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UNIVERSITY OF CALIFORNIA SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

PHYSICAL AND CHEMICAL DATA

CCOFI Cruise 5601
5-18 January 1956

and

CCOFI Cruise 5602
3-21 February 1956

SIO Reference 60-5
27 August 1959

UNIVERSITY OF CALIFORNIA
SCRIPPS INSTITUTION OF OCEANOGRAPHY

PHYSICAL AND CHEMICAL DATA

CCOFI CRUISE 5601
5-18 January 1956

and

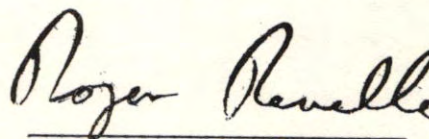
CCOFI CRUISE 5602
3-21 February 1956

Sponsored by

Marine Research Committee

SIO Reference 60-5
10 November 1959

Approved for distribution:



Roger Revelle, Director

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INTRODUCTION

The data presented in this report were collected on the eightieth and eighty-first consecutive cruises of the California Cooperative Oceanic Fisheries Investigations program. The R/V Horizon and the R/V Stranger of the Scripps Institution participated in the eightieth cruise, and the R/V Black Douglas of the U. S. Fish and Wildlife Service and the R/V Spencer F. Baird and the R/V Stranger of the Scripps Institution participated in the eighty-first 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; however, the data contained in this report have been carefully edited and no modifications should be necessary before final publication.

STANDARD PROCEDURES

Processing of the Cruise 5602 data was carried out using the method described by Klein.^{1/} 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 ΔD . 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, messenger times and wire angles are given in the order of increasing depth. A line is left blank between the observed data of each cast.

^{1/}Klein, Hans T. A new technique for processing physical oceanographic data. MS.

FOOTNOTES

Footnotes which appear frequently are "loose bottle cap" and "possible evaporation." To avoid any confusion as to their meaning the following explanation is included.

Laboratory personnel, before titrating the salinity samples, note any possible imperfections in the sealing of the bottles as follows:

Loose bottle cap: The cap is definitely loose so that it could be moved with very little applied pressure. The salinity values obtained from these samples may be usable depending on time and/or conditions of storage.

Possible evaporation: Either the cap was sealed with less than usual pressure, the bottle edge chipped, the rubber washer cracked, or the bale broke on opening, etc.

Use of the above values in interpolation depends upon consistency with other values of salinity and other properties, and these footnotes are supplemented with "falls on property curve" or "does not fall on property curve," depending upon whether the property curve was drawn through the value or not.

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

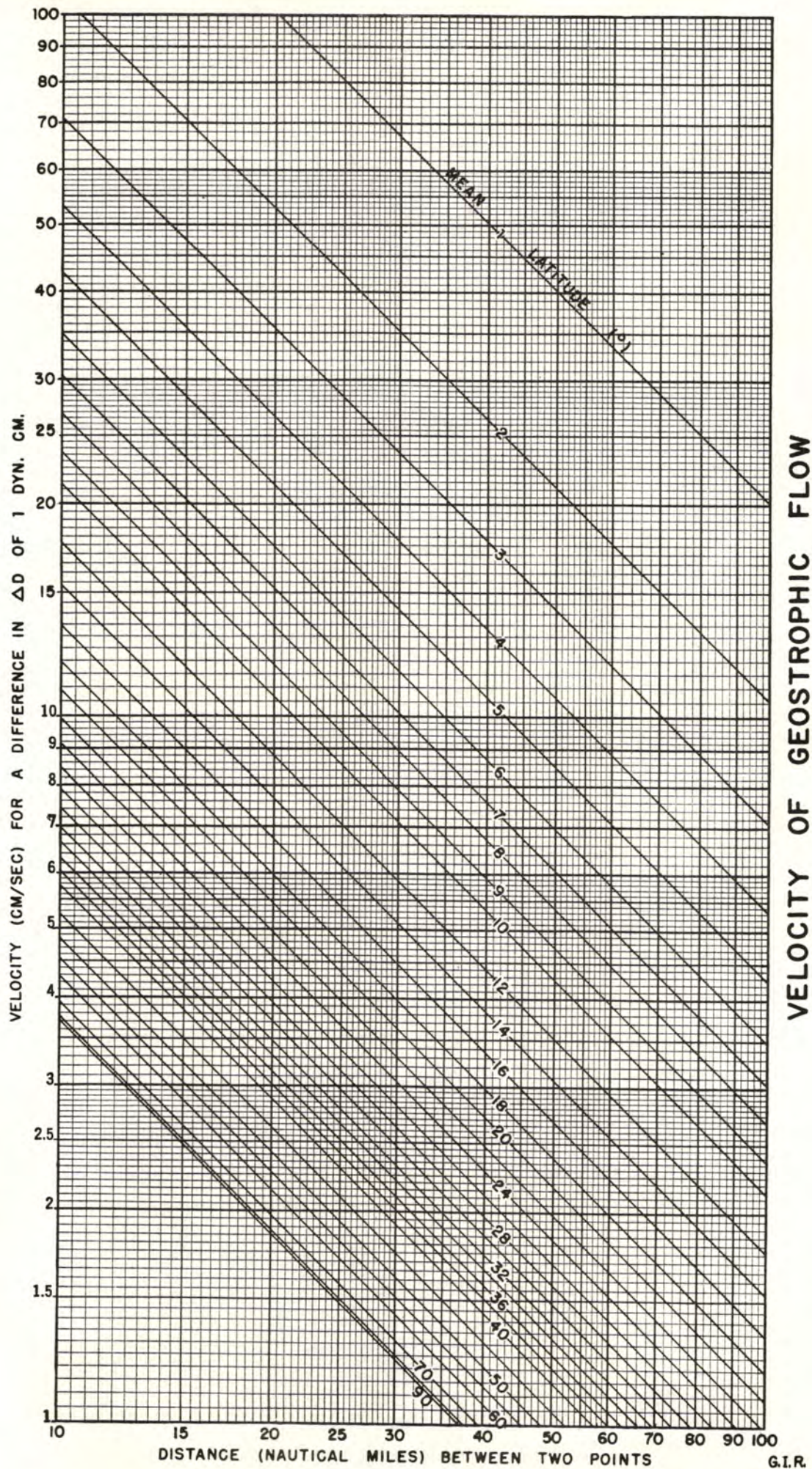
To indicate a premature or a delayed reversal of the water-sampling device which results in certain depth and property errors, the following notation is used.

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).



FIGURES

1. CCOFI Cruise 5602, station positions
2. Horizontal distribution of dynamic height anomaly (0 over 500 d-bar)
3. Surface currents measured by geomagnetic electrokinetograph (GEK)
4. Horizontal distribution of temperature at 10 meters
5. Horizontal distribution of salinity at 10 meters
6. Horizontal distribution of temperature at 200 meters
7. Horizontal distribution of salinity at 200 meters

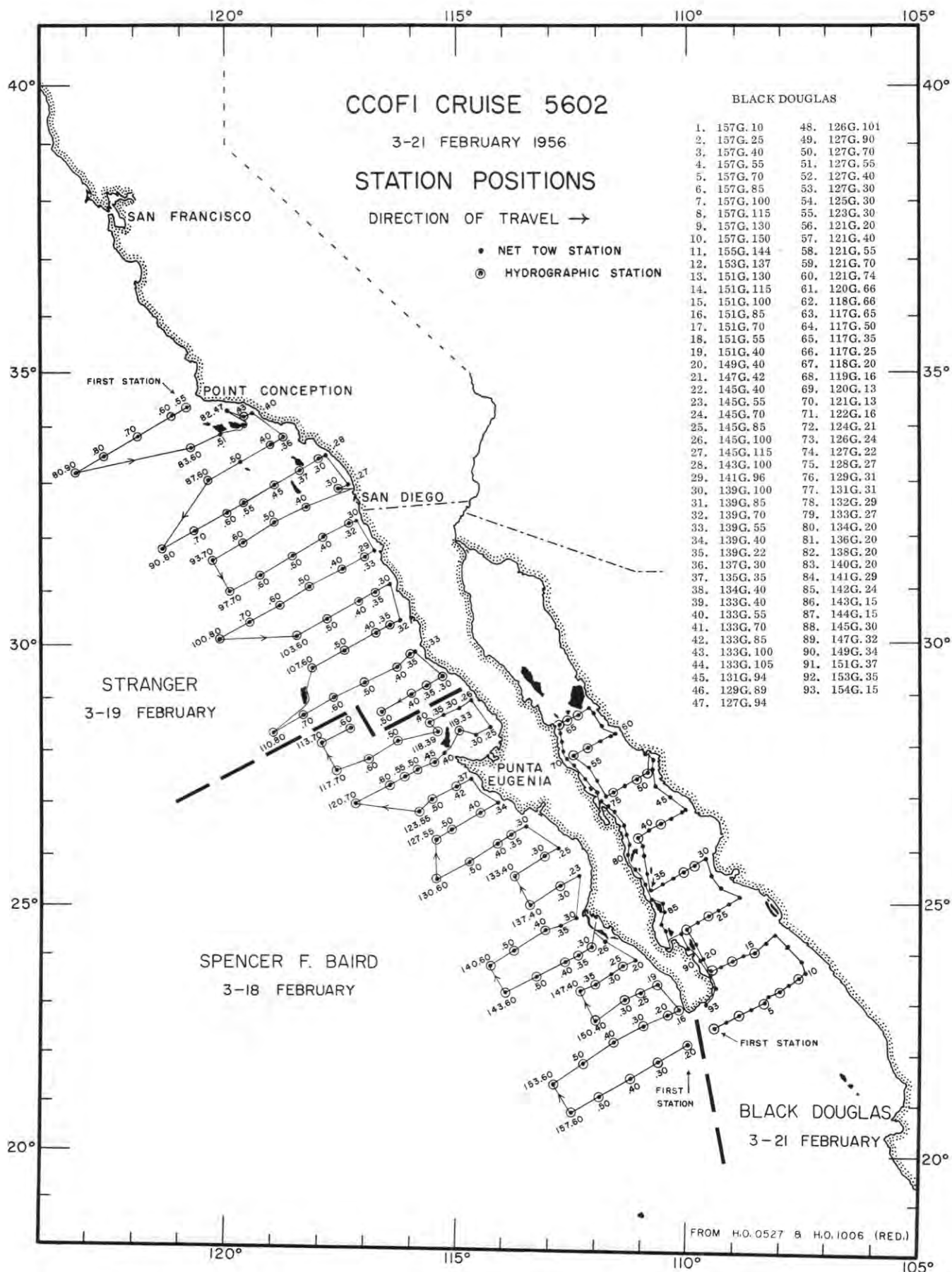


FIGURE 1

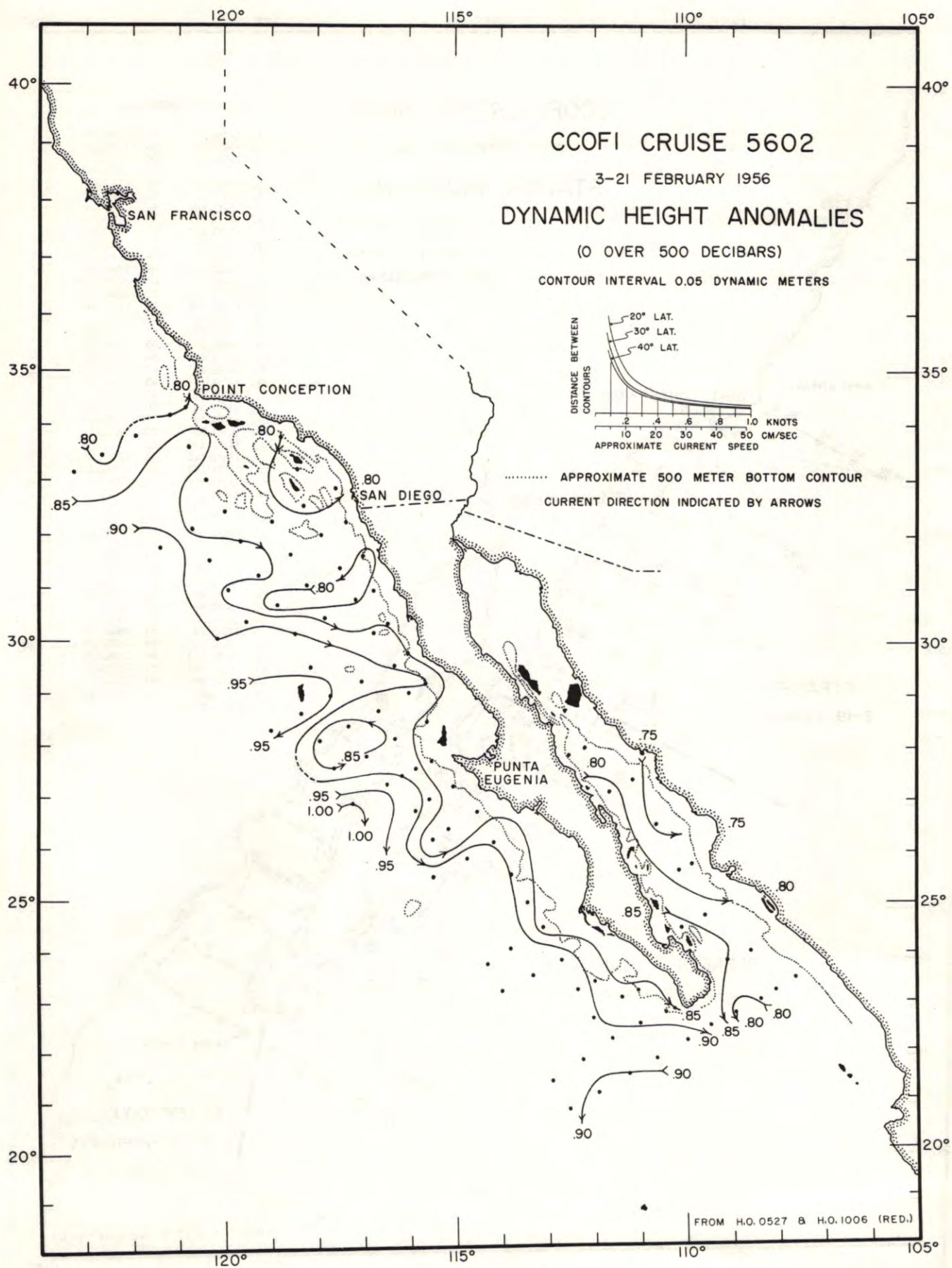


FIGURE 2

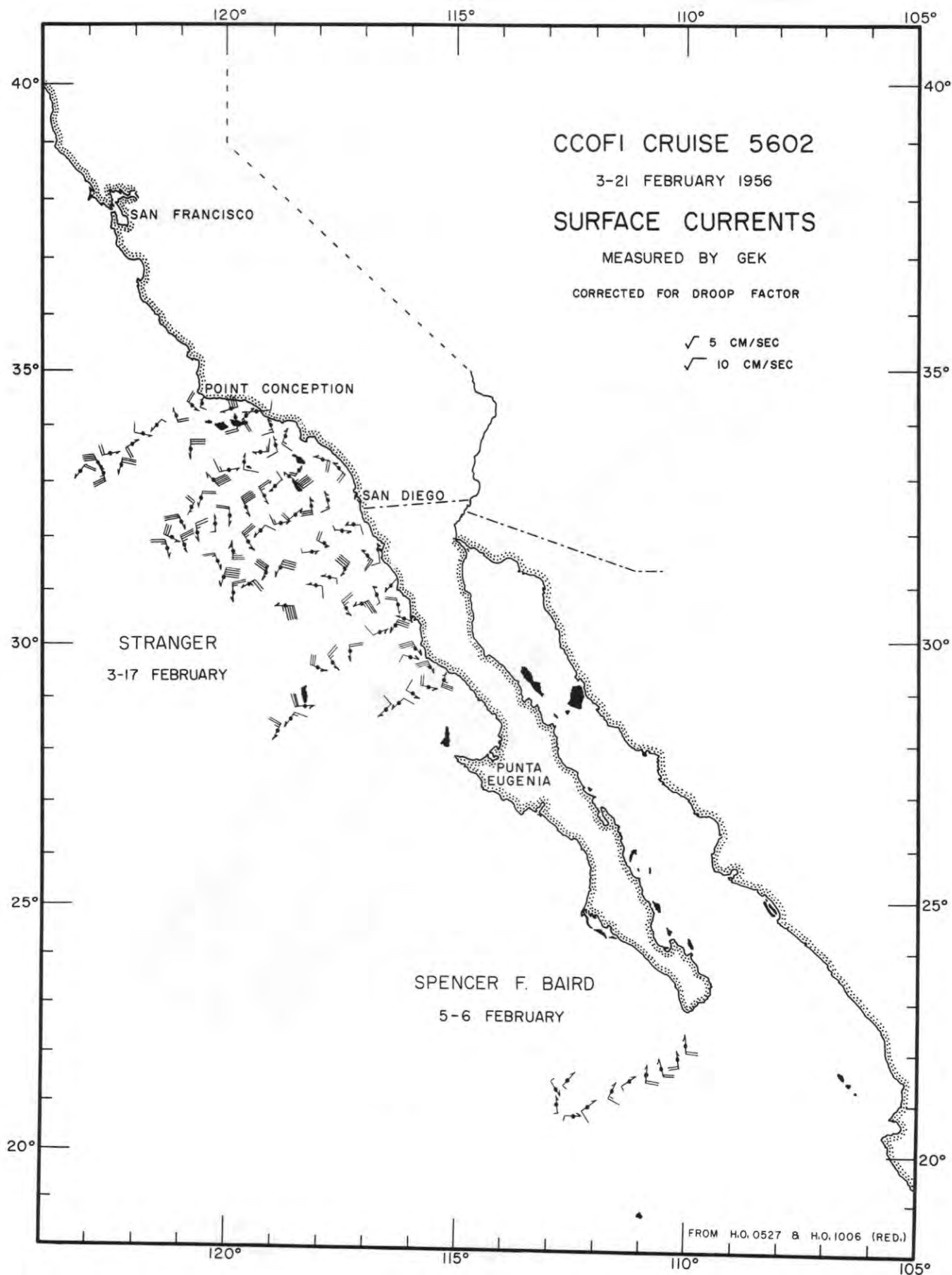


FIGURE 3

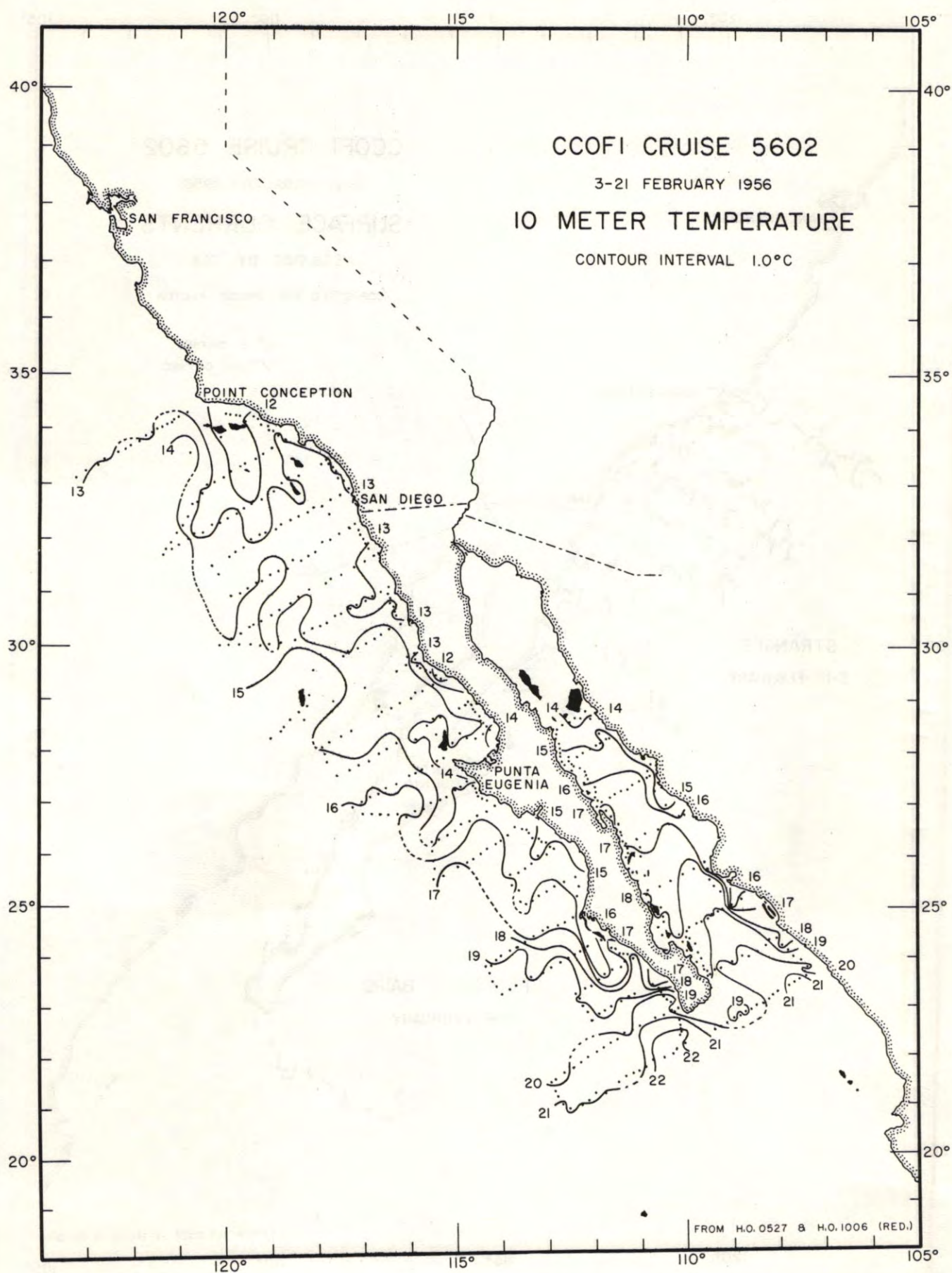


FIGURE 4

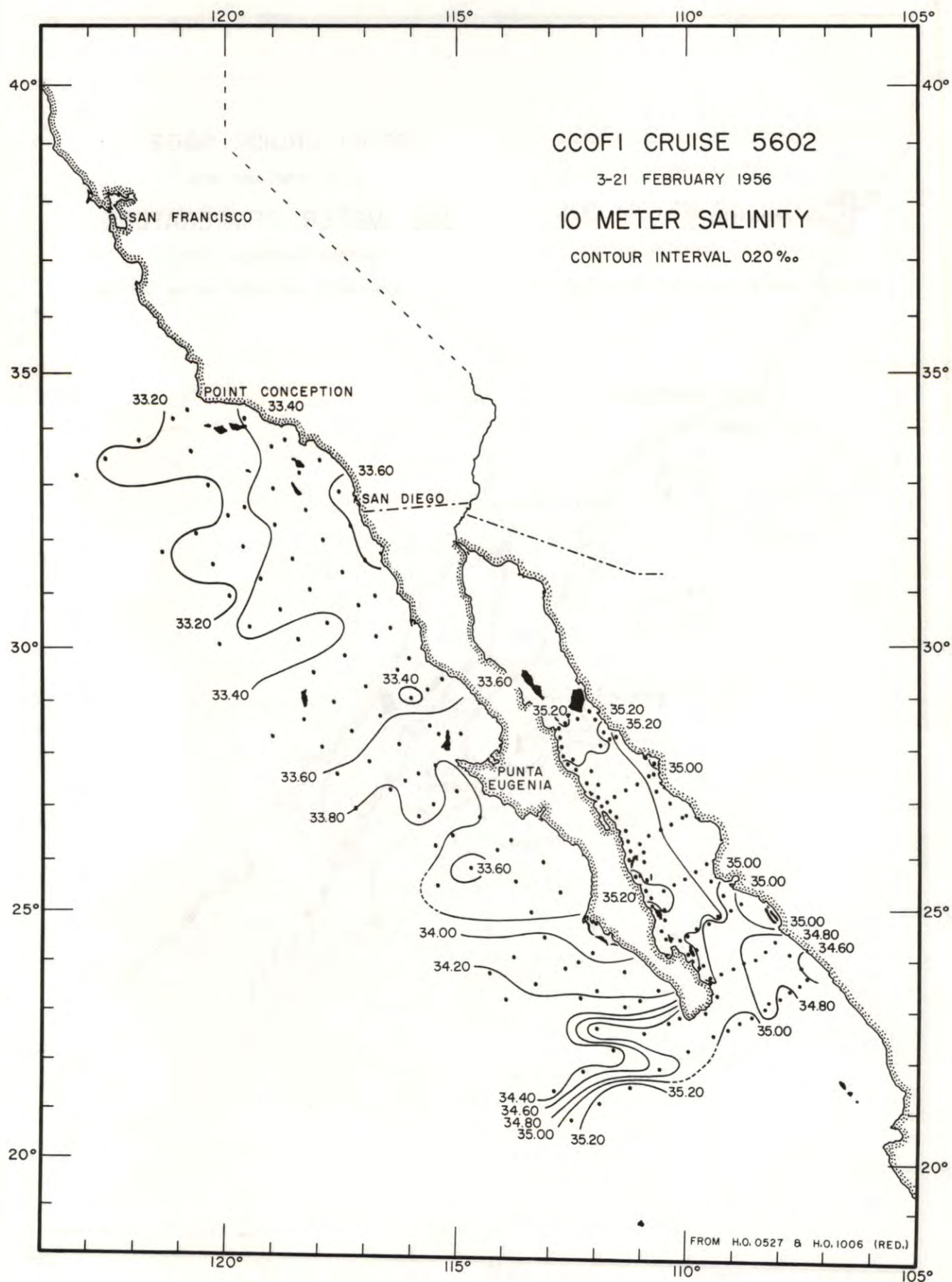


FIGURE 5

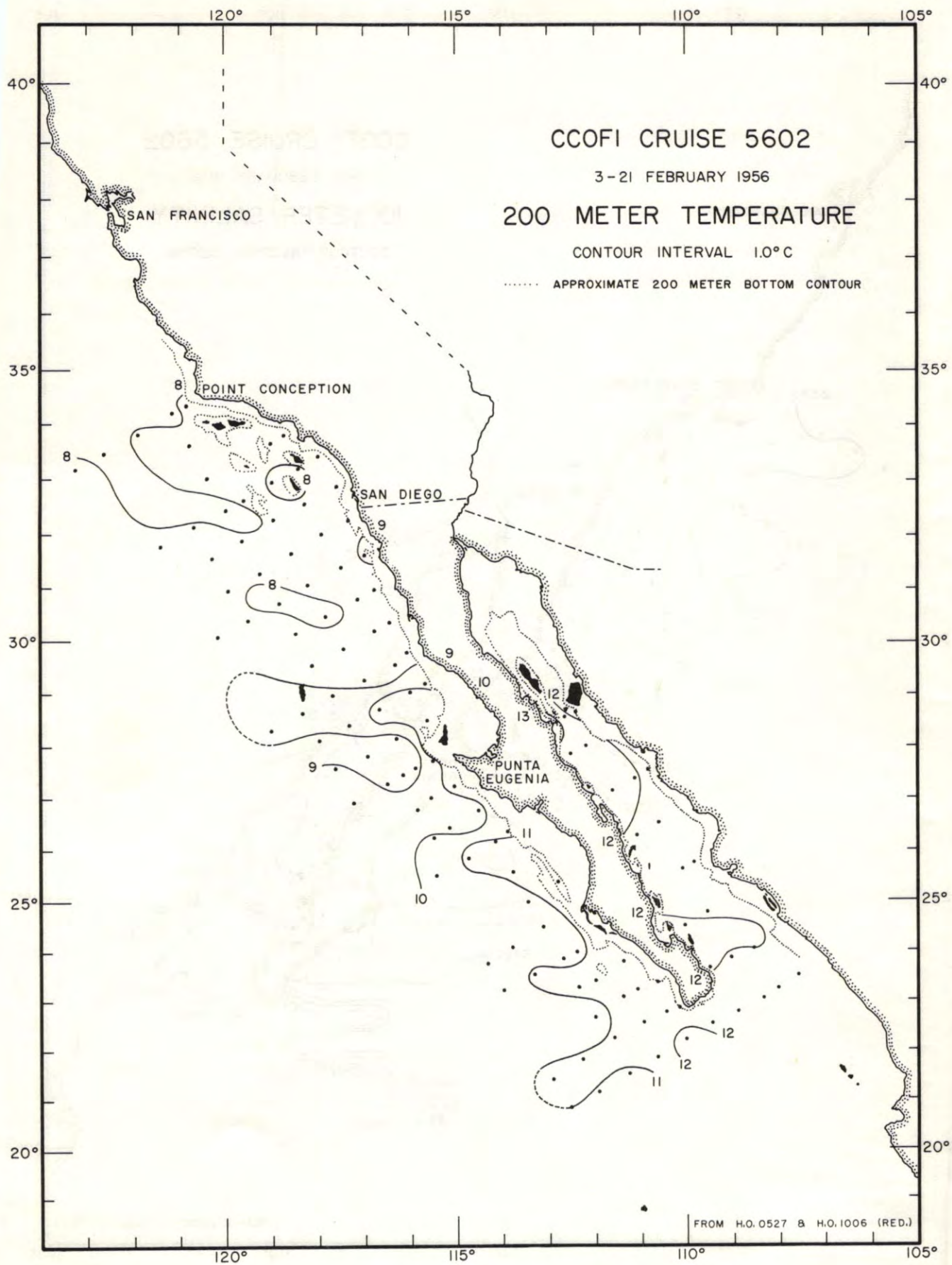


FIGURE 6

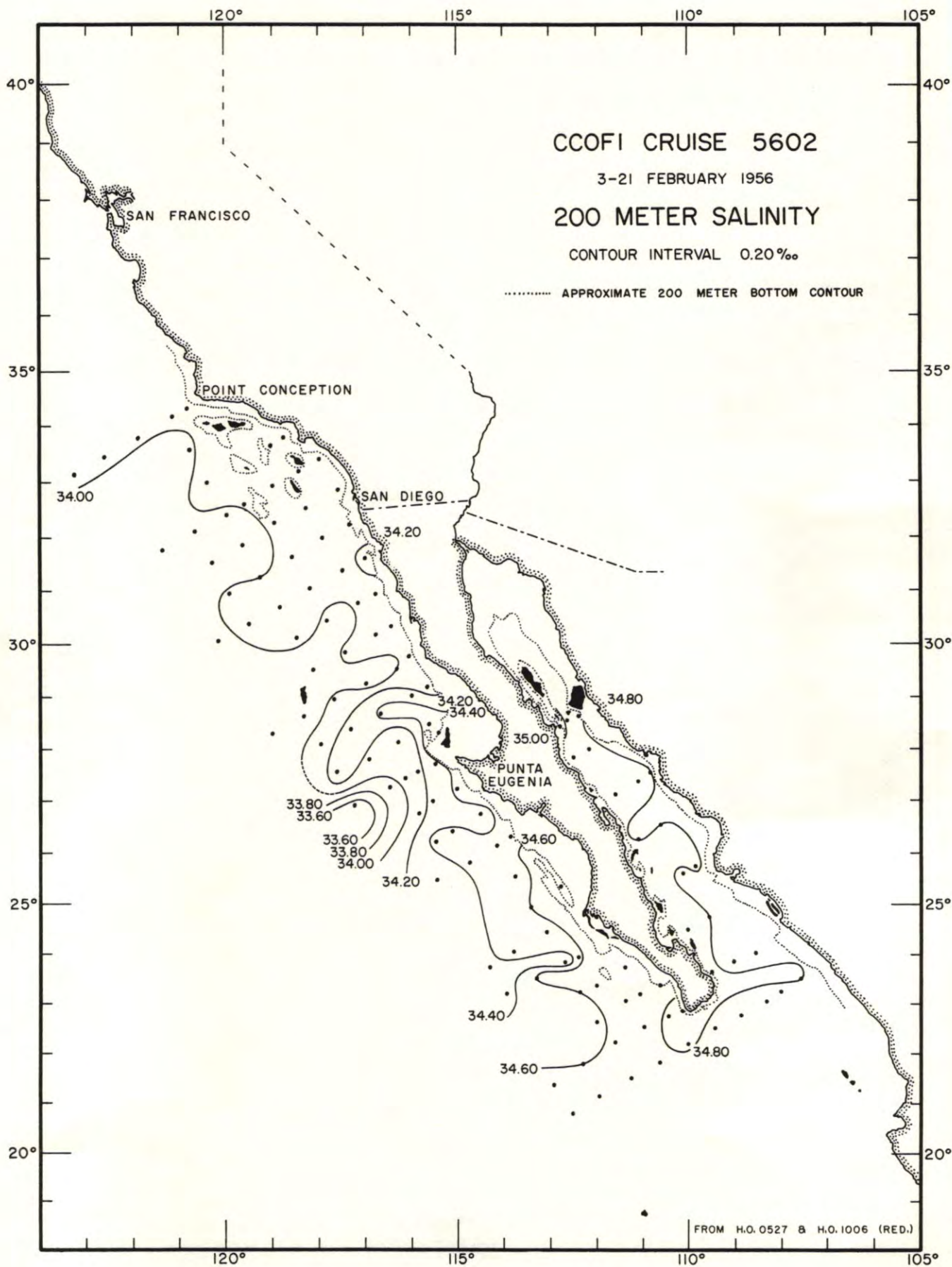


FIGURE 7

PERSONNEL
Cruise 5602

SHIPS' CAPTAINS

Cole, Walter C., R/V Spencer F. Baird
Davis, Laurence E., R/V Stranger
Forster, Charles W., R/V Black Douglas

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

R/V Black Douglas

Counts, Robert C., Fishery Research Biologist, U. S. Fish and Wildlife Service
Counts, Charles A., Visiting Observer
Hapgood, William F., Fishery Aid, U. S. Fish and Wildlife Service
Simpson, John G., Junior Scientist, Inter-American Tropical Tuna Commission
Vroomann, Andrew M., Fishery Research Biologist, U. S. Fish and Wildlife Service

R/V Spencer F. Baird

Linn, Robert J., Senior Marine Technician
Bower, Donald R., Fishery Aid, U. S. Fish and Wildlife Service
Jaynes, John M., Marine Technician
Reith, A. Dougall, Senior Marine Technician

R/V Stranger

Worrall, Charles G., Senior Marine Technician
*Cunningham, Leonard M., Jr., Senior Marine Technician
Gibson, Tom, Fishery Aid, U. S. Fish and Wildlife Service
**Kaye, Hugh R., Marine Technician

-
- * Participated in cruise 9-19 February.
** Participated in cruise 3-9 February.

