

UNIVERSITY OF CALIFORNIA SCRIPPS INSTITUTION OF OCEANOGRAPHY

# data report

PHYSICAL AND CHEMICAL DATA

CCOFI Cruise 5701  
(MLR 92)  
4-19 January 1957

and

CCOFI Cruise 5702  
(MLR 93)  
6-26 February 1957

SIO Reference 58-22  
5 March 1958

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CCOFI CRUISE 5701  
(MLR 92)  
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(MLR 93)  
6-26 February 1957

Sponsored by

Marine Research Committee

SIO Reference 58-22  
1 August 1958

Approved for distribution:



Roger Revelle, Director

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*Robert Ravello*

Robert Ravello, Director

## INTRODUCTION

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

The data are tabulated at observed depths, and the interpolated and computed values are tabulated at standard depths. They are 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 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.

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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.

## 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).

## CRUISE 5702 FIGURES

1. CCOFI Cruise 5702 (MLR 93), station positions
2. Surface currents measured by geomagnetic electrokinetograph (GEK)
3. Horizontal distribution of temperature at 10 meters
4. Horizontal distribution of salinity at 10 meters
5. Horizontal distribution of temperature at 200 meters
6. Horizontal distribution of salinity at 200 meters

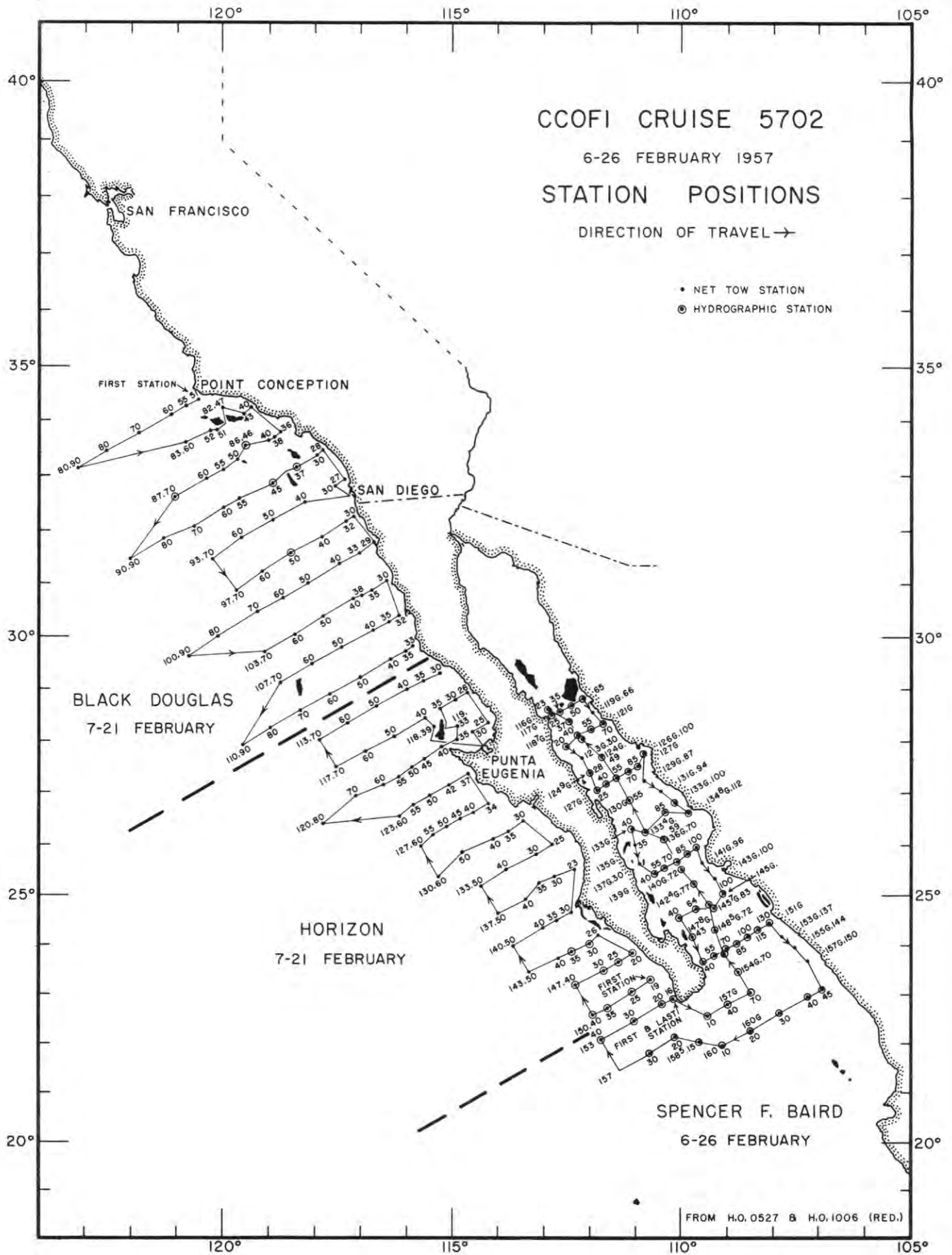


FIGURE 1

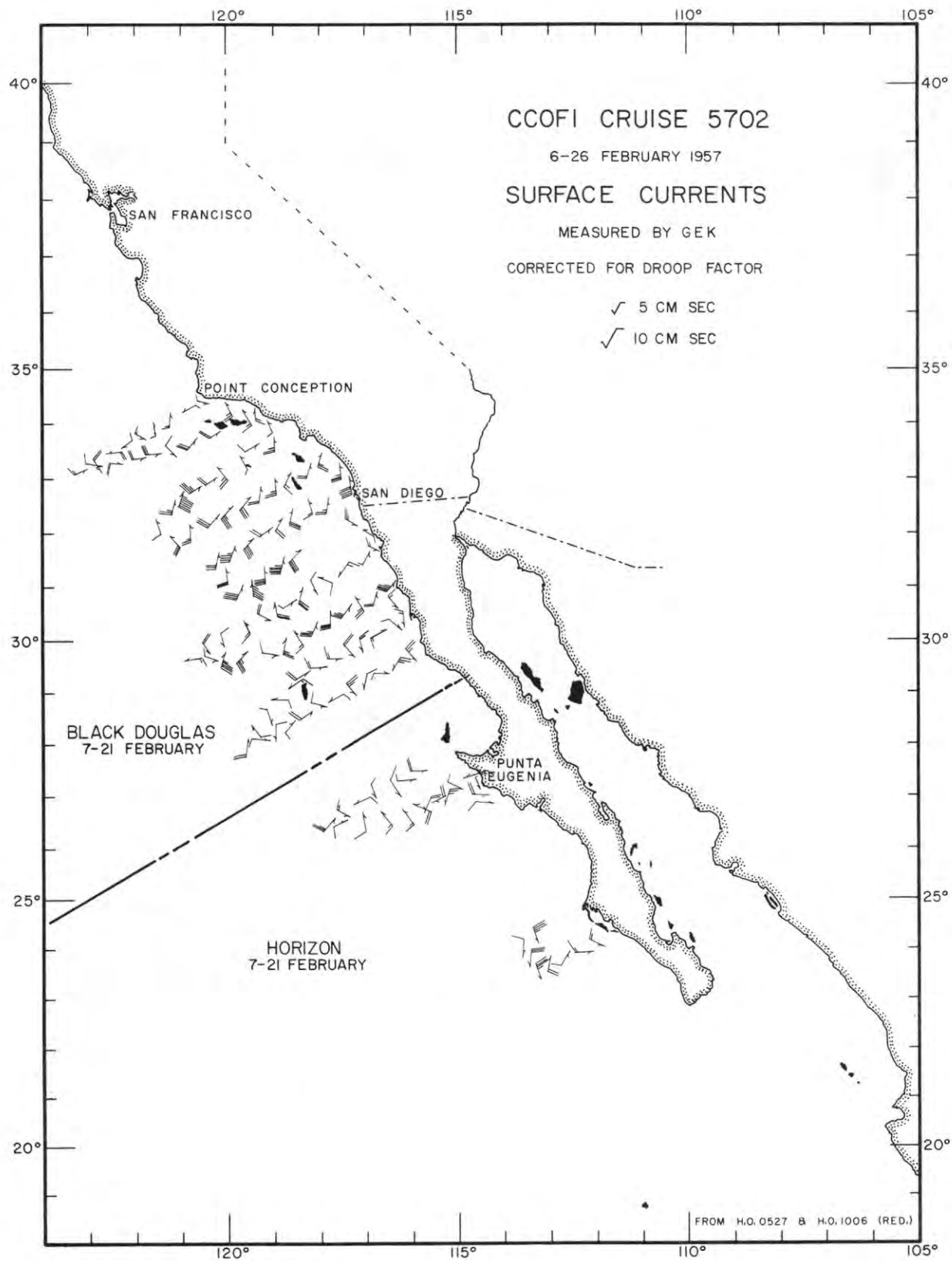


FIGURE 2





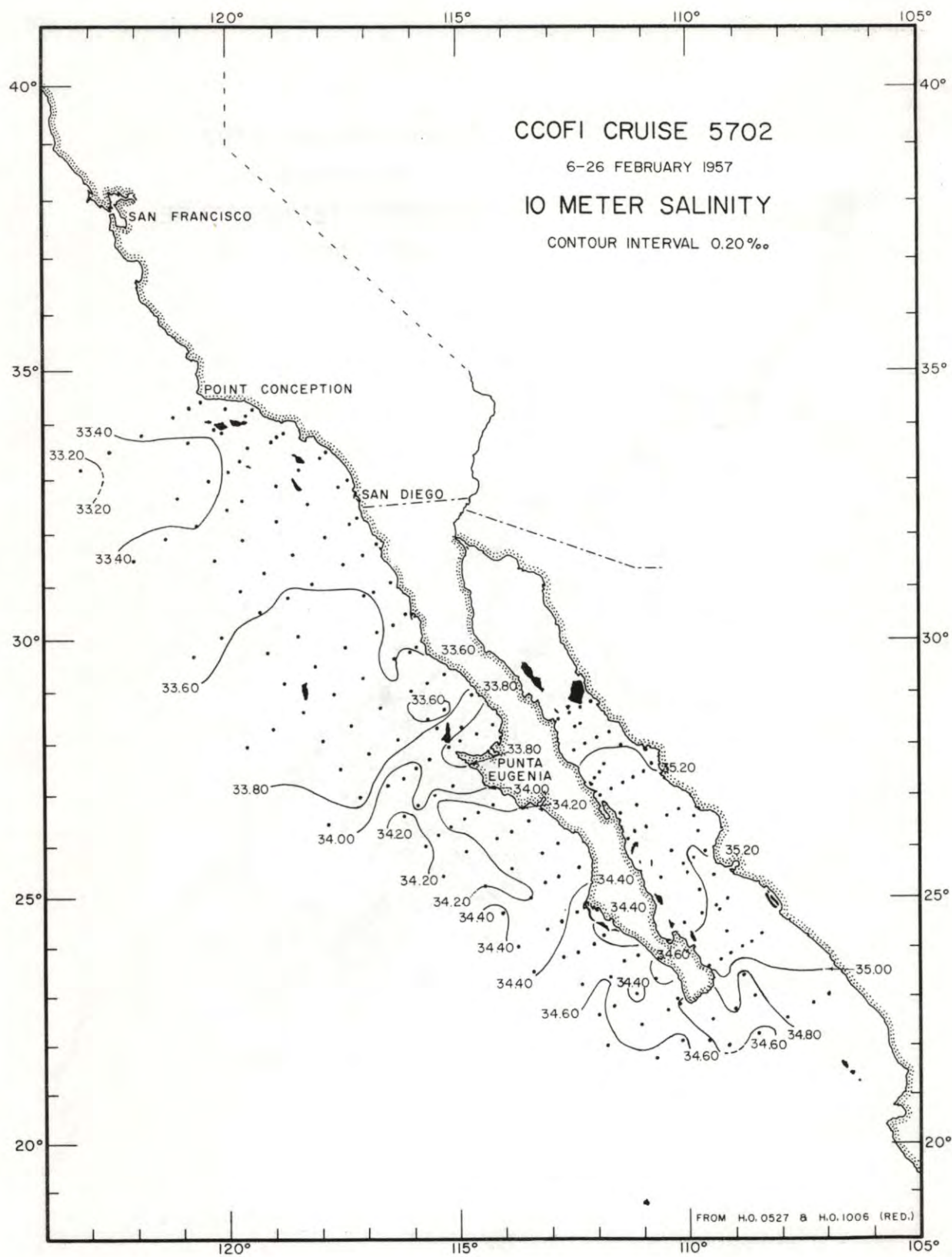


FIGURE 4

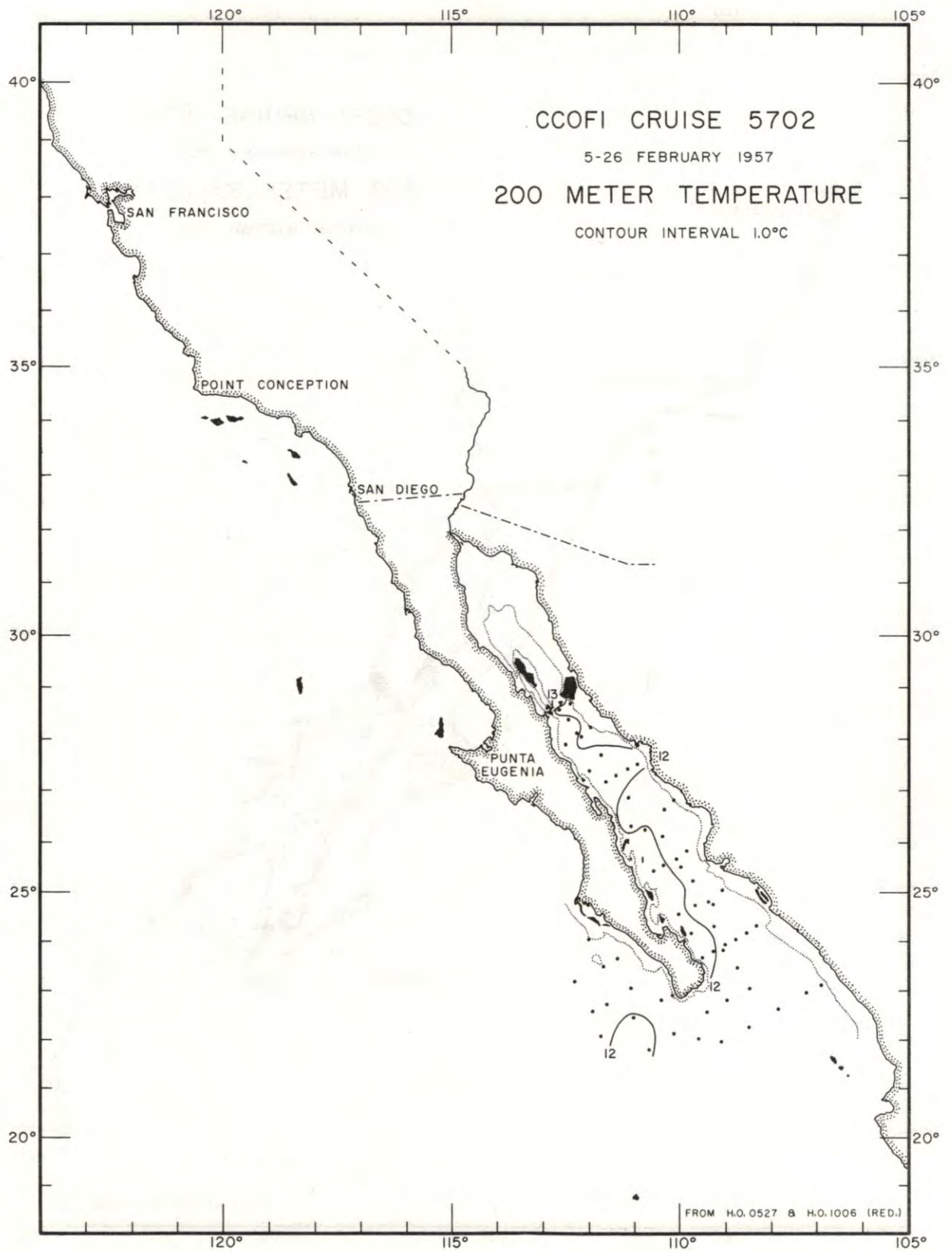


FIGURE 5

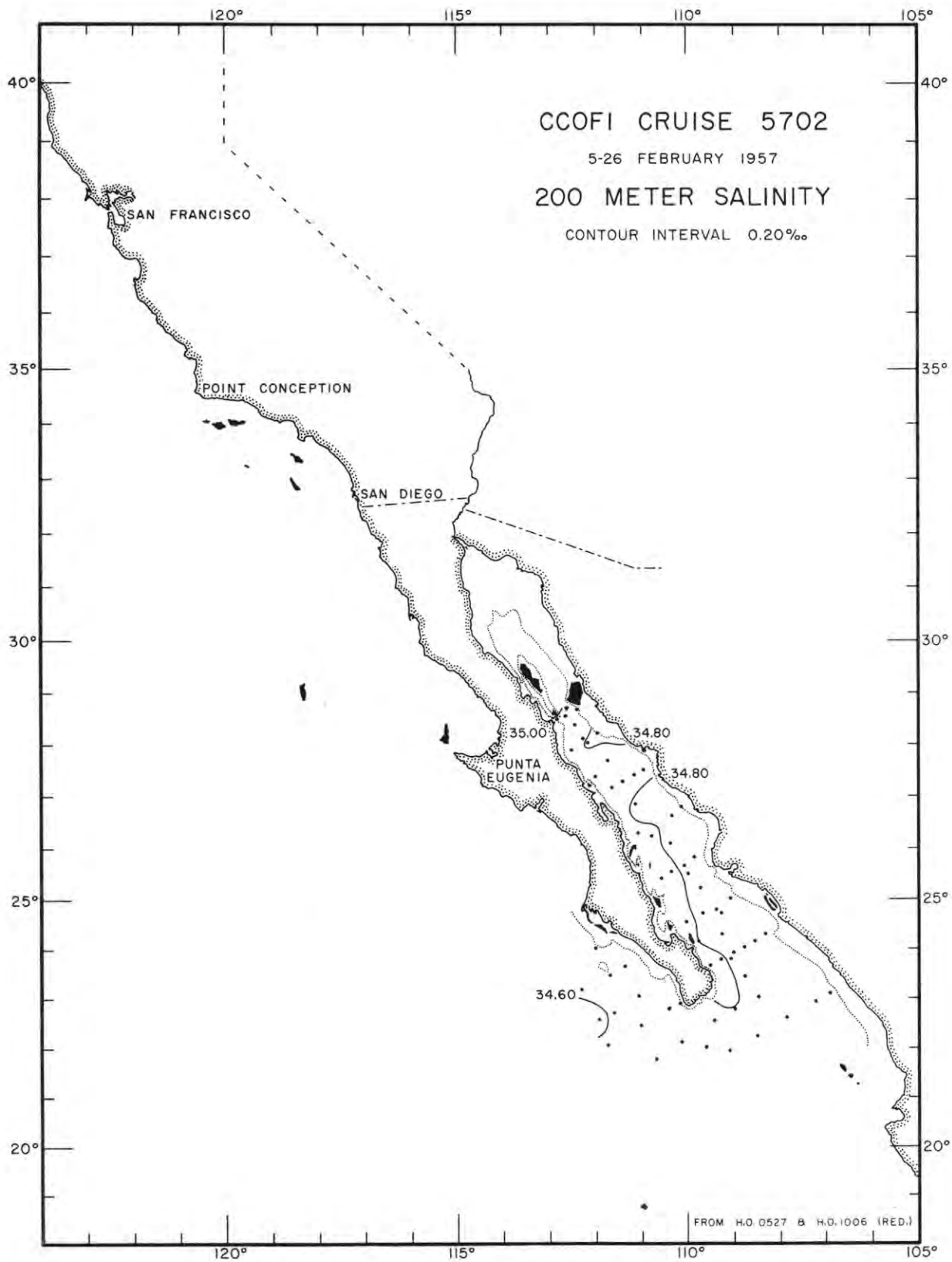


FIGURE 6

CRUISE 5702  
PERSONNEL

SHIPS' CAPTAINS

Forster, Charles W., R/V Black Douglas  
Phinney, Alan W., R/V Spencer F. Baird  
Hopkins, Marvin F., R/V Horizon

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

R/V BLACK DOUGLAS

Vorobiov, Alexander V., Fishery Aid, U. S. Fish and Wildlife Service  
Brennen, Robert E., Marine Technician

R/V SPENCER F. BAIRD

Gilkey, Robert W., Senior Marine Technician  
Jaynes, John M., Marine Technician  
Payette, Edward R., Laboratory Technician  
Reid, Charles F., Fishery Aid, U. S. Fish and Wildlife Service  
Srivirojna, Amnuay, Thailand Navy

R/V HORIZON

Cunnison, Earle G., Marine Technician  
Bower, Donald R., Fishery Aid, U. S. Fish and Wildlife Service  
Tuve, J. Michael, Marine Technician

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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	$10^{-5} \text{cm}^3/\text{g}$	dyn. m

86.46 BLACK DOUGLAS; February 9, 1957; 1600 GCT; 33°36'N, 119°29.5'W; sounding, 1050 fm; wind, 290°, force 1; weather, cloudy; sea, slight; wire angle, 00°.

