27.26	30.55	706.2	87.6	.931
800.	3.49	34.27	27.28	31.04	807.3	86.1	1.019

STATION 47

TIME: 2305 DATE: 22-III-58 LAT: 54° 57' N LONG: 134° 14' W SOUNDING: 104 fms.
WEATHER: 50 WIND: Dir. 020° Speed 8 AIR TEMP: Dry 45° Wet 43° BARO: 1004.4 mb.
CLOUD: Type Sc Amt 10 SEA: 020° - 2 SWELL: 040° - 2 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	7.70	32.356	25.26	4849.4	0.606
10.	7.70	32.324	25.24	4849.9	.621
20.	7.69	32.331	25.25	4850.4	.626
30.	7.71	32.326	25.24	4851.2	.622
50.	7.71	32.332	25.24	4852.4	.605
75.	7.80	32.592	25.44	4856.0	.554
100.	7.64	33.038	25.81	4857.2	.447
125.	7.40	33.369	26.10	4856.9	.359
150.	7.18	33.518	26.25	4856.1	.324
175.	7.14	33.528	26.26	4857.1	.317

STATION 47

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	7.70	32.36	25.26	25.26	0.0	271.5	0.000
10.	7.70	32.32	25.24	25.29	10.1	274.0	.027
20.	7.69	32.33	25.25	25.34	20.1	273.5	.055
30.	7.71	32.33	25.24	25.38	30.2	274.3	.083
50.	7.71	32.33	25.24	25.48	50.3	274.1	.138
75.	7.80	32.59	25.44	25.78	75.4	256.3	.204
100.	7.64	33.04	25.81	26.27	100.6	221.3	.264
125.	7.40	33.37	26.10	26.68	125.8	193.8	.317
150.	7.18	33.52	26.25	26.94	151.0	180.1	.364
175.	7.14	33.53	26.26	27.07	176.2	179.2	.409

STATION 48

TIME: 2604 DATE: 22-III-58 LAT: 54° 43' N LONG: 133° 30' W SOUNDING: 106 fms.
WEATHER: 03 WIND: Dir. Light airs AIR TEMP: Dry 47° Wet 45° BARO: 1004.7 mb.
CLOUD: Type Sc Amt 10 SEA: calm SWELL: calm SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	7.30	32.016	25.05	4843.0	0.588
10.	7.47	32.137	25.13	4846.3	.583
20.	7.44	32.144	25.14	4846.5	.582
30.	7.49	32.152	25.13	4847.7	.580
50.	7.53	32.213	25.18	4849.7	.576
75.	7.58	32.334	25.26	4852.3	.557
100.	7.37	32.572	25.48	4852.0	.475
125.	7.31	32.762	25.64	4853.4	.446
150.	7.26	32.981	25.82	4855.1	.399
175.	7.13	33.235	26.03	4855.9	.352

STATION 48

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	7.30	32.02	25.05	25.05	0.0	291.5	0.000
10.	7.47	32.14	25.13	25.17	10.1	284.9	.029
20.	7.44	32.14	25.14	25.23	20.1	284.1	.058
30.	7.49	32.15	25.13	25.27	30.2	284.3	.086
50.	7.53	32.21	25.18	25.41	50.3	280.5	.143
75.	7.58	32.33	25.26	25.61	75.4	272.5	.213
100.	7.37	32.57	25.48	25.94	100.6	252.4	.279
125.	7.31	32.76	25.64	26.22	125.8	237.8	.340
150.	7.26	32.98	25.82	26.51	150.9	221.1	.398
175.	7.13	33.23	26.03	26.85	176.1	200.9	.451

STATION 49

TIME: 0352 DATE: 23-III-58 LAT: 54° 30' N LONG: 133° 17' W SOUNDING: 173 fms.
 WEATHER: 03 WIND: Dir. 120° Speed 12 AIR TEMP: Dry 45° Wet 44° BARO: 1005.4 mb.
 CLOUD: Type Sc Amt 10 SEA: 120° - 2 SWELL: calm SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	6.67*	31.460*	24.70	4832.7	
5.	6.68	31.466	24.70	4833.1	0.592
19.	6.73	31.531	24.75	4834.9	.575
29.	6.78	31.620	24.81	4836.5	.570
48.	7.07	31.896	24.99	4842.4	.600
72.	7.11	32.026	25.09	4844.8	.530
96.	7.17	32.131	25.16	4847.4	.500
120.	7.17	32.187	25.21	4849.1	.519
144.	7.21	32.255	25.25	4851.3	.497
168.	7.14	32.664	25.58	4853.4	.411
192.	7.14	32.801	25.69	4855.3	.412
216.	6.96	33.277	26.09	4856.3	.336
240.	6.73	33.526	26.32	4855.7	.292
288.	6.37	33.769	26.56	4854.7	.249
300.	6.30*	33.777*	26.57	4854.6	

STATION 49

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	6.67	31.46	24.70	24.70	0.0	325.2	0.000
10.	6.70	31.48	24.71	24.76	10.1	324.0	.033
20.	6.73	31.54	24.75	24.85	20.1	320.4	.065
30.	6.79	31.63	24.82	24.96	30.2	314.2	.097
50.	7.09	31.92	25.00	25.24	50.3	296.9	.158
75.	7.12	32.04	25.10	25.45	75.4	288.3	.232
100.	7.17	32.14	25.17	25.64	100.6	281.7	.304
125.	7.18	32.20	25.22	25.80	125.7	277.8	.374
150.	7.20	32.33	25.31	26.01	150.9	269.2	.443
175.	7.13	32.73	25.64	26.45	176.1	238.3	.507
200.	7.10	32.92	25.79	26.72	201.2	224.1	.565
225.	6.88	33.40	26.20	27.24	226.4	186.2	.617
250.	6.64	33.60	26.39	27.55	251.6	168.0	.661
300.	6.30	33.78	26.57	27.96	302.0	151.4	.742

STATION 50

TIME: 0616 DATE: 23-III-58 LAT: 54°15.6' N LONG: 133° 05' W SOUNDING: 205 fms.
WEATHER: 50 WIND: Dir. 120° Speed 15 AIR TEMP: Dry 46° Wet 45° BARO: 1005.6 mb.
CLOUD: Type Sc Amt 7 SEA: 120° - 1 SWELL: calm SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	7.13*	32.347*	25.34	4842.0	
5.	7.14	32.324	25.32	4842.4	0.501
20.	7.17	32.291	25.29	4843.6	.523
30.	7.18	32.300	25.29	4844.3	.511
50.	7.19	32.314	25.30	4845.7	.502
75.	7.18	32.352	25.33	4847.2	.512
100.	7.31	32.482	25.42	4850.8	.499
124.	7.18	32.712	25.62	4851.5	.456
149.	6.98	32.982	25.86	4851.4	.390
174.	6.72	33.340	26.17	4850.9	.325
199.	6.43	33.568	26.39	4849.5	.281
224.	6.08	33.752	26.58	4847.1	.226
249.	6.00	33.794	26.62	4847.7	.226
298.	5.84	33.837	26.68	4848.6	.226
348.	5.52	33.875	26.75	4847.5	.216

STATION 50

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	7.13	32.35	25.34	25.34	0.0	264.6	0.000
10.	7.15	32.31	25.30	25.35	10.1	268.1	.027
20.	7.17	32.29	25.29	25.38	20.1	269.6	.054
30.	7.18	32.30	25.29	25.43	30.2	269.2	.081
50.	7.19	32.31	25.30	25.53	50.3	268.5	.135
75.	7.18	32.35	25.33	25.68	75.4	265.9	.202
100.	7.31	32.48	25.42	25.88	100.6	258.3	.268
125.	7.17	32.72	25.63	26.21	125.8	238.9	.331
150.	6.97	32.99	25.87	26.56	150.9	216.3	.388
175.	6.71	33.35	26.18	27.00	176.1	186.7	.439
200.	6.42	33.58	26.40	27.33	201.3	166.5	.483
225.	6.07	33.76	26.58	27.63	226.5	149.1	.523
250.	6.00	33.80	26.62	27.79	251.7	145.5	.560
300.	5.83	33.84	26.68	28.08	302.1	140.9	.632

STATION 51

TIME: 1523 DATE: 26-III-58 LAT: 56° 30' N LONG: 135° 36' W SOUNDING: 92 fms.
 WEATHER: 81 WIND: Dir. 230° Speed 12 AIR TEMP: Dry 44° Wet 42° BARO: 1014.3 mb.
 CLOUD: Type Sc Amt 10 SEA: 230° - 2 SWELL: calm SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	6.40	31.896	25.08	4830.8	0.615
10.	6.60	31.899	25.05	4834.1	.622
20.	6.80	32.002	25.11	4837.7	.599
30.	6.92	32.063	25.14	4840.1	.600
50.	7.38	32.251	25.23	4847.9	.579
75.	7.52	32.420	25.34	4851.8	.558
100.	6.91	32.732	25.67	4846.6	.463
125.	6.77	32.790	25.73	4846.5	.460
150.	6.71	32.894	25.82	4847.6	.421
174.	6.66	33.044	25.95	4849.0	.396
175.	6.66*	33.051*	25.95	4849.0	

STATION 51

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	6.40	31.90	25.08	25.08	0.0	289.3	0.000
10.	6.60	31.90	25.05	25.10	10.1	291.6	.029
20.	6.80	32.00	25.11	25.20	20.1	286.5	.058
30.	6.92	32.06	25.14	25.28	30.2	283.6	.087
50.	7.38	32.25	25.23	25.46	50.3	275.7	.143
75.	7.52	32.42	25.34	25.69	75.4	265.3	.211
100.	6.91	32.73	25.67	26.13	100.6	234.4	.274
125.	6.77	32.79	25.73	26.31	125.8	228.6	.332
150.	6.71	32.89	25.82	26.52	150.9	220.4	.389
175.	6.66	33.05	25.95	26.77	176.1	208.4	.443

STATION 52

TIME: 1701 DATE: 26-III-58 LAT: 56° 30' N LONG: 135° 55' W SOUNDING: 540 fms.
 WEATHER: 03 WIND: Dir. 240° Speed 12 AIR TEMP: Dry 42° Wet 41° BARO: 1014.9 mb.
 CLOUD: Type CuAc Amt 7 SEA: 240° - 2 SWELL: 240° - 2 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	6.96*	32.400*	25.40	4840.2	
5.	6.96	32.359	25.37	4840.2	0.630
18.	6.94	32.363	25.37	4840.8	.619
27.	6.92	32.459	25.45	4841.4	.612
45.	6.95	32.593	25.55	4843.4	.585
68.	5.75	32.584	25.70	4828.9	.609
91.	5.69	32.632	25.74	4829.7	.611
114.	6.96	33.062	25.92	4849.4	.436
136.	5.92	33.392	26.32	4838.3	.403
159.	5.47	33.586	26.52	4834.5	.378
182.	5.74	33.793	26.65	4840.3	.300
204.	5.96	33.881	26.70	4844.8	.234
227.	5.76	33.911	26.74	4843.6	.218
269.	5.38	33.926	26.80	4841.1	.200
360.	4.48	33.949	26.92	4834.4	.150
452.	4.32	34.080	27.04	4838.2	.078
544.	4.03	34.131	27.11	4839.9	.059
730.	3.61	34.256	27.26	4845.6	.040
800.	3.51*	34.311*	27.31	4848.5	

STATION 52

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	6.96	32.40	25.40	25.40	0.0	258.6	0.000
10.	6.95	32.34	25.36	25.40	10.1	262.9	.026
20.	6.94	32.38	25.39	25.48	20.1	260.1	.053
30.	6.92	32.49	25.47	25.61	30.2	251.9	.078
50.	6.81	32.61	25.58	25.82	50.3	241.7	.128
75.	5.61	32.59	25.72	26.07	75.5	228.8	.187
100.	6.03	32.75	25.80	26.27	100.6	221.8	.244
125.	6.72	33.24	26.09	26.67	125.8	194.6	.296
150.	5.57	33.53	26.47	27.17	151.0	159.1	.341
175.	5.58	33.73	26.62	27.44	176.2	144.6	.379
200.	5.92	33.87	26.69	27.63	201.4	138.2	.415
225.	5.79	33.91	26.74	27.79	226.6	134.1	.449
250.	5.55	33.93	26.78	27.95	251.8	130.4	.482
300.	5.09	33.94	26.84	28.25	302.2	124.8	.547
400.	4.32	33.99	26.97	28.85	403.1	112.8	.667
500.	4.18	34.12	27.09	29.43	504.1	103.0	.775
600.	3.88	34.17	27.16	29.97	605.1	96.9	.876
700.	3.66	34.23	27.23	30.52	706.2	90.2	.971
800.	3.51	34.31	27.31	31.06	807.3	83.6	1.059

STATION 53

TIME: 1950 DATE: 26-III-58 LAT: 56° 32' N LONG: 136° 30' W SOUNDING: 1105 fms.
 WEATHER: 02 WIND: Dir. 270° Speed 15 AIR TEMP: Dry 45° Wet 43° BARO: 1017.3 mb.
 CLOUD: Type Sc Amt 8 SEA: 270° - 2 SWELL: 270° - 4 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg. at/l.
0.	7.31*	32.343*	25.31	4844.4	
5.	7.26	32.300	25.28	4843.9	0.706
20.	7.05	32.348	25.35	4842.2	.631
29.	6.88	32.504	25.49	4841.2	.619
50.	6.21	32.628	25.68	4834.1	.608
75.	5.57	32.643	25.77	4827.2	.602
100.	5.83	33.030	26.04	4833.6	.494
125.	6.12	33.336	26.25	4840.1	.406
150.	6.16	33.644	26.48	4843.3	.293
175.	5.92	33.812	26.65	4842.3	.276
200.	5.64	33.890	26.74	4840.4	.223
224.	5.30	33.924	26.81	4837.4	.210
250.	5.20	33.950	26.84	4837.7	.180
300.	4.82	33.976	26.91	4835.6	.143
400.	4.33	34.031	27.00	4835.1	.100
500.	4.17	34.106	27.08	4839.1	.070
600.	3.93	34.172	27.16	4842.0	.056
800.	3.51	34.289	27.29	4848.4	.041
1000.	3.12	34.377	27.40	4855.2	.041
1200.	2.79	34.429	27.47	4862.6	.043
1500.	2.38	34.512	27.57	4874.9	.065
2001.	1.90	34.598	27.68	4898.0	.146

STATION 53

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	7.31	32.34	25.31	25.31	0.0	267.3	0.000
10.	7.20	32.29	25.28	25.33	10.1	270.2	.027
20.	7.05	32.35	25.35	25.44	20.1	263.8	.054
30.	6.86	32.52	25.51	25.65	30.2	248.8	.080
50.	6.21	32.63	25.68	25.91	50.3	232.9	.128
75.	5.57	32.64	25.77	26.12	75.5	224.5	.186
100.	5.83	33.03	26.04	26.51	100.6	198.8	.239
125.	6.12	33.34	26.25	26.83	125.8	179.8	.287
150.	6.16	33.64	26.48	27.18	151.0	157.6	.329
175.	5.92	33.81	26.65	27.46	176.2	142.4	.367
200.	5.64	33.89	26.74	27.68	201.4	133.5	.402
225.	5.29	33.93	26.81	27.86	226.6	127.1	.435
250.	5.20	33.95	26.84	28.01	251.8	124.4	.466
300.	4.82	33.98	26.91	28.31	302.2	118.7	.528
400.	4.33	34.03	27.00	28.88	403.2	110.1	.643
500.	4.17	34.11	27.08	29.43	504.1	103.6	.751
600.	3.93	34.17	27.16	29.97	605.1	96.9	.852
700.	3.71	34.23	27.23	30.51	706.2	90.8	.947
800.	3.51	34.29	27.29	31.05	807.3	85.2	1.036
1000.	3.12	34.38	27.40	32.09	1009.7	75.8	1.199
1200.	2.79	34.43	27.47	33.10	1212.3	69.5	1.346
1500.	2.38	34.51	27.57	34.61	1516.6	60.3	1.543
2000.	1.90	34.60	27.68	37.04	2024.6	50.6	1.825

STATION 54

TIME: 0039 DATE: 27-III-58 LAT: 56° 30' N LONG: 137° 25' W SOUNDING: 1300 fms.
 WEATHER: 02 WIND: Dir. 260° Speed 10 AIR TEMP: Dry 45° Wet 43° BARO: 1017.6 mb.
 CLOUD: Type Cu Amt 5 SEA: 260° - 3 SWELL: 260° - 4 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft./sec.	O ₂ mg.at/l.
0.	6.79*	31.944*	25.07	4836.1	
5.	6.84	32.017	25.12	4837.4	0.617
20.	7.02	32.276	25.30	4841.6	.631
30.	7.16	32.483	25.44	4844.8	.616
50.	6.80	32.606	25.58	4841.8	.586
75.	6.04	32.669	25.73	4833.5	.601
100.	6.48	32.884	25.84	4841.6	.514
124.	6.51	33.235	26.12	4844.8	.419
149.	5.40	33.488	26.45	4832.6	.415
174.	5.32	33.665	26.60	4833.7	.369
199.	5.34	33.791	26.70	4835.9	.312
224.	5.16	33.847	26.77	4835.2	.280
248.	5.04	33.886	26.81	4835.1	.233
298.	4.72	33.935	26.89	4834.0	.177
397.	4.36	34.016	26.99	4835.2	.109
497.	4.06	34.112	27.10	4837.4	.067
597.	3.82	34.200	27.19	4840.4	.039
796.	3.42	34.311	27.32	4847.0	.040
996.	3.06	34.402	27.42	4854.2	.036
1197.	2.69	34.455	27.50	4861.1	.056
1497.	2.28	34.538	27.60	4873.4	.075
1998.	1.87	34.600	27.68	4897.4	.132
2248.	1.75	34.634	27.72	4910.6	.168

STATION 54

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	σ_{stp}	P	$10^5 \delta$	ΔD
0.	6.79	31.94	25.07	25.07	0.0	290.4	0.000
10.	6.90	32.10	25.17	25.22	10.1	280.5	.029
20.	7.02	32.28	25.30	25.39	20.1	268.8	.056
30.	7.16	32.48	25.44	25.58	30.2	255.3	.083
50.	6.80	32.61	25.58	25.82	50.3	241.8	.133
75.	6.04	32.67	25.73	26.08	75.5	228.0	.192
100.	6.48	32.88	25.84	26.31	100.6	217.6	.248
125.	6.49	33.25	26.13	26.71	125.8	190.9	.299
150.	5.38	33.50	26.46	27.16	151.0	159.3	.343
175.	5.32	33.67	26.61	27.43	176.2	145.8	.382
200.	5.34	33.79	26.70	27.64	201.4	137.1	.417
225.	5.15	33.85	26.77	27.82	226.6	131.2	.451
250.	5.03	33.89	26.81	27.98	251.8	127.0	.484
300.	4.71	33.94	26.89	28.29	302.2	120.4	.546
400.	4.35	34.02	26.99	28.87	403.1	111.2	.663
500.	4.05	34.11	27.10	29.45	504.1	101.7	.771
600.	3.81	34.20	27.19	30.01	605.1	93.4	.869
700.	3.60	34.27	27.27	30.55	706.2	87.0	.960
800.	3.41	34.31	27.32	31.08	807.3	82.3	1.046
1000.	3.05	34.40	27.43	32.12	1009.7	73.1	1.203
1200.	2.69	34.46	27.50	33.14	1212.3	66.3	1.344
1500.	2.28	34.54	27.60	34.64	1516.6	57.2	1.532
2000.	1.87	34.60	27.68	37.05	2024.7	50.0	1.805

STATION 55

TIME: 0620 DATE: 27-III-58 LAT: 56° 30' N LONG: 138° 44' W SOUNDING: 1720 fms.
 WEATHER: 01 WIND: Dir. 250° Speed 8 AIR TEMP: Dry 42° Wet 41° BARO: 1018.6 mb.
 CLOUD: Type Cu Amt 5 SEA: 250° - 1 SWELL: 260° - 3 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	6.92*	32.054*	25.13	4838.3	
5.	6.88	32.050	25.14	4838.0	0.606
20.	6.86	32.063	25.15	4838.7	.603
30.	6.94	32.093	25.16	4840.4	.601
50.	7.62	32.318	25.25	4851.2	.582
75.	7.41	32.461	25.39	4850.6	.569
100.	7.13	32.507	25.46	4848.6	.596
125.	6.98	32.663	25.60	4848.8	.535
150.	7.15	33.019	25.86	4853.8	.459
175.	6.66	33.358	26.19	4850.2	.372
200.	6.31	33.578	26.41	4848.0	.328
225.	5.94	33.749	26.59	4845.3	.274
249.	5.79	33.828	26.68	4845.0	.259
299.	5.30	33.904	26.79	4841.7	.207
400.	4.66	33.987	26.93	4839.4	.139
500.	4.24	34.073	27.05	4839.9	.083
600.	4.04	34.143	27.12	4843.4	.054
800.	3.52	34.260	27.27	4848.5	.046
1000.	3.20	34.353	27.37	4856.2	.054
1200.	2.79	34.421	27.46	4862.6	.068
1500.	2.37	34.508	27.57	4874.7	.091
2000.	1.93	34.586	27.67	4898.3	.117
2501.	1.70	34.635	27.72	4924.9	.202
3102.	1.51	34.655*	27.75	4957.7	.050

STATION 55

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	6.92	32.05	25.13	25.13	0.0	283.9	0.000
10.	6.85	32.05	25.14	25.19	10.1	283.5	.029
20.	6.86	32.06	25.15	25.24	20.1	282.7	.057
30.	6.94	32.09	25.16	25.30	30.2	281.6	.085
50.	7.62	32.32	25.25	25.48	50.3	273.9	.141
75.	7.41	32.46	25.39	25.74	75.4	260.8	.209
100.	7.13	32.51	25.46	25.93	100.6	254.0	.273
125.	6.98	32.66	25.60	26.19	125.8	240.8	.336
150.	7.15	33.02	25.86	26.56	150.9	216.9	.393
175.	6.66	33.36	26.19	27.01	176.1	185.5	.444
200.	6.31	33.58	26.41	27.34	201.3	165.0	.488
225.	5.94	33.75	26.59	27.64	226.5	148.0	.527
250.	5.78	33.83	26.68	27.84	251.7	140.3	.564
300.	5.29	33.91	26.80	28.20	302.1	129.4	.632
400.	4.66	33.99	26.93	28.81	403.0	117.1	.756
500.	4.24	34.07	27.05	29.39	504.0	106.9	.869
600.	4.04	34.14	27.12	29.94	605.0	100.3	.974
700.	3.80	34.21	27.20	30.48	706.1	93.8	1.072
800.	3.52	34.26	27.27	31.02	807.2	87.4	1.163
1000.	3.20	34.35	27.37	32.07	1009.6	78.4	1.331
1200.	2.79	34.42	27.46	33.10	1212.2	70.1	1.482
1500.	2.37	34.51	27.57	34.61	1516.4	60.5	1.680
2000.	1.93	34.59	27.67	37.03	2024.5	51.8	1.966
2500.	1.70	34.63	27.72	39.39	2533.7	47.2	2.218
3000.	1.54	34.65	27.75	41.70	3044.1	45.1	2.453

STATION 56

TIME: 1202 DATE: 27-11-59 LAT: 56° 30' N LONG: 140° 00' W SOUNDING: 1850 fms.
 WEATHER: 86 WIND: Dir. 200° Speed 5 AIR TEMP: Dry 42° Wet 40° BARO: 1016.9 mb.
 CLOUD: Type Cu Amt 4 SEA: 250° - 2 SWELL: 270° - 3 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft./sec.	O ₂ mg.at/l.
0.	6.30*	32.184*	25.32	4830.6	
5.	6.25	32.182	25.32	4830.3	0.640
20.	6.18	32.189	25.34	4830.3	.660
30.	6.19	32.204	25.35	4831.0	.644
50.	6.40	32.288	25.39	4835.3	.611
75.	6.69	32.435	25.46	4841.2	.571
100.	6.64	32.515	25.53	4842.3	.580
125.	6.36	32.555	25.60	4840.2	.586
150.	5.50	32.595	25.74	4830.5	.606
175.	6.67	33.068	25.96	4849.3	.431
200.	6.69	33.389	26.21	4852.2	.369
225.	6.46	33.570	26.39	4851.4	.295
250.	6.31	33.728	26.53	4851.6	.269
284.	6.21	33.825	26.62	4852.6	.264
300.	5.98	33.880	26.69	4850.8	.238
568.	4.26	34.077	27.05	4844.2	.084
1041.	3.18	34.347	27.37	4858.3	.052
1515.	2.42	34.487	27.55	4876.2	.062
1990.	2.00	34.585	27.66	4898.8	.123
2180.	1.87	34.617	27.70	4908.3	.140

STATION 56

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	6.30	32.18	25.32	25.32	0.0	266.5	0.000
10.	6.22	32.18	25.33	25.37	10.1	265.8	.027
20.	6.18	32.19	25.34	25.43	20.1	265.0	.053
30.	6.19	32.20	25.35	25.49	30.2	264.1	.080
50.	6.40	32.29	25.39	25.62	50.3	260.6	.133
75.	6.69	32.44	25.46	25.81	75.5	253.5	.198
100.	6.64	32.52	25.53	26.00	100.6	247.2	.261
125.	6.36	32.56	25.60	26.18	125.8	241.0	.322
150.	5.50	32.59	25.74	26.44	151.0	228.1	.381
175.	6.67	33.07	25.96	26.78	176.1	207.3	.436
200.	6.69	33.39	26.21	27.14	201.3	184.0	.485
225.	6.46	33.57	26.39	27.43	226.5	167.9	.529
250.	6.31	33.73	26.53	27.69	251.7	154.5	.570
300.	5.98	33.88	26.69	28.09	302.1	139.7	.644
400.	4.87	34.11	27.01	28.88	403.0	110.0	.770
500.	4.32	34.16	27.10	29.45	504.0	101.5	.877
600.	4.11	34.10	27.08	29.89	605.0	104.4	.981
700.	3.71	34.16	27.17	30.46	706.1	96.0	1.082
800.	3.42	34.22	27.25	31.00	807.2	89.2	1.176
1000.	3.17	34.33	27.35	32.05	1009.6	80.0	1.347
1200.	2.89	34.41	27.45	33.08	1212.1	72.1	1.501
1500.	2.44	34.48	27.55	34.58	1516.4	63.0	1.707
2000.	1.99	34.59	27.66	37.02	2024.5	52.5	2.000