SIO
CCOFI
5602

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

80.55 STRANGER; February 3, 1956; 2025 GCT; 34°18.5'N, 120°49.5'W; sounding, 400 fm; wind, 320°, force 3; weather, partly cloudy; sea, slight; wire angle, 08°.

0	12.95	33.18	6.10	295	0	12.95	33.18	6.10	25.02	295	0.00
10	12.60	33.30	6.38	280	10	12.60	33.30	6.38	25.18	280	0.03
31	12.42	33.44	5.98	267	20	12.52	33.39	6.12	25.26	272	0.06
41	12.02	33.46	5.98	258	30	12.45	33.44	6.00	25.31	267	0.08
50	10.76	33.44	4.90	237	50	10.76	33.44	4.90	25.63	237	0.13
60	10.60	33.48	4.84	232	75	9.68	33.52	4.23	25.87	214	0.19
70	9.88	33.50	4.35	218	100	9.03	33.68	3.92	26.10	192	0.24
79	9.59	33.54	4.16	211	150	8.76	33.96	2.54	26.36	167	0.33
90	9.26	33.61	3.95	201	200	8.40	34.05	2.17	26.49	155	0.41
98	9.08	33.67	3.95	193	250	7.72	34.11	1.96	26.64	141	0.49
122	8.76	33.80	3.52	178	300	7.14	34.16	1.39	26.76	129	0.56
151	8.76	33.96	2.54	167	400	6.46	34.28	0.76	26.94	112	0.68
198	8.42	34.05	2.19	155	500	6.14	34.32	0.59	27.03	104	0.80
255	7.64	34.11	1.92	140	600	(5.61)	(34.33)	(0.44)	(27.10)	(97)	(0.90)
355	6.70	34.21	0.90	120							
470	6.23	34.32	0.63	106							
590	5.63	34.33	0.44	98							

80.60 STRANGER; February 3, 1956; 2358 GCT; 34°08.5'N, 121°09.5'W; sounding, 1200 fm; wind, 310°, force 3; weather, clear; sea, slight; wire angle, 05°.

0	13.70	33.30	6.26	301	0	13.70	33.30	6.26	24.95	301	0.00
10	13.70	33.24	6.17	305	10	13.70	33.24	6.17	24.91	305	0.03
30	12.26	33.15	6.01	285	20	13.15	33.20	6.03	25.00	297	0.06
39	11.28	33.12	6.06	270	30	12.26	33.15	6.01	25.12	285	0.09
50	11.10	33.27	5.65	256	50	11.10	33.27	5.65	25.43	256	0.14
59	9.94	33.24	5.53	238	75	9.66	33.45	5.70	25.82	219	0.20
69	9.50	33.25	5.32	231	100	9.28	33.65	4.07	26.04	198	0.26
79	9.69	33.47	4.55	217	150	8.43	33.89	3.10	26.36	167	0.35
88	9.45	33.56	4.14	207	200	7.60	34.05	2.50	26.61	144	0.43
98	9.33	33.63	4.11	200	250	7.00	34.06	2.09	26.70	135	0.50
123	8.96	33.78	3.10	183	300	6.43	34.08	1.70	26.80	126	0.56
152	8.40	33.90	3.11	166	400	5.63	34.16	1.03	26.96	110	0.68
201	7.59	34.05	2.48	143	500	5.29	34.23	0.64	27.05	102	0.80
259	6.87	34.06	2.01	133	600	5.18	34.33	0.45	27.14	93	0.90
362	5.82	34.14	1.21	115							
480	5.36	34.21	0.79	104							
605	5.18	34.33	0.44	92							

80.70 STRANGER; February 4, 1956; 0711 GCT; 33°47'N, 121°53'W; sounding, 2000 fm; wind, 350°, force 3; weather, clear; sea, moderate; wire angle, 13°.

0	13.16	33.17		299	0	13.16	33.17		24.98	299	0.00
10	13.18	33.18		299	10	13.18	33.18		24.98	299	0.03
24	13.17	33.18		299	20	13.18	33.18		24.98	299	0.06
47	12.87	33.28		286	30	13.10	33.23		25.03	294	0.09
57	12.75	33.31		282	50	12.84	33.29		25.13	284	0.15
65	11.72	33.44		254	75	11.05	33.45		25.58	241	0.21
75	11.05	33.45		241	100	9.80	33.62		25.92	209	0.27
93	10.12	33.57		217	150	8.82	33.81		26.24	179	0.37
116	9.30	33.69		195	200	8.12	34.02		26.50	154	0.45
143	8.90	33.79		182	250	7.55	34.11		26.66	139	0.53
188	8.26	33.98		159	300	7.20	34.16		26.75	130	0.60
252	7.54	34.11		138	400	6.54	34.26		26.92	114	0.72
348	6.84	34.21		122	500	5.85	34.33		27.06	101	0.83
466	6.10	34.32		104	600	5.32	34.35		27.16	92	0.94
635	5.03	34.37		89	700	4.80	34.40		27.24	84	1.03
841	4.06	34.47		71	800	4.30	34.45		27.34	74	1.12

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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STRANGER; February 4, 1956; 1520 GCT; 33°26.5'N, 122°36.5'W; sounding, 2000 fm; wind, 330°, force 4; weather, cloudy; sea, moderate; wire angle, 06°.

80.80

0	12.69	33.40	6.30	274	0	12.69	33.40	6.30	25.24	274	0.00
10	12.64	33.35	5.90	277	10	12.64	33.35	5.90	25.21	277	0.03
24	12.70	33.40	5.54	274	20	12.70	33.39	5.65	25.23	275	0.06
48	12.20	33.50	5.39	258	30	12.64	33.42	5.50	25.27	271	0.08
59	11.07	33.48	4.91	239	50	12.01	33.50	5.31	25.44	255	0.13
68	10.69	33.55	4.51	228	75	10.09	33.62	3.98	25.88	213	0.19
77	10.02	33.63	3.94	211	100	9.00	33.74	3.07	26.15	187	0.24
95	9.16	33.70	3.15	192	150	8.41	33.98	2.54	26.44	160	0.33
117	8.74	33.86	2.89	174	200	7.99	34.08	2.12	26.58	147	0.41
147	8.42	33.98	2.56	161	250	7.52	34.14	1.51	26.69	136	0.48
193	8.02	34.07	2.21	148	300	7.07	34.15	1.28	26.76	129	0.55
258	7.46	34.15	1.49	135	400	6.23	34.19	0.83	26.90	116	0.67
356	6.54	34.16	1.05	121	500	5.68	34.29	0.50	27.06	101	0.79
478	5.80	34.27	0.58	104	600	5.20	34.35	0.45	27.16	91	0.89
650	4.94	34.38	0.45	86	700	4.80	34.40	0.47	27.24	84	0.98
862	4.21	34.46	0.60	73	800	4.48	34.43	0.57	27.30	78	1.07
1159	3.45	34.52	0.77	61	1000	3.80	34.49	0.70	27.43	66	1.23

STRANGER; February 4, 1956; 2030, 2106 GCT; 33°08.5'N, 123°14'W; sounding, 2000 fm; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, 17°, 17°.

80.90

0	12.79	33.16	6.33	293	0	12.79	33.16	6.33	25.04	293	0.00
9	12.76	33.12	6.42	295	10	12.76	33.12	6.40	25.02	295	0.03
23	12.76	33.13	6.27	295	20	12.76	33.12	6.32	25.02	295	0.06
					30	12.76	33.31	6.33	25.15	282	0.09
37p	12.74	33.37	6.34	277	50	12.43	33.40	6.24	25.28	270	0.14
47p	12.67	33.40	6.29	274	75	10.79	33.50	4.92	25.67	233	0.21
56p	11.72	33.40	6.24	257	100	9.77	33.58	4.01	25.90	211	0.26
64p	11.42	33.29u	5.90	-	150	8.58	33.91	2.78	26.35	168	0.36
80p	10.47	33.53	4.59	226	200	8.05	34.02	2.23	26.52	152	0.44
102p	9.70	33.58	3.97	210	250	7.52	34.09	1.94	26.65	140	0.51
128p	8.87	33.78	3.22	182	300	7.06	34.15	1.68	26.76	129	0.58
172p	8.34	33.98	2.47	159	400	6.16	34.21	1.03	26.92	114	0.71
231p	7.72	34.06	2.06	145	500	5.49	34.27	0.82	27.07	100	0.82
322p	6.82	34.18	1.53	124	600	5.02	34.34	0.76	27.18	90	0.92
433p	5.90	34.22	0.89	109	700	4.72	34.39	0.57	27.25	83	1.01
593p	5.08	34.34	0.78	91	800	4.38	34.44	0.51	27.32	76	1.10
792p	4.40	34.43	0.50	77	1000	3.80	34.49	0.76	27.43	66	1.25
1078p	3.62	34.51	0.85	63							

STRANGER; February 6, 1956; 2045 GCT; 34°08'N, 119°35'W; sounding, 126 fm; wind, 320°, force 2; weather, clear; sea, moderate; wire angle, 05°.

83.43

0	12.35	33.41	5.82	267	0	12.35	33.41	5.82	25.31	267	0.00
10	12.06	33.42	5.86	261	10	12.06	33.42	5.86	25.38	261	0.03
15	12.02	33.44	5.82	259	20	12.02	33.45	5.70	25.40	259	0.05
20	12.02	33.45	5.70	259	30	11.98	33.48	5.45	25.44	255	0.08
25	11.98	33.46	5.66	256	50	11.18	33.51	4.78	25.61	239	0.13
30	11.98	33.48	5.45	255	75	9.90	33.71	2.99	25.98	203	0.18
35	11.89	33.51	5.28	252	100	9.62	33.91	2.24	26.18	184	0.23
44	11.58	33.50	4.93	246	150	9.07	34.05	2.01	26.38	165	0.32
54	10.87	33.54	4.64	232							
65	10.50	33.64	3.77	218							
79	9.78	33.74	2.78	199							
98	9.63	33.90	2.22	185							
117	9.36	33.94	2.29	178							
150	9.07	34.05	2.01	165							

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OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m	

83.60

STRANGER; February 5, 1956; 1015 GCT; 33°33.5'N, 120°45'W; sounding, 900 fm; wind, 320°, force 6; weather, overcast; sea, rough; wire angle, 30°.

6	14.36	33.28	6.14	315	0	(14.36)	(33.28)	(6.14)	(24.81)	(315)	(0.00)	
13	14.36	33.27	6.22	315	10	14.36	33.27	6.19	24.81	315	0.03	
31	14.39	33.30	6.13	314	20	14.37	33.28	6.17	24.81	315	0.06	
43	14.38	33.29	6.05	315	30	14.39	33.30	6.13	24.82	314	0.09	
52	14.32	33.28	6.10	314	50	14.33	33.28	6.08	24.82	314	0.16	
60	14.07	33.33	5.70	306	75	12.39	33.32	5.62	25.23	275	0.23	
68	13.12	33.37	5.60	284	100	10.44	33.32	4.72	25.58	241	0.30	
76	12.34	33.31	5.62	274	150	9.04	33.76	3.18	26.16	186	0.40	
87	11.02	33.30	5.15	252	200	8.26	33.96	2.67	26.44	160	0.49	
95	10.63	33.30	4.95	246	250	7.58	34.04	2.27	26.61	144	0.57	
112	9.92	33.53	4.15	217	300	7.02	34.08	1.84	26.71	134	0.65	
134	9.33	33.68	3.39	196	400	6.00	34.17	0.93	26.92	114	0.77	
177	8.61	33.89	2.86	170	500	5.35	34.27	0.71	27.08	99	0.88	
227	7.90	34.01	2.48	151								
318	6.85	34.10	1.74	130								
428	5.74	34.20	0.79	109								
550	5.19	34.30	0.70	95								

87.36

STRANGER; February 7, 1956; 0322 GCT; 33°47.5'N, 118°42.5'W; sounding, 500 fm; wind, 320°, force 2; weather, clear; sea, slight; wire angle, 11°.

0	12.97	33.48		273	0	12.97	33.48		25.25	273	0.00	
10	12.96	33.47		274	10	12.96	33.47		25.24	274	0.03	
30	12.84	33.53		268	20	12.92	33.50		25.28	270	0.05	
39	12.04	33.50		255	30	12.84	33.53		25.30	268	0.08	
50	10.82	33.56		230	50	10.82	33.56		25.70	230	0.13	
59	10.51	33.62		220	75	9.82	33.74		26.02	200	0.18	
69	9.90	33.71		203	100	9.64	33.88		26.15	187	0.23	
78	9.82	33.76		198	150	9.22	34.03		26.34	169	0.32	
121p	9.44	33.96		178	200	8.77	34.13		26.50	154	0.41	
193p	8.81	34.12		156	250	8.31	34.19		26.62	143	0.48	
298p	7.88	34.24		133	300	7.82	34.24		26.72	133	0.55	
410p	6.82	34.31		114	400	6.95	34.30		26.90	116	0.68	
544p	6.07	34.35		102	500	6.25	34.34		27.02	105	0.80	

87.40

STRANGER; February 7, 1956; 0615 GCT; 33°39.5'N, 118°59'W; sounding, 450 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 07°.

0	12.73	33.48	6.25	269	0	12.73	33.48	6.25	25.29	269	0.00	
10	12.70	33.48	6.09	268	10	12.70	33.48	6.09	25.30	268	0.03	
15	12.62	33.48	6.18	267	20	12.56	33.49	5.97	25.33	265	0.05	
20	12.56	33.49	5.97	265	30	11.80	33.54	4.72	25.51	248	0.08	
25	12.34	33.49	5.48	261	50	10.14	33.64	3.26	25.89	212	0.13	
30	11.80	33.54	4.72	248	75	9.55	33.74	2.78	26.07	195	0.18	
40	10.53	33.55	4.03	225	100	9.33	33.89	2.42	26.22	181	0.22	
50	10.14	33.64	3.26	212	150	8.92	34.08	2.11	26.44	160	0.31	
65	9.79	33.71	2.81	201	200	8.34	34.19	1.52	26.61	144	0.39	
81	9.42	33.77	2.74	191	250	8.02	34.22	1.17	26.68	137	0.46	
100	9.33	33.89	2.42	181	300	7.46	34.24	0.89	26.78	128	0.53	
124	9.04	33.95	2.37	172	400	(6.81)	(34.29)	(0.57)	(26.91)	(115)	(0.65)	
161	8.84	34.13	1.94	156								
199	8.35	34.19	1.57	144								
246	8.04	34.22	1.19	137								
316	7.28	34.25	0.81	125								
395	6.81	34.29	0.57	116								

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{10^{-5} T_3}{cm/g}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5} T_3}{cm/g}$	dyn. m

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STRANGER; February 7, 1956; 1601 GCT; 32°59.5'N, 120°21.5'W; sounding, 390 fm; wind, 300°, force 2; weather, clear; sea, moderate; wire angle, 00°.

87.60

0	13.13	33.15	6.29	300	0	13.13	33.15	6.29	24.96	300	0.00
10	13.13	33.15	6.23	300	10	13.13	33.15	6.23	24.96	300	0.03
31	12.98	33.17	6.28	296	20	13.05	33.16	6.24	24.98	299	0.06
40	13.00	33.47	5.56	275	30	12.98	33.17	6.28	25.01	296	0.09
50	11.80	33.37	5.27	260	50	11.80	33.37	5.27	25.38	260	0.15
59	11.11	33.35	5.17	250	75	10.14	33.42	4.76	25.72	228	0.21
69	10.52	33.38	4.87	238	100	9.18	33.60	4.20	26.02	200	0.26
78	10.07	33.43	4.75	226	150	8.53	33.96	2.37	26.40	164	0.35
88	9.34	33.54	4.43	207	200	8.20	34.10	1.91	26.55	149	0.43
97	9.20	33.58	4.23	202	250	7.70	34.17	1.35	26.69	136	0.51
120	8.97	33.68	4.00	190	300	7.19	34.20	1.11	26.79	127	0.57
151	8.53	33.96	2.37	164	400	6.19	34.24	0.78	26.94	112	0.70
197	8.22	34.09	1.98	150	500	5.50	34.28	0.65	27.07	100	0.82
255	7.62	34.18	1.31	135	600	(5.23)	(34.35)	(0.65)	(27.16)	(92)	(0.91)
355	6.60	34.22	0.92	118							
472	5.63	34.26	0.64	103							
593	5.29	34.34	0.65	93							

STRANGER; February 9, 1956; 0955, 1030 GCT; 33°24.5'N, 117°54.5'W; sounding, 300 fm; wind, 040°, force 3; weather, clear; sea, moderate; wire angle, 08°, 08°.

90.30

0	13.10	33.55	6.03	271	0	13.10	33.55	6.03	25.27	271	0.00
10	13.10	33.55	6.42	271	10	13.10	33.55	6.42	25.27	271	0.03
15	13.12	33.54	6.29	272	20	13.07	33.55	6.27	25.28	270	0.05
20	13.07	33.55	6.27	270	30	12.23	33.55	5.43	25.43	256	0.08
26	12.96	33.55	5.90	268	50	10.78	33.59	4.11	25.74	226	0.13
30	12.23	33.55	5.43	256	75	10.20	33.68	3.39	25.90	211	0.18
40	11.23	33.57	4.54	236	100	9.70	33.73	2.93	26.04	198	0.24
50	10.78	33.59	4.11	226	150	9.31	34.07	2.09	26.36	167	0.33
64	10.43	33.64	3.55	217	200	8.83	34.16	1.90	26.51	153	0.41
78	10.12	33.68	3.32	209	250	8.20	34.20	1.91	26.64	141	0.48
97	9.76	33.72	3.02	200	300	7.68	34.23	1.31	26.73	132	0.55
119	9.44	33.87	2.64	184	400	(7.02)	(34.27)	(0.81)	(26.87)	(119)	(0.68)
158	9.26	34.10	2.01	165							
195	8.91	34.16	1.89	154							
243	8.28	34.19	1.93	143							
314	7.58	34.23	1.14	130							
394	7.06	34.27	0.83	120							

STRANGER; February 9, 1956; 0425 GCT; 33°10.5'N, 118°23'W; sounding, 650 fm; wind, 040°, force 4; weather, clear; sea, moderate; wire angle, 07°.

90.37

0	13.12	33.57	6.11	270	0	13.12	33.57	6.11	25.28	270	0.00
10	13.10	33.57	6.08	270	10	13.10	33.57	6.08	25.28	270	0.03
30	12.68	33.56	5.84	262	20	12.99	33.56	5.98	25.31	267	0.05
40	11.52	33.58	4.55	240	30	12.68	33.56	5.84	25.36	262	0.08
50	10.80	33.59	4.20	227	50	10.80	33.59	4.20	25.73	227	0.13
60	10.12	33.64	3.71	212	75	9.59	33.70	3.36	26.03	199	0.18
70	9.78	33.68	3.55	203	100	9.00	33.84	2.76	26.23	180	0.23
79	9.48	33.71	3.19	197	150	8.30	34.07	2.19	26.52	152	0.31
127p	8.58	34.00	2.44	161	200	7.99	34.15	1.81	26.63	142	0.39
186p	8.08	34.13	1.95	144	250	7.75	34.19	1.40	26.70	135	0.46
290p	7.51	34.23	0.98	129	300	7.47	34.23	0.93	26.76	129	0.53
409p	6.70	34.23	0.57	118	400	6.78	34.23	0.59	26.87	119	0.65
538p	6.01	34.36	0.33	100	500	6.20	34.29	0.40	26.99	108	0.77

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{3-5}	Z	T	S	O ₂	σ_t	δT_{3-5}	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

90.45

STRANGER; February 8, 1956; 2327 GCT; 32°54.5'N, 118°56'W; sounding, 950 fm; wind, 290°, force 2; weather, clear; sea, moderate; wire angle, 00°.

0	13.10	33.54	6.18	272	0	13.10	33.54	6.18	25.26	272	0.00
10	12.88	33.56	6.22	266	10	12.88	33.56	6.22	25.32	266	0.03
20	12.60	33.52	6.22	264	20	12.60	33.52	6.22	25.34	264	0.05
25	11.36	33.62	4.71	234	30	11.07	33.60	4.39	25.69	231	0.08
30	11.07	33.60	4.39	231	50	9.84	33.68	3.69	25.96	205	0.12
40	10.42	33.60	4.13	220	75	9.10	33.81	3.00	26.20	183	0.17
50	9.84	33.68	3.69	205	100	8.78	33.93	2.73	26.34	169	0.21
65	9.20	33.78	3.14	187	150	8.22	34.08	2.18	26.54	150	0.30
79	9.04	33.82	2.97	182	200	7.86	34.14	1.66	26.64	141	0.37
99	8.78	33.93	2.76	169	250	7.49	34.23	1.34	26.76	129	0.44
122	8.54	33.99	2.37	162	300	7.20	34.25	1.05	26.83	123	0.50
161	8.12	34.11	2.11	147	400	(6.44)	(34.29)	(0.74)	(26.95)	(111)	(0.62)
198	7.88	34.14	1.69	141							
247	7.56	34.22	1.40	130							
320	7.08	34.26	0.94	121							
399	6.45	34.29	0.75	111							

90.55

STRANGER; February 8, 1956; 1807 GCT; 32°33.5'N, 119°35'W; sounding, 200+ fm; wind, 310°, force 3; weather, partly cloudy; sea, moderate; wire angle, 10°.

0	12.42	33.42	6.11	268	0	12.42	33.42	6.11	25.30	268	0.00
10	12.42	33.37	6.23	272	10	12.42	33.37	6.23	25.26	272	0.03
15	12.44	33.37	6.23	273	20	12.34	33.38	6.43	25.29	269	0.05
20	12.34	33.38	6.43	269	30	12.27	33.38	6.20	25.30	268	0.08
25	12.28	33.42	6.08	266	50	11.78	33.41	5.56	25.42	257	0.13
31	12.27	33.38	6.20	268	75	9.68	33.45	4.43	25.82	219	0.19
40	12.06	33.42	5.74	261	100	9.13	33.68	3.75	26.09	193	0.25
49	11.82	33.41	5.62	258	150	8.40	33.95	2.70	26.42	162	0.34
65	10.24	33.34	4.65	236	200	8.24	34.05	2.10	26.51	153	0.42
79	9.57	33.51	4.39	212	250	7.73	34.18	1.44	26.69	136	0.49
97	9.21	33.66	3.83	196	300	7.42	34.23	1.27	26.78	128	0.56
122	8.76	33.78	3.48	180	400	(6.67)	(34.32)	(0.55)	(26.95)	(111)	(0.68)
160	8.32	34.01	2.52	157							
198	8.28	34.04	2.16	155							
244	7.79	34.17	1.49	137							
316	7.38	34.24	1.25	127							
394	6.77	34.32	0.64	112							

90.60

STRANGER; February 8, 1956; 1430 GCT; 32°22.5'N, 119°56'W; sounding, 485 fm; wind, 320°, force 6; weather, cloudy; sea, very rough; wire angle, 20°.

0	13.53	33.23	6.19	303	0	13.53	33.23	6.19	24.93	303	0.00
9	13.52	33.22	6.28	303	10	13.52	33.22	6.26	24.93	303	0.03
28	13.36	33.22	6.08	300	20	13.42	33.22	6.18	24.95	301	0.06
37	13.00	33.31	6.14	286	30	13.24	33.24	6.09	25.01	296	0.09
46	12.90	33.31	6.19	284	50	12.83	33.32	6.18	25.14	283	0.15
56	12.74	33.34	6.17	279	75	12.19	33.41	5.83	25.34	264	0.22
65	12.68	33.35	6.11	278	100	9.90	33.46	4.42	25.78	222	0.28
73	12.20	33.39	5.87	266	150	8.64	33.83	3.14	26.28	175	0.38
82	12.18	32.50	5.73	257	200	7.81	33.99	2.40	26.53	151	0.46
92	10.76	33.37	4.99	242	250	7.38	34.04	1.90	26.64	141	0.54
114	9.36	33.58	3.98	204	300	7.06	34.14	1.41	26.75	130	0.61
141	8.82	33.78	3.35	182	400	6.53	34.27	0.75	26.93	113	0.73
184	8.00	33.98	2.56	154	500	6.04	34.33	0.46	27.05	102	0.84
240	7.42	34.03	2.03	143							
335	6.84	34.19	1.11	124							
443	6.30	34.31	0.62	107							
558	5.70	34.35	0.35	97							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^3	Z	T	S	O ₂	σ_t	δT_{-5}^3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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STRANGER; February 8, 1956; 0827 GCT; 32°04'N, 120°39'W; sounding, 2000 fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 28°.

90.70

0	12.81	33.26	6.04	287	0	12.81	33.26	6.04	25.10	287	0.00
8	12.84	33.27	6.14	287	10	12.80	33.27	6.14	25.11	286	0.03
21	12.42	33.27	6.10	280	20	12.42	33.27	6.10	25.18	280	0.06
45	12.20	33.39	6.00	266	30	12.32	33.29	6.06	25.22	276	0.08
54	11.87	33.44	5.57	256	50	12.02	33.42	5.78	25.38	261	0.14
63	11.59	33.50	5.09	247	75	11.17	33.52	5.00	25.62	238	0.20
71	11.33	33.52	5.05	241	100	9.75	33.61	4.13	25.93	208	0.26
89	10.20	33.49	4.59	224	150	8.55	33.92	2.30	26.36	167	0.35
135	8.76	33.90	2.54	171	200	8.04	33.97	2.11	26.48	156	0.43
177	8.32	33.94	2.16	162	250	7.43	34.04	1.98	26.62	143	0.51
236	7.60	34.02	2.08	146	300	7.03	34.08	1.45	26.71	134	0.58
323	6.84	34.10	1.27	130	400	6.28	34.15	0.83	26.87	119	0.71
432	6.04	34.18	0.68	114	500	5.65	34.26	0.43	27.03	104	0.83
588	5.25	34.34	0.34	93	600	5.20	34.35	0.35	27.16	91	0.93
783	4.48	34.44	0.42	77	700	4.80	34.41	0.38	27.26	82	1.02
1067	3.73	34.47	0.70	67	800	4.44	34.44	0.48	27.32	76	1.11
					1000	3.90	34.46	0.65	27.39	70	1.27

STRANGER; February 8, 1956; 0225 GCT; 31°43'N, 121°20.5'W; sounding, 2000 fm; wind, 300°, force 3; weather, partly cloudy; sea, rough; wire angle, 16°.

90.80

0	14.87	33.17	5.92	334	0	14.87	33.17	5.92	24.61	334	0.00
10	14.88	33.19	6.14	333	10	14.88	33.19	6.14	24.62	333	0.03
24	14.83	33.16	5.98	333	20	14.84	33.16	6.00	24.62	333	0.07
49	14.06	33.16	6.18	318	30	14.81	33.16	5.98	24.62	333	0.10
59	13.94	33.26	5.93	308	50	14.06	33.16	6.18	24.78	318	0.17
68	13.20	33.31	5.98	290	75	12.39	33.27	5.64	25.20	278	0.24
77	12.33	33.27	-	277	100	11.23	33.30	5.36	25.43	256	0.31
96	11.48	33.29	5.45	261	150	9.03	33.70	3.89	26.12	190	0.42
119	10.08	33.42	4.79	227	200	8.20	33.88	3.17	26.38	165	0.51
147	9.15	33.68	3.98	193	250	7.53	34.00	2.27	26.58	146	0.59
193	8.34	33.86	3.38	168	300	7.00	34.02	1.91	26.67	138	0.66
257	7.45	34.01	2.22	145	400	6.05	34.07	1.36	26.84	122	0.80
353	6.44	34.03	1.58	130	500	5.43	34.20	0.78	27.02	105	0.92
473	5.58	34.17	0.90	109	600	5.04	34.33	0.49	27.16	92	1.02
643	4.97	34.37	0.48	87	700	4.78	34.40	0.54	27.25	83	1.12
853	4.34	34.45	0.71	74	800	4.48	34.44	0.68	27.31	77	1.20
1146	3.52	34.51	0.95	62	1000	3.89	34.48	0.85	27.41	68	1.36

STRANGER; February 9, 1956; 1845 GCT; 32°50'N, 117°31'W; sounding, 400 fm; wind, 360°, force 4; weather, clear; sea, slight; wire angle, 05°.

93.30

0	13.35	33.57	6.10	274	0	13.35	33.57	6.10	25.24	274	0.00
5	13.34	33.64	6.24	269	10	13.32	33.64	6.24	25.30	268	0.03
21	11.66	33.51	5.19	247	20	12.19	33.54	5.54	25.45	254	0.05
31	10.81	33.56	4.37	229	30	10.81	33.56	4.37	25.71	229	0.08
41	10.32	33.57	4.13	220	50	10.06	33.60	3.84	25.87	214	0.12
50	10.06	33.60	3.84	214	75	9.35	33.78	3.30	26.13	189	0.17
60	9.74	33.68	3.40	203	100	9.38	33.95	2.57	26.26	177	0.22
70	9.41	33.71	3.48	196	150	9.08	34.06	2.10	26.38	165	0.31
79	9.33	33.84	2.91u	185	200	8.82	34.18	1.88	26.52	152	0.39
89	9.43	33.91	2.92	181	250	8.62	34.25	1.50	26.61	144	0.46
112	9.30	33.98	2.39	174	300	8.10	34.23	1.32	26.68	137	0.53
141	9.16	34.05	2.13	166	400	7.20	34.24	0.91	26.82	124	0.66
188	8.87	34.16	1.93	154	500	6.41	34.31	0.57	26.98	109	0.78
246	8.66	34.25	1.54	144	600	(5.78)	(34.33)		(27.08)	(99)	(0.89)
344	7.64	34.21	1.17	133							
459	6.72	34.30	0.66	113							
581	5.88	34.33	0.43	101							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m

93.40

STRANGER; February 10, 1956; 0550 GCT; 32°30'N, 118°12'W; sounding, 950 fm; wind, 010°, force 3; weather, clear; sea, slight; wire angle, 08°.