0	12.39	33.38	5.28	0	12.39	33.38	5.28	25.28	270
10	12.42	33.43	5.34	10	12.42	33.43	5.34	25.30	268
49	10.59	33.52	3.61						
97	9.72	33.75	2.64						
240	8.45	34.17	1.36						
478	6.45	34.32	0.35						
713	5.05	34.42	0.24						
951	4.30	34.49	0.32						
1097	4.20	34.49	0.32						
1250	4.16	34.48	0.30	1000	4.25	34.49	0.32	27.38	71
1404	4.16	34.48	0.33	1200	4.18	34.49	0.30	27.39	70
1552	4.16	34.49	0.36	1500	4.16	34.49	0.36	27.39	70

87.70 BLACK DOUGLAS; February 10, 1957; 0610 GCT; 32°39.5'N, 121°02'W; sounding, 2040 fm; wind, 270°, force 2; weather, cloudy; sea, moderate; wire angle, 04°.

0	13.1	33.35	5.06	0	13.1	33.35	5.06	25.11	286
10	13.08	33.35	5.07	10	13.08	33.35	5.07	25.12	285
48	13.03	33.37	5.07						
94	10.96	33.21	4.87						
228	8.16	34.07	1.57						
470	6.25	34.26	0.51						
705	5.16	34.42	0.22						
942	4.21	34.49	0.36						
1086	3.75	34.52	0.58						
1237	3.35	34.56	0.73						
1388	3.08	34.54u	0.91						
1532	2.78	34.54u	1.19	1000	4.01	34.50	0.45	27.41	68
1705	2.52	34.62	1.24	1200	3.41	34.55	0.70	27.50	59
1871	2.28	34.63	1.43						
1996	2.16	34.63	1.59	2000	(2.16)	(34.63)	(1.62)	(27.68)	(42)

90.37 BLACK DOUGLAS; February 11, 1957; 2047 GCT; 33°11'N, 118°23.5'W; sounding, 650 fm; wind, 340°, force 1; weather, cloudy; sea, slight; wire angle, 08°.

0	13.97	33.53a)	5.30	0	13.97	33.53	5.30	25.08	289
10	13.80	33.51a)	5.36	10	13.80	33.51	5.36	25.10	287
48	12.46	33.43	4.52						
94	10.62	33.60	3.02						
234	8.53	34.14	1.58						
473	6.50	34.34	0.22						
708	5.22	34.41	0.31						
946	4.34	34.45	0.39						
1095	4.13	34.48	0.37	1000	4.24	34.46	0.37	27.36	73

90.45 BLACK DOUGLAS; February 11, 1957; 1413 GCT; 32°54.5'N, 118°56'W; sounding, 1000 fm; wind, 300°, force 2; weather, partly cloudy; sea, slight; wire angle, 09°.

0	12.97	33.43	4.75	0	12.97	33.43	4.75	25.21	277
10	12.98	33.42	5.39	10	12.98	33.42	5.39	25.20	278
48	12.26	33.41	4.94						
94	10.01	33.48	3.72						
233	8.21	34.16	1.50						
466	6.48	34.32	0.40						
697	5.26	34.41	0.24						
932	4.33	34.48	0.36						
1076	3.96	34.52	0.43						
1131	3.86	34.52	0.51						
1379	3.76	34.52	0.50	1000	4.12	34.51	0.38	27.41	68

a) 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

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BLACK DOUGLAS; February 15, 1957; 0606 GCT; 31°35.5'N, 118°30.5'W; sounding, 1350 fm; wind, 320°, force 5; weather, cloudy; sea, rough; wire angle, 10°.

97.50

0	14.98	33.55	4.98	0	14.98	33.55	4.98	24.88	308	
10	15.01	33.57	5.03	10	15.01	33.57	5.03	24.89	307	
53	13.88	33.53	4.90							
102	9.59	33.52	3.87							
258	7.49	34.09	1.68							
501	6.08	34.33	0.37							
751	4.88	34.41	0.34							
1009	3.94	34.49	0.60							
1164	3.52	34.54	0.75							
1304	3.16	34.52	1.03							
1459	2.98	34.58	1.11							
1618	2.75	34.59	1.13	1000	3.98	34.48	0.60	27.40	69	
1782	2.62	34.61 <sup>a)</sup>	1.20	1200	3.40	34.53	0.82	27.50	59	
1929	2.57	34.62	1.36	1500	2.91	34.58	1.13	27.58	52	
2061	2.56	34.63	1.26	2000	2.56	34.63	1.30	27.65	45	

HORIZON; February 10, 1957; 1715 GCT; 24°09'N, 112°01'W; sounding, 120 fm; wind, 070°, force 1; weather, clear; sea, slight; wire angle, 03°.

143.30

0	21.29	34.52		0	21.29	34.52		24.07	385	0.00
9	21.20	34.54		10	21.18	34.54		24.12	381	0.04
27	20.00	34.41		20	20.33	34.45		24.27	366	0.08
47	17.86	34.23		30	19.94	34.41		24.35	359	0.11
70	14.44	34.04		50	17.03	34.17		24.89	307	0.18
93	13.20	34.24		75	14.18	34.06		25.45	254	0.25
115	12.37	34.38		100	12.91	34.29		25.88	213	0.31
152	11.88	34.61		150	11.90	34.61		26.32	171	0.40
188	11.52	34.70								

HORIZON; February 10, 1957; 2035 GCT; 23°58.5'N, 112°24'W; sounding, 1250 fm; wind, 350°, force 2; weather, partly cloudy; sea, slight; wire angle, 20°.

143.35

0	21.50	34.51		0	21.50	34.51		24.00	392	0.00
9	21.16	34.47		10	21.07	34.46		24.08	384	0.04
27	19.85	34.31		20	20.06	34.33		24.25	368	0.08
40	19.74	34.31		30	19.82	34.31		24.30	363	0.11
48	19.62	34.31		50	19.58	34.31		24.37	357	0.18
60	16.80	33.96		75	14.83	34.05		25.29	269	0.26
76	14.78	34.06		100	13.02	34.13		25.73	227	0.33
92	13.68	34.14		150	12.12	34.49		26.18	184	0.43
105	12.74	34.13		200	11.47	34.66		26.44	160	0.52
125	12.50	34.38		250	10.54	34.62		26.58	147	0.59
150	12.12	34.49		300	9.71	34.56		26.68	137	0.67
175	11.74	34.58								
192	11.61	34.66								
213	11.24	34.65								
255	10.46	34.61								
299	9.74	34.56								
347	9.16	34.54								

HORIZON; February 9, 1957; 1042 GCT; 23°56'N, 111°03.5'W; sounding, 80 fm; wind, 330°, force 3; weather, clear; sea, moderate; wire angle, 02°.

147.20

0	19.96	34.37		0	19.96	34.37		24.31	362	0.00
9	19.96	34.42		10	19.96	34.42		24.36	358	0.04
28	18.08	34.27		20	19.29	34.37		24.49	345	0.07
48	14.95	34.01		30	17.75	34.24		24.76	319	0.10
72	15.78	34.72		50	14.96	34.03		25.26	272	0.16
96	14.64	34.68		75	15.69	34.73		25.63	237	0.23
120	13.97	34.60		100	14.52	34.67		25.84	217	0.28

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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	$10^{-5} \text{ cm}^3/\text{g}$	dyn, m

147.25 HORIZON; February 9, 1957; 0720 GCT; 23°46.5'N, 111°22.5'W; sounding, 230 fm; wind, 330°, force 4; weather, clear; sea, moderate; wire angle, 11°.

0	20.87	34.52		0	20.87	34.52		24.18	375	0.00
9	20.88	34.52		10	20.87	34.52		24.18	375	0.04
28	20.22	34.48		20	20.51	34.50		24.27	366	0.07
42	19.88	34.42		30	20.18	34.48		24.34	360	0.11
51	19.14	34.34		50	19.26	34.35		24.48	346	0.18
64	15.41	33.97		75	14.44	34.04		25.38	261	0.26
82	13.88	34.09		100	12.72	34.20		25.85	216	0.32
100	12.72	34.20		150	12.21	34.64		26.28	175	0.42
113	12.89	34.43		200	11.39	34.72		26.50	154	0.50
135	12.48	34.61		250	10.70	34.66		26.58	146	0.58
162	11.99	34.66		300	10.05	34.61		26.66	139	0.65
188	11.53	34.70								
206	11.32	34.72								
229	11.02	34.68								
276	10.33	34.64								
323	9.80	34.59								
368	9.23	34.61								

147.30 HORIZON; February 9, 1957; 0433 GCT; 23°36'N, 111°41.5'W; sounding, 120 fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 08°.

0	22.72	34.57		0	22.72	34.57		23.70	420	0.00
9	22.74	34.58		10	22.74	34.58		23.70	420	0.04
28	22.25	34.54		20	22.54	34.57		23.75	416	0.08
47	20.22	34.29		30	22.20	34.53		23.83	408	0.12
69	14.68	33.99		50	19.81	34.26		24.26	367	0.20
91	12.88	34.07		75	13.67	34.01		25.51	248	0.28
113	12.58	34.25		100	12.72	34.16		25.82	219	0.34
149	11.70	34.52		150	11.69	34.53		26.30	173	0.44
186	11.36	34.58		200	11.2					
				250	10.7					

147.40 HORIZON; February 8, 1957; 2215 GCT; 23°17'N, 112°19.5'W; sounding, 1700 fm; wind, 310°, force 2; weather, clear; sea, moderate; wire angle, 02°.

0	22.72	34.52		0	22.72	34.52		23.67	423	0.00
9	22.28	34.52		10	22.25	34.51		23.79	412	0.04
28	22.22	34.50		20	22.23	34.51		23.79	412	0.08
43	22.12	34.50		30	22.22	34.50		23.80	411	0.12
52	21.17	34.34		50	21.59	34.41		23.90	401	0.20
66	17.14	34.18		75	15.47	34.05		25.15	282	0.29
84	14.04	33.96		100	12.37	34.12		25.86	215	0.36
102	12.36	34.13		150	11.55	34.38		26.22	181	0.45
115	12.40	34.42		200	11.20	34.63		26.47	157	0.54
139	11.82	34.34		250	10.40	34.63		26.62	143	0.62
167	11.27	34.49		300	9.75	34.62		26.71	134	0.69
194	11.30	34.63								
213	10.83	34.60								
236	10.58	34.63								
283	10.00	34.63								
329	9.39	34.60								
381	8.58	34.54								

150.19 HORIZON; February 8, 1957; 0815 GCT; 23°24.5'N, 110°41'W; sounding, 60 fm; wind, 340°, force 1; weather, clear; sea, slight; wire angle, 03°.

0	20.08	34.52		0	20.08	34.52		24.40	354	0.00
9	20.10	34.60		10	20.06	34.65		24.49	345	0.03
28	19.74	34.79		20	19.93	34.76		24.62	333	0.07
48	16.67	34.41		30	19.66	34.78		24.70	325	0.10
72	13.80	34.13		50	16.31	34.37		25.21	277	0.16
96	13.62	34.70		75	13.76	34.13		25.58	241	0.23
				100	(13.60)	(34.72)		(26.08)	(194)	(0.28)



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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HORIZON; February 8, 1957; 1110 GCT; 23°08.5'N, 111°04.5'W; sounding, 750 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 30°.

150.25

0	19.64	34.36		0	19.64	34.36		24.39	355	0.00
8	19.57	34.37		10	19.54	34.37		24.42	352	0.04
25	19.05	34.32		20	19.26	34.35		24.47	347	0.07
38	18.00	34.26		30	18.73	34.30		24.58	337	0.10
45	17.46	34.19		50	16.73	34.14		24.94	302	0.17
57	15.72	34.12		75	14.28	34.20		25.53	246	0.24
72	14.52	34.19		100	13.00	34.24		25.83	218	0.30
86	13.50	34.22		150	11.60	34.53		26.32	171	0.39
96	13.08	34.23		200	11.13	34.64		26.49	155	0.48
112	12.74	34.44		250	10.71	34.68		26.61	144	0.55
134	12.02	34.52		300	10.14	34.65		26.68	137	0.62
156	11.49	34.54								
172	11.43	34.61								
192	11.21	34.63								
232	10.88	34.68								
273	10.45	34.69								
321	9.92	34.62								

HORIZON; February 8, 1957; 1451 GCT; 22°49'N, 111°35.5'W; sounding, 1800 fm; wind, 360°, force 2; weather, clear; sea, moderate; wire angle, 22°.

150.35

0	22.64	34.55		0	22.64	34.55		23.72	419	0.00
9	22.64	34.56		10	22.61	34.56		23.73	418	0.04
27	22.00	34.56		20	22.30	34.56		23.81	410	0.08
40	21.50	34.52		30	21.87	34.55		23.94	398	0.12
49	21.46	34.51		50	21.45	34.50		24.02	390	0.20
64	20.94	34.47		75	19.93	34.46		24.40	354	0.30
81	19.05	34.45		100	14.02	33.88		25.33	265	0.38
97	14.32	33.86		150	12.23	34.48		26.16	186	0.49
109	13.53	34.04		200	11.46	34.67		26.46	158	0.57
129	12.86	34.34		250	10.81	34.69		26.58	146	0.65
154	12.12	34.51		300	10.14	34.63		26.66	139	0.73
179	11.72	34.62								
197	11.52	34.67								
216	11.14	34.65								
261	10.72	34.69								
302	10.14	34.63								
352	9.43	34.59								

HORIZON; February 8, 1957; 1733 GCT; 22°42.5'N, 111°55.5'W; sounding, 1700 fm; wind, 320°, force 2; weather, clear; sea, moderate; wire angle, 03°.

150.40

0	23.32	34.65		0	23.32	34.65		23.60	430	0.00
9	23.24	34.66		10	23.23	34.66		23.63	427	0.04
28	23.24	34.68		20	23.24	34.67		23.63	427	0.09
43	22.18	34.42		30	23.24	34.68		23.65	425	0.13
52	21.91	34.38		50	21.97	34.39		23.78	413	0.21
66	18.74	33.95		75	17.00	33.79		24.61	334	0.30
84	15.34	33.72		100	13.51	33.84		25.41	258	0.38
102	13.30	33.86		150	11.80	34.50		26.26	177	0.48
116	12.32	34.09		200	11.12	34.58		26.45	159	0.57
139	11.98	34.51		250	10.29	34.57		26.60	145	0.65
166	11.50	34.49		300	9.47	34.51		26.68	137	0.72
193	11.24	34.57								
213	10.86	34.58								
236	10.56	34.59								
283	9.68	34.51								
330	9.21	34.51								

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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

153.16 SPENCER F. BAIRD; February 8, 1957; 1435 GCT; 22°55'N, 110°07.5'W; sounding, 535 fm; wind, 010°, force 2; weather, clear; sea, slight; wire angle, 10°.

0	20.02	34.38	4.26	0	20.02	34.38	4.26	24.30	363	0.00
10	19.99	34.42	4.35	10	19.99	34.42	4.35	24.34	360	0.04
30	18.14	34.27	3.76	20	19.21	34.35	4.13	24.49	345	0.07
39	17.80	34.58	3.37	30	18.14	34.27	3.76	24.69	326	0.10
48	19.00	35.14a)	3.99	50	19.29	35.26	3.79	25.15	282	0.16
59	18.83	35.21	3.74	75	17.67	35.16	2.91	25.49	250	0.23
68	17.99	35.17	3.09	100	15.71	34.92	1.56	25.76	224	0.29
81	17.39	35.14	2.72	150	13.66	34.80	0.58	26.12	190	0.40
93	16.36	34.98	1.85	200	11.96	34.77	0.28	26.44	160	0.48
107	15.20	34.89	1.34	250	11.38	34.72	0.22	26.51	153	0.56
129	14.17	34.85	0.73	300	10.60	34.67	0.19	26.61	144	0.64
156	13.48	34.79	0.55	400	9.28	34.63	0.18	26.80	126	0.78
187	12.13	34.78	0.32	500	8.21	34.57	0.15	26.92	114	0.90
232	11.65	-	0.25							
306	10.48	34.66	0.18							
398	9.34	34.63	0.18							
524	7.98	34.56	0.13							

153.16 SPENCER F. BAIRD; February 25, 1957; 0123 GCT; 22°55'N, 110°07'W; sounding, 170 fm; wind, 320°, force 3; weather, clear; sea, rough; wire angle, 10°.

0	20.15	34.57	4.50	0	20.15	34.57	4.50	24.40	354	0.00
10	19.31	34.60	4.37	10	19.31	34.60	4.37	24.65	330	0.03
34	17.60	34.42	3.64	20	18.00	34.40	4.50	24.83	313	0.07
60	17.74	35.00	3.05	30	17.69	34.41	3.83	24.92	304	0.10
91	14.66	34.84	1.13	50	18.40	34.80	3.18	25.04	293	0.16
107	13.72	34.84	0.65	75	16.00	34.90	2.20	25.69	231	0.22
123	13.28	34.79	0.56	100	14.03	34.82	0.78	26.07	195	0.28
160	12.31	34.76	0.29	150	12.57	34.77	0.33	26.31	172	0.37
186	11.72	34.71	0.22	200	11.49	34.70	0.20	26.47	157	0.45
249	10.91	34.68	0.18	250	10.89	34.68	0.17	26.56	148	0.53
312	10.29	34.66	0.14	300	10.41	34.66	0.14	26.64	141	0.60

153.20 SPENCER F. BAIRD; February 24, 1957; 2246 GCT; 22°47.5'N, 110°22'W; sounding, 440 fm; wind, 300°, force 4; weather, clear; sea, very rough; wire angle, 38°.

0	21.35	34.49	4.38	0	21.35	34.49	4.38	24.03	339	0.00
8	21.35	34.51	4.33	10	21.34	34.51	4.33	24.04	388	0.04
28	20.98	34.45	4.37	20	21.19	34.49	4.34	24.07	385	0.08
35	18.84	34.23	4.46	30	20.84	34.43	4.37	24.12	380	0.12
47	15.98	34.04	3.30	50	16.00	34.10	3.32	25.07	290	0.18
55	16.08	34.37	1.95	75	16.60	35.04	2.46	25.66	234	0.25
62	17.06	34.92	2.80	100	14.28	34.81	0.77	26.00	202	0.30
77	16.34	35.01	2.25	150	12.39	34.79	0.34	26.36	167	0.40
91	14.78	34.84	1.09	200	11.76	34.73	0.22	26.46	158	0.48
103	14.07	34.80	0.66	250	11.02	34.67	0.16	26.54	150	0.56
122	13.21	34.78	0.42	300	10.12	34.63	0.13	26.66	139	0.63
152	12.36	34.79a)	0.33	400	8.95	34.58	0.16	26.82	124	0.77
182	11.95	34.76	0.26	500	7.62	34.54	0.16	26.99	108	0.89
227	11.40	34.70	0.19							
297	10.18	34.63	0.12							
389	9.08	34.59	0.16							
528	7.23	34.53	0.15							

a) 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>	$\sigma_t$	$\delta T_3$	$\Delta D$
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^{-5} \text{cm}^3/\text{g}$	dyn. m

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SPENCER F. BAIRD: February 24, 1957; 1800 GCT; 22°27'N, 110°59'W; sounding, 1700 fm; wind, 340°, force 4; weather, clear; sea, very rough; wire angle, 30°.