STATION 57

TIME: 2212 DATE: 27-III-58 LAT: 57° 05' N LONG: 139° 46' W SOUNDING: 1825 fms.
 WEATHER: 03 WIND: Dir. 100 Speed 8 AIR TEMP: Dry Wet BARO:
 CLOUD: Type Cb Amt 9 SEA: 100° - 2 SWELL: 150° - 2 SECCHI DISC:
 CuCs

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	6.51*	32.282*	25.37	4833.8	
5.	6.49	32.278	25.37	4833.8	0.616
20.	6.45	32.274	25.37	4834.1	.622
30.	6.44	32.278	25.37	4834.6	.618
50.	6.16	32.283	25.41	4832.1	.625
75.	6.14	32.286	25.42	4833.3	.623
100.	6.18	32.299	25.42	4835.4	.614
125.	6.63	32.507	25.53	4843.6	.572
150.	6.02	32.604	25.68	4837.4	.588
175.	6.26	32.750	25.77	4842.6	.532
200.	6.76	33.218	26.07	4852.5	.368
225.	6.52	33.549	26.36	4852.1	.307
250.	6.38	33.697	26.50	4852.3	.266
300.	5.84	33.866	26.70	4848.9	.241
393.	4.95	33.941	26.86	4842.7	.202
491.	4.49	34.015	26.97	4842.6	.103
590.	4.09	34.074	27.06	4843.2	.080
788.	3.74	34.228	27.22	4850.7	.047
984.	3.35	34.319	27.33	4857.2	.040
1182.	2.98	34.384	27.42	4864.0	.041
1477.	2.57	34.458	27.51	4876.0	.049
1969.	2.04	34.565	27.64	4898.0	.101
2462.	1.78	34.625	27.71	4923.7	.164
2500.	1.77*	34.628*	27.71	4925.8	

STATION 57

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	6.51	32.28	25.37	25.37	0.0	261.8	0.000
10.	6.47	32.28	25.37	25.41	10.1	261.9	.026
20.	6.45	32.27	25.37	25.46	20.1	261.9	.053
30.	6.44	32.28	25.37	25.51	30.2	261.6	.079
50.	6.16	32.28	25.41	25.65	50.3	258.1	.131
75.	6.14	32.29	25.42	25.77	75.5	257.9	.196
100.	6.18	32.30	25.42	25.89	100.6	257.7	.261
125.	6.63	32.51	25.53	26.11	125.8	247.9	.325
150.	6.02	32.60	25.68	26.38	150.9	233.5	.385
175.	6.26	32.75	25.77	26.58	176.1	225.8	.443
200.	6.76	33.22	26.07	27.00	201.3	197.6	.496
225.	6.52	33.55	26.36	27.41	226.5	170.2	.543
250.	6.38	33.70	26.50	27.66	251.7	157.7	.584
300.	5.84	33.87	26.70	28.10	302.1	139.0	.659
400.	4.90	33.95	26.87	28.74	403.0	122.8	.791
500.	4.45	34.02	26.98	29.32	503.9	113.1	.910
600.	4.06	34.08	27.07	29.89	605.0	105.1	1.020
700.	3.82	34.15	27.15	30.44	706.0	97.9	1.123
800.	3.72	34.24	27.23	30.98	807.1	91.5	1.219
1000.	3.32	34.33	27.34	32.03	1009.5	81.8	1.394
1200.	2.95	34.39	27.42	33.05	1212.1	74.2	1.552
1500.	2.54	34.46	27.52	34.55	1516.3	65.8	1.765
2000.	2.02	34.57	27.65	37.01	2024.4	54.0	2.069
2500.	1.77	34.63	27.71	39.37	2533.6	48.6	2.331

STATION 58

TIME: 0306 DATE: 28-III-58 LAT: 57° 35' N LONG: 139° 33' W SOUNDING: 1725 fms.
 WEATHER: 01 WIND: Dir. 110 Speed 10 AIR TEMP: Dry 38° Wet 37° BARO: 1010.8 mb.
 CLOUD: Type Cu Amt 2 SEA: calm SWELL: calm SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	6.46*	32.242*	25.34	4833.0	
5.	6.43	32.232	25.34	4832.8	0.626
19.	6.44	32.256	25.36	4833.9	.605
28.	6.52	32.312	25.39	4835.7	.618
46.	6.75	32.396	25.43	4840.1	.583
69.	6.74	32.462	25.48	4841.6	.544
93.	6.64	32.521	25.54	4841.9	.575
116.	6.32	32.594	25.64	4839.3	.546
140.	6.01	32.648	25.72	4836.9	.569
164.	6.20	32.822	25.83	4841.5	.522
188.	6.80	33.174	26.03	4852.1	.383
213.	6.64	33.464	26.28	4852.6	.320
238.	6.42	33.654	26.46	4852.0	.274
286.	6.12	33.841	26.64	4851.6	.233
400.	5.08	33.938	26.85	4844.9	.160
500.	4.46	34.006	26.97	4842.7	.093
600.	4.18	34.097	27.07	4845.1	.060
797.	3.72	34.221	27.22	4850.9	.045
994.	3.29	34.322	27.34	4857.0	.033
1193.	2.91	34.399	27.44	4863.8	.038
1491.	2.43	34.485	27.55	4874.9	.054
1989.	1.93	34.590	27.67	4897.7	.115
2488.	1.72	34.638	27.73	4924.4	.178
2500.	1.72*	34.638*	27.73	4925.1	

STATION 58

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	F	$10^5 \delta$	ΔD
0.	6.46	32.24	25.34	25.34	0.0	264.1	0.000
10.	6.42	32.23	25.34	25.39	10.1	264.5	.017
20.	6.45	32.26	25.36	25.45	20.1	262.8	.053
30.	6.54	32.32	25.40	25.54	30.2	259.4	.079
50.	6.77	32.41	25.43	25.67	50.3	256.0	.131
75.	6.72	32.48	25.49	25.84	75.5	250.7	.195
100.	6.57	32.54	25.56	26.03	100.6	244.3	.257
125.	6.20	32.62	25.67	26.25	125.8	234.4	.317
150.	6.03	32.71	25.76	26.46	151.0	226.0	.375
175.	6.42	32.96	25.91	26.73	176.1	212.1	.431
200.	6.82	33.32	26.14	27.07	201.3	190.6	.481
225.	6.54	33.57	26.37	27.42	226.5	169.1	.527
250.	6.33	33.72	26.52	27.69	251.7	155.2	.567
300.	6.02	33.88	26.69	28.08	302.1	140.2	.642
400.	5.08	33.94	26.85	28.72	403.0	125.6	.776
500.	4.46	34.01	26.97	29.31	504.0	114.3	.897
600.	4.18	34.10	27.07	29.88	605.0	105.3	1.008
700.	3.93	34.17	27.15	30.44	706.0	98.0	1.111
800.	3.71	34.22	27.22	30.97	807.1	92.4	1.207
1000.	3.28	34.32	27.34	32.03	1009.5	81.4	1.383
1200.	2.90	34.40	27.44	33.07	1212.1	72.7	1.539
1500.	2.42	34.49	27.55	34.58	1516.4	62.6	1.745
2000.	1.92	34.59	27.67	37.03	2024.4	51.3	2.034
2500.	1.72	34.64	27.73	39.39	2533.7	47.2	2.285

STATION 59

TIME: 0918 DATE: 28-III-58 LAT: 58° 13' N LONG: 139° 17' W SOUNDING: 1150 fms.
 WEATHER: 03 WIND: Dir. 140° Speed 8 AIR TEMP: Dry 41° Wet 40° BARO: 1008.5 mb.
 CLOUD: Type CuSc Amt 4 SEA: 140° - 1 SWELL: 120° - 2 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	6.09*	32.022*	25.21	4827.2	
5.	6.13	32.033	25.22	4828.1	0.615
20.	6.20	32.056	25.23	4830.0	.645
30.	6.20	32.063	25.23	4830.6	.625
50.	6.43	32.119	25.25	4835.0	.628
75.	6.49	32.131	25.25	4837.4	.605
100.	6.51	32.199	25.30	4839.4	.592
124.	6.74	32.355	25.39	4844.4	.579
149.	6.74	32.476	25.49	4846.3	.563
174.	6.48	32.521	25.56	4844.6	.586
199.	6.21	32.639	25.69	4843.0	.577
224.	6.36	33.206	26.11	4848.6	.395
249.	6.11	33.616	26.47	4848.4	.317
299.	5.72	33.801	26.66	4846.9	.257
387.	4.51	34.013	26.97	4836.7	.101
479.	4.10	34.115	27.09	4836.9	.078
576.	3.82	34.192	27.18	4839.1	.047
769.	3.45	34.279	27.29	4845.7	.045
963.	3.15	34.354	27.38	4853.3	.039
1158.	2.83	34.409	27.45	4860.6	.047
1453.	2.32	34.507	27.57	4871.2	.072
1845.	1.94	34.582	27.66	4889.3	.119
2000.	1.88*	34.594*	27.68	4897.7	

STATION 59

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	6.09	32.02	25.21	25.21	0.0	276.2	0.000
10.	6.16	32.04	25.22	25.27	10.1	275.7	.028
20.	6.20	32.06	25.23	25.32	20.1	275.2	.055
30.	6.20	32.06	25.23	25.37	30.2	274.8	.083
50.	6.43	32.12	25.25	25.48	50.3	273.6	.138
75.	6.49	32.13	25.25	25.60	75.4	273.7	.207
100.	6.51	32.20	25.30	25.77	100.6	269.1	.275
125.	6.74	32.36	25.40	25.98	125.8	260.3	.342
150.	6.73	32.48	25.49	26.19	150.9	251.6	.406
175.	6.47	32.52	25.56	26.38	176.1	245.2	.469
200.	6.21	32.65	25.70	26.63	201.3	232.7	.529
225.	6.36	33.23	26.13	27.18	226.5	192.2	.583
250.	6.10	33.63	26.48	27.64	251.7	159.3	.627
300.	5.71	33.80	26.67	28.06	302.1	142.0	.703
400.	4.40	34.03	27.00	28.87	403.0	110.6	.830
500.	4.03	34.13	27.12	29.46	503.2	99.2	.906
600.	3.76	34.21	27.20	30.02	604.2	92.4	1.034
700.	3.55	34.26	27.26	30.55	706.0	87.2	1.124
800.	3.40	34.29	27.31	31.06	807.1	83.7	1.211
1000.	3.09	34.37	27.39	32.09	1009.5	76.2	1.313
1200.	2.76	34.42	27.47	33.10	1212.1	69.7	1.421
1500.	2.26	34.52	27.59	34.63	1516.4	58.4	1.545
2000.	1.88	34.59	27.68	37.04	2024.5	50.7	1.992

STATION 60

TIME: 1125 DATE: 28-III-58 LAT: 58° 18' N LONG: 139° 18' W SOUNDING: 525 fms.
 WEATHER: 02 WIND: Dir. 140° Speed 8 AIR TEMP: Dry 40° Wet 39° BARO: 1007.5 mb.
 CLOUD: Type ScCu Amt 5 SEA: 140° - 1 SWELL: 120° - 2 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	6.10*	32.046*	25.23	4827.5	
5.	6.09	32.045	25.23	4827.6	0.625
20.	6.10	32.044	25.23	4828.6	.603
30.	6.15	32.046	25.23	4829.9	.608
50.	6.67	32.144	25.24	4838.3	.600
75.	6.53	32.164	25.27	4838.0	.576
100.	6.49	32.209	25.31	4839.1	.600
125.	6.81	32.370	25.40	4845.4	.571
149.	6.82	32.482	25.48	4847.4	.559
174.	6.56	32.545	25.57	4845.7	.550
199.	6.24	32.670	25.71	4843.5	.536
224.	6.33	33.427	26.29	4849.1	.343
249.	6.01	33.666	26.52	4847.3	.293
299.	5.61	33.856	26.72	4845.7	.233
396.	4.63	33.989	26.94	4838.7	.121
497.	4.12	34.098	27.08	4838.2	.075
597.	3.84	34.178	27.17	4840.5	.052
795.	3.40	34.287	27.30	4846.6	.042
893.	3.31	34.314	27.33	4851.3	.051

STATION 60

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	6.10	32.05	25.23	25.23	0.0	274.6	0.000
10.	6.08	32.04	25.23	25.28	10.1	274.6	.028
20.	6.10	32.04	25.23	25.32	20.1	274.9	.055
30.	6.15	32.05	25.23	25.37	30.2	275.5	.083
50.	6.67	32.14	25.24	25.47	50.3	274.6	.138
75.	6.53	32.16	25.27	25.62	75.4	271.7	.207
100.	6.49	32.21	25.31	25.78	100.6	268.1	.275
125.	6.81	32.37	25.40	25.98	125.8	260.4	.341
150.	6.81	32.49	25.49	26.18	150.9	252.2	.406
175.	6.55	32.55	25.57	26.39	176.1	244.4	.468
200.	6.24	32.69	25.72	26.65	201.3	230.4	.528
225.	6.33	33.45	26.31	27.35	226.5	175.3	.579
250.	6.00	33.67	26.53	27.69	251.7	154.6	.621
300.	5.60	33.86	26.72	28.12	302.1	136.6	.694
400.	4.60	33.99	26.94	28.82	403.0	115.9	.822
500.	4.11	34.10	27.08	29.43	503.9	103.3	.932
600.	3.83	34.18	27.17	29.99	604.9	95.2	1.033
700.	3.59	34.24	27.25	30.53	706.0	88.7	1.125
800.	3.39	34.29	27.30	31.06	807.1	83.9	1.213

STATION 61

TIME: 1222 DATE: 28-III-58 LAT: 58° 20' N LONG: 139° 18' W SOUNDING: 120 fms.
WEATHER: 00 WIND: Dir. 140° Speed 8 AIR TEMP: Dry 40° Wet 39° BARO: 1007.1 mb.
CLOUD: Type Amt 0 SEA: 140° - 1 SWELL: 120° - 2 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	6.21*	32.058*	25.23	4829.0	
5.	6.37	32.098	25.24	4831.5	0.615
20.	6.55	32.156	25.26	4835.0	.614
30.	6.43	32.142	25.27	4834.0	.620
50.	6.24	32.149	25.30	4832.7	.628
75.	6.14	32.152	25.31	4832.8	.624
100.	6.52	32.280	25.36	4839.8	.594
125.	6.32	32.333	25.43	4838.9	.610
150.	6.63	32.495	25.52	4845.0	.586
175.	6.32	32.495	25.56	4842.4	.544
200.	6.41	32.851	25.83	4846.5	.498

STATION 61

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	6.21	32.06	25.23	25.23	0.0	275.0	0.000
10.	6.48	32.13	25.25	25.30	10.1	273.0	.028
20.	6.55	32.16	25.26	25.36	20.1	271.9	.055
30.	6.43	32.14	25.27	25.41	30.2	271.6	.082
50.	6.24	32.15	25.30	25.53	50.3	269.0	.137
75.	6.14	32.15	25.31	25.66	75.4	267.9	.204
100.	6.52	32.28	25.36	25.83	100.6	263.2	.271
125.	6.32	32.33	25.43	26.01	125.8	257.1	.336
150.	6.63	32.50	25.52	26.22	150.9	249.1	.400
175.	6.32	32.50	25.56	26.37	176.1	245.6	.462
200.	6.41	32.85	25.83	26.76	201.3	220.4	.521

STATION 62

TIME: 1603 DATE: 28-III-58 LAT: 58° 53' N LONG: 139° 03' W SOUNDING: 85 fms.
WEATHER: 03 WIND: Dir. 050° Speed 10 AIR TEMP: Dry 41° Wet 40° BARO: 1006.4 mb.
CLOUD: Type Sc Amt 1 SEA: 050° - 2 SWELL: 200° - 3 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	6.00	32.228	25.39	4826.8	0.662
10.	6.14	32.212	25.36	4829.2	.664
20.	6.16	32.226	25.37	4830.1	.653
30.	6.24	32.299	25.41	4832.1	.626
50.	6.44	32.388	25.46	4836.2	.591
75.	6.29	32.545	25.60	4836.3	.592
100.	6.02	32.577	25.66	4834.4	.585
125.	5.66	32.625	25.74	4831.2	.584

STATION 62

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	6.00	32.23	25.39	25.39	0.0	259.8	0.000
10.	6.14	32.21	25.36	25.40	10.1	262.7	.026
20.	6.16	32.23	25.37	25.46	20.1	262.0	.053
30.	6.24	32.30	25.41	25.55	30.2	257.6	.079
50.	6.44	32.39	25.46	25.69	50.3	253.6	.130
75.	6.29	32.55	25.60	25.95	75.5	240.3	.192
100.	6.02	32.58	25.66	26.13	100.6	235.0	.252
125.	5.66	32.63	25.74	26.33	125.8	227.4	.310

STATION 63

TIME: 0107 DATE: 29-III-58 LAT: 59° 42' N LONG: 141° 30' W SOUNDING: 30 fms.
WEATHER: 02 WIND: Dir. 050° Speed 5 AIR TEMP: Dry Wet BARO: 1007.5 mb.
CLOUD: Type Cu Amt 2 SEA: 050° - 1 SWELL: 170° - 4 SECCHI DISC:
AcCs

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	5.20	32.065	25.35	4815.5	0.630
100.	5.27	32.042	25.33	4822.2	.649
20.	5.25	32.054	25.34	4817.3	.655
30.	5.30	32.086	25.36	4818.7	.629
40.	5.37	32.094	25.36	4820.2	.625
45.	5.38	32.084	25.35	4820.6	.619

STATION 63

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	5.20	32.06	25.35	25.35	0.0	263.1	0.000
10.	5.23	32.06	25.34	25.39	10.1	263.9	.027
20.	5.25	32.05	25.34	25.43	20.1	264.7	.053
30.	5.30	32.09	25.36	25.50	30.2	262.9	.080

STATION 64

TIME: 0259 DATE: 29-III-58 LAT: 59° 28' N LONG: 141° 28' W SOUNDING: 90 fms.
 WEATHER: 02 WIND: Dir. 090° Speed 10 AIR TEMP: Dry 45° Wet 44° BARO: 1006.4 mb.
 CLOUD: Type Ci Amt 1 SEA: 090° - 1 SWELL: 195° - 4 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	5.70	32.199	25.40	4822.7	0.639
10.	5.77	32.178	25.38	4824.2	.621
20.	5.72	32.184	25.39	4824.1	.533
30.	5.71	32.190	25.39	4824.6	.533
50.	5.85	32.211	25.39	4827.7	.612
75.	5.90	32.253	25.42	4830.0	.570
100.	6.32	32.358	25.45	4837.5	.591
125.	6.44	32.450	25.51	4840.9	.579
150.	6.47	32.597	25.62	4843.3	.500

STATION 64

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	5.70	32.20	25.40	25.40	0.0	258.5	0.000
10.	5.77	32.18	25.38	25.42	10.1	261.0	.026
20.	5.72	32.18	25.39	25.48	20.1	260.1	.052
30.	5.71	32.19	25.39	25.53	30.2	259.6	.078
50.	5.85	32.21	25.39	25.63	50.3	259.8	.131
75.	5.90	32.25	25.42	25.77	75.5	257.5	.196
100.	6.32	32.36	25.45	25.92	100.6	254.9	.260
125.	6.44	32.45	25.51	26.09	125.8	249.8	.324
150.	6.47	32.60	25.62	26.32	150.9	239.5	.385

STATION 65

TIME: 0430 DATE: 29-III-58 LAT: 59° 17' N LONG: 142° 14' W SOUNDING: 531 fms.
 WEATHER: 01 WIND: Dir. 110° Speed 10 AIR TEMP: Dry 43° Wet 41° BARO: 1006.4 mb.
 CLOUD: Type Cs Amt 1 SEA: 110° - 2 SWELL: 195° - 5 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	5.89*	32.197*	25.38	4825.2	
5.	5.88	32.196	25.38	4825.4	0.580
20.	5.87	32.199	25.38	4826.2	.631
29.	5.87	32.205	25.39	4826.7	.617
49.	5.85	32.217	25.40	4827.7	.601
73.	6.12	32.312	25.44	4833.1	.578
98.	6.51	32.480	25.52	4840.3	.571
122.	6.40	32.574	25.61	4840.7	.539
146.	5.96	32.882	25.91	4837.5	.496
171.	5.80	33.266	26.23	4838.3	.392
195.	6.10	33.586	26.45	4845.0	.302
220.	6.03	33.760	26.59	4846.2	.249
244.	5.84	33.828	26.67	4845.4	.238
293.	5.32	33.907	26.79	4841.7	.171
390.	4.55	33.993	26.95	4837.3	.104
488.	4.23	34.072	27.05	4839.1	.074
586.	3.94	34.158	27.15	4841.2	.044
783.	3.49	34.266	27.28	4847.1	.032
881.	3.26	34.326	27.35	4849.9	.037

STATION 65

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	5.89	32.20	25.38	25.38	0.0	260.8	0.000
10.	5.88	32.20	25.38	25.42	10.1	260.8	.026
20.	5.87	32.20	25.38	25.47	20.1	260.7	.052
30.	5.87	32.21	25.39	25.53	30.2	260.3	.079
50.	5.85	32.22	25.40	25.63	50.3	259.3	.131
75.	6.15	32.32	25.44	25.79	75.5	255.2	.196
100.	6.52	32.49	25.53	26.00	100.6	247.5	.259
125.	6.36	32.60	25.64	26.22	125.8	237.6	.320
150.	5.91	32.94	25.96	26.66	151.0	207.2	.376
175.	5.82	33.32	26.27	27.09	176.1	177.7	.424
200.	6.12	33.63	26.48	27.41	201.3	158.5	.467
225.	6.00	33.78	26.61	27.66	226.5	146.3	.505
250.	5.79	33.84	26.69	27.85	251.7	139.5	.541
300.	5.25	33.92	26.81	28.21	302.2	128.1	.609
400.	4.50	34.00	26.96	28.84	403.1	114.1	.731
500.	4.19	34.08	27.06	29.40	504.0	105.7	.842
600.	3.90	34.17	27.16	29.97	605.0	96.9	.944
700.	3.66	34.23	27.23	30.52	706.1	90.3	1.039
800.	3.45	34.28	27.29	31.04	807.2	85.5	1.128

STATION 66

TIME: 0709 DATE: 29-III-58 LAT: 59° 10' N LONG: 142° 20' W SOUNDING: 1116 fms.
 WEATHER: 02 WIND: Dir. 090° Speed 5 AIR TEMP: Dry 40° Wet 39° BARO: 1006.4 mb.
 CLOUD: Type Cs Amt 1 SEA: 090° - 1 SWELL: 200° - 4 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	5.81*	32.213*	25.40	4824.2	
5.	5.84	32.208	25.39	4824.9	0.575
20.	6.02	32.273	25.42	4828.5	.545
30.	6.21	32.384	25.48	4832.0	.517
50.	6.22	32.510	25.58	4833.8	.565
75.	5.80	32.578	25.69	4830.0	.583
100.	5.42	32.596	25.75	4826.4	.513
125.	5.36	32.657	25.80	4827.3	.574
150.	5.87	33.199	26.17	4837.8	.410
175.	6.09	33.608	26.46	4843.7	.301
200.	5.90	33.756	26.60	4843.3	.269
225.	5.68	33.840	26.70	4842.2	.228
250.	5.44	33.865	26.75	4840.6	.206
300.	5.02	33.922	26.84	4838.1	.171
400.	4.44	34.028	26.99	4836.6	.101
500.	4.14	34.096	27.08	4838.6	.061
600.	3.92	34.168	27.15	4841.8	.042
800.	3.50	34.282	27.29	4848.3	.041
1000.	3.09	34.364	27.39	4854.7	.037
1200.	2.72	34.434	27.48	4861.6	.045
1500.	2.30	34.512	27.58	4873.7	.070
2000.	1.93	34.587	27.67	4898.4	.123

STATION 66

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	5.81	32.21	25.40	25.40	0.0	258.7	0.000
10.	5.89	32.22	25.39	25.44	10.1	259.4	.026
20.	6.02	32.27	25.42	25.51	20.1	256.8	.052
30.	6.21	32.38	25.48	25.63	30.2	250.9	.078
50.	6.22	32.51	25.58	25.82	50.3	241.8	.127
75.	5.80	32.58	25.69	26.04	75.5	232.0	.187
100.	5.42	32.60	25.75	26.22	100.6	226.6	.244
125.	5.36	32.66	25.80	26.39	125.8	221.6	.301
150.	5.87	33.20	26.17	26.87	151.0	187.3	.352
175.	6.09	33.61	26.46	27.28	176.2	159.7	.396
200.	5.90	33.76	26.60	27.54	201.4	146.7	.435
225.	5.68	33.84	26.70	27.75	226.6	138.0	.471
250.	5.44	33.86	26.75	27.91	251.8	133.6	.505
300.	5.02	33.92	26.84	28.24	302.2	125.0	.570
400.	4.44	34.03	26.99	28.87	403.1	111.5	.689
500.	4.14	34.10	27.08	29.42	504.1	104.0	.798
600.	3.92	34.17	27.15	29.97	605.1	97.1	.900
700.	3.71	34.23	27.23	30.51	706.1	91.0	.995
800.	3.50	34.28	27.29	31.04	807.3	85.6	1.084
1000.	3.09	34.36	27.39	32.09	1009.7	76.4	1.248
1200.	2.72	34.43	27.48	33.12	1212.3	68.3	1.395
1500.	2.30	34.51	27.58	34.62	1516.5	59.4	1.589
2000.	1.93	34.59	27.67	37.03	2024.6	51.8	1.871

