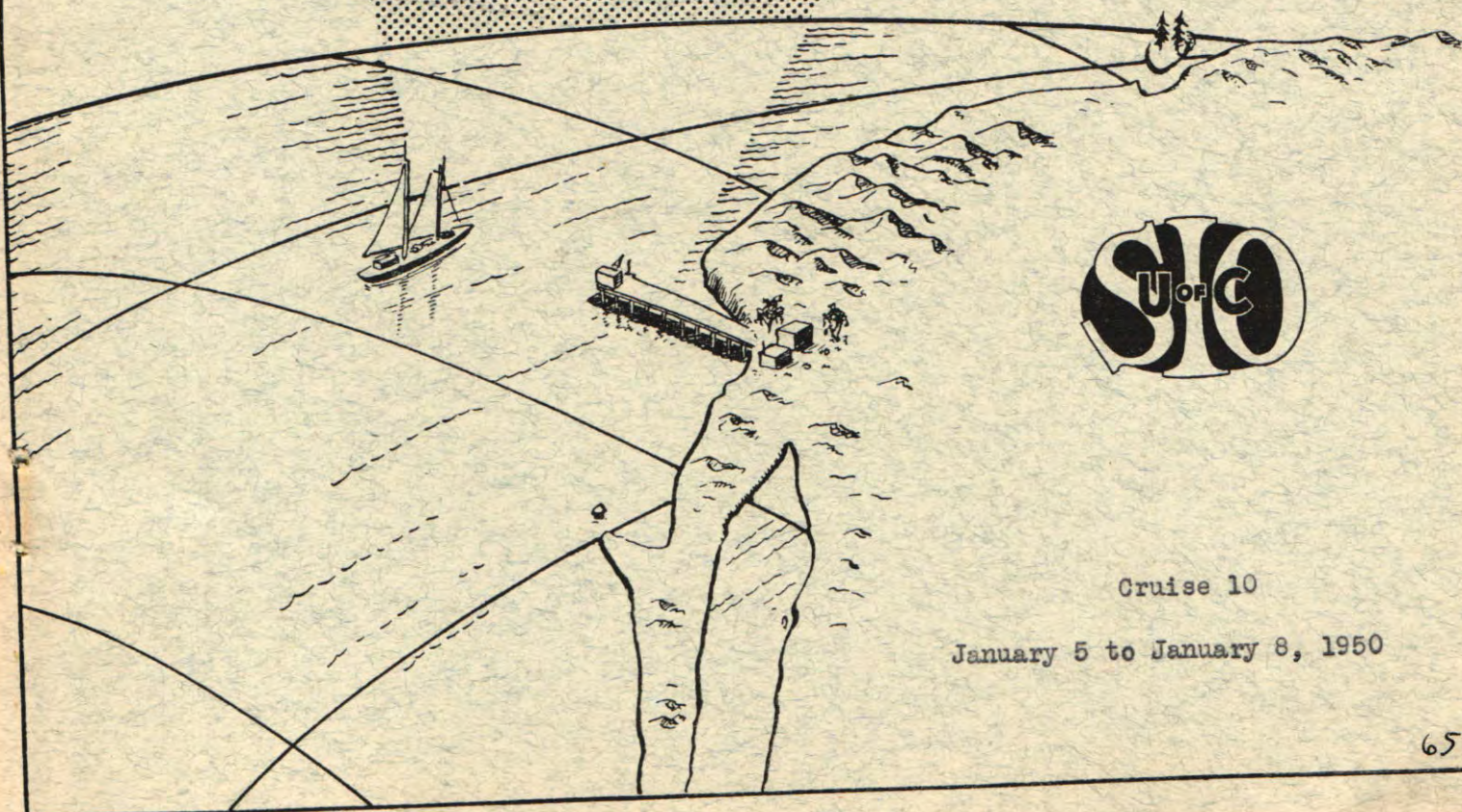


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UNIVERSITY OF CALIFORNIA
SCRIPPS INSTITUTION OF OCEANOGRAPHY

PHYSICAL AND CHEMICAL DATA

MARINE LIFE RESEARCH PROGRAM
DIVISION III, PHYSICAL OCEANOGRAPHY
DIVISION OF CHEMICAL OCEANOGRAPHY



Cruise 10

January 5 to January 8, 1950

UNIVERSITY OF CALIFORNIA
SCRIPPS INSTITUTION OF OCEANOGRAPHY

PHYSICAL AND CHEMICAL DATA

CRUISE 10 - January 5 to January 8, 1950

MARINE LIFE RESEARCH PROGRAM

Report prepared December 15, 1950

Physical and Chemical Data Report No. 10

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MLR CRUISE 10

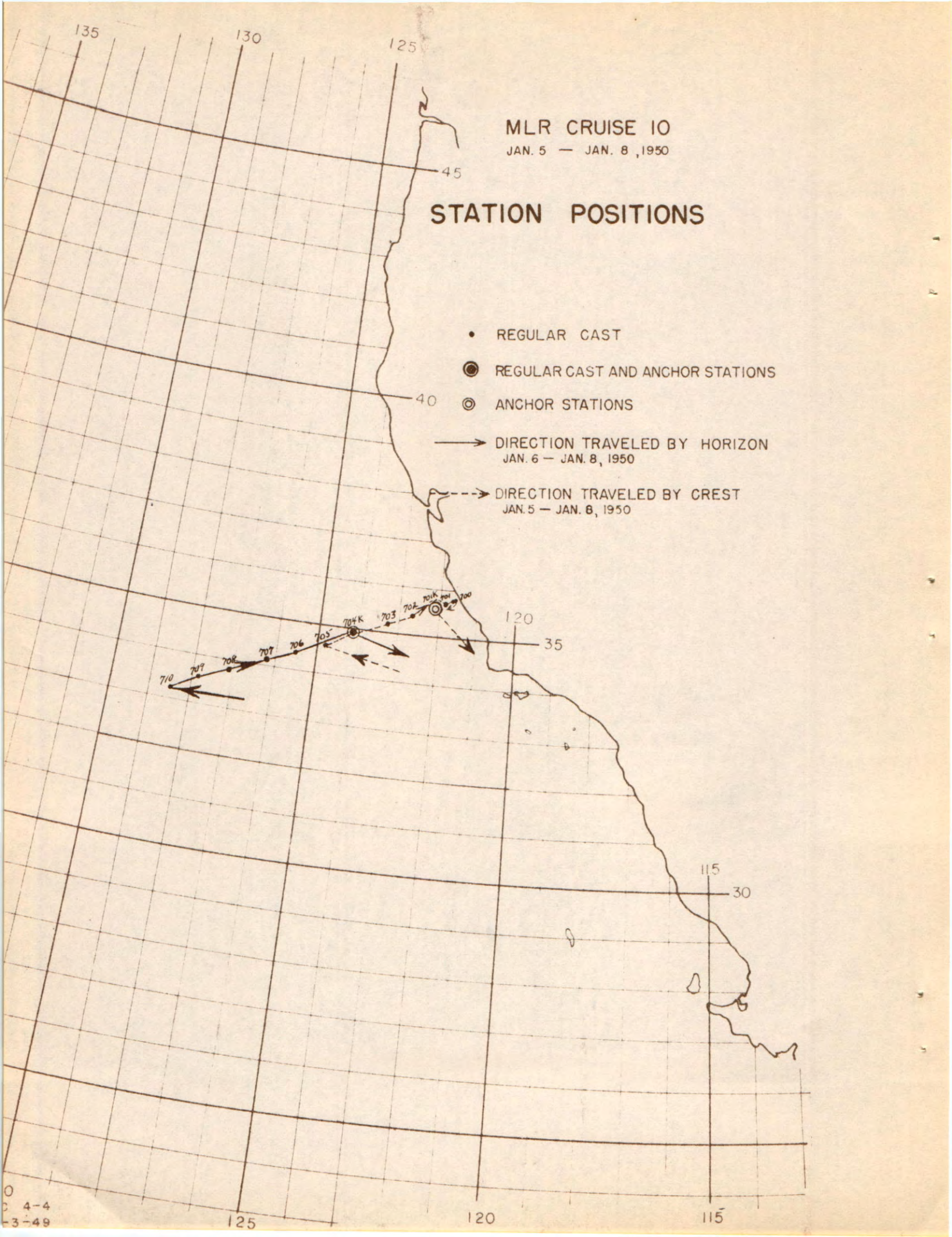
JAN. 5 — JAN. 8, 1950

STATION POSITIONS

- REGULAR CAST
- REGULAR CAST AND ANCHOR STATIONS
- ⊙ ANCHOR STATIONS

→ DIRECTION TRAVELED BY HORIZON
JAN. 6 — JAN. 8, 1950

- - - DIRECTION TRAVELED BY CREST
JAN. 5 — JAN. 8, 1950



INTRODUCTION

The data presented in this report were collected on the tenth cruise of the Marine Life Research Program. The two ships participating were the MV HORIZON and the MV CREST of the Scripps Institution of Oceanography.

The task of the cruise was to measure the variation of oceanographic properties with time on two fixed stations, so that these variations might be analyzed for oscillatory effects (especially tidal) and the results used in evaluating and presenting data taken on regular full scale cruises.

The HORIZON occupied stations 710, 709, 708, 706, and 704 in regular fashion, and began to occupy station 704 continuously; while the CREST occupied stations 705, 704, 703, 702, 701, and 700 in regular fashion and began to occupy station 701 continuously (Fig. 1). Occupation of the two anchor stations began at 1600 GCT 7 January 1950 and was to have continued a minimum of fifty-four hours, but weather conditions caused the program to be stopped after 1400 GCT 8 January. A strong wind of force 6 and 7 with gusts to 8 made oceanographic conditions abnormal and hence the value of further data to this analysis would have been questionable.

Data are presented in usual form of tabulated values at standard depths. The dynamic topography is plotted as a function of distance from the coast (Fig.2) and the temperature, salinity, and dynamic height are plotted as functions of time (Fig. 3, 4, 5) for the two stations.

The original data and the data as modified during various steps in processing are on file with Division III of Physical Oceanography and with the Division of Chemical Oceanography. Copies may be made available. The data are processed on the standard forms of these divisions.

The presentation of data in these Physical and Chemical Data Reports does not constitute publication, and this information may be subject to modification as the program continues. Results of various phases of the investigations will be published in scientific journals for general distribution.