153.30

0	21.72	34.52	4.30	0	21.72	34.52	4.30	23.96	396	0.00
9	21.75	34.52	4.29	10	21.74	34.52	4.29	23.94	398	0.04
31	21.47	34.49	4.27	20	21.66	34.51	4.28	23.96	396	0.08
39	21.08	34.54	4.16	30	21.49	34.49	4.27	24.00	392	0.12
52	19.93	34.67	3.08	50	20.11	34.66	3.21	24.48	346	0.19
61	18.54	34.61	2.76	75	15.29	34.25	2.48	25.35	263	0.27
70	16.70	34.38	2.58	100	16.26	35.08	2.58	25.72	228	0.33
87	16.59	35.07	2.60	150	13.52	34.82	0.54	26.16	186	0.44
105	16.37	35.07	2.34	200	12.12	34.78	0.30	26.42	162	0.53
118	15.92	35.00	2.02	250	11.34	34.75	0.20	26.54	150	0.61
138	14.31	34.86	0.77	300	10.59	34.70	0.12	26.64	141	0.68
171	12.65	34.79	0.37	400	9.08	34.62	0.10	26.83	123	0.82
204	12.06	34.78	0.30	500	7.66	34.56	0.11	27.00	107	0.94
254	11.28	34.75	0.18							
332	10.10	34.67	0.10							
434	8.56	34.59	0.11							
577	6.70	34.52	0.11							

SPENCER F. BAIRD: February 24, 1957; 1239 GCT; 22°04'N, 111°42'W; sounding, 1750 fm; wind, 330°, force 6; weather, clear; sea, rough; wire angle, 25°.

15340

0	22.53	34.60	4.23	0	22.53	34.60	4.23	23.79	412	0.00
10	22.52	34.61	4.21	10	22.52	34.61	4.21	23.80	411	0.04
34	22.53	34.60	4.22	20	22.52	34.60	4.21	23.79	412	0.08
44	22.53	34.59	4.26	30	22.52	34.60	4.22	23.79	412	0.12
58	22.33	34.58	4.31	50	22.47	34.59	4.29	23.79	412	0.21
67	20.32	34.26	4.34	75	18.20	33.99	4.46	24.46	348	0.30
76	18.02	33.97	4.46	100	14.19	34.18	1.88	25.53	246	0.38
95	14.79	34.15	2.22	150	12.00	34.55	0.60	26.26	177	0.48
113	12.98	34.23	1.30	200	11.63	34.72	0.22	26.46	158	0.57
126	12.47	34.35	0.89	250	10.91	34.70	0.16	26.58	147	0.65
148	12.02	34.53	0.63	300	10.15	34.66	0.15	26.68	137	0.72
184	11.83	34.70	0.28	400	8.76	34.60	0.15	26.86	120	0.85
221	11.38	34.72	0.18	500	7.48	34.56	0.15	27.02	105	0.97
275	10.57	34.68	0.15	600	6.54	34.54	0.16	27.14	93	1.08
361	9.31	34.62	0.14							
471	7.82	34.56	0.17							
625	6.28	34.54	0.15							

SPENCER F. BAIRD: February 8, 1957; 2025, 2104 GCT; 22°33.5'N, 109°22'W; sounding, 1600 fm; wind, 010°, force 2; weather, clear; sea, slight; wire angle, 00°, missing.

157.10

0	22.39	34.69	4.26	0	22.39	34.69	4.26	23.90	402	0.00
10	22.56	34.69	4.16	10	22.56	34.69	4.16	23.84	407	0.04
30	22.00	34.69	4.32	20	22.41	34.69	4.21	23.90	402	0.08
39	20.68	34.88	3.78	30	22.00	34.69	4.32	24.00	392	0.12
49	19.85	35.12	3.96	50	19.78	35.12	3.95	24.92	304	0.19
58	18.76	35.11	3.25	75	17.28	35.15	2.68	25.58	242	0.26
68	18.04	35.19	3.05	100	14.62	34.78	1.32	25.90	211	0.32
82	16.25	35.04	2.12	150	12.76	34.78	0.29	26.29	174	0.41
97	14.78	34.81	1.49	200	11.86	34.76	0.18	26.45	159	0.50
109	14.08	34.71	0.67	250	10.79	34.68	0.15	26.58	146	0.58
133	13.21	34.76	0.46	300	10.25	34.68	0.12	26.67	138	0.65
160	12.54	34.78	0.23	400	8.83	34.62	0.10	26.86	120	0.78
				500	7.56	34.57	0.10	27.02	105	0.90
192	12.02	34.77	0.18							
238	10.93	34.69	0.17							
314	10.14	34.67	0.11							
409	8.72	34.61	0.10							
537	7.12	34.55	0.11							

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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

15720

SPENCER F. BAIRD; February 23, 1957; 2253 GCT; 22°08'N, 110°06'W; sounding, 1700 fm; wind, 320°, force 4; weather, clear; sea, rough; wire angle, 36°.

0	23.22	34.65	4.21	0	23.22	34.65	4.21	23.63	427	0.00
8	23.20	34.66	4.12	10	23.19	34.66	4.11	23.64	426	0.04
28	21.48	34.60	4.50	20	22.11	34.62	4.37	23.92	400	0.08
36	21.20	34.73	4.43	30	21.44	34.61	4.48	24.09	383	0.12
48	19.76	34.73	3.72	50	19.42	34.74	3.58	24.73	322	0.19
56	18.74	34.79	3.25	75	16.81	34.76	1.56	25.38	260	0.27
63	18.20	34.79	2.69	100	13.62	34.60	0.84	25.98	204	0.33
76	16.66	34.76	1.50	150	12.55	34.73	0.34	26.29	174	0.42
87	15.42	34.69	1.33	200	11.80	34.78	0.19	26.48	156	0.50
97	14.30	34.59	1.10	250	11.12	34.73	0.17	26.56	148	0.58
112	13.27	34.65	0.62	300	10.32	34.68	0.13	26.66	139	0.66
137	12.88	34.72 <sup>a)</sup>	0.35	400	8.63	34.58	0.09	26.87	119	0.79
162	12.26	34.74	0.33	500	(7.12)	(34.52)		(27.04)	(103)	(0.91)
201	11.79	34.78	0.18							
262	10.95	34.72	0.17							
346	9.54	34.63	0.09							
470	7.55	34.53	0.12							

15730

SPENCER F. BAIRD; February 24, 1957; 0302 GCT; 21°48.5'N, 110°38.5'W; sounding, 1700 fm; wind, 330°, force 3; weather, clear; sea, rough; wire angle, 08°.

0	22.55	34.64 <sup>a)</sup>	4.23	0	22.55	34.64	4.23	23.81	410	0.00
10	22.50	34.65	4.30	10	22.50	34.65	4.30	23.83	408	0.04
34	21.37	-	4.42	20	22.41	34.65	4.33	23.85	406	0.08
44	20.58	34.51	4.53	30	22.00	34.62	4.38	23.94	398	0.12
59	20.42	34.72	3.78	50	20.51	34.51	4.27	24.27	366	0.20
69	19.06	34.72	3.76	75	18.92	34.84	3.73	24.94	302	0.28
78	18.78	35.02	3.64	100	16.77	34.97	2.61	25.55	244	0.35
95	17.93	35.15	3.24	150	13.42	34.81	0.51	26.16	186	0.46
113	14.74	34.62	1.18	200	12.02	34.77	0.29	26.42	162	0.55
126	14.70	34.88	1.07	250	10.92	34.71	0.18	26.58	147	0.63
149	13.51	34.81	0.52	300	9.81	34.59	0.17	26.68	137	0.70
185	12.26	34.77 <sup>a)</sup>	0.36	400	8.41	34.50	0.19	26.84	122	0.83
221	11.66	34.76	0.21	500	7.36	34.50	0.18	27.00	107	0.95
275	10.29	34.66 <sup>b)</sup>	0.17	600	6.53	34.51	0.16	27.12	95	1.06
357	8.96	34.52	0.18							
462	7.74	34.50	0.19							
603	6.50	34.51	0.15							

158<sup>5</sup>.15

SPENCER F. BAIRD; February 23, 1957; 1859 GCT; 22°02'N, 109°32.3'W; sounding, 1700 fm; wind, 320°, force 4; weather, clear; sea, slight; wire angle, 20°.

0	22.56	34.65	4.29	0	22.56	34.65	4.29	23.81	410	0.00
9	21.78	34.60	4.32	10	21.77	34.60	4.32	24.00	392	0.04
28	20.66	34.49	4.47	20	21.18	34.54	4.40	24.12	381	0.08
40	19.87	34.57	4.13	30	20.58	34.49	4.46	24.24	369	0.12
48	19.02	34.67	3.26	50	18.98	34.68	3.29	24.80	316	0.18
56	18.76	34.85	3.48	75	15.93	34.54	2.20	25.43	256	0.26
64	17.62	34.80	3.01	100	14.72	34.72	0.88	25.83	218	0.32
80	15.53	34.50	1.96	150	12.49	34.79	0.38	26.35	168	0.41
92	15.05	34.63	1.14	200	11.57	34.75	0.18	26.50	154	0.50
104	14.54	34.75	0.75	250	10.83	34.72	0.14	26.61	144	0.57
125	13.51	34.76	0.49	300	9.98	34.65	0.15	26.70	135	0.64
149	12.51	34.79	0.39	400	8.21	34.57	0.16	26.92	114	0.77
183	11.81	34.76	0.21	500	7.02	34.53	0.13	27.06	101	0.89
229	11.16	34.74	0.14							
300	9.98	34.65	0.15							
393	8.34	34.57	0.16							
525	6.80	34.52	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>	$\sigma_t$	$\delta_{T_3}$	$\Delta D$
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^{-5} \text{cm}^3/\text{g}$	dyn. m

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SPENCER F. BAIRD; February 23, 1957; 1538 GCT; 21°56.5'N, 109°02.5'W; sounding, 1700 fm; wind, 280°, force 3; weather, clear; sea, slight; wire angle, 00°.

160.10

0	22.82	34.71	4.14	0	22.82	34.71	4.14	23.79	412	0.00
10	22.67	34.72	4.17	10	22.67	34.72	4.17	23.83	408	0.04
30	22.49	34.82	4.24	20	22.58	34.77	4.20	23.90	402	0.08
44	22.10	34.92	4.24	30	22.49	34.82	4.24	23.96	396	0.12
54	19.78	34.46	4.01	50	20.80	34.65	4.16	24.31	362	0.20
64	19.89	34.73	3.80	75	18.77	34.67	3.27	24.84	312	0.28
73	18.95	34.67	3.36	100	15.80	34.69	1.00	25.58	242	0.35
91	17.04	34.78	2.41	150	12.87	34.76	0.14	26.26	177	0.46
105	14.99	34.64	0.24	200	11.98	34.78	0.13	26.45	159	0.54
119	13.76	34.76	0.12	250	11.39	34.75	0.11	26.52	152	0.62
142	13.05	34.75	0.14	300	10.77	34.71	0.10	26.61	144	0.70
170	12.45	34.78	0.14	400	9.00	34.58	0.13	26.82	124	0.84
208	11.88	34.78	0.12	500	7.51	34.53	0.14	27.00	107	0.96
258	11.33	34.74	0.12							
338	10.18	34.68	0.10							
436	8.34	34.54	0.15							
573	6.92	34.53	0.12							

SPENCER F. BAIRD; February 12, 1957; 1536 GCT; 28°35'N, 112°54'W; sounding, 520 fm; wind, 320°, force 3; weather, partly cloudy; sea, slight; wire angle, 13°.

116G.23

0	14.18	35.02	3.56	0	14.18	35.02	3.56	26.18	184	0.00
10	14.14	35.05	3.58	10	14.14	35.05	3.58	26.22	181	0.02
33	-	35.04	3.36	20	14.12	35.04	3.49	26.22	181	0.04
57	14.03	34.99	2.98	30	14.10	35.04	3.30	26.22	181	0.05
85	13.60	34.96	2.29	50	14.07	35.01	3.02	26.19	183	0.09
98	13.43	34.99	2.33	75	13.75	34.96	2.37	26.23	180	0.14
111	13.38	34.99	2.09	100	13.43	34.99	2.33	26.32	172	0.18
143	13.31	34.98	2.21	150	13.30	34.99	2.23	26.35	169	0.27
164	13.28	35.01	2.30	200	13.19	35.01	2.29	26.38	166	0.35
220	13.13	35.00	2.22	250	12.96	35.00	2.08	26.42	162	0.43
275	12.85	34.99	1.96	300	12.79	34.98	1.84	26.44	160	0.52
330	12.77	34.96	1.74	400	12.34	34.92	1.42	26.48	156	0.68
446	12.00	34.88	1.19	500	11.68	34.87	1.00	26.57	148	0.84
550	11.46	34.86	0.95	600	11.39	34.85	0.97	26.61	144	0.99
658	11.33	34.84	1.00	700	11.28	34.83	0.99	26.62	143	1.14
878	11.06	34.80	0.83	800	11.17	34.82	0.93	26.63	142	1.30

SPENCER F. BAIRD; February 12, 1957; 1737 GCT; 28°27'N, 112°48.5'W; sounding, 140 fm; wind, 300°, force 5; weather, clear; sea, moderate; wire angle, 25°.

117G.25

0	14.40	35.06	3.59	0	14.40	35.06	3.59	26.16	186	0.00
9	14.33	35.07	3.59	10	14.29	35.07	3.56	26.19	183	0.02
27	14.22	35.05	3.66	20	14.26	35.06	3.63	26.19	183	0.04
50	13.98	35.04	3.26	30	14.22	35.05	3.56	26.20	182	0.06
73	13.22	34.99	2.32	50	13.98	35.04	3.26	26.24	178	0.09
86	13.21	34.96	2.29	75	13.22	34.98	2.30	26.35	168	0.13
100	13.14	34.96	2.26	100	13.14	34.96	2.26	26.35	168	0.18
127	13.00	34.95	2.11	150	12.88	34.96	2.02	26.41	163	0.26
148	12.89	34.96	2.02	200	12.72	34.93	1.91	26.42	162	0.34
222	12.66	34.92	1.85	250	12.6					

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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	$10^{-5} \text{cm}^3/\text{g}$	dyn.m

117G.35 SPENCER F. BAIRD; February 12, 1957; 1925 GCT; 28°31.5'N, 112°39.5'W; sounding, 160 fm; wind, 330°, force 4; weather, clear; sea, moderate; wire angle, 25°.

0	14.31	35.13	3.72	0	14.31	35.13	3.72	26.25	178	0.00
9	13.82	35.08	3.07	10	13.78	35.07	3.02	26.31	172	0.02
27	13.00	35.01	2.30	20	13.60	35.06	2.82	26.33	170	0.04
48	12.89	34.97	2.20	30	12.95	35.00	2.24	26.42	162	0.05
69	12.72	34.97	1.96	50	12.87	34.97	2.18	26.42	162	0.08
82	12.66	34.97	1.98	75	12.68	34.97	1.96	26.45	159	0.12
93	12.60	34.97	1.93	100	12.48	34.96	1.77	26.48	156	0.16
119	12.24	34.94	1.59	150	11.93	34.90	1.62	26.54	150	0.24
140	12.02	34.91	1.62	200	11.69	34.87	1.43	26.57	148	0.32
187	11.69	34.87	1.45	250	11.43	34.85	1.27	26.61	144	0.39
229	11.67	34.87	1.35	300	(10.83)	(34.83)	(1.20)	(26.69)	(136)	(0.46)
298	10.86	34.83	1.20							

117G.50 SPENCER F. BAIRD; February 12, 1957; 2141 GCT; 28°39'N, 112°24.5'W; sounding, 140 fm; wind, 320°, force 6; weather, partly cloudy; sea, moderate; wire angle, 28°.

0	13.96	35.00	3.54	0	13.96	35.00	3.54	26.22	182	0.00
8	13.90	35.01	3.38	10	13.89	35.01	3.33	26.24	179	0.02
26	13.84	35.01	2.96	20	13.87	35.01	3.00	26.25	178	0.04
41	13.68	35.01	2.83	30	13.81	35.01	2.92	26.26	177	0.05
56	13.56	35.00u	2.75	50	13.58	35.00	2.78	26.29	174	0.09
69	13.52	34.97	2.64	75	13.52	34.97	2.65	26.29	174	0.13
80	13.48	34.97	2.66	100	12.98	34.96	1.97	26.38	165	0.18
104	12.91	34.96	1.92	150	12.78	34.96	1.94	26.43	161	0.26
123	12.84	34.94u	1.93	200	11.96	34.89	1.54	26.53	151	0.34
164	12.70	34.96	1.94							
206	11.82	34.88	1.45							

117G.65 SPENCER F. BAIRD; February 12, 1957; 2320 GCT; 28°47'N, 112°10'W; sounding, 10 fm; wind, 360°, force 5; weather, partly cloudy; sea, moderate; wire angle, 05°.

0	15.40	35.12	5.40	0	15.40	35.12	5.40	26.00	202	0.00
10	15.26	35.13	5.05	10	15.26	35.13	5.05	26.04	198	0.02
20	13.82	34.99 <sup>a)</sup>	2.92	20	13.82	34.99	2.92	26.24	179	0.04

118<sup>7</sup>G.37 SPENCER F. BAIRD; February 11, 1957; 1910 GCT; 28°20'N, 112°27'W; sounding, 510 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 30°.

0	15.89	35.16	4.60	0	15.89	35.16	4.60	25.91	210	0.00
8	15.85	35.17	4.54	10	15.82	35.17	4.50	25.93	208	0.02
26	15.72	35.15	4.36	20	15.76	35.16	4.41	25.94	207	0.04
47	14.66	35.10	3.45	30	15.62	35.14	4.26	25.97	205	0.06
67	14.30	35.08	3.16	50	14.58	35.10	3.37	26.16	186	0.10
77	14.10	35.05	3.12	75	14.14	35.06	3.13	26.22	181	0.15
86	13.84	35.03	2.88	100	13.54	35.01	2.52	26.31	172	0.19
109	13.36	34.99	2.37	150	12.59	34.95	1.51	26.45	159	0.27
127	12.94	34.98	1.97	200	12.07	34.93	1.27	26.54	150	0.35
165	12.39	34.93	1.27	250	10.60	34.75	0.28	26.67	138	0.43
202	12.03	34.93	1.27	300	10.32	34.73	0.26	26.71	134	0.50
247	10.66	34.76	0.30	400	9.07	34.64	0.12	26.85	121	0.63
330	10.12	34.72	0.17	500	7.75	34.60	0.13	27.02	105	0.74
417	8.84	34.63	0.11	600	7.18	34.56	0.12	27.07	100	0.85
507	7.71	34.60	0.13	700	6.77	34.53	0.11	27.11	96	0.96
718	6.69	34.53	0.11							

a) 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>	σ <sub>t</sub>	δ <sub>T</sub> <sub>3</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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SPENCER F. BAIRD; February 13, 1957; 1028 GCT; 27°49.5'N, 112°31'W; sounding, 395 fm; wind, 290°, force 2; weather, clear; sea, slight; wire angle, 05°.

121G.20

0	16.34	35.16	5.30	0	16.34	35.16	5.30	25.81	220	0.00
10	16.32	35.16	5.12	10	16.32	35.16	5.12	25.81	220	0.02
30	16.20	35.14	5.18	20	16.25	35.15	5.15	25.82	219	0.04
54	15.98	35.15	4.77	30	16.20	35.14	5.18	25.83	218	0.07
78	15.41	35.14	3.77	50	16.04	35.15	4.96	25.87	214	0.11
92	14.96	35.05	2.84	75	15.52	35.15	3.92	26.00	202	0.16
115	14.11	34.96	1.65	100	14.64	35.03	2.42	26.09	193	0.21
133	13.90	34.94	1.22	150	13.49	34.92	1.12	26.25	178	0.30
156	13.30	34.91	1.06	200	12.09	34.86	0.80	26.48	156	0.39
207	11.89	34.85	0.75	250	10.96	34.75	0.35	26.61	144	0.46
253	10.94	34.75	0.34	300	10.59	34.74	0.29	26.67	138	0.54
308	10.54	34.74	0.29	400	9.05	34.64	0.17	26.85	121	0.67
410	8.91	34.63	0.17	500	8.17	34.61	0.21	26.96	110	0.79
514	8.12	34.61	0.21	600	7.40	34.56	0.17	27.04	103	0.90
619	7.26	34.57	0.17							

SPENCER F. BAIRD; February 11, 1957; 1601 GCT; 27°60'N, 112°11'W; sounding, 170 fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 08°.