0	13.26	33.47	5.91	280	0	13.26	33.47	5.91	25.18	280	0.00
10	13.18	33.46	6.03	279	10	13.18	33.46	6.03	25.19	279	0.03
30	12.50	33.46	5.86	266	20	12.89	33.46	5.96	25.24	274	0.06
40	11.97	33.48	5.82	255	30	12.50	33.46	5.86	25.32	266	0.08
50	11.11	33.42	4.57a)	245	50	11.11	33.42	4.57	25.54	245	0.13
61	10.88	33.48	4.36	236	75	10.22	33.58	3.40	25.83	218	0.19
70	10.41	33.53	3.82	225	100	9.57	33.77	2.72	26.09	193	0.24
80	10.07	33.64	3.12	211	150	8.98	34.03	2.33	26.38	165	0.33
89	9.76	33.64	3.17	206	200	8.55	34.12	1.89	26.52	152	0.41
99	9.58	33.77	2.76	193	250	7.95	34.19	1.29	26.67	138	0.49
122	9.18	33.90	2.43	177	300	7.43	34.22	0.94	26.76	129	0.55
150	8.98	34.03	0.51r	165	400	6.74	34.29	0.60	26.92	114	0.68
198	8.59	34.11	1.91	153	500	6.16	34.34	0.40	27.04	103	0.79
255	7.88	34.19	1.27	138	600	(5.71)	(34.34)	(0.31)	(27.09)	(98)	(0.90)
354	7.02	34.25	0.73	121							
469	6.31	34.34	0.44	106							
591	5.77	34.34	0.31	98							

93.50

STRANGER; February 10, 1956; 1040 GCT; 32°12'N, 118°54.5'W; sounding, 850 fm; wind, 320°, force 4; weather, clear; sea, slight; wire angle, 02°.

0	13.70	33.42	5.94	292	0	13.70	33.42	5.94	25.05	292	0.00
10	13.68	33.41	5.84	292	10	13.68	33.41	5.84	25.05	292	0.03
31	13.71	33.42	5.97	292	20	13.69	33.41	5.90	25.05	292	0.06
40	13.60	33.41	5.82	290	30	13.71	33.42	5.97	25.05	292	0.09
50	11.84	33.40	5.02	259	50	11.84	33.40	5.02	25.40	259	0.14
60	11.47	33.38	4.59	254	75	10.22	33.42	4.25	25.70	230	0.20
69	10.42	33.41	4.39	234	100	9.52	33.62	3.50	25.98	203	0.26
79	10.14	33.43	4.18	228	150	8.61	33.93	2.60	26.36	167	0.35
88	9.86	33.58	3.58	212	200	8.07	34.04	2.08	26.53	151	0.43
98	9.55	33.62	3.52	204	250	7.72	34.12	1.63	26.65	140	0.51
121	9.18	33.77	3.13	187	300	7.40	34.18	1.16	26.73	132	0.58
151	8.61	33.93	2.60	167	400	6.74	34.24	0.69	26.88	118	0.71
199	8.09	34.04	2.09	151	500	6.12	34.28	0.51	26.99	108	0.82
255	7.67	34.13	1.53	139	600	(5.71)	(34.38)	(0.39)	(27.12)	(95)	(0.93)
355	7.02	34.23	0.78	123							
472	6.23	34.26	0.58	111							
594	5.71	34.37	0.40	96							

93.60

STRANGER; February 10, 1956; 1606 GCT; 31°50'N, 119°34'W; sounding, 1200 fm; wind, 330°, force 4; weather, partly cloudy; sea, moderate; wire angle, 21°.

0	13.28	33.30	6.35	292	0	13.28	33.30	6.35	25.05	292	0.00
10	13.28	33.29	6.25	294	10	13.28	33.29	6.25	25.03	294	0.03
29	13.18	33.30	6.28	290	20	13.21	33.30	6.26	25.05	292	0.06
38	13.08	33.28	6.15	290	30	13.17	33.30	6.28	25.07	290	0.09
47	13.04	33.33	6.25	286	50	12.92	33.33	6.20	25.13	284	0.15
56	12.60	33.31	5.98	279	75	11.72	33.41	5.60	25.43	256	0.21
66	12.16	33.31	5.99	271	100	10.05	33.34	4.47	25.67	233	0.27
73	11.72	33.38	5.64	258	150	8.68	33.80	3.02	26.25	178	0.38
81	11.79	33.47	5.51	252	200	8.03	33.96	2.53	26.48	156	0.46
91	10.34	33.36	4.66	236	250	7.42	34.03	2.00	26.62	143	0.54
112	9.77	33.37	4.31	226	300	6.87	34.09	1.60	26.74	131	0.61
138	8.92	33.69	3.21	190	400	6.24	34.21	0.70	26.92	114	0.74
180	8.32	33.92	2.76	164	500	5.86	34.29	0.57	27.04	103	0.85
232	7.61	34.01	2.15	147							
323	6.70	34.11	1.48	127							
430	6.16	34.23	0.64	112							
547	5.67	34.32	0.54	99							

a) Mean value of 4.54 and 4.60 ml/L.

OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m	

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STRANGER; February 10, 1956; 2058 GCT; 31°30'N, 120°15.5'W; sounding, 2000 fm; wind, 310°, force 4; weather, partly cloudy; sea, moderate; wire angle, 19°.

93.70

0	13.27	33.28	6.13	294	0	13.27	33.28	6.13	25.03	294	0.00
9	13.14	33.31	5.91	289	10	13.14	33.31	5.92	25.08	289	0.03
28	13.04	33.24	6.15	293	20	13.10	33.28	6.11	25.06	291	0.06
43	12.97	33.30	5.97	286	30	13.03	33.24	6.15	25.04	293	0.09
52	12.94	33.30	6.00	285	50	12.94	33.30	6.00	25.11	286	0.14
61	12.93	33.30	6.03	285	75	12.80	33.51	5.51	25.30	268	0.21
70	12.62	33.31	5.68	280	100	11.31	33.45	5.13	25.53	246	0.28
78	12.84	33.58a)	5.46	264	150	9.20	33.66	3.52	26.06	196	0.39
91	11.90	33.49	5.42	253	200	8.38	33.93	2.70	26.40	164	0.48
99	11.38	33.45	5.18	247	250	7.82	34.08	1.93	26.61	144	0.56
123	10.04	33.47	4.44	223	300	7.44	34.17	1.47	26.72	133	0.63
146	9.26	33.64	3.61	199	400	6.47	34.23	0.90	26.90	116	0.76
193	8.44	33.90	2.80	167	500	5.53	34.26	0.37	27.05	102	0.88
248	7.84	34.08	1.97	145	600	(5.43)	(34.35)		(27.12)	(95)	(0.98)
347	7.10	34.23	1.10	123							
460	5.74	34.23	0.64	107							
583	5.43	34.34	0.30	96							

STRANGER; February 11, 1956; 2253 GCT; 32°11.5'N, 117°15.5'W; sounding, 600 fm; wind, 310°, force 4; weather, clear; sea, moderate; wire angle, 05°.

97.32

0	13.87	33.59	5.96	283	0	13.87	33.59	5.96	25.14	283	0.00
9	13.69	33.60	5.91	279	10	13.68	33.60	5.92	25.19	279	0.03
30	13.54	33.58	5.93	277	20	13.62	33.59	5.93	25.20	278	0.06
41	13.21	33.75u	5.80	-	30	13.54	33.58	5.93	25.21	277	0.08
50	11.70	33.53	4.77	247	50	11.70	33.53	4.77	25.52	247	0.14
61	11.28	33.55	4.39	238	75	10.38	33.57	3.96	25.80	221	0.19
69	10.59	33.57	3.98	225	100	9.51	33.76	3.26	26.08	194	0.25
79	10.25	33.58	3.93	218	150	8.99	33.94	2.56	26.31	172	0.34
89	9.92	33.62	3.76	210	200	8.52	34.11	2.03	26.52	152	0.42
98	9.58	33.73	3.32	196	250	7.98	34.18	1.70	26.66	139	0.50
122	9.40	33.80	2.90	189	300	7.48	34.22	1.30	26.75	130	0.57
151	8.99	33.95	2.56	171	400	6.79	34.28	0.80	26.90	116	0.69
198	8.55	34.11	2.05	152	500	6.30	34.34	0.50	27.01	106	0.81
256	7.96	34.18	1.66	139	600	(5.81)	(34.40)	(0.35)	(27.12)	(95)	(0.91)
355	7.03	34.25	0.97	121							
471	6.42	34.32	0.57	108							
593	5.89	34.40	0.35	96							

STRANGER; February 11, 1956; 1738, 1807 GCT; 31°55.5'N, 117°50.5'W; sounding, 510 fm; wind, 320°, force 2; weather, partly cloudy; sea, moderate; wire angle, 11°, 10°.

97.40

0	13.37	33.58	6.00	274	0	13.37	33.58	6.00	25.24	274	0.00
10	13.26	33.57	5.99	272	10	13.26	33.57	5.99	25.26	272	0.03
29	13.20	33.57	5.93	271	20	13.22	33.57	5.95	25.26	272	0.05
41	13.12	33.57	5.90	270	30	13.19	33.57	5.91	25.27	271	0.08
49	13.13	33.57	6.00u	270	50	13.13	33.57	5.90	25.28	270	0.14
58	12.89	33.57	5.88	265	75	11.57	33.53	5.11	25.55	244	0.20
68	12.15	33.53	5.66	255	100	10.00	33.58	4.01	25.87	214	0.26
78	11.38	33.53	4.96	241	150	8.96	33.96	2.48	26.33	170	0.35
88	10.85	33.53	4.51	232	200	8.59	34.10	2.06	26.50	154	0.43
97	10.19	33.56	4.15	219	250	8.19	34.21	0.70	26.65	140	0.51
					300	7.81	34.29	1.24	26.76	129	0.58
120	9.34	33.71	3.42	194	400	7.00	34.33	0.75	26.92	114	0.71
125	9.16	33.85	2.82	181	500	6.21	34.34	0.49	27.03	104	0.82
168	8.84	33.99	2.33	166							
222	8.40	34.16	1.94	147							
318	7.66	34.31	1.14	125							
429	6.73	34.34	0.61	111							
551	5.88	34.34	0.41	100							

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

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^3	Z	T	S	O ₂	σ_t	δT_{-5}^3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

97.50

STRANGER; February 11, 1956; 1233 GCT; 31°35.5'N, 118°31'W; sounding, 1300 fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 16°.

0	13.22	33.44	6.25	282	0	13.22	33.44	6.25	25.15	282	0.00
10	13.22	33.47	6.29	279	10	13.22	33.47	6.29	25.19	279	0.03
29	13.00	33.48	6.33	274	20	13.13	33.48	6.33	25.22	276	0.06
38	12.87	33.41	6.27	277	30	13.00	33.48	6.32	25.24	274	0.08
49	12.82	33.41	6.09	276	50	12.80	33.41	6.06	25.23	275	0.14
54	12.16	33.45	5.47	260	75	10.44	33.40	4.37	25.65	235	0.20
68	11.00	33.41	4.56	243	100	9.77	33.72	2.76	26.02	200	0.26
77	10.40	33.40	4.32	234	150	9.04	33.89	2.58	26.27	176	0.35
86	10.04	33.52	3.47	220	200	8.28	34.06	2.70	26.52	152	0.44
96	9.82	33.70	2.78	203	250	8.05	34.14	1.84	26.62	143	0.51
118	9.52	33.76	2.76	193	300	7.48	34.19	1.50	26.73	132	0.58
145	9.15	33.86	2.57	180	400	6.56	34.28	0.91	26.93	113	0.71
191	8.38	34.05	2.72	154	500	5.92	34.34	0.51	27.07	100	0.82
246	8.12	34.14	1.94	144							
344	7.02	34.22	1.27	124							
456	6.12	34.32	0.64	104							
575	5.57	34.37	0.40	94							

97.60

STRANGER; February 11, 1956; 0705 GCT; 31°13.5'N, 119°11.5'W; sounding, 2000 fm; wind, 340°, force 4; weather, clear; sea, very rough; wire angle, 08°.

0	14.06	33.50	5.80	293	0	14.06	33.50	5.80	25.04	293	0.00
10	14.06	33.45	5.95	296	10	14.06	33.45	5.95	25.01	296	0.03
29	14.08	33.47	5.95	296	20	14.07	33.45	5.95	25.01	296	0.06
44	14.02	33.51	5.88	292	30	14.08	33.47	5.95	25.01	296	0.09
54	13.98	33.48	5.87	293	50	14.00	33.51	5.88	25.05	292	0.15
63	13.04	33.44	5.40	278	75	11.76	33.40	4.84	25.42	257	0.22
74	11.76	33.40	4.87	257	100	10.44	33.44	4.00	25.72	228	0.28
83	11.20	33.44	4.61	245	150	9.16	33.81	2.73	26.18	184	0.38
97	10.48	33.44	4.11	232	200	8.40	34.00	2.40	26.45	159	0.47
105	10.17	33.48	3.90	224	250	7.84	34.10	1.85	26.61	144	0.55
130	9.53	33.72	3.05	196	300	7.44	34.17	1.31	26.72	133	0.62
158	9.01	33.84	2.68	180	400	6.78	34.26	0.75	26.89	117	0.75
210	8.28	34.03	2.33	155	500	6.17	34.31	0.48	27.01	106	0.86
272	7.65	34.13	1.60	139	600	5.60	34.36	0.41	27.12	95	0.97
381	6.92	34.25	0.81	120							
505	6.14	34.31	0.48	105							
639	5.35	34.39	0.40	90							

97.70

STRANGER; February 11, 1956; 0143 GCT; 30°55.5'N, 119°51.5'W; sounding, 2000 fm; wind, 340°, force 4; weather, cloudy; sea, moderate; wire angle, 18°.

0	13.88	33.21	6.09	311	0	13.88	33.21	6.09	24.85	311	0.00
10	13.85	33.19	6.27	312	10	13.85	33.19	6.27	24.84	312	0.03
29	13.51	33.30	6.04	297	20	13.77	33.21	6.21	24.88	308	0.06
43	13.23	33.33	6.08	290	30	13.50	33.31	6.04	25.01	296	0.09
53	13.09	33.33	5.92	287	50	13.14	33.33	5.96	25.09	288	0.15
70p	11.84	33.36	5.73	262	75	11.43	33.37	5.55	25.45	254	0.22
91p	10.38	33.39	4.94	234	100	9.88	33.47	4.43	25.80	221	0.28
132p	8.94	33.76	3.24	184	150	8.62	33.88	2.86	26.32	171	0.38
181p	8.26	34.02	2.50	155	200	8.06	34.04	2.34	26.53	151	0.46
270p	7.45	34.10	1.89	138	250	7.60	34.08	2.01	26.64	141	0.53
376p	6.74	34.25	0.78	117	300	7.22	34.14	1.52	26.73	132	0.60
493p	6.17	34.33	0.44	104	400	6.60	34.27	0.69	26.92	114	0.73
					500	(6.11)	(34.33)	(0.40)	(27.04)	(103)	(0.84)

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

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STRANGER; February 12, 1956; 0633 GCT; 31°35'N, 116°58.5'W; sounding, 700 fm; wind, 320°, force 2; weather, clear; sea, moderate; wire angle, 00°.

100.33

0	12.56	33.60	6.35	257	0	12.56	33.60	6.35	25.42	257	0.00
10	12.44	33.60	6.33	255	10	12.44	33.60	6.33	25.44	255	0.03
30	10.78	33.55	4.59	229	20	11.63	33.58	5.66	25.58	242	0.05
41	10.43	33.57	4.19	223	30	10.78	33.55	4.59	25.71	229	0.07
51	10.26	33.64	3.91	214	50	10.28	33.64	3.91	25.87	214	0.12
61	10.10	33.69	3.40	208	75	9.89	33.81	2.83	26.07	195	0.17
71	10.01	33.79	3.05	199	100	9.40	33.85	3.02	26.18	185	0.22
80	9.78	33.84	2.81	191	150	9.46	34.24	1.65	26.46	158	0.31
89	9.64	33.86	2.95	188	200	9.02	34.26	1.46	26.55	149	0.38
100	9.40	33.85	3.02	185	250	8.78	34.27	1.22	26.61	144	0.46
124	9.21	33.94	2.67	175	300	8.49	34.28	1.15	26.66	139	0.53
153	9.46	34.25	1.60	156	400	7.66	34.32	0.96	26.81	125	0.67
200	9.02	34.26	1.46	149	500	6.76	34.32	0.71	26.94	112	0.79
257	8.75	34.27	1.20	144	600	(5.83)	(34.34)	(0.50)	27.07	(100)	(0.90)
357	8.08	34.31	1.02	131							
472	7.00	34.32	0.73	116							
593	5.98	34.34	0.50	101							

STRANGER; February 12, 1956; 1055, 1143 GCT; 31°21'N, 117°27'W; sounding, 1000 fm; wind, 260°, force 3; weather, clear; sea, moderate; wire angle, 13°, 14°.

100.40

0	13.85	33.57	5.85	284	0	13.85	33.57	5.85	25.13	284	0.00
10	13.84	33.53	5.92	286	10	13.84	33.53	5.92	25.11	286	0.03
24	13.84	33.58	5.88	283	20	13.84	33.57	5.89	25.13	284	0.06
49	12.70	33.53	5.25	265	30	13.72	33.58	5.82	25.16	281	0.09
59	11.78	33.49	4.87	251	50	12.60	33.53	5.20	25.35	263	0.14
68	11.07	33.51	4.35	237	75	10.60	33.59	3.80	25.76	224	0.20
78	10.43	33.62	3.64	219	100	9.82	33.78	3.05	26.06	196	0.25
98	9.87	33.77	3.10	198	150	9.47	34.05	2.34	26.32	171	0.35
121	9.50	33.88	2.67	184	200	8.72	34.13	1.95	26.50	154	0.43
150	9.47	34.05	2.34	171	250	8.17	34.18	1.61	26.63	142	0.50
197	8.79	34.20u	1.97	-	300	7.78	34.24	1.20	26.73	132	0.58
261	8.06	34.19	1.58	140	400	7.04	34.28	0.61	26.87	119	0.70
361	7.40	34.28	0.75	124	500	6.18	34.30	0.53	27.01	106	0.82
					600	5.58	34.36	0.38	27.12	95	0.93
364	7.35	34.28	0.69	123	700	5.08	34.39	0.34	27.21	87	1.03
484	6.23	34.29	0.58	108	800	4.72	34.43	0.40	27.27	81	1.12
656	5.29	34.38	0.32	90	1000	4.00	34.49	0.64	27.41	68	1.28
868	4.42	34.45	0.47	76							
1165	3.55	34.54	0.82	60							

STRANGER; February 12, 1956; 1647, 1730 GCT; 31°03'N, 118°09'W; sounding, 1900 fm; wind, 330°, force 3; weather, overcast; sea, moderate; wire angle, 05°, 05°.

100.50

0	13.95	33.50	6.03	292	0	13.95	33.50	6.03	25.05	292	0.00
10	13.96	33.51	5.96	291	10	13.96	33.51	5.96	25.06	291	0.03
25	13.97	33.48	6.04	293	20	13.97	33.48	6.03	25.05	292	0.06
51	13.86	33.49	6.12	290	30	13.95	33.48	6.07	25.05	292	0.09
61	13.30	33.46	5.60	281	50	13.88	33.49	6.12	25.07	290	0.15
70	11.39	33.35	4.99	255	75	11.16	33.35	4.89	25.48	251	0.21
80	10.96	33.36	4.76	246	100	9.82	33.55	3.69	25.87	214	0.27
99	9.82	33.55	3.69	214	150	8.81	33.96	2.65	26.35	168	0.37
123	9.06	33.76	3.22	187	200	8.24	34.05	2.16	26.51	153	0.45
151	8.80	33.96	2.60	167	250	7.84	34.13	1.70	26.64	141	0.52
199	8.24	34.05	2.18	153	300	7.38	34.19	1.27	26.75	130	0.59
266	7.70	34.15	1.51	138	400	6.43	34.28	0.70	26.94	112	0.72
366	6.74	34.25	0.92	-	500	5.81	34.35	(0.42)	27.08	99	0.83
					600	5.38	34.39	(0.40)	27.18	90	0.93
362a)	6.69	34.26	0.88	-	700	4.99	34.43	(0.40)	27.25	83	1.02
487	5.88	34.34	0.43	100	800	4.60	34.46	(0.43)	27.31	77	1.11
664	5.08	34.42	0.61u	85	1000	3.87	34.52	(0.65)	27.44	65	1.26
881	4.24	34.49	0.35u	71							
1177	3.51	34.54	0.85	60							

a) Overlapping casts; reconciliation of property curves when necessary.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

100.60

STRANGER; February 12, 1956; 2257 GCT; 30°41'N, 118°47'W; sounding, 1500 fm; wind, 300°, force 4;
weather, overcast; sea, rough; wire angle, 17°.

0	13.45	33.57	5.98	277	0	13.45	33.57	5.98	25.21	277	0.00
9	13.46	33.58	6.00	276	10	13.46	33.58	6.00	25.22	276	0.03
25	13.43	33.57	5.93	276	20	13.45	33.57	5.95	25.22	276	0.06
50	10.53	33.55	4.16	225	30	13.41	33.57	5.92	25.22	276	0.08
57	10.42	33.57	4.05	222	50	10.53	33.55	4.16	25.75	225	0.13
67	10.12	33.62	3.77	213	75	9.76	33.67	3.59	25.98	204	0.19
76	9.74	33.68	3.58	202	100	9.30	33.84	2.90	26.18	184	0.24
94	9.40	33.84	2.98	186	150	8.60	33.99	2.76	26.42	162	0.32
116	9.00	33.86	2.83	178	200	7.74	34.06	2.50	26.61	144	0.40
143	8.74	33.98	2.77	165	250	7.46	34.11	1.93	26.67	138	0.47
187	7.90	34.05	2.65	148	300	7.23	34.27	1.22	26.83	123	0.54
249	7.47	34.11	1.97	138	400	6.70	34.32	0.65	26.94	112	0.66
343	7.07	34.30	0.83	118	500	6.05	34.35	0.48	27.06	101	0.77
459	6.29	34.33	0.51	106	600	5.42	34.39	0.41	27.16	91	0.87
623	5.32	34.40	0.40	89	700	5.00	34.42	0.40	27.24	84	0.97
827	4.46	34.48	0.43	74	800	4.60	34.47	0.41	27.32	76	1.05
1114	3.61	34.55	0.83	60	1000	3.86	34.53	0.70	27.45	64	1.21

100.70

STRANGER; February 13, 1956; 0347 GCT; 30°21'N, 119°27.5'W; sounding, 2000 fm; wind, 310°, force 4;
weather, overcast; sea, moderate; wire angle, 09°.

0	15.04	33.48	5.84	314	0	15.04	33.48	5.84	24.82	314	0.00
10	15.02	33.50	5.87	313	10	15.02	33.50	5.87	24.83	313	0.03
25	15.03	33.47	5.92	315	20	15.02	33.47	5.91	24.81	315	0.06
50	13.55	33.31	6.09	297	30	14.93	33.44	5.98	24.81	315	0.09
60	12.70	33.32	5.77	280	50	13.55	33.31	6.09	25.00	297	0.16
69	12.42	33.35	5.67	274	75	12.35	33.38	5.66	25.28	270	0.23
79	12.26	33.39	5.66	267	100	11.10	33.39	5.17	25.53	246	0.29
99	11.17	33.39	5.20	248	150	9.41	33.74	3.30	25.09	193	0.40
125	10.14	33.55	4.31	218	200	8.63	34.01	2.47	26.42	162	0.49
153	9.36	33.76	3.23	191	250	7.70	34.07	2.22	26.61	144	0.57
200	8.63	34.01	2.47	162	300	7.26	34.14	1.86	26.73	132	0.64
267	7.43	34.09	2.10	139	400	6.61	34.26	0.91	26.91	115	0.77
367	6.94	34.25	1.06	120	500	5.67	34.30	0.62	27.06	101	0.88
489	5.79	34.29	0.67	103	600	5.26	34.37	0.50	27.16	91	0.98
662	5.03	34.40	0.49	86	700	4.90	34.42	0.49	27.25	83	1.08
876	4.22	34.50	0.57	70	800	4.57	34.47	0.50	27.33	75	1.16
1172	3.48	34.56	1.02	58	1000	3.82	34.53	0.80	27.45	64	1.31

100.80

STRANGER; February 13, 1956; 0827 GCT; 30°01.5'N, 120°07'W; sounding, 2000+ fm; wind, 320°, force 4;
weather, overcast; sea, moderate; wire angle, 15°.

0	14.44	33.30	5.88	316	0	14.44	33.30	5.88	24.80	316	0.00
10	14.41	33.29	5.90	316	10	14.41	33.29	5.90	24.80	316	0.03
24	14.42	33.29	5.97	316	20	14.42	33.29	5.97	24.80	316	0.06
49	14.28	33.31	5.93	311	30	14.40	33.30	5.97	24.81	315	0.09
59	13.82	33.34	5.80	300	50	14.25	33.31	5.92	24.85	311	0.16
86p	10.96	33.34	5.01	247	75	11.78	33.31	5.39	25.34	264	0.23
162p	9.25	33.77	3.07	189	100	10.49	33.40	4.70	25.65	235	0.29
240p	8.24	34.05	2.27	153	150	9.42	33.71	3.30	26.06	196	0.40
355p	7.06	34.15	1.30	129	200	8.77	33.96	2.67	26.36	167	0.49
492p	6.00	34.26	0.58	107	250	8.15	34.07	2.16	26.54	150	0.58
618p	5.51	34.34	0.44	96	300	7.60	34.11	1.79	26.65	140	0.65
748p	4.82	34.46	0.48	79	400	6.68	34.18	1.02	26.84	122	0.78
					500	5.97	34.26	0.54	27.01	106	0.90
					600	5.60	34.33	0.45	27.10	97	1.01
					700	5.11	34.41	0.46	27.22	86	1.11

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^3	Z	T	S	O ₂	σ_t	δT_{-5}^3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

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STRANGER; February 14, 1956; 0618 GCT; 30°55'N, 116°45'W; sounding, 1000 fm; wind, 320°, force 4; weather, overcast; sea, moderate; wire angle, 06°.

103.35

0	13.12	33.48	6.03	277	0	13.12	33.48	6.03	25.21	277	0.00
10	13.10	33.49	6.01	275	10	13.10	33.49	6.01	25.23	275	0.03
30	12.92	33.48	5.90	272	20	12.99	33.48	5.95	25.24	274	0.05
41	12.25	33.47	5.22	261	30	12.92	33.48	5.90	25.26	272	0.08
51	11.12	33.48	4.17	240	50	11.15	33.48	4.18	25.58	241	0.13
61	10.72	33.55	3.48	229	75	10.00	33.62	3.13	25.89	212	0.19
71	10.30	33.66	2.84	213	100	9.94	33.88	2.35	26.11	191	0.24
81	9.80	33.59	3.29	211	150	9.11	34.01	2.34	26.35	168	0.33
91	9.98	33.78	2.62	199	200	8.67	34.14	1.95	26.52	152	0.41
99	9.96	33.88	2.36	191	250	8.66	34.30	1.18	26.64	141	0.49
123	9.80	33.98	2.23	182	300	8.59	34.39	0.73	26.73	132	0.56
151	9.08	34.01	2.34	168	400	7.74	34.39	0.48	26.86	120	0.69
199	8.67	34.14	1.97	152	500	6.56	34.34	0.50	26.98	109	0.81
256	8.66	34.31	1.14	140	600	(5.82)	(34.38)	(0.34)	(27.11)	(96)	(0.92)
356	8.25	34.42	0.48	126							
470	6.82	34.33	0.54	113							
592	5.89	34.38	0.38	97							

STRANGER; February 14, 1956; 0308 GCT; 30°45'N, 117°05.5'W; sounding, 1040 fm; wind, 320°, force 3; weather, overcast; sea, moderate; wire angle, 06°.

103.40

0	13.52	33.53	6.06	280	0	13.52	33.53	6.06	25.18	280	0.00
10	13.34	33.51	6.09	278	10	13.34	33.51	6.09	25.20	278	0.03
30	11.92	33.51	6.09	252	20	12.62	33.51	6.09	25.33	265	0.06
40	11.36	33.48	4.46	244	30	11.92	33.51	6.09	25.47	252	0.08
50	10.88	33.52	3.69	233	50	10.88	33.52	3.69	25.67	233	0.13
61	10.41	33.56	3.64	222	75	9.73	33.64	3.41	25.96	205	0.18
70	10.10	33.68	3.06	208	100	8.99	33.71	3.50	26.14	188	0.23
80	9.42	33.61	3.72	204	150	9.23	34.08	2.25	26.38	165	0.32
89	9.22	33.65	3.76	197	200	8.76	34.15	1.96	26.51	153	0.41
99	9.00	33.71	3.51	189	250	8.67	34.28	1.19	26.63	142	0.48
124	8.88	33.82	3.26	179	300	8.20	34.32	0.91	26.73	132	0.55
152	9.26	34.09	2.18	165	400	7.22	34.35	0.64	26.90	116	0.68
200	8.76	34.15	1.96	153	500	6.12	34.33	0.50	27.04	103	0.79
255	8.61	34.28	1.18	141	600	(5.65)	(34.40)	(0.37)	(27.16)	(92)	(0.90)
357	7.72	34.36	0.73	122							
471	6.36	34.32	0.56	107							
595	5.66	34.40	0.39	93							

STRANGER; February 13, 1956; 2146 GCT; 30°27'N, 117°46.5'W; sounding, 1000 fm; wind, 320°, force 3; weather, overcast; sea, rough; wire angle, 12°.

103.50

0	13.88	33.40	5.88	297	0	13.88	33.40	5.88	25.00	297	0.00
10	13.84	33.38	6.00	298	10	13.84	33.38	6.00	24.99	298	0.03
30	13.86	33.40	5.95	296	20	13.86	33.40	5.97	25.00	297	0.06
40	13.26	33.30	5.75	292	30	13.86	33.40	5.95	25.01	296	0.09
50	12.84	33.32	5.65	283	50	12.84	33.32	5.65	25.14	283	0.15
59	12.00	33.28	5.33	271	75	10.68	33.29	4.86	25.52	247	0.21
69	11.06	33.27	5.11	255	100	9.67	33.54	3.60	25.89	212	0.27
80	10.38	33.33	4.55	238	150	8.84	33.87	2.71	26.28	175	0.37
88	9.92	33.43	4.07	224	200	7.80	33.97	2.42	26.51	153	0.45
99	9.68	33.54	3.64	212	250	7.11	34.04	2.10	26.67	138	0.53
122	9.22	33.74	2.97	191	300	6.69	34.10	1.44	26.78	128	0.59
150	8.84	33.87	2.71	175	400	6.17	34.21	0.55	26.93	113	0.72
194	7.88	33.96	2.46	154	500	5.79	34.32	0.38	27.07	100	0.83
248	7.14	34.04	2.11	138							
343	6.42	34.14	1.05	122							
454	5.96	34.27	0.44	106							
572	5.54	34.40	0.32	91							

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OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	$\frac{10^{-5}}{10 \text{ cm/g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5}}{10 \text{ cm/g}}$	dyn. m	

103.60

STRANGER; February 13, 1956; 1712 GCT; 30°07'N, 118°26.5'W; sounding, 2000+ fm; wind, 310°, force 4; weather, overcast; sea, moderate; wire angle, 03°.