PERSONNEL

Roger Revelle, Acting Director of the Scripps Institution
of Oceanography

MARINE LIFE RESEARCH PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA
AND IN THE PREPARATION OF THIS REPORT

Oceanographers

Reid, Robert O., Assistant Oceanographer
Wooster, Warren S., Associate in Oceanography
Horrer, Paul L., Associate in Oceanography
Defant, Albert, Professor of Meteorology and Geophysics of the
University of Innsbruck, Austria

Marine Superintendents

Faughn, James L., Engineering
Stose, Clemens W., Hull

Ships' Captains

Austin, Milton L., MV CREST
Olsen, Edward B., MV HORIZON

Technicians

Huffer, Robert P., Senior Marine Technician
Marquardt, Robert L. " " "
Mead, Richard V., " " "
Sampson, Robert K., " " "
Beckwith, Warren W., Marine Technician
Carlson, Deane R., " " "
Clark, Peter S., " " "
Drummond, Kenneth H., " " "
Edwards, Frank H. Jr., " " "
Gossett, David A., " " "
Johnson, Norman W., " " "
Preish, Robert P., " " "
Worrall, Charles G., " " "
Bieri, Robert Marine Technician, Chemical
Moberg, Erik W., " " "
Wangersky, Peter J., " " "

Office Personnel, Chemical Oceanography

Barstow, Mary C., Laboratory Technician
Dinkel, Charles C., Senior Laboratory Technician
Freeman, Claire R., Laboratory Technician
Lodge, Mary Ann, Laboratory Technician
Spix, William L., Assistant in Marine Chemistry

Office Personnel, Physical Oceanography

Godfrey, Mary Lynne, Engineering Aide
Howard, Francis J., Research Assistant
Klein, Hans T., Senior Engineering Aide
Mao, Han-Lee, Research Assistant
Reid, Joseph L., Research Assistant
Watters, Ardis H., Typist Clerk
Wilburn, Virginia A., Statistician

PERSONNEL ASSISTING THE MLR PROGRAM IN THE COLLECTION OF DATA
FOR THIS REPORT

Scientific Personnel

Counts, Robert C., Marine Biologist, U. S. Fish and Wildlife Service
Frautschy, Jeffery D., Associate in Marine Geology
Goldberg, Edward D., Assistant Marine Chemist
Kramer, David, Marine Biologist, U. S. Fish and Wildlife Service
McHugh, John L., Assistant Marine Biologist, Scripps Institution
of Oceanography
Rush, William A., Marine Biologist, U. S. Fish and Wildlife Service
Thraillkill, James R., Marine Biologist, U. S. Fish and Wildlife
Service
Wisner, Robert L., Senior Laboratory Technician

DYNAMIC TOPOGRAPHY CORRECTED
FOR INTERNAL OSCILLATIONS

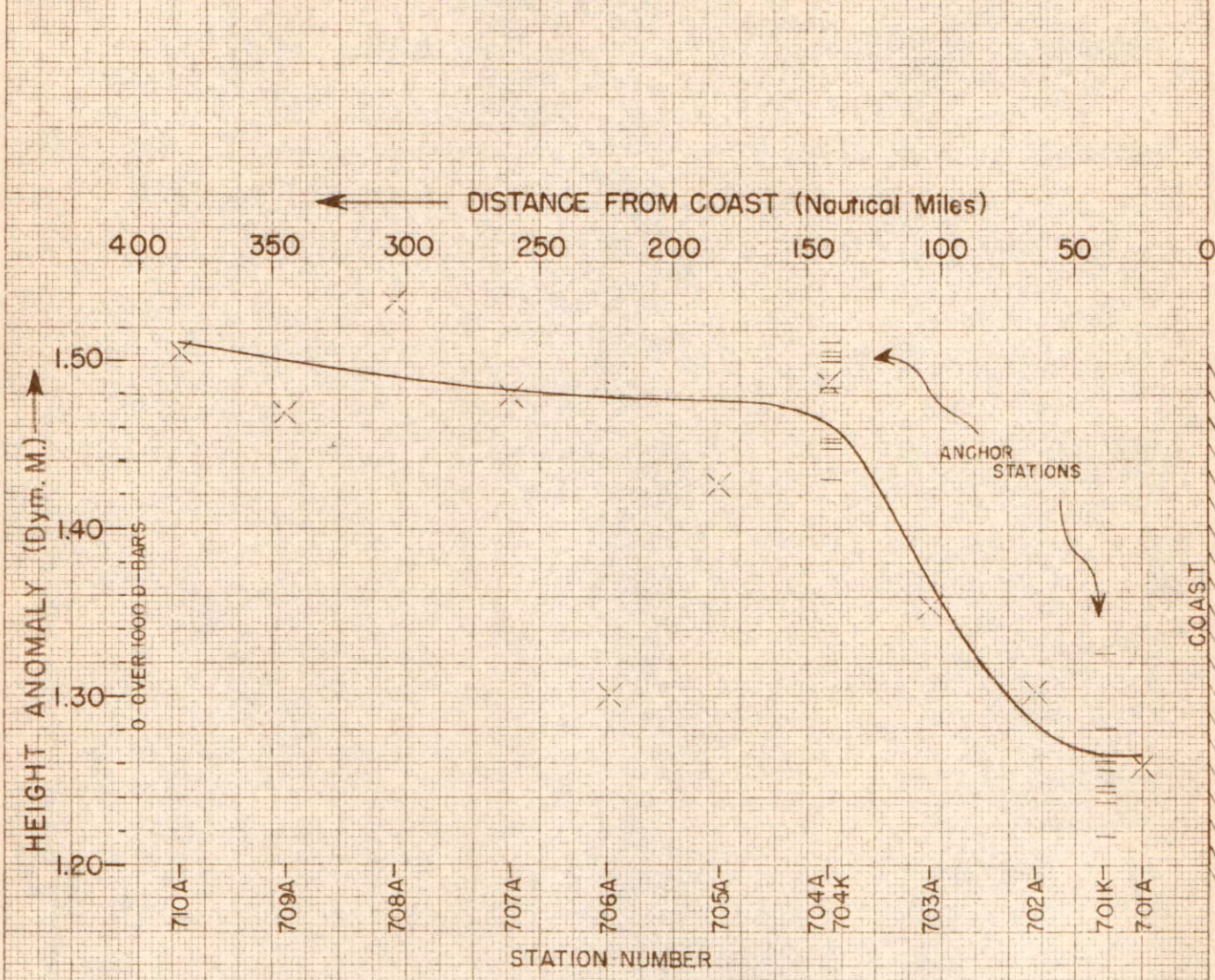


FIGURE 2

TIME VARIATIONS AT STATION 701K

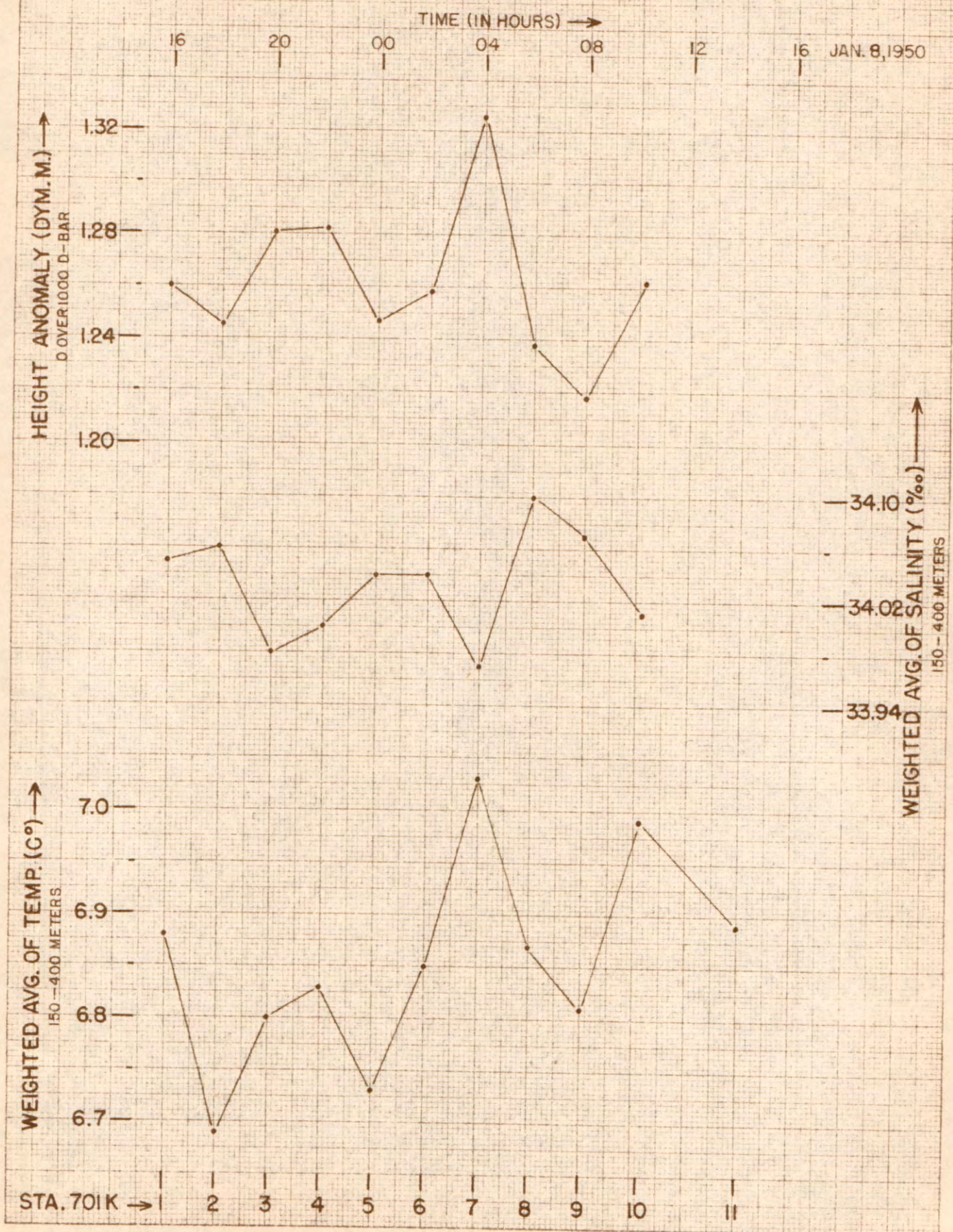


FIGURE 3

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TIME VARIATIONS AT STATION 704K

