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STATION POSITIONS ~~AS~~

UNIVERSITY OF CALIFORNIA SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

PHYSICAL AND CHEMICAL DATA

CCOFI Cruise 5307
(MLR 50)
8-27 July 1953

and

CCOFI Cruise 5308
(MLR 51)
5-30 August 1953

SIO Reference 58-23
1 August 1958

UNIVERSITY OF CALIFORNIA
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CCOFI CRUISE 5307
(MLR 50)
8-27 July 1953

and

CCOFI CRUISE 5308
(MLR 51)
5-30 August 1953

Sponsored by
Marine Research Committee

SIO Reference 58-23
1 August 1958

Approved for distribution:



Roger Revelle
Roger Revelle, Director

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DISTRIBUTION LIST 345

INTRODUCTION

The data in this report were collected on the fiftieth and fifty-first consecutive cruises of the California Cooperative Oceanic Fisheries Investigations program. The R/V Crest, the R/V E. W. Scripps, the R/V Horizon and the R/V Paolina-T of the Scripps Institution of Oceanography participated in the fiftieth cruise while the R/V Crest, the R/V Horizon and the R/V Paolina-T participated in the fifty-first cruise.

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

STANDARD PROCEDURES

To indicate degree of accuracy, temperatures are recorded in tenths of a degree when obtained by bucket thermometer, thermograph, or bathythermograph, while temperatures from reversing thermometers are recorded in hundredths of a degree. Extrapolated values and values interpolated between remote observations are entered within parentheses. A hyphen is used to indicate a missing observed value. The time is the time of messenger release. When more than one cast was made on a station, each messenger time and wire angle is given in the order of increasing depth of casts. A line is left blank between the observed data of each cast.

FOOTNOTES

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

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

p: pretrip or posttrip.

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

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

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

FORMAT

These data are typed in the format of the University of California Press publication, "Oceanic Observations of the Pacific." So that these pages can be used as copy for the 1953 volume, the first page of the Cruise 5307 data is numbered 272, and the first page of the Cruise 5308 data is numbered 311.