0	14.79	33.35	6.02	319	0	14.79	33.35	6.02	24.76	319	0.00
10	14.78	33.35	6.03	319	10	14.78	33.35	6.03	24.76	319	0.03
30	14.90	33.38	5.64	319	20	14.83	33.36	5.86	24.76	319	0.06
41	14.88	33.38	5.88	318	30	14.90	33.38	5.64	24.76	319	0.10
51	14.86	33.40	6.00	317	50	14.86	33.40	6.00	24.79	317	0.16
61	14.48	33.41	5.89	308	75	13.30	33.32	5.67	25.05	292	0.24
71	13.70	33.35	5.72	297	100	10.42	33.31	4.84	25.58	241	0.30
87p	12.05	33.28	5.34a)	271	150	8.86	33.67	3.50	26.12	190	0.41
97p	10.70	33.29	4.94	247	200	8.30	34.01	2.16	26.48	156	0.50
121p	9.48	33.43	4.44	217	250	7.79	34.06	1.80	26.58	146	0.58
163p	8.64	33.81	3.14	176	300	7.17	34.08	1.46	26.69	136	0.65
212p	8.20	34.04	2.02	153	400	6.28	34.16	0.85	26.87	119	0.78
302p	7.14	34.08	1.43	136	500	5.79	34.28	0.44	27.03	104	0.90
404p	6.21	34.16	0.80	118							
514p	5.72	34.29	0.38	102							

107.35

STRANGER; February 14, 1956; 1526, 1548, 1610 GCT; 30°20'N, 116°23'W; sounding, 900 fm; wind, 340°, force 4; weather, partly cloudy; sea, moderate; wire angle, 23°, 31°, 33°.

0	14.53	33.57	5.75	298	0	14.53	33.57	5.75	24.99	298	0.00
9	14.36	33.58	5.74	293	10	14.34	33.58	5.74	25.04	293	0.03
28	13.94	33.57	5.78	285	20	14.13	33.58	5.76	25.08	289	0.06
38	13.80	33.55	5.81	284	30	13.90	33.57	5.79	25.12	285	0.09
47	13.76	33.54	5.80	284	50	13.72	33.55	5.81	25.15	282	0.14
55	13.69	33.56	5.83	281	75	11.20	33.53	4.02	25.62	238	0.21
					100	10.20	33.62	3.17	25.87	214	0.27
61	13.32	33.52	5.68	277	150	9.16	33.91	2.86	26.26	177	0.36
					200	8.76	34.10	2.21	26.48	156	0.45
71	11.68	33.48	4.48	249	250	8.25	34.24	1.40	26.66	139	0.52
78	10.91	33.57	3.74	230	300	8.08	34.28	1.10	26.72	133	0.59
98	10.26	33.62	3.16	216	400	7.53	34.35	0.49	26.86	120	0.73
118	9.56	33.69	3.32	199	500	(6.67)	(34.36)	(0.24)	(26.98)	(109)	(0.84)
158	9.10	33.95	2.75	173							
204	8.74	34.12	2.18	155							
285	8.16	34.27	1.14	135							
380	7.68	34.35	0.55	122							
486	6.82	34.36	0.28	110							

107.40

STRANGER; February 14, 1956; 1914 GCT; 30°10.5'N, 116°43'W; sounding, 1500 fm; wind, 320°, force 5; weather, partly cloudy; sea, moderate; wire angle, 14°.

0	14.59	33.56	5.92	299	0	14.59	33.56	5.92	24.98	299	0.00
10	14.56	33.53	5.93	301	10	14.56	33.53	5.93	24.95	301	0.03
29	14.52	33.55	5.94	298	20	14.53	33.54	5.94	24.96	300	0.06
45	14.50	33.58	5.93	296	30	14.52	33.55	5.94	24.99	298	0.09
54	14.49	33.58	5.94	296	50	14.49	33.58	5.94	25.01	296	0.15
63	13.75	33.50	5.63	287	75	12.79	33.45	5.32	25.26	272	0.22
73	13.05	33.46	5.42	276	100	10.80	33.48	4.48	25.65	235	0.28
83	12.06	33.44	5.03	260	150	9.02	33.84	3.20	26.24	179	0.39
98	10.86	33.48	4.54	236	200	8.44	34.08	2.44	26.50	154	0.48
107	10.54	33.49	4.23	230	250	8.03	34.16	1.86	26.63	142	0.55
130	9.64	33.64	3.72	204	300	7.69	34.28	1.46	26.78	128	0.62
158	8.83	33.91	3.06	172	400	7.39	34.43	0.46	26.93	113	0.74
209	8.34	34.09	2.39	151	500	6.54	34.42	0.47	27.05	102	0.86
271	7.80	34.19	1.74	136	600	5.94	34.40	0.38	27.11	96	0.96
379	7.52	34.42	0.46	116							
502	6.51	34.42	0.48	102							
630	5.72	34.40	0.33	94							

a) Mean value of 5.30 and 5.37 ml/L.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m

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STRANGER; February 15, 1956; 0015 GCT; 29°50'N, 117°23.5'W; sounding, 2000+ fm; wind, 320°, force 4; weather, overcast; sea, rough; wire angle, 17°.

107.50

0	14.28	33.55	5.66	294	0	14.28	33.55	5.66	25.03	294	0.00
10	14.22	33.57	5.84	291	10	14.22	33.57	5.84	25.06	291	0.03
29	14.19	33.58	5.77	290	20	14.21	33.58	5.82	25.06	291	0.06
44	13.84	33.60	5.75	282	30	14.18	33.58	5.76	25.08	289	0.09
54	13.72	33.58	5.75	281	50	13.78	33.58	5.75	25.16	281	0.14
63	13.48	33.58	5.59	276	75	12.00	33.47	4.93	25.43	256	0.21
72	12.36	33.49	5.13	262	100	10.39	33.56	3.99	25.78	222	0.27
81	11.53	33.47	4.69	248	150	9.06	33.84	2.88	26.22	181	0.37
94	10.57	33.54	4.03	226	200	8.44	34.04	2.23	26.48	156	0.46
103	10.30	33.56	3.97	220	250	7.73	34.11	1.90	26.64	141	0.53
125	9.49	33.71	3.34	197	300	7.36	34.19	1.42	26.75	130	0.60
150	9.06	33.84	2.88	181	400	6.80	34.30	0.64	26.91	115	0.73
197	8.48	34.04	2.26	157	500	6.13	34.35	0.41	27.05	102	0.84
254	7.66	34.11	1.88	140	600	(5.47)	(34.37)	(0.33)	(27.14)	(93)	(0.95)
354	7.07	34.26	0.82	121							
468	6.32	34.34	0.47	105							
591	5.56	34.37	0.33	94							

STRANGER; February 15, 1956; 0511 GCT; 29°31.5'N, 118°01.5'W; sounding, 2000+ fm; wind, 320°, force 4; weather, overcast; sea, moderate; wire angle, 15°.

107.60

0	15.62	33.54	5.59	322	0	15.62	33.54	5.59	24.73	322	0.00
10	15.58	33.55	5.59	321	10	15.58	33.55	5.59	24.74	321	0.03
29	15.62	33.54	5.58	322	20	15.60	33.55	5.58	24.73	322	0.06
45	15.57	33.54	5.61	321	30	15.62	33.54	5.58	24.73	322	0.10
54	15.56	33.53	5.65	322	50	15.56	33.53	5.62	24.73	322	0.16
63	15.58	33.54	5.61	322	75	15.21	33.50	5.60	24.79	317	0.24
73	15.38	33.49	5.61	321	100	12.98	33.61	5.43	25.34	264	0.31
91p	13.71	33.63	5.55	277	150	9.76	33.54	4.32	25.87	214	0.43
137p	10.29	33.49	4.65	226	200	8.51	33.87	3.17	26.33	170	0.53
191p	8.68	33.82	3.43	176	250	7.89	34.02	2.50	26.54	150	0.61
286p	7.57	34.09	2.13	140	300	7.45	34.10	1.97	26.67	138	0.69
395p	6.88	34.29	0.71	116	400	6.84	34.29	0.71	26.90	116	0.82
510p	5.88	34.29	0.42	104	500	6.00	34.29	0.44	27.02	105	0.94

STRANGER; February 17, 1956; 1555 GCT; 29°47'N, 116°00'W; sounding, 740 fm; wind, 050°, force 3; weather, partly cloudy; sea, very rough; wire angle, 05°.

110.35

0	14.07	33.57		288	0	14.07	33.57		25.09	288	0.00
10	14.10	33.57		289	10	14.10	33.57		25.08	289	0.03
31	14.12	33.57		289	20	14.10	33.57		25.08	289	0.06
41	14.08	33.56		288	30	14.12	33.57		25.08	289	0.09
50	14.06	33.55		289	50	14.06	33.55		25.08	289	0.14
60	12.69	33.46		270	75	11.80	33.52		25.50	249	0.21
70	12.00	33.49		255	100	10.01	33.59		25.87	214	0.27
80	11.52	33.54		243	150	9.66	34.04		26.28	175	0.37
90	10.90	33.60		228	200	8.93	34.16		26.49	155	0.45
99	10.01	33.59		214	250	9.31	34.39		26.61	144	0.53
123	9.87	33.85		193	300	8.77	34.40		26.71	134	0.60
151	9.66	34.04		175	400	7.83	34.40		26.85	121	0.73
198	8.98	34.14		156	500	6.92	34.39		26.96	110	0.85
255	9.24	34.39		143	600	(5.90)	(34.37)		(27.09)	(98)	(0.96)
353	8.23	34.40		127							
468	7.20	34.39		113							
587	6.08	34.37		100							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{10^{-5} \text{ cm}^3}{\text{g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5} \text{ cm}^3}{\text{g}}$	dyn. m

110.40

STRANGER; February 17, 1956; 1219 GCT; 29°32.5'N, 116°17'W; sounding, 1100 fm; wind, 340°, force 3; weather, cloudy; sea, high; wire angle, 05°.

0	14.37	33.49	6.00	300	0	14.37	33.49	6.00	24.96	300	0.00
9	14.36	33.49	5.85	299	10	14.36	33.49	5.86	24.98	299	0.03
25	14.36	33.52	6.05	297	20	14.36	33.51	6.02	24.99	298	0.06
55	13.82	33.44	5.71	293	30	14.25	33.51	6.00	25.01	296	0.09
65	13.66	33.45	5.71	289	50	13.92	33.45	5.74	25.03	294	0.15
75	12.70	33.39	5.36	275	75	12.70	33.39	5.36	25.23	275	0.22
89	11.88	33.36	5.35	263	100	11.13	33.39	5.02	25.52	247	0.29
108	10.60	33.45	4.72	234	150	9.23	33.79	3.02	26.15	187	0.39
133	9.56	33.66	3.58	201	200	8.44	34.00	2.65	26.45	159	0.48
161	9.04	33.86	2.86	179	250	8.06	34.18	2.08	26.64	141	0.56
212	8.32	34.04	2.58	155	300	7.67	34.22	1.50	26.73	132	0.63
289	7.80	34.22	1.57	134	400	6.24	34.18	1.14	26.90	116	0.76
394	6.30	34.18	1.18	117	500	5.67	34.28	0.83	27.05	102	0.87
531	5.57	34.31	0.78	98	600	5.36	34.36	0.66	27.16	92	0.98
718	4.97	34.45	0.54	81	700	5.02	34.44	0.56	27.25	83	1.07
947	4.22	34.51	0.62	69	800	4.72	34.48	0.55	27.31	77	1.16
1249	3.38	34.56	0.94	57	1000	4.06	34.52	0.69	27.42	67	1.31

110.50

STRANGER; February 17, 1956; 0607 GCT; 29°14'N, 116°58'W; sounding, 2000+ fm; wind, 330°, force 6; weather, overcast; sea, very rough; wire angle, 32°.

0	14.81	33.51	5.69	308	0	14.81	33.51	5.69	24.88	308	0.00
7	14.76	33.47	5.69	309	10	14.76	33.47	5.69	24.87	309	0.03
21	14.80	33.49	5.67	309	20	14.80	33.49	5.68	24.87	309	0.06
45	14.70	33.47	5.75	308	30	14.78	33.48	5.70	24.88	308	0.09
54	14.61	33.48	5.71	306	50	14.66	33.48	5.73	24.89	307	0.15
61	14.48	33.49	5.60	302	75	14.04	33.40	5.78	24.96	300	0.23
73	14.12	33.40	5.79	302	100	12.58	33.34	5.40	25.21	277	0.30
86	13.95	33.43	5.74	296	150	9.41	33.65	4.00	26.02	200	0.42
105	11.97	33.30	5.23	268	200	8.52	33.94	2.98	26.38	165	0.52
125	10.69	33.45	4.72	235	250	7.77	34.02	2.49	26.56	148	0.60
161	9.08	33.71	3.69	190	300	7.00	34.08	2.07	26.72	133	0.67
215	8.31	33.98	2.74	159	400	6.28	(34.18)	(1.09)	(26.89)	(117)	(0.80)
289	7.11	34.07	2.18	136	500	6.19	(34.19)	(1.03)	(26.91)	(115)	(0.93)
389	6.34	34.17	1.14	118	600	5.80	(34.28)	(0.61)	(27.03)	(104)	(1.04)
529	6.17	-	-	-	700	5.10	(34.43)	(0.34)	(27.24)	(84)	(1.14)
718	5.00	34.45	0.34	82	800	4.72	34.48	0.41	27.31	77	(1.23)
990	4.05	34.53	0.73	66	1000	(4.01)	(34.53)	(0.78)	(27.43)	(66)	(1.39)

110.60

STRANGER; February 17, 1956; 0023 GCT; 28°56'N, 117°38'W; sounding, 2000 fm; wind, 310°, force 6; weather, cloudy; sea, very rough; wire angle, 20°.

0	15.38	33.46	5.61	323	0	15.38	33.46	5.61	24.72	323	0.00
10	15.38	33.47	5.64	322	10	15.38	33.47	5.64	24.73	322	0.03
24	15.42	33.47	5.53	323	20	15.40	33.47	5.59	24.72	323	0.06
52	15.38	33.48	5.58	321	30	15.40	33.47	5.54	24.72	323	0.10
61	15.36	33.50	5.59	319	50	15.38	33.48	5.56	24.73	322	0.16
70	15.29	33.48	5.57	319	75	15.21	33.47	5.60	24.76	319	0.24
84	14.88	33.45	5.64	313	100	13.21	33.38	5.60	25.11	286	0.32
103	12.97	33.38	5.55	280	150	9.90	33.64	3.80	25.92	209	0.44
125	11.55	33.41	4.77	252	200	9.55	34.06	2.33	26.32	171	0.54
152	9.84	33.67	3.75	206	250	8.91	34.18	1.88	26.51	153	0.62
201	9.54	34.06	2.33	171	300	8.42	34.24	1.43	26.64	141	0.70
272	8.70	34.21	1.73	147	400	7.48	34.34	0.70	26.85	121	0.84
373	7.78	34.32	0.82	125	500	6.59	34.41	0.49	27.03	104	0.95
504	6.55	34.41	0.48	103	600	5.85	34.43	0.32	27.14	93	1.06
681	5.36	34.44	0.30	86	700	5.22	34.45	0.30	27.24	84	1.15
900	4.44	34.52	0.41	71	800	4.77	34.50	0.36	27.32	76	1.24
1193	3.53	34.56	0.84	59	1000	4.17	34.54	0.53	27.43	66	1.40

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

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STRANGER; February 16, 1956; 1908 GCT; 28°36'N, 118°18'W; sounding, 1500+ fm; wind, 310°, force 6;
weather, overcast; sea, very rough; wire angle, 13°.

110.70

0	15.47	33.50	5.79	322	0	15.47	33.50	5.79	24.73	322	0.00
9	15.42	33.50	5.59	321	10	15.42	33.50	5.59	24.74	321	0.03
55	15.44	33.51	5.62	321	20	15.42	33.50	5.59	24.74	321	0.06
64	15.45	33.48	5.60	323	30	15.42	33.50	5.59	24.74	321	0.10
74	15.44	33.48	5.71	323	50	15.44	33.51	5.61	24.74	321	0.16
89	14.58	33.45	5.71	306	75	15.44	33.48	5.71	24.72	323	0.24
109	13.15	33.50	5.24	275	100	13.80	33.47	5.45	25.07	290	0.32
133	11.64	33.45	4.87	252	150	10.74	33.50	4.44	25.67	233	0.45
162	10.16	33.58	4.15	216	200	9.23	33.83	3.72	26.18	184	0.56
213	9.02	33.90	3.61	176	250	8.58	34.03	2.96	26.45	159	0.64
288	8.13	34.11	2.18	147	300	8.02	34.13	2.00	26.60	144	0.72
393	7.20	34.22	1.00	126	400	7.10	34.22	0.98	26.82	124	0.86
528	5.62	34.22	0.58	106	500	5.92	34.22	0.62	26.96	110	0.99
711	4.86	34.39	0.39	85	600	5.23	34.30	0.48	27.11	96	1.10
937	4.13	34.48	0.70	70	700	4.90	34.39	0.40	27.22	86	1.19
1231	3.32	34.57	0.97	56	800	4.56	34.43	0.50	27.30	78	1.28
					1000	3.92	34.50	0.80	27.42	67	1.44

STRANGER; February 16, 1956; 1353 GCT; 28°16'N, 118°57.5'W; sounding, 2000+ fm; wind, 320°, force 6;
weather, overcast; sea, very rough; wire angle, 12°.

110.80

0	15.58	33.60	5.55	317	0	15.58	33.60	5.55	24.79	317	0.00
10	15.58	33.58	5.59	318	10	15.58	33.58	5.59	24.78	318	0.03
24	15.60	33.60	5.52	317	20	15.59	33.59	5.55	24.79	317	0.06
50	15.60	33.60	5.70	317	30	15.60	33.60	5.60	24.79	317	0.10
59	15.58	33.60	5.79	317	50	15.60	33.60	5.70	24.79	317	0.16
69	15.60	33.62	5.67	316	75	15.60	33.60	5.61	24.79	317	0.24
79	15.57	33.59	5.59	318	100	14.09	33.53	5.55	25.05	292	0.32
99	14.20	33.53	5.57	294	150	10.54	33.54	4.59	25.74	226	0.45
123	12.48	33.48	5.23	264	200	9.25	33.88	3.27	26.23	180	0.55
151	10.50	33.54	4.58	225	250	8.44	34.11	2.23	26.53	151	0.64
197	9.31	33.86	3.35	183	300	7.80	34.16	1.71	26.67	138	0.71
262	8.30	34.14	2.10	147	400	6.95	34.30	0.58	26.90	116	0.84
361	7.18	34.19	1.22	127	500	6.68	34.42	0.34	27.03	104	0.96
482	6.79	34.42	0.35	105	600	6.00	34.41	0.32	27.11	96	1.06
655	5.53	34.41	0.32	90	700	5.21	34.42	0.35	27.22	86	1.16
865	4.40	34.47	0.50	74	800	4.68	34.45	0.43	27.30	78	1.25
1158	3.62	34.57	0.81	59	1000	3.89	34.53	0.71	27.45	64	1.41

STRANGER; February 17, 1956; 2202 GCT; 29°22'N, 115°18'W; sounding, 30 fm; wind, 260°, force 2;
weather, clear; sea, moderate; wire angle, 00°.

113.30

0	12.60	33.61	5.96	257	0	12.60	33.61	5.96	25.42	257	0.00
10	11.98	33.52	6.25	252	10	11.98	33.52	6.25	25.47	252	0.03
20	11.89	33.51	5.42	251	20	11.89	33.51	5.42	25.48	251	0.05
30	11.68	33.53	5.05	246	30	11.68	33.53	5.05	25.53	246	0.08
50	10.33	33.72	2.20u	209	50	10.33	33.72		25.92	209	0.12

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$\frac{10^{-5} \text{ cm}^3}{\text{g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5} \text{ cm}^3}{\text{g}}$	dyn. m

113.35

STRANGER; February 18, 1956; 0047 GCT; 29°11'N, 115°39'W; sounding, 600 fm; wind, 280°, force 3; weather, partly cloudy; sea, very rough; wire angle, 07°.

0	14.85	33.49	5.72	310	0	14.85	33.49	5.72	24.86	310	0.00
10	14.50	33.42	5.76	308	10	14.50	33.42	5.76	24.88	308	0.03
31	14.50	33.46	5.80	305	20	14.50	33.44	5.79	24.90	306	0.06
39	14.46	33.50	5.75	301	30	14.50	33.46	5.80	24.91	305	0.09
49	14.28	33.48	5.76	299	50	14.25	33.48	5.76	24.99	298	0.15
59	14.06	33.46	5.80	296	75	13.09	33.40	5.00	25.15	282	0.22
68	13.52	33.44	5.29	287	100	11.65	33.46	3.93	25.49	250	0.29
78	12.84	33.38	4.85	278	150	10.36	34.01	2.23	26.14	188	0.40
87	12.15	33.43	4.33	262	200	9.02	34.03	2.09	26.38	166	0.49
98	11.66	33.45	3.99	252	250	8.74	34.17	1.60	26.53	151	0.57
120	11.38	33.90	2.43	214	300	8.09	34.17	1.41	26.64	141	0.65
148	10.42	34.02	2.13	189	400	7.27	34.30	0.70	26.86	120	0.78
194	9.12	34.01	2.26	169	500	6.79	34.37	0.40	26.98	109	0.90
249	8.75	34.17	1.60	151							
346	7.53	34.18	1.22	133							
459	7.08	34.36	0.44	114							
579	5.98	34.38	0.35	98							

113.40

STRANGER; February 18, 1956; 0352 GCT; 29°01'N, 115°58'W; sounding, 600 fm; wind, 270°, force 4; weather, partly cloudy; sea, high; wire angle, 07°.

0	14.38	33.40	5.72	306	0	14.38	33.40	5.72	24.90	306	0.00
9	14.40	33.39	5.75	308	10	14.40	33.39	5.73	24.88	308	0.03
30	14.32	33.37	5.67	308	20	14.39	33.38	5.70	24.88	308	0.06
41	14.00	33.34	5.59	304	30	14.32	33.37	5.67	24.88	308	0.09
49	13.63	33.33	5.59	298	50	13.62	33.34	5.59	25.01	296	0.15
60	13.46	33.38	5.50	290	75	12.20	33.27	5.28	25.23	275	0.22
69	12.85	33.30	5.35	285	100	11.07	33.57	4.19	25.68	232	0.29
79	11.97	33.27	5.21	270	150	9.50	33.83	3.25	26.15	187	0.40
88	11.46	33.31	4.95	259	200	10.03	34.30	1.39	26.42	162	0.48
98	11.16	33.55	4.22	236	250	9.97	34.47	0.80	26.56	148	0.56
121	10.39	33.70	4.07	211	300	9.36	34.45	0.60	26.65	140	0.64
148	9.48	33.83	3.30	188	400	8.09	34.42	0.46	26.83	123	0.77
197	10.04	34.29	1.42	163	500	6.96	34.41	0.34	26.99	108	0.89
253	9.89	34.47	0.69	147	600	(5.97)	(34.40)		(27.10)	(97)	(1.00)
352	8.64	34.42	0.53	132							
467	7.36	34.42	0.36	113							
587	6.05	34.40	0.32	98							

113.50

STRANGER; February 18, 1956; 0843 GCT; 28°41'N, 116°38'W; sounding, 2000+ fm; wind, 340°, force 4; weather, partly cloudy; sea, rough; wire angle, 15°.

0	14.47	33.58	5.94	296	0	14.47	33.58	5.94	25.01	296	0.00
10	14.50	33.59a)	5.93	296	10	14.50	33.59	5.93	25.01	296	0.03
30	14.47	33.58	5.93	296	20	14.48	33.58	5.93	25.01	296	0.06
40	14.46	33.60	5.95	294	30	14.47	33.58	5.93	25.01	296	0.09
49	14.46	33.60	5.89	294	50	14.46	33.60	5.89	25.03	294	0.15
59	14.31	33.58	5.88	292	75	13.22	33.54	5.00	25.24	274	0.22
69	13.66	33.54	5.42	282	100	11.01	33.61	3.90	25.71	229	0.28
79	12.88	33.55	4.78	267	150	10.70	34.29	1.59	26.29	174	0.38
88	11.87	33.51	4.59	252	200	10.84	34.45	0.83	26.40	164	0.47
97	11.01	33.60	4.05	230	250	10.05	34.47	0.76	26.55	149	0.55
120	11.72	34.08	1.91	207	300	9.32	34.44	0.70	26.65	140	0.62
147	11.06	34.33	1.35	176	400	8.04	34.42	0.49	26.84	122	0.76
193	10.92	34.45	0.85	166	500	6.97	34.42	0.31	27.00	107	0.88
248	10.09	34.47	0.78	150	600	(6.17)	(34.42)		(27.10)	(97)	(0.99)
346	8.64	34.42	0.61	131							
459	7.39	34.42	0.38	113							
580	6.38	34.42	0.25	100							

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

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

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SPENCER F. BAIRD; February 18, 1956; 1237 GCT; 28°22'N, 117°15'W; sounding, 1900 fm; wind, 320°, force 3; weather, missing; sea, rough; wire angle, 17°.

113.60

0	14.07	33.59		286	0	14.07	33.59		25.10	286	0.00
9	14.04	33.58		286	10	14.01	33.58		25.11	286	0.03
28	13.82	33.58		283	20	13.98	33.58		25.11	286	0.06
43	13.09	33.55		270	30	13.80	33.58		25.15	282	0.09
52	12.73	33.55		263	50	12.79	33.55		25.33	265	0.14
61	12.32	33.55		256	75	11.18	33.59		25.66	234	0.20
72	11.39	33.58		237	100	10.02	33.79		26.02	200	0.26
82	10.72	33.61		224	150	10.17	34.22		26.33	170	0.35
95	10.00	33.73		203	200	9.32	34.25		26.50	154	0.43
104	10.02	33.82		198	250	9.29	34.38		26.61	144	0.51
128	10.50	34.18		178	300	8.78	34.40		26.70	135	0.58
154	10.14	34.23		168	400	7.28	34.36		26.90	116	0.71
201	9.30	34.25		154	500	6.46	34.34		27.00	107	0.83
261	9.25	34.40		142	600	5.79	34.38		27.11	96	0.93
366	7.78	34.37		122							
487	6.50	34.34		108							
617	5.68	34.39		94							

SPENCER F. BAIRD; February 18, 1956; 0815 GCT; 28°04'N, 117°52'W; sounding, 2000+ fm; wind, 320°, force 3; weather, cloudy; sea, very rough; wire angle, 21°.

113.70

0	14.14	33.58		289	0	14.14	33.58		25.08	289	0.00
9	14.13	33.54		291	10	14.13	33.54		25.06	291	0.03
28	14.12	33.58		288	20	14.12	33.56		25.07	290	0.06
41	13.40	33.52		279	30	14.06	33.58		25.10	287	0.08
50	13.02	33.58		267	50	13.02	33.58		25.31	267	0.14
59	12.74	-		-	75	11.68	33.58		25.56	243	0.21
68	12.46	33.58		257	100	10.24	33.65		25.88	213	0.26
76	11.56	33.58		240	150	9.47	33.98		26.26	177	0.36
89	10.61	33.60		223	200	8.84	(34.14)		(26.49)	(155)	(0.45)
97	10.34	33.63		216	250	7.90	(34.15)		(26.65)	(140)	(0.52)
120	10.02	33.77		201	300	7.14	(34.15)		(26.75)	(130)	(0.59)
143	9.60	33.93		182	400	6.35	34.23		26.92	114	(0.72)
188	9.02	34.14		158	500	6.04	34.31		27.03	104	(0.83)
242	8.01	-		-	600	(5.63)	(34.36)		(27.11)	(96)	(0.94)
341	6.68	34.16		123							
459	6.16	34.29		107							
587	5.69	34.35		97							

SPENCER F. BAIRD; February 17, 1956; 0937 GCT; 28°29'N, 115°36'W; sounding, 500 fm; wind, 320°, force 4; weather, missing; sea, rough; wire angle, 25°.

117.40

0	13.47	33.67	a)	269	0	13.47	33.67		25.29	269	0.00
9	13.48	33.67		270	10	13.48	33.66		25.28	270	0.03
27	13.48	33.63		272	20	13.48	33.63		25.26	272	0.05
41	12.65	33.60		258	30	13.48	33.62		25.26	272	0.08
54	11.84	33.60		244	50	12.08	33.60		25.51	248	0.13
63	11.18	33.60		230	75	10.77	33.64		25.78	222	0.19
73	10.81	-		-	100	10.40	33.85		26.01	201	0.25
87	10.44	33.75		209	150	10.73	34.33		26.32	171	0.34
96	10.38	33.82		203	200	10.19	34.41		26.48	156	0.42
109	10.44	33.92		196	250	9.67	34.40		26.56	148	0.50
136	9.90	34.09		175	300	9.16	34.38		26.63	142	0.57
162	10.56	34.34		167	400	8.38	34.38		26.75	130	0.71
214	10.06	34.42		153	500	6.94	34.34		26.93	113	0.84
276	9.36	34.38		145	600	6.05	34.36		27.07	100	0.95
384	8.56	34.38		133							
514	6.78	34.34		111							
650	5.90	34.37		98							

a) One oxygen sample missing; values are listed in order of increasing depth: 6.12, 6.03, 5.16, 4.40, 3.89, 3.63, 2.89, 2.49, 2.42, 2.23, 1.16, 0.97, 0.67, 0.47, 0.40, 0.27.

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OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m	

117.50

SPENCER F. BAIRD; February 17, 1956; 1757 GCT; 28°08'N, 116°15'W; sounding, 2100 fm; wind, 320°, force 2; weather, cloudy; sea, very rough; wire angle, 17°.

0	15.23	33.69	5.84	303	0	15.23	33.69	5.84	24.93	303	0.00
10	15.20	33.64	5.75	306	10	15.20	33.64	5.75	24.90	306	0.03
28	15.06	33.68	5.79	300	20	15.13	33.67	5.77	24.94	302	0.06
42	15.04	33.67	5.77	301	30	15.06	33.67	5.79	24.95	301	0.09
52	14.92	33.64	5.82	300	50	14.99	33.64	5.80	24.95	301	0.15
60	13.53	33.55	5.35	278	75	12.88	33.55	5.23	25.32	266	0.22
69	13.16	33.56	5.41	291	100	10.79	33.56	3.72	25.71	229	0.28
80	12.72	-	5.10	-	150	9.43	33.92	2.37	26.23	180	0.39
93	11.07	33.51	4.13	237	200	8.98	34.12	2.20	26.46	158	0.47
103	10.66	33.62	4.28u	222	250	8.27	34.16	1.96	26.60	145	0.55
125	10.14	33.84	2.67	197	300	7.87	34.28	1.30	26.75	130	0.62
152	9.40	33.93	3.38u	179	400	7.28	34.36	0.44	26.90	116	0.75
202	8.98	34.13	2.20	158	500	6.52	34.36	0.33	27.01	106	0.86
261	8.12	34.18	1.85	141	600	6.04	34.41	0.31	27.11	96	0.97
369	7.54	34.36	0.53	120							
491	6.60	34.36	0.34	107							
623	5.96	34.42	0.31	94							

117.60

SPENCER F. BAIRD; February 17, 1956; 2326 GCT; 27°48'N, 116°52'W; sounding, 2000+ fm; wind, 320°, force 2; weather, overcast; sea, very rough; wire angle, 10°.

0	15.24	33.62a)		309	0	15.24	33.62		24.87	309	0.00
10	15.10	33.62		306	10	15.10	33.62		24.90	306	0.03
30	15.06	33.61		306	20	15.10	33.61		24.90	306	0.06
45	15.05	33.60		306	30	15.06	33.61		24.90	306	0.09
54	15.05	33.60		306	50	15.05	33.60		24.90	306	0.15
63	13.80	33.52		287	75	12.60	33.52		25.34	264	0.22
72	12.71	33.52		266	100	11.01	33.58		25.69	231	0.29
82	12.28	33.51		259	150	9.48	33.87		26.18	184	0.39
96	11.24	33.58		236	200	8.27	34.02		26.49	155	0.48
105	10.77	33.57		227	250	7.59	34.10		26.65	140	0.55
129	10.21	33.80		202	300	7.27	34.20		26.78	128	0.62
156	9.30	33.89		180	400	6.99	34.34		26.93	113	0.75
206	8.17	34.05		151	500	6.35	34.41		27.07	100	0.86
267	7.48	34.12		137	600	5.68	34.42		27.16	92	0.96
376	7.05	34.33		116							
501	6.34	34.41		100							
634	5.55	34.42		90							

117.70

SPENCER F. BAIRD; February 18, 1956; 0343 GCT; 27°32'N, 117°31.5'W; sounding, 2100 fm; wind, 320°, force 3; weather, cloudy; sea, very rough; wire angle, 08°.