STATION 67

TIME: 1213 DATE: 29-III-58 LAT: 58° 44' N LONG: 142° 48' W SOUNDING: 1700 fms.
 WEATHER: 03 WIND: Dir. 070° Speed 8 AIR TEMP: Dry 48° Wet 47° BARO: 1006.1 mb.
 CLOUD: Type Cu Amt 3 SEA: 070° - 1 SWELL: 180° - 5 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	5.81*	32.250*	25.43	4824.4	
5.	5.87	32.280	25.44	4825.6	0.634
20.	5.97	32.335	25.48	4828.0	.623
30.	5.98	32.342	25.48	4828.8	.635
50.	6.13	32.455	25.55	4832.4	.548
75.	6.19	32.590	25.65	4835.2	.568
100.	5.89	32.642	25.73	4832.9	.571
125.	5.96	32.727	25.79	4835.6	.542
150.	6.13	32.913	25.91	4840.1	.480
175.	5.80	33.212	26.19	4838.4	.426
200.	6.09	33.569	26.43	4845.1	.318
225.	5.82	33.716	26.58	4843.6	.386
250.	5.71	33.808	26.67	4843.9	.259
300.	5.44	33.931*	26.80	4843.8	.205
386.	4.85	33.950	26.88	4841.0	.117
483.	4.42	34.026	26.99	4841.2	.095
579.	4.10	34.104	27.09	4842.8	.068
771.	3.66	34.231	27.23	4848.6	.039
965.	3.19	34.341	27.36	4853.9	.037
1152.	2.86	34.398	27.44	4860.6	.041
1435.	2.44	34.480	27.54	4871.7	.062
1912.	1.93	34.586	27.67	4893.1	.121
2390.	1.75	34.648	27.73	4919.1	.170
2500.	1.76*	34.656*	27.74	4925.7	

STATION 67

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	5.81	32.25	25.43	25.43	0.0	256.0	0.000
10.	5.91	32.30	25.46	25.51	10.1	253.2	.026
20.	5.97	32.33	25.48	25.57	20.1	251.6	.051
30.	5.98	32.34	25.48	25.62	30.2	251.3	.076
50.	6.13	32.45	25.55	25.78	50.3	244.8	.126
75.	6.19	32.59	25.65	26.00	75.5	235.7	.187
100.	5.89	32.64	25.73	26.19	100.6	228.6	.245
125.	5.96	32.73	25.79	26.37	125.8	223.3	.302
150.	6.13	32.91	25.91	26.61	151.0	211.8	.357
175.	5.80	33.21	26.19	27.01	176.2	185.7	.407
200.	6.09	33.57	26.43	27.37	201.3	162.9	.451
225.	5.82	33.72	26.58	27.63	226.5	149.0	.490
250.	5.71	33.81	26.67	27.84	251.8	141.1	.527
300.	5.44	33.93	26.80	28.20	302.2	129.3	.595
400.	4.77	33.96	26.90	28.77	403.1	120.5	.721
500.	4.36	34.04	27.01	29.35	504.0	110.6	.837
600.	4.04	34.12	27.10	29.92	605.0	102.0	.945
700.	3.79	34.19	27.18	30.47	706.1	95.0	1.044
800.	3.59	34.25	27.25	31.01	807.2	89.1	1.137
1000.	3.12	34.36	27.38	32.08	1009.6	77.3	1.306
1200.	2.78	34.41	27.46	33.09	1212.2	70.6	1.456
1500.	2.36	34.50	27.56	34.60	1516.4	61.2	1.656
2000.	1.87	34.60	27.68	37.05	2024.5	50.1	1.939
2500.	1.76	34.66	27.74	39.40	2533.8	46.4	2.184

STATION 68

TIME: 1740 DATE: 29-III-58 LAT: 58° 10' N LONG: 143° 33' W SOUNDING: 1850 fms.
 WEATHER: 02 WIND: Dir. 140° Speed 10 AIR TEMP: Dry 45° Wet 43° BARO: 1005.4 mb.
 CLOUD: Type CuSc Amt 4 SEA: 140° - 2 SWELL: 200° - 4 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft./sec.	O ₂ mg.at/l.
0.	6.26*	32.475*	25.55	4831.2	
5.	6.26	32.480	25.55	4831.5	0.691
20.	6.26	32.487	25.56	4832.5	.670
30.	6.26	32.485	25.56	4833.0	.644
50.	6.27	32.504	25.57	4834.4	.643
75.	5.98	32.599	25.68	4832.4	.629
99.	5.37	32.651	25.80	4825.9	.614
124.	5.12	32.725	25.88	4824.3	.630
149.	6.80	33.374	26.19	4850.6	.369
174.	6.31	33.573	26.41	4846.4	.334
199.	6.12	33.692	26.53	4845.9	.306
223.	6.27	33.839	26.62	4849.9	.266
248.	5.86	33.862	26.69	4846.0	.255
298.	5.37	33.915	26.79	4842.7	.201
397.	4.69	33.971	26.92	4839.6	.127
495.	4.32	34.054	27.02	4840.6	.085
594.	4.04	34.134	27.12	4843.0	.031
791.	3.28	34.262	27.29	4844.6	.041
986.	3.22	34.346	27.37	4855.6	.037
1182.	2.96	34.402	27.43	4863.8	.039
1478.	2.48	34.478	27.54	4874.9	.055
1975.	2.00	34.582	27.66	4897.9	.112
2470.	1.78	34.624	27.71	4924.2	.166
2500.	1.77*	34.625*	27.71	4925.9	

STATION 68

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	6.26	32.47	25.55	25.55	0.0	244.3	0.000
10.	6.26	32.48	25.56	25.60	10.1	243.8	.025
20.	6.26	32.49	25.56	25.65	20.1	243.6	.049
30.	6.26	32.48	25.56	25.70	30.2	243.9	.074
50.	6.27	32.50	25.57	25.81	50.3	242.8	.123
75.	5.98	32.60	25.68	26.03	75.5	232.6	.182
100.	5.35	32.65	25.80	26.27	100.6	221.5	.240
125.	5.15	32.74	25.89	26.48	125.8	213.1	.294
150.	6.82	33.39	26.20	26.89	151.0	184.9	.344
175.	6.30	33.58	26.42	27.23	176.2	164.4	.388
200.	6.12	33.70	26.53	27.46	201.4	153.7	.428
225.	6.26	33.85	26.63	27.68	226.6	144.8	.466
250.	5.83	33.86	26.70	27.86	251.8	138.4	.502
300.	5.35	33.92	26.80	28.20	302.2	129.3	.569
400.	4.67	33.97	26.92	28.79	403.1	118.2	.694
500.	4.30	34.06	27.03	29.37	504.1	108.7	.809
600.	4.02	34.14	27.12	29.94	605.1	100.4	.914
700.	3.66	34.21	27.21	30.50	706.1	92.1	1.011
800.	3.26	34.27	27.30	31.06	807.2	84.1	1.101
1000.	3.21	34.35	27.37	32.06	1009.6	78.7	1.209
1200.	2.93	34.41	27.44	33.07	1212.2	72.7	1.419
1500.	2.45	34.48	27.54	34.58	1516.5	63.3	1.626
2000.	1.98	34.59	27.66	37.02	2024.5	52.5	1.920
2500.	1.77	34.62	27.71	39.37	2533.8	48.9	2.178

STATION 69

TIME: 2329 DATE: 29-III-58 LAT: 57° 42' N LONG: 144° 28' W SOUNDING: 2000 fms.
 WEATHER: 03 WIND: Dir. 120° Speed 8 AIR TEMP: Dry 45° Wet 43° BARO: 1004.1 mb.
 CLOUD: Type Sc Amt 8 SEA: 120° - 2 SWELL: 140° - 4 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft./sec.	O ₂ mg.at/l.
0.	5.23*	32.678*	25.83	4818.3	
5.	5.28	32.672	25.82	4819.2	0.636
20.	5.17	32.672	25.84	4818.6	.642
29.	4.92	32.685	25.87	4815.8	.646
49.	4.66	32.730	25.94	4813.6	.644
73.	4.41	32.788	26.01	4811.9	.614
98.	4.26	33.254	26.39	4813.1	.448
122.	4.07	33.501	26.61	4812.9	.430
147.	4.07	33.745	26.80	4815.3	.196
171.	4.12	33.858	26.89	4817.9	.132
195.	4.10	33.924	26.94	4819.3	.091
219.	4.07	33.953	26.97	4820.4	.066
243.	4.02	33.984	27.00	4821.3	.050
290.	3.96	34.030	27.04	4823.4	.037
387.	3.78	34.112	27.12	4827.0	.043
485.	3.68	34.178	27.19	4831.7	.044
584.	3.46	34.242	27.26	4834.7	.034
780.	3.19	34.330	27.36	4842.9	.036
979.	2.87	34.394	27.44	4850.5	.041
1180.	2.61	34.450	27.50	4858.9	.049
1478.	2.29	34.520	27.59	4872.3	.069
1975.	1.90	34.600	27.68	4896.5	.128
2474.	1.70	34.646	27.73	4923.3	.182
2500.	1.69*	34.647*	27.73	4924.8	

STATION 63

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	5.25	32.60	25.83	25.83	0.0	217.4	0.000
10.	5.25	32.67	25.82	25.87	10.1	218.8	.022
20.	5.17	32.67	25.84	25.93	20.1	217.4	.044
30.	4.90	32.69	25.88	26.02	30.2	213.5	.066
50.	4.65	32.75	25.94	26.18	50.3	207.6	.108
75.	4.39	32.81	26.03	26.38	75.5	199.4	.159
100.	4.25	33.28	26.42	26.89	100.7	182.7	.205
125.	4.06	33.53	26.64	27.22	125.9	142.3	.243
150.	4.07	33.77	26.82	27.53	151.1	125.0	.277
175.	4.12	33.87	26.90	27.72	176.3	117.7	.307
200.	4.09	33.93	26.95	27.89	201.5	113.1	.337
225.	4.06	33.96	26.98	28.04	226.7	110.9	.365
250.	4.01	33.99	27.01	28.18	251.9	108.2	.392
300.	3.94	34.04	27.05	28.46	302.3	104.5	.446
400.	3.76	34.12	27.13	29.02	403.3	97.2	.548
500.	3.65	34.19	27.20	29.55	504.2	92.0	.645
600.	3.43	34.25	27.27	30.09	605.2	85.6	.733
700.	3.27	34.30	27.32	30.62	706.3	81.1	.817
800.	3.16	34.34	27.36	31.13	807.5	77.6	.898
1000.	2.84	34.40	27.44	32.15	1009.9	71.0	1.046
1200.	2.55	34.46	27.51	33.15	1212.5	65.3	1.185
1500.	2.27	34.52	27.59	34.63	1516.7	53.2	1.374
2000.	1.89	34.60	27.68	37.05	2024.8	50.0	1.649
2500.	1.69	34.65	27.73	39.40	2534.1	46.2	1.894

STATION 70

TIME: 0507 DATE: 30-III-58 LAT: 57° 00' N LONG: 145° 00' W SOUNDING: 1980 fms.
 WEATHER: 81 WIND: Dir. 120° Speed 18 AIR TEMP: Dry 42° Wet 41° BARO: 1001.4 mb.
 CLOUD: Type Sc Amt 10 SEA: 120° - 2 SWELL: 190° - 5 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/1.
0.	5.00*	32.633*	25.82	4815.0	
5.	5.01	32.654	25.84	4815.5	0.635
20.	5.00	32.711	25.89	4816.5	.628
30.	4.96	32.745	25.92	4816.7	.626
50.	4.94	32.792	25.96	4817.8	.623
75.	4.53	33.043	26.20	4814.6	.627
99.	4.28	33.299	26.43	4813.6	.580
123.	4.50	33.384	26.47	4818.4	.434
148.	4.17	33.527	26.62	4815.9	.379
172.	4.02	33.756	26.82	4816.2	.232
197.	4.00	33.859	26.90	4817.8	.169
222.	4.00	33.877	26.92	4819.3	.145
246.	4.00	33.939	26.96	4821.0	.112
296.	3.94	33.996	27.02	4823.4	.059
400.	3.94	34.119*	27.11	4830.0	.054
500.	3.69	34.243	27.24	4833.0	.046
600.	3.52	34.269	27.28	4836.6	.054
800.	3.20	34.332	27.36	4844.3	.051
1000.	2.97	34.405	27.44	4853.2	.048
1202.	2.64	34.464	27.51	4860.7	.048
1504.	2.25	34.547	27.61	4873.4	.071
2005.	1.86	34.608	27.69	4897.7	.137
2506.	1.68	34.650	27.74	4925.0	.198

STATION 70

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	5.00	32.63	25.82	25.82	0.0	218.3	0.000
10.	5.01	32.67	25.85	25.90	10.1	215.5	.022
20.	5.00	32.71	25.89	25.98	20.1	212.6	.043
30.	4.96	32.75	25.92	26.06	30.2	209.8	.065
50.	4.94	32.79	25.96	26.19	50.3	206.2	.107
75.	4.53	33.04	26.20	26.55	75.5	183.3	.156
100.	4.28	33.31	26.43	26.90	100.7	161.2	.199
125.	4.49	33.39	26.48	27.07	125.9	157.1	.239
150.	4.15	33.54	26.63	27.34	151.1	142.6	.277
175.	4.01	33.78	26.83	27.66	176.3	123.8	.310
200.	4.00	33.87	26.91	27.85	201.5	117.2	.341
225.	4.00	33.88	26.92	27.98	226.7	116.2	.370
250.	4.00	33.95	26.97	28.15	251.9	111.5	.399
300.	3.94	34.00	27.02	28.43	302.3	107.3	.454
400.	3.94	34.12	27.11	29.00	403.2	99.3	.558
500.	3.69	34.24	27.24	29.59	504.2	88.2	.653
600.	3.52	34.27	27.28	30.10	605.2	85.3	.740
700.	3.36	34.30	27.31	30.61	706.3	82.1	.825
800.	3.20	34.33	27.36	31.12	807.4	78.6	.906
1000.	2.97	34.41	27.44	32.13	1009.9	72.0	1.059
1200.	2.64	34.46	27.51	33.15	1212.5	65.3	1.198
1500.	2.25	34.55	27.61	34.65	1516.7	56.4	1.383
2000.	1.86	34.61	27.69	37.06	2024.8	49.4	1.652
2500.	1.68	34.65	27.74	39.40	2534.1	45.9	1.895

STATION 71

TIME: 1122 DATE: 30-III-58 LAT: 57° 09' N LONG: 146° 05' W SOUNDING: 2000 fms.
 WEATHER: 03 WIND: Dir. 150° Speed 15 AIR TEMP: Dry 40° Wet 38° BARO: 997.3 mb.
 CLOUD: Type Sc Amt 7 SEA: 150° - 2 SWELL: 190° - 4 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	4.53*	32.696*	25.92	4808.9	
5.	4.53	32.692	25.92	4809.1	0.637
19.	4.53	32.688	25.92	4809.9	.637
28.	4.54	32.692	25.92	4810.6	.642
47.	4.53	32.687	25.92	4811.6	.654
71.	4.52	32.708	25.93	4812.9	.649
94.	4.48	32.701	25.93	4813.7	.649
118.	4.58	32.974	26.14	4817.6	.543
141.	4.46	33.536	26.60	4819.5	.345
165.	4.45	33.710	26.74	4821.5	.281
189.	4.56	33.831	26.82	4824.9	.221
212.	4.37	33.890	26.89	4823.9	.165
236.	4.26	33.923	26.93	4823.9	.129
283.	4.19	33.976	26.97	4826.0	.096
365.	4.01	34.063	27.06	4828.7	.063
456.	3.90	34.136	27.13	4832.9	.047
547.	3.69	34.201	27.20	4835.6	.043
730.	3.35	34.291	27.31	4842.1	.036
927.	3.01	34.368	27.40	4849.3	.039
1129.	2.74	34.443	27.49	4857.7	.044
1438.	2.32	34.508	27.57	4870.3	.072
1955.	1.92	34.599	27.68	4895.6	.127
2450.	1.69	34.638	27.73	4921.7	.185
2500.	1.68*	34.639*	27.73	4924.5	

STATION 71

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	4.53	32.70	25.92	25.92	0.0	208.8	0.000
10.	4.53	32.69	25.92	25.97	10.1	209.3	.021
20.	4.53	32.69	25.92	26.01	20.1	209.5	.042
30.	4.54	32.69	25.92	26.06	30.2	209.4	.063
50.	4.53	32.69	25.92	26.15	50.3	209.8	.105
75.	4.52	32.71	25.94	26.29	75.5	208.3	.158
100.	4.49	32.74	25.97	26.44	100.7	205.7	.210
125.	4.57	33.11	26.25	26.84	125.8	178.8	.258
150.	4.44	33.65	26.69	27.40	151.0	137.5	.298
175.	4.48	33.77	26.78	27.60	176.2	129.4	.332
200.	4.51	33.87	26.85	27.79	201.4	122.4	.364
225.	4.30	33.91	26.91	27.97	226.6	117.1	.394
250.	4.22	33.94	26.94	28.12	251.9	114.3	.423
300.	4.16	33.99	26.99	28.40	302.3	110.0	.480
400.	3.96	34.09	27.09	28.97	403.2	101.3	.586
500.	3.81	34.17	27.17	29.52	504.2	95.1	.685
600.	3.58	34.23	27.24	30.06	605.2	88.6	.778
700.	3.40	34.28	27.30	30.59	706.3	83.9	.865
800.	3.23	34.32	27.34	31.11	807.4	79.7	.948
1000.	2.90	34.40	27.43	32.14	1009.8	72.0	1.102
1200.	2.64	34.46	27.51	33.15	1212.4	65.3	1.241
1500.	2.25	34.52	27.59	34.63	1516.7	58.3	1.429
2000.	1.89	34.60	27.69	37.05	2024.8	50.0	1.704
2500.	1.66	34.64	27.73	39.40	2534.0	46.6	1.950

STATION 72

TIME: 1743 DATE: 30-III-58 LAT: 57° 15' N LONG: 147° 25' W SOUNDING: 2600 fms.
 WEATHER: 60 WIND: Dir. 140° Speed 50 AIR TEMP: Dry 39° Wet 38° BARO: 989.2 mb.
 CLOUD: Type Fc Amt 10 SEA: 140° - 5 SWELL: 140° - 6 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	4.42*	32.697*	25.94	4807.4	
5.	4.42	32.692	25.93	4807.6	0.624
19.	4.42	32.683	25.93	4808.4	.664
28.	4.43	32.681*	25.92	4809.0	.588
47.	4.42	32.685*	25.93	4810.0	.630
70.	4.42	32.706	25.94	4811.5	.644
94.	4.58	32.884*	26.07	4815.8	.548
118.	4.61	33.222*	26.33	4819.0	.388
141.	4.92	33.696	26.67	4826.4	.302
165.	4.96	33.837	26.78	4828.9	.238
188.	4.78	33.862	26.82	4828.0	.201
212.	4.66	33.904	26.87	4827.9	
235.	4.41	33.926	26.91	4826.0	.142
282.	4.33	33.986	26.97	4827.9	.098
300.	4.45*	34.014*	26.98	4830.7	

Station 73 missed from numbering sequence.

STATION 72

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	4.42	32.70	25.94	25.94	0.0	207.7	0.000
10.	4.42	32.69	25.93	25.98	10.1	208.3	.021
20.	4.42	32.68	25.93	26.02	20.1	208.0	.042
30.	4.43	32.68	25.92	26.06	30.2	209.2	.063
50.	4.42	32.69	25.93	26.16	50.3	208.8	.105
75.	4.44	32.73	25.96	26.31	75.5	205.9	.157
100.	4.60	32.95	26.12	26.59	100.7	190.9	.207
125.	4.68	33.35	26.43	27.01	125.9	162.1	.252
150.	4.97	33.79	26.74	27.45	151.0	132.6	.289
175.	4.91	33.86	26.81	27.63	176.2	127.0	.321
200.	4.71	33.88	26.84	27.78	201.4	123.6	.353
225.	4.53	33.92	26.89	27.95	226.7	119.1	.384
250.	4.32	33.94	26.93	28.11	251.9	115.2	.413
300.	4.45	34.01	26.98	28.39	302.3	111.7	.470

STATION 74

TIME: 1941 DATE: 31-III-58 LAT: 57° 29' N LONG: 149° 23' W SOUNDING: 1000 fms.
 WEATHER: 03 WIND: Dir. 100° Speed 10 AIR TEMP: Dry 44° Wet 42° BARO: 978.6 mb.
 CLOUD: Type Sc Amt 10 SEA: 100° - 2 SWELL: 140° - 5 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O mg.at/l.
0.	4.77*	32.636*	25.85	4811.9	
5.	4.77	32.634	25.85	4812.2	0.605
20.	4.77	32.632	25.85	4813.0	.715
30.	4.77	32.635	25.85	4813.6	.604
50.	4.76	32.637	25.85	4814.7	.616
75.	4.70	32.721	25.93	4815.7	.564
100.	4.80	33.061	26.18	4819.9	.478
125.	4.78	33.407	26.46	4822.4	.382
150.	4.69	33.642	26.66	4823.6	.302
172.	4.66	33.789	26.78	4825.1	.204
196.	4.64	33.830	26.81	4826.4	.146
300.	4.42	33.897	26.89	4829.8	
343.	4.15	34.003	27.00	4829.1	.079
441.	4.00	34.080	27.08	4833.1	.052
539.	3.84	34.150	27.15	4837.0	.041
735.	3.46	34.273	27.28	4843.8	.036
931.	3.14	34.347	27.37	4851.3	.031
1000.	3.04*	34.361*	27.39	4854.0	

STATION 74

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	4.77	32.64	25.85	25.85	0.0	215.7	0.000
10.	4.77	32.63	25.85	25.90	10.1	216.1	.022
20.	4.77	32.63	25.85	25.94	20.1	216.2	.043
30.	4.77	32.64	25.85	25.99	30.2	216.0	.065
50.	4.76	32.64	25.85	26.09	50.3	216.0	.109
75.	4.70	32.72	25.93	26.28	75.5	209.2	.162
100.	4.80	33.06	26.18	26.65	100.7	185.0	.212
125.	4.78	33.41	26.46	27.05	125.8	159.1	.255
150.	4.69	33.64	26.66	27.36	151.0	140.7	.293
175.	4.66	33.80	26.79	27.61	176.2	128.7	.327
200.	4.64	33.84	26.82	27.75	201.4	126.1	.359
225.	4.60	33.87	26.84	27.90	226.7	123.7	.390
250.	4.55	33.89	26.87	28.04	251.9	121.8	.421
300.	4.42	33.90	26.89	28.30	302.3	120.1	.482
400.	3.98	34.08	27.08	28.96	403.2	103.0	.595
500.	3.90	34.12	27.12	29.47	504.2	99.5	.697
600.	3.73	34.19	27.19	30.01	605.2	93.4	.795
700.	3.53	34.25	27.26	30.55	706.3	87.4	.886
800.	3.35	34.30	27.32	31.08	807.4	82.4	.972
1000.	3.04	34.36	27.39	32.09	1009.8	76.0	1.132

STATION 75

TIME: 2346 DATE: 31-III-58 LAT: 57° 25' N LONG: 149° 57' W SOUNDING: 893 fms.
 WEATHER: 01 WIND: Dir. 130° Speed 10 AIR TEMP: Dry 44° Wet 41° BARO: 981.0 mb.
 CLOUD: Type Sc Amt 6 SEA: 130° - 2 SWELL: 9 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	5.51*	32.535*	25.69	4821.5	
5.	5.40	32.542	25.71	4820.3	0.595
20.	5.21	32.552	25.74	4818.7	.616
30.	5.21	32.550	25.73	4819.3	.619
50.	5.00	32.597	25.80	4817.8	.631
74.	4.79	32.621	25.84	4816.5	.616
98.	4.44	32.679	25.92	4813.3	.615
123.	4.80	32.866	26.03	4820.5	.549
148.	5.16	33.332	26.36	4828.7	.405
172.	5.84	33.660	26.54	4840.5	.286
197.	5.62	33.825	26.69	4839.7	.241
221.	5.34	33.872	26.76	4837.5	.210
246.	5.08	33.898	26.82	4835.6	.200
295.	4.73	33.942	26.89	4833.9	.154
400.	4.26	34.020	27.00	4834.0	.090
500.	3.91	34.113	27.11	4835.5	.051
600.	3.74	34.180	27.18	4839.4	.044
800.	3.38	34.302	27.31	4846.7	.038
1000.	3.05	34.372	27.40	4854.2	.038