FIGURES

1. CCOFI Cruise 5308 (MLR 51), 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

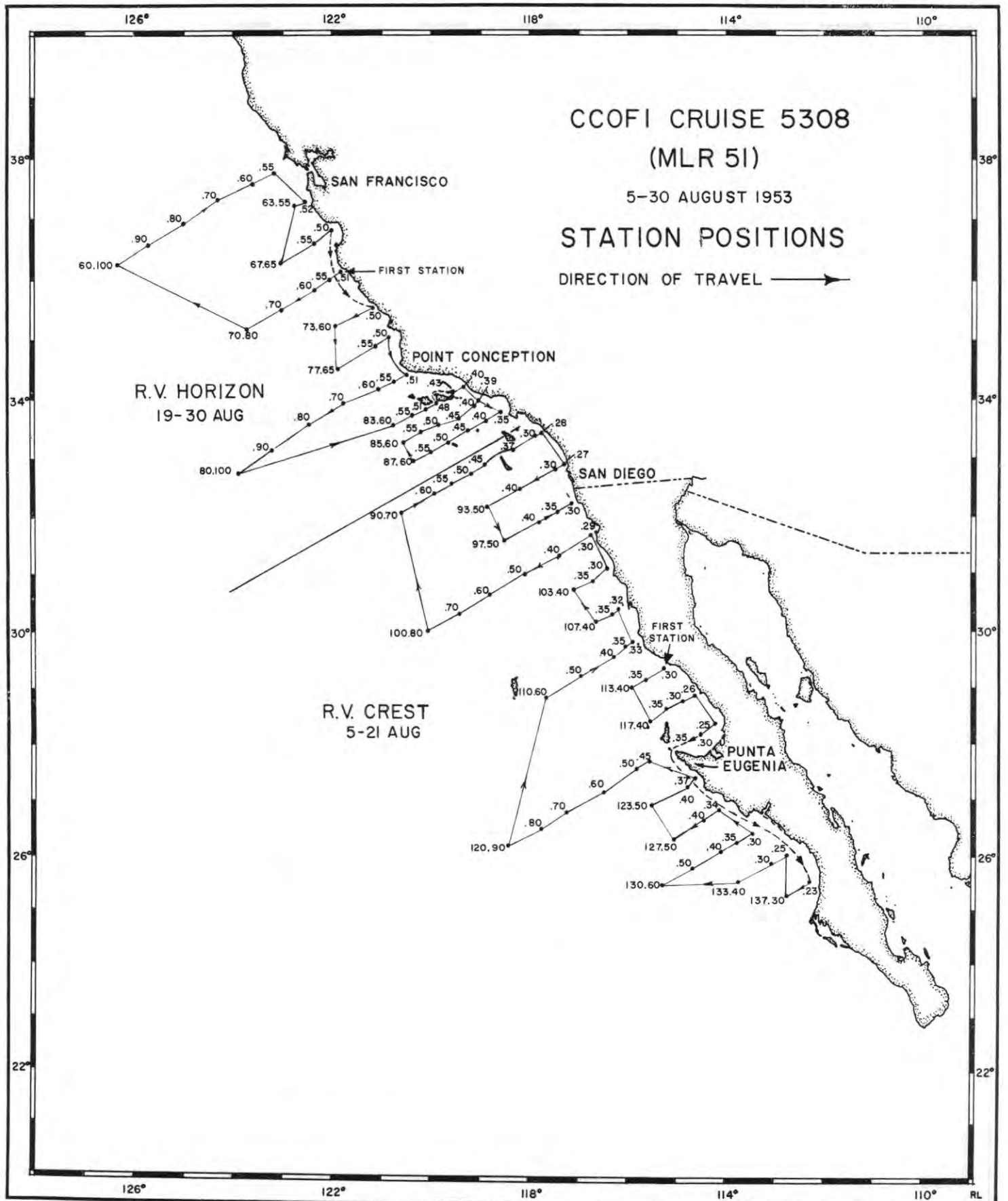


FIGURE 1

FROM H.O. CHART 0527

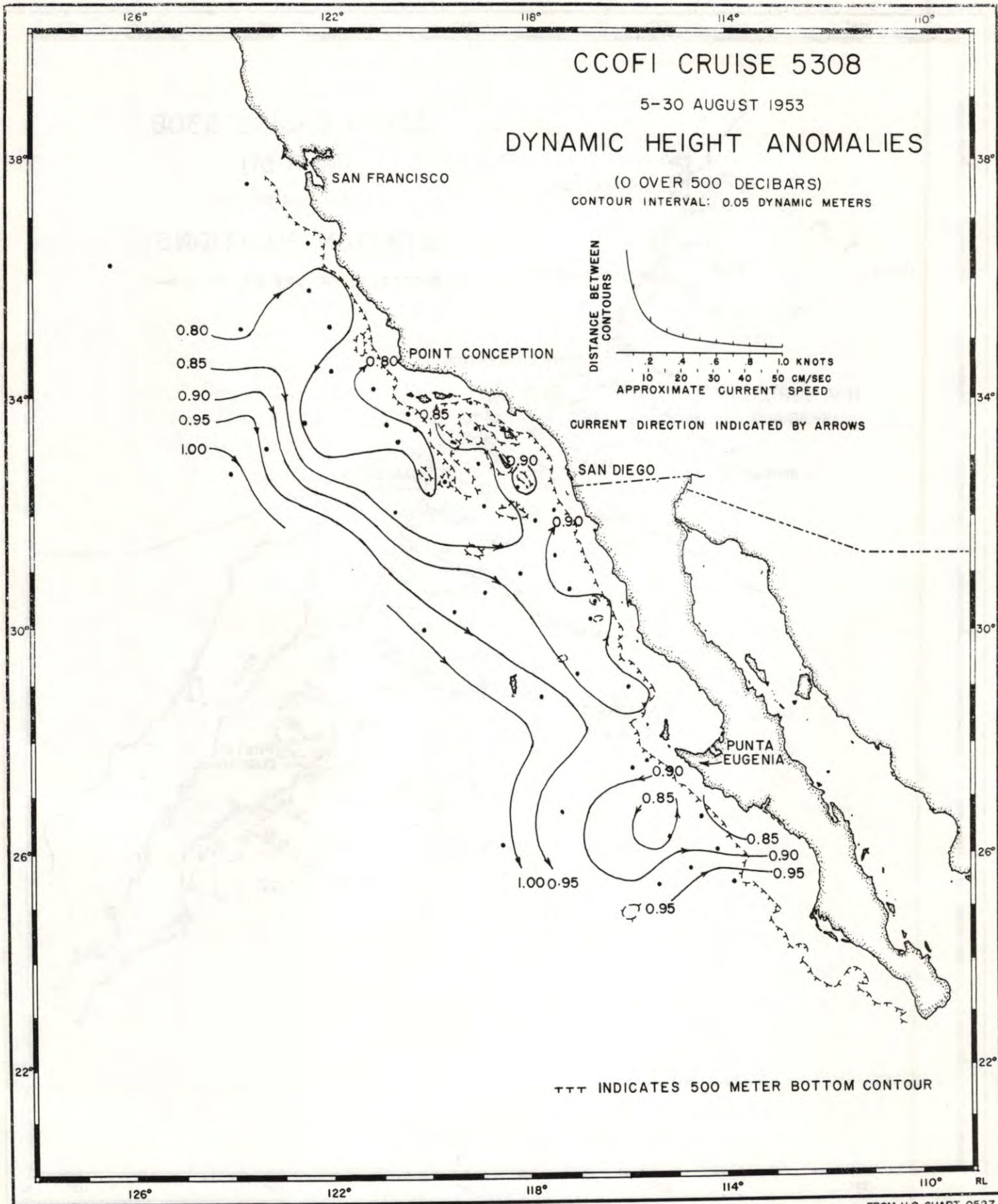


FIGURE 2

FROM H.O. CHART 0527

120°

115°

CCOFI CRUISE 5308

5-30 AUGUST 1953

SURFACE CURRENTS

MEASURED BY GEK

CORRECTED FOR DROOP FACTOR

5 CM SEC

10 CM SEC

35°

35°

HORIZON
19-30 AUGUST

POINT CONCEPTION

SAN DIEGO

CREST
5-21 AUGUST

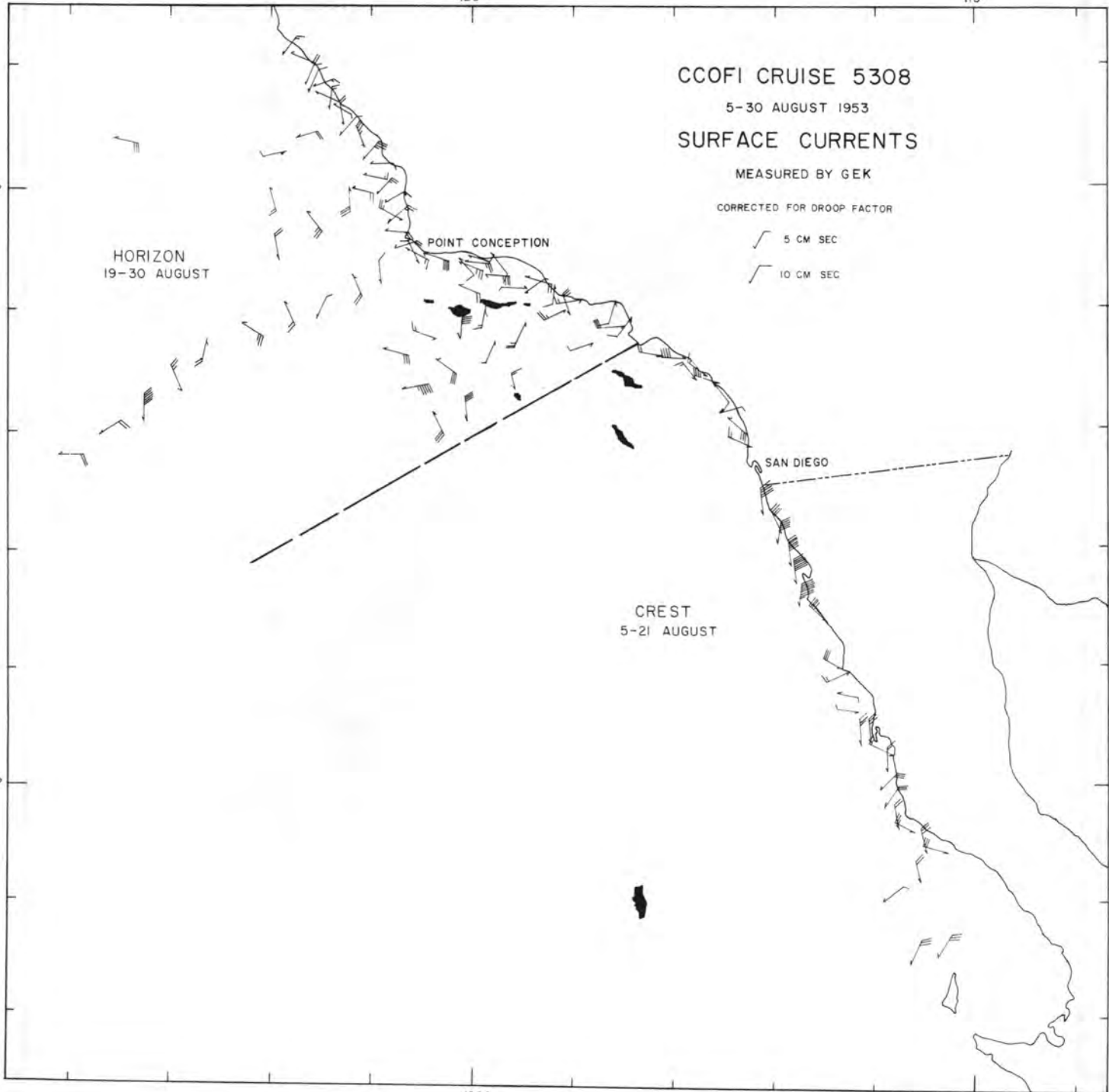
30°

30°

120°

115°

FIGURE 3



126°

122°

118°

114°

110°

CCOFI CRUISE 5308

5-30 AUGUST 1953

10 METER TEMPERATURE

CONTOUR INTERVAL 1.0°C

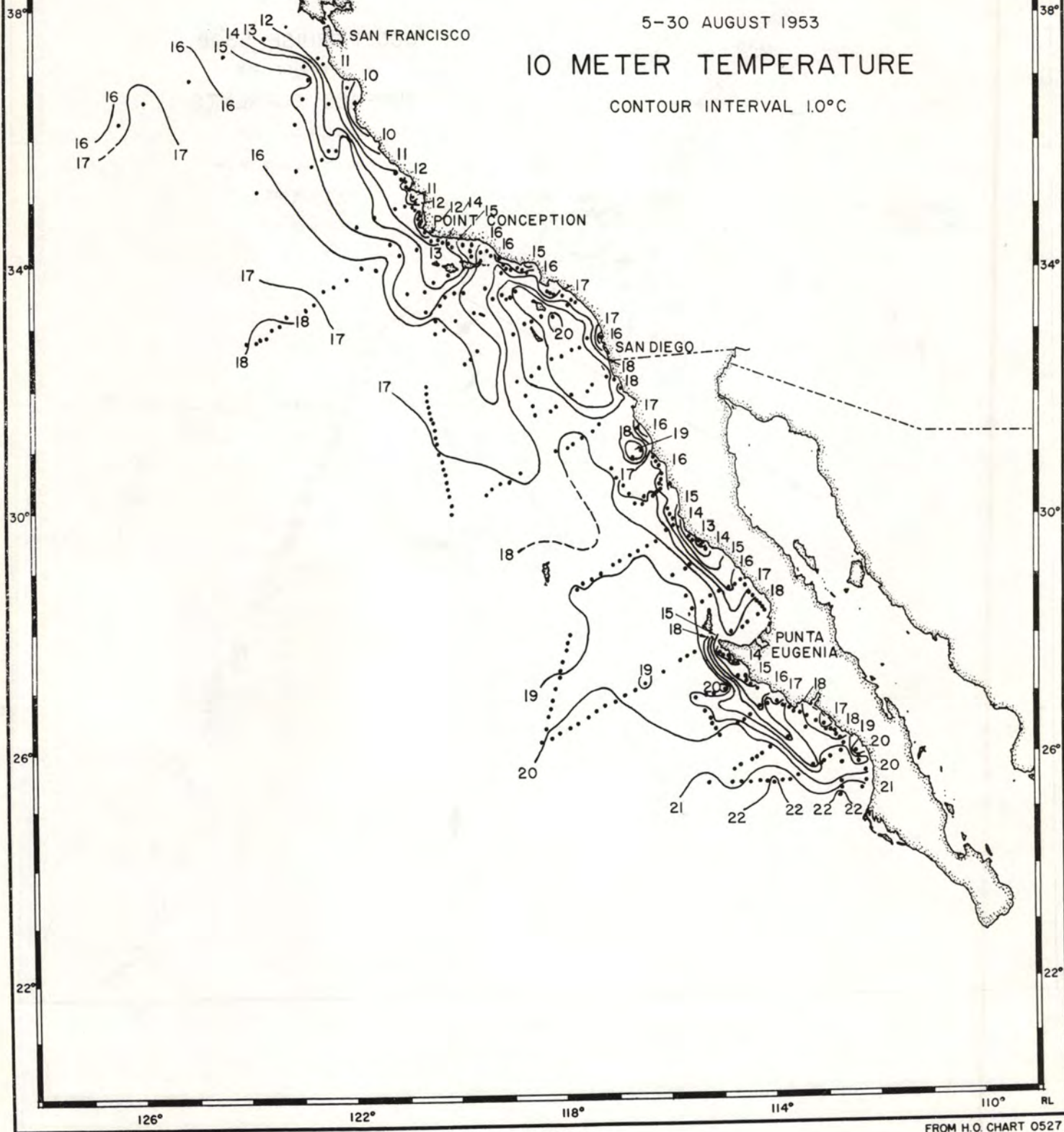


FIGURE 4

FROM H.O. CHART 0527

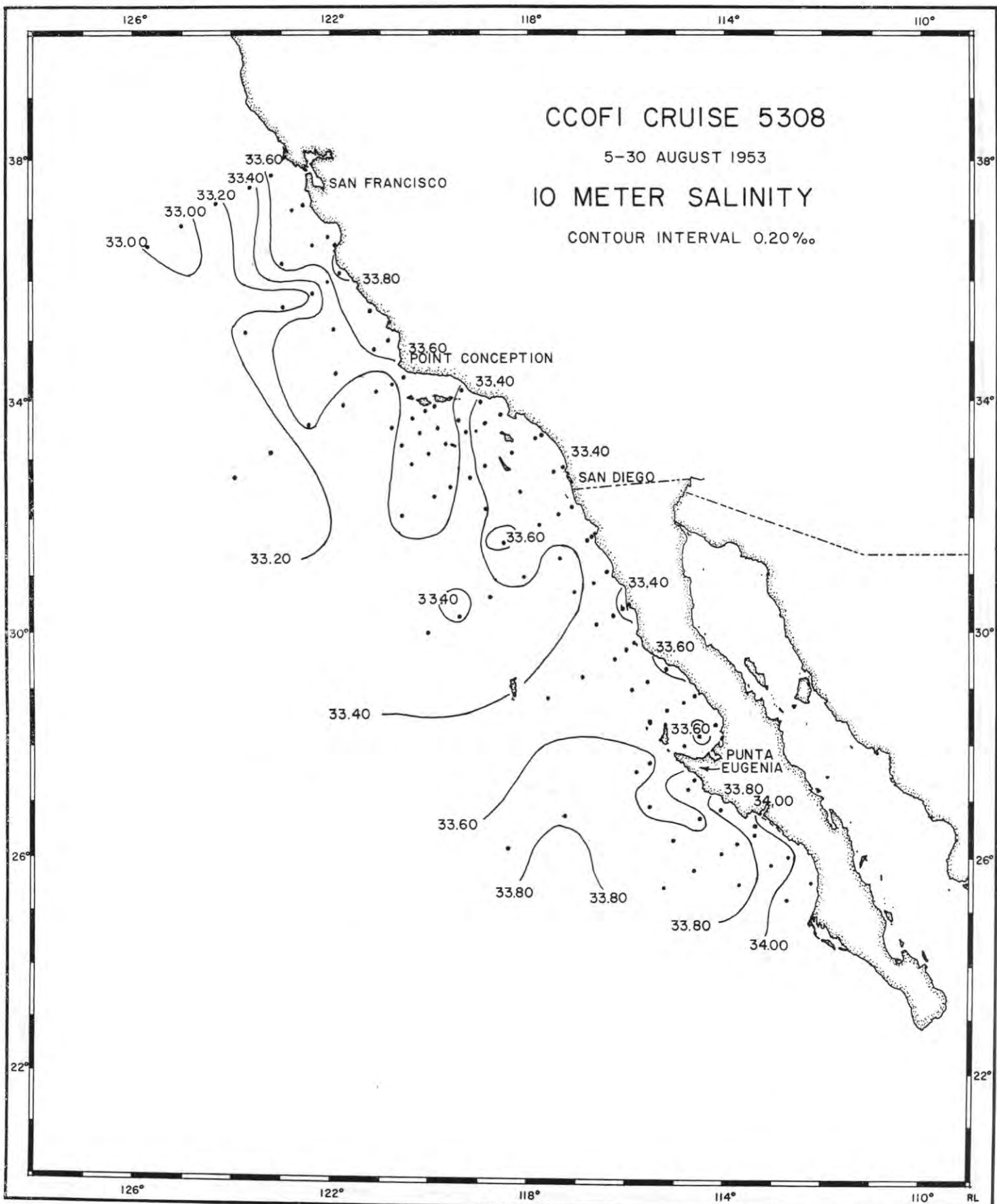


FIGURE 5

FROM H.O. CHART 0527

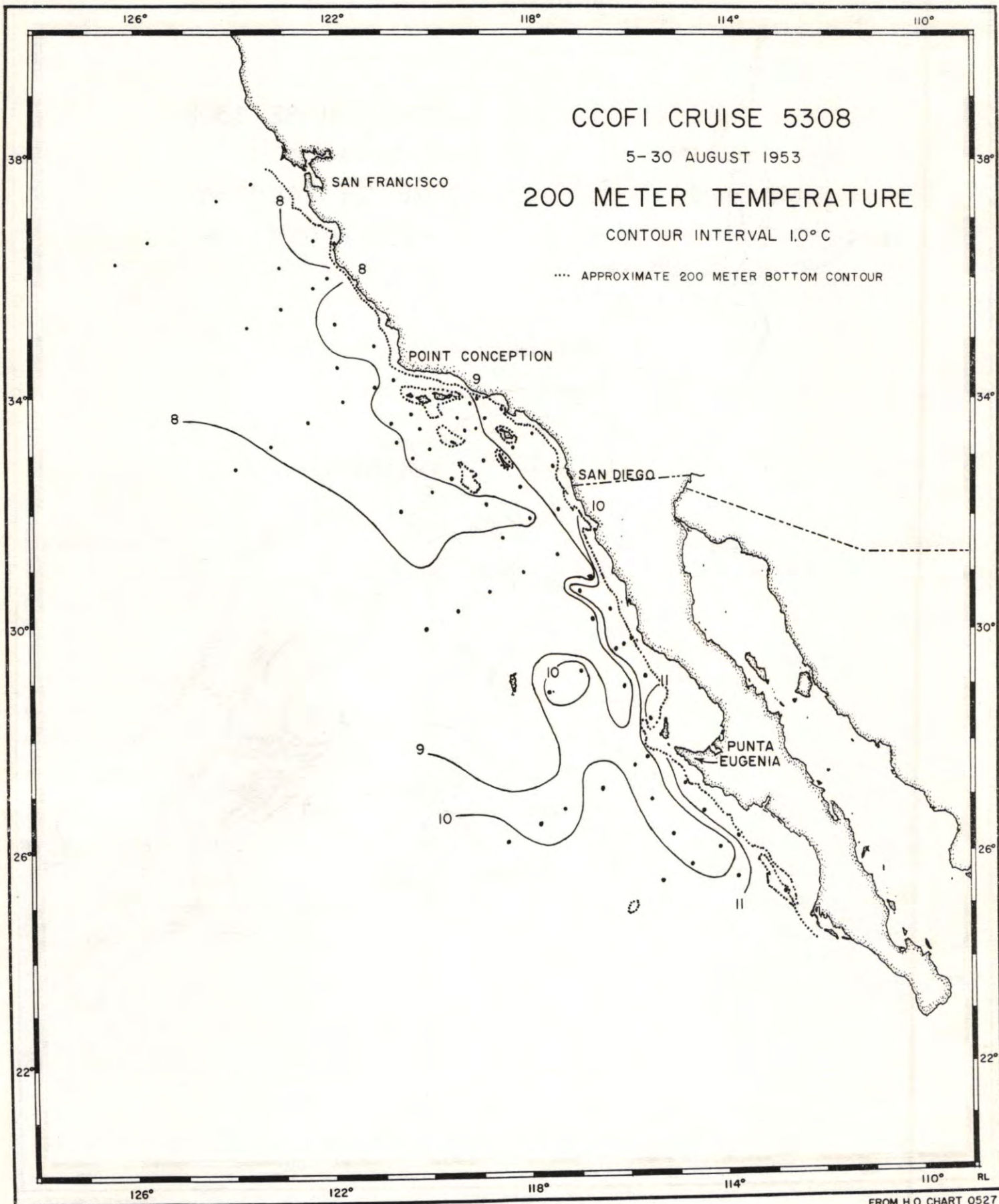


FIGURE 6

FROM H.O. CHART 0527

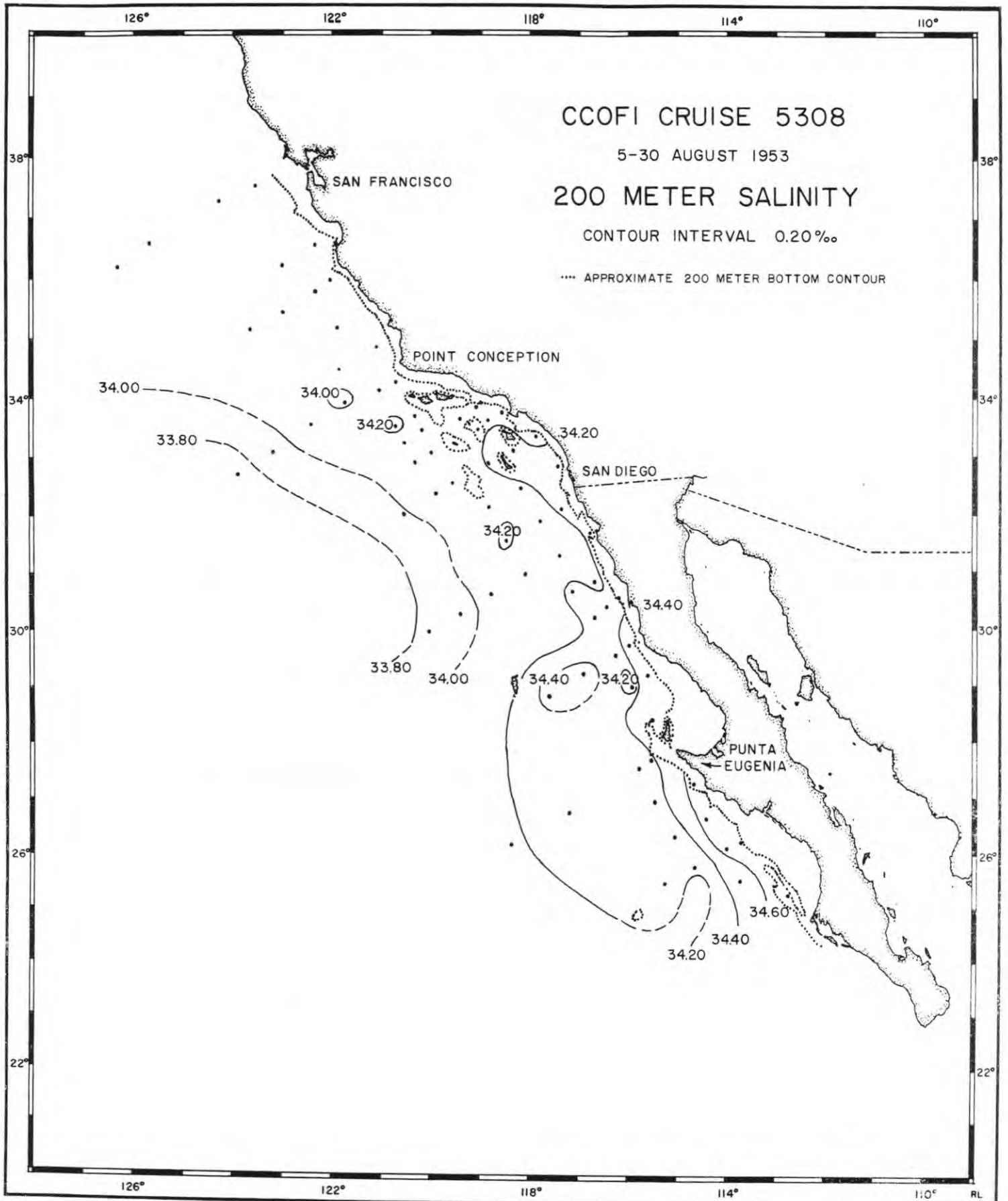


FIGURE 7

FROM H.O. CHART 0527

CRUISE 5308
PERSONNEL

SHIPS' CAPTAINS

Davis, Laurence E., R/V Crest
Ferris, Noel L., R/V Horizon
Greenway, Glen, R/V Paolina-T

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

R/V Crest

Schwartzlose, Richard A., Senior Marine Technician
El-Sayed, S. Z., Graduate Research Biologist
Harvey, J. H., Student Trainee
Hinds, James W., Marine Technician
Kivlen, John C., Marine Technician
MacGregor, John S., Fishery Research Biologist, U. S. Fish and Wildlife Service

R/V Horizon

Payne, Miles M., Jr., Senior Marine Technician
Carter, William D., Student Trainee
Freeman, R., Student Trainee
King, Robert D., Marine Technician
Thraikill, James R., Fishery Research Research Biologist, U. S. Fish and
Wildlife Service

R/V Paolina-T

Worrall, Charles G., Senior Marine Technician
Lance, James R., Marine Technician
Stover, Allan J., Jr., Marine Technician

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

S10
CCOF1
5308

HORIZON; August 22, 1953; 2241 GCT; 37°47'N, 123°14'W; sounding, 50 fm; wind, 320°, force 5; weather, clear; sea, very rough; wire angle, 20°.

6055

0	11.35	33.68		0	11.35	33.68		25.71	229	0.00
9	11.30	33.67		10	11.28	33.67		25.71	229	0.02
18	11.00	33.69		20	10.98	33.69		25.78	222	0.05
29	10.90	33.71		30	10.86	33.71		25.82	219	0.07
47	10.30	33.78		50	10.16	33.80		26.01	201	0.11
70	9.31	33.92		75	(9.06)	(33.96)		(26.32)	(171)	(0.16)

HORIZON; August 22, 1953; 1918 GCT; 37°34'N, 123°41.5'W; sounding, 1900 fm; wind, 320°, force 6; weather, clear; sea, very rough; wire angle, 31°.

6060

0	13.04	33.40		0	13.04	33.40		25.17	280	0.00
8	13.02	33.38		10	13.01	33.38		25.16	281	0.03
20	12.96	33.42		20	12.96	33.42		25.20	278	0.06
34	12.72	33.33		30	12.84	33.34		25.16	281	0.08
64	10.41	33.57		50	11.86	33.50		25.47	252	0.14
80	8.71	33.57		75	8.74	33.57		26.06	196	0.19
101	8.79	33.85		100	8.79	33.83		26.26	177	0.24
124	8.59	34.00		150	8.04	33.99		26.50	154	0.32
147	8.08	33.99		200	7.70	34.06		26.60	145	0.40
192	7.76	34.06		250	7.18	34.05		26.67	138	0.47
237	7.32	34.04		300	6.72	34.11		26.78	128	0.54
283	6.88	34.10		400	6.00	34.16		26.91	115	0.67
372	6.12	34.14		500	5.66	34.27		27.04	103	0.78
468	5.79	34.24								
569	5.38	34.32								

S10

CCOF1
5308

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

6070

HORIZON; August 22, 1953; 1425 GCT; 37°20'N, 124°23.5'W; sounding, 1000+ fm; wind, 320°, force 7; weather, partly cloudy; sea, very rough; wire angle, 50°.