0	15.22	33.63	5.86	307	0	15.22	33.63	5.86	24.89	307	0.00
10	15.20	33.62	-	308	10	15.20	33.62	5.80	24.88	308	0.03
29	15.23	33.64	5.90	307	20	15.22	33.63	5.83	24.89	307	0.06
43	15.22	33.64	-	307	30	15.23	33.64	5.83	24.89	307	0.09
54	15.16	33.60	5.74	308	50	15.17	33.62	5.76	24.89	307	0.15
63	13.38	33.48	-	281	75	12.38	33.49	5.22	25.36	262	0.22
72	12.59	33.49	5.32	265	100	11.10	33.61	3.84	25.69	231	0.29
83	11.96	33.51	-	253	150	9.51	34.10	2.26	26.35	168	0.39
95	11.36	33.58	-	237	200	9.15	34.25	0.87	26.53	151	0.47
105	10.77	33.51r	3.42	-	250	8.83	34.35	0.77	26.66	139	0.54
128	9.70	33.77	2.48	196	300	8.42	34.38	0.69	26.74	131	0.61
156	9.48	34.13	2.21	166	400	7.19	34.37	0.50	26.92	114	0.74
206	9.10	34.27	0.84	149	500	5.90	34.33	0.41	27.06	101	0.85
267	8.73	34.36	0.74	137	600	5.32	34.37	0.31	27.16	91	0.95
375	7.51	34.38	0.52	118							
498	5.96	34.33	0.42	101							
629	5.24	34.38	0.29	90							

a) Salinity bottle numbers were not recorded on the data sheet. Since standard handling and titrating procedures were used, these salinity values are assumed to be in the order listed.

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

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SPENCER F. BAIRD; February 17, 1956; 1207 GCT; 28°13.5'N, 115°23'W; sounding, 140 fm; wind, 340°, force 3; weather, missing; sea, very rough; wire angle, 12°.

118.39

0	13.59	33.65		272	0	13.59	33.65		25.26	272	0.00
11	13.59	33.65		272	10	13.59	33.65		25.26	272	0.03
15	13.60	33.65		273	20	13.60	33.65		25.26	272	0.05
21	13.60	33.66		272	30	13.02	33.63		25.34	264	0.08
24	13.36	33.64		269	50	12.20	33.69		25.55	244	0.13
29	13.06	33.62		265	75	10.72	33.71		25.85	216	0.19
34	12.96	33.68		258	100	10.23	33.92		26.09	193	0.24
45	-	33.69		-	150	10.73	34.31		26.30	173	0.33
55	11.69	33.70		234	200	10.83	34.47		26.41	163	0.42
64	10.90	-		-							
74	10.78	33.71		217							
93	10.13	33.89		193							
107	10.51	33.98		193							
135	10.64	34.23		177							
168	10.84	34.39		168							
203	10.83	34.48		162							

SPENCER F. BAIRD; February 16, 1956; 1735 GCT; 28°19.5'N, 114°53.5'W; sounding, 53 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 05°.

119.33

0	13.90	33.68		276	0	13.90	33.68		25.21	276	0.00
10	14.08	-		275	10	14.08	33.68		25.17	280	0.03
20	14.08	33.68		280	20	14.08	33.68		25.17	280	0.06
30	14.05	33.68		279	30	14.05	33.68		25.18	279	0.08
50	13.34	33.67		266	50	13.34	33.67		25.32	266	0.14
75	12.02	33.63		245	75	12.02	33.63		25.54	245	0.20

SPENCER F. BAIRD; February 16, 1956; 1048 GCT; 27°42'N, 115°32.5'W; sounding, 1180 fm; wind, 270°, force 3; weather, missing; sea, rough; wire angle, 15°.

120.45

0	14.68	33.78		285	0	14.68	33.78		25.12	285	0.00
10	14.68	33.80		284	10	14.68	33.80		25.13	284	0.03
29	14.56a)	33.83		279	20	14.61	33.83		25.17	280	0.06
43	12.94	33.83		247	30	14.56	33.83		25.18	279	0.08
53	12.29	33.80		238	50	12.60	33.82		25.58	242	0.14
62	10.90	33.65		224	75	11.03	33.82		25.87	214	0.19
72	10.96	33.74		218	100	10.60	34.07		26.14	188	0.24
81	11.11	33.91		208	150	9.98	34.18		26.33	170	0.34
96	10.88	34.09		191	200	9.74	34.36		26.52	152	0.42
105	10.22	34.04		185	250	9.72	34.52		26.65	140	0.49
128	10.12	-		-	300	9.41	34.59		26.75	130	0.56
156	9.94	34.22		166	400	8.23	34.52		26.88	118	0.69
206	9.74	34.38		151	500	6.87	34.42		27.01	106	0.81
265	9.70	34.55		138	600	6.16	34.43		27.10	97	0.91
372	8.60	34.55		121							
495	6.94	34.42		107							
627	6.03	34.43		95							

a) Mean value of 14.48 and 14.65°C.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^3	Z	T	S	O ₂	σ_t	δT_{-5}^3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

120.50

SPENCER F. BAIRD; February 16, 1956; 0808 GCT; 27°34'N, 115°50'W; sounding, 2250 fm; wind, 320°, force 3; weather, overcast; sea, rough; wire angle, 15°.

0	15.67	33.69		312	0	15.67	33.69		24.84	312	0.00
10	15.66	33.68		313	10	15.66	33.68		24.83	313	0.03
29	15.67	33.70		311	20	15.66	33.69		24.84	312	0.06
43	15.66	33.69		312	30	15.66	33.70		24.85	311	0.09
53	15.64	33.68		313	50	15.64	33.68		24.84	312	0.16
63	14.26	33.54		294	75	12.85	33.54		25.32	266	0.23
72	13.16	33.55		271	100	10.80	33.50		25.66	234	0.29
81	12.18	33.52		256	150	9.59	33.93		26.21	182	0.40
96	10.96	33.48		237	200	8.92	34.15		26.49	155	0.48
105	10.63	33.54		228	250	8.61	34.28		26.64	141	0.56
129	10.24	33.82		201	300	8.04	34.29		26.73	132	0.63
154	9.56	33.94		180	400	6.77	34.30		26.92	114	0.76
204	8.88	34.16		154	500	6.24	34.36		27.04	103	0.87
261	8.57	34.29		139	600	5.80	34.42		27.14	93	0.97
365	7.14	34.28		120							
486	6.24	34.36		103							
617	5.78	34.43		92							

120.55

SPENCER F. BAIRD; February 16, 1956; 0516 GCT; 27°26'N, 116°06'W; sounding, 2200 fm; wind, 360°, force 2; weather, overcast; sea, moderate; wire angle, 12°.

0	15.82	33.69	5.69	316	0	15.82	33.69	5.69	24.80	316	0.00
10	15.81	33.68	5.75	317	10	15.81	33.68	5.75	24.79	317	0.03
25	15.81	33.68	5.70	317	20	15.81	33.68	5.70	24.79	317	0.06
54	15.79	33.62	5.69	320	30	15.81	33.67	5.70	24.78	318	0.10
63	14.62	33.57a)	5.72	300	50	15.80	33.63	5.69	24.76	319	0.16
73	14.08	33.49	5.75	294	75	13.98	33.49	5.74	25.05	292	0.24
87	13.17	33.55	5.40	271	100	12.00	33.51	4.69	25.46	253	0.30
106	11.50	33.50	4.35	245	150	9.83	33.86	2.82	26.11	191	0.42
129	-	33.64	3.77	-	200	8.98	34.06	2.22	26.42	162	0.51
157	9.60	33.91	2.67	183	250	8.65	34.22	1.69	26.58	146	0.59
208	9.21	34.14	1.96	161	300	7.93	34.28	1.22	26.74	131	0.66
282	8.14	34.26	1.41	136	400	7.11	34.33	0.57	26.90	116	0.79
383	7.27	34.33	0.61	119	500	6.11	34.33	0.49	27.04	103	0.90
518	5.94	34.33	0.48	101	600	5.45	34.37	0.41	27.14	93	1.00
699	5.07	34.43	0.40	84	700	5.07	34.43	0.40	27.24	84	1.10
926	4.30	34.51	0.57	70	800	4.80	34.46	0.44	27.29	79	1.19
1227	3.41	34.55	0.81	58	1000	4.00	34.52	0.66	27.43	66	1.35

120.60

SPENCER F. BAIRD; February 16, 1956; 0148 GCT; 27°15.5'N, 116°27'W; sounding, 2000+ fm; wind, 320°, force 2; weather, cloudy; sea, rough; wire angle, 10°.

0	15.64	33.68	5.77	312	0	15.64	33.68	5.77	24.84	312	0.00
10	15.62	-	5.83	-	10	15.62	33.67	5.83	24.84	312	0.03
25	15.58	33.66	5.82	312	20	15.60	33.67	5.82	24.84	312	0.06
54	15.58	33.66	5.77	312	30	15.58	33.66	5.82	24.84	312	0.09
64	15.58	33.66	5.77	312	50	15.58	33.66	5.80	24.84	312	0.16
74	15.47	-	5.85	-	75	15.40	33.62	5.84	24.84	312	0.23
88	13.47	33.31	5.43	296	100	12.68	33.34	5.18	25.20	278	0.31
107	12.21	-	4.96	-	150	10.08	33.71	3.48	25.95	206	0.43
130	10.70	33.50	4.05	232	200	8.99	33.97	2.58	26.33	170	0.53
158	9.94	33.78	3.35	198	250	8.92	34.24	1.43	26.56	148	0.61
206	8.93	33.98	2.43	168	300	8.67	(34.36)	1.28	(26.69)	(136)	(0.68)
279	8.92	34.36	1.40	139	400	7.44	(34.35)	0.88	(26.87)	(119)	(0.82)
379	7.66	-	0.96	-	500	6.38	(34.35)	0.46	(27.01)	(106)	(0.93)
510	6.28	34.35	0.44	104	600	5.75	34.39	0.47	27.12	95	(1.04)
687	5.30	34.43	0.48	87	700	5.24	(34.44)	0.48	(27.22)	(86)	(1.14)
909	4.35	-	0.46	-	800	4.84		0.47			
1205	3.54	-	0.97u	-	1000	4.00					

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

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

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5602

SPENCER F. BAIRD; February 15, 1956; 2043 GCT; 26°53.5'N, 117°09.5'W; sounding, 2600 fm; wind, 300°, force 2; weather, cloudy; sea, rough; wire angle, 17°.

120.70

0	16.61	-	5.75	-	0	16.61	(33.82)	5.75	(24.70)	(325)	(0.00)
10	16.56	33.80	5.66	324	10	16.56	33.80	5.66	24.71	324	0.03
24	16.54	33.80	5.63	323	20	16.56	33.80	5.64	24.72	323	0.06
52	15.94	33.68	5.61	319	30	16.43	33.79	5.62	24.73	322	0.10
61	15.83	33.63	5.66	321	50	16.03	33.70	5.61	24.76	319	0.16
70	15.79	33.62	5.74	319	75	15.63	33.60	5.74	24.78	318	0.24
85	15.12	33.48	5.69	316	100	14.44	33.41	5.67	24.88	308	0.32
103	14.28	-	5.66	-	150	10.67	33.36	4.45	25.58	241	0.46
126	12.13	33.31	5.00	271	200	9.54	33.51	3.56	25.88	213	0.57
154	10.56	-	4.38	-	250	8.40	33.81	3.32	26.30	173	0.67
201	9.53	33.51	3.54	212	300	7.60	34.08	2.90	26.63	142	0.76
271	7.97	34.02	3.19	148	400	6.84	34.29	1.33	26.90	116	0.89
369	7.00	-	1.67	-	500	6.38	34.36	0.65	27.03	104	1.00
497	6.40	34.36	0.65	105	600	5.82	34.41	0.64	27.13	94	1.11
669	5.36	34.45	0.64	86	700	5.16	34.46	0.63	27.25	83	1.20
885	4.42	34.51	0.61	71	800	4.67	34.50	0.61	27.33	75	1.29
1180	3.55	34.56	0.78	58	1000	4.07	34.53	0.67	27.43	66	1.45

SPENCER F. BAIRD; February 15, 1956; 0547 GCT; 27°14'N, 114°59'W; sounding, 850 fm; wind, 320°, force 3; weather, overcast; sea, rough; wire angle, 20°.

123.42

0	15.64	33.89	5.68	297	0	15.64	33.89	5.68	25.00	297	0.00
9	15.62	33.90	5.72	296	10	15.62	33.91	5.73	25.02	295	0.03
28	15.62	33.91	5.82	295	20	15.62	33.91	5.78	25.02	295	0.06
42	13.01	33.75	3.77	255	30	15.61	33.91	5.81	25.03	294	0.09
56	12.34	33.93	2.77	229	50	12.62	33.84	3.22	25.60	240	0.14
65	11.90	33.93	2.55	221	75	11.58	34.00	2.30	25.91	210	0.20
74	11.65	33.98	2.32	213	100	10.72	34.07	2.30	26.12	190	0.25
88	11.16	34.05	2.24	199	150	10.02	34.33	1.66	26.45	159	0.34
96	10.84	34.07	2.27	192	200	10.16	34.52	1.20	26.56	148	0.42
110	10.08	34.04	2.42	182	250	9.79	34.54	0.49	26.65	140	0.49
138	9.79	34.14	2.08	170	300	9.27	34.54	0.40	26.73	132	0.56
165	10.16	34.45	1.46	152	400	8.43	34.53	0.24	26.86	120	0.69
219	10.16	34.54	0.60	145	500	7.21	34.48	0.30	27.01	106	0.81
283	9.44	34.54	0.44	134	600	6.19	34.48	0.27	27.14	93	0.91
394	8.52	34.53	0.24	121							
526	6.82	34.47	0.31	102							
660	5.84	34.49	0.22	88							

SPENCER F. BAIRD; February 15, 1956; 0947 GCT; 26°58'N, 115°30.5'W; sounding, 2000 fm; wind, 340°, force 3; weather, overcast; sea, rough; wire angle, 25°.

123.50

0	15.75	33.77	5.87	308	0	15.75	33.77	5.87	24.88	308	0.00
8	15.74	33.76	5.79	308	10	15.74	33.75	5.79	24.87	309	0.03
27	15.76	33.72	5.66	312	20	15.75	33.74	5.75	24.85	311	0.06
41	15.74	33.72	5.69	311	30	15.75	33.72	5.67	24.85	311	0.09
50	15.72	33.75	5.74	309	50	15.72	33.75	5.74	24.87	309	0.16
59	15.57	33.73	5.77	306	75	13.96	33.60	5.50	25.13	284	0.23
67	15.01	33.68	5.82	300	100	11.44	33.52	4.78	25.56	243	0.30
77	13.69	33.58	5.39	280	150	9.72	33.92	3.30	26.18	185	0.41
89	-	33.52	5.11	-	200	9.50	34.30	1.40	26.51	153	0.49
97	11.68	33.52	4.86	247	250	9.28	34.49	0.98	26.69	136	0.57
118	10.47	33.58	4.10	223	300	9.02	34.54	0.70	26.78	128	0.63
140	9.82	33.77	3.56	198	400	7.87	34.47	0.36	26.90	116	0.76
184	9.58	34.22	2.01	160	500	6.67	34.43	0.29	27.04	103	0.88
233	9.40	34.42	1.07	143							
328	8.84	34.54	0.63	126							
442	7.30	34.43	0.28	111							
569	6.16	34.43	0.31	96							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m

123.55

SPENCER F. BAIRD; February 15, 1956; 1250 GCT; 26°48'N, 115°49.5'W; sounding, 2000 fm; wind, 340°, force 3; weather, missing; sea, moderate; wire angle, 17°.

0	16.04	33.72	5.70	317	0	16.04	33.72	5.70	24.79	317	0.00
10	16.02	33.75	5.83	315	10	16.02	33.75	5.83	24.81	315	0.03
28	16.02	33.71	5.74	318	20	16.02	33.73	5.76	24.79	317	0.06
43	16.02	33.73	5.66	317	30	16.02	33.71	5.70	24.78	318	0.09
57	16.02	33.72	5.68	317	50	16.02	33.73	5.66	24.79	317	0.16
66	16.00	33.71	5.66	318	75	15.86	33.72	5.66	24.82	314	0.24
76	15.86	33.72	5.66	314	100	12.34	33.48	5.28	25.36	262	0.31
89	13.28	33.49	5.43	279	150	9.83	33.75	3.50	26.03	199	0.43
100	12.34	33.48	5.28	262	200	9.40	34.10	2.33	26.36	167	0.52
113	11.22	33.48	4.74	243	250	8.68	34.17	1.93	26.54	150	0.60
141	9.96	33.68	3.72	206	300	7.96	34.22	1.53	26.69	136	0.68
168	9.66	33.91	2.86	185	400	7.27	34.34	0.59	26.89	117	0.81
219	9.20	34.15	2.10	159	500	6.49	34.36	0.33	27.01	106	0.92
282	8.13	34.18	1.73	141	600	5.90	34.40	0.27	27.11	96	1.03
390	7.38	34.34	0.66	119							
520	6.30	34.36	0.31	104							
657	5.69	34.44	0.27	90							

127.40

SPENCER F. BAIRD; February 14, 1956; 1949 GCT; 26°43.5'N, 114°29.5'W; sounding, 1600 fm; wind, 360°, force 3; weather, cloudy; sea, moderate; wire angle, 08°.

0	15.86	33.80	5.52	308	0	15.86	33.80	5.52	24.88	308	0.00
10	15.84	33.80	5.75	308	10	15.84	33.80	5.75	24.88	308	0.03
30	15.74	33.82	5.89	304	20	15.81	33.82	5.81	24.90	306	0.06
45	15.20	33.78	5.69	296	30	15.74	33.82	5.89	24.92	304	0.09
55	12.57	33.54	5.07	261	50	13.43	33.60	5.26	25.25	273	0.15
65	11.42	33.56	4.40	240	75	10.79	33.60	4.23	25.75	225	0.21
75	10.79	33.60	4.23	225	100	10.04	33.78	3.35	26.01	201	0.27
84	10.45	33.66	3.94	216	150	10.47	34.33	1.50	26.36	167	0.36
100	10.04	33.78	3.35	201	200	9.74	34.35	1.21	26.51	153	0.44
110	9.99	33.96	3.18	185	250	9.50	34.49	0.62	26.66	139	0.51
134	10.58	34.22	1.71	176	300	9.18	34.54	0.41	26.75	130	0.58
160	10.32	34.34	1.40	163	400	7.87	34.46	0.26	26.89	117	0.71
212	9.56	34.37	1.11	148	500	6.99	34.47	0.27	27.03	104	0.83
272	9.50	34.55	0.61	134	600	6.36	34.48	0.25	27.12	95	0.93
380	8.06	34.46	0.24	120							
504	6.98	34.47	0.27	103							
635	6.11	34.48	0.23	92							

127.50

SPENCER F. BAIRD; February 14, 1956; 1452 GCT; 26°22.5'N, 115°07'W; sounding, 1000 fm; wind, 330°, force 3; weather, overcast; sea, moderate; wire angle, 20°.

0	15.30	33.80	6.05	296	0	15.30	33.80	6.05	25.01	296	0.00
9	15.25	33.79	6.06	296	10	15.22	33.79	6.06	25.01	296	0.03
29	14.80	33.79	5.99	287	20	15.22	33.79	6.06	25.01	296	0.06
42	13.92	33.73	5.16	273	30	14.78	33.79	5.97	25.11	286	0.09
58	12.37	33.73	3.64	244	50	13.14	33.68	4.50	25.36	262	0.14
66	12.06	33.88	3.14	227	75	11.96	33.91	2.61	25.78	223	0.20
75	11.96	33.91	2.61	223	100	10.46	33.98	2.48	26.09	193	0.26
89	10.79	33.87	2.55	206	150	10.00	34.30	1.50	26.43	161	0.35
99	10.44	33.97	2.50	193	200	9.84	34.46	0.83	26.58	146	0.42
113	10.90	34.11	2.04	190	250	9.59	34.51	0.56	26.66	139	0.50
142	10.12	34.25	1.72	167	300	9.08	34.52	0.46	26.75	130	0.57
168	9.96	34.34	1.37	158	400	7.87	34.49	0.39	26.91	115	0.69
222	9.76	34.49	0.65	143	500	6.94	34.49	0.22	27.05	102	0.81
288	9.22	34.52	0.48	132	600	6.11	34.48	0.25	27.16	92	0.91
398	7.92	34.49	0.39	115							
528	6.68	34.49	0.19	99							
663	5.52	34.47	0.32	86							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m

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SPENCER F. BAIRD; February 14, 1956; 1151 GCT; 26°11.5'N, 115°28'W; sounding, 2000 fm; wind, 320°, force 3; weather, overcast; sea, moderate; wire angle, 25°.

127.55

0	14.92	33.82	5.93	287	0	14.92	33.82	5.93	25.10	287	0.00
9	14.91	33.83	6.08	286	10	14.89	33.83	6.08	25.11	286	0.03
27	14.60	33.79	6.09	283	20	14.78	33.81	6.09	25.13	284	0.06
40	13.65	33.76	5.88	266	30	14.49	33.78	6.09	25.16	281	0.09
49	12.44	33.59	5.16	256	50	12.32	33.57	5.01	25.44	255	0.14
57	12.03	33.54	4.69	252	75	11.59	33.77	3.35	25.73	227	0.20
66	11.96	33.69	4.02	239	100	10.81	33.92	2.70	25.98	203	0.25
75	11.59	33.77	3.35	227	150	10.74	34.38	1.10	26.36	167	0.35
88	-	33.84	3.19	-	200	10.34	34.51	0.81	26.53	151	0.43
95	10.84	33.89	2.88	205	250	9.59	34.50	0.76	26.65	140	0.50
117	10.80	34.15	1.99	185	300	9.00	34.51	0.70	26.76	129	0.57
136	10.78	34.31	1.40	173	400	7.95	34.47	0.59	26.89	117	0.70
179	10.65	34.52	0.87	155	500	6.92	34.44	0.42	27.00	107	0.81
231	9.83	34.49	0.78	144							
322	8.78	34.51	0.68	126							
437	7.55	34.45	0.53	113							
566	6.26	34.43	0.29	98							

SPENCER F. BAIRD; February 13, 1956; 1752 GCT; 26°19.5'N, 112°50'W; sounding, 230 fm; wind, 360°, force 2; weather, cloudy; sea, moderate; wire angle, 16°.

130.35

0	15.71	33.76	5.72	308	0	15.71	33.76	5.72	24.88	308	0.00
10	15.66	33.73	5.72	309	10	15.66	33.73	5.72	24.87	309	0.03
15	15.66	33.74	5.71	309	20	15.64	33.78	5.74	24.91	305	0.06
19	15.64	33.77	5.74	306	30	15.64	33.76	5.73	24.90	306	0.09
24	15.64	33.80	5.71	304	50	15.67	33.80	5.72	24.92	304	0.15
29	15.64	33.77	5.73	306	75	12.83	33.49	5.02	25.28	270	0.22
38	15.63	33.76	5.73	306	100	10.77	33.58	3.24	25.74	226	0.29
48	15.67	33.80	5.72	304	150	11.85	34.41	0.90	26.18	185	0.39
61	14.34	33.60	5.39	291	200	10.98	34.57	0.61	26.47	157	0.48
75	12.83	33.49	5.02	270	250	10.48	34.60	0.49	26.58	146	0.55
93	11.34	33.51	4.52	242	300	9.95	34.58	0.48	26.66	139	0.63
115	11.06	34.00	2.84	201							
150	11.85	34.41	0.90	185							
185	11.16	34.54	0.71	162							
231	10.70	34.61	0.50	149							
303	9.90	34.58	0.48	139							
380	9.38	34.57	0.27	130							

SPENCER F. BAIRD; February 13, 1956; 2030 GCT; 26°09'N, 114°08'W; sounding, 1100 fm; wind, 340°, force 2; weather, cloudy; sea, moderate; wire angle, 26°.

130.40

0	16.50	33.73	5.72	327	0	16.50	33.73	5.72	24.68	327	0.00
9	16.40	33.75	5.41	324	10	16.39	33.75	5.45	24.71	324	0.03
26	16.35	33.75	5.82	322	20	16.36	33.75	5.60	24.72	323	0.06
39	16.34	33.75	5.84	322	30	16.34	33.75	5.82	24.73	322	0.10
47	16.33	33.74	5.67	323	50	16.22	33.72	5.70	24.73	322	0.16
56	15.29	33.64	5.96	308	75	12.60	33.52	5.18	25.34	264	0.23
64	13.83	33.53	5.66	287	100	11.17	33.50	4.28	25.61	239	0.30
71	13.15	33.53	5.19	273	150	10.82	34.26	1.70	26.26	177	0.40
83	11.83	33.49	5.16	252	200	11.28	34.58	0.61	26.42	162	0.49
92	11.58	33.48	4.84	248	250	10.37	34.54	0.60	26.55	149	0.57
110	10.68	33.69	3.63	217	300	9.12	34.43	0.70	26.68	137	0.64
132	10.39	34.00	2.58	190	400	8.07	34.49	0.36	26.88	118	0.77
172	11.32	34.52	0.89	167	500	7.04	34.47	0.30	27.03	104	0.89
219	11.11	34.60	0.54	157							
305	9.01	34.43	0.70	136							
403	8.01	34.49	0.34	117							
511	6.91	34.47	0.29	103							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m

130.50

SPENCER F. BAIRD; February 14, 1956; 0105 GCT; 25°49'N, 114°42'W; sounding, 1700 fm; wind, 330°, force 3; weather, partly cloudy; sea, moderate; wire angle, 17°.

0	16.86	33.83	5.58	328	0	16.86	33.83	5.58	24.67	328	0.00
10	16.82	33.86	5.58	325	10	16.82	33.86	5.58	24.70	325	0.03
23	16.80	33.82	5.62	327	20	16.80	33.83	5.62	24.69	326	0.06
53	16.72	33.83	5.64	325	30	16.79	33.82	5.63	24.69	326	0.10
62	16.31	33.76	5.68	321	50	16.73	33.83	5.63	24.70	325	0.16
71	16.20	33.77	5.67	318	75	16.11	33.76	5.67	24.80	316	0.24
85	14.89	33.60	5.63	303	100	12.68	33.52	4.88	25.33	265	0.32
104	12.33	33.54	4.69	257	150	11.87	34.15	1.95	25.98	204	0.43
125	12.08	33.94	2.66	223	200	11.41	34.48	0.99	26.31	172	0.53
153	11.82	34.19	1.86	200	250	10.16	34.45	0.81	26.52	152	0.61
203	11.39	34.48	0.95	172	300	9.18	34.44	0.68	26.68	137	0.69
277	9.52	34.44	0.76	143	400	8.05	34.45	0.37	26.86	120	0.82
378	8.28	34.45	0.42	124	500	6.97	34.46	0.26	27.03	104	0.94
511	6.84	34.46	0.23	103	600	6.13	34.46	0.30	27.13	94	1.04
688	5.50	34.46	0.36	87	700	5.40	34.46	0.36	27.23	85	1.14
912	4.38	34.51	0.46	70	800	4.90	34.48	0.41	27.30	78	1.23
1213	3.50	34.57	0.78	58	1000	3.96	34.54	0.56	27.45	64	1.38

130.60

SPENCER F. BAIRD; February 14, 1956; 0626 GCT; 25°29'N, 115°23'W; sounding, 1900 fm; wind, 320°, force 4; weather, missing; sea, moderate; wire angle, 12°.

0	16.48	33.77	5.60	325	0	16.48	33.77	5.60	24.71	325	0.00
10	16.48	33.71	5.69	328	10	16.48	33.71	5.69	24.67	328	0.03
25	16.48	33.71	5.74	328	20	16.48	33.71	5.71	24.67	328	0.06
54	16.45	33.64	5.74	333	30	16.46	33.69	5.74	24.66	329	0.10
63	16.43	33.71	5.67	326	50	16.45	33.65	5.74	24.63	332	0.16
71	16.30	33.70	5.64	325	75	15.60	33.64	5.63	24.82	314	0.24
86	13.34	33.48	5.47	280	100	11.91	33.45	4.96	25.43	256	0.32
104	11.54	33.47	4.71	248	150	10.46	34.01	2.72	26.12	190	0.43
128	10.66	33.69	3.52	218	200	10.17	34.30	1.60	26.40	164	0.52
155	10.41	34.03	2.42	188	250	9.67	34.44	0.98	26.60	145	0.60
207	10.12	34.33	1.47	160	300	9.07	34.46	0.64	26.71	134	0.67
283	9.24	34.46	0.69	137	400	7.56	34.43	0.38	26.91	115	0.80
384	7.76	34.43	0.43	117	500	6.72	34.42	0.21	27.03	104	0.92
522	6.58	34.42	0.20	102	600	6.09	34.42	0.21	27.11	96	1.02
705	5.33	34.44	0.24	86	700	5.40	34.44	0.24	27.21	87	1.12
931	4.29	34.52	0.53	69	800	4.75	34.48	0.40	27.31	77	1.21
1232	3.57	34.56	0.73	59	1000	4.04	34.54	0.62	27.43	66	1.37

133.30

SPENCER F. BAIRD; February 13, 1956; 0727, 0743 GCT; 25°55.5'N, 113°08'W; sounding, 100 fm; wind, 360°, force 2; weather, partly cloudy; sea, moderate; wire angle, 02°, 04°.

0	14.44	33.69	6.00	288	0	14.44	33.69	6.00	25.09	288	0.00
10	14.34	33.69	5.79	285	10	14.34	33.69	5.79	25.12	285	0.03
15	14.18	33.73	5.75	278	20	14.16	33.73	5.80	25.20	278	0.06
20	14.16	33.73	5.80	278	30	14.05	33.76	5.80	25.24	274	0.08
25	14.14	33.74	5.79	276	50	13.79	33.76	4.75	25.30	268	0.14
30	14.05	33.76	5.80	274	75	11.60	33.68	3.06	25.66	234	0.20
35	13.94	33.74	5.66	273	100	11.41	34.02	2.18	25.95	206	0.26
44	13.84	33.75	5.51	271	150	(11.52)	(34.14)	(1.83)	(26.03)	(199)	(0.36)
54	13.72	33.77	4.47	267							
64	13.00	33.80	3.95	251							
77	11.52	33.68	2.97	232							
95	11.44	34.01	2.21	207							
114	11.60	-	1.93	-							
147	11.58	34.14	1.81	199							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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SPENCER F. BAIRD; February 13, 1956; 0219 GCT; 25°33'N, 113°45'W; sounding, 1660 fm; wind, 320°, force 2; weather, partly cloudy; sea, moderate; wire angle, 10°.

133.40

0	15.94	33.84	5.80	307	0	15.94	33.84	5.80	24.89	307	0.00
10	15.78	33.73	5.77	312	10	15.78	33.73	5.77	24.85	312	0.03
30	15.66	33.77	5.75	308	20	15.72	33.75	5.76	24.87	309	0.06
41	15.64	33.75	5.74	308	30	15.66	33.77	5.75	24.88	308	0.09
49	15.62	33.75	5.78	306	50	15.62	33.75	5.78	24.90	306	0.15
60	15.60	33.75	5.82	306	75	15.40	33.75	5.43	24.94	302	0.23
71	15.58	33.76	5.49	305	100	11.45	33.51	4.52	25.55	244	0.30
80	14.63	33.64	5.38	295	150	10.50	34.06	2.40	26.15	187	0.41
91	12.26	33.47	4.94	262	200	11.16	34.56	1.60	26.43	161	0.50
100	11.45	33.51	4.52	244	250	10.15	34.54	1.22	26.60	145	0.57
123	10.54	33.75	4.06	210	300	9.22	34.43	0.79	26.66	139	0.65
151	10.48	34.08	2.12	185	400	7.98	34.40	0.39	26.83	123	0.78
195	11.19	34.54	1.66	163	500	7.12	34.42	0.31	26.98	109	0.90
249	10.18	34.54	1.27	146	600	(6.17)	(34.42)		(27.09)	(98)	(1.01)
347	8.48	34.39	0.48	131							
460	7.41	34.42	0.32	114							
582	6.34	34.42	0.26	100							

SPENCER F. BAIRD; February 12, 1956; 1705 GCT; 25°21'N, 112°46'W; sounding, 185 fm; wind, 330°, force 2; weather, cloudy; sea, moderate; wire angle, 03°.