STATION 75

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	5.51	32.54	25.69	25.69	0.0	231.2	0.000
10.	5.31	32.55	25.72	25.77	10.1	228.2	.023
20.	5.21	32.55	25.74	25.83	20.1	226.8	.046
30.	5.21	32.55	25.73	25.88	30.2	227.1	.069
50.	5.00	32.60	25.80	26.03	50.3	221.5	.114
75.	4.78	32.62	25.84	26.19	75.5	217.4	.169
100.	4.44	32.69	25.93	26.40	100.7	209.2	.223
125.	4.83	32.89	26.05	26.64	125.8	198.1	.274
150.	5.20	33.36	26.38	27.08	151.0	167.2	.320
175.	5.86	33.69	26.56	27.37	176.2	150.9	.360
200.	5.59	33.84	26.71	27.64	201.4	136.9	.397
225.	5.30	33.88	26.77	27.83	226.6	130.7	.430
250.	5.04	33.90	26.82	27.99	251.8	126.2	.463
300.	4.70	33.95	26.90	28.30	302.3	119.5	.525
400.	4.26	34.02	27.00	28.88	403.2	110.1	.640
500.	3.91	34.11	27.11	29.46	504.1	100.3	.747
600.	3.74	34.18	27.18	30.00	605.1	94.3	.845
700.	3.56	34.24	27.25	30.54	706.2	88.4	.937
800.	3.38	34.30	27.31	31.07	807.3	82.8	1.024
1000.	3.05	34.37	27.40	32.10	1009.7	75.3	1.184

STATION 76

TIME: 0317 DATE: 1-IV-58 LAT: 57° 32' N LONG: 149° 49' W SOUNDING: 600 fms.
 WEATHER: 03 WIND: Dir. 100° Speed 10 AIR TEMP: Dry 46° Wet 44° BARO: 980.7 mb.
 CLOUD: Type St Amt 10 SEA: 100° - 3 SWELL: 190° - 5 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	5.61*	32.514*	25.66	4822.8	
5.	5.62	32.502	25.65	4823.1	0.647
20.	5.59	32.496	25.65	4823.6	.634
29.	5.53	32.513	25.67	4823.4	.639
49.	5.44	32.524	25.69	4823.4	.590
73.	5.43	32.516	25.68	4824.7	.596
98.	5.60	32.644	25.76	4828.9	.549
122.	5.49	32.831	25.92	4829.6	.525
147.	5.22	33.017	26.10	4828.2	.501
171.	5.88	33.390	26.32	4839.9	.365
196.	4.79	33.526	26.55	4827.2	.370
220.	4.82	33.750	26.73	4830.0	.282
244.	4.94	33.874	26.81	4833.5	.206
293.	4.88	33.917	26.85	4835.8	.173
351.	4.40	33.986	26.96	4832.9	.089
445.	4.14	34.057	27.04	4835.2	.082
534.	3.94	34.131	27.12	4838.0	.055
712.	3.37	34.249	27.27	4841.1	.042
890.	3.16	34.347	27.37	4849.1	.011

STATION 76

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	5.61	32.51	25.66	25.66	0.0	233.9	0.000
10.	5.62	32.50	25.64	25.69	10.1	235.5	.024
20.	5.59	32.50	25.65	25.74	20.1	235.2	.047
30.	5.52	32.51	25.67	25.81	30.2	233.2	.071
50.	5.44	32.52	25.69	25.92	50.3	231.7	.118
75.	5.44	32.52	25.69	26.04	75.5	232.2	.176
100.	5.60	32.66	25.77	26.24	100.6	224.1	.233
125.	5.47	32.85	25.95	26.53	125.8	208.1	.288
150.	5.25	33.05	26.13	26.83	151.0	191.0	.338
175.	5.83	33.43	26.36	27.17	176.2	169.9	.384
200.	4.72	33.56	26.59	27.52	201.4	147.9	.424
225.	4.84	33.78	26.75	27.81	226.6	132.4	.459
250.	4.95	33.89	26.83	28.00	251.8	125.8	.491
300.	4.85	33.92	26.86	28.27	302.2	122.8	.554
400.	4.18	34.03	27.02	28.90	403.1	108.6	.671
500.	4.01	34.10	27.09	29.44	504.1	102.2	.777
600.	3.76	34.18	27.18	30.00	605.1	94.5	.877
700.	3.42	34.24	27.26	30.56	706.2	86.9	.968
800.	3.22	34.30	27.33	31.09	807.3	81.2	1.053

STATION 77

TIME: 0732 DATE: 1-IV-58 LAT: 57° 36' N LONG: 150° 18' W SOUNDING: 98 fms.
 WEATHER: 01 WIND: Dir. 100° Speed 10 AIR TEMP: Dry 40° Wet 36° BARO: 980.0 mb.
 CLOUD: Type CuSc Amt 8 SEA: 100° - 2 SWELL: 180° - 5 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	5.43*	32.512*	25.68	4820.3	
5.	5.43	32.511	25.68	4820.6	0.531
20.	5.43	32.510	25.68	4821.5	.606
30.	5.42	32.511	25.68	4822.0	.617
50.	5.42	32.523	25.69	4823.2	.579
75.	5.44	32.525	25.69	4824.9	.539
99.	5.51	32.599	25.74	4827.6	.534
124.	5.61	32.801	25.89	4831.2	.485
148.	5.60	32.914	25.98	4832.9	.418
150.	5.59*	32.920*	25.98	4833.0	

STATION 77

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	5.43	32.51	25.68	25.68	0.0	232.0	0.000
10.	5.43	32.51	25.68	25.72	10.1	232.3	.023
20.	5.43	32.51	25.68	25.77	20.1	232.4	.047
30.	5.42	32.51	25.68	25.82	30.2	232.3	.070
50.	5.42	32.52	25.69	25.92	50.3	231.6	.117
75.	5.44	32.53	25.69	26.04	75.5	231.9	.175
100.	5.51	32.60	25.74	26.21	100.6	227.0	.233
125.	5.61	32.81	25.89	26.48	125.8	213.2	.288
150.	5.59	32.92	25.98	26.68	151.0	204.9	.341

STATION 78

TIME: 1218 DATE: 1-IV-58 LAT: 57° 42' N LONG: 151° 06' W SOUNDING: 40 fms.
WEATHER: 01 WIND: Dir. 180° Speed 8 AIR TEMP: Dry 38° Wet 34° BARO: 979.6 mb.
CLOUD: Type AcCu Amt 6 SEA: 180° - 2 SWELL: 180° - 5 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	4.30	32.436	25.74	4804.6	0.476
10.	4.42	32.399	25.70	4806.7	.517
20.	4.48	32.411	25.70	4808.2	.563
30.	4.52	32.428	25.71	4809.4	.574
40.	4.56	32.438	25.72	4810.6	.556
50.	4.55	32.439	25.72	4811.0	.359

STATION 78

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	4.30	32.44	25.74	25.74	0.0	226.1	0.000
10.	4.42	32.40	25.70	25.75	10.1	230.1	.023
20.	4.48	32.41	25.70	25.80	20.1	229.9	.046
30.	4.52	32.43	25.71	25.85	30.2	229.1	.069
50.	4.55	32.44	25.72	25.95	50.3	228.7	.115

STATION 79

TIME: 1355 DATE: 4-IV-58 LAT: 55° 56' N LONG: 155° -1' W SOUNDING: 78 fms.
WEATHER: 62 WIND: Dir. 140° Speed 10 AIR TEMP: Dry 41° Wet 39° BARO: 998.3 mb.
CLOUD: Type Sc Amt 8 SEA: 140° - 2 SWELL: 190° - 3 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	4.90	32.440	25.68	4812.9	0.634
9.	5.20	32.458	25.66	4817.5	.640
19.	5.21	32.458	25.66	4818.3	.636
28.	5.20	32.458	25.66	4818.7	.643
47.	5.20	32.459	25.66	4819.8	.635
72.	5.21	32.461	25.66	4821.4	.640
94.	5.19	32.504	25.70	4822.6	.619
117.	5.25	32.566	25.74	4825.0	.592
125.	5.29*	32.592*	25.76	4826.1	

STATION 79

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	4.90	32.44	25.68	25.68	0.0	231.8	0.000
10.	5.22	32.46	25.66	25.71	10.1	233.8	.023
20.	5.21	32.46	25.66	25.76	20.1	233.9	.047
30.	5.20	32.46	25.66	25.80	30.2	233.9	.070
50.	5.20	32.46	25.66	25.90	50.3	234.0	.118
75.	5.21	32.46	25.67	26.02	75.5	233.9	.176
100.	5.20	32.52	25.71	26.18	100.6	230.0	.235
125.	5.29	32.59	25.76	26.34	125.8	225.7	.292

STATION 80

TIME:1525 DATE: 4-IV-58 LAT: 55° 55' N LONG: 154° 54' W SOUNDING: 100 fms.
 WEATHER: 03 WIND: Dir. 180° Speed 10 AIR TEMP: Dry 41° Wet 39° BARO: 999.3 mb.
 CLOUD: Type Sc Amt 10 SEA: 180° - 2 SWELL: 140° - 3 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	5.35*	32.494*	25.67	4819.2	
5.	5.35	32.489	25.67	4819.5	0.642
20.	5.35	32.480	25.66	4820.3	.642
30.	5.35	32.480	25.66	4820.9	.619
49.	5.36	32.477	25.66	4822.1	.627
74.	5.34	32.480	25.66	4823.4	.629
99.	5.32	32.478	25.67	4824.6	.631
124.	5.30	32.490	25.68	4825.8	.627
149.	5.33	32.581	25.75	4828.1	.586
174.	5.29	32.745	25.88	4829.6	.533
175.	5.29*	32.753*	25.89	4829.7	

STATION 80

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	5.35	32.49	25.67	25.67	0.0	232.5	0.000
10.	5.35	32.48	25.67	25.71	10.1	233.3	.023
20.	5.35	32.48	25.66	25.76	20.1	233.8	.047
30.	5.35	32.48	25.66	25.80	30.2	233.9	.070
50.	5.36	32.48	25.66	25.89	50.3	234.4	.118
75.	5.34	32.48	25.66	26.02	75.5	234.2	.177
100.	5.32	32.48	25.67	26.13	100.6	234.3	.235
125.	5.30	32.49	25.68	26.26	125.8	233.3	.294
150.	5.33	32.59	25.75	26.45	151.0	226.8	.352
175.	5.29	32.75	25.89	26.71	176.2	214.1	.408

STATION 81

TIME: 1940 DATE: 4-IV-58 LAT: 55° 30' N LONG: 154° 21' W SOUNDING: 555 fms.
 WEATHER: 60 WIND: Dir. 130° Speed 12 AIR TEMP: Dry 40° Wet 38° BARO: 1002.0 mb.
 CLOUD: Type Sc Amt 10 SEA: 130° - 2 SWELL: 230° - 4 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	4.90*	32.622*	25.83	4813.6	
5.	4.87	32.612	25.82	4813.4	0.660
19.	4.67	32.647	25.87	4811.7	.654
29.	4.43	32.730	25.96	4809.3	.655
48.	4.50	32.875	26.07	4812.0	.650
72.	5.31	33.361	26.36	4826.3	.403
96.	5.27	33.614	26.57	4828.2	.333
120.	4.85	33.713	26.69	4824.3	.286
144.	4.86	33.847	26.80	4826.4	.228
167.	4.58	33.862	26.84	4824.0	.199
191.	4.47	33.881	26.87	4824.0	.177
215.	4.48	33.926	26.90	4825.7	.146
239.	4.45	33.948	26.92	4826.8	.128
287.	4.32	33.993	26.97	4828.1	.104
390.	3.97	34.069	27.07	4829.7	.058
494.	3.60	34.126	27.15	4830.9	.045
585.	3.56	34.239	27.25	4836.2	.038
780.	3.15	34.327	27.36	4842.4	.036
975.	3.04	34.352	27.39	4852.5	.034
1000.	3.05*	34.351*	27.38	4854.1	

STATION 81

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	4.90	32.62	25.83	25.83	0.0	218.1	0.000
10.	4.82	32.61	25.83	25.88	10.1	218.0	.022
20.	4.65	32.65	25.88	25.97	20.1	213.4	.044
30.	4.42	32.74	25.97	26.11	30.2	204.7	.065
50.	4.54	32.90	26.09	26.32	50.3	193.7	.105
75.	5.35	33.41	26.39	26.75	75.5	165.0	.150
100.	5.23	33.64	26.60	27.06	100.7	146.2	.189
125.	4.82	33.74	26.72	27.31	125.9	134.7	.224
150.	4.81	33.86	26.82	27.52	151.1	125.6	.257
175.	4.52	33.87	26.85	27.68	176.3	122.2	.289
200.	4.46	33.89	26.88	27.82	201.5	119.8	.319
225.	4.47	33.94	26.91	27.97	226.7	116.9	.349
250.	4.43	33.96	26.94	28.11	251.9	115.2	.378
300.	4.28	34.00	26.99	28.40	302.3	110.6	.435
400.	3.94	34.08	27.08	28.96	403.3	102.5	.543
500.	3.59	34.13	27.16	29.51	504.2	95.5	.643
600.	3.54	34.25	27.26	30.08	605.2	86.7	.735
700.	3.37	34.32	27.33	30.62	706.3	80.9	.819
800.	3.12	34.33	27.36	31.13	807.5	77.8	.900
1000.	3.05	34.35	27.38	32.08	1009.9	76.9	1.056

STATION 82

TIME: 2303 DATE: 4-IV-58 LAT: 55° 21' N LONG: 154° 03' W SOUNDING: 2100 fms.
 WEATHER: 02 WIND: Dir. 060° Speed 10 AIR TEMP: Dry 45° Wet 40° BARO: 1004.1 mb.
 CLOUD: Type CuSc Amt 9 SEA: 060° - 2 SWELL: 140° - 3 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	4.46*	32.749*	25.97	4808.0	
5.	4.39	32.756	25.99	4807.4	0.647
20.	4.26	32.769	26.01	4806.6	.654
30.	4.23	32.772	26.02	4806.8	.653
50.	4.16	32.780	26.03	4807.0	.649
74.	4.01	32.948	26.18	4807.0	.609
99.	4.15	33.447	26.56	4812.4	.360
124.	4.21	33.758	26.80	4816.0	.193
149.	4.11	33.844	26.88	4816.4	.136
174.	4.07	33.917	26.94	4817.6	.087
199.	4.04	33.966	26.98	4818.9	.062
224.	4.01	33.992	27.01	4820.1	.049
248.	3.98	34.021	27.03	4821.2	.046
298.	3.90	34.060	27.07	4823.2	.041
395.	3.78	34.129	27.14	4827.6	.043
500.	3.61	34.204	27.21	4831.7	.043
600.	3.37	34.272	27.29	4834.6	.030
815.	3.06	34.350	27.38	4843.3	.035

STATION 82

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	4.46	32.75	25.97	25.97	0.0	204.0	0.000
10.	4.34	32.76	26.00	26.04	10.1	202.0	.020
20.	4.26	32.77	26.01	26.10	20.1	200.8	.041
30.	4.23	32.77	26.02	26.16	30.2	200.3	.061
50.	4.16	32.78	26.03	26.27	50.3	199.2	.101
75.	4.01	32.96	26.19	26.54	75.5	184.2	.149
100.	4.15	33.46	26.57	27.04	100.7	148.1	.191
125.	4.21	33.77	26.81	27.39	125.9	126.2	.226
150.	4.11	33.85	26.88	27.59	151.1	119.3	.257
175.	4.07	33.92	26.94	27.77	176.3	113.7	.286
200.	4.04	33.97	26.98	27.93	201.5	110.0	.314
225.	4.01	33.99	27.01	28.07	226.7	107.9	.342
250.	3.98	34.02	27.03	28.21	251.9	105.6	.369
300.	3.90	34.06	27.07	28.49	302.4	102.3	.421
400.	3.77	34.13	27.14	29.02	403.3	96.5	.521
500.	3.61	34.20	27.21	29.57	504.3	90.3	.616
600.	3.37	34.27	27.29	30.12	605.3	83.5	.703
700.	3.19	34.32	27.35	30.64	706.4	78.7	.785
800.	3.07	34.35	27.38	31.15	807.5	76.1	.864

STATION 83

TIME: 0442 DATE: 5-IV-58 LAT: 54° 48' N LONG: 153° 33' W SOUNDING: 2350 fms.
 WEATHER: 02 WIND: Dir. 030° Speed 10 AIR TEMP: Dry 42° Wet 39° BARO: 1007.8 mb.
 CLOUD: Type CuSc Amt 9 SEA: 030° - 2 SWELL: 210° - 3 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	4.17*	32.864*	26.10	4804.5	
5.	4.07	32.865	26.11	4803.4	0.653
20.	3.89	32.866	26.12	4801.8	.650
30.	3.86	32.866	26.13	4802.0	.656
50.	3.79	32.867	26.13	4802.2	.646
75.	3.80	32.869	26.14	4803.8	.647
100.	3.98	33.315	26.47	4809.6	.418
125.	4.12	33.656	26.73	4814.4	.236
150.	4.11	33.833	26.87	4816.4	.135
175.	4.05	33.904	26.93	4817.3	.088
200.	4.01	33.945	26.97	4818.4	.063
225.	4.01	33.985	27.00	4820.1	.046
250.	3.99*	34.014	27.03	4821.5	.043
300.	3.91	34.077	27.08	4823.5	.039
389.	3.77	34.145	27.15	4827.1	.037
494.	3.59	34.204	27.22	4831.1	.036
593.	3.42	34.264	27.28	4834.8	.036
809.	3.01	34.354	27.39	4842.2	.037
989.	2.76	34.417	27.46	4849.6	.044
1100.	2.61	34.438	27.49	4854.1	.052
1285.	2.37	34.491	27.56	4861.9	.070
1482.	2.17	34.529	27.60	4870.9	.081
1500.	2.15*	34.532*	27.61	4871.7	

STATION 83

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	4.17	32.86	26.10	26.10	0.0	192.5	0.000
10.	3.99	32.87	26.11	26.16	10.1	190.8	.019
20.	3.89	32.87	26.12	26.22	20.1	189.9	.038
30.	3.86	32.87	26.13	26.27	30.2	189.7	.058
50.	3.79	32.87	26.13	26.37	50.3	189.1	.096
75.	3.80	32.87	26.14	26.49	75.5	189.2	.143
100.	3.98	33.31	26.47	26.94	100.7	157.6	.187
125.	4.12	33.66	26.73	27.32	125.9	133.5	.224
150.	4.11	33.83	26.87	27.58	151.1	120.3	.256
175.	4.05	33.90	26.93	27.76	176.3	114.6	.285
200.	4.01	33.94	26.97	27.91	201.5	111.4	.314
225.	4.01	33.98	27.00	28.06	226.7	108.6	.341
250.	3.99	34.01	27.03	28.20	251.9	106.4	.369
300.	3.91	34.08	27.08	28.50	302.4	101.3	.421
400.	3.75	34.15	27.16	29.04	403.3	94.8	.520
500.	3.58	34.21	27.22	29.57	504.3	89.7	.613
600.	3.41	34.27	27.28	30.11	605.3	84.2	.701
700.	3.22	34.32	27.34	30.64	706.4	79.4	.784
800.	3.03	34.35	27.39	31.15	807.5	75.3	.862
1000.	2.74	34.42	27.47	32.17	1009.9	68.5	1.007
1200.	2.48	34.46	27.53	33.17	1212.5	63.5	1.141
1500.	2.15	34.53	27.61	34.65	1516.8	56.3	1.323

STATION 84

TIME: 1015 DATE: 5-IV-58 LAT: 54° 34' N LONG: 153° 00' W SOUNDING: 2270 fms.
 WEATHER: 02 WIND: Dir. 020° Speed 5 AIR TEMP: Dry 39° Wet 36° BARO: 1009.5 mb.
 CLOUD: Type Sc Amt 9 SEA: 020° - 2 SWELL: 9 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	3.94*	32.862*	26.12	4801.3	
5.	3.91	32.868	26.12	4801.2	0.658
20.	3.86	32.881	26.14	4801.5	.648
30.	3.85	32.885	26.14	4801.9	.648
50.	3.79	32.886	26.15	4802.3	.644
75.	3.78	32.892	26.16	4803.7	.649
100.	3.83	33.020	26.25	4806.3	.581
125.	4.31	33.634	26.69	4816.9	.264
150.	4.51	33.856	26.85	4822.0	.159
175.	4.29	33.913	26.91	4820.7	.113
200.	4.15	33.941	26.95	4820.4	.088
225.	4.03	33.960	26.98	4820.3	.067
250.	4.02	33.994	27.01	4821.7	.048
300.	3.93	34.062	27.07	4823.7	.066
384.	3.79	34.130	27.14	4827.0	.041
492.	3.60	34.206	27.22	4831.1	.040
591.	3.39	34.262	27.28	4834.3	.041
803.	2.97	34.354	27.39	4841.3	.044
985.	2.72	34.415	27.47	4848.8	.048
1094.	2.55	34.441	27.50	4852.9	.058
1280.	2.35	34.479	27.55	4861.3	.067
1478.	2.19	34.523	27.60	4870.9	.085
1500.	2.18*	34.528*	27.60	4872.0	

STATION 84

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	3.94	32.86	26.12	26.12	0.0	190.5	0.000
10.	3.89	32.87	26.13	26.18	10.1	189.3	.019
20.	3.86	32.88	26.14	26.23	20.1	188.5	.038
30.	3.85	32.89	26.14	26.29	30.2	188.2	.057
50.	3.79	32.89	26.15	26.39	50.3	187.7	.095
75.	3.78	32.89	26.16	26.51	75.5	187.3	.142
100.	3.83	33.02	26.25	26.72	100.7	178.3	.188
125.	4.31	33.63	26.69	27.28	125.9	137.1	.228
150.	4.51	33.86	26.85	27.55	151.1	122.8	.261
175.	4.29	33.91	26.91	27.74	176.3	116.4	.291
200.	4.15	33.94	26.95	27.89	201.5	113.1	.320
225.	4.03	33.96	26.98	28.04	226.7	110.6	.348
250.	4.02	33.99	27.01	28.18	251.9	108.2	.375
300.	3.93	34.06	27.07	28.48	302.3	102.6	.429
400.	3.76	34.14	27.15	29.03	403.3	95.7	.529
500.	3.58	34.21	27.22	29.58	504.2	89.5	.622
600.	3.37	34.27	27.29	30.11	605.3	83.9	.710
700.	3.17	34.31	27.34	30.64	706.4	78.9	.792
800.	2.98	34.35	27.39	31.16	807.5	74.7	.870
1000.	2.70	34.42	27.47	32.18	1009.9	68.0	1.014
1200.	2.42	34.46	27.53	33.18	1212.5	62.9	1.147
1500.	2.18	34.53	27.60	34.65	1516.8	56.8	1.329

STATION 85

TIME: 1644 DATE: 5-IV-58 LAT: 54° 02' N LONG: 152° 39' W SOUNDING: missing
 WEATHER: 02 WIND: Dir. 200° Speed 15 AIR TEMP: Dry 41° Wet 37° BARO: 1010.5 mb.
 CLOUD: Type St Amt 9 SEA: 200° - 2 SWELL: 230° - 4 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	3.87*	32.896*	26.15	4800.5	
5.	3.86	32.895	26.15	4800.6	0.650
20.	3.83	32.894	26.15	4801.1	.647
30.	3.81	32.894	26.15	4801.4	.634
50.	3.75	32.906	26.17	4801.8	.621
75.	3.75	32.893	26.16	4803.2	.644
99.	3.83	33.143	26.35	4806.8	.511
124.	4.00	33.616	26.71	4812.5	.266
148.	4.01	33.780	26.84	4814.7	.162
173.	4.05	33.883	26.92	4817.1	.098
198.	4.04	33.941	26.96	4818.7	.076
223.	4.01	33.977	26.99	4819.9	.061
248.	3.98	34.015	27.03	4821.2	.047
297.	3.89	34.083	27.09	4823.1	.045
334.	3.75	34.156	27.16	4826.6	.043
492.	3.49	34.233	27.25	4829.7	.041
590.	3.32	34.284	27.31	4833.3	.039
802.	2.99	34.362	27.40	4841.6	.044
984.	2.71	34.414	27.47	4848.6	.046
1090.	2.55	34.441	27.50	4852.7	.052
1279.	2.38	34.486	27.55	4861.7	.064
1476.	2.19	34.529	27.60	4870.8	.083
1500.	2.17*	34.534*	27.61	4871.9	

STATION 85

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	3.87	32.90	26.15	26.15	0.0	187.4	0.000
10.	3.85	32.89	26.15	26.20	10.1	187.3	.019
20.	3.83	32.89	26.15	26.25	20.1	187.2	.038
30.	3.81	32.89	26.15	26.30	30.2	187.1	.057
50.	3.75	32.91	26.17	26.41	50.3	185.8	.094
75.	3.75	32.89	26.16	26.51	75.5	186.9	.141
100.	3.84	33.16	26.36	26.83	100.7	168.0	.186
125.	4.00	33.63	26.72	27.31	125.9	134.4	.224
150.	4.01	33.79	26.85	27.55	151.1	122.5	.256
175.	4.05	33.89	26.92	27.74	176.3	115.7	.286
200.	4.04	33.94	26.97	27.91	201.5	111.7	.315
225.	4.01	33.98	27.00	28.06	226.7	108.9	.343
250.	3.98	34.02	27.03	28.21	251.9	106.0	.370
300.	3.88	34.09	27.09	28.51	302.4	100.3	.422
400.	3.72	34.17	27.18	29.06	403.3	93.3	.519
500.	3.47	34.24	27.25	29.61	504.3	86.3	.610
600.	3.30	34.29	27.31	30.14	605.3	81.5	.695
700.	3.14	34.33	27.36	30.66	706.4	77.5	.775
800.	2.99	34.36	27.40	31.17	807.5	74.2	.852
1000.	2.69	34.42	27.47	32.18	1009.9	68.0	.996
1200.	2.43	34.47	27.53	33.18	1212.5	62.7	1.128
1500.	2.17	34.53	27.61	34.65	1516.8	56.3	1.309

