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UNIVERSITY OF CALIFORNIA SCRIPPS INSTITUTION OF OCEANOGRAPHY

## data report

PHYSICAL AND CHEMICAL DATA

CCOFI CRUISE 5705  
(MLR 96)  
9-23 May 1957

and

CCOFI CRUISE 5706  
(MLR 97)  
5-23 June 1957

SIO Reference 58-33  
15 July 1958

UNIVERSITY OF CALIFORNIA  
SCRIPPS INSTITUTION OF OCEANOGRAPHY

PHYSICAL AND CHEMICAL DATA

CCOFI CRUISE 5705

(MLR 96)

9-23 May 1957

and

CCOFI CRUISE 5706

(MLR 97)

5-23 June 1957

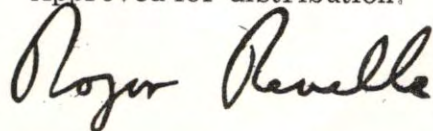
Sponsored by

Marine Research Committee

SIO Reference 58-33

15 July 1958

Approved for distribution:



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Roger Revelle, Director

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## INTRODUCTION

The data presented in this report were collected on the ninety-sixth and ninety-seventh cruises of the California Cooperative Oceanic Fisheries Investigations program. The R/V Black Douglas of the U. S. Fish and Wildlife Service, the R/V Horizon, R/V Orca, and the R/V Stranger of the Scripps Institution of Oceanography participated in the ninety-sixth cruise while the R/V Black Douglas, the R/V Horizon, the R/V Orca, and the R/V Stranger participated in the ninety-seventh cruise.

The data are tabulated at observed depths; the interpolated and computed values are tabulated at standard depths accompanied by charts of horizontal distribution. The presentation of data in this report does not constitute publication, and the interpretations herein may be subject to modification as the program continues.

The stations occupied in the Gulf of California are based on a special grid; therefore, they will appear in each report following the data obtained in the normal station pattern. In each group stations are listed in numerical order. The designation "G" in the station number is used to denote Gulf of California stations.

## STANDARD PROCEDURES

Processing of the data was carried out using the method described by Klein.<sup>1/</sup> Certain approximations have been introduced for the determination of the integrated pressure terms which may result in errors whose maximum values are less than 0.5 dynamic centimeter at 0 over 200 decibars, 1.0 dynamic centimeter at 0 over 500 decibars, and 2.0 dynamic centimeters at 0 over 1000 decibars. The 125-meter level was introduced into the integration to obtain greater accuracy in the determination of  $\Delta D$ . The interpolated values at 125 meters are not tabulated.

To indicate degree of accuracy, temperatures are recorded in tenths of a degree when obtained by bucket thermometer, thermograph, or bathythermograph, while temperatures from reversing thermometers are recorded in hundredths of a degree. Extrapolated values and values interpolated between remote observations

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<sup>1/</sup> Klein, Hans T. A new technique for processing physical oceanographic data. MS. Contribution from the Scripps Institution of Oceanography, New Series, No. 000.

are entered within parentheses. A hyphen is used to indicate a missing observed value. The time is the time of messenger release. When more than one cast was made on a station, each messenger time and wire angle, is given in the order of increasing depth of casts. A line is left blank between the observed data of each cast.

## FOOTNOTES

In addition to standard footnotes, three special notations are used without footnotes because their meaning is always the same.

To indicate a premature or a delayed reversal of the water-sampling device which results in certain depth and property errors, the following notation is used.

p: pretrip or posttrip.

Values which are not drawn through because they seem to be in error without apparent reason are indicated by one of the following notations.

r: rejected value (value seems to be definitely wrong),

u: uncertain value (value may be correct; occasionally it can influence the drawing of the property curve).

## FORMAT

Beginning with this report, these data will be typed in the format of the University of California Press publication, "Oceanic Observations of the Pacific." So that these pages can be used as copy for the 1953 volume, the first page of the Cruise 5705 data is numbered 119 and the first page of the Cruise 5706 data is numbered 131.

## FIGURES

1. CCOFI Cruise 5706 (MLR 97), station positions, coastal grid
2. CCOFI Cruise 5706 (MLR 97), station positions, Gulf of California grid
3. Horizontal distribution of dynamic height anomaly (0 over 500 d-bar)
4. Surface currents measured by geomagnetic electrokinetograph (GEK)
5. Horizontal distribution of temperature at 10 meters
6. Horizontal distribution of salinity at 10 meters
7. Horizontal distribution of temperature at 200 meters
8. Horizontal distribution of salinity at 200 meters