121G40

0	16.11	35.18	4.58	0	16.11	35.18	4.58	25.88	213	0.00
10	16.10	35.16	4.80	10	16.10	35.16	4.80	25.87	214	0.02
30	16.02	35.19	4.24	20	16.11	35.18	4.52	25.88	213	0.04
49	15.16	35.12	2.94	30	16.02	35.19	4.24	25.91	210	0.06
68	14.35	35.00	1.58	50	15.12	35.12	2.89	26.05	197	0.10
82	13.85	34.97 <sup>a)</sup>	1.08	75	14.10	34.99	1.30	26.18	185	0.15
96	13.57	34.92	0.84	100	13.48	34.92	0.81	26.25	178	0.20
124	13.09	34.90	0.73	150	12.82	34.88	0.74	26.35	168	0.28
146	12.88	34.89	0.76	200	11.93	34.78	0.49	26.46	158	0.37
192	12.11	34.80	0.56	250	10.77	34.70	0.19	26.61	144	0.44
237	11.01	34.71	0.22							
287	10.06	34.67	0.13							

SPENCER F. BAIRD; February 13, 1957; 0745 GCT; 28°04.5'N, 112°16'W; sounding, 370 fm; wind, 320°, force 4; weather, clear; sea, rough; wire angle, 25°.

121G40

0	16.12	35.17	-	0	16.12	35.17	(5.24)	25.87	214	0.00
9	16.10	35.16	5.22	10	16.10	35.16	5.23	25.87	214	0.02
27	16.12	35.17	5.29	20	16.11	35.17	5.26	25.87	214	0.04
48	15.98	35.14	4.96	30	16.12	35.17	5.24	25.88	213	0.06
69	14.95	35.08	3.77	50	15.91	35.14	4.87	25.89	212	0.11
81	14.55	35.05	2.89	75	14.76	35.07	3.32	26.10	192	0.16
92	14.02	34.97	2.09	100	13.76	34.99	1.88	26.25	178	0.20
117	13.31	35.01	1.55	150	12.63	34.94	1.14	26.44	160	0.29
137	12.74	34.96	1.17	200	12.09	34.85	0.89	26.48	156	0.37
183	12.44	34.85 <sup>u</sup>	1.07	250	10.78	34.73	0.32	26.62	142	0.44
224	11.45	34.78	0.52	300	9.83	34.66	0.20	26.73	132	0.51
275	10.21	34.69	0.22	400	8.58	34.60	0.15	26.89	117	0.64
367	8.94	34.61	0.13	500	7.45	34.57	0.19	27.04	103	0.76
464	7.81	34.58	0.19							
562	6.84	34.56	0.18							

a) Value unusual; used in interpolation.

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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

121G.55

SPENCER F. BAIRD; February 13, 1957; 0527 GCT; 28°11'N, 111°59'W; sounding, 185 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 13°.

0	15.93	35.16	4.75	0	15.93	35.16	4.75	25.91	210	0.00
10	15.92	35.17	4.80	10	15.92	35.17	4.80	25.92	210	0.02
30	14.93	-	4.51	20	15.49	35.14	4.69	25.98	203	0.04
53	13.94	35.01 <sup>a)</sup>	2.24	30	14.93	35.09	4.51	26.08	194	0.06
77	13.42	34.97	1.93	50	14.03	35.02	2.44	26.21	182	0.10
91	13.32	34.99	1.70	75	13.48	34.97	1.95	26.30	174	0.14
104	12.78	34.91	1.23	100	12.90	34.92	1.28	26.38	166	0.19
132	12.39	-	1.14	150	12.03	34.83	0.70	26.47	157	0.27
156	11.92	34.82	0.53	200	11.28	34.76	0.23	26.56	148	0.34
204	11.22	34.76	0.22	250	10.83	34.72	0.20	26.60	144	0.42
250	10.83	34.72	0.20	300	9.81	34.73	0.16	26.80	126	0.49
306	9.67	34.73	0.15							

121G.70

SPENCER F. BAIRD; February 13, 1957; 0327 GCT; 28°17'N, 111°44.5'W; sounding, 16 fm; wind, 310°, force 4; weather, clear; sea, moderate; wire angle, 05°.

0	16.18	35.18 <sup>a)</sup>	4.49	0	16.18	35.18	4.49	25.87	214	0.00
10	16.15	35.17	4.49	10	16.15	35.17	4.49	25.86	215	0.02
25	15.83	35.16	4.30	20	15.98	35.16	4.37	25.89	212	0.04

124G.49

SPENCER F. BAIRD; February 11, 1957; 1140 GCT; 27°38'N, 111°46'W; sounding, 950 fm; wind, 320°, force 3; weather, clear; sea, rough; wire angle, 23°.

0	16.98	35.23	4.45	0	16.98	35.23	4.45	25.71	229	0.00
9	17.08	35.23	4.35	10	17.08	35.23	4.35	25.69	231	0.02
31	17.09	35.23	4.36	20	17.08	35.23	4.35	25.69	231	0.05
54	14.82	35.01	1.76 <sup>b)</sup>	30	17.09	35.22	4.36	25.69	231	0.07
79	13.80	34.92 <sup>a)</sup>	0.99 <sup>c)</sup>	50	15.44	35.07	2.43	25.94	207	0.11
92	13.54	34.98	2.19	75	13.92	34.93	0.98	26.16	186	0.16
103	13.33	34.98	2.10	100	13.37	34.98	2.13	26.32	171	0.21
134	12.97	34.96	2.06	150	12.82	34.95	2.10	26.41	163	0.29
155	12.79	34.94	2.12	200	12.37	34.94	1.62	26.49	155	0.37
204	12.34	34.94 <sup>a)</sup>	1.60	250	11.84	34.89	1.50	26.55	149	0.45
255	11.79	34.88	1.48	300	11.06	34.77	0.52	26.61	144	0.52
305	10.98	34.76	0.46	400	9.54	34.69	0.33	26.81	125	0.66
410	9.40	34.69	0.31	500	8.34	34.67	0.17	26.99	108	0.78
507	8.24	34.67	0.16	600	7.38	34.63	0.14	27.09	98	0.89
605	7.34	34.63	0.13	700	6.51	34.58	0.10	27.18	90	0.99
808	5.66	34.54	0.08	800	5.71	34.54	0.08	27.25	83	1.09
1004	4.69	34.56	0.18	1000	4.72	34.54	0.17	27.37	72	1.25
1248	3.79	34.58	0.38	1200	3.95	34.57	0.35	27.48	62	1.40
1525	3.10	34.60	0.47	1500	3.16	34.60	0.46	27.58	52	1.60

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

b) Mean value between 1.70 and 1.82.

c) Value unusual; used in interpolation.



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

SPENCER F. BAIRD; February 13, 1957; 1530 GCT; 27°20.5'N, 112°00'W; sounding, 685 fm; wind, 320°, force 5; weather, partly cloudy; sea, moderate; wire angle, 05°.

124<sup>9</sup>6.28

0	17.83	35.28	5.66	0	17.83	35.28	5.66	25.54	245	0.00
10	17.83	35.28	5.65	10	17.83	35.28	5.65	25.54	245	0.02
29	17.35	35.27	5.58	20	17.82	35.28	5.64	25.55	244	0.05
53	15.80	35.17	3.53	30	17.30	35.27	5.53	25.66	234	0.07
77	14.03	35.04	1.81	50	16.79	35.30	4.08	25.81	220	0.12
90	13.51	34.95	1.19	75	14.19	35.05	1.97	26.21	182	0.17
104	13.06	34.90	0.67	100	13.16	34.91	0.73	26.31	172	0.21
132	12.75	34.88	0.57	150	12.52	34.85	0.46	26.40	164	0.30
155	12.46	34.85	0.44	200	12.20	34.91	1.15	26.50	154	0.38
206	12.18	34.91	1.18 <sup>a)</sup>	250	11.87	34.89	0.98	26.54	150	0.46
252	11.84	34.88	0.98 <sup>a)</sup>	300	10.88	34.79	0.50	26.65	140	0.53
308	10.74	34.78	0.47	400	9.54	34.69	0.28	26.81	125	0.67
410	9.41	34.68	0.25	500	8.19	34.61	0.17	26.96	110	0.79
513	8.02	34.61	0.16	600	6.98	34.60	0.14	27.12	95	0.90
615	6.84	34.60	0.14	700	6.29	34.58	0.14	27.21	87	0.99
823	5.64	34.56	0.14	800	5.75	34.57	0.14	27.26	82	1.08
1035	4.82	34.54	0.19	1000	4.94	34.54	0.17	27.34	74	1.26
1231	3.97	34.60	0.37							

SPENCER F. BAIRD; February 14, 1957; 0807 GCT; 27°44'N, 110°47'W; sounding, 26 fm; wind, 300°, force 2; weather, clear; sea, slight; wire angle, 05°.

126G100

0	15.76	35.11	4.34	0	15.76	35.11	4.34	25.90	211	0.00
10	15.73	35.09	3.94	10	15.73	35.09	3.94	25.90	211	0.02
30	15.04	35.10	3.60	20	15.47	35.10	3.78	25.93	208	0.04
40	14.32	35.03	1.85	30	15.04	35.10	3.60	26.06	196	0.06

SPENCER F. BAIRD; February 13, 1957; 1825 GCT; 27°00'N, 111°51'W; sounding, 50 fm; wind, 340°, force 3; weather, partly cloudy; sea, moderate; wire angle, 04°.

127G.25

0	18.28	35.26	6.72	0	18.28	35.26	6.72	25.42	257	0.00
10	17.95	35.27	6.10	10	17.95	35.27	6.10	25.51	248	0.02
30	17.40	35.26	5.29	20	17.70	35.27	5.73	25.58	242	0.05
50	15.64	35.06	2.70	30	17.40	35.26	5.29	25.64	236	0.07
70	14.08	34.96	1.14	50	15.64	35.06	2.70	25.89	212	0.12
80	13.85	34.96	1.11	75	13.96	34.96	1.11	26.18	184	0.17

SPENCER F. BAIRD; February 13, 1957; 2045 GCT; 27°07.5'N, 111°38.5'W; sounding, 820 fm; wind, 330°, force 4; weather, clear; sea, moderate; wire angle, 18°.

127G40

0	17.68	35.22	5.20	0	17.68	35.22	5.20	25.53	246	0.00
9	17.58	35.23	5.16	10	17.57	35.23	5.16	25.58	242	0.02
28	17.46	35.23	5.16	20	17.47	35.23	5.16	25.60	240	0.05
52	17.36	35.27	5.09	30	17.44	35.24	5.14	25.61	239	0.07
74	16.16	35.13	3.18	50	17.36	35.27	5.10	25.66	234	0.12
88	15.80	35.08	3.04	75	16.14	35.13	3.17	25.83	218	0.18
101	15.23	35.08	3.04	100	15.26	35.08	3.04	26.00	202	0.23
128	14.94	35.09	3.45	150	13.56	34.91	0.98	26.23	180	0.33
150	13.56	34.91	0.98	200	12.43	34.84	0.57	26.40	164	0.41
199	12.46	34.84	0.60	250	11.94	34.81	0.41	26.47	157	0.50
243	12.01	34.81	0.43	300	11.10	34.76	0.27	26.58	146	0.57
298	11.17	34.76	0.27	400	9.79	34.66	0.21	26.74	131	0.72
397	9.82	34.66	0.21	500	8.34	34.60	0.18	26.92	114	0.84
498	8.38	34.60	0.18	600	7.05	34.55	0.15	27.07	100	0.96
599	7.06	34.55	0.14	700	(6.24)	(34.54)	(0.16)	(27.18)	(90)	(1.06)
1009	4.62	34.56	0.25	800	(5.59)	(34.54)	(0.19)	(27.26)	(82)	(1.15)
1213	3.92	34.58	0.59 <sup>u</sup>	1000	4.66	34.56	0.24	27.39	70	(1.32)
1388	3.47	34.60	0.34							

a) Value unusual; used in interpolation.

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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	$10^{-5} \frac{g}{cm^3}$	dyn. m

127G.55

SPENCER F. BAIRD; February 11, 1957; 0710 GCT; 27°16'N, 111°25.5'W; sounding, 1025 fm; wind, 310°, force 4; weather, clear; sea, rough; wire angle, 20°.

0	17.43	35.20	4.27	0	17.43	35.20	4.27	25.58	241	0.00
9	17.45	35.21	4.24	10	17.45	35.21	4.24	25.58	241	0.02
32	17.46	35.21	4.32	20	17.45	35.21	4.27	25.58	241	0.05
55	17.30	35.19	4.14	30	17.45	35.21	4.30	25.58	241	0.07
80	15.95	35.05	2.64	50	17.39	35.20	4.30	25.60	240	0.12
93	15.70	35.09	2.38	75	16.12	35.06	2.79	25.78	222	0.18
106	15.34	35.09	2.32	100	15.52	35.10	2.36	25.95	206	0.23
137	14.09	34.94	0.83	150	13.74	34.90	0.71	26.18	184	0.33
157	13.58	34.88	0.66	200	12.51	34.80	0.40	26.35	168	0.42
210	12.33	34.79	0.38	250	11.86	34.77	0.30	26.46	158	0.50
262	11.70	34.76	0.29	300	11.09	34.74	0.22	26.58	147	0.58
313	10.88	34.73	0.20	400	9.72	34.67	0.15	26.75	130	0.72
424	9.41	34.65	0.13	500	8.63	34.61	0.12	26.90	116	0.85
526	8.35	34.60	0.11	600	7.34	34.55	0.11	27.04	103	0.97
627	7.02	34.54	0.11	700	6.31	34.53	0.13	27.16	91	1.07
835	5.40	34.52	0.15	800	5.60	34.52	0.14	27.25	83	1.17
1037	4.59	34.56	0.18	1000	4.72	34.55	0.17	27.38	71	1.33
1243	3.93	34.58	0.34	1200	4.06	34.58	0.30	27.47	62	1.49
1707	2.99	34.65	0.59	1500	3.38	34.62	0.47	27.58	52	1.69

127G.55

SPENCER F. BAIRD; February 13, 1957; 2330 GCT; 27°15.5'N, 111°23'W; sounding, 1025 fm; wind, 330°, force 4; weather, clear; sea, moderate; wire angle, 24°.

0	17.69	35.23	5.54	0	17.69	35.23	5.54	25.54	245	0.00
9	17.67	35.20	5.68	10	17.67	35.20	5.67	25.53	246	0.02
28	17.50	35.19	5.19	20	17.57	35.19	5.31	25.54	245	0.05
49	17.34	35.21	5.06	30	17.46	35.19	5.17	25.58	242	0.07
70	16.77	35.19	4.44	50	17.30	35.21	5.03	25.62	238	0.12
83	16.03	35.11	3.40	75	16.50	35.16	4.05	25.78	223	0.18
96	15.60	35.08	3.28	100	15.48	35.07	3.18	25.94	207	0.23
120	14.67	35.01	2.39	150	13.23	34.91	0.58	26.29	174	0.33
141	13.54	34.84	0.63	200	12.22	34.82	0.46	26.43	161	0.42
187	12.41	34.83	0.51	250	11.59	34.78	0.30	26.51	153	0.49
230	11.83	34.80	0.36	300	11.12	34.73	0.26	26.56	148	0.57
279	11.30	34.74	0.28	400	10.03	34.70	0.23	26.72	133	0.72
372	10.50	34.72	0.26	500	8.40	34.62	0.17	26.93	113	0.85
465	8.88	34.63	0.18	600	7.22	34.59	0.15	27.08	99	0.96
558	7.72	34.60	0.16	700	6.15	34.56	0.15	27.21	87	1.06
745	5.75	34.55	0.15	800	5.51	34.55	0.16	27.28	80	1.15
935	5.04	34.55	0.19	1000	4.76	34.55	0.22	27.37	72	1.31
1122	4.23	34.55	0.30	1200	3.98	34.56	0.37	27.46	63	1.47
1476	3.21	34.60	0.62	1500	(3.15)	(34.61)		(27.58)	(52)	(1.67)

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

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SPENCER F. BAIRD; February 14, 1957; 0244 GCT; 27°23'N, 111°09'W; sounding, 955 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 25°.

|27G.70

0	17.07	35.24	5.89	0	17.07	35.24	5.89	25.70	230	0.00
9	17.02	35.25	5.35	10	17.02	35.25	5.35	25.72	228	0.02
32	16.51	35.23	5.17	20	16.85	35.25	5.28	25.76	224	0.05
54	14.76	35.03	1.73u	30	16.57	35.23	5.19	25.82	219	0.07
80	14.35	35.08	3.31	50	14.92	35.04	3.81	26.04	198	0.11
93	13.84	35.06	2.96	75	14.43	35.08	3.40	26.18	185	0.16
106	13.75	35.03	3.08	100	13.78	35.04	3.05	26.28	175	0.20
134	13.38	35.02	3.14	150	13.31	35.03	2.99	26.38	166	0.29
152	13.30	35.03	2.91	200	12.77	34.94	1.81	26.41	163	0.37
198	12.80	34.94	1.86	250	12.05	34.87	1.31	26.50	154	0.45
243	12.17	34.88	1.32	300	11.33	34.82	1.10	26.58	146	0.53
288	11.51	34.83	1.19	400	9.79	34.68	0.19	26.75	130	0.67
381	10.11	34.71	0.25	500	8.45	34.58	0.13	26.90	116	0.80
467	8.76	34.60	0.13	600	7.62	34.56	0.13	27.01	106	0.92
554	7.94	34.56	0.13	700	6.68	34.56	0.13	27.13	94	1.02
731	6.39	34.56 <sup>a)</sup>	0.13	800	5.87	34.54	0.14	27.23	85	1.12
899	5.23	34.53	0.14	1000	4.74	34.55	0.20	27.37	72	1.29
1078	4.42	34.56	0.25							
1365	3.32	34.61	0.49							

SPENCER F. BAIRD; February 14, 1957; 0535 GCT; 27°29.5'N, 110°55.5'W; sounding, 700 fm; wind, 300°, force 4; weather, clear; sea, moderate; wire angle, 13°.

|27G.85

0	17.49	35.25	5.67	0	17.49	35.25	5.67	25.60	240	0.00
10	17.46	35.25	5.77	10	17.46	35.25	5.77	25.60	240	0.02
34	15.83	35.14	5.64	20	17.42	35.25	5.76	25.62	238	0.05
58	14.18	35.01	2.47u	30	16.41	35.18	5.72	25.81	220	0.07
85	13.69	34.99	3.06	50	14.48	35.03	4.12	26.13	189	0.11
99	13.52	34.99	2.96	75	13.83	34.99	3.16	26.24	179	0.16
113	13.32	34.96	2.60	100	13.47	34.99	2.95	26.31	172	0.20
144	12.92	34.96	1.98	150	12.87	34.96	1.99	26.41	163	0.29
166	12.78	34.95	2.01	200	12.14	34.87	1.15	26.48	156	0.37
219	11.83	34.84	0.73	250	11.53	34.82	0.63	26.56	148	0.44
271	11.34	34.81	0.60	300	10.82	34.74	0.68	26.63	142	0.52
323	10.46	34.70	0.71	400	9.32	34.66	0.33	26.82	124	0.66
434	8.83	34.64	0.14	500	7.88	34.60	0.15	27.00	107	0.78
535	7.47	34.58	0.16	600	6.99	34.57	0.15	27.10	97	0.88
638	6.73	34.56	0.13	700	6.27	34.55	0.13	27.20	88	0.98
849	5.32	34.55	0.15	800	5.59	34.55	0.13	27.27	81	1.08
1054	4.49	34.57	0.25	1000	4.70	34.56	0.21	27.39	70	1.24
1175	4.02	34.59	0.37							

a) Value unusual; used in interpolation.

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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

130G.55

SPENCER F. BAIRD; February 11, 1957; 0237 GCT; 26°50'N, 111°07.5'W; sounding, 925 fm; wind, 300°, force 4; weather, partly cloudy; sea, rough; wire angle, 32°.