STATION 86

TIME: 2328 DATE: 5-IV-58 LAT: 53° 47' N LONG: 151° 56' W SOUNDING:
 WEATHER: 03 WIND: Dir. 180° Speed 20 AIR TEMP: Dry 41° Wet 41° BARO: 1008.8 mb.
 CLOUD: Type Sc Amt 10 SEA: 180° - 3 SWELL: 230° - 4 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	4.03*	32.846*	26.09	4802.5	
5.	4.05	32.841	26.09	4803.1	0.653
20.	4.06	32.835	26.08	4804.1	.643
30.	4.03	32.838	26.09	4804.3	.649
49.	3.97	32.836	26.09	4804.5	.642
74.	3.94	32.840	26.10	4805.6	.639
98.	3.93	32.855	26.11	4807.0	.628
122.	4.03	33.709	26.78	4813.2	.198
147.	4.09	33.853	26.89	4816.0	.094
171.	4.05	33.915	26.94	4817.2	.076
196.	4.03	33.970	26.99	4818.6	.050
220.	3.99	34.011	27.02	4819.6	.036
245.	3.95	34.043	27.05	4820.7	.034
294.	3.86	34.080	27.09	4822.5	.034
380.	3.75	34.148	27.16	4826.3	.033
486.	3.51	34.224	27.24	4829.6	.039
584.	3.35	34.280	27.30	4833.4	.045
794.	2.98	34.364	27.40	4840.9	.042
974.	2.67	34.422	27.48	4847.5	.047
1079.	2.55	34.446	27.50	4852.1	.048
1266.	2.33	34.497	27.56	4860.2	.066
1460.	2.15	34.539	27.61	4869.3	.085
1500.	2.12*	34.546*	27.62	4871.3	

STATION 86

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	4.03	32.85	26.09	26.09	0.0	192.6	0.000
10.	4.06	32.84	26.08	26.13	10.1	193.6	.019
20.	4.06	32.83	26.08	26.18	20.1	193.9	.039
30.	4.03	32.84	26.09	26.23	30.2	193.4	.058
50.	3.97	32.84	26.09	26.33	50.3	193.1	.097
75.	3.94	32.84	26.10	26.45	75.5	192.7	.146
100.	3.93	32.89	26.14	26.61	100.7	188.8	.194
125.	4.04	33.77	26.82	27.41	125.9	124.4	.233
150.	4.09	33.86	26.90	27.60	151.1	117.8	.264
175.	4.05	33.92	26.95	27.77	176.3	113.0	.293
200.	4.02	33.98	26.99	27.94	201.5	109.1	.321
225.	3.98	34.02	27.03	28.09	226.7	105.8	.348
250.	3.94	34.05	27.06	28.24	251.9	103.3	.374
300.	3.85	34.08	27.10	28.51	302.4	100.1	.426
400.	3.71	34.16	27.17	29.06	403.3	93.6	.523
500.	3.48	34.23	27.25	29.60	504.3	86.8	.615
600.	3.32	34.29	27.31	30.13	605.3	81.8	.700
700.	3.15	34.33	27.36	30.66	706.4	77.4	.780
800.	2.97	34.37	27.40	31.17	807.5	73.6	.857
1000.	2.64	34.43	27.48	32.19	1009.9	66.7	.999
1200.	2.41	34.48	27.54	33.19	1212.5	61.7	1.129
1500.	2.12	34.55	27.62	34.67	1516.8	54.9	1.306

STATION 87

TIME: 1328 DATE: 6-IV-58 LAT: 52° 40' N LONG: 150° 25' W SOUNDING:
 WEATHER: 03 WIND: Dir. 140° Speed 20 AIR TEMP: Dry 41° Wet 40° BARO: 1.003.1 mb.
 CLOUD: Type Sc Amt 10 SEA: 240° - 3 SWELL: 9 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	4.34*	32.807*	26.03	4806.6	
5.	4.34	32.807	26.03	4806.9	0.616
20.	4.34	32.807	26.03	4807.8	.652
30.	4.33	32.807	26.03	4808.3	.648
49.	4.30	32.816	26.04	4809.0	.647
74.	4.23	32.850	26.08	4809.7	.629
99.	4.03	33.424	26.55	4810.7	.355
123.	3.94	33.713	26.79	4812.0	.214
148.	3.87	33.856	26.91	4813.1	.129
173.	3.93	33.902	26.94	4815.6	.104
197.	3.88	33.960	26.99	4816.5	.065
222.	3.87	33.978	27.01	4817.9	.056
247.	3.86	34.013	27.04	4819.4	.047
296.	3.81	34.062	27.08	4821.8	.044
385.	3.67	34.143	27.16	4825.5	.041
490.	3.48	34.211	27.23	4829.3	.036
589.	3.29	34.270	27.30	4832.8	.037
802.	2.90	34.366	27.41	4840.3	.045
981.	2.65	34.420	27.48	4847.6	.050
1090.	2.55	34.440	27.50	4852.7	.059
1275.	2.38	34.486	27.55	4861.4	.067
1471.	2.25	34.520	27.59	4871.3	.082
1500.	2.24*	34.524*	27.59	4872.9	

STATION 87

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	4.34	32.81	26.03	26.03	0.0	198.5	0.000
10.	4.34	32.81	26.03	26.08	10.1	198.6	.020
20.	4.34	32.81	26.03	26.13	20.1	198.7	.040
30.	4.33	32.81	26.03	26.17	30.2	198.7	.060
50.	4.30	32.82	26.04	26.28	50.3	197.8	.100
75.	4.22	32.86	26.09	26.44	75.5	193.8	.149
100.	4.02	33.44	26.57	27.04	100.7	148.5	.192
125.	3.93	33.73	26.81	27.40	125.9	126.1	.227
150.	3.87	33.86	26.92	27.63	151.1	115.7	.257
175.	3.93	33.91	26.95	27.77	176.3	113.2	.286
200.	3.88	33.96	27.00	27.94	201.5	108.5	.314
225.	3.87	33.98	27.01	28.07	226.7	107.4	.341
250.	3.86	34.02	27.04	28.22	251.9	104.8	.368
300.	3.81	34.07	27.09	28.50	302.4	101.0	.420
400.	3.64	34.15	27.17	29.06	403.3	93.6	.518
500.	3.46	34.22	27.24	29.59	504.3	87.8	.610
600.	3.27	34.28	27.30	30.13	605.3	82.1	.696
700.	3.08	34.33	27.36	30.66	706.4	77.2	.776
800.	2.90	34.37	27.41	31.18	807.5	73.0	.852
1000.	2.63	34.42	27.48	32.19	1009.9	66.9	.994
1200.	2.45	34.47	27.53	33.17	1212.5	63.0	1.125
1500.	2.24	34.52	27.59	34.64	1516.8	57.8	1.309

STATION 88

TIME: 2257 DATE: 6-IV-58 LAT: 51° 30' N LONG: 148° 57' W SOUNDING:
 WEATHER: 01 WIND: Dir. 270° Speed 10 AIR TEMP: Dry 45° Wet 39° BARO: 1009.2 mb.
 CLOUD: Type Cu Amt 6 SEA: 270° - 2 SWELL: 240° - 4 SECCHI DISC:
 ScAs

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	5.48*	32.737*	25.85	4821.9	
5.	5.45	32.738	25.86	4821.8	0.651
20.	5.37	32.736	25.86	4821.6	.654
30.	5.33	32.731	25.86	4821.6	.651
50.	5.27	32.730	25.87	4822.0	.650
75.	5.27	32.734	25.87	4823.5	.646
100.	5.09	32.771	25.92	4822.7	.636
125.	4.45	33.185	26.32	4817.0	.496
150.	3.92	33.540	26.66	4812.6	.362
175.	3.81	33.752	26.84	4813.4	.252
200.	3.87	33.843	26.90	4816.1	.176
225.	3.87	33.883	26.93	4817.7	.150
250.	3.85	33.914	26.96	4819.1	.129
300.	3.81	33.997	27.03	4821.8	.087
374.	3.77	34.072	27.09	4825.9	.068
479.	3.61	34.163	27.18	4830.3	.049
575.	3.40	34.230	27.26	4833.3	.048
781.	3.07	34.336	27.37	4841.3	.046
959.	2.81	34.398	27.44	4848.5	.045
1061.	2.67	34.425	27.48	4852.6	.046
1246.	2.45	34.473	27.53	4860.7	.052
1438.	2.29	34.514	27.58	4869.9	.070
1500.	2.25*	34.525*	27.59	4873.1	

STATION 88

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	5.48	32.74	25.85	25.85	0.0	215.7	0.000
10.	5.42	32.74	25.86	25.91	10.1	215.1	.022
20.	5.37	32.74	25.86	25.96	20.1	214.8	.043
30.	5.33	32.73	25.86	26.00	30.2	214.8	.065
50.	5.27	32.73	25.87	26.10	50.3	214.4	.108
75.	5.27	32.73	25.87	26.22	75.5	214.4	.162
100.	5.09	32.77	25.92	26.39	100.7	209.9	.215
125.	4.45	33.19	26.32	26.91	125.8	172.2	.264
150.	3.92	33.54	26.66	27.36	151.0	140.4	.303
175.	3.81	33.75	26.84	27.66	176.2	123.6	.336
200.	3.87	33.84	26.90	27.84	201.4	117.6	.367
225.	3.87	33.88	26.93	27.99	226.6	114.8	.396
250.	3.85	33.91	26.96	28.14	251.9	112.5	.425
300.	3.81	34.00	27.03	28.44	302.3	106.2	.480
400.	3.74	34.10	27.12	29.00	403.2	98.9	.583
500.	3.57	34.18	27.20	29.55	504.2	91.7	.680
600.	3.35	34.25	27.27	30.10	605.2	85.2	.769
700.	3.18	34.30	27.33	30.63	706.3	80.1	.852
800.	3.04	34.34	27.38	31.15	807.4	76.0	.931
1000.	2.75	34.41	27.46	32.16	1009.8	69.3	1.078
1200.	2.50	34.46	27.52	33.16	1212.4	63.9	1.213
1500.	2.25	34.53	27.59	34.64	1516.7	57.9	1.399

STATION 89

TIME: 0852 DATE: 7-IV-58 LAT: 50° 19' N LONG: 147° 27' W SOUNDING:
 WEATHER: 01 WIND: Dir. 280° Speed 8 AIR TEMP: Dry 44° Wet 38° BARO: 1013.5 mb.
 CLOUD: Type Cu Amt 3 SEA: 280° - 2 SWELL: 260° - 4 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	5.82*	32.715*	25.79	4826.4	
5.	5.83	32.722	25.80	4826.8	0.633
19.	5.84	32.728	25.80	4827.8	.632
28.	5.84	32.722	25.80	4828.3	.636
46.	5.83	32.737	25.81	4829.3	.632
69.	5.80	32.748	25.82	4830.3	.630
93.	5.80	32.748	25.82	4831.7	.632
116.	5.52	32.918	25.99	4830.0	.559
139.	4.57	33.385	26.47	4820.3	.476
162.	4.01	33.533	26.64	4814.5	.409
185.	3.73	33.699	26.80	4812.7	.310
208.	3.70	33.781	26.87	4813.9	.259
231.	3.73	33.831	26.91	4815.9	.213
278.	3.71	33.926	26.98	4818.8	.152
376.	3.73	34.000	27.04	4825.2	.106
473.	3.67	34.118	27.14	4830.6	.067
567.	3.49	34.189	27.21	4833.9	.057
771.	3.13	34.318	27.35	4841.5	.048
946.	2.87	34.379	27.42	4848.5	.039
1048.	2.73	34.414	27.46	4852.7	.055
1229.	2.50	34.459	27.52	4860.3	.063
1417.	2.28	34.508	27.58	4868.5	.088
1500.	2.19*	34.530*	27.60	4872.2	

STATION 89

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	5.82	32.72	25.79	25.79	0.0	221.2	0.000
10.	5.83	32.73	25.80	25.85	10.1	220.6	.022
20.	5.84	32.73	25.80	25.89	20.1	220.7	.044
30.	5.84	32.72	25.80	25.94	30.2	221.2	.067
50.	5.83	32.74	25.81	26.05	50.3	220.0	.111
75.	5.80	32.75	25.82	26.17	75.5	219.2	.166
100.	5.74	32.78	25.86	26.32	100.7	216.4	.221
125.	5.23	33.07	26.14	26.73	125.8	189.6	.272
150.	4.25	33.50	26.59	27.29	151.0	147.1	.315
175.	3.82	33.62	26.73	27.56	176.2	133.3	.350
200.	3.68	33.76	26.86	27.80	201.4	121.8	.382
225.	3.72	33.82	26.90	27.96	226.6	117.9	.412
250.	3.74	33.87	26.94	28.12	251.8	114.6	.442
300.	3.71	33.96	27.01	28.42	302.3	108.2	.498
400.	3.72	34.03	27.06	28.94	403.2	104.0	.605
500.	3.63	34.14	27.16	29.52	504.2	95.1	.705
600.	3.43	34.21	27.24	30.06	605.2	88.5	.798
700.	3.25	34.28	27.31	30.60	706.3	82.5	.885
800.	3.08	34.33	27.37	31.13	807.4	77.4	.966
1000.	2.79	34.40	27.44	32.15	1009.8	70.7	1.115
1200.	2.54	34.45	27.51	33.15	1212.4	64.9	1.253
1500.	2.19	34.53	27.60	34.65	1516.7	56.8	1.438

STATION 90

TIME: 1802 DATE: 7-IV-58 LAT: 49° 10' N LONG: 146° 00' W SOUNDING:
 WEATHER: 01 WIND: Dir. 220° Speed 10 AIR TEMP: Dry 42° Wet 41° BARO: 1015.9 mb.
 CLOUD: Type Cu Amt 1 SEA: 220° - 2 SWELL: 270° - 3 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	5.82*	32.834*	25.89	4826.8	
5.	5.77	32.829	25.89	4826.4	0.649
20.	5.71	32.823	25.89	4826.5	.646
30.	5.75	32.827	25.89	4827.6	.649
50.	5.69	32.820	25.89	4828.0	.650
75.	5.71	32.828	25.90	4829.7	.644
100.	5.65	32.832	25.91	4830.4	.638
125.	5.33	33.597	26.55	4830.6	.497
150.	5.01	33.690	26.66	4828.2	.464
175.	4.64	33.739	26.74	4824.8	.419
200.	4.29	33.767	26.80	4821.6	.378
225.	4.19	33.812	26.84	4821.9	.330
250.	4.07	33.846	26.88	4821.8	.282
300.	3.93	33.915	26.95	4823.1	.212
385.	3.83	34.020	27.05	4827.2	.139
494.	3.67	34.112	27.14	4831.8	.082
593.	3.57	34.194	27.21	4836.6	.080
805.	3.13	34.315	27.35	4843.5	.054
988.	2.83	34.386	27.43	4850.4	.061
1092.	2.69	34.426	27.48	4854.8	.057
1284.	2.47	34.470	27.53	4863.2	.063
1481.	2.30	34.510	27.58	4872.6	.072
1500.	2.29*	34.514*	27.58	4873.6	

STATION 90

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	5.82	32.83	25.89	25.89	0.0	212.3	0.000
10.	5.73	32.83	25.89	25.94	10.1	212.0	.021
20.	5.71	32.82	25.89	25.99	20.1	212.1	.043
30.	5.75	32.83	25.89	26.03	30.2	212.3	.064
50.	5.69	32.82	25.89	26.13	50.3	212.4	.107
75.	5.71	32.83	25.90	26.25	75.5	212.3	.160
100.	5.65	32.83	25.91	26.37	100.7	211.6	.214
125.	5.33	33.60	26.55	27.13	125.8	150.9	.259
150.	5.01	33.69	26.66	27.36	151.0	140.6	.296
175.	4.64	33.74	26.74	27.56	176.2	133.2	.330
200.	4.29	33.77	26.80	27.74	201.4	127.6	.363
225.	4.19	33.81	26.84	27.90	226.6	123.4	.395
250.	4.07	33.85	26.88	28.06	251.9	119.8	.426
300.	3.93	33.92	26.95	28.37	302.3	113.6	.484
400.	3.81	34.04	27.06	28.94	403.2	104.2	.594
500.	3.66	34.12	27.14	29.49	504.2	97.3	.696
600.	3.56	34.20	27.22	30.04	605.2	90.9	.791
700.	3.39	34.26	27.28	30.58	706.3	84.9	.880
800.	3.14	34.31	27.35	31.11	807.4	79.4	.963
1000.	2.81	34.39	27.44	32.14	1009.8	71.4	1.116
1200.	2.56	34.46	27.51	33.15	1212.4	65.0	1.254
1500.	2.29	34.51	27.58	34.62	1516.7	59.2	1.443

STATION 91

TIME: 0508 DATE: 8-IV-58 LAT: 49° 06' N LONG: 143° 20' W SOUNDING:
 WEATHER: 03 WIND: Dir. 220° Speed 8 AIR TEMP: Dry 41° Wet 40° BARO: 1017.6 mb.
 CLOUD: Type Cc Amt 10 SEA: 220° - 1 SWELL: 260° - 3 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	6.51*	32.765*	25.75	4835.6	
5.	6.46	32.763	25.75	4835.3	0.636
20.	6.35	32.760	25.76	4834.7	.638
30.	6.31	32.761	25.77	4834.8	.645
50.	6.29	32.756	25.77	4835.7	.641
74.	6.29	32.762	25.77	4837.1	.637
99.	6.30	32.767	25.78	4838.7	.638
124.	6.13	32.954	25.94	4838.7	.647
149.	5.27	33.556	26.52	4831.1	.504
174.	4.83	33.644	26.64	4827.0	.470
199.	4.45	33.711	26.74	4823.5	.427
224.	4.25	33.751	26.79	4822.4	.372
248.	4.05	33.798	26.85	4821.3	.312
298.	3.91	33.866	26.92	4822.5	.236
361.	3.86	33.972	27.01	4826.0	.156
462.	3.78	34.095	27.11	4831.4	.101
554.	3.68	34.158	27.17	4835.7	.076
753.	3.29	34.279	27.31	4842.5	.054
923.	3.00	34.352	27.39	4848.8	.052
1022.	2.81	34.397	27.44	4852.2	.052
1200.	2.59	34.450	27.50	4859.8	.053
1385.	2.39	34.493	27.56	4868.1	.056
1500.	2.28*	34.514*	27.58	4873.5	

STATION 91

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	6.51	32.77	25.75	25.75	0.0	225.6	0.000
10.	6.42	32.76	25.76	25.80	10.1	224.9	.023
20.	6.35	32.76	25.76	25.86	20.1	224.3	.045
30.	6.31	32.76	25.77	25.91	30.2	223.9	.068
50.	6.29	32.76	25.77	26.00	50.3	224.2	.113
75.	6.29	32.76	25.77	26.12	75.5	224.1	.169
100.	6.30	32.77	25.78	26.25	100.7	223.8	.226
125.	6.11	32.97	25.96	26.54	125.8	206.9	.280
150.	5.24	33.57	26.54	27.24	151.0	152.3	.325
175.	4.81	33.65	26.65	27.47	176.2	141.9	.362
200.	4.44	33.71	26.74	27.68	201.4	133.2	.397
225.	4.24	33.75	26.79	27.85	226.6	128.4	.430
250.	4.04	33.80	26.85	28.03	251.8	122.8	.461
300.	3.91	33.87	26.92	28.33	302.3	116.8	.522
400.	3.83	34.03	27.05	28.93	403.2	105.1	.634
500.	3.74	34.13	27.14	29.49	504.1	97.4	.736
600.	3.61	34.19	27.20	30.02	605.1	92.3	.832
700.	3.42	34.25	27.27	30.56	706.2	86.4	.922
800.	3.21	34.30	27.33	31.09	807.3	80.9	1.007
1000.	2.85	34.39	27.43	32.13	1009.7	72.1	1.162
1200.	2.59	34.45	27.50	33.14	1212.3	65.7	1.301
1500.	2.28	34.51	27.58	34.62	1516.6	59.1	1.491

STATION 92

TIME: 1546 DATE: 8-IV-58 LAT: 49° 00' N LONG: 140° 43' W SOUNDING:
 WEATHER: 01 WIND: Dir. 150° Speed 10 AIR TEMP: Dry 44° Wet 41° BARO: 1016.3 mb.
 CLOUD: Type Sc Amt 1 SEA: 150° - 2 SWELL: 260° - 4 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	7.40*	32.750*	25.62	4847.2	
5.	7.43	32.746	25.61	4847.8	0.643
20.	7.46	32.736	25.60	4849.0	.630
30.	7.44	32.730	25.59	4849.3	.628
50.	7.35	32.729	25.61	4849.3	.628
75.	6.99	32.748	25.67	4846.3	.621
100.	6.80	32.799	25.74	4845.5	.619
125.	5.97	33.401	26.32	4838.4	.537
150.	5.38	33.570	26.52	4832.7	.503
170.	5.28	33.710	26.64	4833.1	.481
194.	5.13	33.770	26.71	4832.7	.444
218.	4.85	33.804	26.77	4830.5	.387
242.	4.67	33.850	26.82	4829.6	.340
291.	4.41	33.885	26.88	4829.1	.266
386.	4.15	33.993	26.99	4831.6	.176
490.	3.92	34.094	27.10	4835.0	.107
588.	3.67	34.177	27.19	4837.7	.067
801.	3.25	34.292	27.32	4844.9	.050
980.	2.94	34.368	27.41	4851.4	.049
1089.	2.79	34.407	27.45	4855.9	.047
1274.	2.53	34.455	27.51	4863.4	.049
1470.	2.35	34.497	27.56	4872.6	
1500.	2.33*	34.503*	27.57	4874.1	

STATION 92

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	7.40	32.75	25.62	25.62	0.0	238.2	0.000
10.	7.45	32.74	25.60	25.65	10.1	239.4	.024
20.	7.46	32.74	25.60	25.69	20.1	240.2	.048
30.	7.44	32.73	25.59	25.73	30.2	240.5	.072
50.	7.35	32.73	25.61	25.84	50.3	239.7	.121
75.	6.99	32.75	25.67	26.02	75.5	233.9	.180
100.	6.80	32.80	25.74	26.20	100.6	228.0	.238
125.	5.97	33.40	26.32	26.90	125.8	173.1	.289
150.	5.38	33.57	26.52	27.22	151.0	153.8	.330
175.	5.25	33.73	26.66	27.48	176.2	140.5	.367
200.	5.07	33.78	26.72	27.66	201.4	135.1	.402
225.	4.79	33.82	26.78	27.84	226.6	129.5	.435
250.	4.62	33.86	26.84	28.01	251.8	124.5	.467
300.	4.37	33.89	26.89	28.30	302.2	119.9	.529
400.	4.12	34.01	27.01	28.89	403.2	109.5	.645
500.	3.90	34.10	27.11	29.46	504.1	100.9	.751
600.	3.64	34.19	27.20	30.02	605.1	92.8	.849
700.	3.43	34.25	27.27	30.56	706.2	86.5	.939
800.	3.25	34.29	27.32	31.08	807.3	82.2	1.024
1000.	2.91	34.38	27.42	32.12	1009.7	73.6	1.182
1200.	2.63	34.44	27.49	33.13	1212.3	67.0	1.324
1500.	2.33	34.50	27.57	34.61	1516.6	60.5	1.518

STATION 93

TIME: 0303 DATE: 9-IV-58 LAT: 48° 55' N LONG: 138° 06' W SOUNDING:
 WEATHER: 03 WIND: Dir. 140° Speed 35 AIR TEMP: Dry 48° Wet 45° BARO: 1009.3 mb.
 CLOUD: Type St Amt 10 SEA: 140° - 4 SWELL: 140° - 4 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	7.70*	32.618*	25.47	4850.5	
5.	7.69	32.610	25.47	4850.6	0.616
20.	7.67	32.602	25.46	4851.2	.620
30.	7.67	32.610	25.47	4851.8	.619
50.	7.62	32.627	25.49	4852.4	.624
75.	7.49	32.636	25.51	4852.3	.609
100.	7.04	32.647	25.58	4848.0	.609
118.	6.80	32.819	25.75	4846.6	.591
141.	6.01	33.416	26.32	4839.9	.534
165.	5.65	33.578	26.49	4837.2	.517
188.	5.28	33.677	26.62	4834.0	.492
212.	5.15	33.760	26.70	4834.0	.438
235.	4.95	33.821	26.77	4832.9	.372
282.	4.66	33.872	26.84	4831.9	.274
377.	4.27	33.988	26.98	4832.7	.198
484.	3.99	34.086	27.08	4835.6	.100
581.	3.75	34.154	27.16	4838.3	.088
789.	3.30	34.277	27.30	4844.8	.059
968.	2.99	34.361	27.40	4851.4	.048
1076.	2.83	34.400	27.44	4855.7	.054
1258.	2.59	34.447	27.50	4863.3	.084
1452.	2.39	34.502	27.56	4872.1	.067
1500.	2.35*	34.516*	27.58	4874.5	