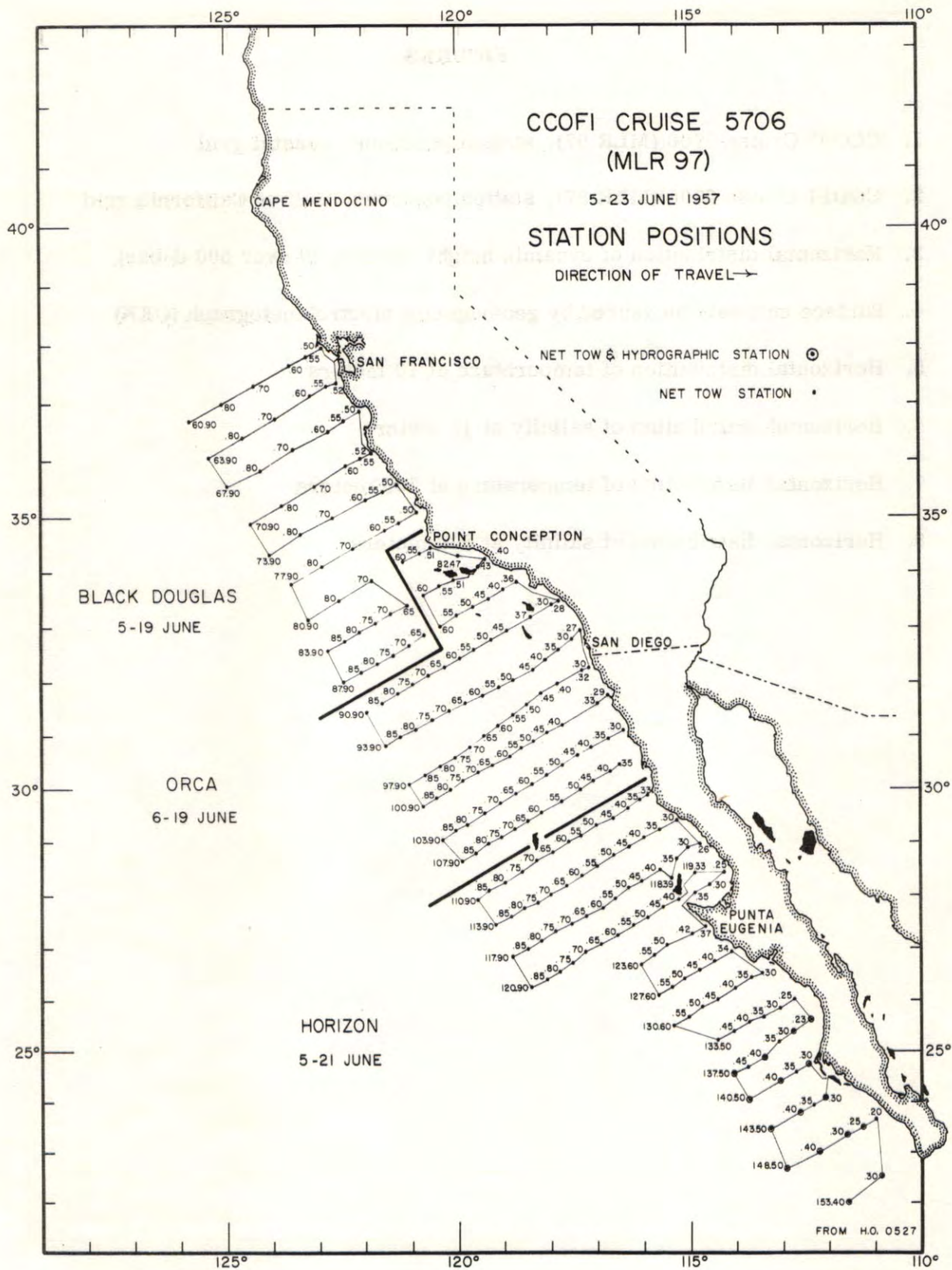


FIGURE 1

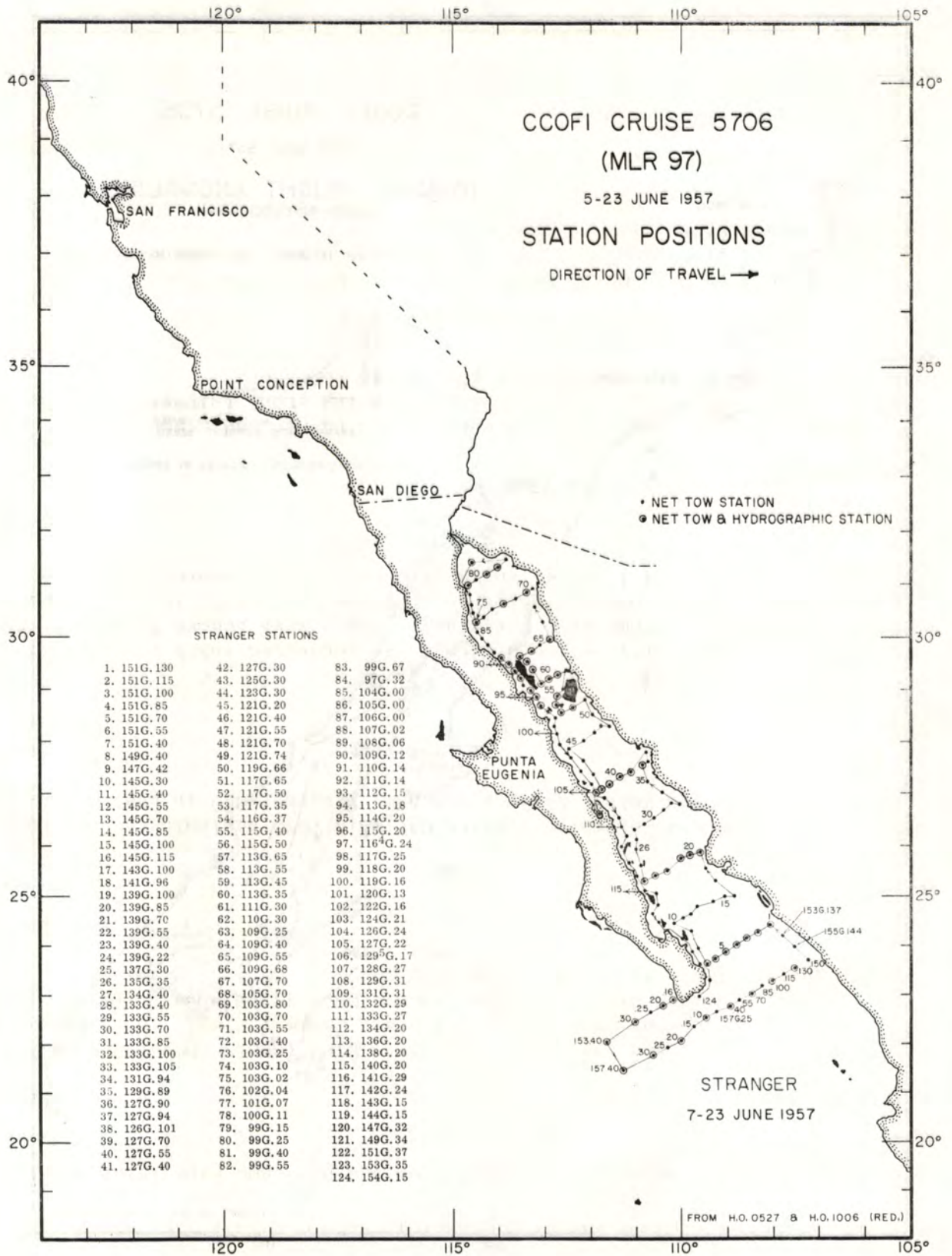


FIGURE 2



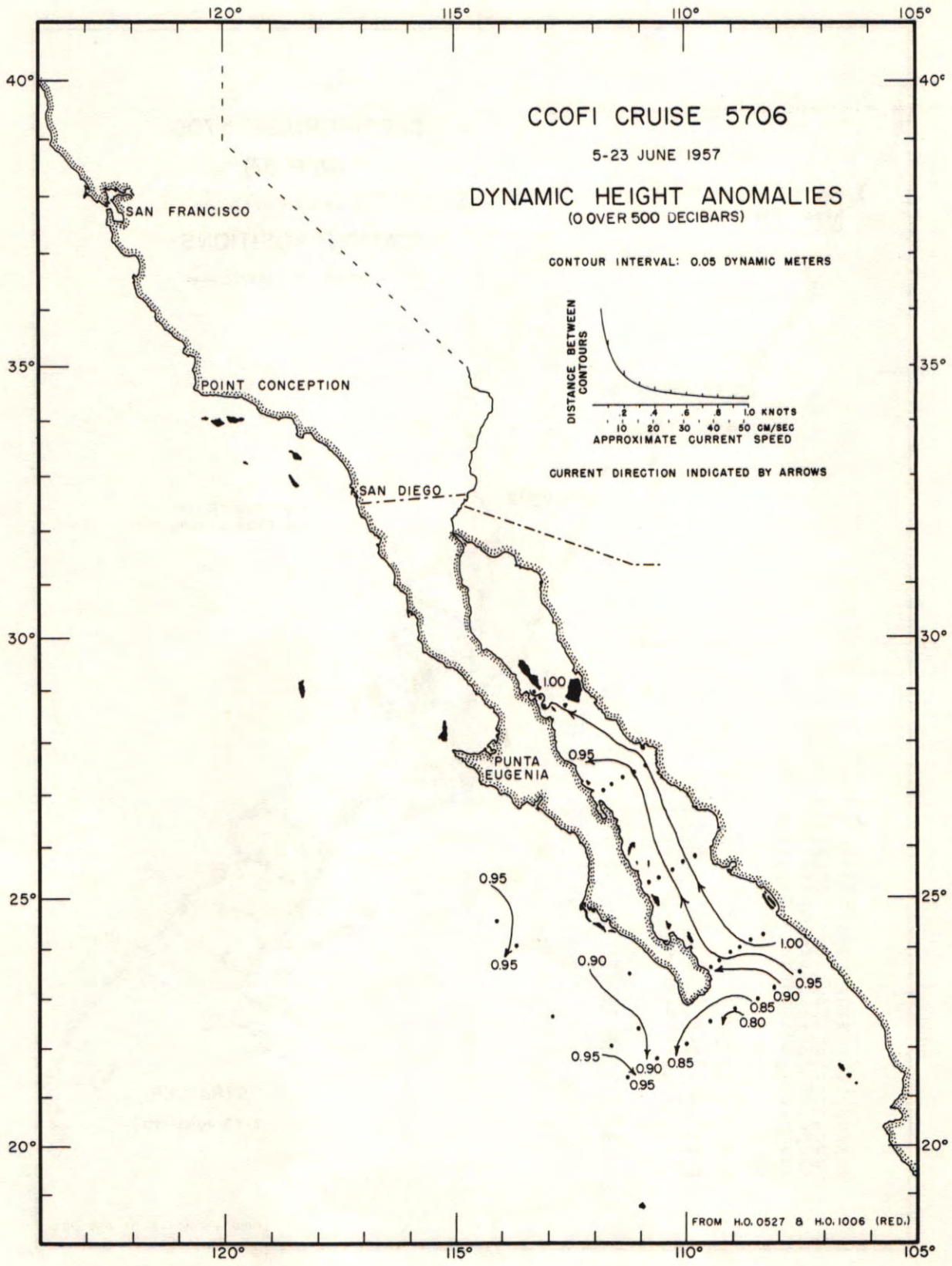


FIGURE 3

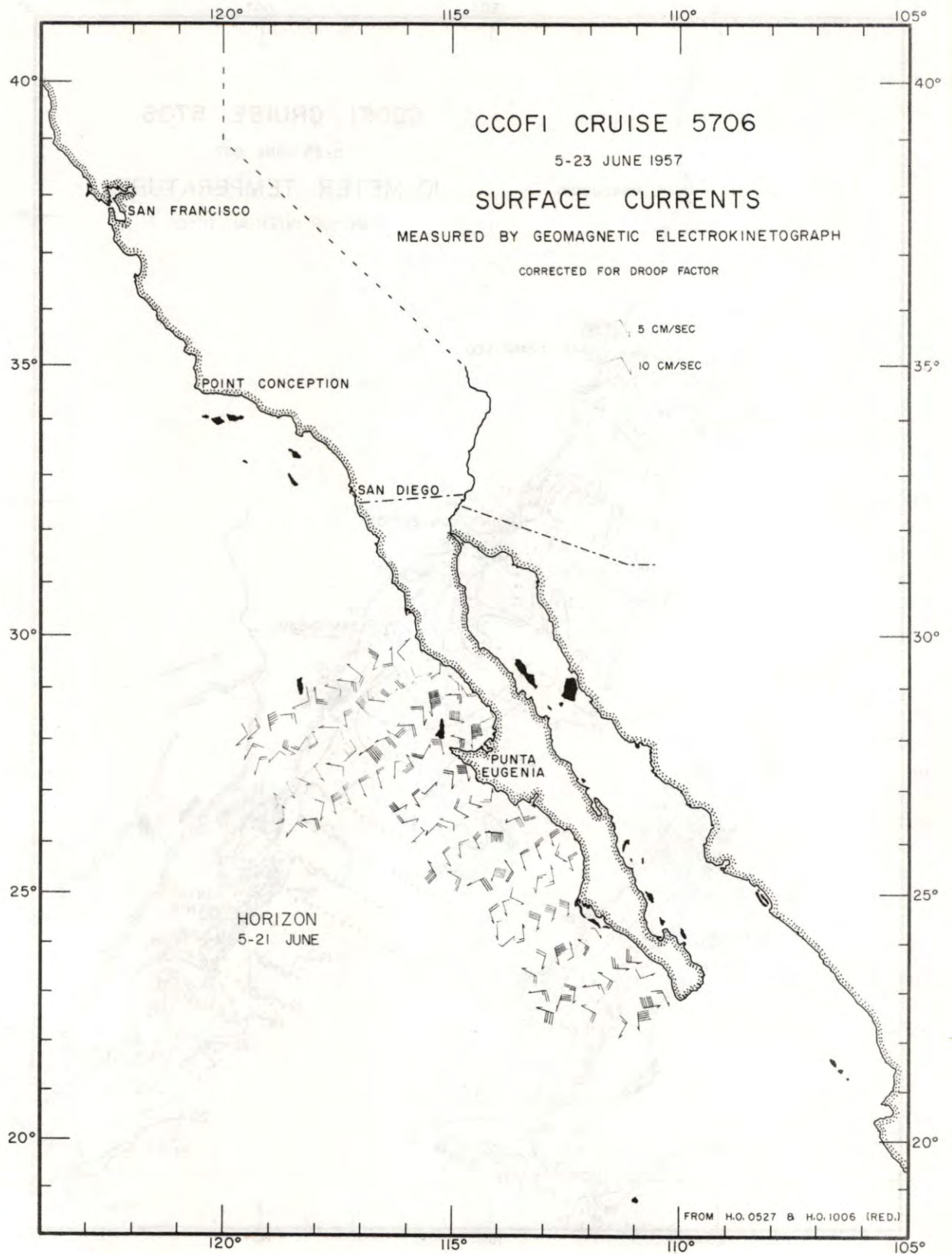


FIGURE 4

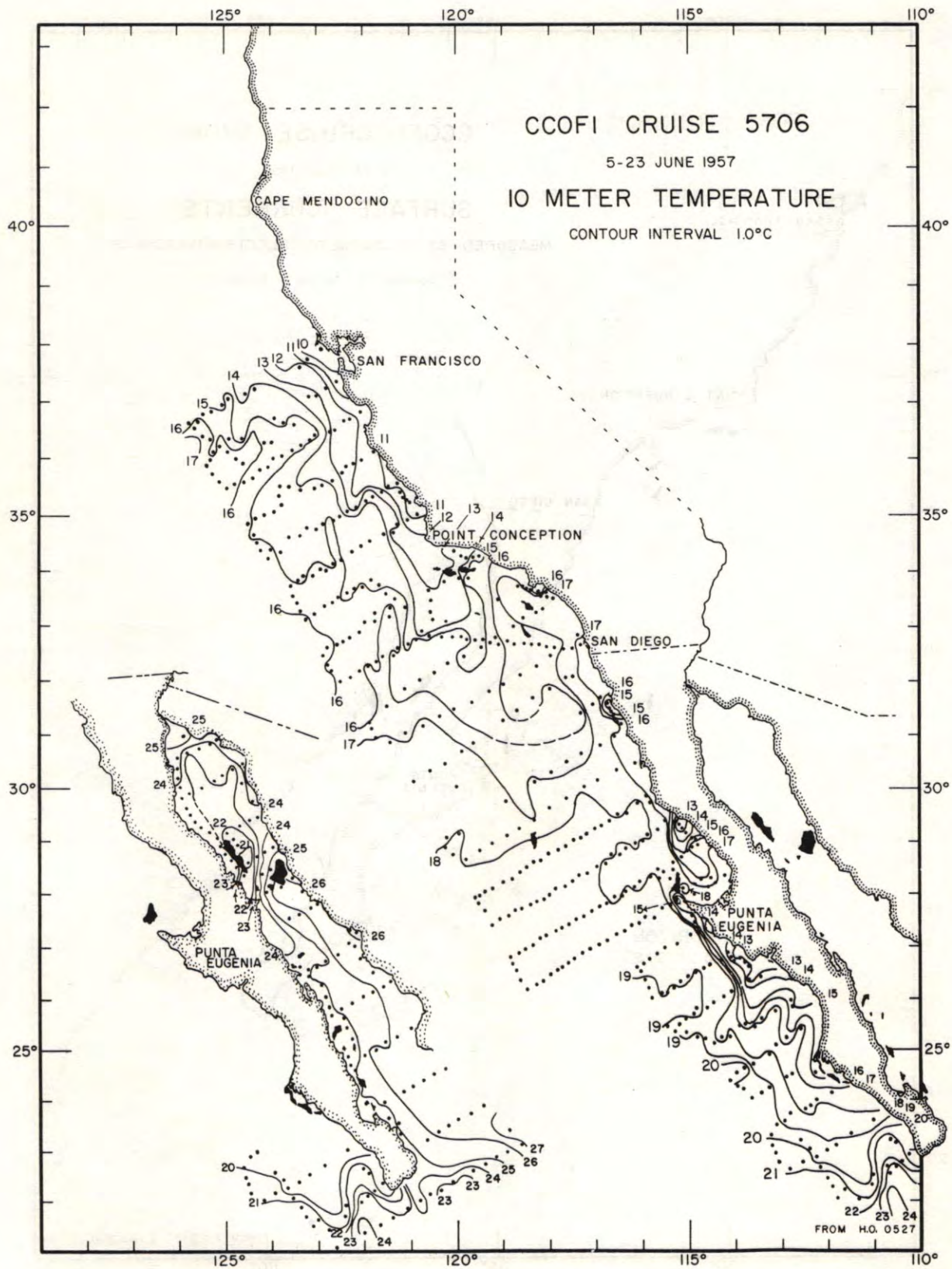


FIGURE 5

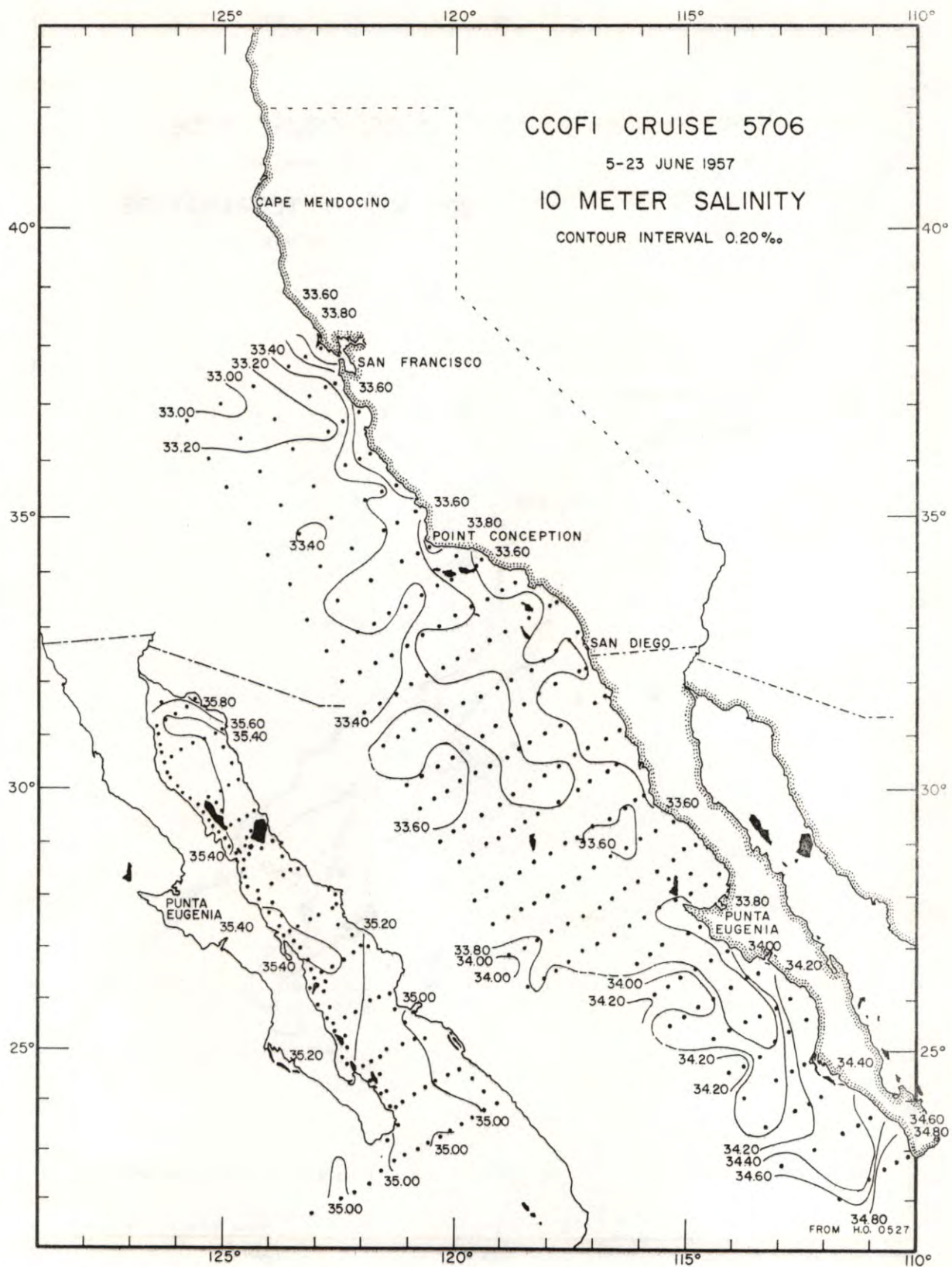


FIGURE 6



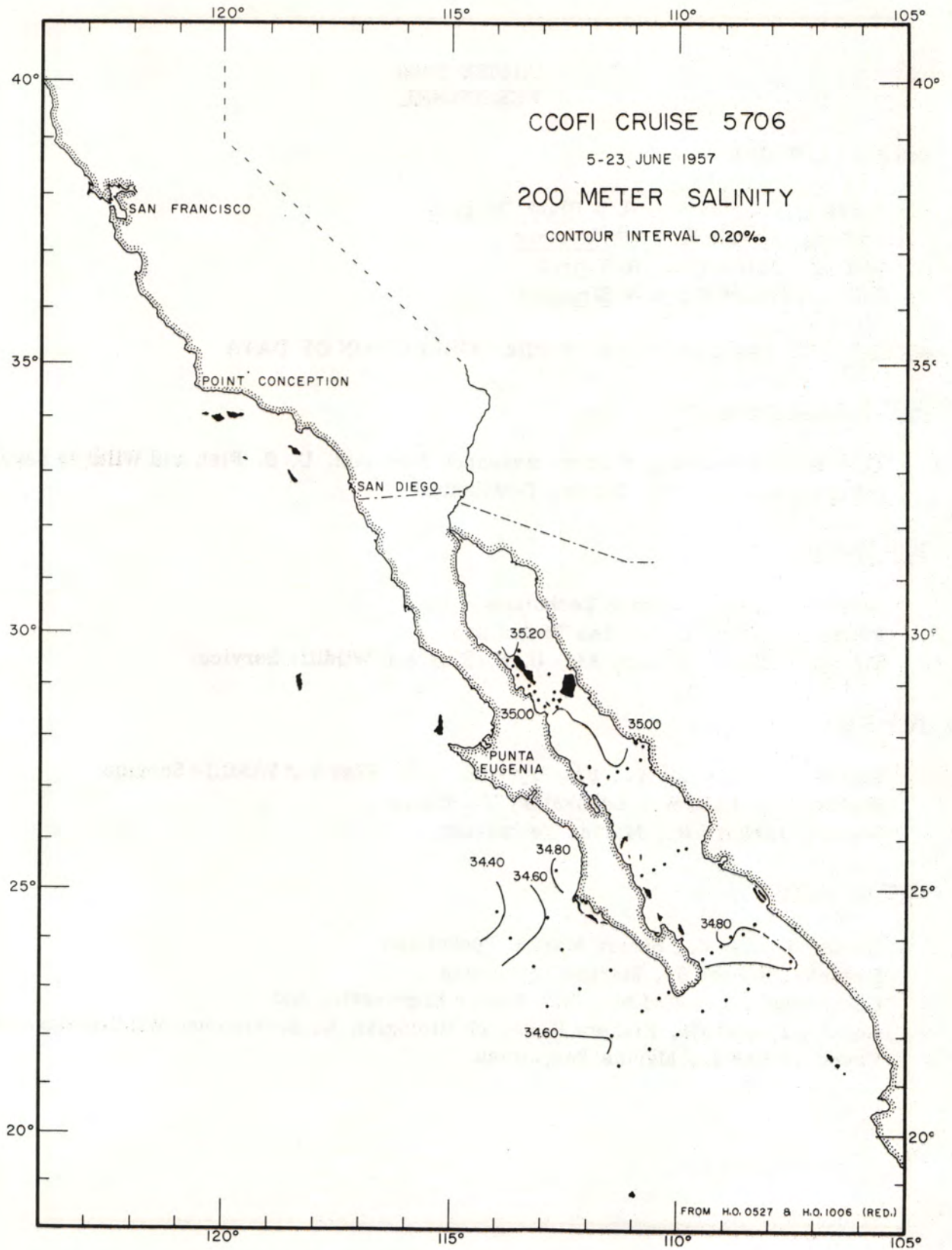


FIGURE 8

CRUISE 5706  
PERSONNEL

SHIP'S CAPTAINS

Forster, Charles W. , R/V Black Douglas  
Hopkins, Marvin K. , R/V Horizon  
Colbeth, Clifford W. , R/V Orca  
Haines, Robert B. , R/V Stranger

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

R/V Black Douglas

Thraikill, James R. , Fishery Research Biologist, U. S. Fish and Wildlife Service  
Jeffers, John N. , Jr. , Marine Technician

R/V Horizon

Jaynes, John M. , Marine Technician  
Froerer, Arthur I. , Marine Technician  
Tubbs, Paul E. , Fishery Aid, U. S. Fish and Wildlife Service

R/V Orca

Vorobiov, Alexander V. , Fishery Aid, U. S. Fish and Wildlife Service  
Richardson, Park W. , Laboratory Technician  
Rogers, Richard P. , Marine Technician

R/V Stranger

Brown, Daniel M. , Senior Marine Technician  
Brennan, Robert E. , Marine Technician  
Cunningham, Leonard M. , Jr. , Senior Engineering Aid  
Counts, Robert C. , Fishery Research Biologist, U. S. Fish and Wildlife Service  
Davoll, Peter J. , Marine Technician

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O <sub>2</sub>	Z	T	S	O <sub>2</sub>	σ <sub>t</sub>	δ <sub>T</sub>	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10 <sup>5</sup> cm <sup>3</sup> /g	dyn. m

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HORIZON; June 12, 1957; 0519 GCT; 25°37'N, 112°22'W; sounding, 35 fm; wind, 280°, force 3; weather, clear; sea, slight; wire angle, 05°.

137.23

0	17.61	34.29	5.58	0	17.61	34.29	5.58	24.84	312	0.00
20	13.90	34.15	1.33	10	15.80	34.20	3.12	25.20	278	0.03
31	12.86	34.23	0.97	20	13.90	34.15	1.33	25.56	243	0.06
40	13.51	34.58	0.45	30	12.91	34.23	1.00	25.83	218	0.08
50	13.54	34.60	0.31	50	13.54	34.60	0.31	26.00	202	0.12
60	13.52	34.62	0.29							

HORIZON; June 12, 1957; 0207 GCT; 25°22'N, 112°45'W; sounding, 150 fm; wind, 320°, force 4; weather, clear; sea, slight; wire angle, 05°.

137.30

0	16.72	33.95	5.74	0	16.72	33.95	5.74	24.79	317	0.00
10	16.66	34.04	5.20	10	16.66	34.04	5.20	24.88	308	0.03
28	14.71	34.07	4.65	20	15.61	34.06	4.82	25.13	284	0.06
47	13.41	34.16	1.85	30	14.59	34.08	4.53	25.37	262	0.09
69	12.40	34.38	0.75	50	13.22	34.19	1.57	25.74	226	0.14
93	12.07	34.47	0.69	75	12.30	34.41	0.72	26.09	193	0.19
115	12.10	34.69	0.39	100	12.07	34.54	0.55	26.24	179	0.24
153	11.86	34.77	0.36	150	11.89	34.76	0.36	26.45	159	0.32
190	11.61	34.81	0.33	200	11.48	34.80	0.31	26.55	149	0.40
237	10.92	34.72	0.23							

HORIZON; June 11, 1957; 1954, 2021 GCT; 24°52.5'N, 113°23'W; sounding, 2000 fm; wind, 300°, force 4; weather, cloudy; sea, moderate; wire angle, 15°, 20°.

13740

0	18.14	33.79	5.38							
9	18.08	33.82	5.42							
29	17.66	33.84	5.55							
33p	16.82	33.73	3.94							
39p	15.30	33.68	5.54							
46p	14.70	33.67	3.32							
59p	12.90	33.76	4.60							
69p	12.42	33.75	2.28							
79p	12.33	-	-							
97p	11.81	33.88	1.80							
117p	11.66	34.07	2.11							
143p	11.67	34.35	0.88							

HORIZON; June 11, 1957; 1414 GCT; 24°32.5'N, 114°04.5'W; sounding, 2200 fm; wind, 340°, force 4; weather, drizzle; sea, moderate; wire angle, 20°.

137.50

0	19.98	34.33	7.12	0	19.98	34.33	7.12	24.27	366	0.00
9	19.98	34.32	6.65	10	19.98	34.32	6.67	24.27	366	0.04
28	19.99	34.32	6.85	20	19.99	34.32	6.75	24.27	366	0.07
41	20.00	34.30	6.20	30	19.99	34.32	6.80	24.27	366	0.11
49	19.93	34.26	6.27	50	19.92	34.26	6.28	24.24	369	0.18
59	19.48	34.22	7.13	75	18.48	34.04	7.29	24.44	350	0.27
66	19.22	34.14	7.50	100	15.47	33.85	7.11	25.00	297	0.36
82	17.66	33.95	7.07	150	11.60	33.97	3.31	25.89	212	0.48
93	15.93	33.81	7.99	200	10.61	34.28	2.00	26.30	173	0.58
106	15.02	33.95	4.40	250	10.18	34.43	1.32	26.50	154	0.66
125	12.17	33.77	4.14	300	9.67	34.50	0.80	26.64	141	0.74
147	11.68	33.94	3.42	400	8.40	34.50	0.51	26.84	122	0.88
180	10.80	34.21	2.31	500	(6.73)	(34.45)		(27.04)	(103)	(0.99)
246	10.21	34.42	1.38							
329	9.35	34.52	0.56							
462	7.40	34.47	0.50							



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5706

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O <sub>2</sub>	Z	T	S	O <sub>2</sub>	σ <sub>t</sub>	ΔT	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10 <sup>5</sup> cm <sup>3</sup> /g	dyn. m

140.30 HORIZON; June 10, 1957; 2305 GCT; 24°45.5'N, 112°24'W; sounding, 55 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 10°.

0	17.24	34.29	5.04	0	17.24	34.29	5.04	24.93	303	0.00
10	17.16	34.26	5.00	10	17.16	34.26	5.00	24.93	303	0.03
29	15.45	34.44	3.09	20	16.49	34.32	4.40	25.13	284	0.06
49	14.89	34.60	1.92	30	15.44	34.45	3.03	25.47	252	0.09
74	14.12	34.61	0.64	50	14.87	34.60	1.85	25.71	229	0.13
				75	(14.09)	(34.61)	(0.63)	(25.89)	(212)	(0.19)

140.40 HORIZON; June 11, 1953; 0403, 0420 GCT; 24°25'N, 113°02'W; sounding, 2000 fm; wind, 320°, force 4; weather, drizzle; sea, moderate; wire angle, 32°, 36°.

0	18.84	33.92	5.41	0	18.84	33.92	5.41	24.25	368	0.00
8	18.86	33.88	5.48	10	18.84	33.88	5.47	24.22	371	0.04
25	18.80	33.93	5.43	20	18.81	33.92	5.45	24.26	367	0.07
				30	18.90	33.99	5.44	24.29	364	0.11
38	19.20	34.13	5.46	50	18.69	34.10	5.55	24.43	351	0.18
46	19.04	34.13	5.51	75	14.32	33.72	5.16	25.15	282	0.26
54	18.10	34.05	5.58	100	12.05	34.07	2.40	25.88	213	0.32
66	16.09	33.85	5.57	150	11.57	34.38	1.10	26.21	182	0.42
73	14.75	33.76	5.25	200	11.16	34.58	1.14	26.44	160	0.51
80	13.10	33.60	4.92							
91	12.10	33.84	3.48							
104	12.02	34.16	1.95							
123	11.80	34.02r	2.47							
161	11.48	34.42	1.06							
217	11.03	34.66	1.19							

140.50 HORIZON; June 11, 1957; 0827, 0912 GCT; 24°04'N, 113°43'W; sounding, 2000 fm; wind, 320°, force 4; weather, overcast; sea, moderate; wire angle, 20°, 20°.

0	19.08	33.90	5.30	0	19.08	33.90	5.30	24.18	375	0.00
				10	19.11	33.91	5.40	24.18	375	0.04
8	19.10	33.91	5.50	20	19.11	33.92	5.15	24.19	374	0.07
26	19.12	33.93	5.06	30	19.08	33.98	5.20	24.24	369	0.11
39	19.02	34.07	5.36	50	18.98	34.12	5.09	24.38	356	0.18
47	19.07	34.12	4.96	75	16.50	33.85	5.36	24.76	319	0.27
56	18.70	34.09	5.47	100	13.26	33.75	4.34	25.40	259	0.34
64	17.76	34.00	5.01	150	11.44	34.19	2.15	26.08	194	0.46
81	15.84	33.78	5.55	200	10.94	34.45	1.06	26.38	165	0.55
95	14.04	33.73	4.84	250	10.25	34.56	0.60	26.58	146	0.63
106	12.46	33.78	3.77	300	9.69	34.59	0.31	26.70	135	0.70
128	11.77	33.98	3.68	400	8.63	34.57	0.12	26.86	120	0.84
154	11.40	34.22	1.73	500	(7.27)	(34.50)	(0.12)	(27.01)	(106)	(0.95)
189	11.06	34.41	1.19							
258	10.16	34.57	0.54							
347	9.22	34.59	0.13							
482	7.54	34.52	0.12							

143.30 HORIZON; June 9, 1957; 2020 GCT; 24°04.5'N, 112°03.5'W; sounding, 110 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 20°.

0	17.50	34.14	5.70	0	17.50	34.14	5.70	24.76	320	0.00
18	15.46	34.03	4.33	10	17.41	34.13	5.63	24.78	318	0.03
38	12.44	33.94	2.71	20	15.20	34.02	4.17	25.20	278	0.06
61	13.59	34.46	0.95	30	13.62	33.96	3.36	25.48	251	0.09
84	13.37	34.61	0.67	50	13.02	34.21	1.86	25.80	221	0.14
106	12.93	34.77	0.45	75	13.44	34.58	0.72	26.00	202	0.19
141	12.12	34.74	0.26	100	13.06	34.73	0.50	26.19	184	0.24
176	11.70	34.76	0.25	150	11.99	34.74	0.26	26.42	162	0.32

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O <sub>2</sub>	Z	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_T$	$\Delta D$
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 \text{cm}^3/\text{g}$	dyn. m

HORIZON; June 9, 1957; 1514 GCT; 23°46.5'N, 112°38'W; sounding, 1900 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 43°.

143.40

0	17.26	33.78	5.65	0	17.26	33.78	5.65	24.53	341	0.00
23	17.20	33.73	5.20	10	17.24	33.76	5.45	24.52	342	0.03
32	17.12	33.74	5.22	20	17.22	33.74	5.23	24.51	343	0.07
35	16.78	33.74	5.15	30	17.15	33.74	5.22	24.52	342	0.10
40	16.44	33.79	5.15	50	15.73	33.67	5.87	24.81	315	0.17
43	16.27	33.75	5.25	75	12.74	33.80	3.10	25.53	246	0.24
51	15.63	33.67	5.97	100	12.20	34.22	1.56	25.96	205	0.30
54	15.24	33.69	5.31	150	12.19	34.73	0.26	26.36	167	0.39
57	14.44	33.78	5.46	200	11.61	34.78	0.30	26.51	153	0.47
66	13.45	33.73	4.49	250	10.81	34.73	0.26	26.62	143	0.55
75	12.74	34.12r	3.10							
85	11.74	33.89	2.71							
105	12.55	34.39	1.00							
137	12.32	34.70	0.26							
186	11.82	34.78	0.31							
268	10.51	34.71	0.23							

HORIZON; June 9, 1957; 1013 GCT; 23°28.5'N, 113°15'W; sounding, 1200 fm; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, 29°.