0	15.27	33.19		0	15.27	33.19		24.54	340	0.00
5	15.26	33.19		10	15.24	33.19		24.55	340	0.03
16	15.13	33.18		20	14.90	33.18		24.61	334	0.07
27	13.31	33.22		30	12.65	33.23		25.11	286	0.10
38	11.32	33.24		50	11.06	33.31		25.47	252	0.15
50	11.06	33.31		75	9.44	33.67		26.03	199	0.21
60	10.40	33.56		100	8.12	33.69		26.25	178	0.26
75	9.44	33.67		150	8.07	34.02		26.52	152	0.34
92	-	33.68		200	7.34	34.05		26.64	141	0.42
107	8.08	33.71								
136	8.18	33.97								
166	7.88	34.04								
200	7.34	34.05								

6080

HORIZON; August 22, 1953; 0840 GCT; 36°57'N, 125°05.5'W; sounding, 1000+ fm; wind, 320°, force 7; weather, cloudy; sea, very rough; wire angle, 59°.

0	16.28	32.98	5.87	0	16.28	32.98	5.87	24.15	378	0.00
5	16.28	32.95	5.94	10	16.30	32.93	5.94	24.11	382	0.04
15	16.32	32.92	5.94	20	16.33	32.92	5.97	24.10	382	0.08
31	12.89	33.03	6.65	30	13.00	33.03	6.64	24.89	307	0.11
48	10.56	32.91	6.22	50	10.50	32.91	6.18	25.26	272	0.17
63	10.22	33.05	5.91							

6090

HORIZON; August 22, 1953; 0320 GCT; 36°36.5'N, 125°46'W; sounding, 1000+ fm; wind, 320°, force 6; weather, cloudy; sea, very rough; wire angle, 32°.

0	17.25	32.97		0	17.25	32.97		23.92	400	0.00
8	17.24	32.99		10	17.24	32.99		23.94	398	0.04
21	16.34	32.96		20	16.70	32.96		24.04	388	0.08
34	13.48	32.96		30	14.40	32.96		24.55	340	0.12
50	9.93	33.16		50	9.93	33.16		25.55	244	0.17
63	9.40	33.30		75	9.30	33.45		25.88	213	0.23
79	9.27	33.49		100	8.37	33.57		26.12	190	0.28
98	8.42	33.56		150	7.76	33.89		26.46	158	0.37
120	-	33.76		200	7.34	34.07		26.66	139	0.45
140	7.82	33.86		250	6.74	34.10		26.77	128	0.52
180	7.57	33.99		300	6.26	34.12		26.85	121	0.58
221	7.08	34.10		400	5.46	34.16		26.98	109	0.70
263	6.61	34.10								
348	5.86	34.14								
444	5.18	34.18								

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

S10
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HORIZON; August 21, 1953; 2209 GCT; 36°17.5'N, 126°24.5'W; sounding, 1000+ fm; wind, 300°, force 4; weather, clear; sea, rough; wire angle, 34°.

60.100

0	16.34	33.09	6.65	0	16.34	33.09	6.65	24.22	371	0.00
8	15.73	33.08	6.00	10	15.40	33.08	6.01	24.43	351	0.04
19	12.74	33.26	6.71	20	12.65	33.28	6.70	25.15	282	0.07
45	9.66	33.46	5.56	30	11.15	33.37	6.55	25.50	249	0.09
65	8.70	33.55	4.70	50	9.35	33.49	5.34	25.90	211	0.14
88	8.30	33.65	3.94	75	8.50	33.59	4.34	26.11	191	0.19
128	7.68	33.90	3.06	100	8.13	33.74	3.60	26.29	174	0.24
165	7.26	33.94	2.73	150	7.36	33.92	2.88	26.54	150	0.32
203	7.33	34.06	1.98	200	7.33	34.06	1.99	26.65	140	0.39
236	6.60	34.03	2.26	250	6.40	34.04	2.20	26.76	129	0.46
309	5.94	34.10	1.51	300	6.00	34.09	1.61	26.86	120	0.53
379	5.58	34.13	0.94	400	5.46	34.15	0.87	26.97	110	0.64
449	5.21	34.19	0.72	500	5.01	34.24	0.59	27.09	98	0.75
586	4.70	34.33	0.34	600	4.66	34.34	0.32	27.21	87	0.85
737	4.20	34.43	0.28	700	4.32	34.41	0.28	27.31	77	0.94
904	3.76	34.50	0.48	800	4.03	34.46	0.33	27.38	71	1.02
				1000	(3.53)	(34.53)		(27.48)	(61)	(1.17)

HORIZON; August 24, 1953; 0130 GCT; 37°19'N, 122°36'W; sounding, 48 fm; wind, 320°, force 4; weather, partly cloudy; sea, very rough; wire angle, 15°.

6352

0	13.26	33.51		0	13.26	33.51		25.21	277	0.00
10	11.68	33.66		10	11.68	33.66		25.63	237	0.03
19	10.42	33.72		20	10.41	33.72		25.90	211	0.05
29	10.05	33.74		30	10.00	33.74		25.99	202	0.07
48	9.56	33.84		50	9.49	33.85		26.16	186	0.11
72	9.13	33.96		75	(9.11)	(33.97)		(26.32)	(171)	(0.15)

HORIZON; August 24, 1953; 0319 GCT; 37°13.5'N, 122°50'W; sounding, 150 fm; wind, 320°, force 5; weather, partly cloudy; sea, very rough; wire angle, 37°.

6355

0	14.87	33.63		0	14.87	33.63		24.96	300	0.00
8	14.84	33.64		10	14.84	33.64		24.98	299	0.03
20	11.21	33.70		20	11.21	33.70		25.75	225	0.06
40	9.86	33.86		30	10.33	33.80		25.98	204	0.08
60	9.30	33.87		50	9.54	33.87		26.17	185	0.12
80	9.02	-		75	9.07	33.94		26.30	173	0.16
99	8.90	34.04		100	8.88	34.04		26.41	163	0.20
124	8.76	34.09								

HORIZON; August 24, 1953; 1823 GCT; 36°51'N, 122°03'W; sounding, 50 fm; wind, 290°, force 2; weather, clear; sea, moderate; wire angle, 10°.

6750

0	12.40	33.77		0	12.40	33.77		25.58	242	0.00
10	10.38	33.75		10	10.38	33.75		25.93	208	0.02
20	9.65	33.85		20	9.65	33.85		26.13	189	0.04
30	9.47	33.89		30	9.47	33.89		26.19	184	0.06
49	9.24	33.91		50	9.23	33.91		26.25	178	0.10
75	9.13	33.94		75	9.13	33.94		26.29	174	0.14

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

6755 HORIZON; August 24, 1953; 1513 GCT; 36°36.5'N, 122°24.5'W; sounding, 1600 fm; wind, 320°, force 5; weather, partly cloudy; sea, moderate; wire angle, 24°.

0	12.68	33.65		0	12.68	33.65		25.43	256	0.00
8	12.66	33.63		10	12.65	33.63		25.42	257	0.03
17	12.62	33.67		20	12.63	33.67		25.46	253	0.05
32	11.08	33.68		30	11.40	33.68		25.70	230	0.08
49	9.88	33.76		50	9.85	33.76		26.03	199	0.12
63	9.46	33.79		75	9.36	33.94		26.25	178	0.17
76	9.34	33.94		100	9.14	33.94		26.29	174	0.21
97	9.16	33.94		150	8.84	34.10		26.46	158	0.29
116	9.10	33.97		200	8.63	34.12		26.51	153	0.37
143	8.88	34.10		250	8.30	34.22		26.64	141	0.45
184	8.65	34.09		300	7.87	34.22		26.70	135	0.52
229	8.59	34.20		400	6.77	34.19		26.83	123	0.66
266	8.06	34.22		500	5.84	34.23		26.99	108	0.78
354	7.45	34.22								
442	6.04	34.18								
534	5.82	34.27								

6765 HORIZON; August 24, 1953; 0945 GCT; 36°18.5'N, 123°06.5'W; sounding, 1850 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 41°.

0	15.10	33.67		0	15.10	33.67		24.95	301	0.00
8	15.10	33.61		10	15.08	33.61		24.90	306	0.03
19	14.82	33.61		20	14.77	33.61		24.97	300	0.06
30	14.04	33.37		30	14.04	33.37		24.94	302	0.09
46	12.76	33.20		50	12.15	32.94	33.18	24.98	299	0.15
57	10.66	32.89		75	10.37	33.43		25.68	232	0.22
70	10.35	33.18		100	9.82	33.74		26.02	200	0.27
86	10.70	33.68		150	8.41	33.98		26.43	161	0.36
102	9.72	33.75		200	7.73	34.08		26.61	144	0.44
115	9.48	33.88		250	7.10	34.14		26.75	130	0.51
136	9.01	33.97		300	6.51	34.14		26.83	123	0.58
160	8.16	33.98		400	5.68	34.15		26.94	112	0.70
186	7.90	34.05								
252	7.07	34.14								
338	6.14	34.13								
437	5.46	34.17								

7051 HORIZON; August 20, 1953; 1230 GCT; 36°11'N, 121°47'W; sounding, 340 fm; wind, 320°, force 7; weather, fog; sea, very rough; wire angle, 45°.

0	9.84	33.78		0	9.84	33.78		26.05	197	0.00
8	9.84	33.79		10	9.84	33.80		26.06	196	0.02
18	9.84	33.83		20	9.84	33.83		26.09	193	0.04
36	9.80	33.78		30	9.82	33.81		26.07	195	0.06

7055 HORIZON; August 20, 1953; 1542 GCT; 36°03'N, 122°03.5'W; sounding, 900 fm; wind, 320°, force 7; weather, partly cloudy; sea, rough; wire angle, 45°.

0	14.52	33.52		0	14.52	33.52		24.96	300	0.00
7	14.51	33.54		10	14.52	33.54		24.97	300	0.03
18	14.50	33.55		20	14.50	33.55		24.98	299	0.06
28	14.11	33.56		30	13.00	33.56		25.30	268	0.09
42	10.23	33.20		50	9.66	33.22		25.64	236	0.14
53	9.40	33.26		75	8.47	33.47		26.02	200	0.19
65	8.66	33.35		100	7.89	33.76		26.34	169	0.24
80	8.37	33.53		150	7.85	33.97		26.51	153	0.32
98	-	33.73		200	7.71	34.12		26.65	140	0.40
112	8.32	33.86		250	7.10	34.15		26.76	129	0.47
142	8.02	33.96		300	7.12	34.20		26.79	127	0.53
171	7.66	33.99		400	6.57	34.24		26.90	116	0.66
199	7.71	34.12								
258	7.04	34.15								
336	7.17	34.24								
427	6.23	34.24								

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

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HORIZON; August 20, 1953; 1938 GCT; 35° 52'N, 122° 24'W; sounding, 1700 fm; wind, 120°, force 5; weather, cloudy; sea, very rough; wire angle, 38°.

7060

0	13.49	33.27	6.04	0	13.49	33.27	6.04	24.98	299	0.00
8	13.45	33.22	6.14	10	13.45	33.22	6.16	24.95	301	0.03
24	13.45	33.28	6.24	20	13.45	33.27	6.22	24.98	299	0.06
47	11.23	32.94	6.46	30	13.46	33.24	6.30	24.96	300	0.09
70	9.69	33.11	5.48	50	11.03	32.94	6.45	25.19	279	0.15
91	8.94	33.28	4.94	75	9.30	33.15	5.30	25.64	236	0.21
132	8.76	33.86	2.96	100	8.90	33.43	4.60	25.93	208	0.27
168	8.22	33.97	2.62	150	8.50	33.93	2.69	26.38	166	0.36
203	-	34.02	2.64	200	7.84	34.01	2.64	26.54	150	0.44
238	7.44	34.06	2.43	250	7.33	34.07	2.30	26.66	139	0.52
305	6.83	34.14	1.42	300	6.88	34.13	1.49	26.77	128	0.59
375	6.16	34.22	0.99	400	6.05	34.24	0.88	26.97	110	0.71
442	5.88	34.26	0.70	500	(5.63)	(34.29)	(0.54)	(27.06)	(101)	(0.82)
763	4.50	34.42	0.39	600	(5.16)	(34.34)	(0.42)	(27.16)	(092)	(0.92)
942	3.95	34.62r	0.21r	700	(4.74)	(34.39)	(0.40)	(27.24)	(084)	(1.02)
				800	4.38					

HORIZON; August 21, 1953; 0100 GCT; 35° 32'N, 123° 04.5'W; sounding, 1700 fm; wind, 090°, force 5; weather, cloudy; sea, rough; wire angle, 42°.

7070

0	15.62	33.08		0	15.62	33.08		24.38	356	0.00
8	15.62	33.08		10	15.61	33.08		24.38	356	0.04
15	15.50	33.11		20	14.85	33.14		24.59	336	0.07
27	14.41	33.15		30	14.27	33.15		24.72	323	0.10
41	13.90	33.12		50	13.16	33.10		24.91	305	0.17
78	10.10	33.08		75	10.40	33.08		25.41	258	0.24
93	-	33.32		100	8.93	33.38		25.88	213	0.30
109	8.88	33.46		150	8.80	34.04		26.42	162	0.39
137	8.86	33.92		200	7.98	34.07		26.57	148	0.47
171	8.60	34.09								
203	7.84	34.07								

HORIZON; August 21, 1953; 0633 GCT; 35° 12'N, 123° 48'W; sounding, 1000 fm; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, 32°.

7080

0	16.46	33.33	5.65	0	16.46	33.33	5.65	24.38	356	0.00
8	16.46	33.32	5.66	10	16.46	33.32	5.69	24.37	357	0.04
20	14.31	33.53	6.06	20	14.31	33.53	6.06	25.01	296	0.07
46	10.51	33.58	4.77	30	12.75	33.55	5.95	25.34	264	0.10
68	9.63	33.78	3.70	50	10.20	33.60	4.57	25.85	216	0.14
92	9.30	33.86	3.14	75	9.53	33.81	3.52	26.12	190	0.20
136	8.74	33.98	2.30	100	9.20	33.88	2.98	26.23	180	0.24
180	8.26	34.06	2.02	150	8.59	34.01	2.18	26.43	161	0.33
224	-	34.10	1.95	200	7.97	34.08	1.99	26.58	146	0.41
261	7.14	34.11	1.74	250	7.26	34.11	1.83	26.70	135	0.48
342	6.52	34.17	1.07	300	6.77	34.14	1.44	26.79	127	0.55
418	6.06	34.22	0.66	400	6.21	34.21	0.71	26.92	114	0.67
496	5.24	34.28	0.55	500	5.21	34.28	0.54	27.10	97	0.78
656	4.69	34.40	0.34	600	4.86	34.36	0.38	27.21	87	0.88
837	4.12	34.48	0.49	700	4.56	34.42	0.36	27.29	79	0.97
				800	4.24	34.46	0.44	27.35	74	1.06
				1000	(3.70)	(34.52)		(27.46)	(63)	(1.21)

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

7350 HORIZON; August 25, 1953; 0255 GCT; 35°37'N, 121°15.5'W; sounding, 48 fm; wind, 320°, force 5; weather, clear; sea, rough; wire angle, 22°.

0	11.11	33.70		0	11.11	33.70		25.76	224	0.00
9	11.08	33.72		10	11.05	33.72		25.79	222	0.02
17	10.88	33.68		20	10.77	33.68		25.81	220	0.04
28	10.36	33.76		30	10.27	33.76		25.96	205	0.07
47	9.82	33.79		50	9.80	33.80		26.07	195	0.11
69	9.66	33.86								

7360 HORIZON; August 25, 1953; 0751 GCT; 35°15'N, 121°59'W; sounding, 1550 fm; wind, 320°, force 5; weather, clear; sea, rough; wire angle, 35°.