0	17.32	35.26	4.38	0	17.32	35.26	4.38	25.65	235	0.00
9	17.27	35.24	4.48	10	17.26	35.24	4.48	25.65	235	0.02
30	17.08	35.24	4.50	20	17.18	35.24	4.49	25.68	232	0.05
51	15.44	35.09	3.01	30	17.08	35.24	4.50	25.69	231	0.07
76	14.98	35.09	3.01	50	15.51	35.09	3.03	25.95	206	0.11
89	14.19	34.98	1.59	75	15.02	35.09	3.01	26.06	196	0.16
102	13.54	34.87	0.61	100	13.59	34.88	0.63	26.20	183	0.21
133	12.89	34.85	0.51	150	12.58	34.84	0.45	26.36	167	0.30
153	12.52	34.83	0.46	200	11.84	34.79	0.33	26.48	156	0.38
201	11.82	34.79	0.32	250	11.48	34.74	0.26	26.50	154	0.46
249	11.48	34.74	0.26	300	11.14	34.76	0.40	26.58	146	0.54
297	11.19	34.76	0.40 <sup>a)</sup>	400	9.71	34.63	0.13	26.73	132	0.68
398	9.74	34.63	0.13	500	8.47	34.61	0.12	26.91	115	0.81
492	8.58	34.61	0.12	600	7.26	34.56	0.13	27.06	101	0.92
587	7.38	34.56	0.11	700	6.38	34.56	0.14	27.18	90	1.02
783	5.77	34.56	0.15	800	5.66	34.56	0.15	27.27	81	1.12
974	4.79	34.55	0.20	1000	4.68	34.55	0.21	27.39	70	1.28
1173	4.04	34.60	0.29							
1434	3.24	34.62	0.57							

133G.40

SPENCER F. BAIRD; February 15, 1957; 0620 GCT; 26°15.5'N, 111°04'W; sounding, 245 fm; wind, 140°, force 2; weather, partly cloudy; sea, slight; wire angle, 07°.

0	17.90	35.23	5.13	0	17.90	35.23	5.13	25.49	250	0.00
10	17.70	35.25	3.76 <sup>u</sup>	10	17.70	35.25	5.02	25.55	244	0.02
30	17.00	35.18	4.16 <sup>b)</sup>	20	17.00	35.16	4.38	25.65	235	0.05
53	16.35	35.16	3.74	30	17.00	35.18	4.16	25.67	233	0.07
77	14.98	35.02	1.68	50	16.70	35.17	3.84	25.74	226	0.12
91	14.79	34.98	1.29	75	15.01	35.02	1.80	26.01	201	0.17
105	14.04	34.94	1.07	100	14.38	34.96	1.14	26.09	193	0.22
132	13.20	34.88	0.72	150	13.03	34.89	0.75	26.31	172	0.31
154	13.00	34.89	0.76	200	11.90	34.81	0.37	26.48	156	0.39
205	11.80	34.80	0.33	250	10.93	34.74	0.23	26.61	144	0.47
251	10.93	34.74	0.23	300	9.62	34.67	0.15	26.78	128	0.54
306	9.50	34.66	0.14	400	8.40	34.60	0.14	26.92	114	0.66
410	8.31	34.59	0.13							

133G.85

SPENCER F. BAIRD; February 14, 1957; 2144 GCT; 26°37.5'N, 110°20.5'W; sounding, 660 fm; wind, 080°, force 3; weather, partly cloudy; sea, slight; wire angle, 18°.

0	18.10	35.26	5.38	0	18.10	35.26	5.38	25.46	253	0.00
9	17.96	35.25	5.38	10	17.95	35.25	5.40	25.49	250	0.02
28	17.67	35.25	5.73	20	17.79	35.25	5.61	25.53	246	0.05
52	15.89	35.09	3.08 <sup>c)</sup>	30	17.65	35.25	5.73	25.56	243	0.07
76	14.57	34.98	1.42	50	17.50	35.34	4.83	25.68	232	0.12
93	13.94	34.93	0.98	75	14.59	34.98	1.47	26.07	195	0.18
103	13.36	34.90	0.75	100	13.46	34.90	0.80	26.25	178	0.22
130	12.68	34.87	0.54	150	12.27	34.83	0.48	26.42	162	0.31
153	12.20	34.82	0.46	200	11.30	34.79	0.28	26.58	147	0.39
200	11.30	34.79	0.28	250	10.62	34.74	0.24	26.66	139	0.46
246	10.65	34.74	0.25	300	10.07	34.70	0.17	26.72	133	0.53
299	10.10	34.70	0.17	400	8.59	34.63	0.13	26.94	112	0.66
396	8.62	34.63	0.13	500	7.34	34.61	0.13	27.09	98	0.76
485	7.50	34.54 <sup>r</sup>	0.13	600	6.54	34.60	0.10	27.19	89	0.86
593	6.58	34.60	0.10	700	5.89	34.57	0.11	27.25	83	0.96
794	5.40	34.54	0.14	800	5.37	34.54	0.16	27.29	79	1.04
1002	4.58	34.54	0.25	1000	4.60	34.54	0.25	27.38	71	1.20

a) Value unusual; used in interpolation.

b) Mean value between 4.03 and 4.28.

c) Mean value between 3.03 and 3.14.

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

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SPENCER F. BAIRD; February 14, 1957; 1604 GCT; 26°46.5'N, 110°07'W; sounding, 155 fm; wind, 140°, force 4; weather, fog; sea, slight; wire angle, 03°.

133G.100

0	17.94	35.26	5.85	0	17.94	35.26	5.85	25.50	249	0.00
10	17.90	35.30	5.26	10	17.90	35.30	5.26	25.54	245	0.02
30	17.12	35.14	5.14	20	17.70	35.26	5.18	25.58	243	0.05
53	15.11	35.05	2.34	30	17.12	35.14	5.14	25.62	238	0.07
78	13.94	34.97	1.47	50	15.96	35.10	5.00	25.85	216	0.12
92	13.48	34.92	1.08	75	14.08	34.98	1.57	26.18	185	0.17
105	13.52	34.94	1.44	100	13.50	34.93	1.25	26.26	177	0.22
133	12.95	34.89	0.81	150	12.65	34.86	0.70	26.38	166	0.30
156	12.54	34.85	0.67	200	11.62	34.79	0.40	26.52	153	0.38
207	11.52	34.78	0.39	250	11.13	34.74	0.26	26.56	148	0.46
254	11.10	34.74	0.24							

SPENCER F. BAIRD; February 10, 1957; 2050 GCT; 26°12.5'N, 110°46'W; sounding, 690 fm; wind, 320°, force 5; weather, clear; sea, rough; wire angle, 34°.

133<sup>4</sup>G.59

0	17.44	35.21	4.68	0	17.44	35.21	4.68	25.58	241	0.00
9	17.43	35.19	4.58	10	17.43	35.19	4.57	25.58	242	0.02
19	17.16	35.23	4.37	20	17.15	35.23	4.35	25.68	232	0.05
49	16.54	35.12	3.24	30	16.92	35.19	3.92	25.69	231	0.07
72	16.06	35.12	2.79	50	16.48	35.12	3.16	25.74	226	0.12
84	15.68	35.11	2.62	75	15.97	35.12	2.76	25.87	214	0.17
95	15.00	35.04	1.94	100	14.68	35.01	1.59	26.06	196	0.22
121	13.77	34.92	0.89	150	12.98	34.88	0.70	26.33	170	0.32
138	13.30	34.90	0.79	200	11.82	34.84	0.36	26.52	152	0.40
181	12.11	34.83	0.44	250	11.13	34.80	0.27	26.62	143	0.47
226	11.42	34.85	0.28	300	10.40	34.70	0.24	26.67	138	0.54
270	10.82	34.74	0.26	400	8.90	34.64	0.17	26.87	119	0.68
361	9.40	34.63	0.18	500	7.79	34.59	0.13	27.01	106	0.80
444	8.40	34.64	0.15	600	6.88	34.55	0.11	27.10	97	0.90
527	7.52	34.57	0.11	700	6.09	34.54	0.11	27.20	88	1.00
698	6.11	34.54	0.11	800	5.44	34.54	0.14	27.28	80	1.09
864	5.07	34.54	0.17	1000	4.49	34.55	0.27	27.40	69	1.25
1078	4.22	34.55	0.34							

SPENCER F. BAIRD; February 15, 1957; 0317 GCT; 26°11.5'N, 110°43.5'W; sounding, 1120 fm; wind, 160°, force 3; weather, partly cloudy; sea, slight; wire angle, 19°.

133<sup>4</sup>G.59

0	17.48	35.19	5.62	0	17.48	35.19	5.62	25.55	244	0.00
9	17.44	35.19	5.65	10	17.43	35.19	5.66	25.55	244	0.02
33	16.89	35.16	5.33	20	17.21	35.18	5.57	25.62	238	0.05
56	16.05	35.13	3.90	30	16.94	35.16	5.38	25.67	233	0.07
85	15.69	35.17	4.58	50	16.79	35.18	4.49	25.72	228	0.12
99	15.00	35.04	2.48	75	15.81	35.15	4.39	25.92	209	0.17
112	14.16	34.92	1.13	100	14.93	35.02	2.40	26.03	199	0.22
142	13.38	34.90	0.82	150	13.24	34.89	0.74	26.27	176	0.32
163	13.06	34.87	0.65	200	12.20	34.83	0.46	26.44	160	0.40
214	11.90	34.81	0.42	250	11.33	34.78	0.37	26.56	148	0.48
265	11.14	34.85u	0.33	300	10.58	34.74	0.20	26.67	138	0.56
315	10.34	34.72	0.18	400	8.94	34.62	0.16	26.85	121	0.69
421	8.61	34.60	0.14	500	7.56	34.57	0.12	27.02	105	0.81
520	7.37	34.56	0.12	600	6.79	34.54	0.13	27.11	96	0.91
616	6.68	34.54	0.13	700	6.06	34.54	0.14	27.20	88	1.01
816	5.22	34.54	0.14	800	5.32	34.54	0.14	27.30	78	1.10
1009	4.48	34.55	0.33	1000	4.51	34.55	0.32	27.40	69	1.26
1213	4.01	34.57	0.38	1200	4.04	34.57	0.37	27.46	63	1.41
1585	2.99	34.61	0.75	1500	3.23	34.60	0.62	27.57	53	1.62

SPENCER F. BAIRD; February 14, 1957; 1822 GCT; 26°36'N, 109°48.5'W; sounding, 45 fm; wind, 140°, force 2; weather, clear; sea, slight; wire angle, 05°.

134<sup>8</sup>G.112

0	18.36	35.29	5.58	0	18.36	35.29	5.58	25.43	256	0.00
10	17.92	35.26	5.42	10	17.92	35.26	5.42	25.51	248	0.02
30	15.88	35.08	2.92	20	16.95	35.18	4.20	25.68	232	0.05
55	14.62	35.03	2.23	30	15.88	35.08	2.92	25.85	216	0.07
80	14.18	34.97	1.69	50	14.79	35.04	2.30	26.07	195	0.11
				75	14.24	34.98	1.79	26.14	188	0.16

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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

136G.70

SPENCER F. BAIRD; February 10, 1957; 1615 GCT; 26°04.5'N, 110°21'W; sounding, 1200 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 42°.

0	17.67	35.24	4.77	0	17.67	35.24	4.77	25.55	244	0.00
9	17.65	35.24	4.73	10	17.63	35.24	4.72	25.56	243	0.02
24	17.59	35.23	4.45	20	17.60	35.23	4.50	25.56	243	0.05
41	16.87	35.14	3.62	30	17.48	35.21	4.32	25.58	241	0.07
55	15.80	35.07	2.52	50	16.18	35.09	2.96	25.80	221	0.12
64	15.36	35.03	1.99	75	14.89	34.99	1.44	26.01	201	0.17
73	14.97	34.99	1.47	100	13.89	34.96	1.08	26.20	183	0.22
92	14.08	34.97	1.13	150	12.42	34.81	0.42	26.38	166	0.31
107	13.76	34.95	1.05	200	11.78	34.78	0.37	26.48	156	0.39
140	12.68	34.83	0.48	250	11.19	34.72	0.23	26.54	150	0.47
178	11.97	34.78	0.38	300	(10.57)	(34.68)	(0.19)	(26.62)	(143)	(0.54)
212	11.67	34.78	0.36	400	(9.32)	(34.64)	(0.16)	(26.81)	(125)	(0.68)
260p	11.06	34.71	0.22	500	(8.18)	(34.61)	(0.13)	(26.96)	(110)	(0.80)
541p	7.76	34.60	0.12	600	7.23	34.59	0.12	27.08	99	(0.92)
748p	6.05	34.56	0.15	700	6.40	34.57	0.14	27.18	90	(1.02)
940p	4.86	34.54	0.18	800	5.68	34.55	0.16	27.26	82	(1.11)
1177p	4.04	34.58	0.32	1000	4.62	34.55	0.21	27.39	70	(1.28)
1663p	3.01	34.61	0.63	1200	3.98	34.58	0.35	27.48	61	(1.42)
				1500	3.31	34.60	0.56	27.57	53	(1.63)

139G.40

SPENCER F. BAIRD; February 16, 1957; 0336 GCT; 25°24'N, 110°31.5'W; sounding, 600 fm; wind, 200°, force 1; weather, fog; sea, slight; wire angle, 00°.

0	19.43	35.33	5.66	0	19.43	35.33	5.66	25.18	280	0.00
10	19.32	35.31	5.70	10	19.32	35.31	5.70	25.21	277	0.03
29	18.90	35.30	5.29	20	19.08	35.31	5.48	25.25	273	0.06
53	18.72	35.28	5.29	30	18.88	35.30	5.29	25.30	268	0.08
76	16.64	35.10	2.92	50	18.76	35.29	5.29	25.32	266	0.14
90	15.94	35.08	2.74	75	16.68	35.10	2.96	25.68	232	0.20
104	15.52	35.04	2.48	100	15.63	35.05	2.54	25.89	212	0.26
131	14.47	34.99	1.58	150	14.01	34.97	1.32	26.18	185	0.35
155	13.89	34.96	1.24	200	12.38	34.82	0.45	26.40	164	0.44
206	12.22	34.81	0.40	250	11.56	34.76	0.27	26.51	153	0.52
253	11.52	34.76	0.26	300	11.00	34.74	0.28	26.58	146	0.60
309	10.89	34.73	0.29	400	9.55	34.62	0.11	26.75	130	0.74
412	9.37	34.61	0.10	500	8.27	34.58	0.10	26.92	114	0.87
516	8.09	34.58	0.10	600	7.27	34.56	0.10	27.06	101	0.98
619	7.08	34.56	0.11	700	6.35	34.54	0.11	27.18	90	1.09
826	5.46	34.53	0.13	800	5.61	34.53	0.12	27.25	83	1.18
1035	4.54	34.56	0.25	1000	4.68	34.55	0.23	27.38	71	1.35

139G.55

SPENCER F. BAIRD; February 16, 1957; 0601 GCT; 25°31'N, 110°19.5'W; sounding, 1080 fm; wind, calm; weather, fog; sea, slight; wire angle, 04°.

0	19.22	35.32	3.92	0	19.22	35.32	3.92	25.23	275	0.00
10	19.17	35.32	4.03	10	19.17	35.32	4.03	25.24	274	0.03
29	18.48	35.29	3.95	20	18.92	35.31	4.00	25.30	268	0.05
48	17.86	35.26	4.25	30	18.46	35.29	3.95	25.38	260	0.08
67	17.68	35.25	4.08	50	17.83	35.26	4.24	25.52	247	0.13
80	16.90	35.15	2.78	75	17.37	35.21	3.51	25.61	239	0.19
94	15.92	35.08	1.76	100	15.63	35.06	1.60	25.90	211	0.25
122	14.61	34.99	1.21	150	13.42	34.91	0.56	26.26	177	0.35
145	13.58	34.92	0.58	200	12.18	34.83	0.39	26.44	160	0.43
191	12.40	34.85	0.43	250	11.02	34.72	0.13	26.58	147	0.51
237	11.23	34.74	0.14	300	10.37	34.68	0.10	26.67	138	0.58
287	10.53	34.69	0.10	400	8.99	34.62	0.10	26.84	122	0.72
379	9.20	34.63	0.10	500	8.06	34.57	0.09	26.94	112	0.84
475	8.28	34.58	0.09	600	7.21	34.56	0.09	27.07	100	0.95
568	7.49	34.56	0.09	700	6.37	34.58	0.09	27.20	88	1.05
756	5.94	34.58	0.09	800	5.62	34.58	0.10	27.28	80	1.14
946	4.76	34.56	0.15	1000	4.55	34.56	0.19	27.40	69	1.31
1135	4.11	-	0.33	1200	3.93	34.56	0.36	27.47	62	1.46
1434	3.36	34.57	0.44	1500	3.22	34.58	0.47	27.55	55	1.67
1816	2.57	34.63	0.79							

30

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	$10^{-5} \frac{\text{cm}^3}{\text{g}}$	dyn. m

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SPENCER F. BAIRD; February 16, 1957; 0919 GCT; 25°39'N, 110°03'W; sounding, 1200 fm; wind, 140°, force 1; weather, fog; sea, slight; wire angle, 20°.

139G.70

0	19.14	35.30	5.74	0	19.14	35.30	5.74	25.24	274	0.00
9	19.06	35.30	5.79	10	19.03	35.30	5.78	25.26	272	0.03
28	17.68	35.23	5.09	20	18.40	35.27	5.40	25.40	259	0.05
52	17.33	35.19	5.26	30	17.64	35.23	5.09	25.54	245	0.08
74	15.32	35.05	2.24	50	17.37	35.19	5.24	25.60	240	0.13
87	14.76	34.99	1.80	75	15.25	35.05	2.20	25.96	205	0.18
100	14.24	34.96	1.40	100	14.24	34.96	1.40	26.12	190	0.23
124	13.26	34.88	0.97	150	12.38	34.82	0.63	26.40	164	0.32
145	12.51	34.83	0.68	200	11.58	34.75	0.42	26.50	154	0.40
190	11.71	34.77	0.47	250	10.92	34.66	0.31	26.54	150	0.48
230	11.20	34.69	0.30	300	10.30	34.63	0.30	26.63	142	0.56
280	10.51	34.63	0.32	400	9.34	34.64	0.19	26.81	125	0.69
370	9.65	34.66	0.21	500	8.15	34.58	0.16	26.94	112	0.82
490	8.25	34.58	0.16	600	7.28	34.58	0.16	27.07	100	0.93
552	7.72	34.58	0.17	700	6.31	34.56	0.14	27.19	89	1.03
734	6.03	34.55	0.13	800	5.66	34.54	0.16	27.26	82	1.12
920	5.10	34.53	0.21	1000	(4.77)	(34.52)		(27.34)	(74)	(1.29)

SPENCER F. BAIRD; February 16, 1957; 1222 GCT; 25°48'N, 109°49'W; sounding, 690 fm; wind, calm; weather, fog; sea, slight; wire angle, 10°.

139G.85

0	18.49	35.19	6.18	0	18.49	35.19	6.18	25.31	267	0.00
10	18.22	35.22	5.82	10	18.22	35.22	5.82	25.41	258	0.03
28	17.32	35.12	5.03	20	17.81	35.18	5.48	25.47	252	0.05
52	15.00	34.96	2.03	30	17.21	35.11	4.93	25.58	242	0.08
75	13.75	34.80	0.82	50	15.20	34.97	2.26	25.93	208	0.12
89	13.60	34.76	0.50	75	13.75	34.80	0.82	26.10	192	0.17
102	13.56	34.75	0.48	100	13.54	34.75	0.49	26.11	191	0.22
129	13.20	34.81	0.50	150	12.58	34.78	0.32	26.32	171	0.31
153	12.50	34.78	0.30	200	11.89	34.79	0.39	26.46	158	0.40
203	11.86	34.79	0.40	250	11.08	34.75	0.43	26.58	146	0.47
249	11.12	34.75	0.43	300	10.33	34.72	0.24	26.69	136	0.54
303	10.28	34.72	0.22	400	9.12	34.63	0.14	26.83	123	0.68
407	9.06	34.63	0.14	500	8.09	34.62	0.15	26.99	108	0.80
508	8.03	34.62	0.15	600	7.33	34.58	0.14	27.07	100	0.91
609	7.27	34.58	0.13	700	6.31	34.55	0.13	27.18	90	1.01
813	5.20	34.54	0.14	800	5.30	34.54	0.12	27.30	78	1.10
1020	4.50	34.55 <sup>a)</sup>	0.28	1000	4.56	34.55	0.26	27.39	70	1.26
1163	4.09	34.56 <sup>a)</sup>	0.44							

SPENCER F. BAIRD; February 16, 1957; 1419 GCT; 25°55.5'N, 109°38'W; sounding, 22 fm; wind, calm; weather, fog; sea, calm; wire angle, 00°.

139G.100

0	18.87	35.29	5.73	0	18.87	35.29	5.73	25.29	269	0.00
10	17.54	35.17	4.71	10	17.54	35.17	4.71	25.54	245	0.02
30	17.02	35.10	3.80	20	17.24	35.13	4.22	25.58	242	0.05
				30	17.02	35.10	3.80	25.60	240	0.07

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

140G.72

SPENCER F. BAIRD; February 10, 1957; 1026 GCT; 25°30'N, 109°57'W; sounding, 1100 fm; wind, 310°, force 4; weather, clear; sea, moderate; wire angle, 37°.