143.50

0	19.25	34.02	5.51	0	19.25	34.02	5.51	24.23	370	0.00
8	19.26	33.98	5.59	10	19.26	33.98	5.58	24.20	373	0.04
26	19.27	34.01	5.49	20	19.27	33.99	5.50	24.20	373	0.07
29p	19.28	34.00	5.42	30	19.28	34.00	5.43	24.20	373	0.11
34p	19.24	34.01	5.54	50	18.94	33.97	5.53	24.27	366	0.18
40p	19.21	33.98	5.50	75	17.20	33.81	5.60	24.58	337	0.27
51p	18.91	33.97	5.53	100	14.82	33.82	4.47	25.12	285	0.35
60p	18.29	33.91	5.64	150	13.41	34.58	0.95	26.00	202	0.48
68p	17.63	33.89	5.49	200	11.92	34.70	0.38	26.38	165	0.57
83p	16.60	33.72	5.82	250	10.99	34.71	0.30	26.58	147	0.65
100p	14.82	33.82	4.47	300	10.27	34.71	0.26	26.70	135	0.72
123p	13.56	34.02	3.04							
158p	13.12	34.68	0.38							
211p	11.64	34.70	0.38							
281p	10.52	34.72	0.26							
388p	9.12	34.62	0.25							

HORIZON; June 8, 1957; 1246 GCT; 23°31'N, 111°14.5'W; sounding, 320 fm; wind, direction missing, force 1; weather, cloudy; sea, slight; wire angle, 08°.

148.25

0	19.60	34.36		0	19.60	34.36		24.40	354	0.00
10	18.94	34.27		10	18.94	34.27		24.50	344	0.03
29	17.89	34.23		20	18.40	34.25		24.62	333	0.07
39	16.39	34.18		30	17.83	34.23		24.75	321	0.10
48	16.40	34.42		50	16.36	34.44		25.25	273	0.16
57	15.92	34.52		75	14.60	34.72		25.86	215	0.22
67	15.29	34.72		100	13.59	34.82		26.16	186	0.27
80	14.24	34.72		150	12.27	34.79		26.40	164	0.36
93	13.86	34.83		200	11.73	34.79		26.49	155	0.44
107	13.24	34.81		250	11.29	34.76		26.55	149	0.52
129	12.59	34.79		300	10.79	34.76		26.65	140	0.59
156	12.19	34.79		400	9.62	34.66		26.76	129	0.73
188	11.82	34.79		500	8.47	34.59		26.90	116	0.86
233	11.46	34.76								
306	10.73	34.76								
398	9.64	34.66								
521	8.21	34.58								

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O <sub>2</sub>	Z	T	S	O <sub>2</sub>	$\sigma_t$	$\delta T_3$	$\Delta D$
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10 <sup>-5</sup> cm <sup>3</sup> /g	dyn. m

148.30

HORIZON; June 8, 1957; 1534 GCT; 23°20'N, 111°34.5'W; sounding, 400 fm; wind, 270°, force 3; weather, cloudy; sea, slight; wire angle, 15°.

0	19.40	34.27		0	19.40	34.27		24.38	356	0.00
10	19.61	34.32		10	19.61	34.32		24.37	357	0.04
30	18.49	34.33		20	19.20	34.32		24.47	347	0.07
43	17.54	34.38		30	18.49	34.33		24.66	329	0.10
53	17.18	34.51		50	17.31	34.48		25.06	291	0.17

148.40

HORIZON; June 8, 1957; 2040, 2056, 2110 GCT; 22°58'N, 112°14'W; sounding, 2000 fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 25°, 35°, 50°.

0	19.88	34.21	5.50	0	19.88	34.21	5.50	24.21	372	0.00
9	19.80	34.25	5.40	10	19.80	34.25	5.40	24.26	367	0.04
29	19.53	34.44	5.41	20	19.92	34.43	5.36	24.37	357	0.07
42	18.96	34.42	5.23	30	19.47	34.44	5.40	24.49	345	0.11
				50	18.79	34.62	5.00	24.80	316	0.17
46	18.86	34.52	5.17	75	14.72	34.06		25.32	266	0.25
54	18.74	34.63	4.77	100	14.63	34.64	1.32	25.80	221	0.31
68	16.44	34.24	4.45	150	12.27	34.71	0.36	26.33	170	0.41
79	15.13	34.20	3.27	200	11.63	34.74	0.16	26.48	156	0.49
91	15.40	34.67	1.72	250	10.82	34.72	0.13	26.61	144	0.57
				300	(10.18)	(34.72)	(0.12)	(26.72)	(133)	(0.64)
109	13.74	34.60	0.97							
132	12.46	34.54	0.64							
166	12.18	34.77	0.24							
222	11.23	34.72	0.13							
298	10.20	34.72	0.12							

148.50

HORIZON; June 9, 1957; 0119, 0131, 0143 GCT; 22°40.5'N, 112°53'W; sounding, 1600 fm; wind, 320°, force 3; weather, cloudy; sea, rough; wire angle, 05°, 05°, 05°.

0	20.68	34.56	5.39	0	20.68	34.56	5.39	24.26	367	0.00
11	20.55	34.58	5.80	10	20.57	34.58	5.74	24.31	362	0.04
30	19.77	34.42	5.67	20	20.30	34.54	5.71	24.35	359	0.07
45	18.40	34.33	6.63	30	19.77	34.42	5.67	24.40	354	0.11
54	17.60	34.28	5.10u	50	18.32	34.32	6.59	24.70	325	0.18
				75	17.43	34.49	4.23	25.04	293	0.25
59	17.58	34.43	5.51	100	13.88	34.41	1.56	25.78	223	0.32
68	17.50	34.45	4.52	150	12.20	34.60	0.53	26.26	177	0.42
86	15.87	34.54	2.47	200	11.71	34.73	0.26	26.45	159	0.50
100	13.88	34.41	1.56	250	11.06	34.70	0.20	26.55	149	0.58
114	12.85	34.40	1.20	300	10.32	34.66	0.13	26.65	140	0.66
				400	8.89	34.59	0.10	26.84	122	0.79
139	12.68	34.60	0.56	500	7.64	34.55	0.11	27.00	107	0.92
166	11.72	34.60	0.53							
202	11.71	34.73	0.24							
252	11.02	34.70	0.20							
329	9.86	34.64	0.10							
426	8.55	34.58	0.10							
562	6.99	34.54	0.11							

153.16

STRANGER; June 7, 1957; 1347 GCT; 22°55'N, 110°07'W; sounding, 265 fm; wind, 320°, force 4; weather, overcast; sea, moderate; wire angle, 17°.

0	21.36	34.87	5.01	0	21.36	34.87	5.01	24.31	362	0.00
9	20.77	34.83	4.73	10	20.70	34.83	4.70	24.47	347	0.04
28	18.22	34.69	2.67	20	19.65	34.76	3.96	24.69	326	0.07
47	15.61	34.70	0.63	30	18.00	34.68	2.57	25.05	292	0.10
70	14.21	34.78	0.41	50	15.34	34.71	0.55	25.69	231	0.15
92	13.72	34.84	0.43	75	14.06	34.80	0.40	26.04	198	0.21
114	13.60	34.83	0.46	100	13.70	34.84	0.45	26.15	187	0.26
150	13.07	34.79	0.29	150	13.07	34.79	0.29	26.23	180	0.35
185	12.52	34.79	0.23	200	12.28	34.79	0.23	26.38	165	0.44
230	11.86	34.78	0.24	250	11.72	34.74	0.21	26.47	157	0.52
275	11.55	34.72	0.20	300	11.32	34.71	0.20	26.51	153	0.60
371	10.43	34.69	0.18							

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O <sub>2</sub>	Z	T	S	O <sub>2</sub>	σ <sub>t</sub>	δ <sub>T</sub>	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10 <sup>5</sup> cm <sup>3</sup> /g	dyn. m

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STRANGER; June 7, 1957; 1622, 1700 GCT; 22°48'N, 110°22'W; sounding, 315 fm; wind, 290°, force 1; weather, overcast; sea, slight; wire angle, 00°, 00°.

153.20

0	23.53	34.99	4.83	0	23.53	34.99	4.83	23.79	412	0.00
10	23.54	34.99	4.78	10	23.54	34.99	4.78	23.79	412	0.04
29	17.40	34.65	1.72	20	23.53	34.99	4.77	23.79	412	0.08
44	15.52	34.74	1.25	30	17.33	34.65	1.70	25.19	279	0.12
53	14.50	34.70	0.55	50	14.77	34.71	0.74	25.82	219	0.17
63	14.09	34.76	0.33	75	13.71	34.81	0.50	26.11	191	0.22
73	13.78	34.81	0.52	100	13.38	34.79	0.35	26.18	185	0.27
92	13.46	34.79	0.35	150	12.97	34.81	0.34	26.27	176	0.36
				200	12.50	34.80	0.31	26.35	168	0.44
26p	18.70	34.70	3.24	250	12.03	34.78	0.22	26.43	161	0.53
166p	12.82	34.81	0.33	300	11.50	34.74	0.18	26.50	154	0.61
244p	12.06	34.78	0.23	400	10.20	34.66	0.16	26.67	138	0.76
342p	11.00	34.70	0.16							
481p	8.94	34.61	0.18							

STRANGER; June 7, 1957; 2219 GCT; 22°27'N, 110°59'W; sounding, 1740 fm; wind, 290°, force 4; weather, overcast; sea, moderate; wire angle, 17°.

153.30

0	20.72	34.41	5.23	0	20.72	34.41	5.23	24.15	378	0.00
9	20.44	34.43	4.70	10	20.44	34.43	4.74	24.23	370	0.04
28	20.13	34.45	5.29	20	20.26	34.45	5.15	24.29	364	0.07
42	19.74	34.38	5.33	30	20.05	34.44	5.30	24.34	360	0.11
51	19.64	34.34u	5.30	50	19.66	34.38	5.30	24.40	354	0.18
61	18.34	34.35	4.99	75	16.21	34.18	4.17	25.09	288	0.26
69	17.05	34.22	4.62	100	14.08	34.40	1.68	25.72	228	0.33
88	14.52	34.14	2.76	150	12.78	34.79	0.17	26.29	174	0.43
100	14.06	34.40	1.68	200	11.88	34.80	0.15	26.48	156	0.51
113	13.90	34.70	0.41	250	11.22	34.74	0.11	26.54	150	0.59
134	13.26	34.81	0.19	300	10.58	34.69	0.13	26.63	142	0.67
160	12.54	34.79	0.14	400	9.42	34.64	0.11	26.79	127	0.80
196	11.96	34.81	0.15	500	7.99	34.56	0.10	26.95	111	0.93
245	11.28	34.74	0.11							
321	10.30	34.68	0.13							
417	9.20	34.63	0.11							
552	7.14	34.52	0.10							

HORIZON; June 7-8, 1957; 2349, 0002 GCT; 22°31'N, 110°50'W; sounding, 1600 fm; wind, 270°, force 2; weather, overcast; sea, slight; wire angle, 25°, 25°.

153.30

0	19.96	34.38	5.48	0	19.96	34.38	5.48	24.32	361	0.00
8	19.50	34.37	5.20	10	19.48	34.37	5.20	24.44	350	0.04
40	18.76	34.47	5.17	20	19.20	34.40	5.18	24.53	341	0.07
49	18.01	34.40	4.64	30	18.99	34.44	5.18	24.62	333	0.10
57	16.94	34.34	4.45	50	17.87	34.39	4.62	24.86	310	0.17
				75	14.59	34.70	0.64	25.85	216	0.23
70	15.24	34.72	0.60	100	13.53	34.77	0.52	26.13	189	0.29
82	14.03	34.69	0.66	150	12.41	34.79	0.30	26.37	166	0.38
93	13.66	34.90r	0.61	200	11.78	34.78	0.22	26.48	156	0.46
113	13.25	34.81	0.38	250	11.30	34.77	0.20	26.56	148	0.54
136	12.69	34.81	0.36	300	10.81	34.75	0.19	26.64	141	0.61
168	12.08	34.78	0.21	400	9.59	34.67	0.21	26.79	127	0.75
211	11.66	34.78	0.22	500	(8.11)	(34.59)	(0.19)	(26.95)	(111)	(0.87)
279	11.02	34.77	0.18							
364	10.05	34.70	0.21							
487	8.32	34.60	0.19							

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O <sub>2</sub>	Z	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_T$	$\Delta D$
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m

153.40 HORIZON; June 7, 1957; 1816, 1827 GCT; 22°00'N, 111°33.5'W; sounding, 1900 fm; wind, 270°, force 2; weather, cloudy; sea, slight; wire angle, 10°, 08°.

0	21.96	34.88u	4.91	0	21.96	(34.66)	4.91	(24.00)	(392)	(0.00)
10	21.86	34.64	5.09	10	21.86	34.64	5.09	24.00	392	0.04
43	21.01	34.43	4.94	20	21.68	34.59	5.05	24.02	390	0.08
53	19.77	34.22	5.16	30	21.43	34.53	5.00	24.04	388	0.12
62	18.97	34.13	5.36	50	20.40	34.32	5.03	24.16	377	0.19
				75	17.94	34.14	5.00	24.64	331	0.28
67	18.69	34.13	5.46	100	14.62	34.25	2.04	25.49	250	0.36
85	16.20	34.17	3.48	150	11.86	34.43	0.94	26.19	184	0.46
98	14.60	34.23	2.06	200	11.14	34.60	0.59	26.46	158	0.55
112	13.11	34.29	1.35	250	10.53	34.62	0.39	26.58	147	0.63
135	12.22	34.36	0.99	300	9.99	34.61	0.25	26.67	138	0.70
164	11.55	34.49	0.86							
199	11.16	34.60	0.60							
251	10.52	34.62	0.39							
333	9.64	34.61	0.15							

153.40 STRANGER; June 8, 1957; 0302 GCT; 22°04'N, 111°35'W; sounding, 1760 fm; wind, 290°, force 4; weather, overcast; sea, slight; wire angle, 02°.

0	21.96	34.66	4.69	0	21.96	34.66	4.69	23.99	393	0.00
10	21.98	34.61	5.15	10	21.98	34.61	5.15	23.95	397	0.04
30	21.90	34.61	5.04	20	21.96	34.61	5.10	23.95	397	0.08
44	21.04	34.45	5.27	30	21.90	34.61	5.04	23.97	395	0.12
54	19.49	34.25	5.38	50	20.19	34.33	5.35	24.22	371	0.20
64	18.14	34.12	5.37	75	16.09	33.96	4.53	24.94	302	0.28
73	16.30	33.97	4.65	100	13.33	33.94	3.00	25.53	246	0.35
92	14.08	33.91	3.59	150	11.78	34.44	0.96	26.22	181	0.45
106	13.10	33.98	2.72	200	10.96	34.57	0.55	26.47	157	0.54
119	13.02	34.40	1.05	250	10.40	34.61	0.31	26.61	144	0.62
143	11.98	34.43	0.96	300	9.61	34.58	0.25	26.71	134	0.69
170	11.33	34.49	0.85	400	8.40	34.56	0.19	26.88	118	0.82
207	10.86	34.58	0.48	500	7.42	34.54	0.15	27.02	105	0.94
257	10.30	34.61	0.28							
338	9.00	34.55	0.24							
436	8.05	34.56	0.16							
576	6.65	34.52	0.13							

157.20 STRANGER; June 8, 1957; 1831 GCT; 22°04'N, 109°58'W; sounding, 1710 fm; wind, 260°, force 4; weather, partly cloudy; sea, moderate; wire angle, 07°.

0	23.02	34.89	4.94	0	23.02	34.89	4.94	23.88	404	0.00
10	22.86	34.90	4.92	10	22.86	34.90	4.92	23.92	400	0.04
29	22.32	34.85	4.95	20	22.62	34.88	4.92	23.97	395	0.08
39	16.64	34.40	3.71	30	22.24	34.84	4.92	24.05	387	0.12
49	15.49	34.43	2.34	50	15.30	34.44	2.21	25.49	250	0.18
58	14.50	34.47	1.69	75	13.83	34.68	0.51	26.00	202	0.24
69	14.08	34.61	0.88	100	13.05	34.76	0.25	26.22	181	0.29
81	13.65	34.72	0.35	150	12.01	34.78	0.21	26.44	160	0.37
95	13.20	34.74	0.27	200	11.32	34.74	0.19	26.54	150	0.45
108	12.84	34.78	0.23	250	10.66	34.70	0.18	26.62	143	0.53
132	12.34	34.78	0.24	300	9.58	34.67	0.17	26.79	127	0.60
159	11.86	34.78	0.20	400	8.39	34.58	0.15	26.91	115	0.72
191	11.40	34.75	0.17	500	7.32	34.55	0.18	27.04	103	0.84
238	10.88	34.71	0.19							
311	9.34	34.66	0.16							
405	8.32	34.58	0.14							
529	6.98	34.55	0.19							

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O <sub>2</sub>	Z	T	S	O <sub>2</sub>	$\sigma_t$	$\delta T_3$	$\Delta D$
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^{-5} \text{cm}^3/\text{g}$	dyn. m

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STRANGER; June 8, 1957; 1249, 1330 GCT; 21°47'N, 110°33'W; sounding, 1750 fm; wind, 290°, force 1; weather, overcast; sea, moderate; wire angle, 07°, 07°.

157.30

0	24.26	35.03	4.86	0	24.26	35.03	4.86	23.61	429	0.00
10	24.24	35.03	4.94	10	24.24	35.03	4.94	23.61	429	0.04
29	20.28	34.70	5.53	20	24.20	35.02	4.95	23.62	428	0.08
39	18.02	34.33	5.11	30	20.13	34.68	5.50	24.50	344	0.12
48	17.96	34.43	5.05	50	17.94	34.43	5.00	24.87	309	0.19
58	16.04	34.24	4.05	75	14.98	34.37	2.20	25.51	248	0.26
67	14.82	34.09	3.28	100	14.00	34.72	0.50	26.00	202	0.32
81	15.10	34.59	1.04	150	12.68	34.77	0.25	26.30	173	0.41
96	14.25	34.71	0.68	200	11.20	34.67	0.41	26.51	153	0.49
				250	10.90	34.73	0.18	26.61	144	0.57
111	13.52	34.75	0.09	300	10.09	34.68	0.18	26.70	135	0.64
135	12.90	34.76	0.25	400	8.43	34.57	0.21	26.89	117	0.77
163	12.45	34.78	0.25	500	7.39	34.54	0.21	27.03	104	0.89
196	11.26	34.67	0.46							
242	11.00	34.73	0.18							
318	9.80	34.66	0.19							
413	8.24	34.56	0.23							
540	7.12	34.54 <sup>a)</sup>	0.21							

STRANGER; June 8, 1957; 0755 GCT; 21°28'N, 111°12'W; sounding, 1750 fm; wind, 290°, force 2; weather, overcast; sea, moderate; wire angle, 02°.

15740

0	22.46	34.71	5.14	0	22.46	34.71	5.14	23.88	403	0.00
10	22.47	34.72	5.10	10	22.47	34.72	5.10	23.88	403	0.04
30	22.41	34.69	5.19	20	22.47	34.70	5.13	23.88	403	0.08
54	21.86	34.67	5.06	30	22.41	34.69	5.19	23.88	403	0.12
63	21.54	34.59	5.17	50	22.00	34.68	5.03	23.99	393	0.20
73	20.27	34.40	5.19	75	19.89	34.37	5.09	24.34	360	0.29
82	18.92	34.34	4.57	100	17.00	34.40	2.70	25.07	290	0.38
96	17.58	34.42	2.99	150	12.52	34.51	0.67	26.12	190	0.50
110	15.32	34.31	2.14	200	11.70	34.73	0.25	26.45	159	0.58
128	13.68	34.43	1.37	250	10.70	34.63	0.30	26.55	149	0.66
147	12.60	34.49	0.81	300	10.28	34.65	0.20	26.65	140	0.74
171	12.33	34.69	0.37	400	8.88	34.61	0.12	26.85	121	0.87
193	11.87	34.74	0.24	500	7.46	34.54	0.19	27.01	106	0.99
240	10.81	34.63	0.31							
316	10.12	34.65	0.16							
410	8.71	34.60	0.11							
534	7.00	34.51	0.21							

STRANGER; June 19, 1957; 2105 GCT; 31°23'N, 114°35'W; sounding, 8 fm; wind, 100°, force 2; weather, clear; sea, smooth; wire angle, 00°.

976.32

0	27.44	35.81	5.66	0	27.44	35.81	5.66	23.20	468	0.00
6	25.62	35.79	5.56	10	25.46	35.80	4.99	23.82	409	0.04
11	25.44	35.80	4.87							

STRANGER; June 19, 1957; 1037 GCT; 30°58'N, 114°40'W; sounding, 10 fm; wind, calm; weather, clear; sea, calm; wire angle, 00°.

996.15

0	25.06	35.53	4.90	0	25.06	35.53	4.90	23.53	437	0.00
16	24.46	35.50	4.69	10	24.68	35.51	4.76	23.84	407	0.04

STRANGER; June 19, 1957; 1343 GCT; 31°10'N, 114°14'W; sounding, 35 fm; wind, 110°, force 3; weather, clear; sea, smooth; wire angle, 00°.

996.40

0	24.58	35.56	4.80	0	24.58	35.56	4.80	23.92	400	0.00
10	23.66	35.55	4.94	10	23.66	35.55	4.94	24.18	375	0.04
29	19.66	35.38	4.62	20	21.71	35.47	4.88	24.68	327	0.07
48	18.42	35.34	3.55	30	19.60	35.38	4.58	25.18	280	0.10

a) Loose bottle cap; value falls on property curve.