0	14.47	33.60		0	14.47	33.60		25.03	294	0.00
8	14.48	33.53		10	14.47	33.53		24.97	300	0.03
16	14.48	33.60		20	14.47	33.60		25.03	294	0.06
29	14.47	33.58		30	14.46	33.58		25.01	296	0.09
45	14.33	33.58		50	13.93	33.59		25.13	284	0.14
56	12.98	33.62		75	10.44	33.57		25.78	222	0.21
68	10.73	33.56		100	9.30	33.70		26.07	195	0.26
87	9.99	33.61		150	8.60	33.94		26.37	166	0.36
104	9.20	33.74		200	8.49	34.17		26.57	148	0.44
123	8.98	33.88		250	8.26	34.22		26.64	141	0.51
158	8.54	33.96		300	7.88	34.23		26.71	134	0.58
197	8.50	34.16		400	6.94	34.27		26.87	119	0.71
231	8.38	34.22		500	(6.49)	(34.33)		(26.98)	(109)	(0.83)
309	7.80	34.23								
392	7.00	34.27								
485	6.54	34.32								

7750 HORIZON; August 25, 1953; 2216 GCT; 35°05'N, 120°54.5'W; sounding, 120 fm; wind, 300°, force 4; weather, clear; sea, rough; wire angle, 13°.

0	13.00	33.51		0	13.00	33.51		25.26	272	0.00
10	12.99	33.52		10	12.99	33.52		25.27	271	0.03
19	12.90	33.53		20	12.89	33.53		25.30	268	0.05
28	12.26	33.64		30	12.10	33.64		25.53	246	0.08
48	10.68	33.64		50	10.52	33.64		25.82	219	0.13
70	9.72	33.76		75	9.62	33.81		26.11	191	0.18
92	-	33.92		100	9.19	33.96		26.29	174	0.22
114	8.99	34.01								

7755 HORIZON; August 25, 1953; 1905 GCT; 34°54.5'N, 121°11'W; sounding, 330 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 20°.

0	12.54	33.61		0	12.54	33.61		25.43	256	0.00
9	12.46	33.62		10	12.43	33.62		25.46	253	0.02
23	10.72	33.57		20	11.80	33.57		25.54	245	0.05
47	9.72	33.72		30	10.30	33.57		25.81	220	0.07
69	9.38	33.82		50	9.63	33.74		26.05	197	0.12
93	9.28	33.88		75	9.34	33.84		26.18	184	0.16
158	9.17	33.97		100	9.27	33.89		26.23	180	0.21
183	9.00	34.03		150	9.19	33.96		26.29	174	0.30
225	8.60	34.17		200	8.83	34.11		26.47	157	0.38
267	8.42	34.20		250	8.50	34.19		26.58	146	0.46
312	8.14	34.25		300	8.23	34.24		26.66	139	0.54
354	7.74	34.24		400	7.40	34.30		26.83	123	0.67
397	7.44	34.30								
441	6.78	34.23								

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

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HORIZON; August 25, 1953; 1317 GCT; 34°30'N, 121°55.5'W; sounding, 2100 fm; wind, 320°, force 5; weather, clear; sea, rough; wire angle, 46°.

7765

0	15.2	-		0	15.2	(33.54)		24.82	314	0.00
7	15.17	33.54		10	14.35	33.54		25.01	296	0.03
18	13.66	33.53		20	13.64	33.52		25.14	283	0.06
28	13.62	33.49		30	13.61	33.49		25.12	285	0.09
42	12.72	33.58		50	12.50	33.56		25.40	259	0.14
52	12.38	33.55		75	9.47	33.53		25.91	210	0.20
66	10.16	33.52		100	9.06	33.80		26.19	184	0.25
81	9.33	33.59		150	8.26	34.02		26.49	155	0.34
101	9.04	33.81		200	7.52	34.11		26.67	138	0.41
120	8.79	33.94		250	7.11	34.18		26.78	128	0.48
156	8.16	34.03		300	7.16	34.32		26.88	118	0.54
192	7.67	34.10		400	6.30	34.30		26.98	109	0.66
229	7.11	34.12		500	(6.00)	(34.37)		(27.08)	(99)	(0.77)
302	7.15	34.32								
386	6.38	34.30								
478	6.05	34.35								

HORIZON; August 26, 1953; 0340 GCT; 34°26'N, 120°31.5'W; sounding, 50 fm; wind, 320°, force 6; weather, clear; sea, rough; wire angle, 20°.

8051

0	12.70	33.56		0	12.70	33.56		25.36	262	0.00
9	12.71	33.55		10	12.72	33.55		25.35	263	0.03
18	12.70	33.57		20	12.68	33.57		25.37	262	0.05
28	12.43	33.57		30	12.25	33.57		25.45	254	0.08
47	11.22	33.56		50	11.19	33.56		25.64	236	0.13
70	11.06	33.55		75	(11.04)	(33.55)		(25.66)	(234)	(0.19)

HORIZON; August 26, 1953; 0607 GCT; 34°20'N, 120°49.5'W; sounding, 465 fm; wind, 320°, force 5; weather, clear; sea, rough; wire angle, 40°.

8055

0	14.16	33.37		0	14.16	33.37		24.92	304	0.00
8	14.16	33.36		10	14.15	33.36		24.91	305	0.03
15	14.06	33.39		20	14.00	33.42		24.99	298	0.06
27	13.90	33.43		30	13.79	33.43		25.04	293	0.09
42	12.96	33.36		50	12.25	33.26		25.21	277	0.15
52	11.99	33.23		75	10.21	33.19		25.53	246	0.21
64	11.31	33.18		100	9.96	33.67		25.94	207	0.27
79	10.17	33.21		150	8.76	33.87		26.29	174	0.37
92	10.14	33.58		200	8.44	34.04		26.47	157	0.45
105	9.76	33.70		250	7.92	34.07		26.58	146	0.53
134	9.02	33.82		300	7.40	34.06		26.64	141	0.60
143	8.83	33.85								
163	8.62	33.92								
222	8.28	34.07								
298	7.40	34.06								
388	7.17	34.22								

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

80.60 HORIZON; August 26, 1953; 1012 GCT; 34°11'N, 121°08'W; sounding, 1450 fm; wind, 320°, force 4; weather, clear; sea, rough; wire angle, 13°.

0	15.13	33.32	5.94	0	15.13	33.32	5.94	24.67	328	0.00
10	15.14	33.30	6.05	10	15.14	33.30	6.05	24.65	330	0.03
29	13.43	33.11	6.25	20	15.14	33.15	6.18	24.54	340	0.07
58	11.26	33.10	5.76	30	13.40	33.11	6.25	24.87	309	0.10
85	9.94	33.24	5.05	50	11.77	33.10	5.94	25.18	280	0.16
113	9.11	33.58	3.83	75	10.36	33.14	5.35	25.46	253	0.22
167	8.22	33.94	2.93	100	9.44	33.43	4.24	25.84	217	0.28
219	7.64	34.08	2.16	150	8.46	33.86	3.19	26.33	170	0.38
272	7.02	34.10	1.66	200	7.86	34.05	2.41	26.57	148	0.46
323	6.64	34.20	1.02	250	7.27	34.09	1.89	26.69	136	0.54
421	5.86	34.25	0.57	300	6.82	34.16	1.28	26.80	126	0.60
523	5.52	34.31	0.32	400	5.97	34.24	0.64	26.98	109	0.72
621	5.06	34.42	0.35	500	5.62	34.29	0.34	27.06	101	0.84
826	4.42	34.45	0.45	600	5.13	34.40	0.33	27.21	87	0.94
1028	3.73	34.51	0.62	700	4.85	34.43	0.38	27.26	82	1.03
1228	3.30	34.52	0.83	800	4.52	34.44	0.43	27.31	77	1.12
				1000	3.82	34.50	0.60	27.43	66	1.28

80.70 HORIZON; August 26, 1953; 1541 GCT; 33°58.5'N, 121°48.5'W; sounding, 2100 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 17°.

0	16.20	33.20		0	16.20	33.20		24.34	360	0.00
9	16.19	33.24		10	16.19	33.24		24.37	357	0.04
19	16.18	33.18		20	16.18	33.18		24.33	360	0.07
33	13.37	33.16		30	15.00	33.16		24.58	337	0.11
52	11.65	33.22		50	11.90	33.22		25.25	273	0.17
67	10.59	33.12		75	10.06	33.13		25.50	249	0.23
92p	9.32	33.47		100	9.16	33.59		26.01	201	0.29
150p	8.46	33.92		150	8.46	33.92		26.38	166p	0.38
210p	7.82	34.00		200	7.92	33.99		26.51	153	0.46
471p	5.62	34.28								

80.80 HORIZON; August 26, 1953; 2044 GCT; 33°36'N, 122°30'W; sounding, 2400 fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 15°.

0	16.96	33.36	5.74	0	16.96	33.36	5.74	24.29	364	0.00
9	16.63	33.41	5.98	10	16.62	33.41	5.96	24.40	354	0.04
23	16.48	33.35	5.90	20	16.51	33.35	5.93	24.38	356	0.07
52	12.29	33.54	5.88	30	16.43	33.36	5.89	24.41	353	0.11
74	9.90	33.60	4.53	50	12.90	33.53	5.88	25.29	269	0.17
101	8.92	33.86	3.00	75	9.88	33.60	4.56	25.90	211	0.23
149	8.01	33.98	2.31	100	8.98	33.86	3.07	26.25	178	0.28
197	7.45	34.04	2.23	150	7.99	33.98	2.31	26.50	154	0.36
291	6.66	34.20	1.23	200	7.41	34.05	2.22	26.63	142	0.44
389	6.04	34.24	0.71	250	6.97	34.15	1.63	26.77	128	0.51
483	5.48	34.28	0.49	300	6.60	34.21	1.17	26.87	119	0.57
578	5.03	34.33	0.39	400	5.97	34.25	0.68	26.99	108	0.69
762	4.38	34.47	0.44	500	5.39	34.29	0.46	27.09	98	0.80
951	3.79	34.54	0.60	600	4.96	34.35	0.39	27.19	89	0.90
1142	3.32	34.60	0.79	700	4.59	34.43	0.40	27.29	79	0.99
				800	4.25	34.49	0.48	27.38	71	1.07
				1000	3.66	34.56	0.64	27.49	60	1.22

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

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HORIZON; August 27, 1953; 0237 GCT; 33°10'N, 123°16.5'W; sounding, 2000 fm; wind, 280°, force 3; weather, partly cloudy; sea, moderate; wire angle, 33°.

8090

0	17.92	33.00		0	17.92	33.00		23.78	413	0.00
8	17.86	33.04		10	17.84	33.04		23.83	408	0.04
16	16.93	33.04		20	16.84	33.04		24.07	385	0.08
29	16.71	33.01		30	16.66	33.01		24.09	383	0.12
46	15.59	33.01		50	14.55	32.92		24.49	345	0.19
57	12.99	32.81		75	11.28	32.87		25.09	288	0.27
68	11.68	32.83		100	10.38	33.06		25.40	259	0.34
86	10.84	32.95		150	8.83	33.70		26.15	187	0.45
102	10.30	33.08		200	7.97	33.96		26.48	156	0.54
119	9.59	33.17		250	7.46	34.04		26.62	143	0.62
146	8.92	33.66		300	6.95	34.07		26.71	134	0.69
179	8.36	33.89		400	6.15	34.13		26.87	119	0.82
207	7.87	33.98		500	(5.73)	(34.24)		(27.01)	(106)	(0.94)
280	7.17	34.06								
361	6.38	34.10								
454	5.90	34.19								

HORIZON; August 27, 1953; 0752 GCT; 32°45'N, 124°00'W; sounding, 2000+ fm; wind, 320°, force 1; weather, partly cloudy; sea, slight; wire angle, 10°.

80100

0	17.67	33.04	5.63	0	17.67	33.04	5.63	23.87	404	0.00
10	17.56	33.04	5.62	10	17.56	33.04	5.62	23.90	402	0.04
24	17.28	33.07	5.59	20	17.36	33.06	5.61	23.96	396	0.08
53	16.99	33.04	5.75	30	17.20	33.07	5.61	24.01	391	0.12
76	14.75	33.04	6.11	50	17.02	33.05	5.72	24.04	388	0.20
103	12.85	32.98	6.31	75	14.80	33.04	6.10	24.53	341	0.29
151	10.24	33.12	5.48	100	13.05	32.98	6.30	24.84	312	0.37
198	8.78	33.68	3.56	150	10.30	33.11	5.55	25.45	254	0.52
250	8.01	33.97	2.58	200	8.72	33.70	3.50	26.17	185	0.63
293	7.64	34.04	2.16	250	8.01	33.97	2.58	26.49	155	0.71
392	6.54	34.16	1.32	300	7.56	34.05	2.10	26.61	144	0.79
486	5.72	34.14	0.76	400	6.46	34.16	1.27	26.85	121	0.93
581	5.08	34.25	0.57	500	5.62	34.15	0.71	26.95	111	1.05
766	4.42	34.36	0.35	600	4.99	34.27	0.54	27.12	95	1.16
961	3.90	34.48	0.62	700	4.62	34.32	0.38	27.20	88	1.26
1154	3.48	34.55	0.82	800	4.33	34.38	0.40	27.28	80	1.35
				1000	3.81	34.50	0.67	27.43	66	1.51

HORIZON; August 28, 1953; 1527 GCT; 34°14'N, 119°21'W; sounding, 10 fm; wind, 090°, force 2; weather, partly cloudy; sea, slight; wire angle, 00°.

8340

0	15.98	33.39		0	15.98	33.39		24.54	340	0.00
5	15.76	33.37		10	13.62	33.36		25.02	295	0.03
10	13.62	33.36								
15	13.46	33.41								

HORIZON; August 28, 1953; 1342 GCT; 34°09'N, 119°34'W; sounding, 130 fm; wind, 270°, force 4; weather, partly cloudy; sea, moderate; wire angle, 16°.

8343

0	16.50	33.42		0	16.50	33.42		24.44	350	0.00
9	16.48	33.46		10	16.48	33.46		24.47	347	0.04
24	15.66	33.37		20	16.26	33.38		24.46	348	0.07
49	11.88	33.42		30	14.75	33.37		24.79	317	0.10
71	10.87	33.44		50	11.77	33.42		25.43	256	0.16
94	9.78	33.67		75	10.60	33.46		25.67	233	0.22
144	9.06	34.00		100	9.64	33.73		26.04	198	0.28
188	9.00	34.14		150	9.04	34.02		26.37	166	0.37

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

8348

HORIZON; August 28, 1953; 0750 GCT; 33°58.5'N, 119°55.5'W; sounding, 40 fm; wind, 320°, force 6; weather, cloudy; sea, rough; wire angle, 10°.

0	14.08	33.45		0	14.08	33.45		24.99	298	0.00
10	13.55	33.48		10	13.55	33.48		25.13	284	0.03
20	12.54	33.37		20	12.54	33.37		25.24	274	0.06
30	11.38	33.38		30	11.38	33.38		25.47	252	0.08
49	9.96	33.71		50	9.90	33.72		25.99	202	0.13
74	9.39	33.89		75	(9.38)	(33.89)		(26.21)	(182)	(0.18)

8351

HORIZON; August 28, 1953; 0528 GCT; 33°51.5'N, 120°08.5'W; sounding, 80 fm; wind, 090°, force 5; weather, fog; sea, rough; wire angle, 24°.

0	13.58	33.48		0	13.58	33.48		25.12	285	0.00
9	13.54	33.45		10	13.53	33.45		25.11	286	0.03
18	13.03	33.42		20	13.00	33.41		25.18	280	0.06
28	12.11	33.40		30	11.90	33.40		25.39	260	0.08
45	10.47	33.53		50	10.35	33.56		25.79	222	0.13
70	10.08	33.62		75	(10.01)	(33.63)		(25.90)	(211)	(0.19)

8355

HORIZON; August 28, 1953; 0313 GCT; 33°46'N, 120°25'W; sounding, 750 fm; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, 15°.