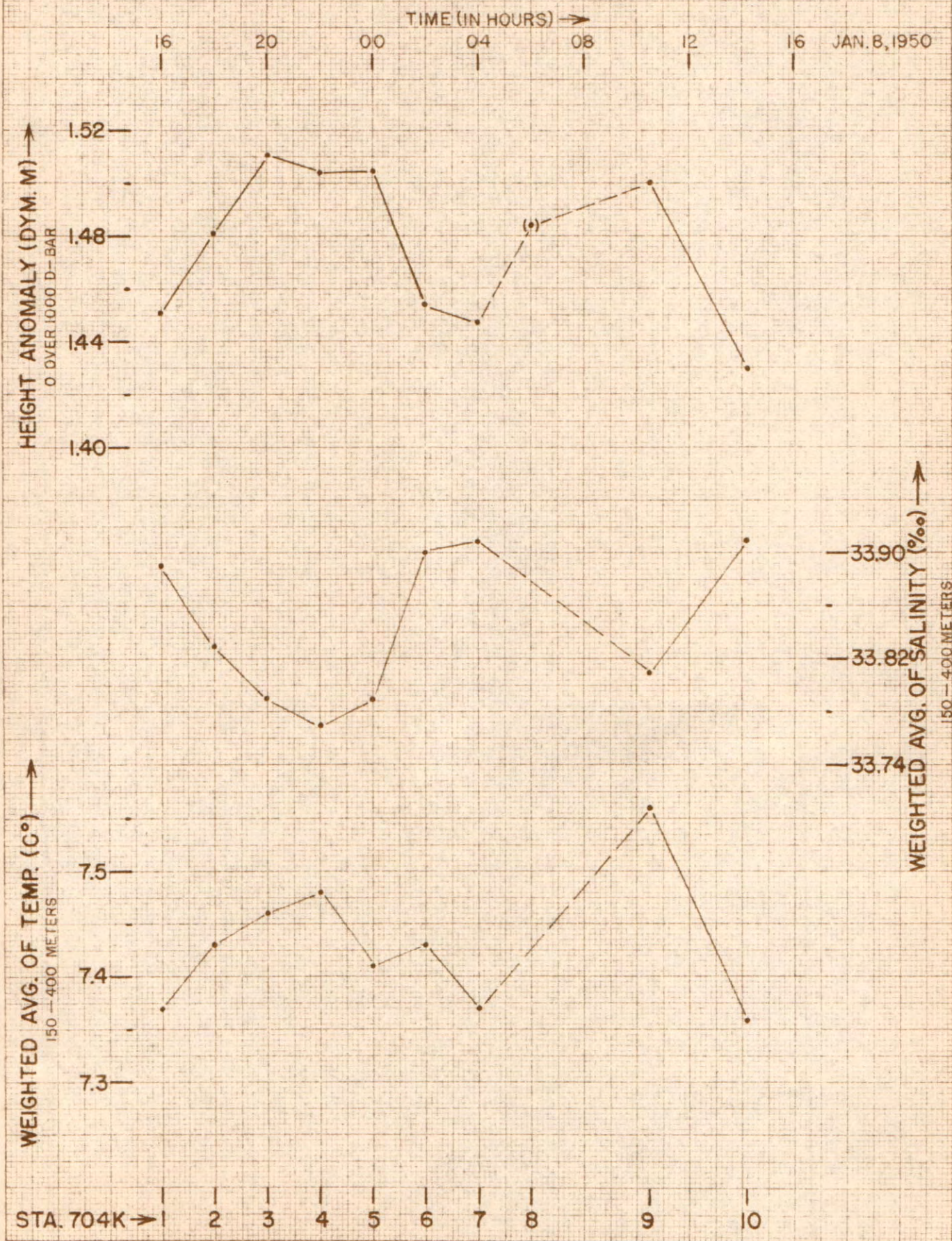
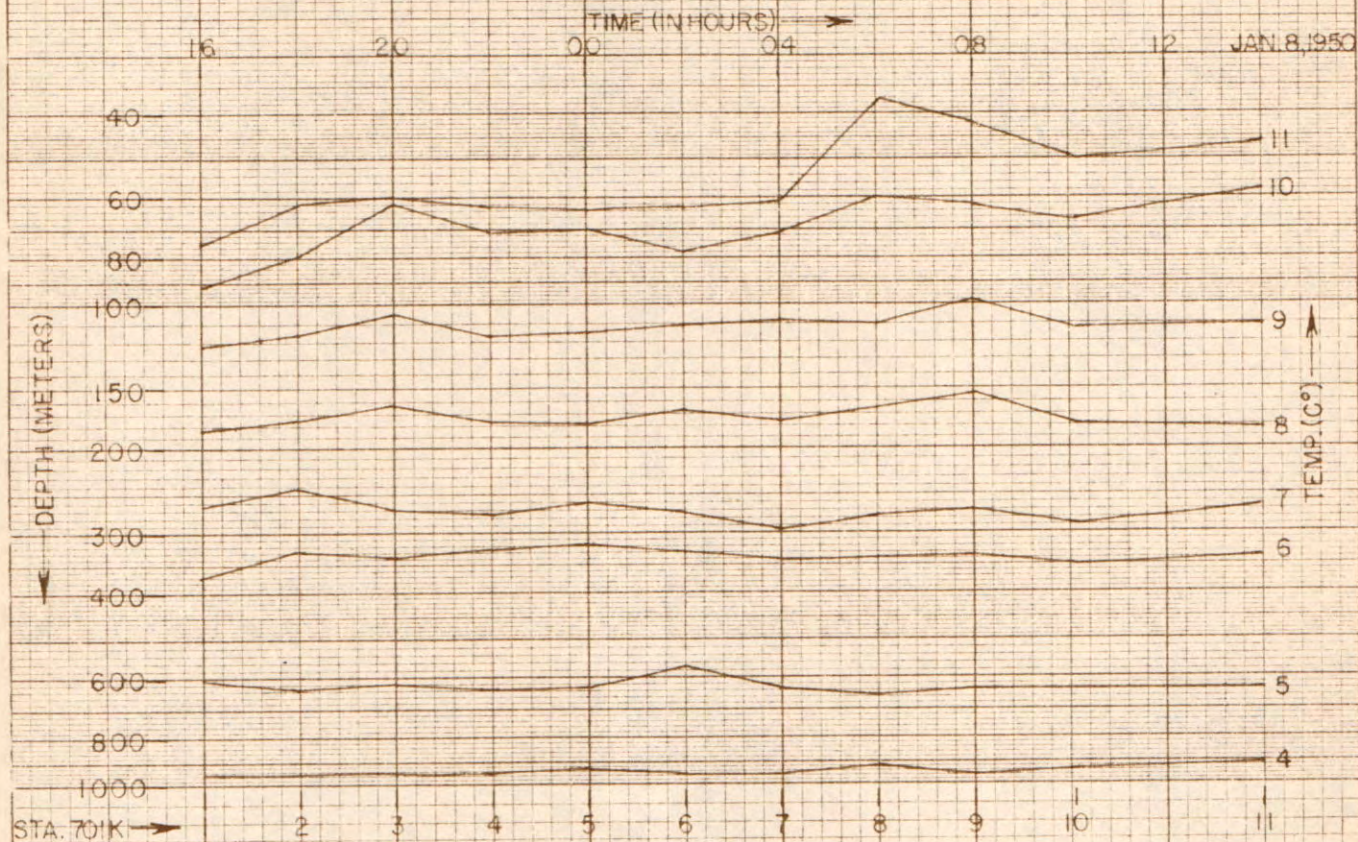


FIGURE 4

TIME VARIATIONS IN DEPTHS OF ISOTHERMS AT STATION 701K



TIME VARIATIONS IN DEPTHS OF ISOTHERMS AT STATION 704K

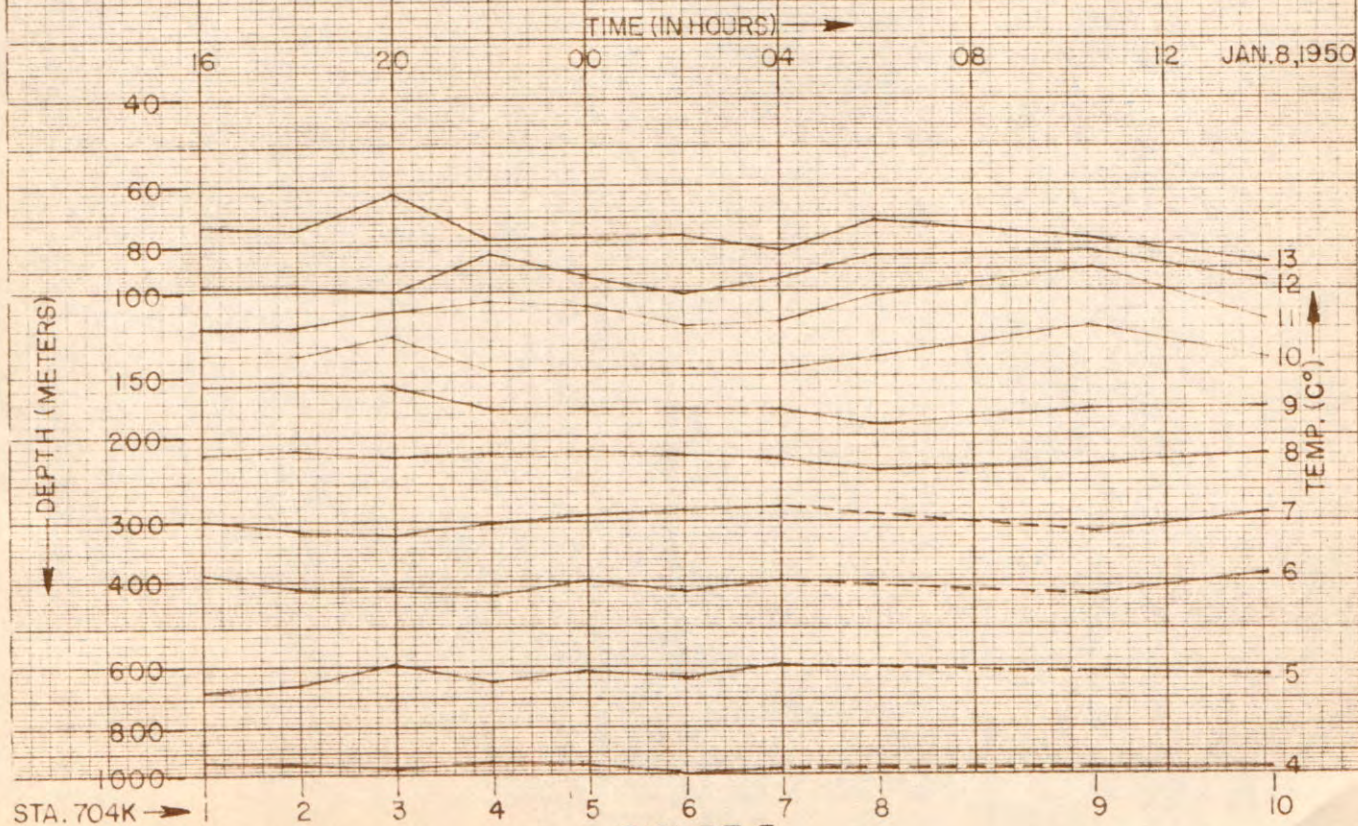


FIGURE 5

STATION 700A (Interpolated Values at Standard Depths)

CREST: 35°51'N 121°38'W January 7, 1950 0635 GCT Wire angle: 0°
 Sounding: 400 fms. Depth of observation: 601 m. Weather: partly cloudy
 Sea: moderate Wind: 090°, force 1.