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O <sub>2</sub>	Z	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_T$	$\Delta D$
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^{-5} \text{cm}^3/\text{g}$	dyn. m

99G.55	STRANGER; June 19, 1957; 1532 GCT; 31°18'N, 113°59'W; sounding, 26 fm; wind, 140°, force 3; weather, clear; sea, smooth; wire angle, 00°.										
	0	24.34	35.65	4.77	0	24.34	35.65	4.77	24.05	387	0.00
	10	23.10	35.40	4.94	10	23.10	35.40	4.94	24.22	371	0.04
	29	22.68	35.38	4.52	20	22.90	35.39	4.72	24.27	366	0.07
	48	21.01	35.34	4.17	30	22.65	35.38	4.49	24.35	359	0.11
103G.02	STRANGER; June 19, 1957; 0501 GCT; 30°17'N, 114°30'W; sounding, 25 fm; wind, 200°, force 3; weather, clear; sea, calm; wire angle, 00°.										
	0	25.41	35.44	5.10	0	25.41	35.44	5.10	23.57	433	0.00
	10	23.83	35.39	5.24	10	23.83	35.39	5.24	24.01	391	0.04
	20	22.92	35.35	4.85	20	22.92	35.35	4.85	24.24	369	0.08
	29	21.50	35.31	4.80	30						
103G.40	STRANGER; June 19, 1957; 0018 GCT; 30°37'N, 113°53'W; sounding, 60 fm; wind, direction missing, force 1; weather, clear; sea, smooth; wire angle, 00°.										
	0	25.32	35.51	5.14	0	25.32	35.51	5.14	23.65	425	0.00
	10	23.15	35.48	5.31	10	23.15	35.48	5.31	24.27	366	0.04
	29	20.44	35.29	4.56	20	21.59	35.38	4.99	24.64	331	0.07
	49	18.96	35.27	3.84	30	20.30	35.28	4.49	24.92	304	0.11
	68	18.43	35.21	3.40	50	18.90	35.26	3.78	25.27	271	0.16
	83	18.34	35.22	3.38	75	18.38	35.21	3.40	25.35	263	0.23
	97	17.58	35.20	3.09	100	(17.29)	(35.19)	(2.97)	(25.61)	(239)	(0.29)
103G.70	STRANGER; June 18, 1957; 2024 GCT; 30°50'N, 113°22'W; sounding, 30 fm; wind, 300°, force 2; weather, clear; sea, smooth; wire angle, 00°.										
	0	24.04	35.39	5.23	0	24.04	35.39	5.23	23.95	397	0.00
	9	22.80	35.30	5.27	10	22.78	35.30	5.25	24.25	368	0.04
	29	22.50	35.30	4.85	20	22.60	35.30	5.04	24.29	364	0.07
	48	22.40	35.32	4.61	30	22.50	35.30	4.80	24.32	361	0.11
					50	(22.39)	(35.32)	(4.60)	(24.38)	(356)	(0.18)
108G.06	STRANGER; June 20, 1957; 1322, 1400 GCT; 29°36'N, 113°56'W; sounding, 310 <sup>a</sup> fm; wind, 140°, force 4; weather, clear; sea, slight; wire angle, 11°, 11°.										
	0	24.46	35.59	5.11	0	24.46	35.59	5.11	23.97	395	0.00
	10	24.42	35.56	5.09	10	24.42	35.56	5.09	23.96	396	0.04
	47	19.33	35.31	5.06	20	23.05	35.48	5.09	24.30	363	0.08
	56	18.60	35.40	4.48	30	21.22	35.38	5.09	24.74	321	0.11
	65	17.98	35.30	3.78	50	19.01	35.35	4.85	25.30	268	0.17
	92	16.79	35.18	2.82	75	17.40	35.23	3.20	25.62	238	0.23
	118	16.70	35.19	2.80	100	16.75	35.18	2.80	25.73	227	0.29
					150	16.21	35.15	2.41	25.83	218	0.41
	134	16.44	35.15	2.58	200	14.82	35.11	1.99	26.11	191	0.51
	179	15.74	35.14	2.19	250	13.43	35.06	1.79	26.36	167	0.60
	225	13.78	35.07	1.83	300	13.18	35.06	1.70	26.42	162	0.69
	275	13.28	35.05	1.77	400	12.91	35.02	1.33	26.44	160	0.85
	320	13.04	35.06	1.64	500	12.68	34.98	1.30	26.46	158	1.02
	367	12.96	35.03	1.33							
	411	12.89	35.01	1.31							
	458	12.80	35.01	1.47							
	509	12.66	34.98	1.28							
	556	12.45	34.97	1.10							

a) Sounding varies from 310 to 420 fm.

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O <sub>2</sub>	Z	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_T$	$\Delta D$
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 \text{cm}^3/\text{g}$	dyn. m

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STRANGER; June 20, 1957; 1600 GCT; 29°30'N, 113°46'W; sounding, 135 fm; wind, 140°, force 5; weather, clear; sea, moderate; wire angle, 08°.

109G.12

0	24.12	35.54	5.09	0	24.12	35.54	5.09	24.04	388	0.00
10	23.30	35.52	4.88	10	23.30	35.52	4.88	24.26	367	0.04
29	22.16	35.52	4.47	20	22.71	35.52	4.66	24.43	351	0.07
48	18.40	35.30	3.36	30	22.06	35.52	4.42	24.62	333	0.11
68	17.75	35.24	3.49	50	18.34	35.29	3.37	25.43	256	0.17
81	16.78	35.19	2.62	75	17.25	35.21	3.05	25.63	237	0.23
95	16.14	35.20	2.49	100	16.12	35.20	2.50	25.89	212	0.29
124	16.04	35.19	2.58	150	15.83	35.17	2.55	25.93	208	0.39
147	15.86	35.17	2.59	200	(15.25)	(35.20)	(2.45)	(26.09)	(193)	(0.49)
179	15.79	35.19	2.55							
194	15.42	35.20	2.48							

STRANGER; June 18, 1957; 0619 GCT; 29°36'N, 113°33'W; sounding, 115 fm; wind, 240°, force 4; weather, clear; sea, slight; wire angle, 10°.

109G.25

0	23.05	35.45	5.39	0	23.05	35.45	5.39	24.28	365	0.00
10	21.28	35.41	5.19	10	21.28	35.41	5.19	24.74	321	0.03
29	20.03	35.34	4.53	20	20.61	35.37	4.86	24.90	306	0.06
48	16.24	35.15	2.86	30	19.81	35.32	4.41	25.08	289	0.10
67	15.50	35.16	2.49	50	16.10	35.15	2.78	25.86	215	0.14
81	15.46	35.16	2.52	75	15.49	35.16	2.49	26.00	202	0.20
95	15.44	35.15	2.51	100	15.42	35.16	2.48	26.01	201	0.25
123	15.39	35.18	2.46	150	15.27	35.16	2.32	26.06	196	0.35
145	15.34	35.17	2.38	200	(14.66)	(35.14)	(2.11)	(26.18)	(185)	(0.44)
167	15.03	35.14	2.31							
190	14.77	35.14	2.20							

STRANGER; June 18, 1957; 0835 GCT; 29°43'N, 113°17'W; sounding, 105 fm; wind, 240°, force 4; weather, clear; sea, slight; wire angle, 00°.

109G.40

0	22.62	35.44	5.31	0	22.62	35.44	5.31	24.40	354	0.00
9	22.38	35.45	5.39	10	22.30	35.45	5.37	24.50	344	0.03
24	20.00	35.39	4.84	20	20.65	35.41	5.00	24.92	304	0.07
48	17.28	35.34	3.68	30	19.13	35.37	4.50	25.29	269	0.10
87	15.49	35.25u	2.96	50	17.21	35.34	3.66	25.74	226	0.14
97	15.47	35.15u	2.47	75	15.88	35.23	3.15	25.98	204	0.20
150	14.23	35.12	2.19	100	15.42	35.20	2.40	26.05	197	0.25
177	13.93	35.09	1.95	150	14.23	35.12	2.19	26.25	178	0.34

STRANGER; June 18, 1957; 1226 GCT; 29°58'N, 112°52'W; sounding, 45 fm; wind, 120°, force 3; weather, clear; sea, slight; wire angle, 00°.

109G.68

0	23.33	35.34	4.99	0	23.33	35.34	4.99	24.12	381	0.00
10	23.40	35.34	4.72	10	23.40	35.34	4.72	24.09	383	0.04
29	22.95	35.29	4.46	20	23.20	35.31	4.60	24.12	380	0.08
49	22.26	35.30	4.17	30	22.90	35.29	4.42	24.21	372	0.11
				50	(22.21)	(35.30)	(4.12)	(24.41)	(353)	(0.19)

STRANGER; June 20, 1957; 1752 GCT; 29°22'N, 113°38'W; sounding, 195<sup>a</sup> fm; wind, 150°, force 5; weather, clear; sea, slight; wire angle, 03°.

110G.14

0	23.63	35.45	5.19	0	23.63	35.45	5.19	24.12	381	0.00
20	22.53	35.38	5.45	10	23.19	35.42	5.32	24.22	371	0.04
39	19.28	35.32	3.76	20	22.53	35.38	5.45	24.38	356	0.07
53	19.02	35.40	3.70	30	21.00	35.34	4.82	24.78	318	0.11
66	18.64	35.29	3.79	50	19.09	35.40	3.71	25.32	266	0.17
94	16.06	35.16	3.72	75	17.43	35.21	3.79	25.58	241	0.23
119	15.87	35.17	2.67	100	15.99	35.17	3.62	25.90	211	0.29
143	15.64	35.17	2.61	150	15.56	35.16	2.28	26.00	202	0.39
166	15.26	35.15	1.54	200	14.64	35.15	2.00	26.18	185	0.49
189	14.79	35.17	1.41	250	14.08	35.07	2.07	26.25	178	0.58
212	14.57	35.12	2.16							
236	14.22	35.07	2.11							
265	13.96	35.07	2.03							

a) Sounding varies from 195 to 145 fm.

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O <sub>2</sub>	Z	T	S	O <sub>2</sub>	$\sigma_t$	$\delta T_3$	$\Delta D$
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^{-5}$ cm/g	dyn. m

110G.30

STRANGER; June 18, 1957; 0416 GCT; 29°33'N, 113°24'W; sounding, 85 fm; wind, 290°, force 4; weather, clear; sea, moderate; wire angle, 00°.

0	22.69	35.52	5.32	0	22.69	35.52	5.32	24.44	350	0.00
10	22.72	35.49	5.23	10	22.72	35.49	5.23	24.41	353	0.04
29	20.46	35.40	4.69	20	21.69	35.45	5.00	24.67	328	0.07
48	17.04	35.28	3.02	30	20.26	35.39	4.59	25.01	296	0.10
69	16.36	35.21	2.79	50	16.99	35.28	2.99	25.75	225	0.15
83	16.07	35.21	2.76	75	16.22	35.21	2.76	25.88	213	0.21
98	15.96	35.19	2.75	100	(15.91)	(35.18)	(2.73)	(25.93)	(208)	(0.26)

111G.14

STRANGER; June 20, 1957; 1941 GCT; 29°14'N, 113°32'W; sounding, 450<sup>a)</sup> fm; wind, direction missing, force 1; weather, clear; sea, calm; wire angle, 28°.

0	23.94	35.51	5.23	0	23.94	35.51	5.23	24.07	385	0.00
8	23.20	35.57	5.06	10	22.99	35.56	5.01	24.39	355	0.04
43	19.66	35.28	4.35	20	22.00	35.48	4.81	24.61	334	0.07
86	16.94	35.17	3.02	30	21.00	35.40	4.64	24.82	314	0.10
112	16.03	35.15	2.72	50	19.17	35.25	4.15	25.20	278	0.16
132	15.84	35.15	2.66	75	17.58	35.19	3.31	25.54	245	0.23
169	15.13	35.13	2.40	100	16.31	35.16	2.80	25.82	219	0.29
190	14.94	35.12	2.32	150	15.49	35.14	2.53	26.00	202	0.40
210	14.46	35.10	2.19	200	14.73	35.12	2.27	26.13	189	0.49
229	14.02	35.05	2.02	250	13.92	35.05	1.96	26.26	177	0.59
255	13.90	35.05	1.95	300	13.30	35.03	1.74	26.38	166	0.68
277	13.54	35.05	1.82	400	12.61	34.99	1.50	26.48	156	0.84
295	13.30	35.03	1.74							
337	13.14	35.01	1.73							
381	12.72	34.99	1.52							
425	12.55	34.99	1.47							
470	12.49	34.96u	1.42							

111G.30

STRANGER; June 18, 1957; 0217 GCT; 29°21'N, 113°17'W; sounding, 85 fm; wind, 330°, force 2; weather, clear; sea, slight; wire angle, 00°.

0	22.82	35.50	5.41	0	22.82	35.50	5.41	24.39	355	0.00
10	21.14	35.46	5.39	10	21.14	35.46	5.39	24.83	313	0.03
29	19.75	35.41	4.16	20	20.42	35.44	4.80	25.01	296	0.06
48	17.80	35.33 <sup>b)</sup>	3.21	30	19.64	35.41	4.09	25.19	279	0.09
67	16.56	35.26	2.72	50	17.54	35.32	3.09	25.65	235	0.14
80	16.30	35.25	2.58	75	16.38	35.26	2.60	25.87	214	0.20
95	15.96	35.23	2.54	100	(15.80)	(35.22)	(2.52)	(25.98)	(203)	(0.25)

113G.18

STRANGER; June 20, 1957; 2243 GCT; 28°58'N, 113°19'W; sounding, 550 fm; wind, 140°, force 3; weather, clear; sea, calm; wire angle, 05°.

0	25.00	35.43	5.24	0	25.00	35.43	5.24	23.68	422	0.00
10	22.48	35.52	5.06	10	22.48	35.52	5.06	24.49	345	0.04
48	19.58	35.41	4.10	20	22.25	35.52	4.99	24.57	338	0.07
101	16.91	35.27	3.11	30	22.00	35.51	4.92	24.63	332	0.10
147	15.56	35.22	2.74	50	19.41	35.40	4.03	25.24	274	0.17
192	14.63	35.16	2.32	75	18.00	35.33	3.50	25.54	245	0.23
240	14.42	35.14	2.22	100	16.95	35.27	3.11	25.75	225	0.29
291	13.66	35.09	1.97	150	15.46	35.22	2.69	26.06	196	0.40
338	13.16	35.05	1.78	200	14.59	35.16	2.28	26.21	182	0.49
385	12.96	35.01	1.76	250	14.32	35.13	2.18	26.25	178	0.59
432	12.82	35.00	1.72	300	13.53	35.08	1.88	26.36	167	0.68
484	12.63	34.97	1.54	400	12.91	35.00	1.75	26.44	160	0.84
578	12.36	34.96	1.52	500	12.58	34.97	1.53	26.47	157	1.01
673	12.15	34.94	1.46	600	12.31	34.95	1.51	26.51	153	1.17
768	11.96	34.90	1.40	700	12.09	34.93	1.42	26.53	151	1.33
869	11.80	34.88	1.36	800	11.90	34.89	1.38	26.54	150	1.50
916	11.74	34.89	1.35							

a) Sounding varies from 450 to 175 fm.

b) Loose bottle cap; value falls on property curve.

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O <sub>2</sub>	Z	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_T$	$\Delta D$
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 \text{cm}^3/\text{g}$	dyn. m

STRANGER; June 17, 1957; 2328 GCT; 29°06'N, 113°02'W; sounding, 95 fm; wind, 350°, force 5; weather, clear; sea, slight; wire angle, 15°.

113G.35

0	20.85	35.24	5.18	0	20.85	35.24	5.18	24.73	322	0.00
10	20.52	35.25	4.98	10	20.52	35.25	4.98	24.83	313	0.03
28	18.40	35.25	3.84	20	19.50	35.25	4.41	25.10	287	0.06
47	16.79	35.25	3.00	30	18.20	35.25	3.74	25.43	256	0.09
65	16.68	35.26	2.94	50	16.77	35.25	2.98	25.78	222	0.14
76	16.46	35.25	2.83	75	16.53	35.25	2.85	25.84	217	0.19
92	15.86	35.23	2.52	100	(15.50)	(35.22)	(2.31)	(26.06)	(196)	(0.24)

STRANGER; June 17, 1957; 2145 GCT; 29°12'N, 112°51'W; sounding, 220 fm; wind, 320°, force 4; weather, clear; sea, slight; wire angle, 07°.

113G.45

0	21.06	35.26	5.11	0	21.06	35.26	5.11	24.69	326	0.00
10	20.20	35.24	4.98	10	20.20	35.24	4.98	24.91	305	0.03
48	17.48	35.21	3.32	20	19.44	35.23	4.62	25.10	287	0.06
72	16.77	35.22	3.11	30	18.71	35.22	4.15	25.28	270	0.09
95	15.47	35.16	2.58	50	17.42	35.21	3.30	25.60	240	0.14
123	14.91	35.14 <sup>a)</sup>	2.28	75	16.60	35.22	3.04	25.78	222	0.20
146	14.66	35.14	2.24	100	15.32	35.15	2.48	26.04	198	0.25
169	14.44	35.12	2.15	150	14.63	35.14	2.21	26.18	185	0.35
194	14.23	35.12	2.02	200	14.19	35.12	1.97	26.26	177	0.44
215	14.05	35.10	1.92	250	13.81	35.11	1.88	26.33	170	0.53
240	14.00	35.12	1.92	300	12.21	34.93	1.46	26.51	153	0.61
261	13.58	35.08	1.82							
290	12.49	34.96	1.48							
313	11.90	34.89	1.42							
336	11.56	34.88	1.29							
362	11.44	34.85	1.28							
385	11.28	34.85	1.28							

STRANGER; June 17, 1957; 1935 GCT; 29°17'N, 112°42'W; sounding, 80 fm; wind, 280°, force 4; weather, clear; sea, smooth; wire angle, 10°.

113G.55

0	25.20	35.35	5.01	0	25.20	35.35	5.01	23.57	433	0.00
10	24.51	35.34	4.86	10	24.51	35.34	4.86	23.77	414	0.04
28	22.96	35.28	4.54	20	23.67	35.31	4.68	24.00	392	0.08
49	20.74	35.21	3.81	30	22.70	35.27	4.47	24.25	368	0.12
68	19.54	35.23	3.64	50	20.66	35.21	3.78	24.76	319	0.19
82	19.05	35.23	3.73	75	19.30	35.23	3.71	25.14	283	0.26
97	18.64	35.22	3.60	100	18.57	35.22	3.56	25.32	266	0.34
124	17.54	35.19	3.34	150	(15.30)	(35.08)	(2.24)	(25.98)	(203)	(0.46)
148	15.51	35.09	2.38							

STRANGER; June 21, 1957; 0105 GCT; 28°51'N, 113°10'W; sounding, 620 fm; wind, 170°, force 4; weather, clear; sea, slight; wire angle, 05°.

114G.20

0	23.18	35.44	5.54	0	23.18	35.44	5.54	24.23	370	0.00
10	21.56	35.50	4.44	10	21.56	35.50	4.44	24.74	321	0.03
48	19.64	35.39	3.96	20	21.01	35.47	4.28	24.87	309	0.07
97	17.28	35.28	3.22	30	20.56	35.44	4.16	24.98	299	0.10
151	15.96	35.23	2.78	50	19.57	35.38	3.91	25.20	278	0.15
199	-	35.15	2.33	75	18.29	35.32	3.52	25.47	252	0.22
246	14.37	35.14	2.20	100	17.19	35.28	3.18	25.70	230	0.28
296	13.77	35.10	2.02	150	15.99	35.23	2.78	25.95	206	0.39
342	13.48	35.07	1.91	200	15.05	35.15	2.32	26.09	193	0.49
388	13.08	35.03	1.82	250	14.31	35.14	2.18	26.25	178	0.59
486	12.48	34.95	1.65	300	13.72	35.10	2.00	26.34	169	0.68
579	12.31	34.96	1.55	400	13.01	35.02	1.80	26.43	161	0.85
671	12.10	34.93	1.46	500	12.46	34.95	1.60	26.48	156	1.02
770	11.99	34.90	1.45	600	12.18	34.94	1.48	26.53	151	1.18
865	11.84	34.88	1.41	700	12.04	34.92	1.45	26.53	151	1.34
966	11.64	34.86	1.26	800	11.94	34.89	1.42	26.54	150	1.50
1039	11.60	34.86	1.24	1000	11.61	34.86	1.24	26.58	147	1.82

a) Loose bottle cap; value falls on property curve.

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O <sub>2</sub>	Z	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_T$	$\Delta D$
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 \text{cm}^3/\text{g}$	dyn. m

115G.20 STRANGER; June 21, 1957; 0320 GCT; 28°42'N, 113°05'W; sounding, 445<sup>a</sup> fm; wind, direction missing, force 1; weather, clear; sea, slight; wire angle, 02°.

0	23.86	35.46	5.75	0	23.86	35.46	5.75	24.05	387	0.00
49	20.22	35.39	4.76	10	22.82	35.44	5.51	24.34	360	0.04
102	18.37	35.32	3.76	20	21.99	35.43	5.30	24.57	338	0.07
149	-	35.19	2.76	30	21.22	35.42	5.10	24.76	319	0.10
196	14.87	35.19	2.38	50	20.19	35.39	4.75	25.03	294	0.17
247	14.08	35.14	2.18	75	19.29	35.36	4.26	25.24	274	0.24
294	13.23	35.04	1.85	100	18.42	35.32	3.76	25.44	255	0.30
340	13.11	35.05	1.80	150	16.56	35.19	2.74	26.78	222	0.43
387	12.81	35.01	1.56	200	14.83	35.19	2.35	26.18	185	0.53
438	12.59	34.97	1.74	250	14.01	35.13	2.15	26.30	173	0.62
486	12.46	34.96	1.61	300	13.21	35.04	1.82	26.41	163	0.71
533	12.42	34.96	1.58	400	12.74	35.00	1.58	26.46	158	0.88
580	12.29	34.94	1.63	500	12.45	34.96	1.60	26.49	155	1.04
629	12.28	34.94	1.53	600	12.28	34.94	1.53	26.50	154	1.20
711	12.12	34.90	1.52	700	12.14	34.90	1.52	26.51	153	1.36

115G.40 STRANGER; June 17, 1957; 1305 GCT; 28°52'N, 112°44'W; sounding, 250 fm; wind, 260°, force 2; weather, partly cloudy; sea, smooth; wire angle, 09°.