0	13.61	33.44		0	13.61	33.44		25.08	289	0.00
10	13.58	33.41		10	13.58	33.41		25.07	290	0.03
19	13.41	33.37		20	13.35	33.37		25.08	289	0.06
53	10.38	33.54		30	12.45	33.38		25.27	271	0.09
67	9.84	33.63		50	10.64	33.52		25.71	229	0.14
80	9.56	33.68		75	9.64	33.66		25.99	202	0.19
104	9.16	33.82		100	9.22	33.80		26.16	186	0.24
126	8.97	33.94		150	8.70	34.03		26.43	161	0.33
152	8.68	34.04		200	8.36	34.09		26.53	151	0.41
197	8.36	34.09		250	8.25	34.18		26.61	144	0.48
249	8.27	34.18		300	7.94	34.21		26.68	137	0.56
295	7.98	34.21		400	6.96	34.21		26.82	124	0.69
389	7.07	34.21		500	6.03	34.22		26.95	111	0.82
489	6.12	34.22		600	(5.41)	(34.30)		(27.09)	(98)	(0.93)
591	5.44	34.29								

8360

HORIZON; August 27, 1953; 2356 GCT; 33°35'N, 120°48'W; sounding, 920 fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 27°.

0	14.80	33.37		0	14.80	33.37		24.78	318	0.00
9	14.68	33.39		10	14.65	33.39		24.83	313	0.03
18	14.42	33.39		20	14.31	33.39		24.90	306	0.06
30	12.35	33.40		30	12.35	33.40		25.30	268	0.09
48	9.49	33.63		50	9.42	33.66		26.02	200	0.14
61	9.20	33.82		75	9.07	33.93		26.29	174	0.18
72	9.10	33.91		100	8.96	34.13		26.46	158	0.23
92	8.97	34.04		150	8.81	34.21		26.55	149	0.30
110	8.93	34.16		200	8.60	34.25		26.61	144	0.38
133	8.89	34.16		250	8.39	34.27		26.66	139	0.45
174	8.68	34.25		300	8.09	34.29		26.72	133	0.52
219	8.53	34.25		400	7.47	34.29		26.81	125	0.66
257	8.34	34.28		500	6.74	34.32		26.94	112	0.78
352	7.77	34.29								
449	7.18	34.30								
552	6.28	34.35								

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

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HORIZON; August 28, 1953; 1819 GCT; 34°01'N, 119°05'W; sounding, 450 fm; wind, 140°, force 2; weather, partly cloudy; sea, slight; wire angle, 30°.

8539

0	17.46	33.40		0	17.46	33.40		24.20	373	0.00
9	16.64	33.40		10	16.50	33.40		24.42	352	0.04
17	15.30	33.41		20	14.80	33.41		24.81	315	0.07
30	13.12	33.40		30	13.12	33.40		25.15	282	0.10
43	11.34	33.40		50	11.16	33.42		25.54	245	0.15
55	10.98	33.46		75	9.95	33.55		25.85	216	0.21
67	10.28	33.50		100	9.43	33.71		26.06	196	0.26
82	9.74	33.58		150	9.28	34.03		26.33	170	0.36
99	9.47	33.70		200	9.19	34.13		26.43	161	0.44
120	9.26	33.88		250	8.78	34.17		26.52	152	0.52
154	9.28	34.04		300	8.37	34.21		26.62	143	0.60
190	9.22	34.12		400	7.56	34.30		26.81	125	0.74
229	8.97	34.16		500	6.71	34.31		26.94	112	0.86
315	8.24	34.22								
403	7.53	34.30								
500	6.71	34.31								

HORIZON; August 30, 1953; 0422 GCT; 33°57'N, 119°10'W; sounding, 400 fm; wind, 180°, force 2; weather, partly cloudy; sea, slight; wire angle, 20°.

8540

0	17.63	33.41		0	17.63	33.41		24.17	376	0.00
10	17.56	33.40		10	17.56	33.40		24.18	375	0.04
19	16.97	33.41		20	16.70	33.41		24.39	355	0.07
33	14.34	33.34		30	15.00	33.34		24.71	324	0.11
46	12.87	33.40		50	12.40	33.40		25.29	269	0.17
59	11.57	33.40		75	10.60	33.49		25.69	231	0.23
72	10.65	33.48		100	9.82	33.58		25.89	212	0.29
88	10.15	33.51		150	9.17	33.88		26.24	179	0.38
108	9.65	33.63		200	8.81	34.08		26.45	159	0.47
132	9.32	33.80		250	8.59	34.18		26.56	148	0.55
171	8.98	33.97		300	8.33	34.24		26.65	140	0.62
212	8.75	34.11		400	7.61	34.26		26.77	128	0.76
252	8.59	34.18		500	6.64	34.35		26.98	109	0.89
341	8.08	34.26								
429	7.36	34.27								
508	6.56	34.36								

HORIZON; August 30, 1953; 0128 GCT; 33°48'N, 119°30.5'W; sounding, 750 fm; wind, 310°, force 2; weather, clear; sea, moderate; wire angle, 37°.

8545

0	16.26	33.34		0	16.26	33.34		24.43	351	0.00
8	16.24	33.34		10	16.22	33.34		24.44	350	0.04
16	15.78	33.35		20	15.38	33.35		24.64	331	0.07
28	14.80	33.30		30	14.40	33.29		24.80	316	0.10
40	13.00	33.27		50	12.30	33.34		25.26	272	0.16
51	12.17	33.34		75	10.66	33.41		25.62	238	0.22
62	11.56	33.39		100	10.16	33.48		25.76	224	0.28
75	10.66	33.41		150	8.83	33.92		26.32	171	0.38
92	10.43	33.44		200	8.71	34.03		26.43	161	0.47
110	9.68	33.57		250	8.53	34.12		26.52	152	0.55
138	8.94	33.84		300	8.29	34.19		26.62	143	0.62
172	8.73	33.98		400	7.67	34.29		26.79	127	0.76
203	8.70	34.04		500	(6.39)	(34.35)		(27.01)	(106)	(0.89)
281	8.38	34.17								
363	8.01	34.26								
458	6.93	34.33								

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

8550

HORIZON; August 29, 1953; 2231 GCT; 33°36.5'N, 119°52'W; sounding, 185 fm; wind, 240°, force 3; weather, clear; sea, moderate; wire angle, 21°.

0	17.16	33.42		0	17.16	33.42		24.29	364	0.00
9	16.83	33.46		10	16.77	33.46		24.41	353	0.04
23	12.56	33.53		20	13.50	33.52		25.17	280	0.07
46	10.42	33.58		30	11.85	33.55		25.51	248	0.09
68	9.60	33.72		50	10.20	33.61		25.85	216	0.14
89	9.40	33.78		75	9.50	33.75		26.08	194	0.19
109	9.16	33.85		100	9.26	33.82		26.17	185	0.24
134	8.78	33.94								

8555

HORIZON; August 29, 1953; 1924 GCT; 33°31'N, 120°14.5'W; sounding, 455 fm; wind, 300°, force 2; weather, clear; sea, slight; wire angle, 02°.

0	15.68	33.40		0	15.68	33.40		24.61	334	0.00
10	14.86	33.40		10	14.86	33.40		24.79	317	0.03
20	14.46	33.38		20	14.46	33.38		24.86	310	0.06
35	11.78	33.48		30	12.60	33.41		25.26	272	0.09
55	10.11	33.62		50	10.51	33.58		25.78	222	0.14
70	9.60	33.72		75	9.44	33.77		26.11	191	0.20
83	9.26	33.84		100	9.11	33.87		26.24	179	0.24
105	9.06	33.88		150	8.76	33.97		26.37	166	0.33
129	8.84	33.94		200	8.33	34.14		26.57	148	0.41
155	8.72	33.98		250	8.18	34.28		26.70	135	0.48
200	8.33	34.14		300	7.85	34.31		26.78	128	0.55
250	8.18	34.28		400	6.91	34.22		26.84	122	0.68
293	7.90	34.31		500	6.24	34.34		27.02	105	0.80
393	6.96	34.22		600	(5.54)	(34.37)		(27.13)	(94)	(0.91)
491	6.30	34.33								
594	5.59	34.37								

8560

HORIZON; August 29, 1953; 1610 GCT; 33°19'N, 120°35'W; sounding, 900 fm; wind, 270°, force 3; weather, clear; sea, moderate; wire angle, 07°.

0	15.17	33.40		0	15.17	33.40		24.72	323	0.00
10	14.88	33.45		10	14.88	33.45		24.82	314	0.03
15	14.82	33.45		20	14.70	33.45		24.86	310	0.06
29	14.37	33.46		30	14.30	33.46		24.96	300	0.09
44	13.08	33.39		50	11.40	33.40		25.48	251	0.15
58	10.42	33.55		75	9.70	33.70		26.01	201	0.21
72	9.76	33.66		100	8.94	33.90		26.29	174	0.25
90	9.00	33.86		150	8.29	34.00		26.47	157	0.34
112	8.86	33.94		200	7.84	34.04		26.56	148	0.42
138	8.40	33.98		250	7.30	34.07		26.67	138	0.49
184	8.04	34.04		300	6.94	34.13		26.76	129	0.56
224	7.55	34.04		400	6.37	34.27		26.95	111	0.68
266	7.16	34.10		500	6.00	34.34		27.05	102	0.80
357	6.61	34.19								
446	6.12	34.33								
542	5.94	34.34								

8735

HORIZON; August 28, 1953; 2130 GCT; 33°51'N, 118°37'W; sounding, 150 fm; wind, 220°, force 3; weather, clear; sea, slight; wire angle, 25°.

0	18.11	33.43		0	18.11	33.43		24.06	386	0.00
9	17.18	33.43		10	17.10	33.43		24.31	362	0.04
23	15.85	33.57		20	16.24	33.57		24.61	334	0.07
44	12.49	33.38		30	14.75	33.52		24.91	305	0.10
66	11.28	33.41		50	12.15	33.38		25.32	266	0.16
87	10.14	33.53		75	10.65	33.46		25.66	234	0.22
130	9.48	33.74		100	9.86	33.60		25.90	211	0.28
168	9.23	33.96		150	9.34	33.87		26.20	183	0.38
209	8.97	34.12		200	9.02	34.09		26.42	162	0.47

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

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HORIZON; August 29, 1953; 0036 GCT; 33°40'N, 118°56.5'W; sounding, 485 fm; wind, 270°, force 4; weather, clear; sea, slight; wire angle, 25°.

8740

0	19.23	33.49		0	19.23	33.49		23.83	408	0.00
9	18.98	33.48		10	18.50	33.47		24.00	392	0.04
18	15.72	33.39		20	15.30	33.39		24.69	326	0.08
32	13.20	33.44		30	13.50	33.44		25.11	286	0.11
49	12.20	33.42		50	12.15	33.42		25.36	262	0.16
63	11.78	33.41		75	11.00	33.41		25.56	243	0.22
77	10.93	33.41		100	10.43	33.47		25.71	229	0.28
95	10.54	33.45		150	9.39	33.86		26.18	184	0.39
117	10.05	33.55		200	9.30	34.18		26.45	159	0.48
139	9.41	33.79		250	8.56	34.23		26.61	144	0.56
180	9.38	34.04		300	7.69	34.24		26.74	131	0.63
227	9.10	34.26		400	6.96	34.28		26.88	118	0.76
266	8.19	34.22		500	6.56	34.31		26.96	110	0.88
361	7.14	34.27								
459	6.74	34.30								
561	6.24	34.34								

HORIZON; August 29, 1953; 0345, 0403 GCT; 33°30'N, 119°19'W; sounding, missing; wind, 270°, force 6; weather, cloudy; sea, moderate; wire angle, 54°, 55°.

8745

0	17.36	33.40		0	17.36	33.40		24.22	371	0.00
6	17.27	33.41		10	16.85	33.40		24.34	360	0.04
12	16.38	33.39		20	15.20	33.33		24.66	329	0.07
21	14.84	33.33		30	13.80	33.32		24.95	301	0.10
33	13.24	33.32		50	11.86	33.32		25.33	265	0.16
				75	10.18	33.45		25.73	227	0.22
41	12.65	33.33		100	9.75	33.81		26.09	193	0.27
49	11.91	33.32		150	9.08	33.99		26.34	169	0.37
62	10.99	33.40		200	8.27	34.07		26.52	152	0.45
75	10.18	33.45		250	8.13	34.19		26.64	141	0.52
87	9.77	33.57		300	8.06	34.26		26.70	135	0.60
111	9.74	33.93								
141	9.40	33.99								
163	8.61	33.98								
222	8.16	34.13								
290	8.10	34.25								
374	7.47	34.30								

HORIZON; August 29, 1953; 0709 GCT; 33°18.5'N, 119°38'W; sounding, 57 fm; wind, 270°, force 4; weather, cloudy; sea, slight; wire angle, 27°.

8750

0	16.78	33.47		0	16.78	33.47		24.41	353	0.00
9	16.47	33.48		10	16.44	33.48		24.50	344	0.04
18	16.18	33.49		20	16.02	33.49		24.60	335	0.07
27	14.60	33.43		30	14.00	33.43		25.00	297	0.10
46	10.62	33.53								

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

8755 HORIZON; August 29, 1953; 0943 GCT; 33°09.5'N, 120°01'W; sounding, 660 fm; wind, 270°, force 3; weather, clear; sea, slight; wire angle, 32°.

0	15.75	33.50		0	15.75	33.50		24.67	328	0.00
8	15.70	33.48		10	15.64	33.48		24.68	327	0.03
17	15.44	33.52		20	15.00	33.52		24.85	311	0.06
29	13.35	33.50		30	13.25	33.50		25.20	278	0.09
46	11.49	33.57		50	11.35	33.58		25.63	237	0.11
59	11.08	33.58		75	9.85	33.69		25.98	204	0.20
70	10.33	33.65		100	9.19	33.88		26.23	180	0.25
88	9.32	33.78		150	8.61	34.05		26.46	158	0.34
105	9.13	33.91		200	8.24	34.18		26.62	143	0.41
124	8.82	33.99		250	7.84	34.23		26.71	134	0.48
159	8.56	34.07		300	7.43	34.26		26.80	126	0.55
197	8.26	34.18		400	6.83	34.31		26.92	114	0.68
229	8.04	34.22		500	(6.00)	(34.36)		(27.07)	(100)	(0.79)
308	7.39	34.26								
393	6.88	34.30								
486	6.12	34.35								

8760 HORIZON; August 29, 1953; 1307 GCT; 32°58.5'N, 120°24'W; sounding, 555 fm; wind, 270°, force 2; weather, clear; sea, slight; wire angle, 07°.

0	16.23	33.49		0	16.23	33.49		24.56	339	0.00
9	16.08	33.43		10	16.00	33.43		24.56	339	0.03
20	15.58	33.48		20	15.58	33.48		24.69	326	0.07
34	15.33	33.51		30	15.44	33.51		24.75	320	0.10
54	14.08	33.45		50	14.51	33.46		24.91	305	0.16
67	11.86	33.54		75	11.23	33.60		25.67	233	0.23
83	10.60	33.67		100	9.75	33.82		26.09	193	0.28
105	9.46	33.85		150	8.70	34.00		26.40	164	0.37
127	8.88	33.94		200	8.06	34.13		26.60	145	0.45
152	8.66	34.01		250	7.84	34.21		26.70	135	0.52
199	8.08	34.13		300	7.11	34.26		26.84	122	0.59
249	7.87	34.21		400	6.44	34.29		26.96	110	0.71
293	7.18	34.26		500	5.89	34.32		27.05	102	0.82
393	6.48	34.29		600	(5.46)	(34.37)		(27.14)	(93)	(0.93)
491	5.92	34.32								
595	5.48	34.37								

9028 CREST; August 20, 1953; 0317 GCT; 33°28.5'N, 117°47'W; sounding, 223 fm; wind, 160°, force 1; weather, overcast; sea, slight; wire angle, 00°.