Depth (m)	T (°C)	S (°/oo)	σ_t (mg/cm ³)	$10^5 \delta$	ΔD (dyn.m.)	O ₂ (ml/L)	PO ₄ -P ($\mu\text{g at/L}$)
0	11.35	33.49	25.56	243.8	.0000	5.60	-
10	11.35	33.40	25.49	250.6	.0248	5.58	-
20	11.32	33.43	25.52	248.0	.0498	5.42	-
30	11.27	33.50	25.58	242.4	.0745	5.17	-
50	11.08	33.56	25.66	235.4	.1225	4.77	-
75	10.59	33.70	25.86	217.0	.1794	3.72	-
100	10.03	33.84	26.06	198.1	.2316	3.06	-
150	9.36	33.84	26.17	188.2	.329	2.42	-
200	8.75	34.02	26.41	166.3	.418	2.01	-
250	(8.08)	(33.93)	(26.44)	(163.8)	(.501)	(1.71)	-
300	-	-	-	(146.5)	(.579)	-	-
400	-	-	-	(135.4)	(.721)	-	-
500	-	-	-	(126.0)	(.853)	-	-
600	-	-	-	(117.0)	(.976)	-	-
700	-	-	-	(107.0)	(1.089)	-	-
800	-	-	-	(100.3)	(1.194)	-	-
1000	-	-	-	(83.5)	(1.379)	-	-

STATION 700A (Interpolated Values at Standard Depths)

CREST: 35°52.5'N 121°32'W January 7, 1950 0824 GCT Wire angle: 0°
 Sounding: 220 fms. Depth of observation: 245 m. Weather: clear Sea:
 moderate Wind: 090°, force 1.

0	11.42	33.48	25.54	245.9	.0000	-	-
10	11.38	33.49	25.55	244.6	.0246	-	-
20	11.33	33.49	25.56	243.7	.0491	-	-
30	11.26	33.49	25.58	242.9	.0736	-	-
50	10.95	33.48	25.62	238.8	.1220	-	-
75	10.01	33.67	25.93	209.8	.1784	-	-
100	9.61	33.76	26.07	197.2	.2296	-	-
150	9.04	33.86	26.24	181.7	.325	-	-
200	8.42	33.95	26.41	166.5	.413	-	-
250	7.93	34.20	26.68	141.7	.490	-	-
300	7.35	34.10	26.68	141.6	.562	-	-
400	6.14	33.96	26.74	137.2	.702	-	-
500	5.98	34.14	26.90	123.0	.833	-	-
600	5.56	34.31	27.08	106.4	.949	-	-
700	-	-	-	(104.5)	(1.056)	-	-
800	-	-	-	(95.3)	(1.156)	-	-
1000	-	-	-	(82.5)	(1.336)	-	-

STATION 701A (Interpolated Values at Standard Depths)

CREST: 35°46'N 121°51'W January 7, 1950 0239 GCT Wire angle: 0°
 Sounding: 600 fms. Depth of observation: 810 m. Weather: missing
 Sea: missing Wind: 090°, force 1.

Depth (m)	T (°C)	S (‰)	σ_t (mg/cm ³)	$10^5 \delta$	ΔD (dyn.m.)	O ₂ (ml/L)	PO ₄ -P ($\mu\text{g at/L}$)
0	11.43	33.49	25.54	245.3	.0000	6.32	0.82
10	11.27	33.48	25.56	243.5	.0245	6.23	0.83
20	11.22	33.48	25.57	242.7	.0490	5.90	0.91
30	11.19	33.48	25.58	242.7	.0733	5.80	0.95
50	11.17	33.49	25.59	242.1	.1220	5.84	1.01
75	9.55	33.57	25.93	209.8	.1788	3.41	2.00
100	8.93	33.70	26.13	191.1	.2293	3.25	2.12
150	8.17	33.91	26.41	165.1	.319	2.60	1.44
200	7.33	33.91	26.54	153.9	.399	2.48	1.34
250	6.98	34.02	26.67	141.9	.474	1.66	1.74
300	6.33	33.98	26.73	136.8	.544	1.42	1.88
400	5.57	34.11	26.93	118.9	.673	1.02	2.12
500	5.19	34.22	27.06	107.2	.787	0.57	2.27
600	5.08	34.27	27.11	103.3	.893	0.39	2.42
700	4.75	34.29	27.16	98.8	.995	0.38	2.41
800	4.35	34.37	27.27	89.0	1.090	0.44	2.42
1000	-	-	-	(78.5)	(1.259)	-	-

STATION 702A (Interpolated Values at Standard Depths)

CREST: 35°26'N 122°35'W January 6, 1950 2009 GCT Wire angle: 0°
 Sounding: 1,950 fms. Depth of observation: 1,209 m. Weather: partly cloudy
 Sea: moderate Wind: 200°, force 1.

0	11.44	33.39	25.46	253.0	.0000	5.42	0.94
10	11.30	33.39	25.49	250.5	.0253	5.67	0.96
20	11.29	33.40	25.50	249.8	.0504	5.60	0.95
30	11.30	33.41	25.51	249.5	.0755	5.53	0.96
50	11.27	33.48	25.56	244.3	.1251	5.59	1.01
75	8.80	33.28	25.83	219.8	.1834	4.30	1.72
100	8.52	33.48	26.02	201.4	.2364	3.12	2.17
150	7.61	33.90	26.49	157.8	.327	2.89	2.31
200	7.02	33.95	26.61	146.8	.404	2.43	2.54
250	6.50	33.98	26.71	137.2	.475	1.98	2.84
300	5.93	33.98	26.78	131.8	.543	1.67	2.97
400	6.08	34.14	26.89	122.9	.671	0.52	3.36
500	5.71	34.20	26.98	115.3	.791	0.36	3.33
600	5.22	34.20	27.04	110.1	.905	0.47	3.60
700	4.75	34.20	27.09	105.4	1.014	0.36	3.54
800	4.33	34.27	27.19	96.3	1.116	0.39	3.62
1000	3.82	34.31	27.28	89.1	1.303	0.60	3.51

STATION 703A (Interpolated Values at Standard Depths)

CREST: 35°10'N 123°18'W January 6, 1950 1356 GCT Wire angle: 35°
 Sounding: missing Depth of observation: 913 m. Weather: clear Sea:
 moderate Wind: 050°, force 2.

Depth (m)	T (°C)	S (‰)	σ_t (mg/cm ³)	$10^5 \delta$	ΔD (dyn.m.)	O ₂ (ml/L)	PO ₄ -P (µg at/L)
0	12.37	32.99	24.98	298.9	.0000	6.45	-
10	12.30	33.01	25.01	296.2	.0299	6.50	-
20	11.40	32.95	25.13	284.9	.0590	6.52	-
30	11.33	33.02	25.20	278.8	.0873	6.35	-
50	11.24	33.14	25.31	268.9	.1424	6.10	-
75	10.76	33.21	25.45	256.0	.2084	6.50	-
100	8.95	33.29	25.81	221.8	.2685	4.97	-
150	8.24	33.19	25.84	219.5	.380	3.13	-
200	7.67	33.87	26.46	161.6	.476	2.64	-
250	7.15	33.88	26.54	154.4	.555	2.44	-
300	6.42	33.95	26.69	140.1	.629	1.95	-
400	6.00	34.11	26.87	124.3	.763	0.96	-
500	5.62	34.14	26.94	118.6	.885	0.48	-
600	4.78	34.17	27.07	107.1	.999	0.40	-
700	4.44	34.34	27.24	91.3	1.099	0.42	-
800	4.20	34.35	27.27	88.7	1.190	0.50	-
1000	(3.76)	(34.34)	(27.31)	(86.1)	(1.367)	-	-

STATION 704A (Interpolated Values at Standard Depths)

CREST: 34°55'N 124°03'W January 6, 1950 0711 GCT Wire angle: 0°
 Sounding: missing Depth of observation: 1,203 m. Weather: partly cloudy
 Sea: very rough Wind: 020°, force 3.

0	13.45	32.99	24.77	319.0	.0000	5.39	0.58
10	13.47	32.99	24.76	319.7	.0321	5.75	0.58
20	13.48	32.99	24.76	320.1	.0642	5.68	0.56
30	13.48	32.99	24.76	320.3	.0963	5.65	0.56
50	13.49	32.98	24.75	321.7	.1608	5.74	0.58
75	13.48	32.98	24.75	322.1	.2418	5.26	0.48
100	12.30	33.15	25.12	287.9	.3185	5.25	0.74
150	8.80	32.98	25.59	243.2	.452	5.33	1.00
200	8.15	33.72	26.27	179.7	.559	3.35	1.54
250	7.60	33.92	26.51	157.7	.644	2.50	2.13
300	7.12	33.97	26.61	148.0	.721	2.30	2.31
400	6.28	34.03	26.77	133.8	.863	1.70	2.60
500	5.68	34.11	26.91	121.6	.992	1.06	2.95
600	5.32	34.21	27.03	110.8	1.109	0.44	3.25
700	4.97	34.32	27.16	99.1	1.215	0.25	3.28
800	4.50	34.34	27.23	93.0	1.312	0.35	-
1000	3.90	34.45	27.38	79.7	1.486	0.63	-

STATION 705A (Interpolated Values at Standard Depths)

CREST: 34°39'N 124°48'W January 5, 1950 2353 GCT Wire angle: 15°
 Sounding: 2,375 fms. Depth of observation: 1,281 m. Weather: cloudy
 Sea: high Wind: 340°, force 5.

Depth (m)	T (°C)	S (°/oo)	σ_t (mg/cm ³)	$10^5 \delta$	ΔD (dyn.m.)	O ₂ (ml/L)	PO ₄ -P (μ g at/L)
0	13.55	33.07	24.81	315.0	.0000	5.55	0.71
10	13.54	33.07	24.81	315.2	.0311	5.60	0.58
20	13.52	33.05	24.80	316.5	.0628	5.62	0.61
30	13.48	33.05	24.81	316.0	.0946	5.66	0.62
50	13.30	33.05	24.85	312.9	.1578	5.70	0.62
75	12.45	33.12	25.07	292.5	.2339	5.60	0.78
100	10.62	33.18	25.45	256.4	.3029	4.96	1.13
150	9.06	33.54	25.99	205.8	.419	4.13	1.82
200	8.60	33.99	26.41	166.3	.513	2.08	2.51
250	8.18	34.06	26.53	155.7	.594	1.62	2.71
300	7.70	34.10	26.63	146.6	.670	1.39	2.90
400	6.80	34.17	26.81	130.4	.810	0.97	3.10
500	6.02	34.20	26.94	119.2	.936	0.70	3.26
600	5.17	34.20	27.05	109.5	1.051	0.63	3.45
700	4.90	34.30	27.15	99.9	1.157	0.37	3.51
800	4.57	34.37	27.25	91.5	1.253	0.41	-
1000	3.95	34.45	27.38	80.2	1.427	0.60	-

STATION 706A (Interpolated Values at Standard Depths)

HORIZON: 34°22.5'N 125°33.5'W January 7, 1950 0600 GCT Wire angle: 1°
 Sounding: 2,700 fms. Depth of observation: 1,217 m. Weather: cloudy
 Sea: very rough Wind: 100°, force 1-2.