137.30

0	16.63	34.08	5.80	305	0	16.63	34.08	5.80	24.91	305	0.00
10	16.54	34.10	5.75	302	10	16.54	34.10	5.75	24.94	302	0.03
15	16.54	34.09	5.66	302	20	16.52	34.09	5.61	24.95	301	0.06
20	16.52	34.09	5.61	301	30	16.26	34.07	5.15	25.00	297	0.09
25	16.48	34.09	5.48	301	50	13.03	33.95	2.38	25.60	240	0.14
29	16.39	34.08	5.27	299	75	12.44	34.12	1.60	25.84	217	0.20
34	15.55	34.05	4.46	283	100	12.16	34.38	0.90	26.10	192	0.25
44	13.90	33.96	2.71	256	150	11.97	34.59	0.44	26.30	173	0.35
53	12.79	33.95	2.33	235	200	11.22	34.63	0.14	26.47	157	0.43
63	12.59	33.95	2.31	232	250	10.65	34.63	0.09	26.56	148	0.51
76	12.42	34.13	1.52	216	300	(10.47)	(34.64)	(0.17)	(26.61)	(144)	(0.58)
96	12.14	34.34	1.08	195							
119	12.24	34.54	0.44	183							
157	11.84	34.60	0.43	171							
196	11.27	34.63	0.15	158							
235	10.74	34.63	0.08	149							
294	10.50	34.64	0.14	144							

SPENCER F. BAIRD; February 12, 1956; 2142 GCT; 24°59.5'N, 113°24'W; sounding, 1200 fm; wind, 320°, force 2; weather, cloudy; sea, moderate; wire angle, 12°.

137.40

0	15.94	33.82	5.78	308	0	15.94	33.82	5.78	24.88	308	0.00
10	15.66	33.79	5.74	305	10	15.66	33.79	5.74	24.91	305	0.03
30	15.24	33.71	5.74	302	20	15.43	33.75	5.74	24.93	303	0.06
44	15.01	33.68	5.66	299	30	15.24	33.71	5.74	24.94	302	0.09
53	14.08	33.62a)	5.37	285	50	14.59	33.64	5.51	25.04	293	0.15
62	12.85	33.58	4.70	264	75	11.90	33.66	4.30	25.58	241	0.22
71	11.93	33.56	4.39	248	100	12.41	34.22	1.25	25.92	209	0.27
81	11.86	33.77	3.04	232	150	10.97	34.37	1.16	26.31	172	0.37
95	12.45	34.20	1.33	211	200	10.95	34.60	0.50	26.49	155	0.45
104	12.36	34.23	1.15	207	250	10.44	34.59	0.37	26.58	147	0.53
127	11.84	34.38	0.99	187	300	9.69	34.56	0.29	26.68	137	0.60
154	10.90	34.37	1.17	171	400	8.21	34.50	0.18	26.87	119	0.74
204	10.97	34.60	0.47	154	500	7.20	34.45	0.20	26.98	109	0.86
264	10.26	34.58	0.35	144	600	6.26	34.44	0.17	27.10	97	0.96
369	8.60	34.52	0.17	123							
491	7.27	34.45	0.20	110							
619	6.11	34.44	0.15	95							

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

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^{+3}	Z	T	S	O ₂	σ_t	δT_{-5}^{+3}	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

140.40

SPENCER F. BAIRD; February 12, 1956; 0259 GCT; 24°29'N, 113°02'W; sounding, 700 fm; wind, 310°, force 2; weather, missing; sea, moderate; wire angle, 06°.

0	16.78	34.05	5.74	310	0	16.78	34.05	5.74	24.86	310	0.00
10	16.78	34.04	5.77	311	10	16.78	34.04	5.77	24.85	311	0.03
30	16.64	34.04	5.77	308	20	16.71	34.04	5.77	24.87	309	0.06
45	15.82	33.99	4.72	296	30	16.64	34.04	5.77	24.88	308	0.09
55	13.86	33.90	2.75	260	50	15.03	33.95	3.79	25.18	280	0.15
65	12.78	33.81	3.14	246	75	12.53	34.00	2.50	25.73	227	0.22
74	12.53	34.00	2.50	227	100	11.76	34.14	1.79	26.00	202	0.27
84	12.42	34.05	2.16	222	150	10.97	34.44	0.98	26.38	166	0.36
98	11.78	34.14	1.79	203	200	10.44	34.52	0.82	26.52	152	0.44
107	11.31	34.18	1.78	193	250	10.28	34.63	0.24	26.64	141	0.52
131	11.02	34.31	1.39	177	300	9.61	34.58	0.21	26.71	134	0.59
160	10.90	34.47	0.90	163	400	8.43	34.51	0.19	26.85	121	0.72
213	10.65	34.60	0.36	150	500	7.38	34.49	0.15	26.99	108	0.84
271	9.99	34.61	0.24	138	600	6.51	34.49	0.18	27.11	96	0.95
379	8.64	34.52	0.19	124							
505	7.34	34.49	0.15	108							
636	6.18	34.49	0.18	92							

140.50

SPENCER F. BAIRD; February 11, 1956; 2133 GCT; 24°05'N, 113°45'W; sounding, 1700 fm; wind, 340°, force 2; weather, partly cloudy; sea, rough; wire angle, 17°.

0	18.92	34.13	5.28	354	0	18.92	34.13	5.28	24.40	354	0.00
9	18.78	34.10	5.37	353	10	18.78	34.10	5.37	24.41	353	0.04
23	18.71	34.09	5.38	352	20	18.74	34.09	5.38	24.42	352	0.07
51	18.60	34.13	5.34	347	30	18.67	34.10	5.38	24.44	350	0.11
60	18.53	34.08	5.45	348	50	18.62	34.13	5.34	24.47	347	0.18
69	17.02	33.78	5.61	336	75	16.00	33.71	5.42	24.78	318	0.26
83	14.77	33.65	5.07	296	100	12.40	33.68	3.73	25.51	248	0.33
102	12.37	33.70	3.64	246	150	11.67	34.30	1.48	26.13	189	0.44
125	12.38	34.16	1.89	213	200	10.52	34.44	1.08	26.45	159	0.53
154	11.54	34.31	1.43	186	250	9.66	34.45	0.78	26.61	144	0.61
202	10.48	34.44	1.04	159	300	8.98	34.46	0.58	26.72	133	0.68
274	9.35	34.45	0.66	140	400	7.89	34.46	0.35	26.89	117	0.81
374	8.17	34.47	0.39	121	500	6.91	34.43	0.23	27.01	106	0.93
506	6.84	34.43	0.23	105	600	6.17	34.46	0.20	27.12	95	1.03
684	5.65	34.48	0.20	87	700	5.61	34.48	0.20	27.22	86	1.13
905	4.59	34.52	0.33	72	800	5.11	34.50	0.25	27.29	79	1.22
1203	3.70	34.56	0.61	60	1000	4.20	34.54	0.46	27.42	67	1.38

140.60

SPENCER F. BAIRD; February 11, 1956; 1557, 1645 GCT; 23°46'N, 114°16'W; sounding, 1900 fm; wind, 360°, force 3; weather, partly cloudy; sea, rough; wire angle, 17°, 17°.

0	19.05	34.21	5.34	351	0	19.05	34.21	5.34	24.43	351	0.00
9	19.04	34.21	5.33	350	10	19.04	34.21	5.31	24.44	350	0.04
23	19.04	34.22	5.29	350	20	19.04	34.21	5.31	24.44	350	0.07
52	18.60	34.09	5.19	349	30	18.98	34.20	5.26	24.44	350	0.10
62	18.40	34.04	5.38	349	50	18.64	34.10	5.20	24.44	350	0.18
71	17.24	33.87	5.32	334	75	16.50	33.82	5.19	24.76	320	0.26
86	14.02	33.73	4.48	276	100	12.43	33.74	3.54	25.55	244	0.33
105	11.92	33.77	3.26	233	150	11.01	34.22	1.80	26.18	184	0.44
129	10.80	33.93	2.78	202	200	10.32	34.39	1.19	26.44	160	0.52
158	11.04	34.31	1.52	178	250	9.77	34.46	0.81	26.60	145	0.60
209	10.20	34.40	1.15	157	300	9.26	34.51	0.45	26.72	133	0.68
281	9.44	34.51	0.53	137	400	8.17	34.48	0.24	26.87	119	0.81
382	8.36	34.49	0.24	121	500	6.92	34.44	0.24	27.02	105	0.92
513	6.77	34.44	0.24	103	600	6.07	34.47	0.21	27.16	92	1.03
692	5.62	34.49	0.21	86	700	5.59	34.49	0.21	27.23	85	1.12
921	4.52	34.52	0.39	72	800	5.17	34.50	0.27	27.28	80	1.21
					1000	4.20	34.55	0.47	27.43	66	1.37
935	4.48	34.51	0.42	72							
1233	3.55	34.64	0.69	53							

OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m	

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SPENCER F. BAIRD; February 10, 1956; 1933 GCT; 24°11'N, 112°03'W; sounding, 108 fm; wind, 330°, force 3; weather, clear; sea, moderate; wire angle, 05°.

143.30

0	15.94	33.89	5.60	303	0	15.94	33.89	5.60	24.93	303	0.00
10	15.74	33.91	5.62	297	10	15.74	33.91	5.62	25.00	297	0.03
15	15.69	33.88	5.55	298	20	15.58	33.86	5.54	25.00	297	0.06
20	15.58	33.86	5.54	297	30	14.48	33.61	5.46	25.04	293	0.09
25	14.82	33.69	5.51	295	50	15.09	33.98	4.48	25.20	278	0.15
30	14.48	33.61	5.46	293	75	13.74	34.18	2.20	25.63	237	0.21
35	15.05	33.86	4.90	287	100	12.82	34.53	0.78	26.09	193	0.27
45	15.35	33.97	4.79	285	150	(12.22)	(34.66)	(0.25)	(26.30)	(173)	(0.36)
54	14.72	33.99	4.00	270							
64	14.20	34.01	3.39	259							
78	13.60	34.25	1.75	229							
97	12.87	34.51	0.86	196							
116	12.61	34.78a)	0.45	-							
147	12.26	34.65	0.26	175							

SPENCER F. BAIRD; February 10, 1956; 2201 GCT; 24°00'N, 112°22'W; sounding, 250+ fm; wind, 330°, force 3; weather, partly cloudy; sea, moderate; wire angle, 16°.

143.35

0	18.08	34.06	5.49	339	0	18.08	34.06	5.49	24.56	339	0.00
10	17.75	34.02	5.61	334	10	17.75	34.02	5.61	24.61	334	0.03
29	17.06	33.93	5.64	325	20	17.38	33.96	5.61	24.65	330	0.07
38	16.86	33.93	5.72	321	30	17.04	33.93	5.66	24.71	324	0.10
48	15.54	33.71	5.75	308	50	15.16	33.65	5.70	24.92	304	0.16
57	13.50	33.51b)	5.40	281	75	12.41	33.50	5.09	25.36	262	0.23
66	12.81	33.49	5.11	270	100	11.24	33.92	2.78	25.91	210	0.29
74	12.44	33.49	5.09	263	150	10.94	34.33	1.60	26.29	174	0.39
84	11.83	33.62	4.20	243	200	10.94	34.59	0.65	26.49	155	0.47
92	11.44	33.75	3.26	226	250	10.39	34.65	0.27	26.64	141	0.55
110	11.18	34.00	2.46	203	300	9.87	34.64	0.21	26.71	134	0.62
133	11.08	34.19	1.79	187	400	8.79		0.19			
150	10.94	34.33	1.60	174	500	(7.76)		(0.17)			
185	11.00	34.53	0.83	160							
258	10.29	34.65	0.23	140							
354	9.26	34.61	0.20	126							
470	7.94	34.79r	0.17	-							

SPENCER F. BAIRD; February 11, 1956; 0052 GCT; 23°51'N, 112°40'W; sounding, 1800 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 19°.

143.40

0	19.09	34.14	5.43	358	0	19.09	34.14	5.43	24.36	358	0.00
10	19.07	34.13	5.41	357	10	19.07	34.13	5.41	24.37	357	0.04
28	19.00	34.14	5.38	355	20	19.03	34.14	5.39	24.38	356	0.07
42	19.01	34.14	5.49	355	30	19.00	34.14	5.43	24.38	355	0.11
51	19.00	34.14	5.42	355	50	19.00	34.14	5.43	24.38	355	0.18
59	18.98	34.14	5.40	355	75	16.00	33.66	5.65	24.74	321	0.26
69	17.69	33.87	5.58	344	100	12.57	33.56	4.68	25.38	260	0.34
78	14.95	33.57	5.66	306	150	11.39	34.27	1.50	26.15	187	0.45
90	13.66	33.57	5.33	280	200	10.20	34.37	1.25	26.45	159	0.54
99	12.69	33.56	4.77	262	250	9.78	34.49	0.82	26.62	143	0.62
120	11.41	33.71	3.53	229	300	9.33	34.51	0.45	26.71	134	0.69
144	11.25	34.17	1.84	192	400	8.42	34.52	0.27	26.86	120	0.82
190	10.36	34.36	1.36	162	500	7.40	34.51	0.21	27.01	106	0.94
252	9.77	34.49	0.82	143	600	(6.45)	(34.50)	(0.14)	(27.12)	(95)	(1.05)
346	8.93	34.52	0.31	128							
465	7.76	34.52	0.23	110							
595	6.56	34.50	0.13	96							

- a) Loose bottle cap; value does not fall on property curve.
b) Possible evaporation; value falls on property curve.

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OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	$\frac{10^{-5}}{10 \text{ cm/g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5}}{10 \text{ cm/g}}$	dyn. m	

143.50 SPENCER F. BAIRD; February 11, 1956; 0608 GCT; 23°32'N, 113°18'W; sounding, 1400 fm; wind, 340°, force 5; weather, missing; sea, rough; wire angle, 15°.

0	18.98	34.13	5.34	355	0	18.98	34.13	5.34	24.39	355	0.00
10	18.98	34.11	5.43	357	10	18.98	34.11	5.43	24.37	357	0.04
29	18.98	34.13	5.37	355	20	18.98	34.12	5.42	24.38	356	0.07
43	18.98	34.10	5.38	358	30	18.98	34.13	5.37	24.38	356	0.11
52	18.98	34.14	5.33	355	50	18.98	34.13	5.36	24.39	355	0.18
61	18.00	33.96	5.53	345	75	15.02	33.60	5.43	24.90	306	0.26
71	15.67	33.64	5.65	316	100	13.57	33.92	3.10	25.47	252	0.33
80	14.48	33.62	4.99	293	150	11.67	34.36	1.37	26.18	185	0.44
93	13.79	33.75	3.96	269	200	11.24	34.60	0.42	26.44	160	0.53
102	13.50	33.95	3.01	249	250	10.73	34.63	0.22	26.56	148	0.61
126	12.19	34.17	1.83	208	300	10.11	34.63	0.20	26.67	138	0.68
153	11.62	34.38	1.31	183	400	8.79	34.58	0.22	26.85	121	0.82
203	11.20	34.61	0.39	158	500	7.60	34.51	0.17	26.96	110	0.94
263	10.56	34.63	0.19	146	600	6.63	34.51	0.16	27.10	97	1.05
371	9.18	34.60	0.23	126							
495	7.62	34.51	0.17	110							
628	6.38	34.52	0.16	93							

143.60 SPENCER F. BAIRD; February 11, 1956; 1054 GCT; 23°12.5'N, 113°56'W; sounding, 2000+ fm; wind, 350°, force 5; weather, missing; sea, rough; wire angle, 08°.

0	19.51	34.35	5.39	352	0	19.51	34.35	5.39	24.42	352	0.00
10	19.52	34.29	5.40	356	10	19.52	34.29	5.40	24.38	356	0.04
30	19.49	34.27	5.33	357	20	19.50	34.28	5.37	24.37	357	0.07
45	18.77	34.14	5.35	349	30	19.49	34.27	5.33	24.37	357	0.11
54	18.68	34.17u	5.38	-	50	18.70	34.12	5.37	24.45	349	0.18
63	18.54	34.08	5.43	348	75	15.80	33.64	5.63	24.76	319	0.26
73	15.99	33.65	5.64	321	100	13.25	33.52	4.90	25.22	276	0.34
83	14.84	33.57	5.51	304	150	10.77	33.96	2.90	26.03	199	0.46
98	13.41	33.53	4.99	279	200	10.61	34.37	1.22	26.36	167	0.55
107	12.62	33.52	4.56	265	250	10.14	34.50	0.58	26.55	149	0.63
131	11.29	33.75	3.64	223	300	9.44	34.54	0.40	26.71	134	0.70
159	10.62	34.06	2.39	189	400	8.20	34.51	0.22	26.88	118	0.84
211	10.61	34.43	0.95	162	500	6.98	34.48	0.21	27.04	103	0.95
271	9.80	34.52	0.48	142	600	6.33	34.52	0.20	27.16	92	1.06
380	8.42	34.52	0.23	120							
505	6.93	34.48	0.21	102							
637	6.17	34.54	0.19	88							

147.25 SPENCER F. BAIRD; February 9, 1956; 0915 GCT; 23°46.5'N, 111°22'W; sounding, 186 fm; wind, 330°, force 4; weather, clear; sea, rough; wire angle, 22°.

0	16.86	34.06	5.58	311	0	16.86	34.06	5.58	24.85	311	0.00
10	16.86	34.05	5.49	312	10	16.86	34.05	5.49	24.84	312	0.03
14	16.87	34.04	5.55	313	20	16.88	34.05	5.53	24.84	312	0.06
18	16.88	34.05	5.53	313	30	16.90	34.10	5.45	24.87	309	0.09
23	16.88	34.06	5.62	312	50	13.67	33.79	3.86	25.34	264	0.15
28	16.90	34.09	5.54	310	75	13.43	34.37	1.50	25.84	217	0.21
32	16.90	34.10	5.45	309	100	13.02	34.49	0.97	26.02	200	0.26
41	14.26	33.77	4.40	297	150	12.17	34.69	0.44	26.33	170	0.36
50	13.67	33.79	3.86	264	200	11.18	34.71	0.13	26.54	150	0.44
59	13.50	33.84	3.24	257	250	10.47	34.69	0.11	26.65	140	0.51
73	13.48	34.33	1.63	221							
90	13.18	34.46	1.12	204							
113	12.86	34.52	0.86	195							
148	12.20	34.68	0.44	171							
185	11.42	34.72	0.18	154							
223	10.76	34.69	0.11	145							
281	10.32	34.69	0.11	137							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD
m	°C	‰	ml/L	$\frac{10^{-5} \text{ cm}^3}{\text{g}}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5} \text{ cm}^3}{\text{g}}$	dyn. m

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SPENCER F. BAIRD; February 9, 1956; 0308 GCT; 23°23'N, 111°58'W; sounding, 1625 fm; wind, 340°, force 5; weather, missing; sea, moderate; wire angle, 10°.

147.35

0	18.56	34.08	5.37	348	0	18.56	34.08	5.37	24.46	348	0.00
10	18.52	34.07	5.43	348	10	18.52	34.07	5.43	24.46	348	0.03
30	18.44	34.05	5.46	348	20	18.48	34.06	5.46	24.46	348	0.07
44	18.36	34.04	5.45	346	30	18.44	34.05	5.46	24.46	348	0.10
54	15.58	33.63	5.71	314	50	17.25	33.87	5.60	24.61	334	0.17
63	13.68	33.60	5.07	279	75	13.04	33.65	4.30	25.36	262	0.25
73	13.08	33.64	4.32	264	100	11.36	33.98	2.39	25.94	207	0.31
83	12.90	33.91	3.17	240	150	11.93	34.63	0.50	26.34	169	0.40
97	11.37	33.96	2.52	209	200	11.81	34.79	0.14	26.48	156	0.48
106	11.33	34.03	2.33	203	250	11.00	34.74	0.14	26.60	145	0.56
129	12.18	34.49	0.86	184	300	10.23	34.68	0.13	26.69	136	0.63
156	11.89	34.65	0.50	168	400	8.91	34.61	0.11	26.86	120	0.77
206	11.72	34.79	0.13	152	500	7.62	34.58	0.14	27.02	105	0.88
267	10.76	34.72	0.15	142	600	6.78	34.56	0.14	27.13	94	0.99
374	9.27	34.63	0.10	125							
498	7.64	34.58	0.14	105							
629	6.54	34.56	0.14	91							

SPENCER F. BAIRD; February 8, 1956; 2340 GCT; 23°14.5'N, 112°19'W; sounding, 1800+ fm; wind, 340°, force 2; weather, partly cloudy; sea, rough; wire angle, 16°.

147.40

0	19.32	34.23	5.48	356	0	19.32	34.23	5.48	24.38	356	0.00
10	19.12	34.24	5.45	351	10	19.12	34.24	5.45	24.43	351	0.04
28	19.02	34.24	5.43	348	20	19.06	34.24	5.43	24.45	349	0.07
38	18.95	34.20	5.48	350	30	19.00	34.23	5.45	24.46	348	0.10
47	18.50	34.09	5.48	347	50	18.41	34.09	5.49	24.49	345	0.17
57	18.23	34.08	5.49	342	75	14.92	33.71	4.88	25.02	295	0.25
66	17.52	33.95	5.10	354	100	13.20	33.95	3.15	25.56	243	0.32
75	14.92	33.71	4.88	295	150	12.15	34.47	1.13	26.16	186	0.43
84	14.10	33.86	3.85	268	200	11.17	34.60	0.61	26.45	159	0.52
93	13.70	33.95	3.32	253	250	10.67	34.66	0.41	26.60	145	0.59
115	11.58	33.95	2.74	214	300	9.98	34.62	0.29	26.68	137	0.67
141	12.30	34.45	1.36	190	400	8.64	34.60	0.25	26.88	118	0.80
184	11.32	34.52	0.74	167	500	7.56	34.58	0.28	27.04	103	0.92
236	10.86	34.67	0.46	148							
331	9.51	34.60	0.26	131							
442	8.18	34.60	0.25	111							
563	6.89	34.56	0.30	96							

SPENCER F. BAIRD; February 8, 1956; 0642 GCT; 23°24'N, 110°39'W; sounding, 130 fm; wind, 010°, force 4; weather, partly cloudy; sea, moderate; wire angle, 13°.

150.19

0	16.84	34.18	5.36	302	0	16.84	34.18	5.36	24.94	302	0.00
10	16.84	34.19	5.41	302	10	16.84	34.19	5.41	24.94	302	0.03
15	16.82	34.23	5.30	298	20	16.84	34.27	5.21	25.01	295	0.06
20	16.84	34.27	5.21	295	30	16.82	34.27	5.16	25.02	295	0.09
25	16.86	34.29	5.17	295	50	16.11	34.22	4.43	25.15	282	0.15
30	16.82	34.27	5.16	295	75	13.64	34.20	2.12	25.66	234	0.21
35	16.80	34.26	5.10	296	100	13.07	34.57	0.89	26.07	195	0.27
44	16.40	34.24	4.75	288	150	12.38	34.71	0.28	26.31	172	0.36
53	15.93	34.22	4.31	279	200	(11.77)	(34.74)	(0.19)	(26.45)	(159)	(0.44)
63	14.48	34.20	2.91	251							
72	13.77	34.19	2.33	237							
90	13.28	34.43	1.30	210							
105	12.95	34.62	0.73	189							
131	12.63	34.70	0.37	178							
159	12.24	34.72	0.27	169							
196	11.81	34.74	0.19	160							

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OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm ³ /g	dyn. m	

150.25

SPENCER F. BAIRD; February 8, 1956; 1014 GCT; 23°13'N, 111°02'W; sounding, 600 fm; wind, 360°, force 3; weather, missing; sea, moderate; wire angle, 08°.

0	18.54	34.25	5.49	336	0	18.54	34.25	5.49	24.59	336	0.00
10	18.58	34.25	5.39	337	10	18.58	34.25	5.39	24.58	337	0.03
30	17.64	34.10	5.37	326	20	18.56	34.25	5.38	24.58	337	0.07
45	17.03	34.12	4.67	331	30	17.64	34.10	5.37	24.69	326	0.10
54	15.58	34.04	3.79	284	50	16.48	34.09	4.29	24.95	301	0.16
64	13.49	33.96	2.90	248	75	14.06	34.38	1.51	25.72	228	0.23
73	13.76	34.23	2.00	233	100	13.68	34.69	0.50	26.04	198	0.28
83	14.32	34.65	0.83	214	150	12.61	34.75	0.27	26.29	174	0.38
97	13.78	34.69	0.57	200	200	11.87	34.77	0.12	26.46	158	0.46
106	13.52	34.71	0.40	193	250	11.21	34.76	0.13	26.56	148	0.54
130	13.00	34.74	0.28	182	300	10.57	34.71	0.13	26.65	140	0.61
158	12.42	34.75	0.26	170	400	9.24	34.62	0.10	26.81	125	0.75
210	11.74	34.77	0.11	156	500	7.99	34.56	0.10	26.95	111	0.87
271	10.96	34.74	0.14	144	600	6.89	34.53	0.13	27.08	99	0.98
381	9.48	34.63	0.10	128							
505	7.91	34.56	0.11	110							
637	6.56	34.52	0.15	94							

150.30

SPENCER F. BAIRD; February 8, 1956; 1315 GCT; 23°05'N, 111°21'W; sounding, 1470 fm; wind, 350°, force 2; weather, missing; sea, moderate; wire angle, 10°.

0	19.03	34.31		344	0	19.03	34.31		24.50	344	0.00
10	19.02	34.31		343	10	19.02	34.31		24.51	343	0.03
30	19.02	34.32		343	20	19.02	34.32		24.51	343	0.07
44	19.04	34.33		342	30	19.02	34.32		24.51	343	0.10
53	16.68	34.23		295	50	17.86	34.27		24.76	319	0.17
63	16.07	34.49		262	75	14.20	34.54		25.81	220	0.24
72	14.67	34.50		232	100	13.38	34.67		26.08	194	0.29
82	13.80	34.60		208	150	12.31	34.80		26.40	164	0.38
97	13.46	34.67		196	200	11.56	34.74		26.50	154	0.46
105	13.26	34.68		191	250	10.92	34.73		26.60	145	0.54
129	12.81	34.78		176	300	10.26	34.70		26.69	136	0.61
158	12.14	34.79		162	400	8.93	34.58		26.83	123	0.74
207	11.44	34.74		153	500	7.62	34.52		26.96	110	0.86
267	10.69	34.72		142	600	6.70	34.53		27.11	96	0.97
376	9.22	34.61		126							
500	7.62	34.52		110							
632	6.40	34.54		92							

150.40

SPENCER F. BAIRD; February 8, 1956; 1833 GCT; 22°40'N, 111°59'W; sounding, 2250 fm; wind, 200°, force 1; weather, partly cloudy; sea, rough; wire angle, 02°.

0	19.58	34.35	5.32	354	0	19.58	34.35	5.32	24.40	354	0.00
10	19.50	34.34	4.94	353	10	19.50	34.34	4.94	24.41	353	0.04
25	19.48	34.34	5.41	352	20	19.48	34.34	5.30	24.42	352	0.07
55	19.44	34.34	5.20	351	30	19.45	34.34	5.21	24.42	352	0.11
66	17.00	33.96	5.11	321	50	19.45	34.34	5.21	24.42	352	0.18
74	14.94	33.75	4.10	293	75	14.69	33.76	3.89	25.10	287	0.26
89	13.42	33.95	2.92	248	100	13.58	34.24	2.31	25.70	230	0.32
109	13.73	34.49	1.77	214	150	12.47	34.56	0.95	26.18	184	0.43
133	13.22	34.59	0.95	197	200	10.67	34.54	1.03	26.50	154	0.51
161	11.80	34.54	0.99	174	250	10.18	34.60	0.91	26.63	142	0.59
214	10.52	34.54	1.03	152	300	9.76	34.62	0.69	26.71	134	0.66
290	9.84	34.62	0.74	135	400	8.52	34.56	0.16	26.87	119	0.79
394	8.60	34.56	0.16	120	500	7.46	34.54	0.28	27.02	105	0.91
533	7.18	34.54	0.29	102	600	6.51	34.54	0.32	27.16	92	1.01
719	5.42	34.56	0.34	78	700	5.60	34.56	0.34	27.28	80	1.10
951	4.41	-	-	-	800	4.98	34.57		27.36	73	1.19
1257	3.53	34.60	0.22u	56	1000	4.27	34.58		27.45	64	1.34

OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m	

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SPENCER F. BAIRD; February 8, 1956; 0134 GCT; 22°55'N, 110°07'W; sounding, 340 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 12°.

153.16

0	19.46	34.97	4.94	306	0	19.46	34.97	4.94	24.90	306	0.00
9	19.50	34.96	5.03	308	10	19.50	34.96	5.03	24.88	308	0.03
30	19.44	34.97	4.90	306	20	19.48	34.97	5.00	24.89	307	0.06
39	18.94	34.85	4.84	302	30	19.44	34.97	4.90	24.90	306	0.09
49	17.80	34.72	3.50	284	50	17.61	34.71	3.31	25.18	280	0.15
58	16.50	34.66	2.33	260	75	14.49	34.70	0.72	25.87	214	0.21
68	15.10	34.65	1.14	230	100	13.63	34.78	0.20	26.12	190	0.26
78	14.36	34.70	0.64	211	150	12.68	34.82	0.20	26.34	169	0.36
88	14.02	34.70	0.44	204	200	11.83	34.81	0.14	26.49	155	0.44
98	13.70	34.78	0.23	192	250	11.27	34.79	0.12	26.58	147	0.51
116	13.32	34.79	0.11	184	300	10.78	34.76	0.12	26.65	140	0.59
141	12.92	34.81	0.21	174	400	9.44	34.64	0.14	26.79	127	0.73
159	12.44	34.83	0.15	165	500	(7.82)	(34.58)	(0.10)	(26.99)	(108)	(0.85)
196	11.88	34.81	0.14	156							
272	11.07	34.78	0.11	143							
372	9.80	34.67	0.14	131							
487	8.02	34.58	0.11	110							

SPENCER F. BAIRD; February 7, 1956; 2234 GCT; 22°48'N, 110°25'W; sounding, 730 fm; wind, 310°, force 3; weather, partly cloudy; sea, moderate; wire angle, 15°.

153.20

0	20.28	34.82	5.38	337	0	20.28	34.82	5.38	24.58	337	0.00
10	20.26	34.84	5.25	336	10	20.26	34.84	5.25	24.59	336	0.03
29	20.26	34.85	5.18	336	20	20.26	34.85	5.18	24.59	336	0.07
43	20.22	34.86	5.08	333	30	20.26	34.85	5.18	24.60	335	0.10
53	18.84	34.89	3.62	297	50	19.47	34.88	4.18	24.83	313	0.17
62	17.96	34.76	3.09	285	75	15.97	34.59	1.85	25.46	253	0.24
71	16.60	34.62	2.14	265	100	13.72	34.69	0.60	26.03	199	0.29
81	15.12	34.57	1.47	237	150	12.72	34.81	0.17	26.32	171	0.39
95	13.88	34.67a)	0.74	204	200	11.92	34.82	0.10	26.48	156	0.47
105	13.58	34.71	0.45	194	250	11.29	34.77	0.14	26.56	148	0.55
128	13.12	34.79	0.21	180	300	10.76	34.72	0.16	26.63	142	0.62
154	12.61	34.81	0.16	169	400	9.51	34.64	0.12	26.78	128	0.76
204	11.88	34.82	0.11	155	500	7.60	34.55	0.11	27.00	107	0.88
263	11.16	34.75	0.15	147	600	6.71	34.54	0.14	27.12	95	0.99
370	10.02	34.67	0.13	134							
492	7.76	34.55	0.11	108							
623	6.56	34.54	0.15	93							

SPENCER F. BAIRD; February 7, 1956; 1736 GCT; 22°36'N, 111°57'W; sounding, 1600+ fm; wind, 360°, force 4; weather, overcast; sea, rough; wire angle, 12°.