0	18.93	33.49	6.95	0	18.93	33.49	6.95	23.91	400	0.00
10	16.17	33.45	7.17	10	16.17	33.45	7.17	24.54	340	0.04
25	12.68	33.32	6.33	20	13.57	33.32	7.03	25.00	297	0.07
50	10.66	33.37	4.84	30	12.20	33.32	6.00	25.27	271	0.10
74	9.90	33.50	4.23	50	10.66	33.37	4.84	25.59	240	0.15
98	9.47	33.77	3.55	75	9.89	33.50	4.22	25.82	219	0.21
149	9.39	34.01	2.61	100	9.44	33.79	3.50	26.12	190	0.26
195	9.29	34.04	2.31	150	9.37	34.01	2.61	26.30	173	0.35
241	9.34	34.15	1.79	200	9.28	34.05	2.27	26.35	168	0.44
				250	(9.37)	(34.17)	(1.66)	(26.43)	(161)	(0.52)

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

CREST; August 20, 1953; 0155 GCT; 33°24.5'N, 117°55'W; sounding, 340 fm; wind, 160°, force 1;
weather, cloudy; sea, moderate; wire angle, 05°.

9030

0	19.11	33.57	6.44	0	19.11	33.57	6.44	23.92	400	0.00
10	17.96	33.55	6.54	10	17.96	33.55	6.54	24.19	374	0.04
25	14.36	33.40	7.23	20	15.80	33.41	7.19	24.59	336	0.07
50	11.18	33.40	5.35	30	13.87	33.40	7.20	25.00	297	0.11
74	9.96	33.55	4.14	50	11.18	33.40	5.35	25.52	247	0.16
98	9.52	33.69	3.55	75	9.95	33.55	4.13	25.85	216	0.22
150	9.33	33.93	2.84	100	9.50	33.70	3.51	26.04	198	0.27
196	9.38	34.10	2.23	150	9.33	33.93	2.84	26.25	178	0.37
241	9.32	34.14	2.08	200	9.38	34.11	2.20	26.38	166	0.45
287	8.54	34.13	2.12	250	9.25	34.14	2.08	26.43	161	0.54
338	8.31	34.29	1.31	300	8.47	34.15	1.98	26.56	148	0.62
384	7.54	34.25	1.13	400	7.42	34.26	1.03	26.80	126	0.76
431	7.20	34.30	0.86	500	(6.68)	(34.35)	(0.76)	(26.97)	(110)	(0.88)
480	6.83	34.34	0.79							

CREST; August 19, 1953; 2132 GCT; 33°11'N, 118°23.5'W; sounding, 640 fm; wind, 240°, force 1;
weather, cloudy; sea, moderate; wire angle, 04°.

9037

0	19.81	33.59	6.23	0	19.81	33.59	6.23	23.76	415	0.00
10	19.06	33.56	6.30	10	19.06	33.56	6.30	23.93	399	0.04
20	15.72	33.38	7.21	20	15.72	33.38	7.21	24.59	336	0.08
35	13.33	33.41	6.62	30	13.90	33.40	7.01	24.99	298	0.11
55	11.74	33.43	5.67	50	12.25	33.42	5.91	25.34	264	0.17
69	10.59	33.44	5.01	75	10.24	33.48	4.45	25.75	225	0.23
83	9.94	33.58	4.05	100	9.55	33.70	3.89	26.03	199	0.28
106	9.52	33.75	3.73	150	9.39	34.03	2.63	26.32	171	0.37
129	9.64	33.98	2.62	200	9.62	34.29	1.61	26.48	156	0.46
156	9.34	34.04	2.62	250	9.10	34.32	1.38	26.59	146	0.54
206	9.62	34.30	1.52	300	8.50	34.35	1.28	26.71	134	0.61
262	8.90	34.32	1.34	400	7.38	34.30	1.10	26.84	122	0.74
308	8.42	34.35	1.27	500	6.50	34.33	0.77	26.98	109	0.86
415	7.22	34.30	1.04	600	5.92	34.37	0.43	27.09	98	0.98
519	6.36	34.34	0.70							
626	5.82	34.38	0.34							

CREST; August 19, 1953; 1750 GCT; 32°54.5'N, 118°56'W; sounding, 920 fm; wind, 310°, force 3;
weather, overcast; sea, rough; wire angle, 09°.

9045

0	17.91	33.53	5.90	0	17.91	33.53	5.90	24.19	374	0.00
10	17.86	33.56	5.91	10	17.86	33.56	5.91	24.22	371	0.04
29	14.28	33.38	6.22	20	16.60	33.48	6.17	24.46	348	0.07
59	11.40	33.45	5.56	30	14.00	33.38	6.22	24.96	300	0.11
88	9.96	33.58	4.12	50	11.98	33.41	5.81	25.38	260	0.16
116	9.11	33.86	4.09	75	10.55	33.51	4.58	25.72	228	0.22
171	8.54	34.12	2.30	100	9.50	33.71	4.09	26.05	197	0.28
226	8.12	34.25	1.72	150	8.75	34.04	2.84	26.43	161	0.37
279	7.76	34.24	1.32	200	8.32	34.21	1.98	26.63	142	0.44
334	7.40	34.30	0.92	250	7.94	34.25	1.53	26.71	134	0.52
437	6.59	34.34	0.49	300	7.62	34.26	1.16	26.77	128	0.58
545	5.88	34.39	0.34	400	6.89	34.33	0.61	26.93	113	0.71
650	5.42	34.45	0.30	500	6.14	34.37	0.38	27.06	101	0.82
867	4.64	34.46	0.35	600	5.63	34.43	0.31	27.17	91	0.93
1078	4.02	34.55	0.63	700	5.22	34.46	0.30	27.24	84	1.02
1287	3.82	34.53	0.90	800	4.87	34.46	0.32	27.28	80	1.11
				1000	4.24	34.53	0.53	27.41	68	1.28

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

9050

CREST; August 19, 1953; 1426 GCT; 32°45'N, 119°15.5'W; sounding, 100 fm; wind, 320°, force 4; weather, overcast; sea, rough; wire angle, 14°.

0	15.43	33.53	6.28	0	15.43	33.53	6.28	24.77	319	0.00
9	15.44	-	6.19	10	15.44	33.36	6.17	24.63	332	0.03
19	12.01	33.35	5.47	20	11.80	33.35	5.48	25.37	262	0.06
29	11.14	33.39	5.67	30	11.06	33.40	5.66	25.54	245	0.09
48	10.47	33.47	5.09	50	10.39	33.48	4.95	25.72	228	0.14
73	9.68	33.66	3.92	75	9.67	33.67	3.90	25.99	202	0.19
97	9.24	33.92	3.84	100	(9.18)	(33.96)	(3.83)	(26.30)	(173)	(0.24)

9055

CREST; August 19, 1953; 1111 GCT; 32°35'N, 119°37'W; sounding, 500 fm; wind, 320°, force 6; weather, overcast; sea, very rough; wire angle, 15°.

0	15.40	33.41	6.20	0	15.40	33.41	6.20	24.68	327	0.00
9	15.39	33.41	6.28	10	15.39	33.41	6.28	24.68	327	0.03
24	15.01	33.38	6.29	20	15.29	33.40	6.28	24.70	325	0.06
38	11.84	33.30	5.85	30	14.00	33.33	6.22	24.92	304	0.10
58	10.88	33.41	5.24	50	11.20	33.35	5.47	25.48	251	0.15
72	10.44	33.48	4.90	75	10.36	33.48	4.85	25.73	227	0.21
91	10.00	33.49	4.50	100	9.76	33.53	4.19	25.87	214	0.27
114	9.39	33.69	3.66	150	8.72	33.91	3.03	26.33	170	0.37
140	8.89	33.86	3.19	200	8.08	34.02	2.56	26.51	153	0.45
168	8.45	33.96	2.78	250	7.87	34.14	1.77	26.64	141	0.52
222	7.90	34.05	2.39	300	7.51	34.25	1.17	26.78	128	0.59
277	7.80	34.25	1.35	400	6.55	34.26	0.84	26.92	114	0.72
331	7.10	34.25	1.01	500	5.95	34.31	0.54	27.04	103	0.83
439	6.30	34.28	0.74	600	5.49	34.36	0.47	27.13	94	0.94
553	5.68	34.34	0.44							
665	5.23	34.40	0.57							

9060

CREST; August 19, 1953; 0709 GCT; 32°25'N, 119°57.5'W; sounding, 750 fm; wind, 320°, force 5; weather, missing; sea, rough; wire angle, 36°.

0	16.42	33.57	6.12	0	16.42	33.57	6.12	24.57	338	0.00
8	16.40	33.56	5.04r	10	16.40	33.56	6.00	24.57	338	0.03
21	16.42	33.53	5.88	20	16.42	33.53	5.90	24.54	340	0.07
33	11.83	33.46	5.81	30	16.44	33.46	5.84	24.48	346	0.10
49	10.86	33.57	5.04	50	10.80	33.58	4.94	25.73	227	0.16
60	10.37	33.63	4.42	75	9.80	33.72	3.95	26.01	201	0.21
77	9.74	33.72	3.91	100	8.88	33.75	3.29	26.18	184	0.26
97	8.98	33.74	3.36	150	8.08	33.92	3.23	26.44	160	0.35
121	8.44	33.91	3.11	200	7.45	34.04	2.88	26.62	143	0.43
145	8.13	33.92	3.24	250	7.22	34.07	2.12	26.68	137	0.50
194	7.50	34.04	2.94	300	7.14	34.26	1.17	26.84	122	0.56
243	7.24	34.06	2.25	400	6.50	34.30	0.66	26.96	110	0.69
293	7.18	34.25	1.22	500	6.14	34.36	0.56	27.05	102	0.80
393	6.52	34.30	0.68	600	5.56	34.39	0.37	27.15	92	0.90
499	6.16	34.36	0.56							
606	5.50	34.39	0.34							

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

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CREST; August 19, 1953; 0130 GCT; 32°04'N, 120°36'W; sounding, 2000 fm; wind, 320°, force 5; weather, overcast; sea, very rough; wire angle, 35°.

9070

0	16.13	33.54	6.29	0	16.13	33.54	6.29	24.62	333	0.00
8	16.11	33.42	6.10	10	16.12	33.42	6.10	24.53	341	0.03
24	15.97	33.53	6.17	20	16.03	33.52	6.16	24.62	333	0.07
50	11.10	33.12	6.00	30	15.20	33.52	6.17	24.81	315	0.10
74	9.84	33.35	5.07	50	11.10	33.12	6.00	25.32	266	0.16
98	9.27	33.57	4.31	75	9.83	33.35	5.05	25.71	229	0.22
146	8.48	33.83	3.52	100	9.21	33.58	4.25	25.99	202	0.28
188	7.86	33.97	3.06	150	8.43	33.84	3.48	26.32	171	0.37
230	7.43	34.03	2.30	200	7.68	33.99	2.90	26.55	149	0.45
273	7.60	34.30	1.30	250	7.53	34.14	1.80	26.69	136	0.52
354	6.96	34.28	0.64	300	7.42	34.30	1.00	26.83	123	0.59
443	6.32	34.31	0.47	400	6.63	34.29	0.53	26.93	113	0.72
528	5.82	34.42	0.29	500	5.98	34.38	0.32	27.09	98	0.83
710	5.02	34.48	0.27	600	5.48	34.46	0.27	27.21	87	0.93
896	4.33	34.49	0.43	700	5.06	34.48	0.27	27.28	80	1.02
1088	3.70	34.55	0.75	800	4.68	34.49	0.32	27.33	75	1.10
				1000	3.98	34.52	0.60	27.43	66	1.26

CREST; August 20, 1953; 0722 GCT; 32°56'N, 117°19.5'W; sounding, 100 fm; wind, missing; weather, cloudy; sea, missing; wire angle, 00°.

9327

0	20.50	33.62		0	20.50	33.62		23.60	430	0.00
10	13.96	33.40		10	13.96	33.40		24.98	299	0.04
25	11.85	33.44		20	12.45	33.43		25.31	267	0.06
50	10.32	33.41		30	11.45	33.44		25.50	249	0.09
74	9.88	33.64		50	10.32	33.41		25.68	232	0.14
98	9.66	33.72		75	9.87	33.64		25.93	208	0.19
122	9.52	34.04		100	9.63	33.74		26.05	197	0.24
149	9.78	34.15		150	(9.82)	(34.15)		(26.34)	(169)	(0.34)

CREST; August 20, 1953; 0940 GCT; 32°50'N, 117°31.5'W; sounding, 470 fm; wind, 340°, force 1; weather, overcast; sea, slight; wire angle, 15°.

9330

0	19.91	33.53		0	19.91	33.53		23.69	422	0.00
9	18.48	33.47		10	18.15	33.47		24.09	383	0.04
19	15.45	33.45		20	15.30	33.44		24.73	322	0.08
33	12.96	33.28		30	13.50	33.28		24.98	299	0.11
47	11.52	33.29		50	11.12	33.30		25.45	254	0.16
60	10.48	33.39		75	10.33	33.50		25.75	225	0.22
73	10.35	33.49		100	9.79	33.86		26.12	190	0.28
91	9.78	33.68		150	10.19	34.20		26.32	171	0.37
113	10.01	34.03		200	9.75	34.33		26.49	155	0.45
140	10.20	34.15		250	9.35	34.39		26.60	145	0.53
185	9.94	34.32		300	8.82	34.40		26.70	135	0.60
229	9.44	34.35		400	7.57	34.31		26.82	124	0.74
275	9.25	34.42		500	6.91	34.35		26.94	112	0.86
371	7.73	34.30								
464	7.27	34.35								
565	6.02	34.35								

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

9340

CREST; August 20, 1953; 1450 GCT; 32°29.5'N, 118°12.5'W; sounding, 940 fm; wind, 310°, force 1; weather, overcast; sea, moderate; wire angle, 05°.

0	19.05	33.45		0	19.05	33.45		23.85	406	0.00
10	19.04	33.45		10	19.04	33.45		23.85	406	0.04
20	17.10	33.35		20	17.10	33.35		24.25	368	0.08
35	14.82	33.26		30	15.55	33.27		24.54	340	0.12
50	13.42	33.25		50	13.42	33.25		24.98	299	0.18
64	12.19	33.22		75	11.69	33.25		25.31	267	0.25
78	11.56	33.27		100	10.42	33.55		25.77	223	0.31
98	10.54	33.51		150	9.51	33.95		26.23	180	0.41
121	9.72	33.78		200	8.79	34.12		26.48	156	0.50
149	9.54	33.94		250	8.33	34.16		26.59	146	0.58
194	8.85	34.11		300	7.52	34.14		26.69	136	0.65
241	8.44	34.16		400	6.76	34.25		26.88	118	0.78
287	7.66	34.13		500	6.01	34.28		27.00	107	0.90
387	6.88	34.24		600	(5.57)	(34.35)		(27.11)	(96)	(1.01)
482	6.10	34.27								
585	5.62	34.34								

9350

CREST; August 20, 1953; 1948 GCT; 32°11'N, 118°53'W; sounding, 750 fm; wind, 320°, force 2; weather, overcast; sea, rough; wire angle, 08°.

0	18.24	33.45		0	18.24	33.45		24.05	387	0.00
10	18.18	33.40		10	18.18	33.40		24.02	390	0.04
20	13.22	33.12		20	13.22	33.12		24.91	305	0.07
34	12.00	33.14		30	12.35	33.13		25.09	288	0.10
49	11.01	33.18		50	11.00	33.18		25.38	260	0.16
63	10.50	33.29		75	10.10	33.46		25.75	225	0.22
78	9.94	33.48		100	8.97	33.66		26.10	192	0.27
96	8.97	33.60		150	9.02	34.03		26.38	166	0.36
119	9.15	33.88		200	7.99	34.09		26.58	146	0.44
145	9.06	34.02		250	7.37	34.06		26.65	140	0.52
190	8.16	34.09		300	7.04	34.14		26.76	129	0.58
237	7.50	34.05		400	6.61	34.28		26.93	113	0.71
282	7.12	34.11		500	6.02	34.29		27.01	106	0.83
380	6.74	34.27								
474	6.16	34.29								
575	5.67	34.31								

9730

CREST; August 21, 1953; 1226 GCT; 32°16'N, 117°10.5'W; sounding, 32 fm; wind, 320°, force 1; weather, missing; sea, slight; wire angle, 03°.