0	25.26	35.33	4.76	0	25.26	35.33	4.76	23.57	437	0.00
10	24.71	35.30	4.59	10	24.71	35.30	4.59	23.70	423	0.04
47	22.04	35.22	4.08	20	24.01	35.27	4.32	23.91	405	0.08
95	17.72	35.20	3.42	30	23.32	35.25	4.23	24.04	388	0.12
145	16.06	35.17	3.48	50	21.73	35.22	4.01	24.48	346	0.20
215	14.42	35.08	1.90	75	19.46	35.20	3.62	25.08	289	0.28
238	13.81	35.07	1.78	100	17.46	35.20	3.45	25.58	242	0.34
261	13.50	35.05	1.78	150	15.94	35.16		25.90	211	0.46
289	12.55	34.96	1.42	200	14.94	35.10		26.11	191	0.56
312	12.15	34.94	1.36	250	13.66	35.06	1.76	26.32	171	0.65
335	11.48	34.85	1.27	300	12.37	34.95	1.38	26.50	154	0.74
359	11.24	34.87	1.19	400	10.90	34.81	1.01	26.67	138	0.89
381	11.02	34.85	1.17							
406	10.84	34.81	0.80							
429	10.82	34.83	1.37							

116G.37 STRANGER; June 17, 1957; 1105 GCT; 28°42'N, 112°43'W; sounding, 245 fm; wind, 320°, force 3; weather, clear; sea, slight; wire angle, 25°.

0	25.52	35.35	4.71	0	25.52	35.35	4.71	23.47	443	0.00
9	23.83	35.34	4.65	10	23.71	35.34	4.61	24.00	392	0.04
44	20.40	35.14	3.56	20	22.66	35.28	4.32	24.27	366	0.08
84	17.96	35.13	3.14	30	21.72	35.22	3.98	24.48	346	0.12
108	16.70	35.15	2.90	50	20.00	35.14	3.45	24.88	308	0.18
128	16.07	35.16	2.70	75	18.04	35.13	3.20	25.28	270	0.25
169	14.74	35.16	2.08	100	17.10	35.14	2.98	25.63	237	0.32
189	14.08	35.26r	1.96	150	15.38	35.16	2.32	26.04	198	0.43
211	13.66	35.10	1.87	200	13.88	35.12	1.90	26.32	171	0.52
232	13.28	35.06	1.71	250	13.06	35.05	1.70	26.44	160	0.61
256	13.00	35.04	1.68	300	12.37	34.94	1.48	26.49	155	0.69
278	12.81	35.00	1.59							
300	12.37	34.94	1.48							
322	11.62	34.92	1.36							
343	11.40	34.87	1.25							
365	11.03	34.86	1.22							
386	10.46	34.81	1.10							

a) Sounding varies from 445 to 415 fm.

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O <sub>2</sub>	Z	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_T$	$\Delta D$
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 \text{ cm}^3/\text{g}$	dyn. m

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STRANGER; June 21, 1957; 0557 GCT; 28°32'N, 112°53'W; sounding, 195 fm; wind, direction missing, force 1; weather, clear; sea, smooth; wire angle, 04°.

116<sup>4</sup>G.24

0	22.50	35.37	6.45	0	22.50	35.37	6.45	24.38	356	0.00
9	21.08	35.34	6.05	10	21.02	35.34	5.99	24.76	319	0.03
29	19.90	35.41	4.72	20	20.35	35.39	5.20	24.99	298	0.06
48	19.22	35.37	4.30	30	19.88	35.41	4.68	25.13	284	0.09
72	18.42	35.37	3.89	50	19.18	35.37	4.25	25.28	270	0.15
96	17.75	35.32	3.36	75	18.34	35.36	3.80	25.49	250	0.21
124	16.46	35.24	2.79	100	17.59	35.31	3.25	25.63	237	0.28
146	15.64	35.21	2.64	150	15.62	35.21	2.64	26.02	200	0.39
169	15.60	35.21	2.63	200	14.81	35.18	2.34	26.18	185	0.48
193	15.01	35.21	2.39	250	13.97	35.12	2.12	26.32	171	0.58
217	14.22	35.11	2.22	300	13.63	35.08	2.05	26.34	169	0.66
240	14.04	35.15	2.16							
263	13.78	35.09	2.09							
292	13.66	35.08	2.03							
315	13.60	35.08	2.07							

STRANGER; June 17, 1957; 0905 GCT; 28°32'N, 112°39'W; sounding, 325<sup>a)</sup> fm; wind, 320°, force 4; weather, clear; sea, slight; wire angle, 20°.

117G.35

0	26.05	35.30	4.75	0	26.05	35.30	4.75	23.26	462	0.00
8	26.04	35.28	4.75	10	26.03	35.28	4.74	23.26	463	0.05
46	21.30	35.12	3.90	20	25.90	35.27	4.71	23.29	460	0.09
68	19.16	35.15	3.44	30	24.81	35.22	4.50	23.59	431	0.14
90	17.06	35.12 <sup>b)</sup>	2.95	50	20.88	35.12	3.80	24.64	331	0.21
115	16.06	35.14 <sup>b)</sup>	2.73	75	18.37	35.14	3.22	25.31	267	0.29
137	14.98	35.08	2.36	100	16.65	35.11	2.88	25.70	230	0.35
160	13.82	35.04	2.02	150	14.20	35.06	2.11	26.22	181	0.46
182	13.60	35.01	1.93	200	12.99	35.00	1.71	26.41	163	0.54
203	12.90	34.99	1.69	250	12.10	34.95	1.46	26.54	150	0.62
226	12.50	34.96	1.55	300	11.90	34.93	1.42	26.58	147	0.70
247	12.16	34.95	1.48							
274	12.04	34.92	1.43							
296	11.90	34.93	1.42							
319	11.86	34.92	1.39							
342	11.66	34.88	1.32							
364	11.45	34.86	1.37							

STRANGER; June 17, 1957; 0620 GCT; 28°39'N, 112°24'W; sounding, 120 fm; wind, 310°, force 5; weather, clear; sea, moderate; wire angle, 04°.

117G.50

0	26.30	35.37	4.58	0	26.30	35.37	4.58	23.23	465	0.00
10	26.19	35.39	4.62	10	26.19	35.39	4.62	23.29	460	0.05
30	25.68	35.41	1.42r	20	25.98	35.40	4.60	23.37	452	0.09
50	24.86	35.34	4.53	30	25.68	35.41	4.60	23.46	443	0.14
69	21.16	35.16	3.60	50	24.86	35.34	4.53	23.66	424	0.22
83	20.37	35.16	3.43	75	20.80	35.16	3.52	24.69	326	0.32
97	18.70	35.16	3.14	100	18.54	35.16	3.09	25.28	270	0.39
123	17.27	35.13	2.88	150	14.90	35.06	2.34	26.27	176	0.51
145	15.34	35.08	2.48							
166	13.42	35.02	1.85							
187	12.83	34.95	1.67							

STRANGER; June 21, 1957; 2038 GCT; 26°59'N, 111°55'W; sounding, 33 fm; wind, 110°, force 5; weather, clear; sea, moderate; wire angle, 03°.

127G.22

0	25.86	35.42	5.27	0	25.86	35.42	5.27	23.42	447	0.00
9	24.46	35.42	5.44	10	24.31	35.42	5.44	23.88	403	0.04
29	21.38	35.30	5.05	20	22.64	35.36	5.30	24.32	361	0.08
48	19.83	35.23	4.00	30	21.30	35.30	5.00	24.66	329	0.12

a) Sounding varies from 325 to 150 fm.

b) Loose bottle cap; value does not fall on property curve.

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O <sub>2</sub>	Z	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_T$	$\Delta D$
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 \text{cm}^3/\text{g}$	dyn. m

127G.30

STRANGER; June 16, 1957; 0652 GCT; 27°03'N, 111°48'N; sounding, 705 fm; wind, 180°, force 1; weather, clear; sea, slight; wire angle, 01°.

0	25.08	35.48	5.03	0	25.08	35.48	5.03	23.69	421	0.00
10	24.95	35.45	5.20	10	24.95	35.45	5.20	23.72	419	0.04
30	20.52	35.29	4.64	20	23.69	35.40	5.11	24.06	386	0.08
45	18.58	35.22	3.48	30	20.52	35.29	4.64	24.86	310	0.12
54	17.92	35.16	3.36	50	18.20	35.19	3.40	25.38	260	0.17
63	17.44	35.11	3.08	75	16.35	35.06	2.56	25.73	227	0.23
72	16.54	35.08	2.68	100	14.94	34.95	1.83	25.96	205	0.29
92	15.48	34.98	2.10	150	13.83	34.93	1.58	26.18	184	0.39
105	14.76	34.95	1.76	200	13.30	34.94	1.66	26.31	172	0.48
119	14.49	34.97	1.70	250	12.76	34.88	1.43	26.38	166	0.56
142	13.92	34.94	1.53	300	11.73	34.79	0.79	26.50	154	0.65
169	13.75	34.92	1.66	400	9.67	34.66	0.16	26.76	129	0.79
206	13.20	34.94	1.64	500	8.27	34.59	0.14	26.93	113	0.92
256	12.63	34.87	1.40							
335	10.92	34.74	0.34							
435	9.08	34.63	0.14							
574	7.43	34.56	0.18							

127G.40

STRANGER; June 16, 1957; 0437 GCT; 27°08'N, 111°38'W; sounding, 970 fm; wind, 150°, force 3; weather, clear; sea, slight; wire angle, 10°.

0	25.52	35.41	4.88	0	25.52	35.41	4.88	23.52	438	0.00
10	25.46	35.38	4.85	10	25.46	35.38	4.85	23.52	438	0.04
29	20.83	35.17	4.49	20	25.22	35.37	4.82	23.58	432	0.09
43	18.21	35.15	4.20	30	20.53	35.16	4.45	24.78	318	0.12
52	17.16	35.10	2.90	50	17.23	35.10	3.08	25.56	243	0.18
61	16.70	35.06	1.69	75	15.78	35.06	2.48	25.87	214	0.24
70	16.04	35.07	2.50	100	14.62	34.98	1.92	26.06	196	0.29
89	15.10	35.03	2.12	150	13.67	34.98	1.83	26.26	177	0.38
102	14.57	34.98	1.92	200	12.94	34.92	1.55	26.36	167	0.47
117	14.08	34.99	1.90	250	12.18	34.86	1.00	26.47	157	0.55
140	13.84	34.99	1.88	300	11.42	34.83	0.87	26.58	146	0.63
167	13.31	34.95	1.79	400	9.92	34.74	0.45	26.79	127	0.77
205	12.86	34.92	1.50	500	8.50	34.66	0.22	26.95	111	0.90
255	12.07	34.85	0.99							
334	10.96	34.81	0.80							
433	9.40	34.70	0.31							
570	7.62	34.63	0.20							

127G.55

STRANGER; June 16, 1957; 0140 GCT; 27°18'N, 111°22'W; sounding, 1000 fm; wind, 160°, force 4; weather, clear; sea, slight; wire angle, 15°.

0	26.05	35.25	4.78	0	26.05	35.25	4.78	23.22	466	0.00
10	24.12	35.17	5.21	10	24.12	35.17	5.21	23.76	415	0.04
28	20.02	35.12	4.82	20	21.56	35.13	5.05	24.46	348	0.08
38	19.18	35.17	4.09	30	19.82	35.14	4.69	24.93	303	0.11
47	18.20	35.13	3.40	50	17.60	35.05	2.86	25.43	256	0.17
56	16.70	34.95	2.17	75	15.29	34.89	1.28	25.84	217	0.23
65	16.14	35.01	2.07	100	14.68	34.98	1.66	26.05	197	0.28
78	15.21	34.88	1.28	150	13.45	34.96	1.46	26.29	174	0.38
90	15.03	34.94	1.46	200	12.91	34.91	1.48	26.36	167	0.46
104	14.47	34.98	1.71	250	12.39	34.89	1.41	26.44	160	0.55
125	13.76	34.89	0.98	300	11.84	34.86	1.02	26.52	152	0.63
150	13.45	34.96	1.46	400	9.83	34.68	0.29	26.75	130	0.77
181	13.12	34.93	1.45	500	8.30	34.60	0.17	26.93	113	0.90
225	12.63	34.90	1.51							
295	11.94	34.86	1.09							
385	10.07	34.70	0.31							
505	8.22	34.60	0.17							

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O <sub>2</sub>	Z	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_T$	$\Delta D$
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10 <sup>-5</sup> cm <sup>3</sup> /g	dyn. m

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STRANGER; June 15, 1957; 2255 GCT; 27°23'N, 111°09'W; sounding, 945 fm; wind, 160°, force 4; weather, clear; sea, slight; wire angle, 19°.

127G.70

0	26.16	35.26	4.65	0	26.16	35.26	4.65	23.20	468	0.00
9	26.08	35.26	4.46	10	26.07	35.26	4.46	23.22	466	0.05
28	22.73	35.19	5.14	20	24.46	35.23	4.87	23.69	421	0.09
36	20.78	35.17	4.85	30	22.08	35.19	5.10	24.36	358	0.13
45	19.41	34.98	2.91	50	18.93	34.97	2.53	25.03	294	0.20
53	18.68	34.96	2.42	75	17.50	35.03	2.75	25.44	255	0.27
62	17.84	34.92	2.12	100	15.44	34.91	1.54	25.82	219	0.33
75	17.50	35.03	2.75	150	13.79	34.91	1.05	26.18	184	0.43
89	16.30	34.95	2.00	200	12.85	34.88	0.98	26.35	168	0.52
100	15.44	34.91	1.54	250	12.17	34.87	0.80	26.48	156	0.60
120	15.13	35.07	2.08	300	11.43	34.84	0.64	26.58	146	0.68
144	13.98	34.92	1.07	400	10.03	34.72	0.38	26.74	131	0.82
173	13.32	34.90	1.02	500	(8.43)	(34.62)	(0.15)	(26.93)	(113)	(0.95)
213	12.63	34.88	0.94							
280	11.76	34.86	0.70							
367	10.56	34.76	0.47							
485	8.68	34.64	0.18							

STRANGER; June 13, 1957; 1119 GCT; 27°33'N, 110°50'W; sounding, 430 fm; wind, direction missing, force 1; weather, clear; sea, calm; wire angle, 03°.

127G.90

0	26.62	35.34	4.54	0	26.62	35.34	4.54	23.12	476	0.00
10	26.50	35.34	4.42	10	26.50	35.34	4.42	23.15	473	0.05
29	26.02	35.26	4.04	20	26.26	35.30	4.20	23.20	468	0.09
39	25.08	35.21	4.07	30	25.98	35.26	4.05	23.25	463	0.14
48	23.44	35.16	3.98	50	22.80	35.13	3.91	24.10	382	0.22
57	20.52	34.99	3.47	75	18.23	34.91	2.23	25.15	282	0.31
67	18.91	34.92	2.53	100	16.90	34.97	2.00	25.53	246	0.38
81	17.94	34.91	2.16	150	13.96	34.97	1.71	26.20	183	0.48
94	17.24	34.96	2.14	200	12.97	34.94	1.61	26.38	166	0.57
109	16.21	34.97	1.62	250	12.04	34.86	0.31	26.49	155	0.65
130	14.76	34.96	1.45	300	11.01	34.76	0.37	26.61	144	0.73
159	13.68	34.97	1.78	400	9.58	34.66	0.23	26.79	127	0.87
193	13.02	34.95	1.68	500	8.43	34.66	0.23	26.96	110	1.00
240	12.25	34.88	0.31							
315	10.74	34.74	0.36							
409	9.45	34.66	0.23							
532	8.11	34.66	0.24							

STRANGER; June 21, 1957; 2339 GCT; 26°35'N, 111°46'W; sounding, 135 fm; wind, 070, force 4; weather, clear; sea, smooth; wire angle, missing.

129<sup>5</sup>G.17

0	29.14	36.33	4.69	0	29.14	36.33	4.69	23.01	486	0.00
10	27.20	36.26 <sup>a)</sup>	4.71	10	27.20	36.26	4.71	23.62	428	0.04
24	20.99	35.63 <sup>a)</sup>	1.65	20	23.19	35.87	3.12	24.57	338	0.08

a) Loose bottle cap; value falls on property curve.

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O <sub>2</sub>	Z	T	S	O <sub>2</sub>	$\sigma_t$	$\delta T$	$\Delta D$
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10 <sup>5</sup> cm <sup>3</sup> /g	dyn. m

139G.22 STRANGER; June 12, 1957; 1100 GCT; 25°16'N, 110°48'W; sounding, 460 fm; wind, calm; weather, clear; sea, calm; wire angle, 03°.

0	24.31	35.27	5.10	0	24.31	35.27	5.10	23.78	413	0.00
11	23.32	35.37	5.21	10	23.44	35.36	5.19	24.10	382	0.04
29	19.40	35.19	4.00	20	21.70	35.31	4.88	24.56	339	0.08
40	18.26	35.20	3.52	30	19.34	35.19	3.97	25.09	288	0.11
48	16.28	34.96	1.72	50	16.25	34.96	1.69	25.68	232	0.16
58	15.82	34.95	1.49	75	15.50	34.94	1.35	25.84	217	0.22
67	15.74	34.96	1.48	100	15.01	34.90	1.17	25.91	210	0.27
82	15.27	34.92	1.22	150	14.06	34.96	1.05	26.16	186	0.37
96	15.08	34.90	1.17	200	12.80	34.88	0.63	26.35	168	0.46
109	14.86	34.94	1.14	250	12.42	34.84	0.60	26.41	163	0.54
135	14.31	34.94	1.07	300	11.98	34.80	0.42	26.46	158	0.63
161	13.84	34.98	1.02	400	10.25	34.67	0.18	26.67	138	0.78
194	12.90	34.88	0.65	500	8.83	34.64	0.18	26.88	118	0.92
241	12.50	34.85	0.60							
317	11.76	34.78	0.36							
412	10.04	34.66	0.18							
534	8.40	34.63	0.18							

139G.40 STRANGER; June 12, 1957; 0809 GCT; 25°24'N, 110°32'W; sounding, 600 fm; wind, 270°, force 2; weather, clear; sea, smooth; wire angle, 03°.

0	26.42	35.38	4.57	0	26.42	35.38	4.57	23.21	467	0.00
10	25.78	35.34	4.61	10	25.78	35.34	4.61	23.38	451	0.05
29	19.84	35.05	4.39	20	25.00	35.30	4.58	23.58	432	0.09
39	18.12	35.17	3.42	30	19.63	35.06	4.20	24.91	305	0.13
48	17.12	34.99	2.28	50	16.98	34.98	2.21	25.52	247	0.18
58	16.22	34.93	1.80	75	15.04	34.88	1.00	25.89	212	0.24
68	15.41	34.88	1.17	100	14.39	34.86	0.72	26.02	200	0.29
80	14.93	34.88	0.95	150	13.50	34.95	1.40	26.27	176	0.39
95	14.57	34.87	0.76	200	12.67	34.87	0.86	26.38	166	0.47
109	14.10	34.85	0.72	250	12.00	34.82	0.69	26.47	157	0.56
132	13.65	34.89	0.79	300	11.20	34.76	0.30	26.56	148	0.64
160	13.40	34.96	1.58	400	9.98	34.68	0.15	26.72	133	0.78
192	12.79	34.88	0.90	500	8.93	34.62	0.15	26.85	121	0.91
239	12.18	34.83	0.76							
315	10.98	34.74	0.22							
410	9.82	34.67	0.15							
533	8.60	34.60	0.15							

139G.55 STRANGER; June 12, 1957; 0554 GCT; 25°31'N, 110°17'W; sounding, 1150 fm; wind, 270°, force 3; weather, clear; sea, smooth; wire angle, 00°.

0	26.70	35.30	4.58	0	26.70	35.30	4.58	23.06	482	0.00
10	26.12	35.29	4.73	10	26.12	35.29	4.73	23.25	465	0.05
30	25.24	35.32	4.80	20	25.71	35.30	4.77	23.37	452	0.09
40	21.50	35.26	5.22	30	25.24	35.32	4.80	23.52	438	0.14
49	18.69	34.96	2.83	50	18.61	34.96	2.75	25.11	286	0.21
60	17.22	35.02	1.92	75	15.74	34.86	2.22	25.72	228	0.27
69	16.22	34.92	1.98	100	15.22	35.04	2.00	25.98	204	0.33
83	15.41	34.83	2.34	150	13.43	34.96	1.05	26.29	174	0.42
97	15.37	35.05	2.17	200	12.98	34.95	1.43	26.38	165	0.51
111	14.28	34.96	1.24	250	12.18	34.87	0.80	26.48	156	0.59
134	13.77	34.96	1.08	300	11.52	34.81	0.31	26.55	149	0.67
162	13.24	34.96	1.04	400	10.24	34.74	0.23	26.72	133	0.82
194	13.04	34.96	1.44	500	8.96	34.66	0.23	26.88	118	0.95
239	12.42	34.90	1.01							
313	11.38	34.80	0.26							
406	10.17	34.73	0.23							
531	8.52	34.64	0.26							

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O <sub>2</sub>	Z	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_T$	$\Delta D$
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 \text{cm}^3/\text{g}$	dyn. m

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STRANGER; June 12, 1957; 0257 GCT; 25°44'N, 110°00'W; sounding, 1070 fm; wind, 240°, force 3; weather, partly cloudy; sea, smooth; wire angle, 03°.