STATION 93

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	7.70	32.62	25.47	25.47	0.0	251.9	0.000
10.	7.68	32.60	25.46	25.51	10.1	252.8	.025
20.	7.67	32.60	25.46	25.55	20.1	253.0	.051
30.	7.67	32.61	25.47	25.61	30.2	252.6	.076
50.	7.62	32.63	25.49	25.72	50.3	250.9	.127
75.	7.49	32.64	25.51	25.86	75.5	248.8	.190
100.	7.04	32.65	25.58	26.05	100.6	242.4	.252
125.	6.62	32.96	25.88	26.46	125.8	214.3	.309
150.	5.82	33.53	26.44	27.14	151.0	161.8	.356
175.	5.49	33.63	26.55	27.37	176.2	151.1	.396
200.	5.18	33.72	26.66	27.60	201.4	140.8	.433
225.	5.05	33.80	26.74	27.79	226.6	133.8	.467
250.	4.84	33.85	26.80	27.97	251.8	128.0	.500
300.	4.57	33.89	26.87	28.28	302.2	122.1	.563
400.	4.20	34.01	27.00	28.88	403.1	110.0	.680
500.	3.95	34.10	27.10	29.45	504.1	101.8	.787
600.	3.71	34.17	27.18	29.99	605.1	94.9	.887
700.	3.48	34.23	27.25	30.54	706.2	88.6	.979
800.	3.28	34.28	27.31	31.07	807.3	83.1	1.066
1000.	2.94	34.37	27.41	32.11	1009.7	74.0	1.225
1200.	2.66	34.43	27.49	33.12	1212.3	67.6	1.369
1500.	2.35	34.52	27.58	34.62	1516.5	59.7	1.562

STATION 94

TIME: 1357 DATE: 9-IV-58 LAT: 48° 52' N LONG: 135° 27' W SOUNDING:
 WEATHER: 02 WIND: Dir. 250° Speed 10 AIR TEMP: Dry 47° Wet 46° BARO: 1007.8 mb.
 CLOUD: Type St Amt 9 SEA: 250° - 2 SWELL: 170° - 5 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	7.68*	32.544*	25.41	4850.0	
5.	7.67	32.542	25.41	4850.1	0.635
20.	7.66	32.540	25.41	4850.8	.618
30.	7.68	32.541	25.41	4851.7	.614
50.	7.57*	32.559	25.44	4851.6	.609
74.	7.19	32.595*	25.52	4848.2	
99.	6.90	32.650	25.61	4846.1	.604
124.	5.96	33.054	26.04	4836.9	.555
149.	5.54	33.309	26.30	4833.7	.551
174.	5.38	33.534	26.49	4834.0	.499
199.	5.48	33.702	26.61	4837.4	.449
224.	5.46	33.830	26.72	4839.1	.389
248.	5.22	33.865	26.77	4837.5	.334
298.	4.78	33.883	26.84	4834.6	.282
390.	4.38	33.964	26.95	4834.9	.186
500.	4.00	34.070	27.07	4836.6	.090
600.	3.77	34.152	27.16	4839.7	.069
797.	3.34	34.274	27.30	4845.8	.048
978.	3.02	34.363	27.40	4852.4	.042
1082.	2.84	34.401	27.44	4856.2	.040
1271.	2.61	34.452	27.50	4864.3	.046
1468.	2.40	34.497	27.56	4873.2	.052
1500.	2.37*	34.504*	27.57	4874.7	

STATION 94

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	7.68	32.54	25.41	25.41	0.0	257.3	0.000
10.	7.66	32.54	25.42	25.46	10.1	257.3	.026
20.	7.66	32.54	25.41	25.51	20.1	257.5	.052
30.	7.68	32.54	25.41	25.55	30.2	257.8	.078
50.	7.57	32.56	25.44	25.67	50.3	255.3	.129
75.	7.18	32.60	25.53	25.88	75.5	247.6	.193
100.	6.87	32.66	25.62	26.08	100.6	239.4	.254
125.	5.93	33.07	26.06	26.64	125.8	197.6	.309
150.	5.53	33.32	26.30	27.01	151.0	174.3	.356
175.	5.38	33.54	26.50	27.32	176.2	156.2	.397
200.	5.48	33.71	26.62	27.55	201.4	145.2	.435
225.	5.45	33.83	26.72	27.77	226.6	135.9	.471
250.	5.20	33.87	26.78	27.95	251.8	130.6	.504
300.	4.77	33.88	26.84	28.25	302.2	124.9	.569
400.	4.34	33.97	26.96	28.83	403.1	114.5	.690
500.	4.00	34.07	27.07	29.42	504.1	104.4	.800
600.	3.77	34.15	27.16	29.98	605.1	96.7	.902
700.	3.55	34.22	27.23	30.52	706.1	89.9	.996
800.	3.33	34.28	27.30	31.06	807.3	84.2	1.084
1000.	2.98	34.37	27.41	32.11	1009.7	74.6	1.245
1200.	2.68	34.44	27.49	33.12	1212.3	67.8	1.389
1500.	2.37	34.50	27.57	34.60	1516.5	60.8	1.585

STATION 95

TIME: 0100 DATE: 10-IV-58 LAT: 48° 47' N LONG: 132° 48' W SOUNDING:
 WEATHER: 02 WIND: Dir. 230° Speed 8 AIR TEMP: Dry 52° Wet 48° BARO: 1015.9 mb.
 CLOUD: Type CcAc Amt 6 SEA: 230° - 1 SWELL: 220° - 3 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	8.02*	32.511*	25.34	4854.1	
5.	7.86	32.516	25.37	4852.4	0.614
20.	7.59	32.526	25.41	4849.9	.597
29.	7.58	32.528	25.42	4850.3	.587
49.	7.40	32.539	25.45	4849.2	.607
74.	7.09	32.576	25.52	4846.8	.556
98.	6.16	32.975	25.96	4837.7	.521
123.	5.62	33.238	26.23	4833.0	.448
147.	5.52	33.548	26.49	4834.3	.368
172.	5.60	33.748	26.64	4837.6	.318
196.	5.48	33.869	26.75	4837.9	.282
220.	5.32	33.890	26.78	4837.3	.241
245.	5.14	33.906	26.81	4836.4	.210
294.	4.56	33.922	26.89	4831.5	.190
396.	4.17	34.025	27.02	4832.6	.107
450.	4.15	34.078	27.06	4835.7	.077
559.	3.93	34.189	27.17	4839.6	.049
762.	3.41	34.292	27.30	4844.8	.049
932.	3.07	34.361	27.39	4850.4	.039
1045.	2.92	34.398	27.43	4855.1	.041
1211.	2.66	34.449	27.50	4861.5	.039
1398.	2.42	34.490	27.55	4869.3	.056
1500.	2.31*	34.505*	27.57	4873.9	

STATION 95

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	8.02	32.51	25.34	25.34	0.0	264.3	0.000
10.	7.73	32.52	25.39	25.44	10.1	259.8	.026
20.	7.59	32.53	25.41	25.51	20.1	257.6	.052
30.	7.58	32.53	25.42	25.56	30.2	257.4	.078
50.	7.39	32.54	25.45	25.68	50.3	254.3	.130
75.	7.06	32.59	25.53	25.88	75.5	247.0	.193
100.	6.10	33.00	25.99	26.45	100.6	204.2	.250
125.	5.60	33.26	26.25	26.84	125.8	179.1	.298
150.	5.52	33.58	26.51	27.21	151.0	154.8	.340
175.	5.60	33.77	26.65	27.47	176.2	141.9	.377
200.	5.46	33.88	26.76	27.69	201.4	132.1	.412
225.	5.29	33.89	26.79	27.84	226.6	129.4	.445
250.	5.09	33.91	26.82	27.99	251.8	126.3	.477
300.	4.51	33.93	26.90	28.31	302.2	119.0	.539
400.	4.16	34.03	27.02	28.90	403.1	108.4	.654
500.	4.08	34.13	27.11	29.45	504.1	101.0	.759
600.	3.84	34.22	27.21	30.02	605.1	92.3	.857
700.	3.58	34.27	27.27	30.56	706.2	86.3	.947
800.	3.33	34.31	27.33	31.08	807.3	81.7	1.032
1000.	2.97	34.38	27.42	32.12	1009.7	73.6	1.189
1200.	2.68	34.45	27.49	33.13	1212.3	67.0	1.332
1500.	2.31	34.51	27.57	34.61	1516.6	60.1	1.525

STATION 96

TIME: 1325 DATE: 10-IV-58 LAT: 48° 42' N LONG: 130° 06' W SOUNDING:
 WEATHER: 03 WIND: Dir. 260° Speed 10 AIR TEMP: Dry 50° Wet 45° BARO: 1024.4 mb.
 CLOUD: Type St Amt 9 SEA: 260° - 2 SWELL: 230° - 3 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	8.43*	32.438*	25.22	4859.0	
5.	8.46	32.432	25.21	4859.6	0.602
20.	8.49	32.422	25.20	4860.8	.609
30.	8.47	32.423	25.21	4861.2	.610
50.	8.22	32.463	25.27	4859.4	.600
75.	7.26	32.889	25.74	4850.3	.505
100.	7.14	33.507	26.25	4852.6	.363
125.	7.24	33.694	26.38	4856.1	.308
150.	7.05	33.830	26.51	4855.6	.263
175.	6.86	33.888	26.58	4854.9	.240
200.	6.76	33.924	26.63	4855.2	.219
225.	6.58	33.948	26.67	4854.5	.144
250.	6.36	33.965	26.71	4853.1	.181
300.	5.88	33.994	26.79	4849.9	.147
392.	5.25	34.058	26.92	4847.2	.099
493.	4.84	34.104	27.01	4847.8	.075
592.	4.47	34.171	27.10	4848.9	.049
811.	3.88	34.314	27.28	4854.4	.031
986.	3.50	34.393	27.38	4859.8	.033
1101.	3.19	34.437	27.44	4862.4	.040
1282.	2.84	34.474	27.50	4868.4	.055
1480.	2.50	34.512	27.56	4875.4	.074
1500.	2.47*	34.516*	27.57	4876.2	

STATION 96

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	8.43	32.44	25.22	25.22	0.0	275.5	0.000
10.	8.48	32.43	25.21	25.25	10.1	277.1	.028
20.	8.49	32.42	25.20	25.29	20.1	277.8	.056
30.	8.47	32.42	25.21	25.34	30.2	277.6	.084
50.	8.22	32.46	25.27	25.50	50.3	271.4	.139
75.	7.26	32.89	25.74	26.09	75.5	226.9	.202
100.	7.14	33.51	26.25	26.71	100.6	179.7	.253
125.	7.24	33.69	26.38	26.96	125.8	167.5	.296
150.	7.05	33.83	26.51	27.21	151.0	155.2	.337
175.	6.86	33.89	26.58	27.40	176.2	148.7	.375
200.	6.76	33.92	26.63	27.55	201.4	145.1	.412
225.	6.58	33.95	26.67	27.71	226.6	141.3	.448
250.	6.36	33.97	26.71	27.87	251.8	137.5	.484
300.	5.88	33.99	26.79	28.19	302.2	129.9	.551
400.	5.21	34.06	26.93	28.80	403.1	117.8	.676
500.	4.81	34.11	27.01	29.35	504.1	110.8	.791
600.	4.44	34.18	27.11	29.91	605.1	102.4	.899
700.	4.14	34.24	27.19	30.47	706.1	94.9	.999
800.	3.90	34.31	27.27	31.01	807.3	88.3	1.091
1000.	3.46	34.40	27.38	32.07	1009.6	78.0	1.260
1200.	2.98	34.46	27.48	33.11	1212.2	69.2	1.409
1500.	2.47	34.52	27.57	34.60	1516.5	61.1	1.607

STATION 97

TIME: 2303 DATE: 10-IV-58 LAT: 48° 40' N LONG: 127° 32' W SOUNDING:
 WEATHER: 02 WIND: Dir. 220° Speed 10 AIR TEMP: Dry 55° Wet 51° BARO: 1030.8 mb.
 CLOUD: Type Cu Amt 9 SEA: 220° - 2 SWELL: 240° - 3 SECCHI DISC: 10 meters
 ScAc

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	9.60*	32.405*	25.02	4873.3	
5.	9.32	32.404	25.06	4870.1	0.594
20.	8.84	32.400	25.13	4865.1	.577
30.	8.82	32.397	25.13	4865.4	.530
50.	8.77	32.396	25.14	4866.0	.576
75.	7.94	32.513	25.35	4857.5	.570
99.	7.58	33.070	25.84	4856.5	.461
124.	7.40	33.470	26.18	4857.2	.362
149.	7.34	33.748	26.41	4859.0	.297
174.	7.32	33.878	26.51	4860.7	.245
199.	7.00	33.930	26.60	4858.3	.231
224.	6.81	33.966	26.65	4857.5	.198
248.	6.53	33.957	26.68	4855.2	.205
298.	6.16	33.979	26.75	4853.4	.190
386.	5.35	34.024	26.88	4848.0	.129
493.	4.85	34.100	27.00	4847.9	.079
591.	4.51	34.185	27.11	4849.5	.055
804.	3.98	34.313	27.26	4855.3	.042
986.	3.50	34.379	27.36	4859.7	.036
1093.	3.27	34.421	27.42	4863.0	.051
1280.	2.86	34.474	27.50	4868.5	.051
1476.	2.49	34.507	27.56	4875.0	.064
1500.	2.45*	34.509*	27.56	4875.9	

STATION 97

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	9.60	32.41	25.02	25.02	0.0	295.2	0.000
10.	9.10	32.40	25.09	25.14	10.1	288.0	.029
20.	8.84	32.40	25.13	25.22	20.1	284.5	.058
30.	8.82	32.40	25.13	25.27	30.2	284.6	.087
50.	8.77	32.40	25.14	25.37	50.3	284.3	.144
75.	7.94	32.51	25.35	25.70	75.4	264.1	.213
100.	7.57	33.09	25.86	26.32	100.6	216.5	.273
125.	7.40	33.48	26.19	26.77	125.8	185.2	.324
150.	7.34	33.76	26.41	27.11	151.0	164.6	.368
175.	7.31	33.88	26.52	27.33	176.2	155.3	.408
200.	6.99	33.93	26.60	27.53	201.4	147.6	.446
225.	6.80	33.97	26.65	27.70	226.6	142.8	.483
250.	6.51	33.96	26.68	27.85	251.8	140.1	.519
300.	6.14	33.98	26.75	28.15	302.2	134.3	.588
400.	5.25	34.03	26.90	28.77	403.1	120.6	.716
500.	4.82	34.11	27.01	29.35	504.0	111.1	.833
600.	4.48	34.19	27.11	29.92	605.0	101.7	.941
700.	4.20	34.26	27.20	30.48	706.1	94.3	1.040
800.	3.99	34.31	27.26	31.01	807.2	88.9	1.133
1000.	3.47	34.38	27.37	32.06	1009.6	79.1	1.303
1200.	3.04	34.45	27.47	33.09	1212.2	70.4	1.454
1500.	2.45	34.51	27.56	34.60	1516.5	61.3	1.655

STATION 98

TIME: 0309 DATE: 11-IV-58 LAT: 48° 39' N LONG: 126° 51' W SOUNDING: 1100 fms.
 WEATHER: 03 WIND: Dir. Light airs AIR TEMP: Dry 55° Wet 50° BARO: 1030.8 mb.
 CLOUD: Type Sc Amt 10 SEA: calm SWELL: 190° - 2 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	9.33*	32.411*	25.06	4870.0	
5.	9.26	32.411	25.07	4869.4	0.588
20.	9.12	32.411	25.10	4868.6	.599
30.	9.08	32.412	25.10	4868.7	.590
50.	9.06	32.411	25.11	4869.6	.589
75.	8.38	32.554	25.32	4863.2	.566
100.	7.44	33.062	25.86	4854.7	.490
125.	7.20	33.378	26.14	4854.4	.416
150.	7.12	33.647	26.36	4855.8	.339
175.	7.26	33.832	26.48	4859.8	.266
200.	6.79	33.869	26.58	4855.4	.241
225.	6.54	33.904	26.64	4853.8	.236
250.	6.32	33.918	26.68	4852.4	.234
300.	5.84	33.955	26.77	4849.2	.188
392.	5.10	33.984	26.88	4844.9	.140
490.	4.75	34.067	26.99	4846.3	.089
603.	4.40	34.174	27.11	4848.6	.052
784.	3.96	34.297	27.25	4853.8	.036
890.	3.64	34.344	27.32	4855.8	.031
980.	3.42	34.385	27.38	4858.3	.033
1077.	3.18	34.420	27.43	4860.8	.036
1273.	2.83	34.476	27.50	4867.7	.051

STATION 98

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	9.33	32.41	25.06	25.06	0.0	290.6	0.000
10.	9.20	32.41	25.08	25.13	10.1	288.9	.029
20.	9.12	32.41	25.10	25.19	20.1	287.8	.058
30.	9.08	32.41	25.10	25.24	30.2	287.3	.087
50.	9.06	32.41	25.11	25.34	50.3	287.4	.145
75.	8.38	32.55	25.32	25.67	75.4	267.3	.215
100.	7.44	33.06	25.86	26.32	100.6	216.8	.276
125.	7.20	33.38	26.14	26.72	125.8	190.4	.327
150.	7.12	33.65	26.36	27.05	151.0	169.7	.372
175.	7.26	33.83	26.48	27.30	176.2	158.2	.413
200.	6.79	33.87	26.58	27.51	201.3	149.6	.452
225.	6.54	33.90	26.64	27.68	226.5	144.0	.489
250.	6.32	33.92	26.68	27.84	251.8	140.5	.525
300.	5.84	33.95	26.77	28.17	302.2	132.3	.594
400.	5.05	33.99	26.89	28.76	403.1	121.5	.722
500.	4.72	34.08	27.00	29.34	504.0	112.1	.840
600.	4.41	34.17	27.11	29.91	605.0	102.4	.948
700.	4.15	34.25	27.19	30.47	706.1	94.6	1.048
800.	3.91	34.31	27.26	31.01	807.2	88.5	1.140
1000.	3.37	34.39	27.39	32.08	1009.6	77.4	1.308
1200.	2.94	34.46	27.48	33.11	1212.2	69.1	1.457

STATION 99

TIME: 0544 DATE: 11-IV-58 LAT: 48° 35' W LONG: 126° 21' W SOUNDING: 575 fms.
 WEATHER: 01 WIND: Dir. 160° Speed 5 AIR TEMP: Dry 52° Wet 49° BARO: 1032.5 mb.
 CLOUD: Type Sc Amt 2 SEA: 160° - 1 SWELL: 9 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	10.90	32.484	24.86	4889.1	0.564
5.	10.66*	32.507	24.92	4886.6	.585
20.	10.26	32.517	24.99	4882.8	.574
30.	10.27	32.516	24.99	4883.5	.531
50.	10.26	32.592	25.05	4884.9	.512
75.	10.18	32.834	25.25	4886.3	.477
100.	8.47	33.286	25.88	4868.6	.420
125.	8.17	33.452	26.06	4867.0	.379
150.	8.04	33.667	26.24	4867.6	.291
175.	7.68	33.770	26.38	4865.0	.273
200.	7.49	33.876	26.49	4864.4	.249
225.	7.31	33.900	26.53	4863.7	.226
250.	6.96	33.932	26.60	4860.8	.205
297.	6.03	33.932	26.73	4851.5	.223
379.	5.35	33.968	26.84	4847.4	.170
474.	4.80	34.010	26.94	4845.8	.129
575.	4.58	34.131	27.06	4849.3	.077
758.	4.00	34.283	27.24	4852.7	.039
948.	3.43	34.392	27.38	4856.5	.043
1000.	3.28*	34.413*	27.41	4857.6	

STATION 99

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	10.90	32.48	24.86	24.86	0.0	310.2	0.000
10.	10.47	32.52	24.96	25.01	10.1	300.7	.031
20.	10.26	32.52	24.99	25.09	20.1	297.7	.061
30.	10.27	32.52	24.99	25.13	30.2	298.1	.091
50.	10.26	32.59	25.05	25.28	50.3	292.7	.150
75.	10.18	32.83	25.25	25.60	75.4	274.0	.221
100.	8.47	33.29	25.88	26.34	100.6	214.7	.283
125.	8.17	33.45	26.06	26.63	125.8	198.4	.335
150.	8.04	33.67	26.24	26.94	150.9	181.0	.383
175.	7.68	33.77	26.38	27.19	176.1	168.7	.427
200.	7.49	33.88	26.49	27.41	201.3	158.5	.468
225.	7.31	33.90	26.53	27.57	226.5	154.7	.507
250.	6.96	33.93	26.60	27.76	251.7	147.9	.546
300.	5.98	33.93	26.73	28.13	302.2	135.8	.617
400.	5.21	33.98	26.86	28.73	403.0	124.2	.748
500.	4.71	34.03	26.96	29.30	504.0	115.1	.869
600.	4.51	34.16	27.08	29.89	605.0	104.7	.980
700.	4.21	34.24	27.19	30.46	706.1	95.6	1.081
800.	3.87	34.31	27.27	31.02	807.2	87.6	1.174
1000.	3.28	34.41	27.41	32.10	1009.6	74.9	1.338

STATION 100

TIME: 0817 DATE: 11-IV-58 LAT: 48° 39' N LONG: 126° 10' W SOUNDING: 102 fms.
 WEATHER: 01 WIND: Dir. 200° Speed 8 AIR TEMP: Dry 53° Wet 49° BARO: 1032.9 mb.
 CLOUD: Type Cu Amt 1 SEA: 200° - 1 SWELL: 240° - 3 SECCHI DISC:

OBSERVED DATA

Depth m.	Temp. °C	S ‰	σ_t	S/V ft/sec.	O ₂ mg.at/l.
0.	10.58*	32.455*	24.89	4885.3	
5.	10.44	32.486	24.94	4884.0	0.592
20.	10.21	32.543	25.02	4882.3	.589
30.	10.22	32.550	25.03	4883.1	.580
50.	10.18	32.580	25.06	4883.9	.531
75.	10.22	32.729	25.17	4886.4	.530
100.	9.72	33.133	25.56	4883.4	.432
125.	9.01	33.315	25.82	4876.9	.378
150.	8.68	33.388	25.93	4874.6	.361
175.	7.86	33.659	26.26	4866.8	.284

STATION 100

INTERPOLATED DATA

Depth m.	Temp. °C	S ‰	σ_t	$\sigma_{s,t,p}$	P	$10^5 \delta$	ΔD
0.	10.58	32.45	24.89	24.89	0.0	307.1	0.000
10.	10.33	32.51	24.98	25.02	10.1	299.1	.030
20.	10.21	32.54	25.02	25.11	20.1	294.9	.060
30.	10.22	32.55	25.03	25.16	30.2	294.8	.090
50.	10.18	32.58	25.06	25.28	50.3	292.3	.149
75.	10.22	32.73	25.17	25.51	75.4	282.4	.221
100.	9.72	33.13	25.56	26.02	100.6	245.0	.288
125.	9.01	33.31	25.82	26.39	125.8	221.0	.346
150.	8.68	33.39	25.93	26.62	150.9	211.1	.401
175.	7.86	33.66	26.26	27.07	176.1	179.4	.450

NORTH PACIFIC SURVEY
March 11 to April 10, 1958

SECTION II

Bathythermograms

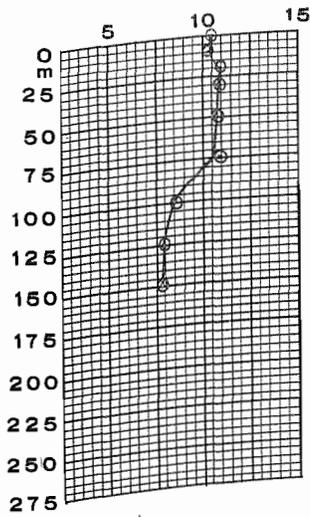
Bathythermograms:

The bathythermograms have been drawn on a standard grid which was pre-printed on the multilith masters. The smoked slide and the calibration grid for the particular bathythermograph used to make the trace were superimposed in an adjustable holder and viewed in a 35 mm. slide projector. A BT slide taken at the same time as an oceanographic station was fitted into the adjustable holder and the trace was aligned on the grid using the 200-meter temperature observed by reversing thermometer. This temperature adjustment was locked in position, then the "between-station" slide was placed in the holder at this same fixed temperature adjustment. A new temperature adjustment setting was made for the next oceanographic station BT slide, and the same procedure as described above was followed throughout the extent of the bathythermogram series.

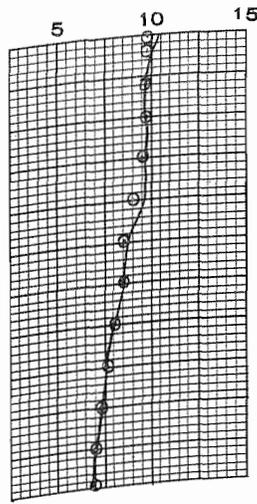
The time-date group and oceanographic station number are noted below each bathythermogram observed whilst on station. Temperatures observed by reversing thermometer are plotted on these station bathythermograms.

Bathythermograms observed between stations are identified by a time-date group and position co-ordinates. The salinity value of a surface sample taken at the time of these observations is also given.