153.30

0	20.82	34.83	5.16	350	0	20.82	34.83	5.16	24.43	350	0.00
10	20.80	34.81	5.13	352	10	20.80	34.81	5.13	24.42	352	0.04
29	20.80	34.84	5.16	349	20	20.80	34.83	5.14	24.44	350	0.07
39	20.80	34.88	5.15	346	30	20.80	34.84	5.16	24.45	349	0.11
49	20.76	34.91	5.07	343	50	20.73	34.91	5.04	24.51	343	0.17
58	19.49	34.88	3.91	313	75	15.68	34.55	1.63	25.49	250	0.25
68	17.52	34.78	2.65	274	100	13.87	34.63	0.86	25.95	206	0.31
78	15.03	34.49	1.32	241	150	12.39	34.75	0.27	26.34	169	0.40
88	14.48	34.54	1.10	226	200	11.79	34.75	0.14	26.46	158	0.48
98	13.91	34.63	0.89	207	250	11.05	34.74	0.14	26.58	146	0.56
121	12.97	34.67	0.56	186	300	10.37	34.69	0.12	26.67	138	0.63
150	12.39	34.75	0.27	169	400	9.05	34.62	0.12	26.84	122	0.77
196	11.82	34.75	0.15	159	500	7.63	34.56	0.13	27.01	106	0.89
251	11.02	34.74	0.13	146	600	(6.78)	(34.54)		(27.11)	(96)	(1.00)
350	9.76	34.65	0.12	131							
463	8.10	34.58	0.13	121							
585	6.90	34.54	0.11	98							

a) Possible evaporation; value falls on property curve.

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

153.40

SPENCER F. BAIRD; February 7, 1956; 1220 GCT; 22°15'N, 111°34'W; sounding, 1805 fm; wind, 340°, force 3; weather, partly cloudy; sea, moderate; wire angle, 03°.

0	20.15	34.33	5.45	369	0	20.15	34.33	5.45	24.24	369	0.00
10	20.16	34.34	5.49	369	10	20.16	34.34	5.49	24.24	369	0.04
30	20.14	34.35	5.37	368	20	20.15	34.35	5.37	24.25	368	0.07
40	19.99	-	5.19	-	30	20.14	34.35	5.37	24.25	368	0.11
50	18.67	33.95	5.59	361	50	18.67	33.95	5.59	24.32	361	0.18
59	15.81	-	5.06	-	75	13.92	33.92	3.78	25.38	260	0.26
68	14.97	33.85	4.41	285	100	13.76	34.17	1.90	25.62	238	0.32
78	13.80	-	3.64	-	150	12.28	34.67	0.22	26.30	173	0.43
89	13.66	33.97	2.97	251	200	11.56	34.70	0.29	26.46	158	0.51
98	13.79	34.14	2.00	240	250	10.94	34.67	0.39	26.54	150	0.59
121	13.12	34.52	1.12	200	300	10.09	34.58	0.34	26.64	141	0.67
149	12.30	-	0.21	-	400	8.39	34.51	0.24	26.86	120	0.80
200	11.56	34.70	0.29	158	500	7.24	34.50	0.21	27.02	105	0.92
255	10.90	34.65	0.40	150	600	(6.25)	(34.46)	(0.13)	(27.11)	(96)	(1.03)
356	9.05	34.52	0.24	130							
470	7.54	34.51	0.23	108							
591	6.34	34.46	0.13	97							

153.50

SPENCER F. BAIRD; February 7, 1956; 0722 GCT; 21°50'N, 112°14'W; sounding, 1700 fm; wind, 330°, force 3; weather, missing; sea, moderate; wire angle, 00°.

0	20.87	34.42	5.48	382	0	20.87	34.42	5.48	24.10	382	0.00
10	20.85	34.43	5.32	380	10	20.85	34.43	5.32	24.12	380	0.04
30	20.86	34.45	5.24	379	20	20.86	34.43	5.28	24.12	380	0.08
40	20.84	34.43	5.21	380	30	20.86	34.45	5.24	24.14	379	0.11
50	19.50	34.15	4.87	366	50	19.50	34.15	4.87	24.27	366	0.19
60	17.43	33.93	4.62	334	75	14.72	33.70	4.51	25.05	292	0.27
70	14.80	33.60	4.52	301	100	13.26	34.02	2.75	25.61	239	0.34
79	14.64	33.76	4.50	286	150	11.64	34.42	1.70	26.23	180	0.44
90	13.61	33.78	3.16	264	200	11.02	34.60	1.28	26.49	155	0.53
99	13.29	34.01	2.77	241	250	10.31	34.65	0.79	26.65	140	0.60
124	12.34	34.25	2.37	205	300	9.63	34.61	0.60	26.73	132	0.68
152	11.62	34.43	1.70	179	400	8.38	34.55	0.43	26.88	118	0.81
199	11.04	34.60	1.30	156	500	7.18	34.52	0.39	27.04	103	0.92
255	10.24	34.65	0.75	139	600	(6.18)	(34.49)	(0.31)	(27.14)	(93)	(1.02)
355	8.95	34.56	0.49	125							
470	7.50	34.53	0.40	107							
593	6.25	34.49	0.32	93							

153.60

SPENCER F. BAIRD; February 7, 1956; 0135 GCT; 21°26'N, 112°51'W; sounding, 1800 fm; wind, 330°, force 1; weather, partly cloudy; sea, moderate; wire angle, 10°.

0	20.21	34.25	5.29	377	0	20.21	34.25	5.29	24.16	377	0.00
10	19.96	34.25	5.29	371	10	19.96	34.25	5.29	24.22	371	0.04
30	19.84	34.25	5.27	368	20	19.88	34.25	5.27	24.24	369	0.07
40	19.83	34.25	5.37	368	30	19.84	34.25	5.27	24.25	368	0.11
50	19.18	34.07	5.43	364	50	19.18	34.07	5.43	24.29	364	0.18
60	17.74	33.84	5.66	348	75	14.77	33.74	4.28	25.07	290	0.27
69	16.25	33.75	5.31	321	100	13.60	34.27	1.78	25.13	227	0.33
78	14.50	33.84	4.02	277	150	12.76	34.72	0.30	25.25	178	0.43
89	14.18	34.09	2.80	252	200	11.61	34.74	0.21	26.48	156	0.52
97	13.71	34.23	1.99	233	250	10.77	34.69	0.19	26.60	145	0.60
120	13.10	34.52	0.90	200	300	9.96	34.64	0.19	26.70	135	0.67
149	12.79	34.71	0.30	179	400	8.32	34.56	0.16	26.90	116	0.80
194	11.76	34.75	0.22	158	500	6.96	34.52	0.13	27.07	100	0.91
250	10.77	34.69	0.19	145	600	(6.28)	(34.52)		(27.16)	(91)	(1.01)
350	9.12	34.60	0.19	125							
464	7.30	34.52	0.12	105							
587	6.34	34.52	0.15	92							

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_{-5}^3	Z	T	S	O ₂	σ_t	δT_{-5}^3	ΔD
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m

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SPENCER F. BAIRD; February 5, 1956; 2250 GCT; 22°14'N, 109°59'W; sounding, 2050 fm; wind, calm; weather, clear; sea, moderate; wire angle, 03°.

157.20

0	22.05	34.96		373	0	22.05	34.96		24.20	373	0.00
10	21.66	34.88		369	10	21.66	34.88		24.24	369	0.04
30	21.62	35.05		355	20	21.63	34.96		24.30	363	0.07
45	21.60	34.90		366	30	21.62	35.05		24.39	355	0.11
55	21.54	34.88		366	50	21.59	34.89		24.27	366	0.18
64	20.43	34.88		337	75	17.88	34.50		24.93	303	0.27
74	18.41	34.58		309	100	15.12	34.68		25.72	228	0.33
83	15.48	34.22		270	150	13.03	34.78		26.24	179	0.43
98	15.45	34.70		234	200	12.07	34.81		26.45	159	0.52
107	14.52	34.65		218	250	11.33	34.77		26.55	149	0.60
131	13.58	34.78		190	300	10.61	34.72		26.64	141	0.67
158	12.80	34.78		175	400	9.04	34.63		26.85	121	0.81
211	11.92	34.81		156	500	7.80	34.56		26.99	108	0.93
274	11.01	34.74		146	600	6.84	34.54		27.10	97	1.04
381	9.32	34.65		124							
508	7.72	34.56		107							
639	6.43	34.53		93							

SPENCER F. BAIRD; February 6, 1956; 0501 GCT; 21°52'N, 110°38'W; sounding, 1800 fm; wind, calm; weather, missing; sea, moderate; wire angle, 00°.

157.30

0	22.10	34.67		396	0	22.10	34.67		23.96	396	0.00
10	22.10	34.63		399	10	22.10	34.63		23.93	399	0.04
30	21.38	34.52		387	20	21.88	34.59		23.96	396	0.08
40	20.36	34.49		363	30	21.38	34.52		24.05	387	0.12
50	18.05	34.05		339	50	18.05	34.05		24.56	339	0.19
60	15.91	33.92		300	75	14.06	34.03		25.45	254	0.27
69	14.66	34.03		266	100	12.86	34.23		25.84	217	0.33
79	13.81	34.03		249	150	12.43	34.73		26.31	172	0.42
88	13.47	34.15		234	200	11.85	34.77		26.46	158	0.51
98	12.86	34.22		217	250	11.15	34.72		26.55	149	0.58
121	12.99	34.63		189	300	10.27	34.67		26.67	138	0.66
151	12.40	34.73		171	400	8.76	34.61		26.88	118	0.79
198	11.86	34.77		159	500	7.58	34.58		27.03	104	0.91
255	11.04	34.72		148	600	(6.50)	(34.54)		(27.14)	(93)	(1.01)
356	9.36	34.63		126							
474	7.84	34.59		107							
595	6.59	34.54		94							

SPENCER F. BAIRD; February 6, 1956; 1015 GCT; 21°32'N, 111°14'W; sounding, 1500+ fm; wind, 340°, force 2; weather, clear; sea, moderate; wire angle, 05°.

157.40

0	20.17	34.37	5.42	368	0	20.17	34.37	5.42	24.25	368	0.00
10	20.16	34.37	5.29	367	10	20.16	34.37	5.29	24.26	367	0.04
30	20.14	34.35	5.19	368	20	20.16	34.37	5.24	24.26	367	0.07
40	20.17	34.37	5.58	367	30	20.14	34.35	5.19	24.25	368	0.11
50	20.14	34.35	5.33	368	50	20.14	34.35	5.33	24.25	368	0.18
60	18.36	34.00	5.53	350	75	15.68	34.07	3.80	25.12	285	0.27
70	16.25	33.98	4.58	304	100	11.68	33.96	2.62	25.87	214	0.33
80	15.08	34.15	2.79	267	150	11.42	34.44	1.07	26.28	175	0.43
89	13.56	34.15	2.14	236	200	10.85	34.62	0.53	26.52	152	0.51
98	11.77	33.96	2.64	216	250	10.58	34.68	0.12	26.62	143	0.59
121	11.36	34.18	1.91	193	300	9.79	34.62	0.11	26.71	134	0.66
150	11.42	34.44	1.07	175	400	8.30	34.57	0.14	26.91	115	0.79
197	10.88	34.60	0.57	153	500	7.38	(34.59)	0.16	(27.07)	(100)	(0.90)
254	10.55	34.68	0.11	142	600	(6.48)		(0.23)			
353	8.82	34.56	0.15	123							
469	7.62	34.59	0.14	104							
592	6.53	34.47u	0.22	-							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD
m	°C	‰	ml/L	$\frac{10^{-5}}{cm/g}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5}}{cm/g}$	dyn. m

157.50 SPENCER F. BAIRD; February 6, 1956; 1524 GCT; 21°12'N, 111°53'W; sounding, 1680 fm; wind, calm; weather, partly cloudy; sea, moderate; wire angle, 00°.

0	20.61	34.49	5.27	370	0	20.61	34.49	5.27	24.23	370	0.00
10	20.60	34.49	5.34	369	10	20.60	34.49	5.34	24.24	369	0.04
30	20.60	34.49	5.26	369	20	20.60	34.49	5.30	24.24	369	0.07
40	20.02	34.40	5.27	362	30	20.60	34.49	5.26	24.24	369	0.11
51	14.88	33.86	4.34	284	50	15.51	33.89	4.64	25.03	294	0.18
59	14.14	33.93	3.39	263	75	13.52	34.08	2.51	25.60	240	0.24
70	13.62	34.04	2.68	247	100	12.80	34.29	1.54	25.90	211	0.30
79	13.44	34.11	2.34	236	150	11.57	34.50	0.89	26.30	173	0.40
88	13.16	34.20	1.83	224	200	10.83	34.61	0.54	26.52	152	0.48
98	12.87	34.28	1.57	213	250	10.28	34.65	0.44	26.65	140	0.56
123	12.13	34.36	1.30	193	300	9.59	34.62	0.31	26.74	131	0.63
153	11.50	34.52	0.82	170	400	8.22	34.56	0.29	26.92	114	0.75
199	10.84	34.61	0.54	153	500	7.22	34.55	0.37	27.06	101	0.86
254	10.22	34.65	0.42	139	600	(6.39)	(34.52)	(0.40)	(27.14)	(93)	(0.97)
355	8.75	34.58	0.23	120							
470	7.48	34.56	0.34	104							
593	6.44	34.52	0.40	94							

157.60 SPENCER F. BAIRD; February 6, 1956; 2028 GCT; 20°52'N, 112°29'W; sounding, 1900+ fm; wind, 340°, force 2; weather, partly cloudy; sea, moderate; wire angle, 05°.

0	21.11	34.48	5.16	383	0	21.11	34.48	5.16	24.09	383	0.00
10	20.80	34.49	-	375	10	20.80	34.49	5.14	24.18	375	0.04
30	20.75	34.51	5.13	371	20	20.78	34.50	5.13	24.20	373	0.08
40	20.74	34.50	5.14	373	30	20.75	34.51	5.13	24.22	371	0.11
50	20.68	34.49	5.23	372	50	20.68	34.49	5.23	24.21	372	0.19
60	18.36	34.03	5.39	347	75	15.11	33.75	4.53	25.01	296	0.27
69	16.14	33.82	5.11	313	100	13.26	34.13	2.34	25.69	231	0.34
79	14.64	33.82	4.11	282	150	11.88	34.34	1.20	26.12	190	0.44
89	13.97	34.03	2.97	252	200	11.00	34.61	0.51	26.49	155	0.53
98	13.36	34.12	2.41	234	250	9.93	34.69	0.52	26.74	131	0.60
122	12.78	34.30	1.70	209	300	9.38	34.65	0.30	26.81	125	0.67
150	11.88	34.34	1.20	190	400	8.46	34.58	0.15	26.90	116	0.80
197	11.06	34.60	0.51	157	500	7.27	34.54	0.18	27.05	102	0.91
253	9.88	34.69a)	0.52	130	600	(6.20)	(34.51)	(0.20)	(27.16)	(92)	(1.01)
353	8.98	34.61	0.15	121							
468	7.61	34.56	0.16	106							
590	6.31	34.51	0.19	93							

117G.25 BLACK DOUGLAS; February 14, 1956; 0740 GCT; 28°27'N, 112°48.5'W; sounding, 150 fm; wind, 200°, force 3; weather, clear; sea, slight; wire angle, 12°.

0	14.36	33.15	3.81	178	0	14.36	35.15	3.81	26.25	178	0.00
9	14.32	35.15	3.79	177	10	14.32	35.15	3.78	26.26	177	0.02
23	14.24	35.16	3.63	175	20	14.25	35.16	3.69	26.28	175	0.04
46	14.22	35.14	3.45	176	30	14.24	35.16	3.58	26.28	175	0.05
70	14.18	35.13	3.47	176	50	14.22	35.13	3.46	26.27	176	0.09
93	14.02	35.11	3.49	175	75	14.14	35.12	3.47	26.27	176	0.13
139	13.53	35.06	2.92	168	100	13.97	35.10	3.43	26.29	174	0.18
184	13.34	35.04	2.74	166	150	13.45	35.05	2.83	26.36	167	0.26
230	12.98	34.99	2.39	163	200	13.23	35.03	2.66	26.38	165	0.34

a) Possible evaporation; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	$\frac{10^{-5}}{cm/g}$	m	°C	‰	ml/L	g/L	$\frac{10^{-5}}{cm/g}$	dyn. m	

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BLACK DOUGLAS; February 14, 1956; 0603 GCT; 28°32'N, 112°39'W; sounding, 260+ fm; a) wind, calm; weather, clear; sea, smooth; wire angle, 00°.

117G.35

0	15.20	35.23	4.60	190	0	15.20	35.23	4.60	26.12	190	0.00
10	14.69	35.17	3.85	184	10	14.69	35.17	3.85	26.18	184	0.02
24	14.66	35.19	3.75	181	20	14.68	35.18	3.79	26.21	182	0.04
48	13.96	35.12	3.24	172	30	14.54	35.18	3.61	26.24	179	0.06
72	13.82	35.12	2.87	170	50	13.93	35.12	3.23	26.31	172	0.09
96	13.61	35.05	2.84	170	75	13.80	35.12	2.84	26.34	170	0.13
143	12.86	34.97	2.43	162	100	13.59	35.04	2.84	26.33	170	0.18
188	12.67	34.97	2.33	158	150	12.82	34.97	2.42	26.43	161	0.26
280	12.18	34.92	2.06	153	200	12.64	34.97	2.32	26.46	158	0.34
					250	12.35	34.94	2.19	26.50	154	0.42

117G.50

BLACK DOUGLAS; February 14, 1956; 0342 GCT; 28°39.5'N, 112°24.5'W; sounding, 150 fm; wind, 030°, force 2; weather, clear; sea, calm; wire angle, 00°.

0	13.34	35.01	2.87	168	0	13.34	35.01	2.87	26.35	168	0.00
10	13.20	35.00	2.57	166	10	13.20	35.00	2.57	26.38	166	0.02
25	12.29	34.91	1.77	156	20	12.46	34.93	1.86	26.46	158	0.03
48	12.11	35.04u	1.56	-	30	12.23	34.90	1.72	26.48	156	0.05
71	11.80	34.88	-	149	50	12.10	34.90	1.55	26.51	153	0.08
94	11.42	34.83	1.12	146	75	11.75	34.88	1.25	26.56	148	0.12
141	11.15	34.86u	1.09	-	100	11.39	34.82	1.11	26.59	146	0.15
184	11.06	34.81	1.00	141	150	11.12	34.81	1.07	26.63	142	0.23
229	10.86	34.80	0.96	138	200	11.00	34.81	0.98	26.65	140	0.30

BLACK DOUGLAS; February 13, 1956; 1232 GCT; 27°50'N, 112°11.5'W; sounding, 350 fm; wind, 200°, force 4; weather, clear; sea, slight; wire angle, 12°.

121G.20

0	15.53	35.15	4.72	203	0	15.53	35.15	4.72	25.99	203	0.00
9	15.53	35.16	5.39	202	10	15.53	35.16	5.39	26.00	202	0.02
23	15.53	35.16	4.81	202	20	15.53	35.16	4.92	26.00	202	0.04
47	15.33	35.19	4.37	195	30	15.48	35.18	4.69	26.02	200	0.06
71	15.03	35.12	4.14	195	50	15.30	35.19	4.33	26.07	195	0.10
99	14.70	35.12	3.74	187	75	15.00	35.12	4.11	26.08	194	0.15
146	14.06	35.06	2.87	179	100	14.70	35.12	3.73	26.15	187	0.20
190	12.72	34.93	1.31	162	150	13.98	35.06	2.73	26.25	178	0.29
286	10.90	34.81	0.94	138	200	12.50	34.92	1.22	26.44	160	0.37
377	8.80	34.67	0.45	115	250	11.58	34.85	1.05	26.58	147	0.45
474	7.96	34.62	0.26	106	300	10.60	34.79	0.86	26.70	135	0.52
					400	8.47	34.65	0.38	26.94	112	0.65
					500	(7.80)	(34.61)		(27.02)	(104)	(0.76)

BLACK DOUGLAS; February 13, 1956; 1530 GCT; 28°00'N, 112°11.5'W; sounding, 560 fm; wind, 230°, force 3; weather, clear; sea, slight; wire angle, 12°.

121G.40

0	15.72	35.20	4.83	203	0	15.72	35.20	4.83	25.99	203	0.00
9	15.69	35.19	4.94	203	10	15.68	35.19	4.92	25.98	203	0.02
23	15.68	35.18	4.67	203	20	15.68	35.18	4.83	25.98	203	0.04
47	15.66	35.24	4.68	198	30	15.67	35.18	4.67	25.98	203	0.06
71	15.37	35.16	4.24	198	50	15.63	35.24	4.54	26.04	198	0.10
98	15.16	35.13	3.55	196	75	15.32	35.16	4.19	26.04	198	0.15
143	13.72	34.97	1.74	179	100	15.10	35.12	3.32	26.07	195	0.20
190	12.74	34.89	1.10	165	150	13.59	34.96	1.62	26.27	176	0.29
285	11.24	34.84	1.16	142	200	12.58	34.88	1.10	26.41	163	0.38
376	9.58	34.71	0.44	124	250	11.80	34.85	1.13	26.54	150	0.46
473	8.28	34.64	0.28	110	300	11.00	34.83	1.13	26.66	139	0.53
565	7.58	34.60	0.26	103	400	9.20	34.69	0.34	26.86	120	0.67
658	6.94	34.61u	0.35u	-	500	8.02	34.63	0.27	27.00	107	0.78
754	6.25	34.54	0.24	90	600	7.35	34.59	0.25	27.07	100	0.89
847	5.47	34.53	0.22	81	700	6.60	34.55	0.24	27.13	94	1.00
					800	5.91	34.53	0.22	27.22	86	1.09

a) Sounding varies from 205 to more than 260 fathoms.

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OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m	

127G.40 BLACK DOUGLAS; February 13, 1956; 0310 GCT; 27°08'N, 111°38'W; sounding, 1100 fm; wind, 260°, force 2; weather, partly cloudy; sea, slight; wire angle, 04°.

0	16.95	35.28	4.94	224	0	16.95	35.28	4.94	25.77	224	0.00
9	16.88	35.27	4.79	223	10	16.88	35.27	4.79	25.78	223	0.02
23	16.78	35.28	4.86	220	20	16.79	35.28	4.82	25.80	221	0.04
52	16.75	35.28	4.89	220	30	16.76	35.28	4.88	25.81	220	0.07
62	16.75	35.29	4.67	219	50	16.75	35.28	4.89	25.81	220	0.11
71	16.68	35.25	4.62	220	75	16.40	35.22	4.27	25.84	217	0.17
86	15.35	35.12	3.07	201	100	14.88	35.08	2.63	26.08	194	0.22
105	14.74	35.07	2.53	192	150	13.53	34.98	1.75	26.29	174	0.31
128	13.96	35.01	1.95	180	200	12.62	34.88	1.17	26.40	164	0.40
155	13.45	34.97	1.73	173	250	11.91	34.83	0.90	26.50	154	0.48
207	12.49	34.87	1.10	163	300	11.25	34.79	0.73	26.58	146	0.55
281	11.54	34.81	0.81	150	400	9.74	34.67	0.31	26.76	129	0.70
382	10.01	34.69	0.35	132	500	8.16	34.61	0.17	26.96	110	0.82
516	7.92	34.60	0.15	107	600	6.97	34.57	0.14	27.11	96	0.93
697	6.24	34.55	0.13	89	700	6.22	34.55	0.13	27.20	88	1.03
919	4.91	34.58	0.23	71	800	5.65	34.56	0.17	27.27	81	1.12
1210	3.88	34.56	0.49	62	1000	4.52	34.58	0.29	27.42	67	1.28

127G.70 BLACK DOUGLAS; February 12, 1956; 2211 GCT; 27°08.5'N, 111°08.5'W; sounding, 1020 fm; wind, 290°, force 3; weather, cloudy; sea, slight; wire angle, 08°.

0	16.40	35.25	5.08	214	0	16.40	35.25	5.08	25.87	214	0.00
10	16.10	35.24	5.00	208	10	16.10	35.24	5.00	25.93	208	0.02
24	16.03	35.27	4.90	204	20	16.06	35.26	4.96	25.96	205	0.04
52	15.89	35.23	4.61	204	30	16.01	35.27	4.83	25.98	204	0.06
61	14.76	35.05	2.31	193	50	15.90	35.24	4.67	25.98	204	0.10
71	14.44	35.04	1.95	188	75	14.35	35.04	1.96	26.16	186	0.15
85	14.09	35.04	2.19	181	100	13.65	34.98	1.52	26.27	176	0.20
104	13.58	34.97	1.50	176	150	13.03	34.94	1.71	26.35	168	0.29
126	13.48	34.97	2.19	174	200	12.01	34.86	0.88	26.50	154	0.37
153	12.98	34.93	1.67	167	250	11.24	34.80	0.70	26.59	145	0.44
203	11.97	34.86	0.85	153	300	10.45	34.72	0.49	26.68	137	0.51
275	10.88	34.76	0.64	142	400	8.63	34.63	0.19	26.91	115	0.64
375	9.08	34.65	0.19	121	500	7.40	34.60	0.19	27.07	100	0.76
507	7.31	34.59	0.19	99	600	6.80	34.56	0.16	27.11	96	0.86
685	6.46	34.54	0.15	92	700	6.40	34.54	0.15	27.16	92	0.96
906	5.06	34.60	0.20	71	800	5.86	34.56	0.15	27.25	83	1.05
1195	3.95	34.60	0.50	60	1000	4.63	34.60	0.27	27.43	66	1.22

127G.90 BLACK DOUGLAS; February 12, 1956; 1903 GCT; 27°33'N, 110°49'W; sounding, 260+ fm; wind, calm; weather, partly cloudy; sea, smooth; wire angle, 13°.

0	15.65	35.16	4.39	204	0	15.65	35.16	4.39	25.98	204	0.00
9	15.44	35.22	4.44	196	10	15.43	35.22	4.42	26.07	196	0.02
23	15.28	35.14	4.08	198	20	15.32	35.15	4.10	26.04	198	0.04
46	14.33	35.08	2.20	183	30	15.20	35.13	3.65	26.05	197	0.06
69	13.20	34.90	1.32	173	50	14.08	35.04	1.96	26.23	180	0.10
91	12.88	34.92	1.20	166	75	13.12	34.90	1.29	26.32	172	0.14
135	12.06	34.89	0.92	153	100	12.74	34.92	1.13	26.41	163	0.18
179	11.60	34.83	0.78	149	150	11.90	34.87	0.87	26.52	152	0.26
267	10.52	34.74	0.26	137	200	11.34	34.80	0.69	26.58	147	0.34
357	9.57	34.67	0.14	126	250	10.72	34.75	0.46	26.65	140	0.41
449	8.52	34.65a)	0.14	112	300	10.15	34.71	0.18	26.73	132	0.48
					400	9.13	34.65	0.14	26.86	120	0.61

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

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT	Z	T	S	O ₂	σ_t	δT	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm ³ /g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm ³ /g	dyn. m

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BLACK DOUGLAS; February 10, 1956; 2355 GCT; 26°16'N, 111°04.5'W; sounding, 240 fm; wind, 330°, force 6; weather, clear; sea, very rough; wire angle, 06°.

133G.40

0	16.45	35.22	4.70	217	0	16.45	35.22	4.70	25.83	218	0.00
10	16.44	35.23	4.93	216	10	16.44	35.23	4.93	25.84	217	0.02
24	16.44	35.26	4.88	214	20	16.44	35.25	4.91	25.86	215	0.04
51	16.44	35.26	4.83	214	30	16.44	35.26	4.85	25.87	214	0.06
76	16.39	35.23	4.67	215	50	16.44	35.26	4.83	25.87	214	0.11
105	15.72	35.14	3.39	207	75	16.40	35.23	4.68	25.86	215	0.16
157	13.18	34.94	0.84	170	100	15.90	35.16	3.55	25.92	209	0.22
207	11.72	34.79	0.59	154	150	13.45	34.96	1.08	26.29	174	0.31
307	9.99	34.70	0.27	131	200	11.86	34.80	0.59	26.48	156	0.40
					250	10.97	34.74	0.43	26.61	144	0.47
					300	10.09	34.70	0.28	26.73	132	0.54

BLACK DOUGLAS; February 11, 1956; 0715 GCT; 26°31'N, 110°35.5'W; sounding, 700 fm; wind, 330°, force 6; weather, clear; sea, very rough; wire angle, 14°.

133G.70

0	16.57	35.20	4.88	222	0	16.57	35.20	4.88	25.79	222	0.00
9	16.56	35.23	4.73	219	10	16.56	35.23	4.75	25.82	219	0.02
23	16.55	35.21	4.80	220	20	16.56	35.21	4.75	25.81	220	0.04
47	16.55	35.21	4.94	220	30	16.55	35.21	4.82	25.80	220	0.07
57	16.54	35.21	4.80	220	50	16.55	35.21	4.88	25.81	220	0.11
66	15.10	35.05	2.11	201	75	14.50	34.99	1.43	26.09	193	0.16
75	14.50	34.99	1.43	193	100	13.58	34.95	1.12	26.26	177	0.21
92	13.85	34.96	1.20	182	150	11.87	34.86	0.68	26.52	152	0.29
116	12.93	34.92	0.96	167	200	11.02	34.80	0.50	26.63	142	0.36
141	12.07	34.87	0.73	155	250	10.34	34.74	0.28	26.71	134	0.44
183	11.26	34.82	0.58	144	300	9.70	34.72	0.28	26.81	125	0.50
243	10.42	34.74	0.28	136	400	8.45	34.62	0.23	26.92	114	0.63
331	9.35	34.71	0.33	120	500	7.37	34.56	0.20	27.05	102	0.74
443	7.98	34.58	0.18	110	600	6.50	34.56	0.28	27.16	91	0.84
603	6.44	34.56	0.29	91	700	5.87	34.56	0.23	27.24	84	0.93
800	5.34	34.56	0.19	77	800	5.34	34.56	0.19	27.31	77	1.02
1074	4.30	34.58	0.34	64	1000	4.52	34.57	0.27	27.41	68	1.18

BLACK DOUGLAS; February 9, 1956; 0914, 1937 GCT; 25°39'N, 110°03'W; sounding, 1150 fm; wind, 310°, force 5; weather, clear; sea, moderate; wire angle, 28°, 30°.

139G.70

0	18.39	35.26	4.70	260	0	18.39	35.26	4.70	25.39	260	0.00
8	18.40	35.25	4.90	260	10	18.40	35.26	4.88	25.39	260	0.03
26	18.40	35.26	4.75	260	20	18.40	35.26	4.79	25.38	260	0.05
					30	18.40	35.26	4.64	25.38	260	0.08
46	18.17	35.23	4.37	256	50	17.00	35.10	2.68	25.62	238	0.13
58	15.64	34.97	1.42	218	75	14.14	34.91	1.02	26.11	191	0.18
67	14.78	34.94	1.18	202	100	13.05	34.87	0.70	26.31	172	0.23
79	13.86	34.90	0.97	186	150	12.12	34.81	0.57	26.44	159	0.31
99	13.06	34.87	0.70	173	200	11.46	34.78	0.38	26.54	150	0.39
128	12.42	34.85	0.73	163	250	10.78	34.72	0.22	26.63	142	0.46
151	12.08	34.81	0.54	159	300	10.04	34.67	0.14	26.71	134	0.54
200	11.46	34.78	0.38	150	400	8.77	34.61	0.14	26.87	119	0.66
266	10.51	34.70	0.16	140	500	7.56	34.55	0.13	27.01	106	0.78
350	9.39	34.64	0.14	136	600	6.40	34.52	0.12	27.14	93	0.89
458	8.10	34.57	0.13	112	700	5.74	34.52	0.13	27.24	84	0.98
610	6.34	34.52	0.12	92	800	5.14	34.53	0.18	27.31	77	1.07
800	5.14	34.53	0.18	77							
1070	-	34.58	0.43	-							

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OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m	

139G.85

BLACK DOUGLAS; February 9, 1956; 0621 GCT; 25°46.5'N, 109°48.5'W; sounding, 650 fm; wind, 320°, force 3; weather, clear; sea, slight; wire angle, 06°.