0	18.54	35.30	4.63	0	18.54	35.30	4.63	25.38	260	0.00
8	18.56	35.30	4.61	10	18.56	35.30	4.63	25.38	260	0.03
28	17.78	35.28	4.44	20	18.13	35.29	4.55	25.48	251	0.05
48	17.09	35.21	3.31	30	17.71	35.27	4.32	25.58	242	0.08
69	15.62	35.09	2.20	50	17.02	35.20	3.23	25.68	232	0.12
78	15.22	35.06	1.96	75	15.38	35.07	2.07	25.96	205	0.18
87	14.80	35.02	1.62	100	14.22	34.99	1.35	26.15	187	0.23
111	13.88	34.98	1.18	150	12.85	34.87	0.47	26.33	170	0.32
123	13.66	34.99	0.98	200	11.92	34.78	0.23	26.46	158	0.40
165	12.44	34.81	0.31	250	11.22	34.76	0.20	26.56	148	0.48
203	11.89	34.78	0.23	300	10.57	34.72	0.18	26.65	140	0.55
242	11.35	34.76	0.20	400	9.27	34.61	0.15	26.79	127	0.69
324	10.24	34.70	0.16	500	8.00	34.60	0.12	26.99	108	0.81
401	9.27	34.61	0.15	600	6.89	34.55	0.13	27.10	97	0.92
476	8.30	34.61	0.11	700	6.13	34.54	0.13	27.20	88	1.02
631	6.59	34.54	0.14	800	5.56	34.54	0.13	27.27	81	1.11
785	5.64	34.54	0.13	1000	4.56	34.54	0.23	27.39	70	1.28
953	4.73	34.54	0.18							
1206	3.88	34.56	0.40							
1412	3.47	34.60	0.50							

142<sup>4</sup>G.77

SPENCER F. BAIRD; February 10, 1957; 0612 GCT; 25°13'N, 109°40'W; sounding, 1250 fm; wind, 300°, force 3; weather, clear; sea, moderate; wire angle, 32°.

0	18.61	35.24	4.05	0	18.61	35.24	4.05	25.32	266	0.00
8	18.56	35.23 <sup>a)</sup>	3.98	10	18.57	35.23	4.03	25.33	265	0.03
25	18.68	35.26	4.33	20	18.65	35.25	4.25	25.32	266	0.05
47	18.64	35.29	4.51	30	18.66	35.27	4.40	25.32	266	0.08
66	18.47	35.28	4.05	50	18.61	35.29	4.52	25.36	262	0.13
77	16.64	35.12	3.02	75	17.64	35.21	3.55	25.55	244	0.20
88	14.73	34.78	0.69	100	14.14	34.75	0.53	25.98	203	0.25
110	13.66	34.74 <sup>a)</sup>	0.43	150	12.57	34.76	0.27	26.31	172	0.35
127	13.04	34.76	0.29	200	11.99	34.76	0.18	26.43	161	0.43
167	12.31	-	0.24	250	11.35	34.76	0.16	26.54	150	0.51
204	11.94	34.76	0.16	300	10.81	34.72	0.10	26.61	144	0.59
248	11.38	34.76	0.15	400	9.33	34.64	0.17	26.80	126	0.72
327	10.49	34.70	0.10	500	7.97	34.60	0.12	26.99	108	0.85
409	9.20	34.63	0.17	600	7.10	34.58	0.14	27.10	97	0.95
488	8.10	34.60	0.11	700	6.28	34.56	0.15	27.19	89	1.05
653	6.64	34.57	0.15	800	5.54	34.53	0.15	27.26	82	1.14
820	5.42	34.53	0.15	1000	4.57	34.58	0.23	27.42	67	1.31
990	4.61	34.58	0.22	1200	3.80	34.57	0.40	27.48	61	1.46
1235	3.76	34.57	0.41	1500	3.18	34.59	0.72	27.57	53	1.66
1773	2.67	34.62	1.04							

145G.40

SPENCER F. BAIRD; February 17, 1957; 0834 GCT; 24°32'N, 110°00.5'W; sounding, 420 fm; wind, 150°, force 2; weather, cloudy; sea, slight; wire angle, 20°.

0	20.32	35.23	5.08	0	20.32	35.23	5.08	24.88	308	0.00
9	19.98	35.17	4.85	10	19.97	35.17	4.83	24.92	304	0.03
28	19.14	35.35	4.14	20	19.42	35.32	4.37	25.18	280	0.06
49	18.70	35.32	3.89	30	19.06	35.35	4.07	25.28	270	0.09
70	17.96	35.28	4.00	50	18.67	35.32	3.89	25.36	262	0.14
83	17.64	35.23	3.77	75	17.84	35.26	3.96	25.53	246	0.20
95	17.20	35.15	2.88	100	16.41	35.03	2.20	25.70	230	0.26
121	14.37	34.88	0.90	150	13.75	34.87	0.80	26.15	187	0.37
140	14.02	34.88	0.88	200	12.47	34.81	0.39	26.36	167	0.46
176	12.86	34.83	0.44	250	11.62	34.76	0.33	26.49	155	0.54
229	12.05	34.79	0.37	300	10.66	34.69	0.24	26.62	143	0.62
278	11.08	34.72	0.29	400	9.00	34.62	0.15	26.84	122	0.75
370	9.40	34.63	0.17	500	7.88	34.58	0.13	26.99	108	0.87
463	8.23	34.59	0.12	600	(6.88)	(34.53)	(0.16)	(27.09)	(98)	(0.98)
592	6.98	34.54	0.16							

a) 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

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SPENCER F. BAIRD; February 17, 1957; 0516 GCT; 24°43.5'N, 109°39'W; sounding, 895 fm; wind, calm; weather, clear; sea, slight; wire angle, 00°.

145G.64

0	20.38	35.23	6.11	0	20.38	35.23	6.11	24.86	310	0.00
10	18.84	35.30	4.89	10	18.84	35.30	4.89	25.31	267	0.03
29	18.08	35.26	4.15	20	18.38	35.28	4.40	25.41	258	0.06
49	17.58	35.26	4.93u	30	18.05	35.26	4.15	25.47	252	0.08
68	16.96	35.22	3.98	50	17.55	35.26	4.07	25.60	240	0.13
82	16.62	35.16	2.96	75	16.80	35.19	3.70	25.72	228	0.19
96	14.67	34.83	0.85	100	14.38	34.81	0.73	25.98	204	0.24
124	13.23	34.78	0.37	150	12.38	34.76	0.22	26.35	168	0.34
147	12.44	34.77	0.22	200	11.72	34.74	0.21	26.46	158	0.42
192	11.82	34.74	0.22	250	10.98	34.73	0.15	26.58	146	0.50
238	11.21	34.74	0.16	300	10.38	34.69	0.14	26.67	138	0.57
287	10.48	34.70	0.14	400	9.33	34.66	0.14	26.82	124	0.70
380	9.62	34.67	0.14	500	7.85	34.59	0.13	27.00	107	0.82
476	8.08	34.60	0.13	600	6.94	34.57	0.12	27.11	96	0.93
567	7.26	34.58	0.12	700	6.00	34.56	0.12	27.23	85	1.03
755	5.53	34.56	0.12	800	5.27	34.56	0.14	27.32	76	1.12
945	4.68	34.57	0.22	1000	4.54	34.57	0.24	27.41	68	1.28
1235	4.01	34.58	0.37	1200	4.09	34.58	0.36	27.46	63	1.42
1489	3.20	34.63	0.65	1500	(3.17)	(34.63)		(27.60)	(50)	(1.63)

SPENCER F. BAIRD; February 16, 1957; 2217 GCT; 25°01.5'N, 109°02.5'W; sounding, 310 fm; wind, calm; weather, cloudy; sea, slight; wire angle, 07°.

145G.100

0	20.88	35.12	5.38	0	20.88	35.12	5.38	24.63	332	0.00
10	20.00	35.08	5.91	10	20.00	35.08	5.91	24.84	312	0.03
30	18.76	35.09	4.93	20	19.41	35.08	5.54	25.01	296	0.06
54	16.96	35.05	4.59	30	18.76	35.09	4.93	25.16	281	0.09
78	14.55	34.76	0.79	50	17.34	35.07	4.67	25.50	249	0.14
92	14.24	34.72	0.66	75	14.67	34.78	0.90	25.89	212	0.20
105	13.54	34.72	0.25	100	13.74	34.71	0.34	26.04	198	0.25
134	12.95	34.76	0.17	150	12.62	34.78	0.17	26.31	172	0.35
156	12.52	34.78	0.19	200	11.78	34.75	0.18	26.46	158	0.43
207	11.67	34.75	0.18	250	11.25	34.74	0.16	26.54	150	0.51
253	11.21	34.74	0.15	300	10.66	34.71	0.12	26.63	142	0.58
309	10.59	34.70	0.11	400	9.46	34.62	0.11	26.76	129	0.72
412	9.34	34.61	0.11	500	7.98	34.57	0.14	26.95	111	0.85
516	7.73	34.56	0.15							

SPENCER F. BAIRD; February 10, 1957; 0105 GCT; 24°48'N, 109°20.5'W; sounding, 1400 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 17°.

145G.83

0	20.56	35.03	5.07	0	20.56	35.03	5.07	24.65	330	0.00
10	20.58	35.01	5.08	10	20.58	35.01	5.08	24.63	332	0.03
28	19.97	35.05	4.00	20	20.42	35.03	4.72	24.69	326	0.07
52	16.58	34.97	2.12	30	19.76	35.05	3.78	24.87	309	0.10
75	14.86	34.81	0.95	50	16.78	34.98	2.23	25.56	243	0.15
88	14.08	34.77	0.67	75	14.86	34.81	0.95	25.87	214	0.21
100	13.93	34.82	0.57	100	13.93	34.82	0.57	26.08	194	0.26
127	12.94	34.79	0.44	150	12.42	34.77	0.41	26.34	169	0.35
148	12.45	34.77	0.42	200	11.55	34.73	0.25	26.48	156	0.44
196	11.58	34.73	0.26	250	11.04	34.72	0.17	26.58	147	0.51
240	11.20	34.73	0.17	300	10.22	34.68	0.16	26.69	136	0.59
291	10.34	34.69	0.14	400	9.07	34.64	0.17	26.84	122	0.72
387	9.23	34.64	0.16	500	7.78	34.62	0.15	27.03	104	0.84
485	7.97	34.63	0.15	600	6.74	34.58	0.13	27.14	93	0.94
580	6.91	34.58	0.12	700	6.06	34.57	0.14	27.22	86	1.04
775	5.62	34.56	0.15	800	5.48	34.56	0.18	27.28	80	1.12
969	4.70	34.54	0.26	1000	4.58	34.54	0.28	27.39	70	1.29
1159	4.09	34.58	0.37	1200	3.98	34.59	0.38	27.49	60	1.44
1426	3.40	34.63	0.61	1500	3.22	34.63	0.74	27.60	50	1.64
1954	2.24	34.63	1.54	2000	2.18	34.63	1.62	27.68	42	1.94
2321	1.92	34.65	1.79							

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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

1457G/83

SPENCER F. BAIRD; February 17, 1957; 0122 GCT; 24°44.5'N, 109°15'W; sounding, 1640 fm; wind, 320°, force 1; weather, partly cloudy; sea, slight; wire angle, 02°.

0	21.10	35.12	5.53	0	21.10	35.12	5.53	24.58	337	0.00
10	20.64	35.11	5.64	10	20.64	35.11	5.64	24.69	326	0.03
30	19.95	35.11	5.32	20	20.31	35.11	5.52	24.79	317	0.06
50	17.11	35.07	3.18	30	19.95	35.11	5.32	24.87	309	0.10
68	16.08	35.13	3.16	50	17.11	35.07	3.18	25.56	243	0.15
83	15.28	35.04	2.13	75	16.00	35.14	3.28	25.87	214	0.21
97	14.58	34.97	1.41	100	14.46	34.96	1.34	26.06	194	0.26
125	13.50	34.87	0.65	150	12.44	34.77	0.34	26.34	169	0.35
147	12.50	34.77	0.33	200	11.94	34.76	0.26	26.44	160	0.44
193	12.00	34.76	0.28	250	11.28	34.72	0.16	26.52	152	0.52
239	11.47	34.72	0.17	300	10.54	34.69	0.16	26.64	141	0.59
289	10.68	34.70	0.15	400	9.19	34.62	0.15	26.82	124	0.73
380	9.50	34.64	0.18	500	7.67	34.56	0.12	27.00	107	0.85
477	7.95	34.57	0.11	600	6.68	34.54	0.13	27.12	95	0.96
570	6.93	34.55	0.14	700	5.87	34.53	0.14	27.22	86	1.05
758	5.48	34.52	0.16	800	5.24	34.52	0.17	27.28	80	1.14
948	4.63	34.51	0.28	1000	4.49	34.52	0.32	27.38	71	1.31
1138	4.28	34.54	0.40	1200	4.02	34.55	0.44	27.45	64	1.47
1435	3.36	34.57	0.69	1500	3.22	34.58	0.75	27.56	54	1.68
1975	2.38	34.63	1.71	2000	2.35	34.63	1.72	27.67	43	1.98
2470	1.89	34.64	2.37	2500	1.90	34.65	2.38	27.72	38	2.23
2805	1.90	34.69	2.39							

1478G.43

SPENCER F. BAIRD; February 19, 1957; 0510 GCT; 24°10'N, 109°42'W; sounding, 470 fm; wind, 260°, force 5; weather, overcast; sea, slight; wire angle, 20°.

0	20.03	35.19	4.96	0	20.03	35.19	4.96	24.91	305	0.00
9	19.72	35.19	4.78	10	19.69	35.19	4.74	25.02	295	0.03
29	19.07	35.26	4.20	20	19.36	35.23	4.45	25.12	285	0.06
51	18.60	35.28	4.21	30	19.06	35.26	4.20	25.23	275	0.09
73	17.88	35.19	3.56	50	18.60	35.28	4.20	25.35	263	0.14
86	17.10	35.10	2.79	75	17.83	35.19	3.51	25.47	252	0.20
100	15.68	34.89	1.45	100	15.68	34.89	1.45	25.75	225	0.27
127	14.93	34.97	1.49 <sup>a)</sup>	150	13.27	34.85	0.59	26.24	179	0.37
148	13.35	34.85	0.61	200	12.06	34.80	0.33	26.44	160	0.45
196	12.11	34.80	0.34	250	11.54	34.74	0.27	26.50	154	0.54
240	11.63	34.75	0.29	300	10.90	34.73	0.22	26.61	144	0.61
292	11.01	34.74	0.22	400	9.12	34.63	0.13	26.83	123	0.75
389	9.32	34.63	0.14	500	7.95	34.60	0.10	26.99	108	0.87
486	8.10	34.60	0.10	600	7.03	34.58	0.10	27.10	97	0.98
583	7.17	34.58	0.10	700	6.23	34.54	0.10	27.19	89	1.08
709	6.16	34.54	0.10							

a) Mean value between 1.41 and 1.57.

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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SPENCER F. BAIRD; February 9, 1957; 2000 GCT; 24°18.5'N, 109°12'W; sounding, 1710 fm; wind, 320°, force 4; weather, clear; sea, rough; wire angle, 18°.

148<sup>2</sup>G.72

0	20.82	35.01	4.30	0	20.82	35.01	4.30	24.57	338	0.00
9	20.79	34.99	4.30	10	20.77	34.99	4.30	24.57	338	0.03
28	20.70	35.00	4.33	20	20.74	35.00	4.32	24.58	337	0.07
51	17.39	34.98	2.26	30	20.68	35.00	4.34	24.60	335	0.10
73	15.26	34.73	0.71	50	17.61	34.99	2.38	25.38	261	0.16
85	15.07	34.78	1.05	75	15.22	34.74	0.76	25.74	226	0.22
99	14.04	34.75	0.67	100	13.97	34.75	0.65	26.02	200	0.28
125	13.42	34.71	0.53	150	12.57	34.70	0.38	26.27	176	0.37
148	12.60	34.70	0.39	200	11.99	34.75	0.25	26.42	162	0.46
196	12.04	34.75	0.25	250	11.05	34.70	0.20	26.55	149	0.54
240	11.20	34.71	0.22	300	10.47	34.67	0.15	26.63	142	0.61
293	10.58	34.67	0.15	400	9.17	34.61	0.14	26.80	126	0.75
390	9.28	34.61	0.15	500	7.85	34.55	0.12	26.96	110	0.87
485	8.06	34.56	0.12	600	6.73	34.51	0.13	27.09	98	0.98
583	6.88	34.51	0.13	700	5.96	34.51	0.15	27.20	88	1.08
777	5.46	34.51	0.15	800	5.35	34.51	0.17	27.27	81	1.18
972	4.68	34.52	0.19	1000	4.59	34.53	0.20	27.37	72	1.34
1163	4.08	34.57	0.34	1200	3.98	34.58	0.38	27.47	62	1.50
1429	3.39	34.60	0.63	1500	3.22	34.61	0.72	27.58	52	1.70
1953	2.28	34.64	1.46	2000	2.23	34.64	1.50	27.68	42	1.99
2451	1.89	34.65	1.89	2500	1.90	34.66	1.92	27.72	38	2.24
2834	1.90	34.68	1.94							

SPENCER F. BAIRD; February 19, 1957; 0906 GCT; 23°40.5'N, 109°28'W; sounding, 250 fm; wind, calm; weather, cloudy; sea, slight; wire angle, 08°.

151G40

0	21.12	35.02	4.40	0	21.12	35.02	4.40	24.49	345	0.00
10	21.07	35.03	4.38	10	21.07	35.03	4.38	24.51	343	0.03
30	19.95	35.05	4.28	20	20.60	35.04	4.32	24.65	330	0.07
53	19.04	35.28	4.33	30	19.95	35.05	4.28	24.83	313	0.10
77	15.59	34.70	1.32	50	19.10	35.25	4.33	25.21	277	0.16
80	14.98	34.66	1.08	75	16.34	34.81	1.75	25.55	244	0.22
102	14.46	34.66	0.79	100	14.50	34.66	0.80	25.84	217	0.28
131	13.95	34.85	0.80	150	13.22	34.84	0.61	26.24	179	0.38
153	13.14	34.84	0.58	200	12.12	34.81	0.37	26.44	160	0.47
203	12.07	34.81	0.35	250	11.43	34.78	0.25	26.54	150	0.55
250	11.43	34.78	0.25	300	10.58	34.71	0.21	26.64	141	0.62
304	10.50	34.70	0.20							
368	9.62	34.65	0.16							

SPENCER F. BAIRD; February 19, 1957; 1144 GCT; 23°47.5'N, 109°13.5'W; sounding, 1200 fm; wind, 310°, force 4; weather, partly cloudy; sea, moderate; wire angle, 20°.

151G.55

0	20.70	35.05	4.51	0	20.70	35.05	4.51	24.63	332	0.00
10	20.70	35.05	4.50	10	20.70	35.05	4.50	24.63	332	0.03
28	20.19	35.12	4.70	20	20.52	35.08	4.60	24.69	326	0.07
51	18.58	35.28	4.17	30	20.04	35.14	4.69	24.88	308	0.10
75	17.64	35.25	3.93	50	18.62	35.28	4.18	25.34	264	0.16
88	16.94	35.17	3.23	75	17.64	35.25	3.93	25.58	242	0.22
101	15.64	35.04	2.03	100	15.74	35.05	2.11	25.86	215	0.28
127	14.27	34.96	1.17	150	13.20	34.79	0.43	26.21	182	0.38
148	13.24	34.79	0.43	200	12.12	34.80	0.25	26.44	160	0.46
194	12.21	34.81	0.27	250	11.34	34.75	0.17	26.54	150	0.54
237	11.53	34.77	0.19	300	10.58	34.68	0.12	26.63	142	0.62
287	10.78	34.70	0.12	400	9.00	34.60	0.15	26.82	124	0.75
382	9.26	34.61	0.16	500	7.67	34.53	0.10	26.98	109	0.88
478	7.91	34.54	0.10	600	6.73	34.52	0.10	27.09	98	0.98
570	7.00	34.52	0.09	700	5.90	34.51	0.11	27.20	88	1.08
757	5.52	34.51	0.14	800	5.29	34.52	0.16	27.28	80	1.18
945	4.64	34.54	0.23	1000	4.42	34.54	0.29	27.40	69	1.34
1128	3.93	34.56	0.43	1200	3.75	34.58	0.48	27.50	59	1.48
1389	3.36	34.61	0.60	1500	3.16	34.62	0.71	27.59	51	1.69
1888	2.44	34.64	1.36							

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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

151G.70

SPENCER F. BAIRD; February 9, 1957; 1500 GCT; 23°50.5'N, 109°00.5'W; sounding, 1320 fm; wind, 330°, force 5; weather, clear; sea, rough; wire angle, 25°.