139G.70

0	26.48	35.19	4.72	0	26.48	35.19	4.72	23.05	483	0.00
10	25.22	35.15	4.57	10	25.22	35.15	4.57	23.25	463	0.05
29	20.46	34.78	4.46	20	24.01	35.03	4.53	23.68	422	0.09
39	19.75	34.81	2.20	30	20.42	34.78	4.40	24.50	344	0.13
49	19.18	34.88	2.89	50	19.16	34.88	2.88	24.91	305	0.19
68	18.46	34.96	2.46	75	18.00	34.96	2.20	25.26	272	0.27
81	17.44	34.94	1.92	100	15.30	34.76	1.25	25.74	226	0.33
95	15.71	34.78	1.59	150	14.20	35.01	1.72	26.18	185	0.43
110	14.83	34.75	0.92	200	13.13	34.95	1.16	26.35	168	0.52
132	14.40	34.99	1.72	250	12.47	34.89	0.73	26.43	161	0.61
160	14.04	35.01	1.71	300	11.75	34.84	0.46	26.53	151	0.69
192	13.22	34.97	1.28	400	10.58	34.76	0.26	26.69	136	0.84
238	12.62	34.90	0.83	500	9.02	34.66	0.20	26.86	120	0.97
312	11.58	34.83	0.42							
406	10.48	34.75	0.25							
531	8.48	34.63	0.19							

STRANGER; June 11, 1957; 2357 GCT; 25°48'N, 109°49'W; sounding, 600 fm; wind, 220°, force 1; weather, clear; sea, slight; wire angle, 05°.

139G.85

0	26.98	35.12	4.53	0	26.98	35.12	4.53	22.84	503	0.00
10	26.28	35.12	4.48	10	26.28	35.12	4.48	23.06	482	0.05
29	25.30	35.15	4.64	20	25.80	35.14	4.56	23.22	466	0.10
39	23.47	35.18	4.71	30	25.11	35.16	4.67	23.44	445	0.14
48	22.12	35.10	4.20	50	21.85	35.09	4.29	24.35	359	0.22
58	21.00	35.06	4.66	75	18.20	35.12	3.18	25.33	265	0.30
67	18.72	35.05	3.06	100	16.40	34.92	1.85	25.61	239	0.37
81	17.90	35.14	3.23	150	14.22	34.92	1.09	26.10	192	0.47
95	16.97	35.00	2.36	200	13.02	34.87	0.64	26.30	173	0.57
109	15.48	34.84	1.24	250	12.39	34.87	0.67	26.43	161	0.65
132	14.75	34.90	1.11	300	11.83	34.81	0.41	26.49	155	0.73
160	13.94	34.92	1.07	400	10.04	34.67	0.20	26.71	134	0.88
192	13.17	34.87	0.63	500	8.49	34.61	0.12	26.91	115	1.02
238	12.57	34.88	0.70							
312	11.62	34.79	0.37							
406	9.96	34.67	0.20							
528	8.03	34.60	0.11							

STRANGER; June 11, 1957; 2145 GCT; 25°54'N, 109°34'W; sounding, 125 fm; wind, 210°, force 4; weather, clear; sea, slight; wire angle, 00°.

139G.100

0	26.95	35.12	4.66	0	26.95	35.12	4.66	22.85	502	0.00
10	26.64	35.16	4.58	10	26.64	35.16	4.58	22.97	490	0.05
19	26.34	35.12	4.51							

STRANGER; June 10, 1957; 1944 GCT; 23°38'N, 109°27'W; sounding, 415 fm; wind, 100°, force 3; weather, clear; sea, smooth; wire angle, 10°.

151G.40

0	26.06	35.03	4.75	0	26.06	35.03	4.75	23.07	481	0.00
10	25.54	35.02	4.74	10	25.54	35.02	4.74	23.22	466	0.05
29	20.83	34.70	4.57	20	23.20	34.87	4.70	23.80	411	0.09
38	18.47	34.60	2.73	30	20.60	34.68	4.48	24.39	355	0.13
48	17.48	34.63	1.64	50	17.20	34.64	1.26	25.21	277	0.19
57	16.40	34.65	0.38	75	14.90	34.70	0.20	25.78	222	0.26
67	15.27	34.65	0.34	100	13.88	34.78	0.17	26.06	196	0.31
80	14.70	34.72	0.15	150	12.83	34.79	0.19	26.28	175	0.40
94	14.10	34.76	0.17	200	12.21	34.81	0.19	26.42	162	0.49
107	13.68	34.79	0.17	250	11.66	34.76	0.18	26.49	155	0.57
131	13.14	34.80	0.19	300	11.18	34.71	0.15	26.54	150	0.65
158	12.73	34.79	0.19	400	9.92	34.67	0.09	26.73	132	0.79
190	12.32	34.81	0.19	500	8.60	34.61	0.12	26.90	116	0.92
235	11.82	34.78	0.19							
309	11.08	34.71	0.15							
403	9.88	34.67	0.09							
524	8.26	34.59	0.13							



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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O <sub>2</sub>	Z	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_T$	$\Delta D$
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 \text{cm}^3/\text{g}$	dyn. m

15IG.55 STRANGER; June 10, 1957; 1741 GCT; 23°45'N, 109°14'W; sounding, 1240 fm; wind, 110°, force 1; weather, clear; sea, slight; wire angle, 00°.

0	26.25	35.07	4.75	0	26.25	35.07	4.75	23.03	484	0.00
10	25.92	35.07	4.62	10	25.92	35.07	4.62	23.14	474	0.05
29	21.63	34.87	3.50	20	23.90	35.00	4.08	23.69	421	0.09
39	19.15	34.66	1.36	30	21.55	34.86	3.46	24.26	367	0.13
47	18.48	34.93	2.72	50	18.01	34.90	2.47	25.22	276	0.20
57	16.88	34.81	1.59	75	16.12	34.97	1.76	25.72	228	0.26
67	16.43	34.94	1.81	100	14.46	34.84	0.57	25.98	203	0.32
81	15.83	34.97	1.65	150	12.98	34.83	0.34	26.29	174	0.41
95	14.77	34.88	0.77	200	12.20	34.81	0.18	26.42	162	0.50
109	14.15	34.81	0.41	250	11.72	34.78	0.26	26.50	154	0.58
133	13.42	34.83	0.30	300	11.18	34.80	0.17	26.61	144	0.66
161	12.72	34.82	0.35	400	9.87	34.68	0.14	26.74	131	0.80
193	12.25	34.81	0.17	500	8.54	34.58	0.16	26.89	117	0.93
240	11.81	34.78	0.28							
317	10.98	34.80	0.15							
412	9.70	34.66	0.14							
536	8.02	34.56	0.16							

15IG.70 STRANGER; June 10, 1957; 1447 GCT; 23°56'N, 108°59'W; sounding, 1325 fm; wind, 150°, force 2; weather, clear; sea, slight; wire angle, 00°.

0	26.12	35.14	4.31	0	26.12	35.14	4.31	23.12	476	0.00
10	26.10	35.16	4.65	10	26.10	35.16	4.65	23.14	474	0.05
29	24.31	35.21	4.71	20	25.80	35.18	4.65	23.24	464	0.09
39	21.23	34.74	4.95	30	24.19	35.20	4.71	23.76	415	0.14
49	19.79	34.69	2.11	50	19.60	34.68	2.10	24.65	330	0.21
58	17.84	34.60	2.17	75	16.12	34.64	1.43	25.47	252	0.28
68	16.69	34.60	1.91	100	15.01	34.76	0.50	25.80	221	0.35
82	15.71	34.70	1.02	150	13.40	34.79	0.20	26.16	186	0.45
97	15.18	34.76	0.56	200	12.34	34.80	0.20	26.38	165	0.54
111	14.54	34.74	0.33	250	11.68	34.77	0.31	26.49	155	0.62
134	13.76	34.79	0.19	300	11.12	34.71	0.22	26.54	150	0.70
162	13.16	34.79	0.21	400	10.35	34.69	0.20	26.67	138	0.85
195	12.41	34.80	0.20	500	8.90	34.64	0.19	26.87	119	0.98
241	11.81	34.78	0.31							
315	10.98	34.70	0.20							
409	10.26	34.69	0.20							
534	8.24	34.61	0.17							

15IG.85 STRANGER; June 10, 1957; 1225 GCT; 24°02'N, 108°48'W; sounding, 1870 fm; wind, 120°, force 2; weather, clear; sea, slight; wire angle, 00°.

0	26.22	35.13	4.61	0	26.22	35.15	4.61	23.09	479	0.00
10	26.22	35.11	4.61	10	26.22	35.11	4.61	23.07	481	0.05
30	24.19	34.96	4.60	20	25.50	35.04	4.60	23.24	464	0.10
40	22.32	34.94	5.01	30	24.19	34.96	4.60	23.58	432	0.14
49	19.58	34.60	1.22	50	19.50	34.60	1.23	24.61	334	0.22
59	18.58	34.63	2.17	75	16.40	34.66	0.78	25.42	257	0.29
69	17.35	34.65	1.20	100	14.22	34.75	0.21	25.96	205	0.35
84	15.09	34.69	0.38	150	13.00	34.81	0.17	26.27	176	0.45
98	14.35	34.74	0.20	200	12.30	34.80	0.20	26.40	164	0.53
111	13.88	34.78	0.39	250	11.64	34.78	0.20	26.50	154	0.61
134	13.28	34.81	0.17	300	11.10	34.77	0.22	26.60	145	0.69
161	12.83	34.81	0.17	400	10.04	34.67	0.21	26.70	135	0.84
194	12.37	34.80	0.20	500	8.81	34.61	0.19	26.86	120	0.97
241	11.78	34.78	0.18							
315	10.96	34.76	0.24							
409	9.96	34.66	0.21							
533	8.38	34.60	0.18							

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O <sub>2</sub>	Z	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_T$	$\Delta D$
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 \frac{cm^3}{g}$	dyn. m

STRANGER; June 10, 1957; 0940 GCT; 24°10'N, 108°33'W; sounding, 765 fm; wind, 120°, force 1; weather, clear; sea, calm; wire angle, 05°.

15IG.100

0	25.74	34.91	4.89	0	25.74	34.91	4.89	23.06	481	0.00
10	25.75	34.92	5.04	10	25.75	34.92	5.04	23.08	480	0.05
30	25.62	34.92	5.04	20	25.70	34.92	5.04	23.09	479	0.10
39	23.66	34.90	5.06	30	25.62	34.92	5.04	23.11	477	0.14
49	22.43	34.74	4.96	50	22.30	34.73	4.92	23.96	396	0.23
58	20.38	34.72	4.79	75	16.00	34.63	0.36	25.48	251	0.31
67	18.15	34.61	2.63	100	15.71	34.87	1.23	25.73	227	0.37
82	15.68	34.64	0.20	150	13.38	34.85	0.76	26.22	181	0.48
96	15.80	34.87	1.24	200	12.60	34.87	0.80	26.40	164	0.56
110	15.04	34.79	0.88	250	11.93	34.82	0.65	26.48	156	0.64
132	14.12	34.90	1.17	300	11.28	34.73	0.23	26.53	151	0.72
160	13.03	34.83	0.64	400	9.99	34.65	0.12	26.70	135	0.87
192	12.73	34.87	0.80	500	8.76	34.61	0.15	26.87	119	1.01
239	12.07	34.84	0.73							
313	11.13	34.71	0.19							
408	9.86	34.65	0.12							
530	8.36	34.60	0.18							

STRANGER; June 10, 1957; 0706 GCT; 24°18'N, 108°18'W; sounding, 540 fm; wind, calm; weather, clear; sea, slight; wire angle, 02°.

15IG.115

0	26.68	34.91	5.36	0	26.68	34.91	5.36	22.77	509	0.00
10	26.68	34.92	4.62	10	26.68	34.92	4.62	22.78	508	0.05
30	24.72	34.97	4.88	20	26.30	34.94	4.69	22.92	495	0.10
39	22.82	34.77	4.86	30	24.72	34.97	4.88	23.42	447	0.15
50	21.34	34.70	4.44	50	21.34	34.70	4.44	24.19	374	0.23
59	19.79	34.64	3.11	75	18.12	34.65	1.40	25.00	297	0.31
69	18.78	34.68	2.14	100	16.00	34.62	0.17	25.48	251	0.38
83	17.12	34.60	0.34	150	14.30	34.80	0.45	26.00	202	0.50
97	16.12	34.61	0.19	200	12.75	34.79	0.35	26.30	173	0.60
111	15.59	34.65	0.14	250	11.78	34.76	0.20	26.46	158	0.68
135	14.87	34.71	0.24	300	11.10	34.73	0.19	26.56	148	0.76
163	13.82	34.82	0.64	400	9.66	34.66	0.16	26.76	129	0.90
195	12.88	34.80	0.38	500	8.30	34.60	0.15	26.93	113	1.03
242	11.91	34.76	0.20							
318	10.84	34.72	0.18							
412	9.50	34.65	0.15							
537	7.80	34.58	0.15							

STRANGER; June 10, 1957; 0440 GCT; 24°25'N, 108°03'W; sounding, 15 fm; wind, calm; weather, clear; sea, smooth; wire angle, 00°.

15IG.130

0	26.88	34.97	4.61	0	26.88	34.97	4.61	22.75	511	0.00
10	26.86	34.96	4.57	10	26.86	34.96	4.57	22.75	511	0.05
29	26.02	34.94	4.28	20	26.60	34.95	4.44	22.83	504	0.10

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O <sub>2</sub>	Z	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_T$	$\Delta D$
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 \text{cm}^3/\text{g}$	dyn. m

157G.10

STRANGER; June 9, 1957; 0032, 0107 GCT; 22°33'N, 109°24'W; sounding, 1575 fm; wind, 240°, force 5; weather, partly cloudy; sea, moderate; wire angle, 04°, 08°.

0	24.43	35.03	4.93	0	24.43	35.03	4.93	23.56	434	0.00
10	24.42	35.04	4.92	10	24.42	35.04	4.92	23.56	434	0.04
29	15.88	34.56	3.61	20	22.31	35.03	4.90	23.60	430	0.09
43	14.80	34.59	1.23	30	15.80	34.56	3.53	25.47	252	0.12
53	14.37	34.63	0.80	50	14.48	34.63	0.80	25.82	219	0.17
63	13.42	34.49	1.12	75	13.01	34.43	0.95	25.96	205	0.22
72	13.00	34.41	1.01	100	13.27	34.77	0.15	26.18	185	0.27
91	13.45	34.76	0.17	150	12.28	34.82	0.16	26.42	162	0.36
106	13.10	34.77 <sup>a)</sup>	0.15	200	11.55	34.79	0.16	26.53	151	0.44
				250	11.09	34.78	0.16	26.62	143	0.51
120	12.84	34.84 <sup>b)</sup>	0.13	300	10.41	34.77	0.18	26.72	133	0.58
145	12.38	34.82	0.16	400	8.79	34.64	0.18	26.89	117	0.71
171	11.89	34.80	0.16	500	7.41	34.57	0.18	27.04	103	0.83
260	10.97	34.78	0.16							
340	9.72	34.74	0.18							
439	8.13	34.58	0.18							
577	6.71	34.57	0.16							

157G.40

STRANGER; June 9, 1957; 0612, 0628 GCT; 22°47'N, 108°54'W; sounding, 1650 fm; wind, 230°, force 5; weather, clear; sea, moderate; wire angle, 05°, 08°.

0	23.14	35.01	4.87	0	23.14	35.01	4.87	23.93	399	0.00
10	22.72	35.02	4.80	10	22.72	35.02	4.80	24.05	387	0.04
29	15.06	34.59	1.68	20	19.00	34.83	3.13	24.91	305	0.07
43	13.68	34.55	0.75	30	15.00	34.59	1.56	25.67	233	0.10
				50	13.61	34.57	0.71	25.95	206	0.14
54	13.55	34.58	0.68	75	12.72	34.60	0.62	26.16	186	0.19
64	13.28	34.64	0.46	100	11.92	34.62	0.46	26.33	170	0.24
73	12.80	34.60	0.61	150	11.62	34.77	0.16	26.50	154	0.32
91	12.20	34.64	0.50	200	11.13	34.72	0.11	26.56	148	0.40
105	11.81	34.62	0.43	250	10.60	34.70	0.16	26.64	141	0.47
119	12.08	34.78	0.19	300	10.04	34.70	0.18	26.72	133	0.54
142	11.70	34.76	0.19	400	8.65	34.62	0.14	26.89	117	0.67
169	11.45	34.78	0.14	500	7.32	34.54	0.14	27.03	104	0.78
206	11.03	34.72	0.11							
257	10.52	34.70	0.18							
335	9.62	34.69	0.14							
434	8.12	34.58	0.13							
572	6.64	34.51	0.14							

157G.70

STRANGER; June 9, 1957; 1055 GCT; 23°03'N, 108°26'W; sounding, 1500 fm; wind, 220°, force 4; weather, partly cloudy; sea, slight; wire angle, 05°.

0	22.88	34.87	4.98	0	22.88	34.87	4.98	23.89	403	0.00
10	22.88	34.85	4.97	10	22.88	34.85	4.97	23.88	404	0.04
29	19.53	34.65	5.06	20	22.83	34.85	4.96	23.89	403	0.08
38	16.88	34.29	4.08	30	19.40	34.64	5.01	24.66	329	0.12
49	15.38	34.20	2.98	50	15.33	34.20	2.93	25.31	267	0.18
59	14.18	34.31	1.84	75	13.25	34.37	1.26	25.87	214	0.24
68	13.70	34.53r	1.41	100	13.07	34.72	0.43	26.18	184	0.29
83	12.82	34.40	1.09	150	12.13	34.78	0.11	26.42	162	0.37
97	13.10	34.68	0.59	200	11.51	34.77	0.11	26.52	152	0.45
112	12.83	34.79	0.19	250	10.86	34.71	0.08	26.60	145	0.53
135	12.39	34.78	0.11	300	10.26	34.67	0.07	26.67	138	0.60
161	11.95	34.78	0.11	400	9.04	34.61	0.11	26.82	124	0.74
194	11.56	34.77 <sup>a)</sup>	0.11	500	7.78	34.57	0.12	26.99	108	0.86
240	10.99	34.72	0.09							
314	10.08	34.66	0.07							
409	8.92	34.60	0.11							
531	7.35	34.56 <sup>a)</sup>	0.12							

a) Loose bottle cap; value falls on property curve.

b) Loose bottle cap; value does not fall on property curve.

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O <sub>2</sub>	Z	T	S	O <sub>2</sub>	$\sigma_t$	$\delta_T$	$\Delta D$
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 \text{cm}^3/\text{g}$	dyn. m

SIO  
CCOFI  
5706

STRANGER; June 9, 1957; 1513 GCT; 23°19'N, 107°58'W; sounding, 1325 fm; wind, 160°, force 4; weather, partly cloudy; sea, moderate; wire angle, 00°.

157G.100

0	24.31	35.02	4.90	0	24.31	35.02	4.90	23.58	432	0.00
10	24.28	35.01	4.80	10	24.28	35.01	4.80	23.58	432	0.04
29	22.26	34.81	4.78	20	24.22	35.01	4.80	23.60	430	0.09
39	19.86	34.67	4.62	30	22.00	34.79	4.77	24.07	385	0.13
49	17.52	34.64	2.22	50	17.38	34.64	2.05	25.18	280	0.19
59	16.44	34.66	1.35	75	14.90	34.72	0.86	25.80	221	0.26
69	15.32	34.71	0.97	100	13.68	34.76	0.43	26.09	193	0.31
83	14.44	34.73	0.72	150	12.33	34.78	0.13	26.38	166	0.40
97	13.80	34.76	0.48	200	11.62	34.78	0.10	26.51	153	0.48
111	13.29	34.76	0.33	250	11.18	34.79	0.16	26.61	144	0.56
135	12.60	34.77	0.20	300	10.55	34.76	0.15	26.69	136	0.63
162	12.15	34.78 <sup>a)</sup>	0.11	400	9.06	34.64	0.16	26.85	121	0.76
194	11.70	34.78 <sup>a)</sup>	0.10	500	7.91	34.60	0.16	27.00	107	0.88
241	11.24	34.79	0.16							
316	10.34	34.75	0.15							
412	8.92	34.63	0.16							
536	7.51	34.60	0.16							

STRANGER; June 9, 1957; 1934 GCT; 23°35'N, 107°29'W; sounding, 510 fm; wind, 170°, force 3; weather, clear; sea, moderate; wire angle, 14°.

157G.130

0	26.18	35.01	4.70	0	26.18	35.01	4.70	23.00	487	0.00
10	25.60	35.00	4.77	10	25.60	35.00	4.77	23.18	470	0.05
29	23.04	34.88	5.06	20	24.70	34.97	4.89	23.43	446	0.09
38	21.54	34.75	5.05	30	22.92	34.87	5.05	23.89	403	0.14
49	20.12	34.69	4.50	50	19.88	34.68	4.30	24.57	338	0.21
57	18.21	34.61	2.12	75	16.55	34.62	0.80	25.34	264	0.28
66	17.29	34.65	0.95	100	14.88	34.80	0.50	25.86	215	0.35
79	16.26	34.61	0.79	150	13.20	34.88	0.24	26.28	175	0.44
93	15.66	34.84	0.80	200	12.22	34.83	0.15	26.43	161	0.53
106	14.20	34.76	0.15	250	11.84	34.83	0.11	26.50	154	0.61
128	13.55	34.80	0.17	300	11.25	34.81	0.17	26.61	144	0.69
154	13.11	34.88	0.25	400	9.99	34.73	0.18	26.76	129	0.83
185	12.32	34.83	0.15	500	8.16	34.60	0.16	26.95	111	0.96
230	12.03	34.83	0.11							
301	11.22	-	0.17							
393	10.08	34.74	0.18							
511	7.92	34.58	0.16							

a) Loose bottle cap; value falls on property curve.