0	13.15	33.15	24.95	301.5	.0000	5.26	0.54
10	13.10	33.15	24.96	300.8	.0302	5.75	0.53
20	13.03	33.16	24.98	299.1	.0604	5.74	0.54
30	12.94	33.19	25.03	295.3	.0902	5.73	0.56
50	12.17	33.26	25.23	276.5	.1477	5.64	0.57
75	10.23	33.22	25.54	246.8	.2134	4.79	1.14
100	9.40	33.49	25.89	214.0	.2714	3.80	1.46
150	8.60	33.87	26.32	174.3	.369	2.58	1.94
200	7.91	34.02	26.54	153.8	.452	2.28	1.97
250	7.35	34.04	26.64	145.2	.527	2.29	2.07
300	6.74	34.05	26.73	137.1	.598	1.79	2.22
400	5.85	34.13	26.91	118.9	.727	1.02	2.51
500	5.40	34.20	27.02	111.3	.843	0.63	2.66
600	4.95	34.29	27.14	100.2	.950	0.40	2.79
700	4.66	34.36	27.23	92.3	1.047	0.34	2.84
800	4.30	34.40	27.30	86.2	1.137	0.36	2.86
1000	3.70	34.45	27.40	77.3	1.303	0.51	2.80

STATION 707A (Interpolated Values at Standard Depths)

HORIZON: 34°11'N 126°16'W January 7, 1950 0000 GCT Wire angle: 4°
 Sounding: 2,650 fms. Depth of observation: 1,216 m. Weather: cloudy
 Sea: rough Wind: 360°, force 1.

Depth (m)	T (°C)	S (°/oo)	σ_t (mg/cm ³)	$10^5 \delta$	ΔD (dyn.m.)	O ₂ (ml/L)	PO ₄ -P (μ g at/L)
0	15.01	33.19	24.60	335.5	.0000	5.25	0.42
10	14.99	33.31	24.69	326.6	.0332	5.37	0.43
20	15.00	33.27	24.66	329.8	.0662	5.31	0.42
30	15.02	33.22	24.62	334.3	.0995	5.26	0.41
50	15.03	33.22	24.62	334.9	.1668	5.07	0.42
75	15.05	33.30	24.67	330.2	.2504	5.18	0.40
100	11.57	33.13	25.24	276.5	.3267	4.98	0.68
150	9.54	33.46	25.85	219.2	.452	4.29	1.23
200	8.81	33.73	26.18	188.8	.554	2.57	1.82
250	8.16	33.93	26.43	165.0	.643	2.84	1.80
300	7.36	34.00	26.61	149.0	.722	2.32	2.04
400	6.32	34.08	26.81	130.7	.863	1.21	2.47
500	5.54	34.07	26.90	122.6	.991	0.73	2.46
600	4.94	34.17	27.05	109.1	1.108	0.42	2.63
700	4.49	34.20	27.12	102.3	1.215	0.40	2.82
800	4.27	34.41	27.31	85.1	1.309	0.40	2.81
1000	3.84	34.40	27.35	82.7	1.479	0.61	2.76

STATION 708A (Interpolated Values at Standard Depths)

HORIZON: 33°51'N 127°02'W January 6, 1950 1800 GCT Wire angle: 5°
 Sounding: 2,340 fms. Depth of observation: 1,217 m. Weather: cloudy
 Sea: rough Wind: 100°, force 2.

0	14.97	33.28	24.67	328.1	.0000	5.35	0.46
10	14.95	33.21	24.63	333.0	.0332	5.29	0.48
20	14.97	33.20	24.61	334.5	.0667	5.26	0.50
30	14.98	33.21	24.62	334.3	.1003	5.25	0.51
50	14.96	32.99	24.46	350.1	.1690	5.22	0.52
75	14.98	33.22	24.65	332.5	.2548	5.41	0.50
100	12.73	33.06	24.97	302.5	.3347	5.31	0.66
150	9.88	33.37	25.72	231.1	.469	4.22	1.41
200	8.91	33.77	26.19	187.4	.574	2.40	1.97
250	8.62	34.00	26.42	166.8	.664	1.70	2.27
300	8.02	34.25	26.70	140.2	.741	1.76	2.29
400	7.12	34.09	26.71	140.7	.883	1.13	2.62
500	6.13	34.14	26.88	125.0	1.017	0.70	2.64
600	5.44	34.28	27.07	107.3	1.134	0.43	2.87
700	4.86	34.23	27.11	104.5	1.241	0.35	2.94
800	4.54	34.32	27.21	94.9	1.341	0.33	3.01
1000	4.00	34.23	27.20	97.1	1.535	0.51	3.01

STATION 709A (Interpolated Values at Standard Depths)

HORIZON: 33°39'N 127°48'W January 6, 1950 1200 GCT Wire angle: 12°
 Sounding: 2,500 fms. Depth of observation: 1,272 m. Weather: cloudy
 Sea: very rough Wind: 360°, force 3.

Depth (m)	T (°C)	S (°/oo)	σ_t (mg/cm ³)	$10^5 \delta$	ΔD (dyn.m.)	O ₂ (ml/L)	PO ₄ -P (μ g at/L)
0	15.53	33.26	24.54	341.0	.0000	5.37	0.46
10	15.53	33.26	24.54	341.3	.0342	5.39	0.44
20	15.55	33.26	24.53	341.9	.0686	5.34	0.42
30	15.57	33.26	24.53	342.9	.1029	5.31	0.42
50	15.57	33.26	24.53	343.1	.1719	5.35	0.46
75	13.16	33.26	25.04	295.4	.2521	5.54	0.48
100	12.17	33.21	25.19	281.3	.3247	5.36	0.56
150	10.28	33.34	25.63	239.9	.456	4.64	1.16
200	8.51	33.70	26.20	186.6	.563	4.10	1.27
250	7.85	33.91	26.46	161.9	.651	3.52	1.75
300	7.09	33.95	26.60	149.1	.729	2.91	2.04
400	5.88	34.00	26.80	130.8	.870	2.25	2.40
500	5.39	34.10	26.94	118.6	.996	0.90	2.63
600	4.93	34.19	27.06	107.4	1.110	0.49	2.78
700	4.36	34.28	27.20	94.8	1.212	0.39	2.97
800	4.08	34.35	27.28	87.3	1.304	0.37	3.02
1000	3.59	34.47	27.43	74.6	1.468	0.54	2.93

STATION 710A (Interpolated Values at Standard Depths)

HORIZON: 33°19'N 128°32'W January 6, 1950 0600 GCT Wire angle: 26°
 Sounding: 2,700 fms. Depth of observation: 1,167 m. Weather: cloudy
 Sea: very rough Wind: 010°, force 4.

0	16.20	33.60	24.65	330.7	.0000	5.30	0.42
10	16.20	33.60	24.65	331.0	.0332	5.28	0.40
20	16.19	33.60	24.65	331.1	.0665	5.26	0.38
30	16.19	33.60	24.65	331.4	.0997	5.26	0.37
50	16.20	33.60	24.65	332.1	.1664	5.31	0.36
75	14.73	33.57	24.95	303.8	.2463	5.50	0.38
100	13.02	33.35	25.13	285.8	.3206	5.35	0.46
150	11.30	33.36	25.47	255.7	.457	4.95	0.84
200	9.22	33.59	26.00	205.4	.573	4.40	1.24
250	8.35	33.88	26.37	171.5	.668	3.90	1.56
300	7.53	33.96	26.55	154.5	.750	3.30	1.82
400	6.22	33.98	26.74	136.7	.897	2.34	2.21
500	5.19	34.06	26.93	119.1	1.026	1.11	2.54
600	4.72	34.16	27.06	107.1	1.140	0.65	2.78
700	4.35	34.24	27.17	97.6	1.243	0.43	2.90
800	4.06	34.33	27.27	88.5	1.337	0.39	2.86
1000	3.62	34.44	27.40	77.1	1.505	0.51	2.79

STATION 701K-1 (Interpolated Values at Standard Depths)

CREST: 35°36'N 122°06'W January 7, 1950 1600 GCT Wire angle: 12°
 Sounding: 950 fms. Depth of observation: 1,181 m. Weather: cloudy
 Sea: moderate Wind: 160°, force 2.

Depth (m)	T (°C)	S (°/oo)	σ_t (mg/cm ³)	$10^5 \delta$	ΔD (dyn.m.)	O ₂ (ml/L)	PO ₄ -P (μ g at/L)
0	11.78	33.41	25.42	257.2	.0000	5.22	0.70
10	11.78	33.41	24.42	257.4	.0258	5.12	0.70
20	11.79	33.42	25.43	257.0	.0516	4.82	0.70
30	11.78	33.42	25.42	257.4	.0775	4.65	0.73
50	11.71	33.43	25.45	255.6	.1290	4.40	0.83
75	10.05	33.53	25.82	220.8	.1889	3.61	1.68
100	9.20	33.71	26.10	194.4	.2411	2.85	2.13
150	8.33	33.92	26.40	166.6	.332	2.30	2.35
200	7.82	34.03	26.56	152.0	.412	1.96	2.57
250	7.23	34.07	26.68	141.4	.486	1.58	2.68
300	6.49	34.04	26.76	134.3	.556	1.64	2.74
400	5.47	34.11	26.94	117.7	.683	1.05	3.17
500	5.20	34.19	27.03	109.5	.797	0.55	3.46
600	5.01	34.30	27.14	100.2	.903	0.35	3.55
700	4.80	34.35	27.21	94.9	1.001	0.30	3.62
800	4.35	34.41	27.30	86.0	1.093	0.37	3.57
1000	3.88	34.45	27.38	79.5	1.260	0.60	3.54

STATION 701K-2 (Interpolated Values at Standard Depths)

CREST: 35°36'N 122°06'W January 7, 1950 1800 GCT Wire angle: 23°
 Sounding: 950 fms. Depth of observation: 1,121 m. Weather: cloudy
 Sea: rough Wind: 140°, force 3.