0	18.17	35.16	4.94	261	0	18.17	35.16	4.94	25.38	261	0.00
10	18.16	35.15	4.91	261	10	18.16	35.15	4.91	25.38	261	0.03
24	18.16	35.16	4.94	261	20	18.16	35.16	4.93	25.38	261	0.05
48	16.04	35.06	1.86	220	30	18.16	35.16	4.89	25.38	261	0.08
76	14.33	34.95	1.09	192	50	15.92	35.05	1.70	25.83	217	0.13
100	13.24	34.93	0.78	172	75	14.39	34.95	1.10	26.09	193	0.18
146	12.14	34.84	0.40	158	100	13.24	34.93	0.78	26.31	172	0.22
196	11.54	34.85	0.41	147	150	12.07	34.84	0.40	26.47	157	0.31
241	10.87	34.76	0.18	141	200	11.48	34.85	0.38	26.58	146	0.38
291	10.34	34.70	0.15	137	250	10.78	34.74	0.17	26.64	141	0.46
383	9.24	34.64	0.12	124	300	10.23	34.69	0.14	26.69	136	0.53
479	8.14	34.58	0.10	112	400	9.08	34.63	0.11	26.84	122	0.66
573	7.00	34.58	0.11	96	500	7.87	34.58	0.10	26.99	108	0.78
670	6.18	34.61a)	0.11	-	600	6.70	34.58	0.11	27.14	93	0.89
763	5.75	34.54	0.13	83	700	6.01	34.55	0.11	27.22	86	0.98
863	5.28	34.54	0.14	78	800	5.60	34.54	0.14	27.26	82	1.07
958	4.82	34.53	0.24	74	1000	(4.70)	(34.53)	(0.28)	(27.36)	(72)	(1.24)

145G.40

BLACK DOUGLAS; February 8, 1956; 0749 GCT; 24°32'N, 109°59'W; sounding, 470 fm; wind, 350°, force 4; weather, clear; sea, moderate; wire angle, 15°.

0	18.40	35.19	4.94	264	0	18.40	35.19	4.94	25.34	264	0.00
9	18.38	35.21	4.93	262	10	18.38	35.21	4.92	25.36	262	0.03
23	18.38	35.22	4.88	262	20	18.38	35.21	4.91	25.36	262	0.05
47	18.16	35.20	4.73	258	30	18.34	35.22	4.81	25.38	261	0.08
74	17.64	35.14	3.90	250	50	18.10	35.19	4.68	25.42	257	0.13
97	15.09	34.90	1.26	212	75	17.50	35.13	3.57	25.51	248	0.19
142	13.24	34.87	0.76	177	100	14.92	34.89	1.15	25.93	208	0.25
192	12.41	34.87	0.52	161	150	13.10	34.87	0.72	26.29	173	0.35
282	11.18	34.73	0.13	149	200	12.30	34.86	0.49	26.44	160	0.43
378	9.80	34.65	0.13	132	250	11.62	34.78	0.26	26.51	153	0.51
470	8.29	34.57	0.11	115	300	10.92	34.71	0.13	26.59	146	0.59
567	6.97	34.52	0.11	100	400	9.46	34.63	0.13	26.78	128	0.73
658	6.34	34.53	0.14	92	500	7.82	34.55	0.11	26.97	110	0.86
					600	6.64	34.52	0.12	27.11	96	0.96

145G.70

BLACK DOUGLAS; February 8, 1956; 1252 GCT; 24°47'N, 109°31'W; sounding, 1100 fm; wind, 350°, force 4; weather, partly cloudy; sea, moderate; wire angle, 15°.

0	19.32	34.87	4.96	320	0	19.32	34.87	4.96	24.76	320	0.00
9	19.30	34.87	4.78	320	10	19.29	34.87	4.77	24.76	319	0.03
29	17.86	34.79	2.89	281	20	19.27	34.87	4.64	24.76	319	0.06
51	15.48	34.66	0.32	237	30	17.67	34.78	2.62	25.20	277	0.09
66	14.66	34.71	0.41	217	50	15.79	34.66	0.37	25.60	240	0.14
77	14.37	34.72	0.25	210	75	14.42	34.72	0.31	25.90	211	0.20
88	14.04	34.77	0.25	200	100	13.55	34.78	0.25	26.13	189	0.25
111	13.00	34.79	0.17	178	150	12.24	34.81	0.17	26.42	162	0.34
143	12.32	34.80	0.18	164	200	11.78	34.80	0.19	26.50	154	0.42
165	12.04	34.83	0.13	157	250	11.36	34.78	0.27	26.55	149	0.49
221	11.62	34.79	0.27	153	300	10.86	34.78	0.19	26.65	140	0.57
300	10.86	34.78	0.19	140	400	9.42	34.69	0.19	26.83	123	0.71
405	9.34	34.68	0.18	122	500	8.03	34.61	0.17	26.99	108	0.83
544	7.46	34.59	0.12	102	600	6.95	34.58	0.12	27.12	95	0.93
743	5.80	34.57	0.18	82	700	6.11	34.57	0.16	27.22	86	1.03
976	4.64	34.58	0.25	68	800	5.46	34.57	0.19	27.30	78	1.12
1295	3.81	34.63	0.55	56	1000	4.55	34.58	0.27	27.42	67	1.28

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

OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD	
m	°C	‰	ml/L	10 cm/g	m	°C	‰	ml/L	g/L	10 cm/g	dyn. m	

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BLACK DOUGLAS; February 7, 1956; 2244 GCT; 23°40'N, 109°27.5'W; sounding, 240 fm; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, 30°.

151G.40

0	18.96	35.19	4.72	278	0	18.96	35.19	4.72	25.20	278	0.00	
8	18.98	35.19	4.85	278	10	18.96	35.19	4.85	25.20	278	0.03	
21	18.91	35.17	4.52	278	20	18.95	35.17	4.52	25.20	278	0.06	
42	18.83	35.19	4.74	275	30	18.90	35.17	4.63	25.21	277	0.08	
63	18.69	35.26	4.57	266	50	18.79	35.24	4.74	25.28	270	0.14	
84	16.90	35.07	2.74	238	75	17.75	35.16	3.47	25.48	251	0.20	
124	14.17	34.90	1.02	193	100	15.62	34.98	1.92	25.84	217	0.26	
164	12.90	34.83	0.52	173	150	13.23	34.85	0.63	26.25	178	0.36	
234	11.90	34.79	0.26	157	200	12.33	34.81	0.37	26.40	164	0.45	
304	10.86	34.73	0.17	144	250	11.66	34.78	0.20	26.50	154	0.53	
					300	10.95	34.73	0.17	26.61	144	0.61	

BLACK DOUGLAS; February 7, 1956; 1827 GCT; 23°55'N, 108°59'W; sounding, 1400 fm; wind, 340°, force 3; weather, cloudy; sea, slight; wire angle, 15°.

151G.70

0	19.76	34.89	4.62	319	0	19.76	34.89	4.62	24.76	319	0.00	
9	19.74	34.88	4.65	319	10	19.74	34.88	4.65	24.76	319	0.03	
23	19.66	34.90	4.54	316	20	19.68	34.89	4.57	24.79	317	0.06	
51	17.92	34.90	3.17	274	30	19.62	34.90	4.50	24.81	315	0.10	
60	15.53	34.62	1.35	241	50	18.77	34.91	3.81	25.03	293	0.16	
69	15.04	34.75	1.08	222	75	14.70	34.78	0.98	25.89	212	0.22	
83	14.22	34.79	0.88	202	100	13.68	34.77	0.76	26.09	192	0.27	
100	13.68	34.77	0.76	192	150	12.57	34.81	0.65	26.35	168	0.36	
123	13.08	34.88u	0.41	-	200	11.83	34.78	0.68	26.47	157	0.44	
149	12.58	34.81	0.64	168	250	11.18	34.74	0.29	26.56	148	0.52	
198	11.86	34.78	0.70	157	300	10.50	34.69	0.16	26.65	140	0.60	
268	10.98	34.72	0.19	146	400	9.02	34.60	0.14	26.83	123	0.73	
365	9.56	34.63	0.14	129	500	7.59	34.53	0.12	26.99	108	0.85	
495	7.64	34.53	0.12	109	600	6.62	34.51	0.12	27.10	97	0.96	
670	6.12	34.51	0.14	90	700	6.00	34.51	0.17	27.20	88	1.06	
890	4.84	34.54	0.45	73	800	5.40	34.52	0.32	27.27	81	1.15	
1178	3.89	34.56	0.27	62	1000	4.44	34.55	0.43	27.41	68	1.32	

BLACK DOUGLAS; February 7, 1956; 1342 GCT; 24°05'N, 108°30'W; sounding, 700 fm; wind, 340°, force 4; weather, clear; sea, slight; wire angle, 14°.

151G.100

0	19.99	34.78	5.08	333	0	19.99	34.78	5.08	24.61	333	0.00	
10	20.01	34.77	4.96	334	10	20.01	34.77	4.96	24.61	334	0.03	
23	19.10	34.81	3.52	309	20	19.99	34.77	4.78	24.61	334	0.07	
46	16.00	34.73	1.66	243	30	17.54	34.78	2.48	25.24	274	0.10	
55	15.64	34.73	1.46	236	50	15.79	34.73	1.56	25.60	240	0.15	
65	15.35	34.91u	1.20	-	75	14.62	34.79	0.82	25.91	210	0.20	
73	14.98	34.79	0.87	213	100	13.70	34.79	0.42	26.10	191	0.26	
90	13.98	34.78	0.53	198	150	12.70	34.81	0.11	26.32	170	0.35	
112	13.43	34.80	0.33	186	200	12.00	34.78	0.09	26.44	160	0.43	
137	12.94	34.81	0.16	175	250	11.22	34.73	0.09	26.54	150	0.51	
179	12.28	34.80	0.09	164	300	10.62	34.70	0.09	26.63	142	0.58	
240	11.38	34.74	0.09	152	400	9.17	34.65	0.08	26.84	122	0.72	
330	10.26	34.69	0.10	137	500	7.68	34.58	0.08	27.01	105	0.84	
443	8.46	34.62	0.08	114	600	6.81	34.54	0.08	27.10	97	0.95	
603	6.78	34.54	0.08	96	700	6.12	34.51	0.10	27.18	90	1.05	
799	5.48	34.50	0.12	84	800	5.48	34.50	0.12	27.24	84	1.14	
1071	4.28	34.56	0.37	66	1000	4.54	34.54	0.27	27.39	70	1.31	

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10 ⁻⁵ cm/g	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm/g	dyn. m

157G.10 BLACK DOUGLAS; February 6, 1956; 0350 GCT; 22°33'N, 109°23'W; sounding, 1600; wind, direction missing, force 1; weather, clear; sea, slight; wire angle, 18°.

0	21.24	34.79	5.33	364	0	21.24	34.79	5.33	24.29	364	0.00
9	20.56	34.87	5.09	341	10	20.40	34.89	5.04	24.60	335	0.04
23	19.10	35.08	4.66	289	20	19.15	35.08	4.67	25.05	291	0.07
50	18.97	35.08	4.63	286	30	19.07	35.08	4.64	25.09	288	0.10
59	18.65	35.02	4.35	282	50	18.97	35.08	4.63	25.11	286	0.15
67	17.86	34.96	3.44	268	75	15.88	34.75	1.81	25.61	239	0.22
80	14.65	34.63	1.17	222	100	13.62	34.73	0.50	26.08	194	0.27
97	13.72	34.72	0.54	197	150	12.53	34.81	0.22	26.35	168	0.36
119	13.02	34.76	0.39	180	200	11.78	34.78	0.20	26.48	156	0.45
144	12.62	34.81	0.22	169	250	11.38	34.76	0.14	26.54	150	0.52
191	11.92	34.79	0.22	158	300	10.88	34.72	0.16	26.61	144	0.60
256	11.34	34.88u	0.13	-	400	9.50	34.62	0.22	26.76	129	0.74
351	10.22	34.66	0.22	138	500	7.81	34.56	0.20	26.98	108	0.87
477	8.12	34.57	0.22	112	600	6.74	34.53	0.17	27.11	96	0.97
646	6.34	34.52	0.17	92	700	5.98	34.52	0.19	27.20	88	1.07
859	4.96	34.53	0.27	75	800	5.28	34.52	0.22	27.29	79	1.16
1142	3.98	34.58	0.67	61	1000	4.35	34.55	0.46	27.42	67	1.32

157G.40 BLACK DOUGLAS; February 6, 1956; 0900 GCT; 22°48.5'N, 108°50.5'W; sounding, 1800 fm; wind, 360°, force 2; weather, clear; sea, moderate; wire angle, 16°.

0	19.16	35.09	4.96	289	0	19.16	35.09	4.96	25.07	289	0.00
9	19.18	35.09	5.07	291	10	19.17	35.10	5.08	25.06	290	0.03
23	19.17	35.10	5.14	289	20	19.17	35.10	5.10	25.07	290	0.06
51	15.72	34.83	1.59	230	30	19.15	35.10	5.14	25.08	289	0.09
60	14.90	34.81	1.15	215	50	15.91	34.84	1.66	25.67	233	0.14
69	14.23	34.79	0.68	202	75	13.87	34.78	0.60	26.07	195	0.19
82	13.56	34.78	0.58	189	100	12.94	34.78	0.51	26.26	177	0.24
100	12.94	34.78	0.51	177	150	12.12	34.78	0.32	26.42	162	0.32
122	12.30	34.78	0.42	166	200	11.47	34.78	0.14	26.53	151	0.40
148	12.14	34.78	0.32	162	250	10.72	34.72	0.12	26.63	142	0.48
196	11.58	34.78	0.16	152	300	9.98	34.67	0.11	26.72	133	0.55
264	10.54	34.70	0.12	140	400	8.59	34.60	0.11	26.89	117	0.68
358	9.18	34.63	0.11	124	500	7.29	34.54	0.13	27.04	103	0.79
485	7.46	34.55	0.12	105	600	6.38	34.50	0.13	27.14	94	0.90
655	5.97	34.49	0.14	90	700	5.67	34.50	0.15	27.22	86	0.99
865	4.94	34.52	0.18	76	800	5.20	34.51	0.17	27.28	80	1.08
1147	3.87	34.56	0.55	62	1000	4.38	34.54	0.28	27.41	68	1.24

157G.70 BLACK DOUGLAS; February 6, 1956; 1401 GCT; 23°04.5'N, 108°18'W; sounding, 1600 fm; wind, 300°, force 2; weather, partly cloudy; sea, moderate; wire angle, 07°.

0	19.75	34.70	5.22	333	0	19.75	34.70	5.22	24.62	333	0.00
10	19.74	34.74	5.22	330	10	19.74	34.74	5.22	24.65	330	0.03
23	18.76	34.75	4.88	305	20	19.00	34.75	5.01	24.85	311	0.07
52	14.82	34.78	1.13	215	30	18.17	34.76	4.48	25.06	291	0.10
62	13.81	34.70	0.43	200	50	15.42	34.78	1.74	25.72	227	0.15
72	13.48	34.70	0.34	194	75	13.54	34.76	0.58	26.12	190	0.20
86	13.18	34.79	0.72	181	100	12.78	34.78	0.58	26.29	174	0.25
104	12.70	34.78	0.51	173	150	12.09	34.79	0.29	26.43	161	0.33
128	12.30	34.81	0.34	163	200	11.50	34.78	0.23	26.53	151	0.41
156	12.02	34.78	0.28	160	250	10.92	34.73	0.18	26.61	144	0.48
207	11.40	34.78	0.22	149	300	10.25	34.66	0.17	26.67	138	0.56
281	10.54	34.69	0.16	141	400	8.64	34.59	0.24	26.87	119	0.69
381	8.88	34.60	0.25	122	500	7.62	34.53	0.20	26.98	109	0.81
515	7.50	34.52	0.20	108	600	6.88	34.52	0.19	27.08	99	0.92
695	6.18	34.52	0.19	90	700	6.15	34.52	0.19	27.18	90	1.02
928	4.72	34.52	0.32	74	800	5.59	34.52	0.19	27.25	83	1.11
1210	3.74	34.54	0.78	62	1000	4.40	34.52	0.40	27.39	70	1.28

OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O ₂	δT_3	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	$10^{-5} \text{ cm}^3/\text{g}$	m	°C	‰	ml/L	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m

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BLACK DOUGLAS; February 6, 1956; 1757 GCT; 23°18'N, 107°58.5'W; sounding, 1230 fm; wind, 330°, force 2; weather, cloudy; sea, moderate; wire angle, 05°.

157G.100

0	20.31	34.97	4.98	327	0	20.31	34.97	4.98	24.68	327	0.00
10	20.24	35.00	5.12	323	10	20.24	35.00	5.12	24.71	324	0.03
24	20.20	34.99	4.89	323	20	20.20	34.99	4.94	24.72	323	0.07
52	16.14	34.71	1.51	248	30	20.18	34.99	4.87	24.73	322	0.10
61	15.40	34.68	0.94	234	50	16.50	34.73	1.77	25.45	254	0.16
71	15.10	34.72	0.96	225	75	14.90	34.74	0.87	25.82	219	0.21
84	14.17	34.76a)	0.46	203	100	13.74	34.78	0.20	26.10	192	0.27
103	13.65	34.79	0.14	191	150	12.40	34.81	0.18	26.38	165	0.36
126	12.89	34.80	0.31	175	200	11.70	34.79	0.13	26.51	153	0.44
153	12.34	34.81	0.12	164	250	11.01	34.75	0.13	26.61	144	0.51
204	11.62	34.79	0.14	153	300	10.32	34.70	0.11	26.69	136	0.58
276	10.62	34.73	0.12	139	400	8.83	34.59	0.10	26.85	121	0.72
377	9.16	34.61	0.10	125	500	7.52	34.56	0.10	27.02	105	0.84
510	7.40	34.55	0.10	104	600	6.60	34.53	0.17	27.13	94	0.94
690	5.85	34.52	0.22	86	700	5.78	34.52	0.22	27.22	85	1.04
914	4.68	34.55	0.31	71	800	5.20	34.53	0.27	27.30	78	1.13
1207	3.94	34.55	0.56	63	1000	4.40	34.55	0.37	27.41	68	1.28

BLACK DOUGLAS; February 6, 1956; 2241 GCT; 23°33'N, 107°31'W; sounding, 600 fm; wind, 240°, force 3; weather, cloudy; sea, slight; wire angle, 03°.

157G.130

0	22.00	34.65	5.52	394	0	22.00	34.65	5.52	23.98	394	0.00
9	21.37	34.67	5.42	377	10	21.32	34.68	5.38	24.19	374	0.04
23	20.72	34.79	4.43	351	20	20.85	34.78	4.62	24.40	354	0.07
48	16.63	34.70	1.52	260	30	19.58	34.77	3.60	24.71	324	0.11
76	14.18	34.70	0.59	207	50	16.30	34.69	1.32	25.47	252	0.17
100	13.73	34.81	0.17	190	75	14.21	34.70	0.60	25.93	208	0.22
147	12.50	34.85	0.14	164	100	13.73	34.81	0.17	26.12	190	0.27
198	11.80	34.80	0.08	155	150	12.45	34.85	0.14	26.40	164	0.36
244	11.37	34.78	0.15	149	200	11.78	34.80	0.08	26.50	154	0.44
294	10.88	34.73	0.09	144	250	11.31	34.77	0.15	26.56	148	0.52
387	8.95	34.66	0.09	118	300	10.79	34.72	0.09	26.62	143	0.60
484	7.56	34.58	0.08	104	400	8.74	34.65	0.08	26.91	115	0.73
577	6.73	34.52	0.10	97	500	7.38	34.56	0.08	27.05	102	0.84
674	6.20	34.53	0.12	90	600	6.60	34.52	0.10	27.11	96	0.95
768	5.58	34.53	0.10	82	700	6.05	34.53	0.11	27.20	88	1.05
866	5.22	34.53	0.18	78	800	5.38	34.53	0.14	27.38	80	1.14
960	4.90	34.52	0.31	75	1000	(4.70)	(34.52)	(0.38)	(27.35)	(74)	(1.30)

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

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T S	
82.47-S	II-6	1800	34°16.0'	119°58.0'	310	var.	-	clear	rough	11.80	33.42
83.40-S	6	2240	34°13.0'	118°21.5'	12	300°	3	clear	slight	12.44	33.43
83.51-S	5	1845	33°52.5'	120°05.5'	25	320°	8	partly cloudy	rough	11.98	33.54
87.50-S	7	1130	33°20.0'	119°40.0'	40	350°	2	clear	moderate	11.56	33.58
90.28-S	9	1225	33°28.5'	117°45.5'	50	040°	2	clear	moderate	13.08	33.56
93.27-S	9	1620	32°56.0'	117°19.0'	50	040°	1	clear	slight	12.97	33.64
97.30-S	12	0025	32°15.5'	117°09.0'	28	310°	4	clear	moderate	13.54	33.60
100.29-S	12	0425	31°42.0'	116°43.5'	80	090°	3	clear	very rough	12.12	33.59
103.30-S	14	0905	31°05.5'	116°25.0'	41	320°	4	overcast	moderate	12.42	33.54
107.32-S	14	1320	30°26.0'	116°11.0'	365	340°	3	overcast	moderate	13.02	33.55
110.33-S	17	1735	29°50.0'	115°52.0'	30	050°	2	partly cloudy	rough	-	33.56
117.26-F	17	0230	28°55.5'	114°40.5'	39	300°	3	cloudy	rough	13.30	33.56
117.30-F	17	0425	28°47.5'	114°55.5'	51	330°	4	missing	rough	13.28	33.57
117.35-F	17	0645	28°38.5'	115°18.0'	115	330°	4	missing	rough	13.98	33.67
120.25-F	16	2220	28°23.0'	114°14.5'	29	290°	3	partly cloudy	moderate	14.86a)	33.64
120.30-F	16	2003	28°13.5'	114°34.0'	50	280°	3	cloudy	moderate	13.53	33.66
120.40-F	16	1330	27°52.5'	115°14.5'	39	310°	3	cloudy	moderate	13.34	33.79

a) Alternate value 15.04°C.

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

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters	
						Dir	Force			T	S
123.37-F	II-15	0320	27°24.0'	114°40.0'	36	350°	4	overcast	moderate	14.06	33.75
127.34-F	14	2245	26°55.5'	114°06.0'	41	280°	3	cloudy	moderate	15.58	33.82
130.30-F	13	1450	26°24.0'	113°29.0'	39	360°	2	partly cloudy	moderate	15.64	33.86
133.25-F	13	1000	26°04.5'	112°48.0'	45	280°	2	fog	calm	15.19	33.73
137.23-F	12	1340	25°34.0'	112°19.0'	42	320°	1	fog	missing	15.08	33.86
140.30-F	12	0815	24°45.0'	112°24.0'	60	330°	2	missing	moderate	16.74	34.07
140.35-F	12	0530	24°35.0'	112°44.0'	100	340°	3	missing	moderate	16.55	33.87
143.26-F	9	1655	24°19.0'	111°48.0'	30	320°	2	clear	moderate	16.26	34.04
147.20-F	9	1145	23°55.5'	111°05.0'	80	340°	3	clear	moderate	18.18	34.63
147.30-F	9	0610	23°37.0'	111°40.0'	175	340°	5	missing	moderate	15.95	34.03
117G.65-B	14	0115	28°47.0'	112°10.0'	13	calm		partly cloudy	calm	13.76	35.05
118G.20-B	14	0925	28°16.0'	112°47.5'	62	080°	1	clear	smooth	14.83	35.14
118G.66-B	13	2345	28°39.0'	112°03.0'	16	130°	1	clear	smooth	14.88	35.16
119G.16-B	14	1105	28°05.5'	112°45.5'	35	calm		clear	smooth	14.98	35.16
120G.13-B	14	1220	27°55.0'	112°43.0'	165	240°	6	clear	moderate	15.32	35.17
120G.66-B	13	2135	28°21.5'	111°51.5'	12	130°	3	clear	slight	15.08	35.30

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

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

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters	
						Dir	Force			T	S
121G. 13-B	II-14	1355	27°46.5'	112°37.5'	260	240°	1	cloudy	slight	15.58	35.23
121G. 55-B	13	1750	28°07.5'	111°56.5'	220	calm		clear	slight	14.66	35.10
121G. 70-B	13	1940	28°15.0'	111°42.0'	33	calm		clear	slight	15.33	35.26
121G. 74-B	13	2010	28°17.0'	111°38.0'	17	120°	1	clear	slight	15.28	35.19
122G. 16-B	14	1540	27°39.5'	112°28.5'	220	180°	1	cloudy	slight	15.74	35.21
123G. 30-B	13	0920	27°37.5'	112°10.0'	600	300°	1	clear	calm	15.84	35.23
124G. 21-B	14	1755	27°24.5'	112°13.0'	260+	180°	1	cloudy	slight	15.84	35.21
125G. 30-B	13	0725	27°20.5'	111°59.0'	800	270°	1	clear	calm	16.22	35.30
126G. 24-B	15	0620	27°08.5'	111°59.0'	90	calm		missing	calm	16.84	35.28
126G. 101-B	11	2315	27°46.5'	110°45.0'	17	300°	4	clear	moderate	14.33a)	34.98
127G. 22-B	15	0810	26°59.0'	111°55.0'	34	calm		missing	calm	16.78	35.28
127G. 30-B	13	0455	27°03.0'	111°47.5'	510	270°	1	missing	calm	16.95	35.30
127G. 55-B	13	0025	27°15.5'	111°23.0'	1000	300°	1	overcast	slight	16.66	35.26
127G. 94-B	11	2150	27°34.5'	110°46.5'	25	300°	4	clear	rough	15.57	35.19
128G. 27-B	16	0048	26°53.0'	111°44.5'	240	calm		partly cloudy	calm	17.01b)	35.24
129G. 31-B	16	0210	26°46.0'	111°35.5'	300	110°	1	partly cloudy	calm	17.08	35.28

a) Alternate value, 14.14°C.

b) Alternate value, 16.81°C.

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters	
						Dir	Force			T	S
129G. 89-B	II-11	1835	27°15.0'	110°40.5'	260+	300°	4	clear	moderate	14.56	35.08
131G. 31-B	16	0415	26°29.0'	111°24.0'	260	160°	1	missing	calm	16.95	35.26
131G. 94-B	11	1600	27°00.5'	110°23.5'	47	320°	3	clear	moderate	14.99	35.08
132G. 29-B	16	0535	26°19.0'	111°21.0'	260+	calm		missing	calm	16.75	35.25
133G. 27-B	16	0720	26°09.5'	111°16.0'	50	calm		missing	calm	17.02	35.28
133G. 55-B	11	0300	26°25.5'	110°50.0'	1430	330°	7	clear	very rough	16.70	35.23
133G. 85-B	11	1010	26°38.5'	110°21.5'	650	330°	4	clear	very rough	17.00	35.16
133G. 100-B	11	1215	26°46.0'	110°07.0'	35	300°	4	clear	moderate	14.64	35.05
133G. 105-B	11	1325	26°48.5'	110°02.0'	17	300°	3	clear	slight	14.21	35.01
134G. 20-B	16	0900	25°57.5'	111°18.0'	180	calm		missing	calm	17.62	35.28
134G. 40-B	10	2125	26°07.5'	110°59.0'	350	340°	6	clear	very rough	16.80	35.28
135G. 35-B	10	1900	25°56.0'	110°58.5'	510	340°	5	clear	very rough	17.41	35.28
136G. 20-B	16	1105	25°40.0'	111°07.5'	120	200°	5	missing	slight	17.65	35.18
137G. 30-B	9	2035	25°36.0'	110°52.0'	350	330°	6	clear	very rough	17.58	35.26
138G. 20-B	16	1330	25°22.5'	110°56.0'	270	150°	2	overcast	smooth	17.84	35.17
139G. 22-B	9	1715	25°15.0'	110°49.0'	400	330°	6	clear	very rough	17.94	35.17
139G. 40-B	9	1445	25°24.0'	110°31.5'	660	330°	6	clear	very rough	17.39	35.17
139G. 55-B	9	1145	25°31.0'	110°18.5'	1100	320°	5	missing	very rough	17.22	35.24
139G. 100-B	9	0340	25°54.0'	109°34.5'	14	360°	2	clear	slight	16.61	35.07

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

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters	
						Dir	Force			T	S
140G. 20-B	II-16	1550	25°05.5'	110°45.5'	260+	290°	2	overcast	slight	18.22	35.25
141G. 29-B	16	1755	25°01.0'	110°31.5'	260+	-	1	overcast	calm	17.84	35.19
141G. 96-B	9	0045	25°34.5'	109°27.0'	275	320°	3	clear	moderate	18.18	35.10
142G. 24-B	16	1900	24°50.0'	110°30.5'	260+	180°	2	overcast	slight	18.66a)	35.26
143G. 15-B	16	2035	24°37.0'	110°33.5'	225	160°	2	overcast	smooth	18.56b)	35.23
143G. 100-B	8	2230	25°19.0'	109°13.0'	58	320°	4	clear	slight	18.04	34.91
144G. 15-B	16	2210	24°28.0'	110°28.0'	90	-	-	overcast	smooth	18.84c)	35.27
145G. 30-B	17	2350	24°27.0'	110°08.5'	260+	010°	3	partly cloudy	moderate	17.86	35.23
145G. 55-B	8	1000	24°39.5'	109°45.0'	860	330°	4	clear	rough	18.28	35.21
145G. 85-B	8	1540	24°55.0'	109°17.5'	1000	320°	3	partly cloudy	moderate	19.02	35.23
145G. 100-B	8	1800	25°02.5'	109°02.5'	45	310°	3	clear	slight	15.98	34.96
145G. 115-B	8	1920	25°09.5'	108°48.0'	12	290°	2	clear	slight	16.14	35.08
147G. 32-B	18	0200	24°10.5'	109°56.0'	150	320°	3	missing	moderate	18.16	35.23
147G. 42-B	8	0435	24°15.5'	109°46.5'	950	340°	4	cloudy	moderate	18.28	35.20
149G. 34-B	18	0430	23°54.5'	109°43.5'	260+	330°	4	clear	moderate	18.30	35.20

a) Alternate value 18.54°C.

b) Alternate value 18.42°C.

c) Alternate value 18.67°C.

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters	
						Dir	Force			T	S
149G. 40-B	II-8	0125	23°57.5'	109°38.0'	620	340°	4	cloudy	moderate	18.40	35.16
151G. 37-B	18	0705	23°38.5'	109°30.5'	50	320°	4	clear	moderate	18.62	34.99
151G. 55-B	7	2040	23°47.5'	109°13.5'	1330	320°	4	cloudy	slight	20.02	34.88
151G. 85-B	7	1535	24°02.5'	108°45.0'	1030	300°	3	cloudy	moderate	20.06	34.80
151G. 115-B	7	1110	24°17.5'	108°16.5'	520	270°	2	clear	smooth	19.53	34.67
151G. 130-B	7	0900	24°25.0'	108°02.5'	26	300°	2	clear	slight	18.91	34.78
153G. 35-B	18	0935	23°20.0'	109°21.0'	560	300°	4	clear	moderate	19.32	34.92
153G. 137-B	7	0605	24°11.0'	107°45.5'	32	310°	1	clear	slight	18.34	34.74
154G. 15-B	18	1200	23°01.5'	109°34.0'	170	calm		clear	calm	19.16	34.96
155G. 144-B	7	0345	23°57.0'	107°28.5'	40	290°	1	overcast	slight	19.68	34.60
157G. 25-B	6	0605	22°41.0'	109°07.0'	1800	360°	1	clear	smooth	19.46	35.08
157G. 55-B	6	1130	22°56.5'	108°34.5'	1600	330°	2	clear	slight	19.02	35.02
157G. 85-B	6	1530	23°10.5'	108°12.5'	1550	330°	1	cloudy	smooth	20.58	34.67
157G. 115-B	6	2030	23°25.5'	107°45.0'	975	330°	1	cloudy	slight	21.07	34.88
157G. 150-B	7	0110	23°43.0'	107°12.0'	45	290°	1	overcast	slight	-	34.61

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

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Marine Fisheries Laboratory Branch
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340 State Office Building
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Kobe Marine Observatory
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Nanaimo, B. C.
Canada

U. S. Hydrographic Office (2)
Navy Department
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Division of Oceanography

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National Academy of Sciences
2101 Constitution Avenue
Washington 25, D. C.

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University of California
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Washington 25, D. C.

Mr. William E. Warne
California Department of Fish and Game
926 J Street
Sacramento 14, California

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