0	20.59	34.97	4.15	0	20.59	34.97	4.15	24.60	335	0.00
9	20.61	34.96	4.02	10	20.60	34.96	4.00	24.59	336	0.03
27	20.58	34.87	3.90	20	20.59	34.90	3.95	24.54	340	0.07
49	17.72	34.73	1.66	30	20.58	34.87	3.90	24.53	341	0.10
70	15.32	34.62	0.71	50	17.60	34.72	1.60	25.18	280	0.16
82	14.28	34.65	0.43	75	14.81	34.63	0.55	25.74	226	0.23
94	13.68	34.74	0.44	100	13.43	34.74	0.40	26.12	190	0.28
118	12.82	34.74	0.26	150	12.75	34.85	0.42	26.35	168	0.37
139	12.88	34.87	0.42	200	11.86	34.74	0.26	26.44	160	0.45
183	12.19	34.78	0.33	250	11.13	34.70	0.15	26.54	150	0.53
225	11.38	34.69	0.17	300	10.57	34.69	0.12	26.64	141	0.61
274	10.83	34.72	0.13	400	9.20	34.59	0.11	26.79	127	0.75
364	9.65	34.60	0.10	500	7.87	34.56	0.10	26.96	110	0.87
455	8.52	34.58	0.12	600	6.81	34.54	0.09	27.10	97	0.98
545	7.32	34.54	0.08	700	6.06	34.54	0.12	27.21	87	1.08
731	5.85	34.54 <sup>a)</sup>	0.13	800	5.43	34.54	0.18	27.28	80	1.17
918	4.79	34.54 <sup>a)</sup>	0.24	1000	4.48	34.56	0.28	27.43	66	1.33
1103	4.14	34.56	0.33	1200	3.83	34.56	0.42	27.47	62	1.47
1363	3.37	34.57	0.66	1500	3.12	34.58	0.78	27.57	53	1.68
1884	2.44	34.63	1.41	2000	2.29	34.65	1.59	27.68	42	1.97
2068	2.20	34.65	1.65							

151G.70

SPENCER F. BAIRD; February 19, 1957; 1447, 1517 GCT; 23°55'N, 108°59'W; sounding, 1330 fm; wind, 310°, force 3; weather, cloudy; sea, moderate; wire angle, 19°, 25°.

1	20.73	35.05	4.67	0	(20.74)	(35.05)	(4.68)	(24.63)	(332)	(0.00)
10	20.64	35.03	4.56	10	20.64	35.03	4.56	24.63	332	0.03
29	18.87	34.99	3.36	20	19.88	35.01	3.97	24.82	314	0.06
53	17.44	35.03	2.93	30	18.85	34.99	3.36	25.07	290	0.10
75	15.54	34.74	1.11	50	17.67	35.04	3.01	25.41	258	0.15
89	14.62	34.69	0.52	75	15.54	34.74	1.11	25.68	232	0.21
101	14.18	34.67	0.43	100	14.21	34.67	0.44	25.91	210	0.27
				150	12.50	34.76	0.18	26.33	170	0.36
126	13.15	34.74	0.31	200	11.54	34.75	0.13	26.50	154	0.44
147	12.59	34.76	0.19	250	10.87	34.70	0.11	26.58	146	0.52
192	11.62	34.76	0.14	300	10.20	34.68	0.14	26.69	136	0.59
233	11.13	34.71	0.10	400	8.97	34.60	0.15	26.84	122	0.73
283	10.45	34.69	0.12	500	7.88	34.54	0.12	26.95	111	0.85
374	9.22	34.62	0.16	600	6.75	34.52	0.16	27.10	97	0.96
476	8.18	34.55	0.10	700	5.95	34.51	0.14	27.20	88	1.06
558	7.16	34.53	0.17	800	5.38	34.51	0.17	27.27	81	1.15
744	5.66	34.51	0.15	1000	4.49	34.54	0.33	27.39	70	1.32
931	4.80	34.52	0.25	1200	3.82	34.58	0.52	27.49	60	1.46
1117	4.02	34.57	0.44	1500	3.22	34.60	0.76	27.57	53	1.67
1379	3.45	34.59	0.63	2000	2.29	34.64	1.48	27.68	42	1.96
1905	2.39	34.63	1.32							
2180	1.95	34.64	1.86							

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>	$\sigma_t$	$\delta_{\tau}$	$\Delta D$
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10 <sup>-5</sup> cm <sup>3</sup> /g	dyn. m

SPENCER F. BAIRD; February 19, 1957; 1826 GCT; 24°02.5'N, 108°44.5'W; sounding, 900 fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 18°.

15IG.85

0	21.61	35.02	4.36	0	21.61	35.02	4.36	24.36	358	0.00
9	21.62	35.03	4.36	10	21.62	35.03	4.36	24.37	357	0.04
28	20.58	34.96	4.02	20	21.37	35.02	4.29	24.42	352	0.07
51	17.32	34.71	1.93	30	20.20	34.93	3.86	24.67	328	0.10
74	15.42	34.68	0.73	50	17.37	34.71	1.96	25.23	275	0.16
86	14.68	34.70	0.53	75	15.40	34.68	0.73	25.66	234	0.23
100	13.98	34.72	0.35	100	13.98	34.72	0.35	26.00	202	0.28
126	13.01	34.78	0.25	150	12.58	34.77	0.17	26.32	171	0.38
149	12.58	34.77	0.17	200	11.90	34.79	0.16	26.46	158	0.46
197	11.98	34.79	0.16	250	10.97	34.73	0.15	26.58	146	0.54
242	11.09	34.74	0.16	300	10.25	34.66	0.12	26.66	139	0.61
295	10.32	34.66	0.12	400	8.83	34.63	0.10	26.87	119	0.74
395	8.86	34.63	0.10	500	7.50	34.56	0.16	27.02	105	0.86
494	7.56	34.56	0.16	600	6.72	34.51	0.14	27.09	98	0.97
592	6.76	34.51	0.14	700	6.01	34.52	0.13	27.20	88	1.07
790	5.44	34.53	0.13	800	5.40	34.53	0.14	27.28	80	1.16
990	4.56	34.54	0.23	1000	4.52	34.54	0.24	27.39	70	1.32
1187	3.97	34.58	0.46							
1469	3.26	34.60	0.76							

SPENCER F. BAIRD; February 19, 1957; 2106 GCT; 24°09.5'N, 108°30.5'W; sounding, 680 fm; wind, 360°, force 1; weather, partly cloudy; sea, slight; wire angle, 00°.

15IG.100

0	21.03	35.08	4.56	0	21.03	35.08	4.56	24.57	338	0.00
10	20.80	35.07	4.46	10	20.80	35.07	4.46	24.62	333	0.03
30	19.60	35.07	3.98	20	20.34	35.07	4.28	24.76	320	0.07
50	17.58	35.01	3.16	30	19.60	35.07	3.98	24.94	302	0.10
70	15.82	34.76	1.61	50	17.58	35.01	3.16	25.41	258	0.15
84	15.00	34.78	0.97	75	15.55	34.76	1.38	25.68	232	0.21
97	13.78	34.70	0.21	100	13.62	34.70	0.21	26.06	196	0.27
125	12.72	34.76	0.19	150	12.32	34.75	0.10	26.35	168	0.36
148	12.36	34.75	0.10	200	11.88	34.75	0.12	26.44	160	0.44
194	11.96	34.76	0.12	250	11.24	34.71	0.09	26.52	152	0.52
242	11.33	34.71	0.10	300	10.89	34.72	0.09	26.60	145	0.60
292	10.97	34.72	0.08	400	9.27	34.62	0.11	26.80	126	0.74
386	9.48	34.63	0.11	500	7.85	34.57	0.10	26.98	109	0.86
484	8.05	34.58	0.11	600	6.76	34.52	0.10	27.10	97	0.97
576	6.98	34.52	0.10	700	5.97	34.52	0.13	27.20	88	1.07
769	5.54	34.52	0.16	800	5.40	34.52	0.18	27.27	81	1.16
962	4.77	34.52	0.30	1000	4.62	34.52	0.33	27.37	72	1.33
1157	4.02	34.56	0.51							

SPENCER F. BAIRD; February 19, 1957; 2334 GCT; 24°18'N, 108°16.5'W; sounding, 460 fm; wind, 330°, force 3; weather, partly cloudy; sea, slight; wire angle, 15°.

15IG.115

0	20.40	35.03	4.64	0	20.40	35.03	4.64	24.69	326	0.00
10	20.22	35.03	4.60	10	20.22	35.03	4.60	24.74	321	0.03
28	18.72	35.05	3.48	20	20.20	35.03	4.58	24.76	320	0.06
48	17.74	35.10	3.53	30	18.27	35.03	3.58	25.24	274	0.09
65	15.88	34.83	1.43	50	17.73	35.12	3.49	25.45	254	0.15
84	14.51	34.70	0.50	75	14.97	34.73	0.75	25.78	222	0.21
93	14.16	34.70	0.38	100	13.91	34.71	0.34	26.00	202	0.26
121	13.26	34.74	0.27	150	12.60	34.76	0.16	26.31	172	0.35
142	12.77	34.75 <sup>a)</sup>	0.19	200	11.94	34.78	0.11	26.45	159	0.44
186	12.10	34.78	0.10	250	11.25	34.75	0.10	26.55	149	0.52
231	11.55	34.78	0.12	300	10.58	34.70	0.09	26.64	141	0.59
277	10.86	34.72	0.08	400	9.28	34.64	0.11	26.81	125	0.73
368	9.76	34.66	0.12	500	7.92	34.59	0.08	26.99	108	0.85
463	8.36	34.60	0.09	600	6.93	34.55	0.09	27.10	97	0.96
554	7.36	34.57	0.09	700	6.07	34.53	0.12	27.20	88	1.06
744	5.76	34.52	0.13							

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

S10  
CCOF1  
5702

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

151G.130 SPENCER F. BAIRD; February 20, 1957; 0122 GCT; 24°25'N, 108°02.5'W; sounding, 22 fm; wind, 270°, force 3; weather, partly cloudy; sea, slight; wire angle, 00°.

0	20.90	34.96	4.50 <sup>a)</sup>	0	20.90	34.96	4.50	24.51	343	0.00
10	20.87	34.95	4.49	10	20.87	34.95	4.49	24.50	344	0.03
30	19.48	34.92	3.84	20	20.28	34.94	4.26	24.66	329	0.07
40	18.38	34.76	2.60	30	19.48	34.92	3.84	24.85	311	0.10

154G.70 SPENCER F. BAIRD; February 9, 1957; 1036 GCT; 23°27'N, 108°43'W; sounding, 985 fm; wind, 330°, force 4; weather, clear; sea, rough; wire angle, 15°.

0	21.24	34.79	4.13	0	21.24	34.79	4.13	24.29	364	0.00
10	21.27	34.78	4.24	10	21.27	34.78	4.24	24.27	366	0.04
33	18.88	35.24	3.82	20	20.06	35.03	4.13	24.79	317	0.07
57	17.63	35.21	2.92	30	19.06	35.22	3.90	25.20	278	0.10
84	14.06	34.74	0.53	50	18.05	35.24	3.29	25.46	253	0.15
96	13.57	34.76	0.49	75	15.67	34.95	1.50	25.81	220	0.21
109	13.37	34.83	0.47	100	13.45	34.80	0.47	26.16	186	0.26
141	12.68	34.83	0.36	150	12.45	34.82	0.32	26.38	166	0.35
163	12.24	34.81	0.30	200	11.82	34.79	0.23	26.48	156	0.44
215	11.62	34.78	0.21	250	11.12	34.71	0.21	26.55	149	0.51
265	10.90	34.69	0.20	300	10.72	34.67	0.17	26.60	145	0.59
321	10.55	34.67	0.13	400	9.31	34.62	0.11	26.79	127	0.73
430	8.81	34.60	0.11	500	7.86	34.59	0.12	26.89	117	0.86
532	7.45	34.54	0.12	600	6.82	34.53	0.10	27.09	98	0.97
631	6.54	34.53	0.09	700	6.06	34.53	0.10	27.20	88	1.07
842	5.20	34.54	0.18	800	5.43	34.54	0.16	27.28	80	1.16
1043	4.29	34.55	0.28	1000	4.47	34.55	0.27	27.40	69	1.32
1252	3.68	34.56	0.50	1200	3.82	34.56	0.43	27.47	62	1.47
1526	3.08	34.59	0.86	1500	3.14	34.59	0.82	27.57	53	1.67

157G.40 SPENCER F. BAIRD; February 9, 1957; 0036 GCT; 22°48'N, 108°55'W; sounding, 1650 fm; wind, 350°, force 4; weather, clear; sea, rough; wire angle, 13°.

0	21.65	34.86	3.97	0	21.65	34.86	3.97	24.22	371	0.00
10	21.64	34.86	4.23	10	21.64	34.86	4.23	24.23	370	0.04
29	21.34	34.94	3.85	20	21.47	34.90	4.02	24.30	363	0.07
38	21.28	34.94	4.32 <sup>u</sup>	30	21.32	34.94	3.84	24.38	356	0.11
47	21.07	34.87 <sup>u</sup>	3.71	50	20.70	34.87	3.57	24.50	344	0.18
56	18.58	34.65	2.83	75	16.10	34.67	1.50	25.49	250	0.25
65	17.36	34.75	2.48	100	14.39	34.67	0.82	25.87	214	0.31
79	15.64	34.65	1.18	150	12.43	34.77	0.23	26.34	169	0.41
93	14.63	34.65	0.83	200	11.94	34.80	0.34	26.46	158	0.49
107	14.01	34.70	0.77	250	11.22	34.76	0.27	26.56	148	0.57
130	13.15	34.74	0.23	300	10.08	34.66	0.12	26.69	136	0.64
157	12.34	34.78	0.26	400	8.77	34.59	0.13	26.86	120	0.78
188	12.02	34.80	0.34	500	7.54	34.55	0.13	27.01	106	0.90
235	11.53	34.78	0.30							
309	9.98	34.65	0.11							
403	8.76	34.59	0.13							
527	7.20	34.54	0.13							

a) Mean value between 4.40 and 4.60.

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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5702

SPENCER F. BAIRD; February 9, 1957; 0447 GCT; 23°03'N, 108°26.5'W; sounding, 1650 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 22°.

157G.70

0	21.78	34.73	4.15	0	21.78	34.73	4.15	24.09	383	0.00
9	21.78	34.74	3.87	10	21.77	34.74	3.87	24.10	382	0.04
28	21.76	34.75	4.34u	20	21.75	34.75	3.86	24.12	381	0.08
50	21.33	34.70	3.84	30	21.73	34.75	3.86	24.12	380	0.11
70	17.60	34.76	2.91	50	21.33	34.70	3.84	24.20	373	0.19
82	15.75	34.61	1.14	75	17.80	34.87	2.67	25.24	274	0.27
94	14.62	34.61	0.86	100	14.42	34.64	0.78	25.84	217	0.33
120	13.64	34.73	0.48	150	12.43	34.72	0.26	26.30	173	0.43
141	12.60	34.70	0.29	200	11.86	34.77	0.16	26.46	158	0.52
186	12.00	34.78	0.18	250	11.05	34.70	0.11	26.55	149	0.59
228	11.45	34.74	0.11	300	10.19	34.64	0.11	26.66	139	0.67
278	10.52	34.65	0.11	400	8.90	34.59	0.12	26.84	122	0.80
370	9.24	34.61	0.11	500	7.73	34.55	0.16	26.99	108	0.92
468	8.06	34.56	0.15	600	6.77	34.54	0.18	27.11	96	1.03
558	7.14	34.54	0.17	700	5.98	34.54	0.21	27.22	86	1.13
748	5.66	34.54	0.22	800	5.35	34.53	0.20	27.29	79	1.22
938	4.66	34.52	0.20	1000	4.45	34.53	0.26	27.39	70	1.38
1124	4.06	34.57	0.39	1200	3.83	34.57	0.47	27.48	61	1.53
1385	3.34	34.57	0.70	1500	3.14	34.58	0.83	27.56	54	1.73
1897	2.45	34.67	1.40	2000	2.31	34.67	1.52	27.70	40	2.02
2306	1.93	34.67	1.82							

SPENCER F. BAIRD; February 23, 1957; 1115 GCT; 22°14.5'N, 108°27.5'W; sounding, 1550 fm; wind, 340°, force 3; weather, clear; sea, slight; wire angle, 08°.

160G.20

0	22.36	34.61	4.26	0	22.36	34.61	4.26	23.84	407	0.00
10	22.30	34.63	4.18	10	22.30	34.63	4.18	23.88	404	0.04
29	22.11	34.68	4.22	20	22.20	34.66	4.20	23.93	399	0.08
43	20.86	34.73	3.85	30	22.10	34.68	4.22	23.96	396	0.12
53	19.40	34.74	3.24	50	20.00	34.74	3.48	24.59	336	0.19
62	18.48	34.69	3.02	75	16.50	34.54	2.87	25.30	268	0.27
71	17.27	34.61	3.03	100	14.02	34.49	0.93	25.81	220	0.33
89	14.55	34.36	1.45	150	12.58	34.73	0.30	26.28	175	0.43
102	13.92	34.52	0.86	200	11.79	34.72	0.15	26.44	160	0.51
116	12.98	34.62	0.56	250	11.12	34.72	0.10	26.56	148	0.59
140	12.73	34.70	0.37	300	10.43	34.69	0.11	26.65	140	0.67
167	12.30	34.74	0.22	400	9.00	34.62	0.12	26.84	122	0.80
204	11.70	34.72	0.14	500	7.69	34.57	0.12	27.01	106	0.92
255	11.01	34.72	0.10							
334	9.96	34.66	0.12							
433	8.48	34.60	0.12							
571	6.94	34.55	0.12							

SPENCER F. BAIRD; February 23, 1957; 0639 GCT; 22°37.5'N, 107°48.5'W; sounding, 1570 fm; wind, calm; weather, clear; sea, slight; wire angle, 00°.

160G.30

0	22.31	34.85	4.27	0	22.31	34.85	4.27	24.04	388	0.00
10	22.24	34.84	4.26	10	22.24	34.84	4.26	24.05	387	0.04
29	21.93	34.88	4.32	20	22.09	34.86	4.29	24.10	382	0.08
44	21.54	34.91	4.29	30	21.92	34.88	4.32	24.17	376	0.12
54	20.78	34.83	3.92	50	21.25	34.88	4.16	24.36	358	0.19
63	18.96	34.70	2.60	75	16.43	34.53	1.20	25.30	268	0.27
72	16.90	34.54	1.37	100	14.26	34.59	0.53	25.83	218	0.33
91	14.82	34.55	0.71	150	12.77	34.74	0.28	26.26	177	0.43
105	13.96	34.61	0.40	200	11.82	34.73	0.21	26.44	160	0.51
118	13.49	34.65	0.20	250	11.19	34.70	0.15	26.52	152	0.59
140	13.03	34.73	0.25	300	10.43	34.65	0.13	26.63	142	0.67
168	12.28	34.72	0.31	400	9.06	34.56	0.13	26.79	127	0.81
205	11.78	34.73	0.18	500	7.96	34.53	0.13	26.93	113	0.94
257	11.09	34.69	0.15							
336	9.84	34.61	0.13							
432	8.68	34.54	0.13							
571	7.18	34.52	0.12							

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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	$10^{-5} \frac{\text{cm}^3}{\text{g}}$	dyn. m

1606.40

SPENCER F. BAIRD; February 23, 1957; 0311 GCT; 22°57.5'N, 107°11'W; sounding, 920 fm; wind, 340°, force 2; weather, clear; sea, slight; wire angle, 10°.