0	11.83	33.44	25.43	255.9	.0000	5.20	0.75
10	11.81	33.42	25.42	257.2	.0258	5.33	0.71
20	11.80	33.43	25.43	256.5	.0516	5.28	0.73
30	11.78	33.43	25.43	256.5	.0773	5.19	0.77
50	11.66	33.43	25.45	254.8	.1287	4.90	0.87
75	10.10	33.52	25.80	222.3	.1887	3.55	1.62
100	9.55	33.67	26.01	203.0	.2422	3.30	2.05
150	8.30	33.95	26.43	163.8	.334	2.44	2.40
200	7.66	34.05	26.60	148.0	.413	1.94	2.64
250	6.86	34.07	26.73	136.3	.485	1.73	2.78
300	6.24	34.07	26.81	129.0	.551	1.64	2.92
400	5.43	34.09	26.93	118.7	.676	1.06	3.13
500	5.10	34.19	27.05	108.3	.791	0.59	3.39
600	5.02	34.31	27.15	99.6	.896	0.35	3.49
700	4.80	34.38	27.23	92.7	.993	0.36	3.52
800	4.45	34.44	27.32	85.0	1.082	0.39	3.50
1000	3.87	34.50	27.42	75.6	1.245	0.61	3.48

STATION 701K-3 (Interpolated Values at Standard Depths)

CREST: 35°36'N 122°06'W January 7, 1950 2000 GCT Wire angle: 31°
 Sounding: 950 fms. Depth of observation: 1,124 m. Weather: cloudy
 Sea: rough Wind: 160°, force 4.

Depth (m)	T (°C)	S (°/oo)	σ_t (mg/cm ³)	$10^5 \delta$	ΔD (dyn.m.)	O ₂ (ml/L)	PO ₄ -P ($\mu\text{g at/L}$)
0	11.90	33.40	25.39	260.0	.0000	5.78	0.81
10	11.87	33.31	25.32	266.3	.0264	5.76	0.78
20	11.75	33.39	25.41	258.8	.0528	5.77	0.87
30	11.69	33.40	25.43	257.2	.0787	5.82	0.92
50	11.56	33.40	25.45	255.3	.1302	5.85	1.06
75	9.65	33.60	25.94	209.1	.1886	3.69	1.97
100	9.12	33.72	26.12	192.4	.2391	3.36	2.13
150	8.16	33.92	26.43	164.1	.329	2.77	2.40
200	7.55	33.94	26.53	154.7	.409	2.61	2.47
250	7.16	34.00	26.63	145.5	.485	2.01	2.73
300	6.54	34.01	26.72	137.3	.556	1.76	2.91
400	5.40	34.00	26.86	124.9	.688	1.69	3.12
500	5.17	34.11	26.97	115.1	.809	1.19	3.34
600	5.04	34.24	27.09	105.1	.920	0.49	3.46
700	4.82	34.40	27.24	91.5	1.019	0.40	3.45
800	4.40	34.43	27.31	85.1	1.108	0.49	3.41
1000	3.89	34.37	27.32	85.4	1.281	0.63	3.36

STATION 701K-4 (Interpolated Values at Standard Depths)

CREST: 35°36'N 122°06'W January 7, 1950 2200 GCT Wire angle: 29°
 Sounding: 950 fms. Depth of observation: 1,221 m. Weather: overcast
 Sea: rough Wind: 140°, force 5.

0	11.81	33.39	25.40	259.2	.0000	5.83	0.76
10	11.83	33.39	25.39	259.7	.0260	5.80	0.74
20	11.82	33.44	25.43	256.2	.0520	5.81	0.74
30	11.78	33.46	25.46	254.3	.0776	5.79	0.75
50	11.63	33.38	25.42	258.1	.1291	5.48	0.82
75	9.60	33.59	25.94	209.2	.1878	3.52	1.98
100	9.22	33.78	26.15	189.5	.2380	3.07	2.04
150	8.39	33.85	26.33	172.6	.329	3.13	2.06
200	7.72	33.98	26.54	154.2	.411	2.51	2.43
250	7.30	34.01	26.62	146.7	.487	1.75	2.73
300	6.33	34.04	26.77	132.5	.557	1.59	2.87
400	5.41	34.02	26.87	123.6	.687	1.00	3.20
500	5.18	34.13	26.99	113.8	.806	0.50	3.43
600	5.07	34.27	27.11	103.1	.916	0.39	3.48
700	4.76	34.38	27.23	92.1	1.014	0.30	3.50
800	4.38	34.36	27.26	90.0	1.106	0.45	3.49
1000	3.86	34.38	27.33	84.3	1.282	0.60	3.42

STATION 701K-5 (Interpolated Values at Standard Depths)

CREST: 35°36'N 122°06'W January 7, 1950 2400 GCT Wire angle: 30°
 Sounding: 950 fms. Depth of observation: 1,211 m. Weather: overcast
 Sea: rough Wind: 160°, force 5.

Depth (m)	T (°C)	S (‰)	σ_t (mg/cm ³)	$10^5 \delta$	ΔD (dyn.m.)	O ₂ (ml/L)	PO ₄ -P (µg at/L)
0	11.76	33.41	25.42	256.9	.0000	6.08	0.83
10	11.75	33.42	25.43	256.2	.0258	5.94	0.78
20	11.66	33.44	25.46	253.4	.0513	6.05	0.81
30	11.58	33.44	25.48	252.3	.0767	6.08	0.83
50	11.54	33.44	25.48	252.1	.1274	5.98	0.89
75	9.77	33.53	25.86	216.3	.1863	3.64	2.13
100	9.22	33.77	26.14	190.4	.2375	3.13	2.28
150	8.42	33.91	26.38	168.6	.328	3.18	2.28
200	7.58	34.04	26.60	147.7	.407	2.26	2.70
250	7.12	34.07	26.69	139.9	.480	1.60	3.17
300	6.13	34.04	26.80	129.8	.548	1.66	3.33
400	5.56	34.05	26.88	123.1	.675	1.15	3.50
500	5.17	34.22	27.06	107.0	.791	0.52	3.66
600	5.05	34.33	27.16	98.5	.895	0.43	3.82
700	4.71	34.37	27.23	92.3	.991	0.37	3.93
800	4.35	34.41	27.30	86.0	1.081	0.43	3.81
1000	3.84	34.47	27.40	77.5	1.247	0.52	3.76

STATION 701K-6 (Interpolated Values at Standard Depths)

CREST: 35°36'N 122°06'W January 8, 1950 0200 GCT Wire angle: 32°
 Sounding: 950 fms. Depth of observation: 1,155 m. Weather: overcast
 Sea: rough Wind: 160°, force 5.

0	11.86	33.40	25.40	259.1	.0000	5.27	0.88
10	11.85	33.42	25.41	258.0	.0260	5.26	0.88
20	11.82	33.41	25.41	258.3	.0519	5.30	0.84
30	11.78	33.40	25.41	258.7	.0778	5.35	0.84
50	11.66	33.42	25.45	255.5	.1295	5.40	0.94
75	10.13	33.49	25.77	225.0	.1899	4.00	1.84
100	9.30	33.66	26.04	199.7	.2433	3.28	2.24
150	8.23	33.89	26.39	167.4	.336	2.75	2.42
200	7.68	34.03	26.58	149.9	.416	2.17	2.64
250	7.29	34.08	26.68	141.4	.489	1.68	2.92
300	6.44	34.04	26.76	133.8	.558	1.61	3.14
400	5.49	34.09	26.92	119.3	.686	1.10	3.43
500	5.17	34.21	27.05	107.6	.800	0.53	3.62
600	4.96	34.30	27.15	99.5	.905	0.37	3.70
700	4.85	34.38	27.22	93.2	1.002	0.35	3.71
800	4.49	34.42	27.30	86.8	1.093	0.44	3.66
1000	3.85	34.48	27.41	76.8	1.258	0.63	3.58

STATION 701K-7 (Interpolated Values at Standard Depths)

CREST: 35°36'N 122°06'W January 8, 1950 0400 GCT Wire angle: 32°
 Sounding: 950 fms. Depth of observation: 1,180 m. Weather: overcast
 Sea: rough Wind: 160°, force 6.

Depth (m)	T (°C)	S (‰)	σ_t (mg/cm ³)	$10^5 \delta$	ΔD (dyn.m.)	O ₂ (ml/L)	PO ₄ -P ($\mu\text{g at/L}$)
0	11.72	33.49	25.49	250.3	.0000	5.60	0.74
10	11.70	33.37	25.40	259.2	.0256	5.75	0.82
20	11.67	33.32	25.37	262.5	.0518	5.65	0.79
30	11.61	33.31	25.37	262.5	.0781	5.52	0.78
50	11.43	33.38	25.46	254.5	.1301	5.27	0.93
75	9.76	33.55	25.88	214.6	.1891	3.20	1.96
100	9.17	33.57	25.99	204.5	.2418	3.01	2.17
150	8.30	33.85	26.35	171.3	.336	2.95	2.20
200	7.75	33.95	26.51	156.8	.419	2.77	2.38
250	7.44	34.00	26.59	149.3	.496	1.89	2.73
300	6.88	33.98	26.65	144.1	.570	1.48	3.00
400	5.50	33.99	26.84	126.9	.707	1.08	3.34
500	5.17	34.12	26.98	114.4	.828	0.58	3.52
600	5.01	34.13	27.01	112.7	.943	0.42	3.63
700	4.85	34.34	27.19	96.4	1.048	0.45	3.62
800	4.50	34.27	27.18	98.2	1.147	0.62	3.61
1000	3.85	34.45	27.38	79.1	1.326	0.60	3.57

STATION 701K-8 (Interpolated Values at Standard Depths)

CREST: 35°36'N 122°06'W January 8, 1950 0600 GCT Wire angle: 35°
 Sounding: 950 fms. Depth of observation: 1,138 m. Weather: cloudy
 Sea: rough Wind: 160°, force 6-7.

0	11.47	33.49	25.53	246.1	.0000	5.70	0.75
10	11.40	33.34	25.43	256.0	.0252	5.73	0.74
20	11.40	33.31	25.41	258.4	.0510	5.75	0.76
30	11.37	33.32	25.42	257.4	.0769	5.53	0.87
50	10.39	33.48	25.72	229.5	.1258	4.00	1.54
75	9.60	33.58	25.93	209.9	.1811	3.42	1.86
100	9.25	33.69	26.07	196.7	.2322	3.09	2.06
150	8.18	33.92	26.42	164.4	.323	2.76	2.19
200	7.62	33.92	26.50	157.3	.404	2.59	2.37
250	7.29	34.04	26.65	144.4	.480	1.60	2.84
300	6.58	34.21	26.88	123.0	.548	1.49	2.95
400	5.46	34.29	27.08	104.1	.662	1.07	3.24
500	5.17	34.22	27.06	107.0	.769	0.52	3.48
600	5.06	34.24	27.09	105.1	.876	0.30	3.56
700	4.86	34.32	27.18	97.9	.978	0.35	3.55
800	4.42	34.39	27.28	88.3	1.072	0.42	3.54
1000	3.75	34.47	27.41	76.3	1.238	0.55	3.55

STATION 701K-9 (Interpolated Values at Standard Depths)

CREST: 35°36'N 122°06'W January 8, 1950 0800 GCT Wire angle: 35°
 Sounding: 950 fms. Depth of observation: 1,156 m. Weather: overcast
 Sea: very rough Wind: 160°, force 7.