0	17.26	33.57		0	17.26	33.57		24.38	356	0.00
10	13.51	33.47		10	13.51	33.47		25.13	284	0.03
20	11.62	33.43		20	11.62	33.43		25.46	253	0.06
30	10.64	33.51		30	10.64	33.51		25.70	230	0.08
50	10.25	33.58		50	10.25	33.58		25.82	219	0.13

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

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CREST; August 21, 1953; 0956 GCT; 32°08'N, 117°26'W; sounding, 670 fm; wind, 300°, force 1; weather, missing; sea, moderate; wire angle, 06°.

9735

0	19.94	33.59		0	19.94	33.59		23.72	419	0.00
10	19.82	33.57		10	19.82	33.57		23.74	417	0.04
20	17.78	33.53		20	17.78	33.53		24.22	371	0.08
35	14.70	33.45		30	15.80	33.48		24.64	331	0.12
50	13.08	33.33		50	13.08	33.33		25.10	287	0.18
64	11.58	33.48		75	10.31	33.53		25.77	223	0.24
78	10.30	33.54		100	10.29	33.76		25.96	205	0.30
98	10.30	33.76		150	9.31	33.95		26.27	176	0.39
121	9.46	33.80		200	9.23	34.22		26.49	155	0.48
149	9.31	33.94		250	8.51	34.23		26.61	144	0.55
195	9.26	34.22		300	7.63	34.22		26.74	131	0.63
241	8.67	34.23		400	6.50	34.23		26.90	116	0.76
287	7.86	34.22		500	6.46	34.35		27.00	107	0.87
385	6.50	34.22		600	(5.70)	(34.35)		(27.10)	(97)	(0.98)
480	6.52	34.34								
583	5.84	34.35								

CREST; August 21, 1953; 0336, 0405 GCT; ~~37°56'N, 118°12'W~~ ^{31°56' 117°50'}; sounding, 760 fm; wind, 280°, force 2; weather, cloudy; sea, moderate; wire angle, 00°, 05°.

9740

0	19.30	33.57		0	19.30	33.57		23.87	404	0.00
10	19.28	33.55		10	19.28	33.55		23.86	405	0.04
20	16.42	33.40		20	16.42	33.40		24.44	350	0.08
35	13.45	33.18		30	14.30	33.18		24.74	321	0.11
54	12.02	33.18		50	12.41	33.18		25.12	285	0.17
69	10.98	33.33		75	10.75	33.36		25.56	243	0.24
83	10.52	33.40		100	9.95	33.46		25.78	222	0.30
106	9.61	33.49		150	8.63	33.80		26.26	177	0.40
129	8.95	33.60		200	7.99	34.03		26.54	150	0.48
156	8.56	33.86		250	7.65	34.16		26.69	136	0.56
207	7.91	-		300	7.42	34.25		26.79	127	0.62
				400	6.78	34.31		26.93	113	0.75
263	7.60	34.19		500	5.99	34.34		27.05	102	0.86
310	7.38	34.26		600	5.51	34.40		27.16	92	0.97
417	6.66	34.32								
521	5.83	34.34								
627	5.44	34.43								

CREST; August 21, 1953; 0011 GCT; 31°35.5'N, 118°30.5'W; sounding, 1250 fm; wind, 320°, force 4; weather, overcast; sea, rough; wire angle, 25°.

9750

0	17.60	33.80		0	17.60	33.80		24.47	347	0.00
8	17.58	-		10	17.57	33.78		24.46	348	0.04
18	17.55	33.76		20	17.54	33.74		24.44	350	0.07
31	11.84	33.69		30	13.25	33.69		25.35	263	0.10
45	10.04	33.72		50	9.70	33.76		26.06	196	0.15
59	9.34	33.82		75	8.97	33.86		26.25	178	0.19
72	9.00	33.85		100	8.70	34.00		26.40	164	0.24
90	8.73	-		150	8.37	34.15		26.57	148	0.32
110	8.67	34.04		200	8.13	34.25		26.69	136	0.39
133	8.40	34.10		250	7.30	34.23		26.79	127	0.46
173	8.33	34.21		300	6.82	34.25		26.87	119	0.52
215	7.96	34.26		400	6.22	34.34		27.02	105	0.64
259	7.19	34.23								
352	6.47	34.30								
444	6.04	34.37								

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

10029

CREST; August 17, 1953; 0201 GCT; 31°42'N, 116°44'W; sounding, 90 fm; wind, 330°, force 3;
weather, clear; sea, moderate; wire angle, 05°.

0	16.74	33.54		0	16.74	33.54		24.48	346	0.00
10	14.74	33.53		10	14.74	33.53		24.92	304	0.03
25	11.05	33.49		20	12.30	33.50		25.39	260	0.06
49	10.39	33.61		30	10.79	33.49		25.66	234	0.09
74	10.18	33.71		50	10.37	33.62		25.83	218	0.13
98	10.08	33.86		75	10.18	33.72		25.94	207	0.18
122	10.08	33.96		100	10.08	33.87		26.08	194	0.24
150	9.86	34.07		150	9.86	34.07		26.27	176	0.33

10030

CREST; August 17, 1953; 0306 GCT; 31°40'N, 116°48'W; sounding, 330 fm; wind, 330°, force 4;
weather, partly cloudy; sea, slight; wire angle, 06°.

0	18.25	33.58		0	18.25	33.58		24.14	379	0.00
10	14.10	33.46		10	14.10	33.46		25.00	297	0.03
25	11.10	33.40		20	11.65	33.41		25.44	255	0.06
50	10.06	33.47		30	10.82	33.40		25.58	242	0.09
74	9.91	33.67		50	10.06	33.47		25.77	223	0.13
98	10.00	33.87		75	9.91	33.69		25.97	204	0.19
149	10.06	34.02		100	10.00	33.88		26.10	192	0.24
194	10.08	34.20		150	10.07	34.03		26.20	183	0.33
240	9.56	34.23		200	10.03	34.21		26.35	168	0.42
285	9.24	34.30		250	9.48	34.24		26.47	157	0.50

10040

CREST; August 17, 1953; 0809 GCT; 31°20'N, 117°26.5'W; sounding, 1040 fm; wind, 320°, force 4;
weather, overcast; sea, moderate; wire angle, 27°.

0	17.01	33.28	6.08	0	17.01	33.28	6.08	24.21	372	0.00
8	16.96	33.30	6.07	10	16.94	33.30	6.08	24.25	368	0.04
23	16.66	33.30	6.22	20	16.79	33.30	6.16	24.28	365	0.07
49	14.38	33.22	6.70	30	16.30	33.29	6.45	24.39	355	0.11
71	12.60	33.24	5.61	50	14.22	33.22	6.70	24.79	317	0.18
98	10.72	33.25	5.61	75	12.45	33.24	5.61	25.16	281	0.25
147	8.96	33.68	3.67	100	10.60	33.25	5.60	25.51	248	0.32
193	8.92	34.10	2.59	150	8.94	33.72	3.53	26.15	187	0.43
244	7.65	34.08	2.39	200	8.87	34.10	2.54	26.45	159	0.52
288	7.46	34.23	1.36	250	7.58	34.08	2.32	26.63	142	0.59
387	7.51	34.47	0.47	300	7.46	34.28	1.17	26.81	125	0.66
483	6.50	34.23	0.32	400	7.42	34.45	0.42	26.95	111	0.78
579	5.86	34.39	0.35	500	6.38	34.24	0.33	26.93	113	0.90
771	4.78	34.47	0.33	600	5.72	34.41	0.35	27.14	93	1.01
968	4.18	34.52	0.56	700	5.13	34.45	0.33	27.25	83	1.11
1162	3.60	34.59	0.83	800	4.68	34.48	0.36	27.32	76	1.20
				1000	4.09	34.53	0.60	27.43	66	1.36

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

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CREST; August 17, 1953; 1317 GCT; 31°00'N, 118°06'W; sounding, 950 fm; wind, 340°, force 4; weather, overcast; sea, rough; wire angle, 07°.

10050

0	18.00	33.48		0	18.00	33.48		24.13	380	0.00
10	17.98	33.47		10	17.98	33.47		24.13	380	0.03
25	16.23	33.30		20	17.10	33.36		24.25	368	0.07
40	14.87	33.27		30	15.80	33.29		24.50	344	0.11
59	12.39	33.18		50	13.55	33.19		24.90	306	0.17
73	11.43	33.24		75	11.35	33.25		25.37	262	0.24
93	10.07	33.34		100	9.77	33.40		25.76	224	0.30
116	9.26	33.53		150	8.92	33.82		26.23	180	0.41
143	8.93	33.77		200	8.61	34.06		26.46	158	0.49
169	8.88	33.95		250	8.16	34.20		26.64	141	0.57
226	8.34	34.14		300	7.71	34.26		26.76	129	0.64
281	7.96	34.26		400	6.40	34.27		26.95	111	0.76
336	7.06	34.26		500	5.89	34.36		27.08	99	0.88
443	6.10	34.29		600	5.44	34.45		27.21	87	0.98
557	5.66	34.42								
668	5.04	34.49								

CREST; August 17, 1953; 1905, 1924 GCT; 30°38'N, 118°50'W; sounding, 1610 fm; wind, 340°, force 3; weather, overcast; sea, rough; wire angle, 26°, 32°.

10060

0	17.30	33.38	5.80	0	17.30	33.38	5.80	24.22	371	0.00
8	17.28	33.32	5.89	10	17.27	33.32	5.90	24.18	375	0.04
				20	17.17	33.29	5.95	24.18	375	0.08
25	17.02	33.28	5.98	30	16.87	33.27	6.04	24.24	369	0.11
51	14.44	33.21	6.48	50	14.60	33.21	6.48	24.70	325	0.18
76	12.69	33.22	6.21	75	12.70	33.22	6.23	25.09	288	0.26
102	10.72	33.19	5.70	100	10.84	33.19	5.78	25.42	257	0.33
148	9.54	33.84	2.99	150	9.52	33.86	2.96	26.16	186	0.44
190	9.02	34.03	2.50	200	8.94	34.06	2.41	26.41	163	0.53
233	8.68	34.15	2.15	250	8.55	34.18	1.98	26.57	148	0.61
278	8.27	34.22	1.67	300	7.90	34.22	1.55	26.70	135	0.68
362	6.78	34.19	1.29	400	6.58	34.21	1.01	26.87	119	0.81
453	6.34	34.28	0.68	500	6.07	34.33	0.59	27.04	103	0.93
541	5.81	34.37	0.53	600	5.53	34.41	0.52	27.17	91	1.04
728	4.98	34.47	0.51	700	5.09	34.46	0.52	27.26	82	1.13
918	4.26	34.50	0.60	800	4.69	34.48	0.53	27.32	76	1.22
1110	3.73	34.54	0.83	1000	4.02	34.52	0.68	27.42	67	1.38

CREST; August 18, 1953; 0023 GCT; 30°21'N, 119°27.5'W; sounding, 2000+ fm; wind, 340°, force 5; weather, overcast; sea, very rough; wire angle, 25°.

10070

0	18.22	33.45		0	18.22	33.45		24.05	387	0.00
8	18.22	33.48		10	18.21	33.48		24.08	384	0.04
23	18.10	33.48		20	18.15	33.48		24.09	383	0.08
36	17.12	33.34		30	17.90	33.40		24.09	383	0.12
54	14.50	33.45		50	15.20	33.44		24.75	320	0.19
68	13.26	33.42		75	12.88	33.43		25.22	276	0.26
85	12.36	33.60		100	11.12	33.50		25.61	239	0.33
108	10.58	33.48		150	9.13	33.71		26.11	191	0.43
133	9.36	33.62		200	8.22	33.93		26.42	162	0.52
159	9.00	33.76		250	8.30	34.17		26.60	145	0.60
210	8.18	33.98		300	7.46	34.15		26.71	134	0.67
262	8.32	34.19		400	6.35	34.20		26.90	116	0.80
315	7.20	34.14		500	5.69	34.27		27.04	103	0.92
419	6.20	34.22		600	5.27	34.32		27.13	94	1.02
528	5.55	34.29								
636	5.14	34.34								

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

10080

CREST; August 18, 1953; 0539 GCT; 30°01'N, 120°01'W; sounding, 2100 fm; wind, 340°, force 5; weather, overcast; sea, rough; wire angle, 22°.

0	17.34	33.26	5.91	0	17.34	33.26	5.91	24.12	380	0.00
9	17.37	33.28	5.95	10	17.36	33.28	5.93	24.13	380	0.04
27	17.30	33.24	5.64	20	17.33	33.27	5.72	24.13	380	0.08
56	15.14	33.14	6.34	30	17.29	33.22	5.64	24.10	382	0.11
84	13.84	33.22	6.51	50	15.68	33.14	6.21	24.41	353	0.19
111	11.78	33.22	4.90	75	14.33	33.21	6.51	24.76	320	0.27
166	9.28	33.64	4.77	100	12.68	33.22	5.50	25.10	287	0.35
218	8.46	33.95	3.38	150	9.80	33.48	4.82	25.82	219	0.48
270	7.83	34.04	2.82	200	8.71	33.87	3.69	26.30	173	0.58
321	7.19	34.04	1.99	250	8.06	34.02	3.08	26.52	152	0.66
420	6.17	34.18	0.98	300	7.46	34.04	2.31	26.62	143	0.74
525	5.60	34.28	0.45	400	6.31	34.15	1.14	26.86	120	0.87
624	5.16	34.39	0.40	500	5.74	34.25	0.53	27.01	106	0.99
832	4.43	34.44	0.53	600	5.26	34.37	0.40	27.17	91	1.10
1036	3.82	34.49	0.74	700	4.88	34.41	0.42	27.24	84	1.19
1235	3.32	34.57	0.81	800	4.54	34.43	0.50	27.30	78	1.28
				1000	3.92	34.48	0.73	27.40	69	1.44

10330

CREST; August 16, 1953; 1117 GCT; 31°06'N, 116°26.5'W; sounding, 40 fm; wind, 340°, force 3; weather, overcast; sea, slight; wire angle, 05°.

0	17.47	33.48		0	17.47	33.48		24.26	367	0.00
10	16.56	33.50		10	16.56	33.50		24.49	345	0.04
20	13.10	33.32		20	13.10	33.32		25.09	288	0.07
30	11.59	33.40		30	11.59	33.40		25.44	255	0.10
49	10.66	33.67								

10335

CREST; August 16, 1953; 0837 GCT; 30°56'N, 116°45.5'W; sounding, 850 fm; wind, 300°, force 4; weather, missing; sea, moderate; wire angle, 00°.

0	19.32	33.49		0	19.32	33.49		23.81	410	0.00
10	19.18	33.49		10	19.18	33.49		23.84	407	0.04
20	15.82	33.26		20	15.82	33.26		24.47	347	0.08
35	14.03	33.16		30	14.65	33.17		24.66	329	0.11
54	12.22	33.21		50	12.68	33.20		25.08	289	0.17
69	11.36	33.20		75	10.91	33.20		25.41	258	0.24
83	10.50	33.23		100	10.04	33.50		25.80	221	0.30
107	9.99	33.61		150	9.89	33.94		26.16	186	0.41
129	9.94	33.84		200	8.97	34.04		26.39	164	0.50
158	9.87	33.96		250	8.71	34.13		26.50	154	0.58
208	8.89	34.05		300	8.24	34.25		26.67	138	0.65
263	8.61	34.16		400	7.95	34.42		26.85	121	0.79
308	8.18	34.27		500	6.93	34.36		26.95	111	0.91
416	7.86	34.43		600	6.08	34.36		27.06	101	1.03
520	6.74	34.36								
626	5.88	34.37								

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

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CREST; August 16, 1953; 0447 GCT; 30°45.5'N, 117°05.5'W; sounding, 850 fm; wind, 320°, force 3; weather, missing; sea, rough; wire angle, 14°.