0	22.41	34.95	4.33	0	22.41	34.95	4.33	24.08	384	0.00
10	21.98	34.94	4.34	10	21.98	34.94	4.34	24.20	373	0.04
29	21.30	34.94	4.34	20	21.61	34.94	4.34	24.30	363	0.07
44	20.81	35.03	4.15	30	21.30	34.94	4.33	24.39	355	0.11
54	18.73	34.81	3.15	50	19.61	34.92	3.63	24.82	314	0.18
64	17.55	34.63	2.01	75	15.83	34.54	0.97	25.44	255	0.25
73	16.06	34.54	1.06	100	14.06	34.60	0.45	25.89	212	0.31
91	14.52	34.57	0.54	150	12.45	34.80	0.11	26.36	167	0.40
105	13.82	34.63	0.38	200	11.78	34.79	0.17	26.49	155	0.48
118	13.24	34.72	0.16	250	11.04	34.76	0.13	26.60	145	0.56
142	12.65	34.78	0.10	300	10.38	34.71	0.10	26.68	137	0.63
170	12.06	34.81	0.16	400	9.09	34.63	0.13	26.84	122	0.77
207	11.69	34.79	0.18	500	7.81	34.58	0.14	26.99	108	0.89
257	10.93	34.75	0.12							
336	9.92	34.68	0.10							
434	8.65	34.61 <sup>a)</sup>	0.14							
573	6.88	34.56	0.14							

1606.45

SPENCER F. BAIRD; February 22, 1957; 2335 GCT; 23°07'N, 106°52.5'W; sounding, 490 fm; wind, 280°, force 3; weather, partly cloudy; sea, slight; wire angle, 07°.

0	23.65	34.96	4.14	0	23.65	34.96	4.14	23.74	417	0.00
10	23.19	34.97	4.10	10	23.19	34.97	4.10	23.88	404	0.04
30	22.70	34.94	4.07	20	22.96	34.95	4.09	23.94	398	0.08
44	20.28	34.86	3.64	30	22.70	34.94	4.07	23.99	393	0.12
53	17.86	34.64	1.82	50	18.82	34.72	2.61	24.88	308	0.19
63	16.17	34.55	1.20	75	14.49	34.61	0.46	25.81	220	0.26
71	14.88	34.56	0.69	100	13.32	34.70	0.14	26.12	190	0.31
85	13.87	34.70	0.15	150	12.37	34.77	0.11	26.35	168	0.40
98	13.37	34.70	0.14	200	11.82	34.76	0.11	26.46	158	0.48
118	12.82	34.70	0.14	250	11.27	34.72	0.11	26.53	151	0.56
141	12.48	34.76	0.14	300	10.58	34.66	0.11	26.61	144	0.64
169	12.13	34.78	0.09	400	9.18	34.60	0.13	26.80	126	0.78
207	11.76	34.76	0.12	500	8.02	34.57	0.14	26.94	112	0.90
258	11.19	34.72	0.11							
338	9.96	34.62	0.14							
436	8.76	34.59	0.14							
574	7.17	34.57	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
80.51-B	7	0400	34°26.5'	120°32.5'	50	260°	3	partly cloudy	smooth	12.46	33.48	12.20	33.51
80.55-B	7	0550	34°19.0'	120°48.0'	419	260°	3	partly cloudy	smooth	12.06	33.49	11.58	33.51
80.60-B	7	0900	34°09.0'	121°09.0'	1250	270°	3	partly cloudy	moderate	12.15	33.43	11.52	33.52
80.70-B	7	1415	33°49.0'	121°51.0'	2000	140°	1	cloudy	slight	11.80	33.42	11.30	33.46
80.80-B	7	1900	33°29.0'	122°32.0'	2000	180°	4	cloudy	rough	12.78	33.37	12.16	33.30
80.90-B	8	0000	33°09.0'	123°13.0'	2600	180°	4	cloudy	rough	11.78	33.18	11.49	33.26
82.47-B	8	2240	34°15.0'	119°58.0'	320	090°	4	cloudy	rough	12.14	33.45	10.42	33.62
83.40-B	9	0400	34°14.0'	119°22.0'	13	calm		cloudy	smooth	12.88	33.50	-	-
83.43-B	9	0200	34°08.0'	119°34.0'	135	120°	1	cloudy	moderate	12.70	33.46	11.10	33.48
83.51-B	8	1820	33°52.0'	120°08.5'	70	080°	4	cloudy	rough	12.42	33.43	11.14	33.48
83.52-B	8	1730	33°50.0'	120°12.0'	290	080°	4	cloudy	rough	12.18	33.44	11.24	33.56
83.60-B	8	1330	33°37.5'	120°45.5'	900	100°	4	cloudy	rough	11.96	33.39	11.78	33.49
87.36-B	9	0936	33°48.0'	118°41.5'	500	010°	1	cloudy	smooth	13.34	33.48	13.03	33.49
87.38-B	9	1030	33°44.0'	118°50.0'	500	-		missing	missing	13.36	33.51	13.18	33.51
87.40-B	9	1230	33°40.0'	118°58.5'	500	-		missing	missing	13.46	33.51	12.36	33.45
87.50-B	9	1900	33°20.0'	119°39.5'	39	270°	3	cloudy	slight	12.93	33.41	12.44	33.42
87.55-B	9	2130	33°10.0'	120°00.5'	650	290°	3	cloudy	smooth	13.36	33.44	12.74	33.40
87.60-B	10	0035	33°00.0'	120°21.5'	420	-		cloudy	smooth	12.85	33.33	12.16	33.41
90.28-B	12	0210	33°28.5'	117°46.5'	200	250°	2	missing	missing	14.52	33.56	11.85	33.48

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
90.30-B	12	0040	33°24.5'	117°55.0'	310	300°	1	cloudy	slight	14.48	33.57	11.90	33.44
90.55-B	11	0930	32°35.0'	119°37.0'	600	320°	4	cloudy	rough	14.17	33.56	12.90	33.48
90.60-B	11	0550	32°25.0'	119°57.5'	700	360°	3	cloudy	moderate	13.92	33.57	12.61	33.40
90.70-B	11	0045	32°04.5'	120°39.0'	2200	020°	4	cloudy	slight	13.00	33.40	12.64	33.39
90.80-B	10	2120	31°49.0'	121°18.5'	2450	030°	4	cloudy	slight	14.22	33.51	13.82	33.42
90.90-B	10	1545	31°29.0'	122°02.0'	2100	040°	2	cloudy	moderate	13.86	33.43	13.00	33.42
93.27-B	12	0700	32°56.0'	117°19.0'	150	090°	1	fog	smooth	14.12	33.53	12.76	33.49
93.30-B	12	0900	32°50.0'	117°31.5'	420	calm		fog	slight	14.82	33.56	11.75	33.35
93.40-B	14	0000	32°30.0'	118°12.5'	950	290°	4	clear	moderate	15.02	33.57	13.28	33.48
93.50-B	14	0515	32°10.0'	118°53.5'	800	320°	4	clear	moderate	14.52	33.59	11.60	33.49
93.60-B	14	1000	31°50.0'	119°34.0'	1200	310°	6	clear	rough	14.29	33.56	13.75	33.54
93.70-B	14	1515	31°29.0'	120°14.0'	2200	300°	4	fog	rough	14.45	33.49	14.06	33.53
97.30-B	15	1720	32°15.5'	117°09.0'	33	280°	1	overcast	moderate	14.00	33.53	10.86	33.64
97.32-B	15	1620	32°11.5'	117°17.0'	750	270°	1	overcast	slight	14.02	33.53	11.80	33.53
97.40-B	15	1200	31°55.5'	117°50.0'	900	280°	2	overcast	moderate	15.22	33.56	14.70	33.53
97.60-B	15	0015	31°15.0'	119°11.0'	2100	320°	4	cloudy	very rough	14.26	33.57	13.51	33.51
97.70-B	14	1930	30°54.5'	119°44.0'	1950	320°	5	cloudy	very rough	14.45	33.50	13.93	33.47
100.29-B	15	2210	31°42.0'	116°43.5'	70	200°	2	overcast	moderate	14.37	33.55	12.12	33.51
100.33-B	16	0040	31°34.5'	116°59.0'	720	270°	1	overcast	moderate	14.82	33.57	11.90	33.45

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
100.40-B	16	0420	31°21.0'	117°27.0'	1100	200°	2	overcast	moderate	14.98	33.54	12.84	33.47
100.50-B	16	0900	31°01.0'	118°07.0'	1000	240°	3	overcast	moderate	14.64	33.53	14.01	33.48
100.60-B	16	1400	30°44.0'	118°40.0'	1600	280°	2	overcast	moderate	15.48	33.63	15.08	33.58
100.70-B	16	1830	30°27.5'	119°13.5	1900	320°	3	overcast	moderate	15.02	33.58	14.58	33.57
100.80-B	17	0100	30°01.0'	120°07.0'	2000	300°	2	cloudy	rough	15.18	33.58	14.10	33.52
100.90-B	17	0550	29°40.5'	120°47.0'	2200	320	3	partly cloudy	slight	15.10	33.54	14.76	33.54
103.30-B	18	1400	31°05.0'	116°25.0'	40	320°	1	cloudy	moderate	14.46	33.48	11.67	33.45
103.35-B	18	1100	30°55.5'	116°45.0'	1100	290°	2	cloudy	moderate	15.32	33.55	14.65	33.50
103.38-B	18	0915	30°49.5'	116°57.0'	1350	320°	3	cloudy	moderate	15.95	33.62	13.88	33.47
103.40-B	18	0800	30°45.5'	117°05.5'	960	320°	3	cloudy	slight	15.62	-	14.13	-
103.50-B	18	0220	30°25.5'	117°45.5'	1500	300°	3	cloudy	moderate	15.16	-	13.66	-
103.60-B	17	2130	30°06.0'	118°25.5'	2000	310°	4	cloudy	moderate	15.61	33.64	15.21	33.57
103.70-B	17	1630	29°46.0'	119°05.5'	2150	320°	3	cloudy	moderate	15.59	33.68	14.91	33.60
107.32-B	18	2200	30°26.0'	116°11.0'	365	290°	4	cloudy	moderate	15.12	33.53	12.54	33.40
107.35-B	19	0010	30°20.0'	116°23.0'	1050	280°	4	rain	rough	15.15	33.57	13.46	33.45
107.40-B	19	0300	30°10.5'	116°43.5'	1550	260°	3	cloudy	rough	16.06	33.63	15.16	33.58
107.50-B	19	0730	29°50.5'	117°23.5'	1350	270°	3	cloudy	moderate	15.40	33.62	15.01	33.59
107.60-B	19	1215	29°31.0'	118°03.0'	2100	260°	3	cloudy	moderate	15.54	33.62	15.18	33.60
107.70-B	19	1710	29°11.0'	118°43.0'	2100	270°	2	cloudy	moderate	15.76	33.64	16.22	33.71

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
110.33-B	21	0735	29°50.5'	115°52.0'	42	-		missing	missing	15.00	33.53	12.16	33.40
110.35-B	21	0630	29°46.5'	116°00.0'	700	320°	3	missing	moderate	15.72	33.61	13.74	33.46
110.40-B	21	0345	29°36.5'	116°19.5'	1350	320°	3	partly cloudy	slight	15.58	33.60	15.28	33.46
110.50-B	20	2300	29°16.5'	116°59.0'	1800	320°	3	partly cloudy	slight	16.00	33.63	14.80	33.58
110.60-B	20	1800	28°56.5'	117°39.0'	2100	100°	2	partly cloudy	calm	16.55	33.72	16.28	33.68
110.70-B	20	1230	28°36.5'	118°18.0'	2000	calm		partly cloudy	calm	16.62	33.73	16.66	33.75
110.80-B	20	0745	28°16.5'	118°58.0'	2250	090°	1	partly cloudy	smooth	16.60	33.71	16.28	33.70
110.90-B	20	0300	27°56.5'	119°36.0'	2200	calm		partly cloudy	smooth	17.01	33.75	16.66	33.78
113.30-H	21	0325	29°21.5'	115°16.5'	40	310°	4	partly cloudy	moderate	15.65	33.68	12.42	33.48
113.35-H	21	0130	29°12.5'	115°39.0'	675	310°	3	partly cloudy	moderate	15.97	33.62	14.86	33.51
113.40-H	20	2300	29°03.0'	115°59.0'	1000	310°	3	cloudy	moderate	15.90	33.62	14.93	33.58
113.50-H	20	1900	28°42.5'	116°40.0'	1850	310°	2	partly cloudy	moderate	16.20	33.66	15.64	33.64
113.60-H	20	1545	28°24.5'	117°15.5'	1950	calm		partly cloudy	slight	16.43	33.71	15.78	33.62
113.70-H	20	1215	28°05.5'	117°52.0'	2000	320°	1	cloudy	moderate	16.70	33.75	16.44	33.71
117.26-H	18	0705	28°54.5'	114°40.5'	40	310°	4	overcast	moderate	16.85	33.86	13.74	33.66
117.35-H	18	0050	28°38.0'	115°16.0'	110	300°	4	cloudy	moderate	15.60	33.58	12.74	33.47
117.40-H	19	1935	28°27.5'	115°36.5'	500	320°	1	cloudy	moderate	15.60	33.58	13.82	33.44
117.50-H	19	2304	28°07.5'	116°15.5'	2150	320°	2	cloudy	moderate	16.52	33.75	15.91	33.72
117.60-H	20	0445	27°51.0'	116°56.0'	1950	310°	1	partly cloudy	slight	16.61	33.75	15.36	33.58

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
117.70-H	20	0845	27°32.0'	117°31.0'	1900	310°	1	cloudy	slight	16.66	33.71	16.20	33.68
118.39-H	19	0215	28°19.5'	115°24.0'	150	310°	3	overcast	moderate	16.66	33.84	14.83	33.80
119.33-H	17	2105	28°17.5'	114°53.5'	60	320°	4	cloudy	moderate	17.16	33.89	16.34	33.86
120.25-H	18	0850	28°23.0'	114°14.5'	40	310°	4	overcast	moderate	16.72	33.77	15.24	33.68
120.30-H	18	1120	28°13.0'	114°34.0'	50	310°	3	overcast	moderate	16.42	33.62	14.96	33.60
120.35-H	16	1620	28°03.0'	114°54.0'	42	310°	3	partly cloudy	moderate	16.46	33.71	15.32	33.63
120.40-H	16	1415	27°56.5'	115°14.0'	20	320°	3	cloudy	moderate	16.07	33.77	14.16	33.78
120.45-H	15	0850	27°42.5'	115°34.5'	1500	360°	3	overcast	moderate	16.96	33.87	14.76	33.65
120.50-H	16	0630	27°33.0'	115°52.5'	2000	360°	2	partly cloudy	moderate	18.86	34.15	18.94	34.18
120.55-H	16	0330	27°20.5'	116°09.5'	2100	320°	4	cloudy	rough	19.20	34.14	18.50	34.21
120.60-H	16	0050	27°11.5'	116°29.0'	2000	320	4	cloudy	rough	18.96	34.15	18.02	34.05
120.70-H	15	2050	26°58.0'	117°07.0'	2100	320°	4	cloudy	rough	16.81	33.71	16.30	33.71
120.80-H	15	1600	26°27.5'	117°47.0'	2100	320°	4	cloudy	rough	17.70	33.86	16.69	33.77
123.37-H	14	1920	27°24.5'	114°39.0'	35	calm		partly cloudy	slight	18.27	-	14.58	33.85
123.42-H	14	2215	27°12.0'	115°03.5'	1000	360°	5	partly cloudy	moderate	17.69	33.92	14.86	33.73
123.50-H	15	0130	26°58.5'	115°29.0'	1950	310°	4	partly cloudy	moderate	18.84	34.18	17.51	33.98
123.55-H	15	0430	26°48.0'	115°50.0'	2050	310°	4	partly cloudy	moderate	17.62	33.96	16.94	33.95
123.60-H	15	0700	26°38.5'	116°09.0'	2000	310°	4	overcast	moderate	19.36	34.25	19.01	34.26
127.34-H	14	1415	26°50.5'	114°12.5'	30	320°	2	partly cloudy	slight	18.02	34.16	15.96	33.96

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
127.40-H	14	1155	26°40.0'	114°33.0'	1750	320°	3	partly cloudy	moderate	19.10	34.33	18.54	34.33
127.45-H	14	0930	26°31.5'	114°50.0'	1700	320°	3	partly cloudy	moderate	19.16	34.28	17.39	34.11
127.50-H	14	0730	26°23.5'	115°08.0'	1975	340°	3	partly cloudy	moderate	18.88	34.23	17.96	34.22
127.55-H	14	0445	26°14.0'	115°26.5'	-	330°	3	partly cloudy	moderate	18.44	34.10	14.39	33.66
127.60-H	14	0215	26°01.0'	115°40.0'	1950	300°	3	partly cloudy	moderate	19.56	34.25	19.10	34.28
130.30-H	13	1015	26°29.0'	113°29.0'	40	300°	2	clear	slight	18.98	34.28	17.26	34.22
130.35-H	13	1230	26°18.5'	113°48.5'	345	310°	3	clear	slight	18.78	34.30	17.70	34.21
130.40-H	13	1435	26°07.5'	114°09.0'	1100	320°	2	clear	slight	20.08	34.29	19.00	34.22
130.50-H	13	1825	25°53.0'	114°46.0'	1750	300°	2	clear	slight	19.13	34.14	18.00	34.09
130.60-H	13	2230	25°28.0'	115°20.5'	1825	320°	4	partly cloudy	moderate	19.53	34.05	17.97	33.92
133.25-H	13	0555	26°04.5'	112°48.0'	40	300°	2	clear	slight	18.89	34.31	14.97	33.82
133.30-H	13	0335	25°54.5'	113°07.5'	80	310°	2	clear	slight	19.59	34.31	18.52	34.31
133.40-H	12	1650	25°34.5'	113°34.5'	1450	320°	2	clear	slight	19.60	34.22	18.91	34.16
133.50-H	12	1235	25°16.0'	114°22.0'	1730	320°	3	clear	slight	18.88	34.20	18.20	34.21
137.23-H	11	2150	25°34.0'	112°18.5'	35	280°	2	fog	slight	18.77	34.33	14.57	34.01
137.30-H	12	0040	25°25.5'	112°47.5'	120	310°	2	light fog	slight	19.20	34.30	18.19	34.31
137.35-H	12	0245	25°18.0'	113°08.5'	500	360°	2	partly cloudy	slight	19.43	34.24	17.42	33.96
137.40-H	12	0515	25°00.0'	113°23.5'	1625	290°	2	partly cloudy	slight	19.92	34.20	18.78	34.23
137.50-H	12	0920	24°44.5'	114°00.0'	1850	300°	2	clear	slight	19.83	34.41	19.22	34.14

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
140.30-H	11	1630	24°45.5'	112°24.0'	60	060°	1	fog	slight	20.24	34.48	16.29	34.00
140.35-H	11	1420	24°36.0'	112°43.0'	600	280°	2	clear	slight	19.34	34.35	17.94	34.32
140.40-H	11	1150	24°25.5'	113°02.0'	1800	320°	2	clear	moderate	19.38	34.27	19.06	34.42
140.50-H	11	0725	24°05.5'	113°39.5'	2200	320°	2	clear	moderate	20.05	34.31	19.79	34.32
143.26-H	9	1600	24°19.0'	111°48.0'	75	320°	2	clear	moderate	18.46	34.22	15.44	34.26
143.40-H	10	2310	23°51.0'	112°42.0'	1650	320°	3	partly cloudy	slight	21.76	34.59	20.94	34.53
143.50-H	11	0310	23°25.0'	113°19.5'	2000	320°	3	partly cloudy	slight	22.69	34.39	19.65	34.36
119G.66-F	13	0115	28°30.5'	111°57.5'	18	320°	4	clear	moderate	15.35	35.08		
123G.30-F	13	1240	27°37.5'	112°11.0'	525	320°	4	clear	slight	16.32	35.20		
129G.87-F	14	1120	27°12.5'	110°47.5'	760	300°	2	clear	slight	16.46	35.14		
131G.94-F	14	1346	26°59.0'	110°25.5'	365	calm		clear	slight	16.68	35.17		
135G.35-F	15	0900	25°58.0'	110°57.5'	330	150°	2	partly cloudy	slight	19.31	35.18		
137G.30-F	15	1125	25°36.0'	110°52.0'	280	130°	2	partly cloudy	slight	18.75	35.26		
141G.96-F	16	1650	25°37.5'	109°30.5'	250	320°	3	cloudy	slight	17.03	34.95		
143G.100-F	16	1940	25°19.0'	109°13.0'	180	320°	2	cloudy	slight	20.12	35.12		
151G.137-F	20	0330	24°11.0'	107°45.5'	27	320°	3	clear	slight	21.86	34.88		
155G.144-F	20	0550	23°57.0'	107°28.5'	49	320°	2	clear	moderate	21.92	34.78		
157G.150-F	20	0804	23°43.0'	107°12.0'	55	350°	3	clear	slight	19.89	34.78		

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

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