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
60.50-B	15	2035	37°57.5'	122°53.0'	24	310°	5	clear	moderate	9.10	33.89	7.96	33.93
60.55-B	16	0025	37°47.5'	123°15.0'	60	320°	6	clear	very rough	10.08	33.78	9.83	33.87
60.60-B	16	0345	37°37.0'	123°37.0'	1800	300°	5	clear	very rough	11.96	33.55	9.17	33.79
60.70-B	16	1255	37°15.5'	124°24.0'	2050	330°	6	clear	rough	14.00	33.19	10.00	33.19
60.80-B	16	1710	36°57.0'	125°04.0'	2300	330°	6	clear	very rough	14.80	32.89	14.42	32.93
60.90-B	16	2215	36°37.0'	125°47.0'	2400	320°	6	clear	very rough	15.62	33.08	14.45	32.22
63.52-B	14	1445	37°19.0'	122°36.0'	48	310°	6	clear	rough	10.44	33.46	8.88	33.85
63.55-B	14	1235	37°14.0'	122°49.5'	150	300°	6	clear	very rough	12.05	33.39	11.00	33.41
63.60-B	14	0750	37°06.5'	123°10.0'	1400	320°	7	clear	very rough	13.45	33.31	10.38	33.37
63.70-B	13	2230	36°42.0'	123°56.0'	2000	340°	7	partly cloudy	very rough	14.79	33.15	12.82	33.10
63.80-B	13	1525	36°22.5'	124°39.0'	2200	340°	5	partly cloudy	rough	14.87	33.08	14.26	33.24
63.90-B	13	1015	36°02.0'	125°21.5'	2500	340°	3	partly cloudy	rough	16.11	33.24	14.24	33.30
67.50-B	12	0910	36°49.0'	122°04.5'	56	320°	3	cloudy	moderate	11.94	33.72	8.82	33.91
67.55-B	12	1140	36°39.0'	122°26.0'	1250	310°	3	overcast	moderate	12.70	33.26	9.60	33.55
67.60-B	12	1430	36°29.0'	122°47.5'	1600	300°	4	overcast	moderate	14.47	33.16	11.64	33.37
67.70-B	12	1920	36°11.5'	123°32.5'	2000	320°	3	fog	moderate	15.43	33.28	14.93	33.24
67.80-B	13	0000	35°49.0'	124°14.0'	2200	300°	3	cloudy	rough	15.66	33.30	14.95	33.31
67.90-B	13	0450	35°32.0'	124°57.0'	2200	300°	4	fog	rough	16.32	33.31	14.79	33.22
70.52-B	12	0340	36°08.5'	121°50.0'	370	320°	7	clear	rough	11.09	33.68	10.28	33.82

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
70.55-B	12	0120	36°02.5'	122°02.0'	720	330°	4	partly cloudy	rough	11.70	33.64	11.08	33.68
70.60-B	11	2230	35°53.0'	122°23.0'	1700	330°	5	partly cloudy	rough	12.70	33.54	9.70	33.55
70.70-B	11	1720	35°33.0'	123°06.0'	2000	340°	4	cloudy	very rough	14.76	33.24	14.04	33.25
70.80-B	11	0945	35°13.0'	123°48.0'	2300	330°	5	cloudy	rough	14.56	33.25	13.74	33.23
70.90-B	11	0355	34°53.0'	124°30.0'	2300	340°	6	overcast	very rough	15.27	33.26	14.08	33.27
73.50-B	10	0210	35°37.0'	121°16.5'	53	320°	3	overcast	slight	10.71	33.75	9.76	33.82
73.55-B	10	0420	35°27.5'	121°37.5'	560	310°	5	cloudy	moderate	12.53	33.39	12.34	33.40
73.60-B	10	0655	35°18.0'	121°58.5'	1360	320°	5	overcast	rough	13.25	33.40	10.32	33.65
73.70-B	10	1140	34°59.5'	122°41.0'	2300	330°	4	cloudy	rough	15.11	33.37	11.92	33.46
73.80-B	10	1640	34°42.0'	123°24.5'	2200	320°	6	overcast	rough	14.75	33.44	11.75	33.40
73.90-B	10	2150	34°18.0'	124°04.0'	2400	320°	5	cloudy	rough	15.90	33.31	15.01	33.28
77.50-B	9	0740	35°04.0'	120°52.0'	75	320°	4	partly cloudy	rough	10.91	33.59	9.42	33.55
77.55-B	9	0415	34°54.5'	121°13.0'	225	320°	5	clear	very rough	13.02	33.45	11.98	33.53
77.60-B	9	0045	34°44.0'	121°34.0'	500	320°	5	partly cloudy	very rough	14.42	33.37	12.08	33.51
77.70-B	8	1935	34°24.0'	122°16.0'	2200	340°	5	partly cloudy	rough	14.93	33.33	11.92	33.40
77.80-B	8	1345	34°04.0'	122°57.0'	2200	330°	5	partly cloudy	very rough	15.34	33.28	15.24	33.30
77.90-B	8	0815	33°44.0'	123°38.5'	2250	320°	6	partly cloudy	very rough	15.84	33.30	15.36	33.26
80.51-O	6	1520	34°26.5'	120°32.0'	52	320°	5	cloudy	very rough	10.02	33.82	11.03	33.68
80.55-O	6	1220	34°19.0'	120°49.0'	1400	320°	4	clear	very rough	12.38	33.58	10.82	33.50

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
80.60-O	6	0850	34°10.5'	121°08.5'	1200	320°	4	clear	very rough	13.37	33.44	11.30	33.43
80.70-B	7	1520	33°49.0'	121°51.0'	2000	320°	6	overcast	very rough	14.84	33.42	12.38	33.40
80.80-B	7	2045	33°29.0'	122°32.0'	2400	320°	5	cloudy	very rough	15.06	33.42	12.30	33.25
80.90-B	8	0240	33°09.0'	123°13.0'	2200	340°	5	partly cloudy	rough	16.25	33.38	15.87	33.39
82.47-O	6	1940	34°15.0'	119°58.0'	240	320°	3	clear	moderate	11.57	33.62	9.93	33.74
83.40-O	6	2325	34°14.5'	119°22.0'	113	270°	3	partly cloudy	moderate	13.89	33.57	11.98 <sup>a)</sup>	33.58 <sup>a)</sup>
83.43-O	7	0150	34°05.5'	119°29.5'	100	270°	5	partly cloudy	very rough	16.36	33.58	-	-
83.51-O	7	1615	33°52.0'	120°07.0'	50	290°	4	missing	rough	16.10	33.60	10.72	33.55
83.55-O	7	1910	33°44.0'	120°24.0'	530	280°	5	missing	very rough	13.52	33.59	9.24	33.51
83.60-O	7	2240	33°34.5'	120°44.0'	700	300°	5	cloudy	very rough	14.32	33.40	14.12	33.37
83.65-B	7	0850	33°24.0'	121°05.0'	2000	320°	6	cloudy	very rough	15.49	33.31	14.87	33.31
83.70-B	7	0505	33°14.5'	121°26.0'	2200	310°	6	overcast	very rough	16.18	33.48	16.15	33.57
83.75-B	7	0125	33°04.5'	121°46.5'	2200	320°	6	overcast	high	15.94	33.44	14.08	33.33
83.80-B	6	2225	32°54.5'	122°07.5'	2300	340°	7	partly cloudy	very rough	15.12	33.40	14.82	33.39
83.85-B	6	1835	32°44.5'	122°27.0'	2100	320°	5	clear	very rough	15.97	33.39	14.84	33.33
83.90-B	6	1540	32°34.5'	122°48.0'	2200	340°	6	clear	very rough	16.06	33.39	16.06	33.45
87.36-O	8	1930	33°48.0'	118°42.0'	900	300°	2	overcast	slight	17.52	33.58	10.98	33.51

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

a) Depth, 20 meters.

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
87.40-O	8	1615	33°40.5'	118°59.0'	450	320°	2	cloudy	slight	16.54	33.58	10.52	33.63
87.45-O	8	1340	33°30.0'	119°19.0'	900	220°	2	cloudy	moderate	15.87	33.62	9.82	33.74
87.50-O	8	1020	33°20.0'	119°40.0'	-	-	-	missing	missing	14.54	33.58	9.28	33.87
87.55-O	8	0615	33°11.0'	120°01.0'	-	-	-	missing	missing	13.80	33.59	10.77	33.68
87.60-O	8	0340	33°00.0'	120°22.0'	400	300°	3	cloudy	very rough	13.98	33.58	10.63	33.62
87.65-B	5	1945	32°51.5'	120°43.0'	2000	320°	5	fog	high	13.56	33.70	12.89	33.51
87.70-B	5	2245	32°39.5'	121°02.0'	2100	320°	6	partly cloudy	very rough	14.65	33.57	12.88	33.58
87.75-B	6	0140	32°29.5'	121°22.5'	2200	330°	5	overcast	very rough	15.94	33.32	15.76	33.33
87.80-B	6	0440	32°19.5'	121°43.0'	2250	320°	5	overcast	very rough	15.92	33.33	15.83	33.31
87.85-B	6	0730	32°10.0'	122°05.5'	2300	320°	5	partly cloudy	very rough	15.85	33.25	15.76	33.24
87.90-B	6	1030	31°59.0'	122°29.0'	2300	330°	5	clear	rough	15.82	33.24	15.18	33.41
90.28-O	9	0100	33°28.0'	117°46.0'	252	320°	1	overcast	slight	17.89	33.73	10.66	33.56
90.30-O	9	0215	33°24.0'	117°55.0'	300	270°	1	cloudy	slight	16.52	33.58	10.62	33.59
90.37-O	9	0610	33°10.5'	118°23.5'	640	270°	1	cloudy	slight	14.98	33.68	9.98	33.78
90.45-O	9	1030	32°55.0'	118°56.0'	900	270°	3	partly cloudy	moderate	16.24	33.70	10.42	33.83
90.50-O	9	1315	32°45.5'	119°17.0'	215	320°	3	partly cloudy	very rough	14.94	33.78	9.67	33.91
90.55-O	9	1540	32°35.0'	119°37.0'	500	320°	3	fog	rough	14.46	33.70	11.81	33.64
90.60-O	9	1820	32°25.0'	119°58.0'	500	270°	5	overcast	moderate	14.22	33.69	12.03	33.64
90.65-O	9	2120	32°15.0'	120°17.5'	2000	270°	3	overcast	moderate	15.06	33.69	12.40	33.57

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)



Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
90.70-O	9	2355	32°05.0'	120°38.0'	2000	270°	4	overcast	moderate	15.14	33.58	12.09	33.55
90.75-O	10	0225	31°55.0'	120°58.0'	2200	270°	2	overcast	moderate	15.44	33.54	11.31	33.39
90.80-O	10	0455	31°45.0'	121°18.0'	2100	270°	2	rain	slight	15.75	33.40	13.00	33.39
90.85-O	10	0740	31°35.0'	121°38.5'	2200	260°	2	fog	moderate	16.02	33.36	14.80	33.37
90.90-O	10	1050	31°25.0'	121°59.0'	2200	320°	2	overcast	moderate	16.06	33.31	15.01	33.30
93.27-O	12	0155	32°56.0'	117°19.0'	40	270°	2	cloudy	slight	17.83	33.58	12.65	33.45
93.30-O	11	2345	32°45.5'	117°30.5'	350	270°	2	partly cloudy	slight	17.13	33.60	10.40	33.58
93.35-O	11	2145	32°34.0'	117°48.0'	300	270°	2	partly cloudy	moderate	16.97	33.53	10.21	33.66
93.40-O	11	1845	32°23.0'	118°05.0'	750	270°	2	partly cloudy	moderate	16.52	33.53	11.10	33.42
93.45-O	11	1610	32°10.5'	118°22.0'	800	330°	2	overcast	moderate	16.78	33.60	12.81	33.42
93.50-O	11	1325	32°00.0'	118°46.0'	700	320°	3	overcast	rough	16.76	33.62	12.70	33.43
93.55-O	11	1035	31°52.0'	119°07.5'	900	180°	3	overcast	rough	15.60	33.51	14.00	33.38
93.60-O	11	0740	31°43.0'	119°28.0'	1200	340°	4	overcast	rough	15.34	33.47	13.95	33.41
93.65-O	11	0455	31°34.0'	119°50.0'	2000+	350°	4	overcast	rough	15.59	33.48	13.70	33.39
93.70-O	11	0200	31°26.0'	120°11.0'	2000	320°	4	cloudy	very rough	16.23	33.46	13.88	33.46
93.75-O	10	2330	31°17.0'	120°32.5'	2000	320°	3	cloudy	rough	17.27	33.66	15.02	33.49
93.80-O	10	2045	31°08.0'	120°53.0'	2000	320°	3	cloudy	rough	17.24	33.66	14.88	33.48
93.85-O	10	1800	31°00.0'	121°14.0'	2000+	320°	4	overcast	rough	17.22	33.63	14.70	33.51
93.90-O	10	1525	30°50.0'	121°35.0'	2000+	320°	3	overcast	rough	17.40	33.66	15.38	33.57

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
97.30-O	12	1540	32°15.5'	117°09.0'	33	320°	1	overcast	smooth	17.76	33.58	11.44	33.48
97.32-O	12	1645	32°11.5'	117°16.5'	700	-	-	missing	slight	17.50	33.63	11.96	33.42
97.40-O	12	2045	31°55.0'	117°49.5'	350	320°	1	overcast	slight	16.85	33.55	11.48	33.49
97.45-O	13	0040	31°45.0'	118°10.0'	600	320°	2	overcast	moderate	17.00	33.59	12.20	33.46
97.50-O	13	0300	31°34.0'	118°29.0'	1100	320°	2	overcast	moderate	17.02	33.62	12.86	33.39
97.55-O	13	0715	31°21.0'	118°48.0'	250	320°	3	overcast	rough	16.76	33.60	12.06	33.35
97.60-O	13	0955	31°10.5'	119°07.0'	1900	320°	5	cloudy	rough	16.32	33.49	14.72	33.45
97.65-O	13	1255	30°59.0'	119°25.0'	1900	320°	4	partly cloudy	rough	16.96	33.58	15.54	33.49
97.70-O	13	1600	30°47.0'	119°44.0'	1900	320°	5	clear	rough	17.40	33.64	15.50	33.51
97.75-O	13	2000	30°35.5'	120°03.5'	2000	320°	5	clear	very rough	17.60	33.58	16.24	33.53
97.80-O	13	2315	30°25.0'	120°23.0'	2000+	320°	6	clear	very rough	17.50	33.59	17.18	33.61
97.85-O	14	0215	30°15.0'	120°43.0'	2000+	320°	5	clear	very rough	17.62	33.63	16.52	33.58
97.90-O	14	0510	30°05.0'	121°03.0'	-	-	-	missing	missing	17.41	33.58	16.62	33.51
100.29-O	15	2230	31°42.0'	116°42.0'	40	280°	1	clear	moderate	14.52	33.57	11.08	33.60
100.33-O	15	2020	31°34.5'	116°58.5'	700	280°	2	cloudy	rough	17.26	33.59	10.63	33.44
100.45-O	15	1425	31°11.0'	117°44.0'	1000	320°	5	cloudy	high	16.98	33.60	16.63	33.43
100.49-O	15	1130	31°02.0'	118°03.0'	1000	340°	5	clear	very rough	17.04	33.72	14.20	33.58
100.53-O	15	0825	30°54.0'	118°20.0'	950	280°	4	clear	high	17.07	33.71	11.90	33.51
100.58-O	15	0525	30°45.0'	118°38.0'	1200	320°	6	clear	high	16.54	33.66	12.68	33.35

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
100.63-O	15	0225	30°36.0'	118°52.0'	1500	320°	6	partly cloudy	high	16.17	33.55	14.62	33.48
100.67-O	14	2330	30°27.0'	119°15.0'	1700	320°	6	partly cloudy	high	16.83	33.63	15.46	33.58
100.72-O	14	2025	30°18.0'	119°34.0'	2000	320°	6	partly cloudy	high	17.52	33.63	15.78	33.44
100.76-O	14	1750	30°09.0'	119°52.0'	2000	320°	6	clear	high	17.60	33.53	15.60	33.48
100.80-O	14	1440	30°00.0'	120°10.0'	2000	320°	6	partly cloudy	high	17.38	33.58	15.06	33.42
100.85-O	14	1140	29°50.0'	120°28.0'	2000	320°	6	partly cloudy	high	17.32	33.57	15.18	33.41
100.90-O	14	0820	29°42.0'	120°46.0'	2000	320°	5	clear	high	17.25	33.55	15.90	33.48
103.30-O	16	0655	31°05.0'	116°25.0'	44	310°	1	clear	moderate	17.48	33.58	11.60	33.43
103.35-O	16	0935	30°55.0'	116°45.0'	1000	290°	2	cloudy	moderate	16.99	33.51	15.86	33.60
103.40-O	16	1220	30°45.0'	117°06.0'	1000	290°	2	overcast	rough	16.98	33.51	15.07	33.53
103.45-O	16	1510	30°37.0'	117°25.0'	1500	280°	2	overcast	rough	16.98	33.64	14.79	33.49
103.50-O	16	1800	30°26.0'	117°43.0'	1400	320°	2	cloudy	rough	16.72	33.55	14.90	33.44
103.55-O	16	2100	30°15.0'	118°04.0'	1100	290°	2	cloudy	rough	15.68	33.58	13.88	33.43
103.60-O	16	2350	30°05.0'	118°24.0'	1800	320°	2	cloudy	rough	16.88	33.53	14.64	33.39
103.65-O	17	0245	29°55.0'	118°43.0'	1500	320°	2	cloudy	rough	16.93	33.55	16.50	33.52
103.70-O	17	0530	29°44.0'	119°03.0'	1800	300°	2	cloudy	rough	17.66	33.66	15.92	33.57
103.75-O	17	0835	29°32.0'	119°25.0'	1800	-	1	partly cloudy	rough	17.79	33.64	17.14	33.91
103.80-O	17	1135	29°20.0'	119°47.0'	1900	320°	1	partly cloudy	slight	17.84	33.63	16.62	33.68
103.85-O	17	1335	29°12.0'	120°02.0'	2000	320°	1	clear	slight	17.86	33.64	16.49	33.62



TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
110.60-H	20	1700	28°58.0'	117°36.0'	2000	310°	4	clear	moderate	18.38	33.71	16.88	33.62
110.65-H	20	1440	28°47.5'	117°56.0'	2000	230°	2	clear	moderate	18.88	33.69	16.92	33.63
110.70-H	20	1155	28°37.5'	118°20.0'	2300	-	1	partly cloudy	moderate	18.74	33.71	16.04	33.60
110.75-H	20	0925	28°25.0'	118°36.5'	2300	320°	5	partly cloudy	moderate	18.86 <sup>a)</sup>	33.75	14.74	33.47
110.80-H	20	0700	28°13.5'	118°58.0'	2100	320°	4	partly cloudy	moderate	18.81	33.73	16.58	33.55
110.85-H	20	0445	28°02.0'	119°20.0'	2300	330°	4	cloudy	moderate	18.60	33.62	16.84	33.58
110.90-H	20	0300	27°54.0'	119°34.0'	2000	320°	3	cloudy	moderate	18.55	33.64	17.76	33.66
113.30-H	18	2015	29°25.0'	115°16.0'	19	-	1	fog	slight	12.87	33.69	-	-
113.35-H	18	2305	29°13.0'	115°40.0'	700	-	1	fog	slight	17.84	33.70	17.10	33.68
113.40-H	19	0105	29°03.0'	115°59.5'	1000	-	1	clear	slight	17.68	33.63	14.82	33.49
113.45-H	19	0325	28°53.0'	116°19.5'	1100	-	1	clear	slight	17.94	33.58	12.30	33.42
113.50-H	19	0600	28°43.5'	116°39.0'	1800	-	1	clear	slight	18.32	33.63	12.92 <sup>b)</sup>	33.50
113.55-H	19	0820	28°32.5'	116°58.5'	2000	-	1	clear	slight	18.04	33.70	16.43 <sup>c)</sup>	33.63
113.60-H	19	1045	28°21.0'	117°19.0'	2000	290°	2	clear	slight	18.48	33.71	16.98	33.63

a) Mean value between 18.92° and 18.81°.

b) Possible alternate value of 13.33°.

c) Possible alternate value of 16.65°.