Depth (m)	T (°C)	S (°/oo)	σ_t (mg/cm ³)	$10^5 \delta$	ΔD (dyn.m.)	O ₂ (ml/L)	PO ₄ -P ($\mu\text{g at/L}$)
0	11.60	33.42	25.46	253.4	.0000	6.24	0.62
10	11.60	33.42	25.46	253.6	.0254	5.90	0.60
20	11.61	33.42	25.46	254.0	.0509	5.95	0.62
30	11.56	33.43	25.47	252.6	.0764	5.89	0.83
50	10.55	33.50	25.71	230.6	.1249	4.05	1.62
75	9.57	33.71	26.04	199.7	.1790	3.34	1.98
100	8.94	33.84	26.24	180.9	.2269	3.25	2.11
150	8.05	33.97	26.48	158.8	.312	2.96	2.18
200	7.60	34.04	26.60	147.9	.390	2.59	2.44
250	7.20	34.09	26.70	139.5	.462	1.80	2.84
300	6.52	34.09	26.79	131.1	.530	1.56	2.98
400	5.45	34.11	26.94	117.4	.655	1.08	3.24
500	5.23	34.25	27.08	105.6	.768	0.54	3.41
600	5.04	34.34	27.17	97.7	.870	0.35	3.47
700	4.82	34.40	27.24	91.5	.966	0.34	3.46
800	4.42	34.44	27.32	84.5	1.055	0.38	3.39
1000	3.89	34.48	27.41	77.2	1.218	0.56	3.36

STATION 701K-10 (Interpolated Values at Standard Depths)

CREST: 35°36'N 122°06'W January 8, 1950 1010 GCT Wire angle: 35°
 Sounding: 950 fms. Depth of observation: 1,161 m. Weather: rain
 Sea: high Wind: 160°, force 7.

0	11.61	33.42	25.46	253.6	.0000	5.60	0.58
10	11.57	33.42	25.46	253.1	.0254	5.80	0.60
20	11.56	33.42	25.47	253.1	.0508	5.75	0.60
30	11.54	33.42	25.47	253.2	.0763	5.69	0.61
50	11.10	33.42	25.55	244.0	.1262	5.40	0.74
75	9.75	33.60	25.92	210.8	.1834	3.36	1.66
100	9.18	33.72	26.11	193.3	.2342	3.11	1.81
150	8.42	33.89	26.36	170.3	.326	3.06	1.80
200	7.70	33.97	26.53	154.5	.408	2.23	2.04
250	7.32	34.00	26.61	147.7	.484	1.61	2.42
300	6.80	34.04	26.71	138.7	.556	1.57	2.68
400	5.53	34.06	26.89	122.1	.687	1.05	2.92
500	5.23	34.17	27.01	111.4	.805	0.44	3.17
600	5.10	34.21	27.06	107.9	.916	0.40	3.27
700	4.78	34.38	27.23	92.5	1.017	0.40	3.28
800	4.40	34.41	27.30	86.6	1.107	0.40	3.25
1000	3.82	34.48	27.41	66.5	1.262	0.58	3.29

STATION 701K-11 (Interpolated Values at Standard Depths)

CREST: 35°36'N 122°06'W January 8, 1950 1400 GCT Wire angle: 10°
 Sounding: 950 fms. Depth of observation: 1,349 m. Weather: overcast
 Sea: very rough Wind: 270°, force 3.

Depth (m)	T (°C)	S (°/oo)	σ_t (mg/cm ³)	$10^5 \delta$	ΔD (dyn.m.)	O ₂ (ml/L)	PO ₄ -P ($\mu\text{g at/L}$)
0	11.61	-	-	-	-	5.29	0.84
10	11.62	-	-	-	-	5.23	0.90
20	11.62	-	-	-	-	5.18	0.97
30	11.61	-	-	-	-	5.02	1.06
50	10.45	-	-	-	-	3.80	1.82
75	9.58	-	-	-	-	3.32	2.18
100	9.14	-	-	-	-	3.00	2.34
150	8.45	-	-	-	-	2.90	2.51
200	7.72	-	-	-	-	2.21	2.68
250	7.10	-	-	-	-	1.65	3.12
300	6.62	-	-	-	-	1.52	3.34
400	5.50	-	-	-	-	1.08	3.72
500	5.22	-	-	-	-	0.54	3.98
600	5.07	-	-	-	-	0.36	4.02
700	4.77	-	-	-	-	0.35	4.02
800	4.31	-	-	-	-	0.45	3.98
1000	3.81	-	-	-	-	0.72	3.82

STATION 704K-1 (Interpolated Values at Standard Depths)

HORIZON: 34°54'N 124°04'W January 7, 1950 1600 GCT Wire angle: 11°
 Sounding: 2,530 fms. Depth of observation: 1,203 m. Weather: overcast
 Sea: very rough Wind: 180°, force 4.

0	13.94	33.03	24.70	325.6	.0000	5.09	0.48
10	13.91	33.03	24.71	325.1	.0327	5.04	0.49
20	13.94	33.02	24.69	326.9	.0654	5.20	0.50
30	13.91	33.02	24.70	326.5	.0982	5.25	0.51
50	13.65	33.01	24.74	322.6	.1634	5.30	0.56
75	12.84	33.02	24.91	307.1	.2426	5.30	0.64
100	11.87	33.01	25.09	290.5	.3178	5.28	0.78
150	9.28	33.32	25.78	225.4	.448	4.26	1.35
200	8.14	33.75	26.29	177.2	.549	3.38	1.70
250	7.68	33.98	26.54	154.4	.633	2.42	2.07
300	6.99	34.01	26.66	143.4	.708	2.15	2.24
400	5.88	34.04	26.83	127.9	.844	1.35	2.49
500	5.41	34.14	26.97	115.9	.967	0.77	2.78
600	5.13	34.23	27.07	106.9	1.080	0.39	2.88
700	4.89	34.31	27.16	99.0	1.183	0.33	2.90
800	4.44	34.34	27.24	92.3	1.280	0.43	2.90
1000	3.84	34.48	27.41	76.8	1.451	0.61	2.87

STATION 704K-2 (Interpolated Values at Standard Depths)

HORIZON: 34°54'N 124°04'W January 7, 1950 1800 GCT Wire angle: 22°
 Sounding: 2,530 fms. Depth of observation: 1,220 m. Weather: overcast
 Sea: very rough Wind: 180°, force 5.

Depth (m)	T (°C)	S (‰)	σ_t (mg/cm ³)	$10^5 \delta$	ΔD (dyn.m.)	O ₂ (ml/L)	PO ₄ -P (µg at/L)
0	13.93	32.99	24.67	328.2	.0000	5.39	0.46
10	13.90	32.95	24.65	330.8	.0331	5.56	0.44
20	13.95	32.89	24.59	336.5	.0666	5.35	0.46
30	13.89	32.87	24.59	337.1	.1004	5.34	0.47
50	13.62	32.97	24.72	325.0	.1669	5.52	0.52
75	12.97	32.95	24.84	314.6	.2473	5.45	0.67
100	11.93	32.90	24.99	299.8	.3246	5.26	0.74
150	9.20	33.35	25.82	221.9	.456	4.31	1.34
200	8.12	33.63	26.20	186.1	.559	3.31	1.79
250	7.69	33.83	26.42	165.6	.647	2.49	1.98
300	7.11	33.97	26.62	147.9	.726	2.23	2.14
400	6.10	34.04	26.80	130.7	.867	1.35	2.38
500	5.48	34.12	26.94	118.2	.992	0.85	2.62
600	5.12	34.31	27.14	100.7	1.103	0.40	2.77
700	4.83	34.31	27.17	98.3	1.203	0.40	2.99
800	4.45	34.29	27.20	96.1	1.301	0.40	3.01
1000	3.85	34.42	27.36	81.3	1.481	0.62	2.99

STATION 704K-3 (Interpolated Values at Standard Depths)

HORIZON: 34°54'N 124°04'W January 7, 1950 2000 GCT Wire angle: 34°
 Sounding: 2,530 fms. Depth of observation: 1,111 m. Weather: cloudy
 Sea: very rough Wind: 180°, force 5.

0	13.82	32.97	24.68	327.6	.0000	5.53	0.42
10	13.79	33.04	24.74	322.0	.0326	5.20	0.42
20	13.83	32.97	24.68	328.4	.0653	5.42	0.42
30	13.84	32.96	24.67	329.5	.0983	5.51	0.43
50	13.70	32.93	24.67	329.4	.1645	5.54	0.49
75	12.67	32.96	24.90	308.2	.2447	5.46	0.64
100	11.98	33.02	25.08	291.8	.3201	5.33	0.72
150	9.10	33.29	25.79	224.8	.450	4.60	1.30
200	8.25	33.70	26.24	182.5	.553	3.50	1.68
250	7.58	33.82	26.43	164.8	.640	2.80	1.93
300	7.16	33.89	26.55	154.5	.721	2.48	2.11
400	6.16	33.96	26.74	137.3	.868	1.99	2.39
500	5.38	34.05	26.90	122.2	.999	0.74	2.68
600	4.97	34.15	27.03	110.8	1.116	0.48	2.78
700	4.81	34.27	27.14	101.0	1.223	0.40	2.80
800	4.55	34.30	27.20	96.5	1.323	0.42	2.80
1000	3.90	34.32	27.28	89.3	1.511	0.59	2.76

STATION 704K-4 (Interpolated Values at Standard Depths)

HORIZON: 34°54'N 124°04'W January 7, 1950 2200 GCT Wire angle: 25°
 Sounding: 2,530 fms. Depth of observation: 1,294 m. Weather: cloudy
 Sea: rough Wind: 180°, force 4.

Depth (m)	T (°C)	S (°/oo)	σ_t (mg/cm ³)	$10^5 \delta$	ΔD (dyn.m.)	O ₂ (ml/L)	PO ₄ -P ($\mu\text{g at/L}$)
0	13.81	32.97	24.68	327.5	.0000	5.40	0.44
10	13.78	32.97	24.69	327.0	.0329	5.42	0.43
20	13.79	32.98	24.69	326.7	.0657	5.48	0.44
30	13.82	32.99	24.69	326.8	.0985	5.50	0.44
50	13.80	32.90	24.63	333.5	.1648	5.49	0.46
75	13.15	32.93	24.78	319.0	.2469	5.40	0.58
100	11.68	32.95	25.08	291.4	.3237	5.38	0.83
150	9.90	33.21	25.59	243.3	.458	4.60	1.25
200	8.31	33.46	26.04	201.4	.570	3.59	1.64
250	7.47	33.86	26.48	160.3	.661	2.94	1.87
300	7.00	33.94	26.61	148.8	.739	2.49	2.12
400	6.18	34.01	26.77	134.0	.882	1.60	2.39
500	5.48	34.06	26.90	122.6	1.011	0.96	2.64
600	5.10	34.10	26.97	116.0	1.132	0.49	2.72
700	4.78	34.28	27.15	99.8	1.240	0.38	2.72
800	4.42	34.40	27.29	87.6	1.335	0.42	2.73
1000	3.81	34.44	27.38	79.4	1.504	0.64	2.72

STATION 704K-5 (Interpolated Values at Standard Depths)

HORIZON: 34°54'N 124°04'W January 8, 1950 0000 GCT Wire angle: 23°
 Sounding: 2,530 fms. Depth of observation: 1,230 m. Weather: cloudy
 Sea: very rough Wind: 180°, force 5.