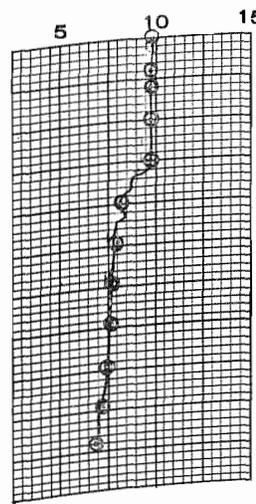
Bathythermograms



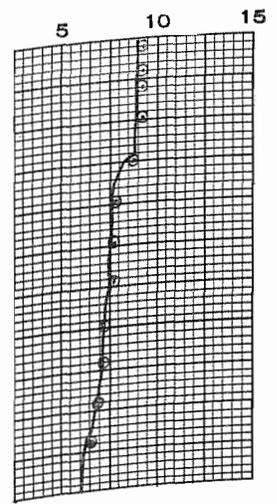
1825/11-III-58
Station 1



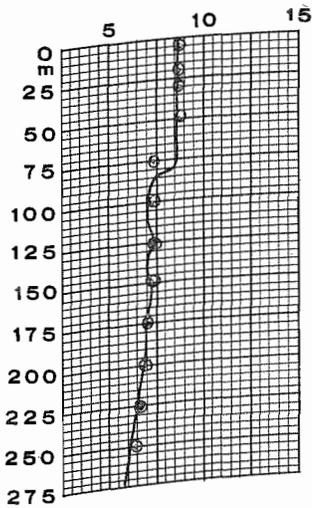
2128/11-III-58
Station 2



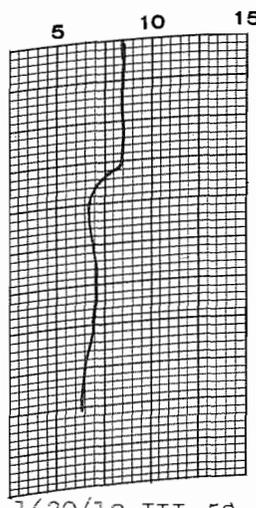
0130/12-III-58
Station 3



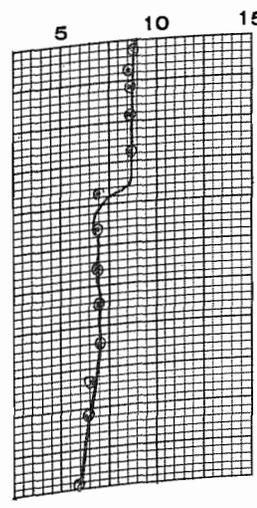
0600/12-III-58
Station 4



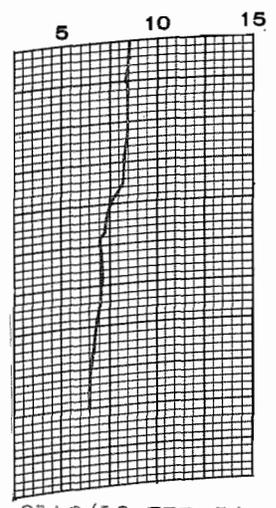
1410/12-III-58
Station 5



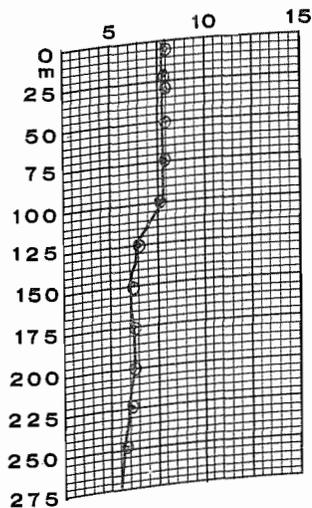
1630/12-III-58
47° 36' N
128° 03' W
S.S. 32.45



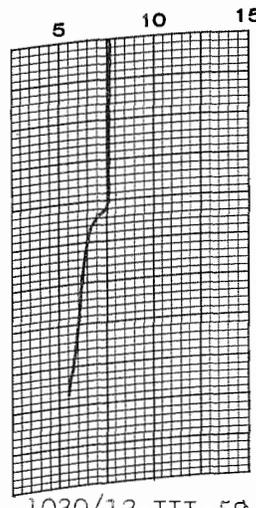
2215/12-III-58
Station 6



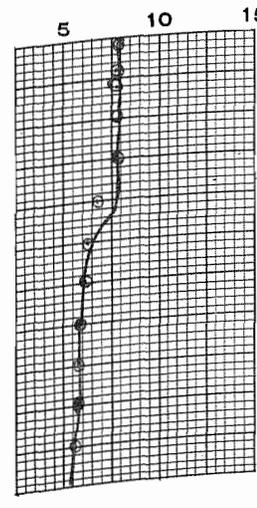
0149/13-III-58
47° 45' N
130° 07' W
S.S. 32.43



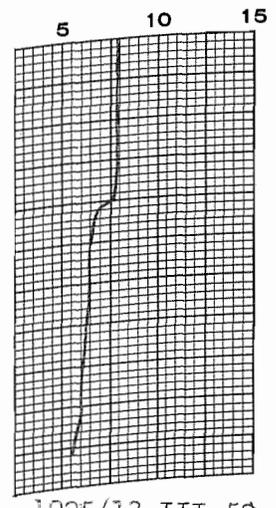
0610/13-III-58
Station 7



1030/13-III-58
47° 53' N
132° 00' W
S.S. 32.46

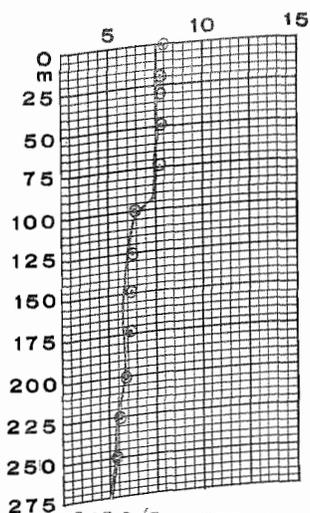


1546/13-III-58
Station 8

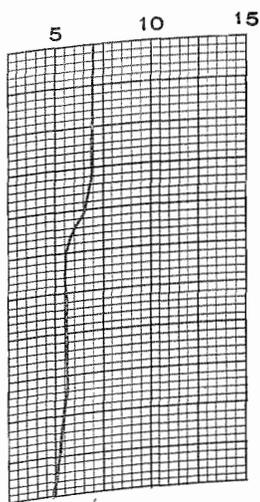


1925/13-III-58
47° 58' N
133° 45' W
S.S. 32.49

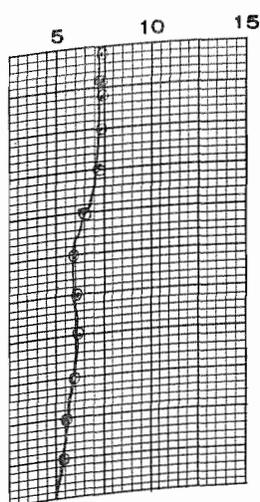
Bathythermograms



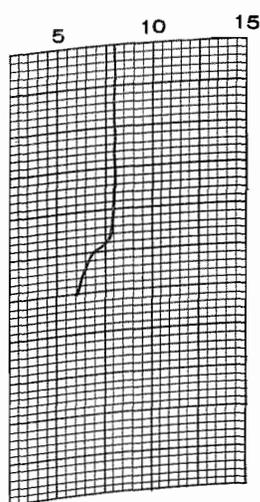
0210/14-III-58
Station 9



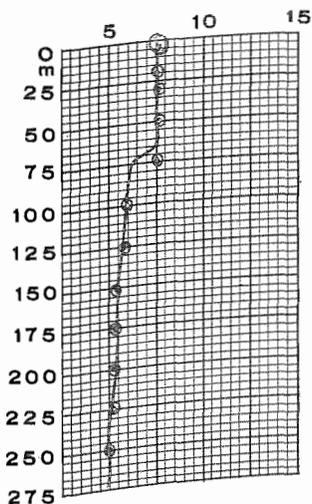
0440/14-III-58
48° 17' N
134° 06' W
S.S. 32.53



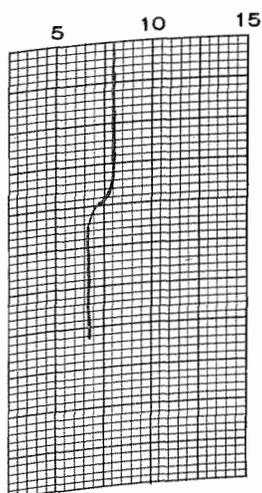
0840/14-III-58
Station 10



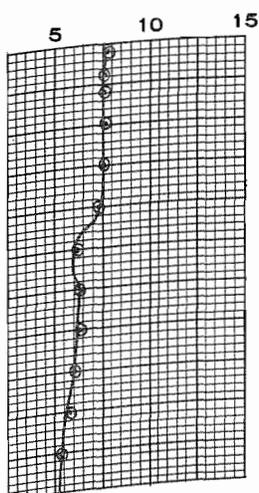
1235/14-III-58
48° 46' N
132° 45' W
S.S. 32.51



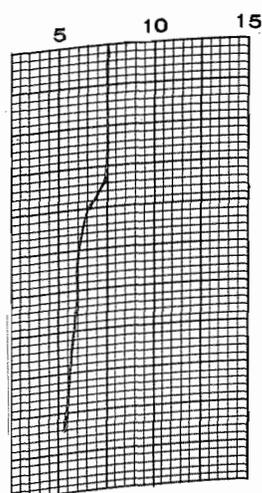
1630/14-III-58
Station 11



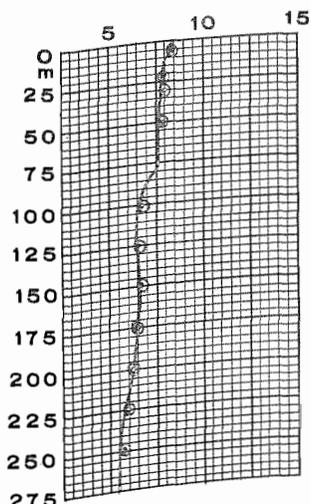
2014/14-III-58
49° 12' N
131° 30' W
S.S. 32.48



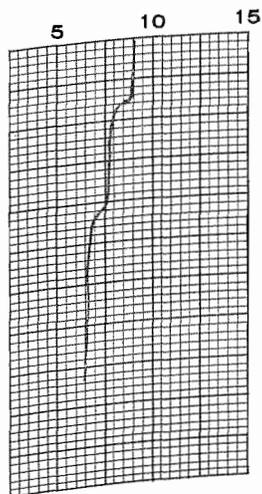
0050/15-III-58
Station 12



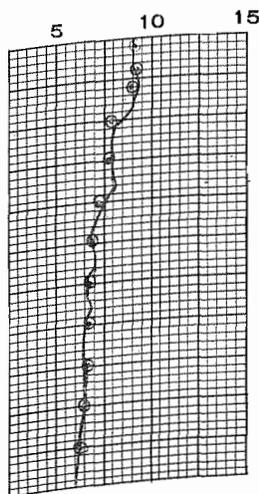
0300/15-III-58
49° 43' N
130° 09' W
S.S. 32.47



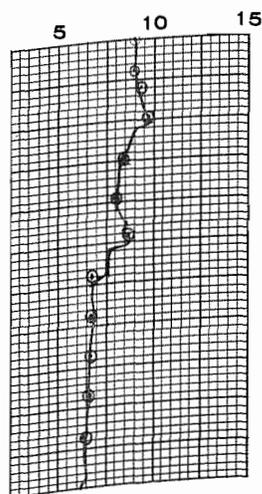
0700/15-III-58
Station 13



0850/15-III-58
50° 05' N
129° 10' W
S.S. 31.75

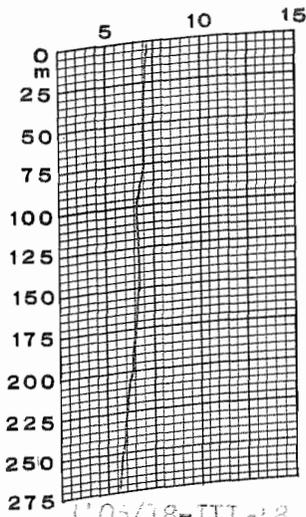


1304/15-III-58
Station 14

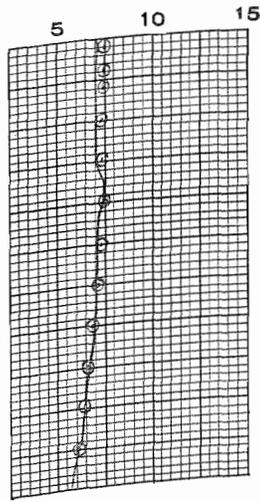


1400/15-III-58
Station 15

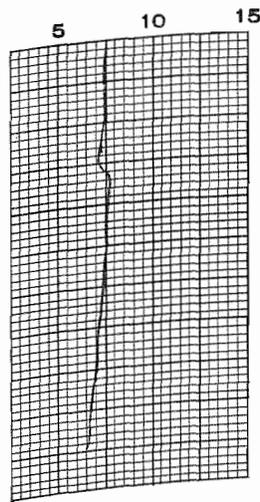
Bathythermograms



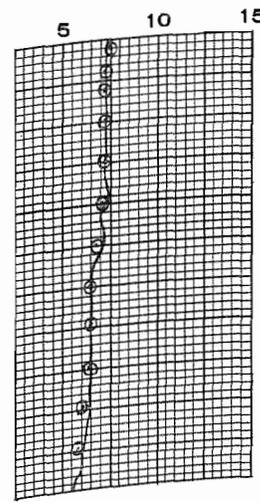
1106/18-III-58
 51° 26' N
 133° 01' W
 S.S. 32.52



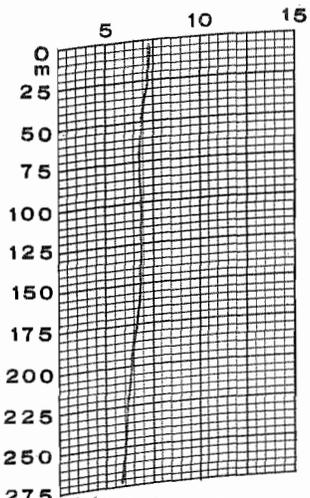
1737/18-III-58
 Station 28



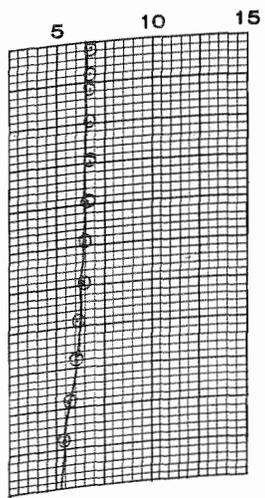
2307/18-III-58
 51° 30' N
 134° 12' W
 S.S. 32.50



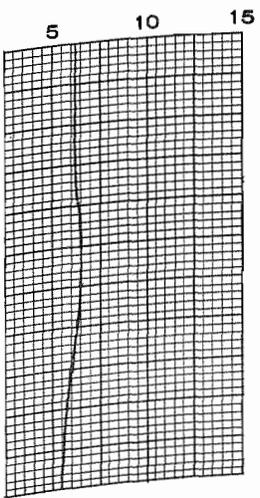
0230/19-III-58
 Station 29



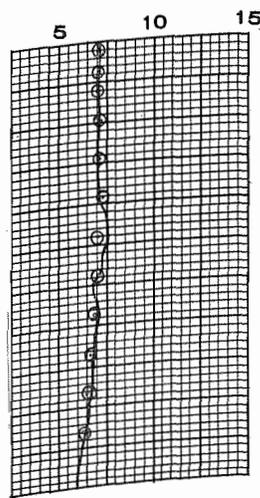
0615/19-III-58
 51° 30' N
 136° 12' W



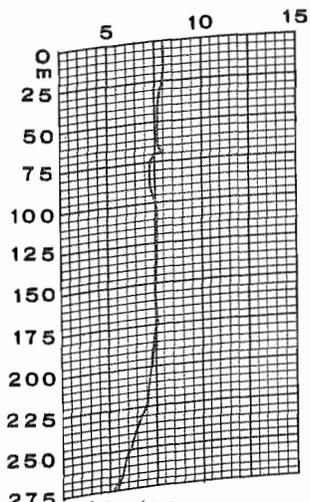
1106/19-III-58
 Station 30



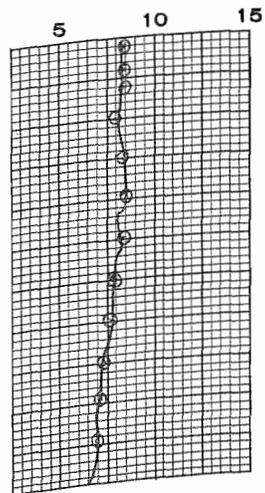
1450/19-III-58
 51° 49' N
 136° 17' W



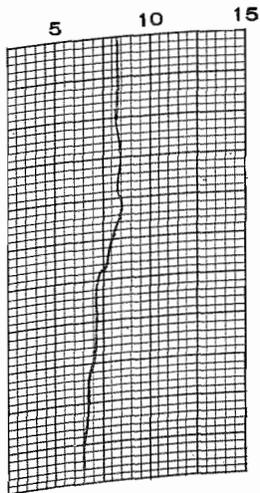
1850/19-III-58
 Station 31



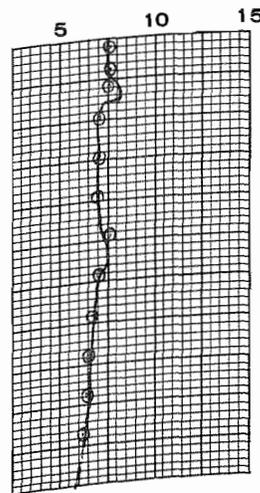
2335/19-III-58
 52° 32' N
 134° 50' W



0405/20-III-58
 Station 32

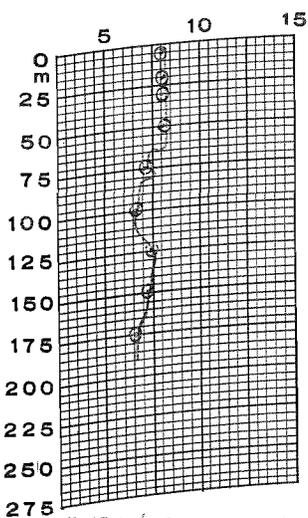


0650/20-III-58
 53° 04' N
 133° 44' W

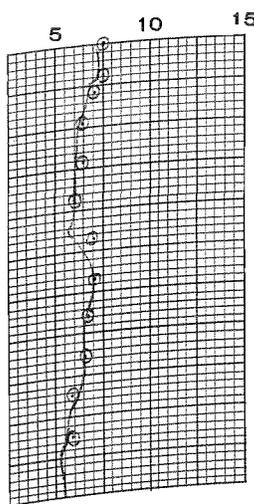


0945/20-III-58
 Station 33

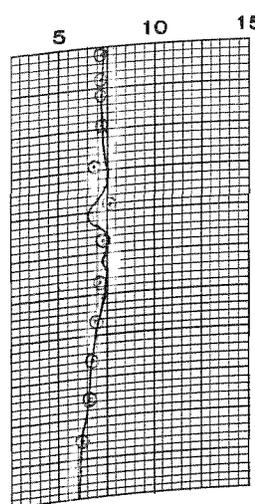
Bathythermograms



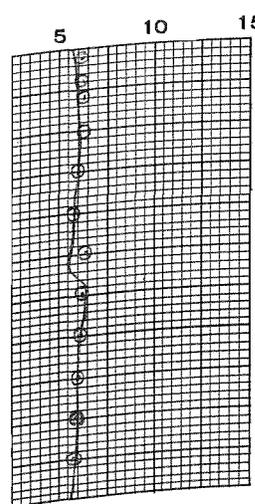
1815/20-III-58
Station 36



1915/20-III-58
Station 37

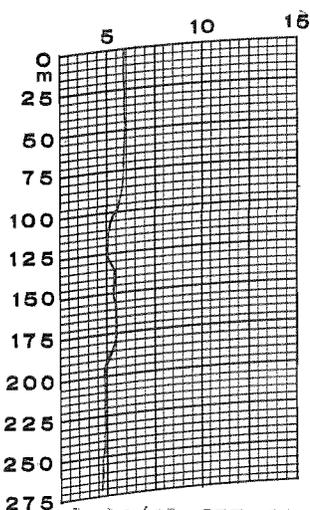


2310/20-III-58
Station 38

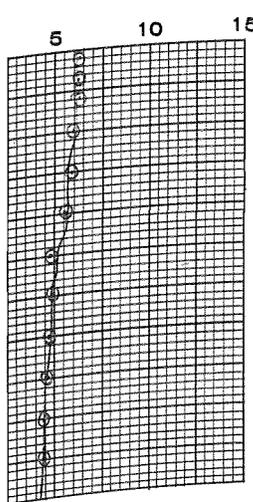


1235/21-III-58
Station 40

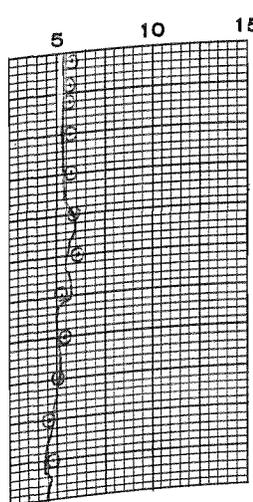
cf. page 212 for 1300 and 1400/20-III-58 bathythermograms.



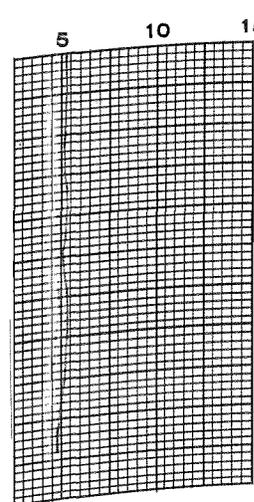
1452/21-III-58
54° 00' N
137° 20' W
S.S. 32.75



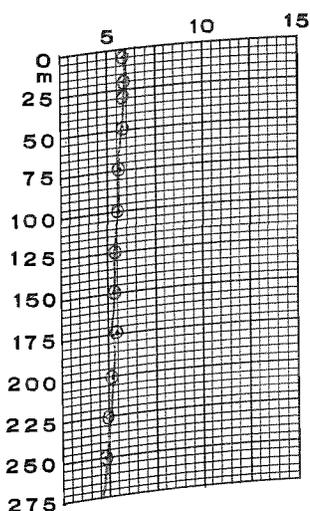
1840/21-III-58
Station 41



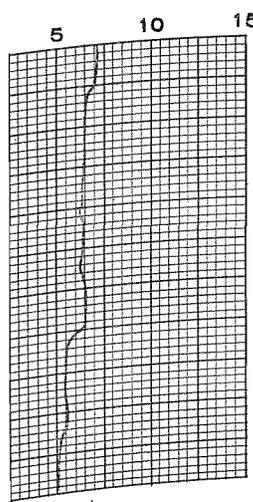
0215/22-III-58
Station 42



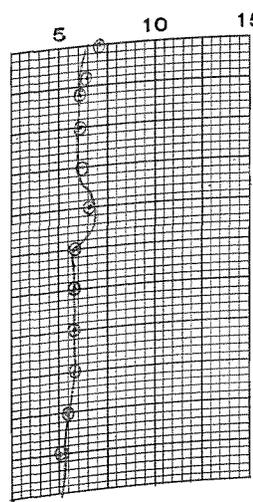
0445/22-III-58
54° 59' N
137° 24' W
S.S. 32.64



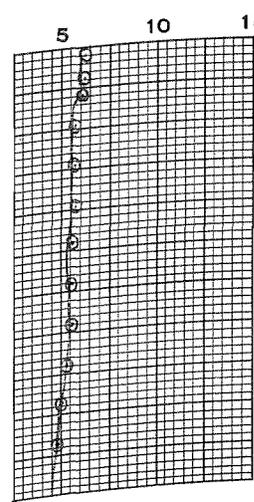
0740/22-III-58
Station 43



1030/22-III-58
55° 00' N
136° 14' W
S.S. 32.50

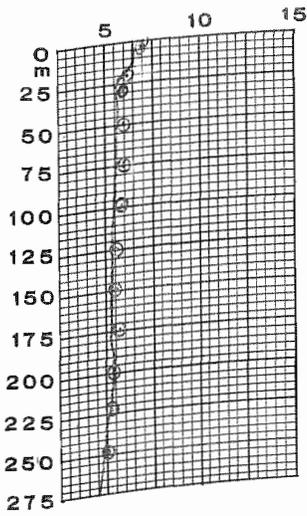


1345/22-III-58
Station 44

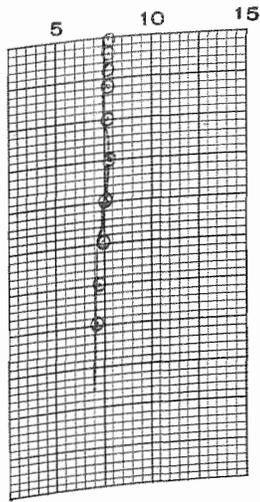


1900/22-III-58
Station 45

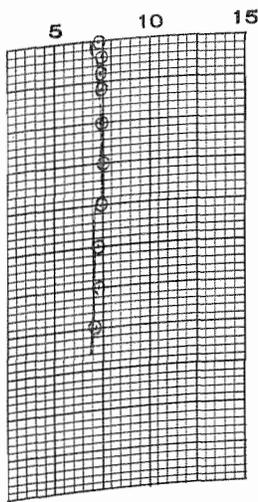
Bathymetric Diagrams



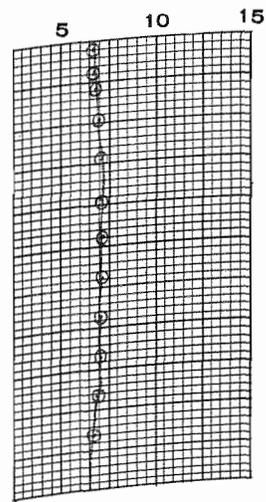
2135/22-III-58
Station 46



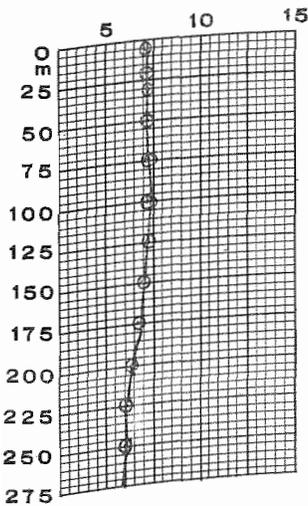
2320/22-III-58
Station 47



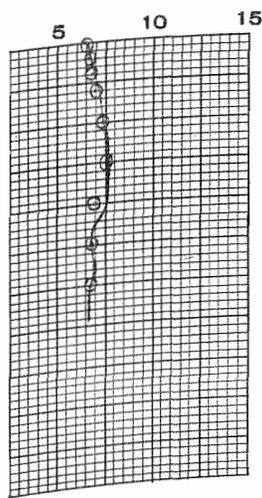
0200/23-III-58
Station 48



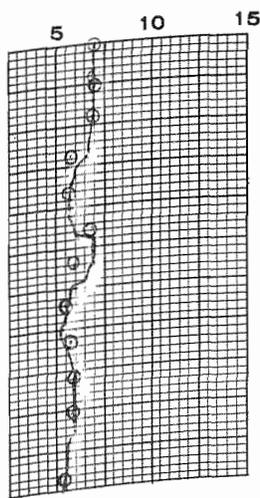
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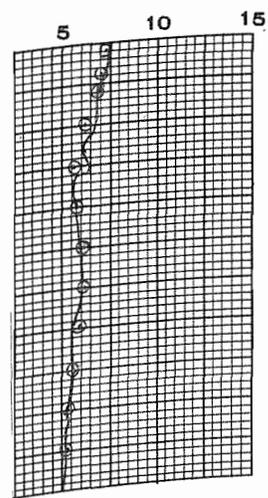
0600/23-III-58
Station 50