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
113.65-H	19	1300	28°10.5'	117°38.5'	2000	290°	2	clear	slight	18.76	33.73	16.72	33.62
113.70-H	19	1500	28°00.0'	117°59.0'	1800	320°	3	clear	moderate	18.70	33.70	16.63	33.56
113.75-H	19	1700	27°51.5'	118°14.0'	1900	330°	4	partly cloudy	moderate	18.90	33.73	17.38	33.62
113.80-H	19	1900	27°44.5'	118°34.0'	2300	330°	4	partly cloudy	moderate	18.76	33.62	17.52	33.71
113.85-H	19	2120	27°36.0'	118°51.0'	2200	320°	4	cloudy	slight	18.74	33.68	17.20	33.64
113.90-H	19	2335	27°26.5'	119°12.0'	2150	320°	3	overcast	slight	18.82	33.66	17.86	33.68
117.26-H	18	1620	28°57.5'	114°47.0'	45	290°	2	missing	slight	16.44	33.63	10.43 <sup>a)</sup>	33.82
117.30-H	18	1430	28°51.0'	115°01.0'	50	290°	2	missing	slight	15.07	33.67	10.95	33.68
117.35-H	18	1145	28°39.0'	115°18.0'	90	290°	2	missing	slight	17.42	33.68	14.04 <sup>b)</sup>	33.52
117.40-H	18	0710	28°28.0'	115°38.5'	600	290°	2	partly cloudy	slight	17.84	33.70	17.04	33.66
117.45-H	18	0410	28°15.5'	116°01.0'	2500	300°	2	missing	slight	17.88	33.68	17.08	33.68
117.50-H	18	0130	28°06.0'	116°19.0'	2300	320°	2	cloudy	moderate	18.80	33.78	15.96 <sup>c)</sup>	33.68
117.55-H	17	2305	27°57.0'	116°35.0'	2000	320°	2	cloudy	moderate	17.37	33.69	14.06 <sup>d)</sup>	33.54

a) Possible alternate value of 9.96°.

b) Mean value between 14.10° and 13.99°.

c) Possible alternate value of 16.37°.

d) Mean value between 14.01° and 14.12°.

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
117.60-H	17	2025	27°45.0'	116°52.5'	1900	320°	2	cloudy	moderate	18.12	33.75	14.24	33.54
117.65-H	17	1755	27°36.0'	117°14.0'	2200	340°	2	overcast	rough	17.70	33.71	14.92	33.53
117.70-H	17	1550	27°27.5'	117°32.5'	2000	320°	3	cloudy	moderate	17.34	33.66	17.04	33.55
117.75-H	17	1320	27°18.0'	117°52.0'	2100	320°	3	overcast	moderate	18.17	33.70	18.01	33.88
117.80-H	17	1045	27°08.0'	118°11.5'	2400	330°	3	cloudy	very rough	18.10	33.82	18.13	34.04
117.85-H	17	0800	26°58.0'	118°30.0'	2400	330°	3	cloudy	very rough	18.10 <sup>a)</sup>	33.84	19.06 <sup>a)</sup>	34.03
117.90-H	17	0310	26°47.0'	118°49.5'	2200	330°	3	cloudy	very rough	19.16	34.01	18.20	34.03
118.39-H	18	0855	28°18.5'	115°24.0'	132	300°	1	missing	slight	17.58	33.69	17.77	33.54
120.25-H	15	1210	28°23.5'	114°16.0'	34	310°	4	overcast	moderate	17.22	33.66	11.04	33.56
120.30-H	15	1000	28°09.5'	114°34.0'	45	310°	3	overcast	slight	17.31	33.67	11.72	33.58
120.35-H	15	0745	28°01.0'	114°54.0'	40	320°	3	partly cloudy	slight	17.96	33.67	17.34	33.65
120.40-H	15	2300	27°56.5'	115°14.0'	30	340°	4	cloudy	moderate	14.02	33.82	10.91	34.22
120.45-H	16	0100	27°43.0'	115°33.0'	1400	320°	5	cloudy	rough	18.06	33.81	15.02	33.58
120.50-H	16	0400	27°33.0'	115°53.0'	2100	310°	5	overcast	rough	18.28	33.77	12.96	33.56
120.55-H	16	0625	27°24.0'	116°13.0'	2150	310°	5	cloudy	rough	18.16	33.78	15.24	33.71
120.60-H	16	0830	27°14.0'	116°34.0'	2000	310°	4	cloudy	rough	18.09	33.76	13.86	33.57
120.65-H	16	1100	27°03.5'	116°55.5'	2100	320°	4	cloudy	rough	18.04	33.72	13.82	33.58

a) Temperatures at 10 and 50 meters possibly reversed.

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
120.70-H	16	1330	26°54.0'	117°16.0'	2100	320°	4	cloudy	rough	17.79	33.73	15.02	33.58
120.75-H	16	1530	26°42.0'	117°32.0'	2100	320°	4	cloudy	rough	18.11 <sup>a)</sup>	33.73	17.21	33.68
120.80-H	16	1820	26°32.5'	117°48.5'	2250	320°	4	cloudy	rough	18.58	33.86	18.12	33.79
120.85-H	16	2030	26°23.0'	118°07.0'	2050	320°	4	cloudy	rough	18.74	33.77	17.72	33.78
120.90-H	16	2235	26°13.0'	118°27.0'	2200	340°	3	cloudy	rough	19.30	33.98	18.90	34.02
123.37-H	15	0135	27°22.5'	114°39.5'	40	320°	3	cloudy	moderate	13.96	33.93	11.18 <sup>b)</sup>	34.08
123.42-H	14	2345	27°14.5'	114°57.0'	2100	320°	4	cloudy	moderate	18.07	33.76	15.96	33.59
123.50-H	14	1955	27°01.0'	115°29.0'	2100	320°	4	cloudy	moderate	18.56	33.76	17.28	33.70
123.55-H	14	1800	26°49.5'	115°46.0'	2100	320	4	cloudy	rough	18.60	33.75	18.15	33.72
123.60-H	14	1545	26°39.5'	116°03.0'	2000	300°	4	cloudy	moderate	18.56	33.77	16.55	33.61
127.34-H	13	2335	26°55.5'	114°06.0'	40	290°	4	clear	slight	13.50	33.92	11.52	34.18
127.40-H	14	0220	26°43.5'	114°29.5'	1700	310°	4	cloudy	moderate	18.06	33.67	17.00	33.60
127.45-H	14	0425	26°33.5'	114°48.5'	2000	320°	4	overcast	rough	19.02	34.06	19.08	34.16
127.50-H	14	0630	26°23.5'	115°08.0'	2000	320°	4	overcast	rough	18.92	34.07	18.55	33.96

a) Possible alternate value of 18.47°.

b) Depth, 40 meters. Possible alternate value of 10.94°.

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)



TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
127.55-H	14	0845	26°14.5'	115°24.0'	2000	320°	4	overcast	rough	19.08	34.14	19.08	34.16
127.60-H	14	1130	26°05.5'	115°42.0'	2050	280°	4	overcast	moderate	19.30	34.20	19.26	34.20
130.30-H	13	1930	26°33.5'	113°27.0'	30	-	1	clear	slight	13.44	34.04	11.89	34.29
130.35-H	13	1725	26°24.0'	113°41.0'	60	320°	3	missing	slight	12.48 <sup>a)</sup>	33.64	14.28 <sup>b)</sup>	33.76
130.40-H	13	1500	26°11.0'	114°02.0'	1400	320°	3	missing	slight	18.56 <sup>c)</sup>	33.63	16.06 <sup>d)</sup>	33.68
130.45-H	13	1240	25°59.0'	114°25.0'	1900	320°	3	overcast	moderate	18.94	34.07	18.98	34.11
130.50-H	13	1005	25°49.0'	114°46.0'	1900	320°	3	overcast	moderate	19.08	34.13	19.03	34.11
130.55-H	13	0730	25° <del>30.0'</del> <sup>39.0'</sup>	115°03.5'	2050	320°	4	overcast	rough	18.60	33.87	17.46	33.82
130.60-H	13	0230	25°29.0'	115°24.0'	2100	310°	4	overcast	moderate	18.87	33.94	15.64	33.69
133.25-H	12	0905	26°00.0'	112°45.5'	35	320°	3	clear	moderate	15.75	34.23	11.91	34.09
133.30-H	12	1130	25°49.5'	113°03.0'	115	320°	4	clear	moderate	17.26	33.72	12.44	33.84
133.35-H	12	1400	25°38.0'	113°23.0'	330	340°	5	partly cloudy	moderate	16.75	33.73	13.72	33.78
133.40-H	12	1615	25°33.5'	113°43.5'	1500	320°	3	cloudy	moderate	15.94	33.69	14.48	33.68

a) Temperatures at 10 and 50 meters possibly reversed.

b) Possible alternate value of 13.99°.

c) Possible alternate value of 17.06°.

d) Mean value between 15.97° and 16.15°.

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
133.45-H	12	1835	25°22.5'	114°03.0'	2000	330°	4	cloudy	moderate	18.02	33.90	16.91 <sup>a)</sup>	33.75
133.50-H	12	2050	25°13.0'	114°24.0'	2000	320°	4	cloudy	moderate	18.69 <sup>b)</sup>	33.96	17.56 <sup>c)</sup>	33.87
137.35-H	11	2330	25°11.0'	113°04.0'	600	320°	4	clear	moderate	17.64	33.80	14.14	33.61
137.45-H	11	1650	24°41.0'	113°46.0'	2000	340°	4	cloudy	moderate	20.14	34.36	20.10	34.47
140.35-H	11	0120	24°36.0'	112°43.0'	550	320°	4	cloudy	moderate	17.20	34.34	15.98	34.55
143.35-H	9	1800	23°56.0'	112°19.5'	1200	320°	4	partly cloudy	moderate	17.70	34.16	13.96	34.16
148.20-H	8	1015	23°40.5'	110°56.0'	150	-	1	overcast	slight	18.33	34.47	15.05 <sup>d)</sup>	34.40
153.25-S	7	1940	22°37.0'	110°40.0'	1350	290°	4	overcast	moderate	23.86	35.00	16.53	34.62
157.15-S	8	2140	22°23.0'	109°41.0'	1685	240°	4	partly cloudy	slight	23.83	34.92	15.44	34.45
157.25-S	8	1545	21°55.0'	110°16.0'	1760	270°	4	cloudy	moderate	23.00	34.89	16.72	34.63

a) Possible alternate value of 16.03°.

b) Possible alternate value of 17.02°.

c) Possible alternate value of 18.04°.

d) Possible alternate value of 15.18°.

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
99G.25-S	19	1149	31°04.0'	114°30.0'	20	calm		clear	calm	22.73	35.40	-	-
99G.67-S	19	1655	31°24.0'	113°49.0'	67	160°	3	clear	smooth	23.94	35.82	-	-
100G.11-S	19	0900	30°47.0'	114°38.0'	16	calm		clear	calm	24.50	35.46	-	-
101G.07-S	19	0730	30°37.0'	114°36.0'	12	180°	1	clear	calm	24.04	35.50	-	-
102G.04-S	19	0620	30°27.0'	114°34.0'	15	180°	1	clear	calm	23.92	35.49	-	-
103G.10-S	19	0345	30°21.0'	114°21.0'	40	170°	2	clear	calm	23.61	35.43	17.72	35.26
103G.25-S	19	0150	30°29.0'	114°08.0'	78	calm		clear	smooth	22.90	35.44	17.73	35.35
103G.55-S	18	2220	30°43.0'	113°37.0'	35	-	1	clear	calm	23.60	35.41	19.70	35.26
103G.80-S	18	1900	30°55.0'	113°14.0'	3	180°	1	clear	smooth	25.21 <sup>a)</sup>	35.59 <sup>a)</sup>	-	-
104G.00-S	20	0745	30°07.0'	114°26.0'	60	calm		clear	calm	23.81	35.43	18.22	35.25
105G.00-S	20	0855	29°59.0'	114°20.0'	65	calm		clear	calm	23.84	35.44	18.52	35.26
105G.70-S	18	1640	30°34.0'	113°11.0'	16	calm		clear	calm	23.82	35.37	-	-
106G.00-S	20	1010	29°50.0'	114°14.0'	60	-	1	clear	smooth	23.73 <sup>b)</sup>	35.42	19.04	35.26
107G.02-S	20	1150	29°42.0'	114°07.0'	105	220°	5	clear	smooth	23.87	35.51	18.20	35.25
107G.70-S	18	1430	30°16.0'	113°01.0'	30	170°	3	clear	slight	24.53	35.36	22.94	35.31

a) Depth, 3 meters.

b) Mean value between 23.64° and 23.82°.

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
109G. 55-S	18	1045	29°52.0'	113°04.0'	55	250°	3	clear	slight	23.88	35.32	21.02	35.28
112G. 15-S	20	2050	29°05.0'	113°26.0'	330	140°	2	clear	calm	23.24	35.55	21.30	35.48
113G. 65-S	17	1735	29°22.0'	112°32.0'	35	-	1	clear	smooth	24.21	35.30	23.24	35.28
115G. 50-S	17	1450	28°57.0'	112°35.0'	75	-	1	clear	smooth	24.36	35.27	23.67	35.33
117G. 25-S	21	0700	28°27.0'	112°46.0'	100	100°	1	clear	smooth	24.30	35.23	19.46	35.25
117G. 65-S	17	0355	28°47.0'	112°10.0'	10	220°	5	clear	slight	25.96	35.39	-	-
118G. 20-S	21	0855	28°16.0'	112°47.0'	73	140°	3	clear	smooth	25.88	35.25	21.59	35.14
119G. 16-S	21	1030	28°05.0'	112°45.0'	44	200°	5	clear	slight	26.84	35.28	19.64	35.16
119G. 66-S	17	0135	28°29.0'	111°58.0'	5	260°	3	clear	smooth	26.50 <sup>a)</sup>	35.31 <sup>a)</sup>	-	-
120G. 13-S	21	1150	27°54.0'	112°41.0'	190	210°	5	clear	slight	25.66	35.28	18.78	35.10
121G. 20-S	16	1505	27°50.0'	112°31.0'	360	260°	4	clear	slight	23.04	35.39	20.29	35.23
121G. 40-S	16	1745	28°00.0'	112°11.0'	450	230°	1	cloudy	slight	25.62	35.41	19.00	35.25
121G. 55-S	16	1955	28°09.0'	111°58.0'	220	140°	4	partly cloudy	slight	25.94	35.39	20.10	35.17
121G. 70-S	16	2130	28°16.0'	111°47.0'	20	140°	4	clear	slight	26.72	35.26	-	-
121G. 74-S	16	2230	28°17.0'	111°37.0'	183	180°	4	clear	slight	26.64	35.26	-	-
122G. 16-S	21	1355	27°40.0'	112°28.0'	110	330°	2	clear	slight	25.99	35.34	20.08	35.10
123G. 30-S	16	1210	27°37.0'	112°10.0'	560	110°	4	clear	slight	23.64	35.39	17.63	35.15

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

a) Depth, 8 meters.

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
124G. 21-S	21	1620	27°25.0'	112°14.0'	300	120°	2	clear	moderate	25.64	35.37	19.43	35.14
125G. 30-S	16	0930	27°21.0'	111°59.0'	750	290°	4	clear	slight	24.66	35.43	18.24	35.34
126G. 24-S	21	1855	27°10.0'	112°00.0'	195	120°	4	clear	moderate	24.62	35.37	20.46	35.21
126G. 101-S	13	1515	27°47.0'	110°45.0'	164	110°	3	clear	smooth	25.82	35.27	-	-
127G. 94-S	13	1310	27°35.0'	110°47.0'	300	150°	1	clear	calm	26.66	35.42	23.64	35.19
128G. 27-S	22	0240	26°53.0'	111°44.0'	210	calm		partly cloudy	slight	25.14	35.41	18.96	35.14
129G. 31-S	22	0415	26°46.0'	111°34.0'	360	360°	2	clear	slight	25.02	35.39	19.58	35.21
129G. 89-S	13	0830	27°13.0'	110°42.0'	550	270°	1	clear	calm	26.44	35.24	21.00	35.04
131G. 31-S	22	0630	26°29.0'	111°24.0'	235	150°	3	clear	slight	24.88	35.41	18.45	35.17
131G. 94-S	13	0650	26°59.0'	110°25.0'	500	270°	3	clear	smooth	26.36	35.23	21.12	35.10
132G. 29-S	22	0805	26°19.0'	111°20.0'	200	-	1	clear	slight	24.84	35.43	18.81	35.16
133G. 27-S	22	0925	26°09.0'	111°16.0'	240	-	1	clear	slight	23.98	35.35	18.42	35.14
133G. 40-S	12	1930	26°16.0'	111°04.0'	260	340°	2	clear	calm	25.68	35.37	18.40	35.17
133G. 55-S	12	2130	26°23.0'	110°50.0'	1090	010°	1	clear	calm	25.92	35.46 <sup>a)</sup>	16.51	35.15 <sup>a)</sup>
133G. 70-S	12	2325	26°31.0'	110°36.0'	230	-	1	clear	calm	25.71	35.44	17.94	35.21
133G. 85-S	13	0120	26°41.0'	110°22.0'	670	280°	3	clear	calm	25.20	35.20	19.41	35.18
133G. 100-S	13	0300	26°50.0'	110°09.0'	35	310°	4	clear	calm	26.66	35.22	20.76	34.96

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

a) Salinity samples at 10 and 50 meters appear to have been reversed; it is assumed they are in the order listed.

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
133G. 105-S	13	0410	26°48.0'	110°02.0'	28	300°	3	clear	smooth	26.76	35.17	23.21 <sup>a)</sup>	35.06 <sup>a)</sup>
134G. 20-S	22	1115	25°57.0'	111°18.0'	180	-	1	clear	smooth	24.72	35.38	18.48	35.07
134G. 40-S	12	1800	26°07.0'	110°59.0'	415	-	1	partly cloudy	calm	25.06	35.37	16.84	35.37
135G. 35-S	12	1610	25°56.0'	110°58.0'	475	-	1	clear	smooth	23.68	35.39	17.02	35.12
136G. 20-S	22	1345	25°40.0'	111°07.0'	90	210°	2	partly cloudy	smooth	22.70	35.27	17.86	35.09
137G. 30-S	12	1345	25°36.0'	110°52.0'	390	320°	1	clear	smooth	23.56	35.35	18.20	35.06
138G. 20-S	22	2130	25°23.0'	110°56.0'	290	140°	3	partly cloudy	smooth	24.24	35.28	17.84	35.07
140G. 20-S	22	2340	25°07.0'	110°45.0'	270	090°	3	partly cloudy	smooth	25.46	35.31	18.43	35.12
141G. 29-S	23	0130	25°02.0'	110°32.0'	260	160°	2	partly cloudy	smooth	26.12	35.07	18.64	34.87
141G. 96-S	11	1905	25°33.0'	109°27.0'	350	180°	4	clear	slight	26.67	35.10	26.55	35.21
142G. 24-S	23	0300	24°51.0'	110°30.0'	310	050°	2	partly cloudy	slight	25.76	35.03	19.12	34.90
143G. 15-S	23	0445	24°37.0'	110°33.0'	212	170°	3	clear	smooth	25.12	35.34	18.13	35.07
143G. 100-S	11	1655	25°19.0'	109°14.0'	75	250°	3	clear	smooth	26.34	34.98	22.84	34.81
144G. 15-S	23	0615	24°29.0'	110°28.0'	130	160°	5	clear	moderate	24.82 <sup>b)</sup>	35.43	17.42	35.12
145G. 30-S	11	0315	24°27.0'	110°08.0'	405	160°	3	clear	smooth	25.64	35.08	17.63	35.02

a) Depth, 45 meters.

b) Mean value between 24.97 and 24.68.

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
145G. 40-S	11	0430	24°32.0'	109°59.0'	375	210°	3	clear	smooth	25.36	35.05	17.03	34.91
145G. 55-S	11	0630	24°40.0'	109°45.0'	670	320°	3	clear	smooth	26.46	35.07	17.25	34.79
145G. 70-S	11	0835	24°47.0'	109°38.0'	1110	260°	5	clear	slight	26.13	35.03	18.10	34.90
145G. 85-S	11	1035	24°54.0'	109°15.0'	830	260	4	clear	slight	26.70	35.10	23.13	35.19
145G. 100-S	11	1230	25°01.0'	109°00.0'	340	320°	3	clear	slight	26.61	35.15	21.45	34.77
145G. 115-S	11	1415	25°01.0'	108°49.0'	20	150°	2	clear	smooth	26.58	34.97	-	-
147G. 32-S	23	1115	24°10.0'	109°55.0'	150	calm		clear	calm	25.75	35.07	17.05	35.01
147G. 42-S	11	0025	24°17.0'	109°46.0'	855	140°	1	clear	calm	25.97	35.02	17.97	34.75
149G. 34-S	23	1400	23°55.0'	109°43.0'	310	calm		partly cloudy	calm	22.88 <sup>a)</sup>	34.88	17.17	34.89
149G. 40-S	10	2215	23°57.0'	109°38.0'	570	140°	3	clear	smooth	25.13	35.03	18.23	34.76
151G. 37-S	23	1615	23°38.0'	109°31.0'	85	120°	2	partly cloudy	calm	25.44	35.00	17.02	34.61
153G. 35-S	23	1850	23°20.0'	109°21.0'	420	130°	2	partly cloudy	slight	25.66	35.08	16.94	34.65
153G. 137-S	10	0223	24°15.0'	107°46.0'	20	220°	3	clear	slight	27.10	34.87	-	-
154G. 15-S	23	2115	23°02.0'	109°34.0'	135	120°	2	cloudy	slight	24.06	35.03	16.51	34.63
155G. 144-S	10	0010	23°59.0'	107°29.0'	33	230°	4	clear	slight	27.43	34.97	22.44	34.65
157G. 25-S	9	0330	22°40.0'	109°09.0'	1650	260°	5	partly cloudy	moderate	23.34	35.04	13.76	34.60
157G. 55	9	0835	22°55.0'	108°41.0'	1150	220°	4	cloudy	moderate	23.46	35.05	15.66	34.70

a) Alternate value of 21.61° possible.

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
157G. 85-S	9	1310	23°11.0'	108°12.0'	1350	190°	4	overcast	moderate	23.66	35.00	16.79	34.27
157G. 115-S	9	1720	23°27.0'	107°44.0'	740	160°	4	clear	moderate	25.15	35.08	18.10	34.52
157G. 150-S	9	2155	23°44.0'	107°12.0'	37	210°	4	clear	moderate	26.56	34.95	20.15	34.61

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)



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