0	13.88	32.99	24.68	327.2	.0000	5.14	0.48
10	13.85	33.01	24.70	325.4	.0328	5.42	0.47
20	13.85	32.99	24.69	327.1	.0655	5.46	0.49
30	13.86	32.96	24.66	329.8	.0985	5.49	0.49
50	13.85	33.08	24.76	321.2	.1639	5.47	0.50
75	13.17	32.83	24.70	327.5	.2455	5.55	0.58
100	11.74	32.95	25.07	292.6	.3235	5.61	0.75
150	9.90	33.33	25.69	234.4	.456	4.75	1.33
200	8.33	33.69	26.22	184.6	.562	3.37	1.70
250	7.47	33.86	26.48	160.3	.648	2.70	1.98
300	6.91	33.87	26.56	152.9	.727	2.29	2.25
400	5.94	33.94	26.75	136.1	.873	1.20	2.66
500	5.42	34.03	26.88	124.3	1.004	0.81	2.79
600	5.03	34.12	27.00	113.7	1.124	0.44	2.91
700	4.79	34.21	27.10	105.0	1.235	0.38	2.92
800	4.45	34.40	27.29	87.7	1.332	0.38	2.94
1000	3.87	34.40	27.34	82.9	1.505	0.60	2.94

STATION 704K-6 (Interpolated Values at Standard Depths)

HORIZON: 34°54'N 124°04'W January 8, 1950 0200 GCT Wire angle: 24°
 Sounding: 2,530 fms. Depth of observation: 1,208 m. Weather: partly cloudy
 Sea: very rough Wind: 180°, force 5.

Depth (m)	T (°C)	S (°/oo)	σ_t (mg/cm ³)	$10^5 \delta$	ΔD (dyn.m.)	O ₂ (ml/L)	pO ₄ -P (μ g at/L)
0	13.95	33.04	24.70	325.1	.0000	5.55	0.53
10	13.95	33.04	24.70	325.4	.0327	5.31	0.52
20	13.94	33.04	24.71	325.5	.0653	5.53	0.47
30	13.93	33.04	24.71	325.7	.0980	5.75	0.46
50	13.90	33.04	24.72	325.2	.1634	5.93	0.46
75	13.10	32.99	24.84	314.1	.2438	5.85	0.60
100	12.05	33.04	25.08	291.7	.3200	5.95	0.70
150	9.77	33.43	25.79	225.1	.450	4.25	1.38
200	8.30	33.82	26.32	174.4	.551	3.72	1.65
250	7.53	33.96	26.55	153.8	.633	3.09	1.96
300	6.83	33.98	26.66	143.6	.708	2.46	2.14
400	6.16	34.06	26.81	129.9	.846	1.25	2.47
500	5.39	34.12	26.95	117.1	.971	0.79	2.61
600	5.05	34.27	27.11	102.9	1.082	0.50	2.76
700	4.78	34.32	27.18	96.8	1.182	0.37	2.82
800	4.53	34.34	27.23	93.3	1.278	0.39	2.83
1000	4.00	34.45	27.37	80.8	1.454	0.55	2.84

STATION 704K-7 (Interpolated Values at Standard Depths)

HORIZON: 34°54'N 124°04'W January 8, 1950 0400 GCT Wire angle: 24°
 Sounding: 2,530 fms. Depth of observation: 1,229 m. Weather: overcast
 Sea: very rough Wind: 190°, force 6.

0	13.92	33.01	24.69	326.6	.0000	5.16	0.44
10	13.88	33.01	24.70	326.1	.0328	5.50	0.42
20	13.90	33.03	24.71	325.3	.0655	5.36	0.44
30	13.91	33.03	24.71	325.8	.0982	5.36	0.48
50	13.69	32.99	24.72	324.8	.1636	5.49	0.53
75	13.44	32.99	24.77	320.7	.2447	5.25	0.55
100	11.62	33.01	25.14	286.1	.3210	5.48	0.72
150	9.81	33.40	25.76	227.9	.450	4.25	1.35
200	8.38	33.82	26.31	175.6	.552	3.14	1.78
250	7.44	33.97	26.57	151.7	.634	2.79	2.02
300	6.78	33.98	26.67	142.8	.709	2.39	2.17
400	5.97	34.07	26.84	126.8	.845	1.14	2.54
500	5.35	34.13	26.97	115.9	.967	0.69	2.72
600	4.95	34.24	27.10	104.0	1.078	0.40	2.79
700	4.73	34.31	27.18	97.0	1.179	0.32	2.87
800	4.51	34.38	27.26	90.1	1.274	0.37	2.88
1000	3.92	34.44	27.37	80.7	1.447	0.58	2.82

STATION 704K-8 (Interpolated Values at Standard Depths)

HORIZON: 34°54'N 124°04'W January 8, 1950 0600 GCT Wire angle: 35°
 Sounding: 2,530 fms. Depth of observation: 236 m. Weather: rain
 Sea: very rough Wind: 190°, force 6.

Depth (m)	T (°C)	S (‰)	σ_t (mg/cm ³)	$10^5 \delta$	ΔD (dyn.m.)	O ₂ (ml/L)	PO ₄ -P (µg at/L)
0	13.86	32.97	24.67	328.3	.0000	5.00	0.44
10	13.82	32.92	24.64	331.5	.0331	5.12	0.46
20	13.87	32.90	24.61	334.2	.0665	5.20	0.52
30	13.85	32.91	24.63	333.3	.1000	5.20	0.52
50	13.70	33.03	24.75	322.1	.1659	5.20	0.54
75	12.65	32.91	24.87	311.5	.2456	5.36	0.62
100	11.10	32.94	25.18	282.2	.3202	5.16	0.74
150	9.74	33.34	25.72	231.2	.449	4.20	1.50
200	8.81	33.69	26.14	191.6	.556	3.34	1.78
250	-	-	-	(159.5)	(.644)	-	-
300	-	-	-	(147.8)	(.722)	-	-
400	-	-	-	(131.0)	(.862)	-	-
500	-	-	-	(120.6)	(.989)	-	-
600	-	-	-	(107.4)	(1.104)	-	-
700	-	-	-	(100.8)	(1.209)	-	-
800	-	-	-	(92.6)	(1.307)	-	-
1000	-	-	-	(82.6)	(1.484)	-	-

STATION 704K-9 (Interpolated Values at Standard Depths)

HORIZON: 34°54'N 124°04'W January 8, 1950 1030 GCT Wire angle: 27°
 Sounding: 2,530 fms. Depth of observation: 1,288 m. Weather: rain
 Sea: high Wind: 200°, force 7.

0	13.70	32.99	24.72	323.8	.0000	5.45	0.46
10	13.77	33.00	24.71	324.8	.0326	5.46	0.48
20	13.74	32.99	24.71	325.2	.0652	5.49	0.48
30	13.67	32.97	24.71	325.5	.0979	5.49	0.48
50	13.65	33.03	24.76	321.2	.1628	5.37	0.50
75	13.15	33.04	24.87	311.5	.2424	5.50	0.61
100	10.47	32.98	25.32	268.7	.3154	5.39	0.86
150	9.45	33.39	25.81	222.9	.439	4.02	1.41
200	8.48	33.68	26.19	187.6	.542	3.34	1.84
250	7.70	33.81	26.41	167.3	.632	2.85	1.98
300	7.14	33.91	26.56	152.8	.712	2.44	2.10
400	6.17	33.99	26.76	135.3	.858	1.50	2.43
500	5.52	34.03	26.87	125.2	.989	0.81	2.63
600	5.03	34.16	27.03	110.8	1.108	0.50	2.73
700	4.75	34.21	27.10	104.7	1.217	0.38	2.84
800	4.50	34.31	27.21	95.2	1.318	0.40	2.90
1000	3.93	34.39	27.33	84.5	1.500	0.60	2.92

STATION 704K-10 (Interpolated Values at Standard Depths)

HORIZON: 34°54'N 124°04'W January 8, 1950 1410 GCT Wire angle: 19°
 Sounding: 2,530 fms. Depth of observation: 1,230 m. Weather: partly cloudy
 Sea: high Wind: 270°, force 4.

Depth (m)	T (°C)	S (‰)	σ_t (mg/cm ³)	10^5	ΔD (dyn.m.)	O ₂ (ml/L)	PO ₄ -P (µg at/L)
0	13.66	33.05	24.77	318.6	.0000	5.24	0.46
10	13.66	33.05	24.77	318.9	.0320	5.53	0.46
20	13.68	33.05	24.77	319.5	.0640	5.70	0.51
30	13.69	33.05	24.77	319.9	.0962	5.70	0.54
50	13.67	33.05	24.77	320.1	.1605	5.47	0.56
75	13.67	33.05	24.77	320.7	.2410	5.21	0.54
100	11.70	32.99	25.11	288.9	.3177	5.64	0.74
150	9.65	33.50	25.86	218.0	.445	4.10	1.43
200	8.30	33.82	26.32	174.4	.544	3.54	1.69
250	7.56	33.94	26.53	155.6	.627	2.84	2.01
300	6.78	33.98	26.67	142.8	.702	2.25	2.20
400	5.92	34.08	26.86	125.5	.838	1.31	2.70
500	5.37	34.17	27.00	113.2	.958	0.76	2.82
600	5.06	34.25	27.10	104.5	1.068	0.46	2.82
700	4.83	34.34	27.20	96.0	1.169	0.38	2.91
800	4.51	34.41	27.29	87.7	1.262	0.40	2.89
1000	3.90	34.47	27.40	78.2	1.430	0.60	2.94

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New Haven, Connecticut

Mr. Don T. Saxby
California Packing Corporation
101 California Street
San Francisco, California

Mr. M. B. Schaefer
Section of Research and Development
Pacific Oceanic Fishery Investigations
P. O. Box 3830
Honolulu, T. H.

Director
School of Fisheries
University of Washington
Seattle 4, Washington

Mr. O. E. Sette
Section of Biology and Oceanography
Pacific Oceanic Fishery Investigations
P. O. Box 3830
Honolulu, T. H.

Mr. Kristian Fredrik Wiborg
Fiskeridirektoratets
Havforskningsinstitutt
Postboks 226
Bergen, Norway

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Woods Hole Oceanographic Institution
Woods Hole, Massachusetts

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Nanaimo, British Columbia

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