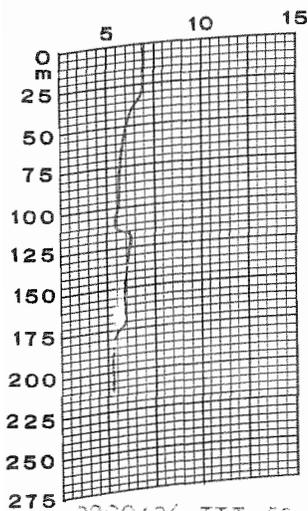
1510/26-III-58
Station 51



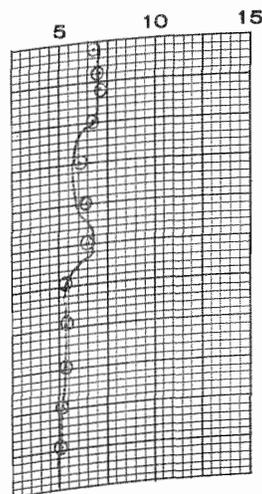
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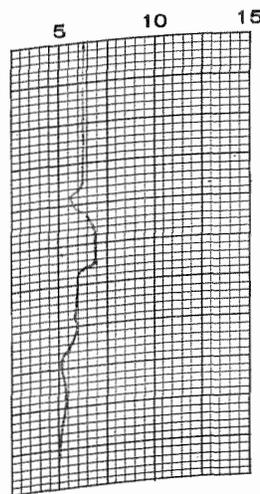
2030/26-III-58
Station 53



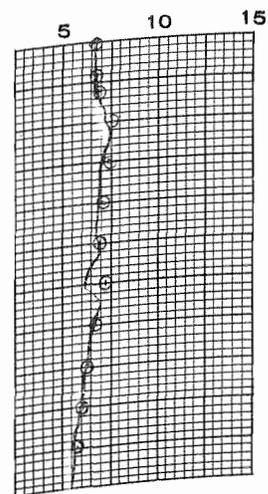
2300/26-III-58
56° 31' N
137° 00' W
S.S. 32.35



0130/27-III-58
Station 54

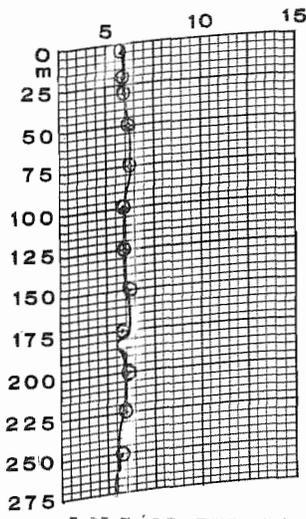


0400/27-III-58
56° 30' N
138° 21' W
S.S. 32.34

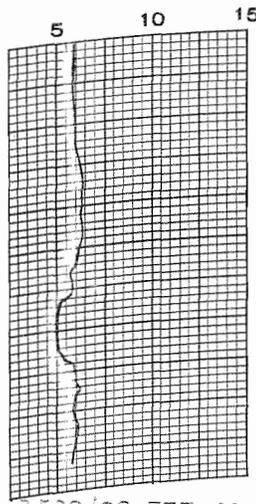


0717/27-III-58
Station 55

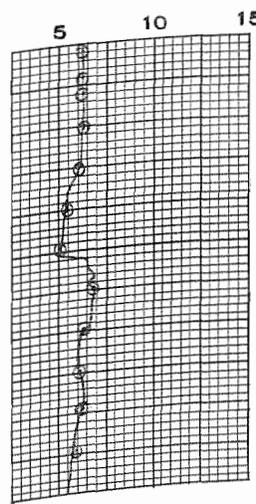
Bathymetry Diagrams



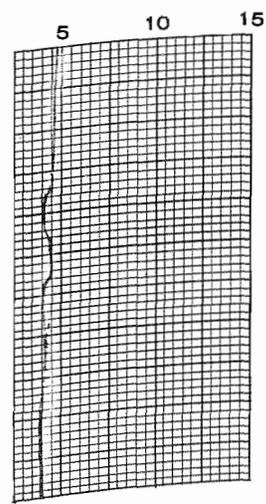
1315/29-III-58
Station 67



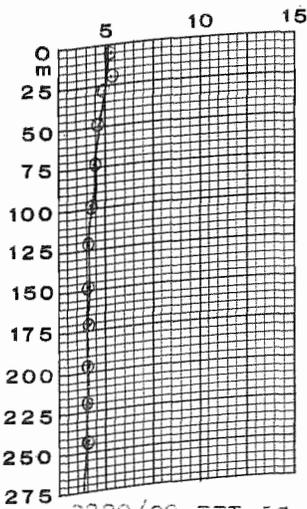
1530/29-III-58
58° 27' N
143° 09' W
S.S. 32.35



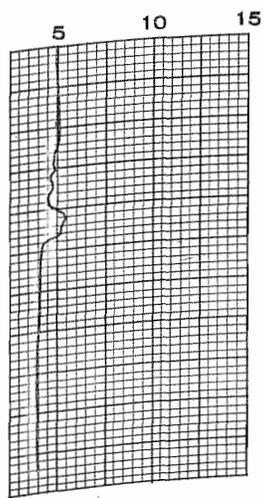
1833/29-III-58
Station 68



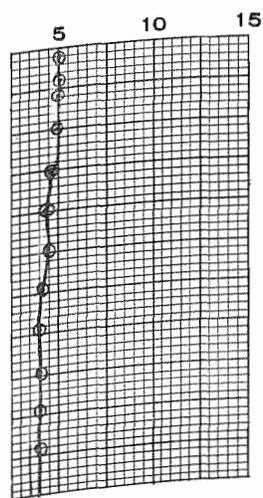
2130/29-III-58
57° 53' N
143° 55' W
S.S. 32.72



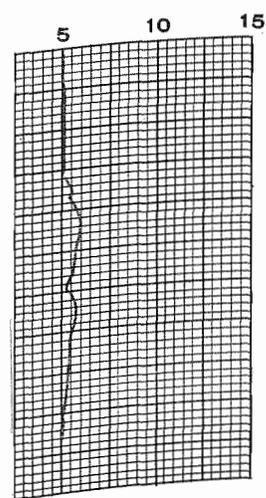
2330/29-III-58
Station 69



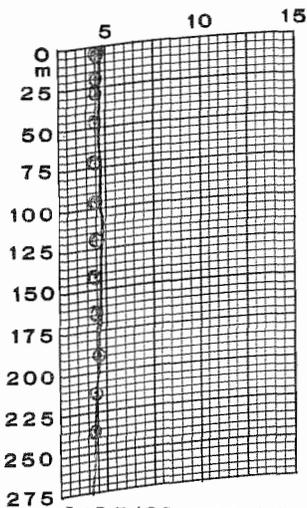
0250/30-III-58
57° 20' N
144° 45' W
S.S. 32.66



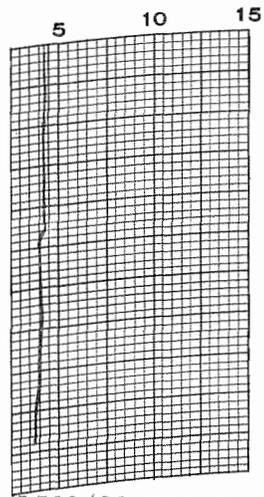
0550/30-III-58
Station 70



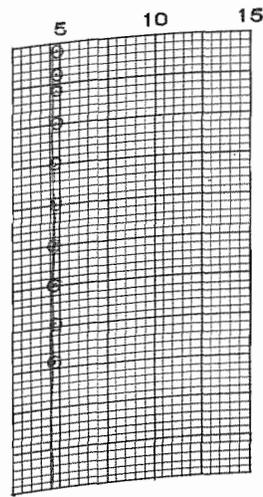
0845/30-III-58
50° 06' N
145° 23' W
S.S. 32.66



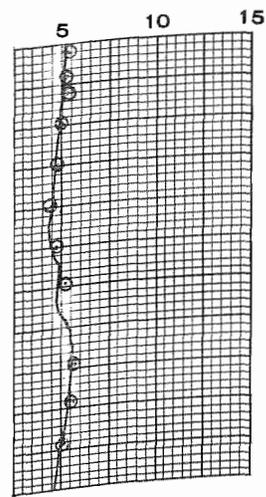
1215/30-III-58
Station 71



1500/30-III-58
57° 14' N
146° 38' W
S.S. 32.71

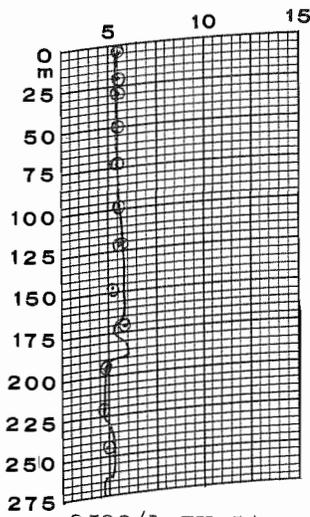


2130/31-III-58
Station 74

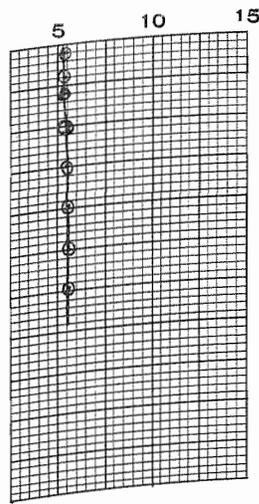


2400/31-III-58
Station 75

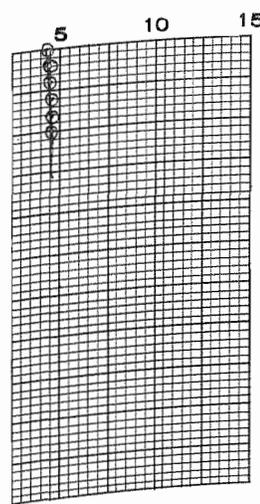
Bathythermograms



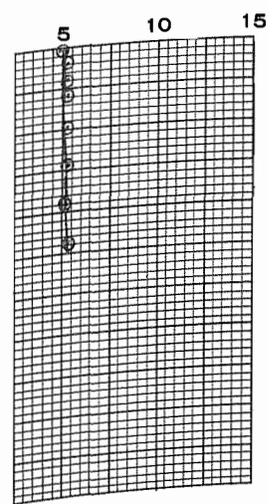
0500/1-IV-58
Station 76



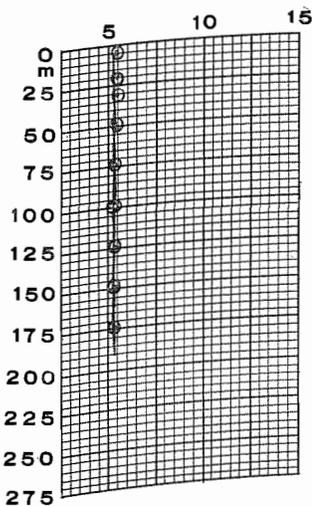
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Station 77



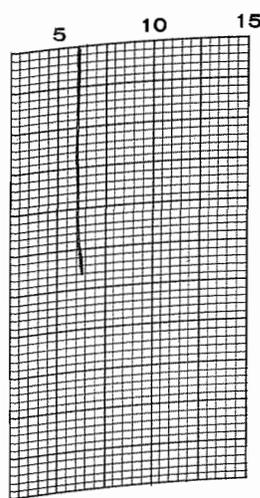
1220/1-IV-58
Station 78



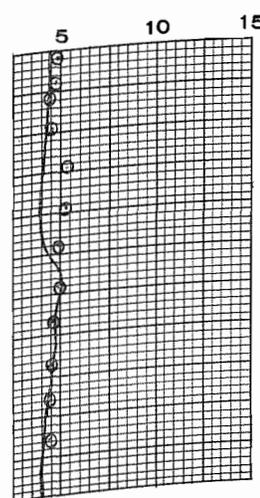
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Station 79



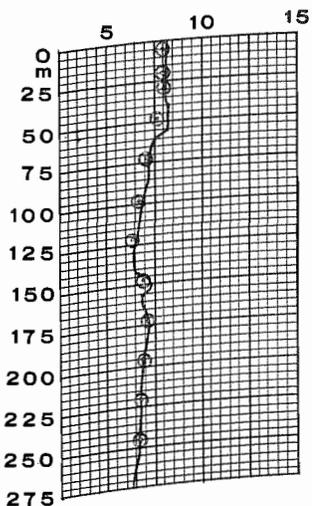
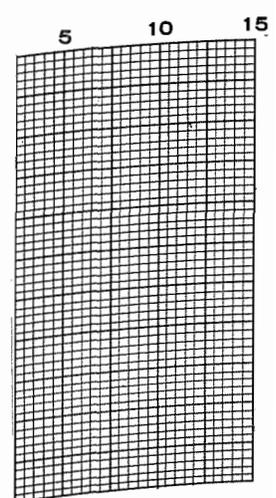
1530/4-IV-58
Station 80



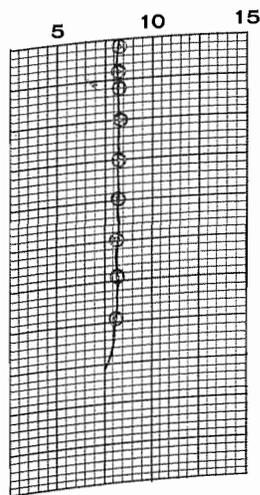
1730/4-IV-58
55° 42' N
154° 35' W
S.S. 32.50



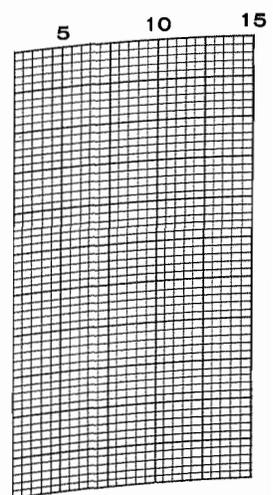
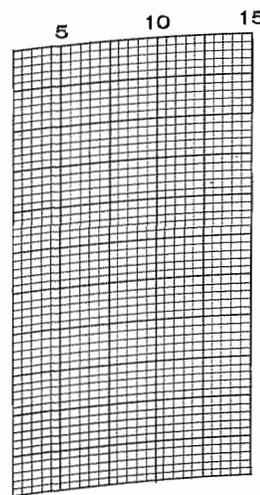
2040/4-IV-58
Station 81



1300/20-III-58
Station 34



1400/20-III-58
Station 35



N.B. No BT observations after 4-IV-58 due to loss of instruments.

NORTH PACIFIC SURVEY
March 11 to April 10, 1958

SECTION III

Plankton Data Record

Plankton Analyses:

Organisms larger than 1 1/2 inches in length have been excluded from the samples before determination of the weight. Large tunicates, fish, medusae, ctenophora, salpa and coelenterata have been omitted from the record of the plankton constituents. When a group of organisms represents less than 1% of the total wet weight of the sample, they are reported as a trace (tr). Those constituents listed in the miscellaneous column appear in trace amounts only. The weight of the individual constituents in each sample has been converted from wet weight per haul to wet weight per 1,000 cubic meters. Total wet weight value is the sum of the phytoplankton and zooplankton weights, and does not include the weight of eggs or larvae listed in the miscellaneous column.

Explanation of abbreviations:

tr	-	trace	Oik	-	Oikopleura
Ost	-	Ostracod	larv	-	larvae
Ann	-	Annelida			

Plankton Data Record

Station Number	Total Wet Weight g _w /1000 m ³	Phytoplankton	Zooplankton	Gastropoda	Amphipoda	Copepoda	Decapoda	Euphausiacea	Chaetognatha	Miscellaneous
1	17.6		17.6	tr.	tr.	7.4	tr.		10.2	Ann, Ost Oik, eggs
2	66.2		66.2	tr.	1.4	38.4	tr.		19.9	Ann, Oik 0.66 Squid larv 2 Fish larv eggs
3	105.8		105.8	tr.	tr.	56.4	tr.	tr.	35.3	Ann 5.88 Ost, Oik 5.88 eggs 2 Fish larv
5	52.5		52.5	tr.	tr.	29.2	tr.		23.4	Ann, Ost Oik, eggs 2 Fish larv
6	0.2		0.2			0.2		tr.	tr.	Eggs
7	41.6		41.6	tr.	tr.	29.6			11.6	Ann, eggs
8	50.7	11.9	38.8	tr.	tr.	26.3		tr.	11.9	Ann, Ost 2 Fish larv
9	109.0	28.7	80.3		tr.	74.5	tr.	tr.	5.7	Ost
10	34.0	1.7	32.3			25.5		tr.	6.8	Ann

Flankton Data Record

Station Number	Total Wet Weight gm/1000 m ³	Phytoplankton	Zooplankton	Gastropoda	Amphipoda	Copepoda	Decapoda	Euphausiacea	Chaetognatha	Miscellaneous
11	35.3	4.7	30.6		tr.	28.2			2.4	Ann, eggs
12	0.4		0.4			0.4				Eggs
13	35.5		35.5	tr.		21.7	tr.		13.8	Ost
14	43.7		43.7		tr.	14.4	tr.	17.5	10.9	Ost, Oik Eggs 0.43
15	71.7		71.7	tr.	tr.	48.3	tr.	tr.	22.7	Ann, Ost Oik, eggs
16	114.2		114.2	tr.	tr.	67.2	tr.	tr.	47.0	Ann, eggs
17	65.9	tr.	65.8	tr.	tr.	50.4	7.3	1.5	11.0	Ost, Oik Eggs 2.19 1 Fish larv
18	30.0	4.5	25.5	tr.	0.6	22.5	0.9		1.5	
				Depth of haul - 125 meters						
19	17.8		17.8		tr.	6.2	7.1		3.6	
				Depth of haul - 70 meters						
20	71.2	64.1	7.1	tr.		3.6	2.9		0.7	
				Depth of haul - 50 meters						

Plankton Data Record

Station Number	Total wet weight gm/1000 m ³	Phytoplankton	Zooplankton	Gastropoda	Amphipoda	Copepoda	Decapoda	Euphausiacea	Chaetognatha	Miscellaneous
21	45.4		45.4	tr.	6.8		36.3	2.3		
22	0.4		0.4	tr.	tr.	0.2	tr.	tr.	0.2	Oik
23	0.4		0.4	tr.	tr.	0.1	tr.	tr.	0.3	Oik
24	0.3		0.3	tr.	tr.	0.2		tr.	0.1	Oik 1 Fish larv
25	0.1		0.1	tr.	tr.	0.1	tr.	tr.	tr.	Oik
26	47.0		47.0	0.5	2.4	15.5	2.4	21.2	4.7	Ann, Ost Oik, eggs 1 Fish larv
27	23.5		23.5	1.2	tr.	11.7		9.4	1.2	Ann, Ost 2 Fish larv
28	9.4		9.4	0.7		7.7		tr.	0.7	Ann, Oik 0.13 Eggs 0.13
29	0.2		0.2	tr.		0.2	tr.	tr.	tr.	Ann, Oik Eggs
30	13.0		13.0	tr.	tr.	0.7	11.7	0.5	0.2	
31	15.8		15.8	1.2		10.2		tr.	2.4	Ann, eggs 0.48

Flankton Data Record

Station Number	Total Wet Weight gm/1000 m ³	Phytoplankton	Zooplankton	Gastropoda	Amphipoda	Copepoda	Decapoda	Euphausiacea	Chaetognatha	Miscellaneous
32	11.8		11.8	tr.	tr.	3.0	tr.	2.1	6.2	Ann, Oik Eggs 2.77 2 Fish larv
33	27.9		27.9	2.9	0.6	21.2		tr.	2.9	Ann, Ost, eggs 1 Fish larv
34	30.3		30.3	1.3	tr.	25.2			3.2	Ann 0.63 Eggs
35	24.7		24.7	1.8		10.6		tr.	7.1	Oik 5.29 Eggs, 2 Fish 2 Fish larv
36	9.2		9.2	0.5	tr.	6.5			2.3	Ann, eggs
37	8.8		8.8	0.9		6.2		tr.	1.8	Ost, eggs
38	9.2		9.2	tr.	tr.	8.8	tr.		0.3	Ost, Oik Eggs
39	85.3		85.3	3.0	tr.	47.2	15.1	10.0	5.0	Ann 5.01, Ost Oik, eggs
40	28.3		28.3	tr.		27.1		tr.	0.6	Ann, Ost, Oik 1 Fish larv
41	9.3		9.3	0.1		8.8	tr.		0.2	Ost, Oik Eggs

Plankton Data Record

Station Number	Total Wet Weight gm/1000 m ³	Phytoplankton	Zooplankton	Gastropoda	Amphipoda	Copepoda	Decapoda	Euphausiacea	Chaetognatha	Miscellaneous
42	15.1		15.1	tr.	tr.	14.1			0.3	Ost, Oik Eggs
43	62.5		62.5	tr.	tr.	36.7		23.4	1.6	Ann, Ost 0.78 Oik 1 Fish larv
44	55.1		55.1	0.6		50.4		0.6	2.9	Ost, Oik Eggs 1 Fish larv
45	18.5		18.5	tr.		17.4			0.9	Ost, Oik
46	14.4		14.4	0.8		13.3			0.2	Ost, Oik
47	22.8		22.8	5.9	tr.	6.8			3.5	Ann, Oik Eggs
48	0.4		0.4	tr.		0.4			tr.	Oik
49	21.1		21.1	tr.	tr.	16.5		3.3	1.1	Ost, Oik 1 Fish larv
50	21.4		21.4	tr.	tr.	0.9	19.3	1.1		
51	17.9		17.9	0.9		10.7			2.4	Oik 1 Fish larv
52	0.4		0.4	tr.		0.4			tr.	Oik, eggs

Plankton Data Record

Station Number	Total Wet Weight L gm/1000 L ³	Phytoplankton	Zooplankton	Gastropoda	Amphipoda	Copepoda	Decapoda	Euphausiacea	Chaetognaths	Miscellaneous
53	14.9		14.9	2.6		12.8			0.2	Ost, Oik 1 Fish larv
54	0.3		0.3			0.3				Eggs
55	46.1		46.1	5.4	tr.	36.3		2.7	1.1	Ost, Oik Eggs 1 Squid larv
56	53.6		53.6	tr.	tr.	42.8		7.1	3.6	Ann, Ost Oik, eggs
57	28.7		28.7	0.3	tr.	22.1		tr.	3.0	Ann, Ost Eggs
58	50.8		50.8	5.1	tr.	33.0		10.2	2.5	Ann, Ost Oik
59	20.6		20.6	1.0	tr.	16.3		2.1	1.0	Ann, Ost Oik, eggs
60	56.3		56.3	3.1	tr.	40.7		6.3	6.3	Ann, Ost Oik, eggs 1 Fish larv
61	50.4		50.4	tr.		41.8		5.0	2.5	Ost, Oik
62	13.0		13.0	tr.		10.8		tr.	tr.	Ost, Oik, eggs 1 Fish larv

Depth of haul - 125 meters

Plankton Data Record

Station Number	Total Wet Weight gm/1000 m ³	Phytoplankton	Zooplankton							
				Gastropoda	Amphipoda	Copepoda	Decapoda	Euphausiacea	Chaetognatha	Miscellaneous
63	1.3		1.3			1.2			0.1	Ost, Oik 0.01
				Depth of haul - 45 meters						
64	13.6		13.6	tr.		12.9		tr.	0.7	Oik
65	16.3		16.3	tr.	0.9	14.4		0.4	0.4	Ann, Oik
66	28.6		28.6	2.9	tr.	18.6		5.7	0.6	Ann 0.28, Ost Oik 0.28
67	1.6		1.6	tr.	tr.	1.4	tr.	0.1	0.1	Ost, Oik 0.01 Eggs
68	81.0		81.0	tr.	tr.	67.7		tr.	9.5	Ann, Ost Oik 2.8, eggs
69	0.4		0.4	0.1		0.3		tr.	tr.	Ost
70	18.4		18.4	tr.	0.9	13.1		3.7	0.2	Ann 0.38 Ost, Oik
71	20.6		20.6		tr.	0.2		20.4	tr.	Ann
74	22.3		22.3	tr.	tr.	21.3	tr.	tr.	0.2	Ost, Oik 0.49
75	0.6		0.6	tr.	tr.	0.6	tr.		tr.	Ost, Oik
77	28.9		28.9	tr.	0.4	28.2		tr.	tr.	Ann, Ost Oik, eggs