103.40

0	17.22	33.31		0	17.22	33.31		24.19	374	0.00
9	17.22	33.30		10	17.22	33.30		24.18	375	0.04
24	17.20	33.27		20	17.22	33.28		24.16	377	0.08
38	15.01	33.20		30	16.95	33.22		24.18	375	0.11
58	13.44	33.25		50	14.12	33.24		24.82	314	0.18
72	12.29	33.25		75	12.00	33.25		25.25	273	0.26
89	11.10	33.39		100	10.11	33.44		25.74	226	0.32
112	10.00	33.49		150	10.64	34.14		26.19	184	0.42
137	10.40	33.88		200	10.52	34.36		26.38	166	0.51
163	10.72	34.26		250	9.11	34.24		26.53	151	0.59
215	10.31	34.36		300	8.17	34.25		26.68	137	0.67
269	8.66	34.21		400	7.34	34.31		26.85	121	0.80
322	7.94	34.28		500	6.82	34.39		26.98	109	0.92
429	7.18	34.32		600	6.21	34.45		27.11	96	1.03
545	6.56	34.42								
657	5.82	34.46								

CREST; August 15, 1953; 1731 GCT; 30°26'N, 116°11'W; sounding, 190 fm; wind, 320°, force 3; weather, overcast; sea, moderate; wire angle, 07°.

107.32

0	16.12	33.40		0	16.12	33.40		24.51	343	0.00
10	15.75	33.40		10	15.75	33.40		24.59	336	0.03
24	12.34	33.34		20	13.70	33.35		25.00	297	0.07
49	10.28	33.45		30	11.60	33.34		25.40	259	0.09
74	10.38	33.94		50	10.27	33.46		25.73	227	0.14
97	10.42	34.06		75	10.38	33.94		26.08	194	0.20
148	10.50	34.24		100	10.42	34.07		26.17	185	0.24
193	10.43	34.34		150	10.50	34.25		26.30	173	0.33
237	10.21	34.38		200	10.40	34.35		26.40	164	0.42
281	9.82	34.38		250	10.12	34.38		26.47	157	0.50

CREST; August 15, 1953; 1931 GCT; 30°19.5'N, 116°22'W; sounding, 980 fm; wind, 300°, force 4; weather, overcast; sea, moderate; wire angle, 08°.

107.35

0	17.61	33.47		0	17.61	33.47		24.22	371	0.00
10	17.46	33.48		10	17.46	33.48		24.26	367	0.04
20	14.55	33.28		20	14.55	33.28		24.76	320	0.07
34	12.39	33.37		30	12.98	33.36		25.15	282	0.10
53	10.76	33.24		50	11.30	33.24		25.37	262	0.16
69	10.20	33.42		75	10.25	33.64		25.87	214	0.22
83	10.38	33.80		100	10.27	33.97		26.12	190	0.27
107	10.26	34.03		150	10.50	34.29		26.33	170	0.36
129	10.56	34.21		200	10.16	34.36		26.44	160	0.44
156	10.45	34.30		250	9.73	34.40		26.55	149	0.52
206	10.12	34.37		300	9.44	34.46		26.64	141	0.60
260	9.66	34.41		400	8.35	34.42		26.79	127	0.74
305	9.42	34.47		500	7.00	34.34		26.92	114	0.86
411	8.18	34.41		600	5.88	34.36		27.08	99	0.98
513	6.82	34.34								
619	5.68	34.37								

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

107.40

CREST; August 15, 1953; 2245 GCT; 30°11.5'N, 116°41.5'W; sounding, 1460 fm; wind, 340°, force 4;
weather, overcast; sea, rough; wire angle, 25°.

0	17.80	33.48		0	17.80	33.48		24.18	375	0.00
8	17.76	33.48		10	17.73	33.48		24.20	373	0.04
18	16.53	33.40		20	16.25	33.40		24.48	346	0.07
31	14.78	33.40		30	15.00	33.40		24.76	320	0.11
49	12.52	33.37		50	12.38	33.37		25.27	271	0.17
62	11.75	33.40		75	10.73	33.53		25.70	230	0.23
75	10.73	33.53		100	9.64	33.73		26.04	198	0.28
90	10.18	33.60		150	9.29	34.12		26.40	164	0.37
105	9.61	33.78		200	8.83	34.22		26.56	148	0.45
125	9.62	33.84		250	9.31	34.40		26.62	143	0.53
159	9.16	34.16		300	8.08	34.29		26.73	132	0.60
200	8.83	34.22		400	7.52	34.37		26.87	119	0.73
236	9.42	34.40		500	6.65	34.35		26.98	109	0.85
320	7.82	34.29								
408	7.48	34.37								
502	6.62	34.35								

110.33

CREST; August 15, 1953; 1202 GCT; 29°51.5'N, 115°56'W; sounding, 75 fm; wind, 330°, force 2;
weather, missing; sea, moderate; wire angle, 00°.

0	15.48	33.46		0	15.48	33.46		24.70	325	0.00
10	15.20	33.43		10	15.20	33.43		24.74	321	0.03
20	12.24	33.36		20	12.24	33.36		25.29	269	0.06
30	11.82	33.38		30	11.82	33.38		25.39	260	0.09
50	10.56	33.59		50	10.56	33.59		25.78	222	0.14
74	10.58	33.79		75	10.58	33.79		25.93	208	0.19
98	10.38	33.89		100	10.42	33.90		26.04	198	0.24
122	10.42	33.96								

110.35

CREST; August 15, 1953; 0952 GCT; 29°46'N, 116°04.5'W; sounding, 715 fm; wind, 330°, force 2;
weather, missing; sea, moderate; wire angle, 42°.

0	17.41	33.48		0	17.41	33.48		24.27	366	0.00
8	17.40	33.47		10	17.40	33.46		24.26	367	0.04
19	15.88	33.40		20	15.40	33.40		24.67	328	0.07
30	14.15	33.34		30	14.15	33.34		24.89	307	0.10
41p	12.98	33.33		50	12.19	33.26		25.22	276	0.16
45	12.68	33.32		75	10.37	33.82		25.99	202	0.22
50p	12.19	33.26		100	10.66	34.13		26.18	184	0.27
61p	11.15	33.37		150	10.87	34.45		26.39	164	0.36
74p	10.37	33.81		200	10.43	34.54		26.54	150	0.44
89p	10.56	33.99		250	10.02	34.54		26.61	144	0.52
116p	10.78	34.28		300	9.36	34.52		26.71	134	0.59
114p	10.88	34.43		400	8.38	34.47		26.82	124	0.72
178p	10.62	34.52								
249p	10.04	34.54								
338p	8.94	34.50								
434p	8.11	34.46								

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

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CREST; August 15, 1953; 0625 GCT; 29°36.5'N, 116°20'W; sounding, 1200 fm; wind, 340°, force 3; weather, cloudy; sea, rough; wire angle, 30°.

11040

0	18.08	33.45		0	18.08	33.45		24.09	383	0.00
8	18.08	-		10	18.07	33.43	45	24.07	385	0.04
22	17.96	33.42		20	18.01	33.42	43	24.08	384	0.08
35	16.58	33.40		30	17.33	33.41		24.24	369	0.12
52	14.21	33.30		50	14.50	33.30		24.79	317	0.18
63	12.71	33.30		75	12.00	33.30		25.29	269	0.26
78	11.88	33.30		100	10.49	33.54		25.75	225	0.32
96	10.56	33.47		150	9.54	34.10	06	26.35	168	0.42
116	10.24	33.77		200	10.34	34.33	38	26.39	164	0.50
138	9.65	-		250	9.82	34.53	48	26.64	141	0.58
181	10.23	34.29		300	9.52	34.54		26.69	136	0.66
225	9.72	34.40		400	7.98	34.44		26.86	120	0.79
272	9.91	34.57		500	6.80	34.42		27.01	106	0.91
363	8.44	34.45								
464	7.22	34.44								
565	5.99	34.36								

CREST; August 15, 1953; 0106 GCT; 29°16'N, 116°59'W; sounding, 1680 fm; wind, 320°, force 4; weather, overcast; sea, moderate; wire angle, 25°.

11050

0	18.31	33.46	5.66	0	18.31	33.46	5.66	24.04	388	0.00
8	18.20	33.51	5.80	10	18.18	33.51	5.82	24.11	382	0.04
23	17.32	33.48	6.05	20	17.73	33.50	6.00	24.21	372	0.08
49	13.22	33.27	6.31	30	16.50	33.40	6.18	24.42	352	0.11
72	12.52	33.48	5.90	50	13.13	33.27	6.30	25.05	292	0.18
100	10.62	33.47	4.87	75	12.40	33.48	5.86	25.35	263	0.25
146	10.35	34.09	2.32	100	10.62	33.47	4.87	25.67	233	0.31
187	10.34	34.43	1.59	150	10.34	34.14	2.22	26.24	179	0.41
235	9.94	34.54	-	200	10.30	34.49	1.41	26.52	152	0.50
274	9.32	34.45	0.90	250	9.73	34.52	1.00	26.64	141	0.57
365	7.72	34.37	0.90	300	8.76	34.41	0.90	26.71	134	0.64
453	7.22	34.42	0.56	400	7.53	34.39	0.78	26.88	118	0.78
542	6.28	34.40	0.39	500	6.69	34.41	0.43	27.02	105	0.90
722	5.26	34.46	0.34	600	5.91	34.42	0.35	27.13	94	1.00
910	4.50	34.47	0.48	700	5.36	34.46	0.34	27.23	85	1.10
1098	3.93	34.60	0.77	800	4.90	34.46	0.38	27.28	80	1.19
				1000	4.22	34.52	0.60	27.40	69	1.36

CREST; August 14, 1953; 1942 GCT; 28°51.5'N, 117°39.5'W; sounding, 2000+ fm; wind, 330°, force 2; weather, overcast; sea, moderate; wire angle, 00°.

11060

0	18.90	33.51		0	18.90	33.51		23.93	399	0.00
10	18.80	33.51		10	18.80	33.51		23.95	397	0.04
20	18.76	33.53		20	18.76	33.53		23.98	394	0.08
35	18.73	33.47		30	18.73	33.52		23.98	394	0.12
55	15.72	33.23		50	16.56	33.24		24.29	364	0.20
69	15.08	33.23		75	14.67	33.24		24.71	324	0.28
83	13.98	33.27		100	12.62	33.30		25.17	280	0.36
108	12.00	33.32		150	11.42	34.03		25.96	205	0.48
130	11.39	33.72		200	10.96	34.44		26.37	166	0.58
158	11.42	34.14		250	9.11	34.29		26.57	148	0.66
208	10.76	34.44		300	8.15	34.23		26.67	138	0.73
262	8.80	34.26		400	7.33	34.25		26.80	126	0.87
309	8.06	-		500	7.12	34.41		26.96	110	0.99
415	7.27	34.26		600	6.28	34.43		27.09	98	1.10
518	7.04	34.42								
623	5.96	34.43								

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

113.30

CREST; August 6, 1953; 0038 GCT; 29°22.5'N, 115°17.5'W; sounding, 33 fm; wind, 310°, force 6; weather, partly cloudy; sea, rough; wire angle, 25°.

0	14.36	33.58		0	14.36	33.58		25.04	293	0.00
8	14.20	33.63		10	14.05	33.63		25.14	283	0.03
18	12.38	33.58		20	12.22	33.58		25.47	252	0.06
27	11.75	33.62		30	11.58	33.65		25.64	236	0.08
45	10.99	33.76								

113.35

CREST; August 6, 1953; 0346 GCT; 29°10.5'N, 115°38'W; sounding, 600 fm; wind, 320°, force 6; weather, partly cloudy; sea, rough; wire angle, 42°.

0	17.16	33.44		0	17.16	33.44		24.30	363	0.00
7	17.16	33.43		10	17.16	33.43		24.29	364	0.04
19	17.16	33.43		20	17.16	33.43		24.29	364	0.07
30	17.00	33.42		30	17.00	33.42		24.32	361	0.11
44	14.85	33.31		50	14.32	33.24		24.78	318	0.18
55	13.80	33.23		75	12.40	33.35		25.25	273	0.25
68	12.76	33.32		100	10.15	33.55		25.82	219	0.31
85	11.73	33.39		150	10.64	34.28		26.30	173	0.41
98	10.43	33.53		200	10.53	34.50		26.49	155	0.50
112	9.82	33.62		250	10.04	34.52		26.59	146	0.57
139	10.50	-		300	9.40	34.49		26.67	138	0.65
172	10.68	34.42								
166	10.70	34.45								
224	10.33	34.52								
299	9.42	-								
380	8.48	34.44								

113.40

CREST; August 6, 1953; 0831 GCT; 29°01'N, 115°57'W; sounding, 1050 fm; wind, 340°, force 5; weather, overcast; sea, very rough; wire angle, 23°.

0	18.22	33.42		0	18.22	33.42		24.03	389	0.00
9	18.22	33.42		10	18.21	33.42		24.03	389	0.04
23	18.20	33.44		20	18.20	33.44		24.05	387	0.08
37	15.50	33.35		30	18.05	33.43		24.08	384	0.12
55	14.06	33.30		50	14.48	33.31		24.80	316	0.19
68	12.79	33.31		75	12.02	33.34		25.32	266	0.26
85	11.14	33.46		100	10.57	33.57		25.76	224	0.32
108	10.31	33.63		150	9.10	33.92		26.28	175	0.42
132	9.54	33.81		200	8.57	34.14		26.53	151	0.51
158	8.96	33.96		250	8.63	34.37		26.70	135	0.58
208	8.55	34.17		300	8.14	34.35		26.76	129	0.65
259	8.64	34.38		400	7.25	34.38		26.92	114	0.78
311	7.96	34.34		500	6.28	34.41		27.07	100	0.89
412	7.18	34.39		600	5.63	34.46		27.19	89	0.99
521	6.08	34.42								
630	5.52	34.48								

117.26

CREST; August 6, 1953; 2203 GCT; 28°56'N, 114°41'W; sounding, 40 fm; wind, 310°, force 3; weather, overcast; sea, moderate; wire angle, 10°.

0	17.30	33.63		0	17.30	33.63		24.41	353	0.00
10	15.90	33.52		10	15.90	33.52		24.65	330	0.03
19	12.94	33.53		20	12.90	33.53		25.29	269	0.06
29	12.06	33.52		30	11.99	33.52		25.46	253	0.09
49	10.68	33.86								

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

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CREST; August 6, 1953; 1955 GCT; 28°48'N, 114°56.5'W; sounding, 57 fm; wind, 320°, force 3; weather, overcast; sea, rough; wire angle, 00°.

117.30

0	16.12	33.61		0	16.12	33.61		24.67	328	0.00
10	15.90	33.59		10	15.90	33.59		24.71	324	0.03
20	15.68	33.62		20	15.68	33.62		24.78	318	0.06
30	13.64	33.47		30	13.64	33.47		25.10	287	0.10
50	10.78	33.64		50	10.78	33.64		25.78	222	0.15
75	10.36	33.97		75	10.36	33.97		26.11	191	0.20

CREST; August 6, 1953; 1702 GCT; 28°39'N, 115°17'W; sounding, 120 fm; wind, 350°, force 3; weather, overcast; sea, rough; wire angle, 10°.

117.35

0	17.90	33.44		0	17.90	33.44		24.12	380	0.00
10	17.90	33.46		10	17.90	33.46		24.14	379	0.04
25	17.88	33.46		20	17.89	33.46		24.14	379	0.08
49	15.38	33.30		30	17.86	33.45		24.14	379	0.11
74	12.70	33.31		50	15.35	33.30		24.61	334	0.19
99	10.84	33.35		75	12.65	33.31		25.17	280	0.26
123	10.54	33.88		100	10.83	33.35		25.54	245	0.33
153	11.14	34.28		150	10.99	34.24		26.21	182	0.43

CREST; August 6, 1953; 1351 GCT; 28°25.5'N, 115°34'W; sounding, 390 fm; wind, 320°, force 4; weather, overcast; sea, rough; wire angle, 12°.

117.40

0	19.12	33.48		0	19.12	33.48		23.85	406	0.00
9	19.12	33.54		10	19.12	33.54		23.90	402	0.04
24	19.08	33.48		20	19.09	33.52		23.89	402	0.08
39	16.66	33.39		30	19.08	33.44		23.83	408	0.12
58	14.18	33.32		50	15.10	33.35		24.70	325	0.20
72	12.51	33.30		75	12.20	33.30		25.25	273	0.27
91	10.68	33.50		100	10.69	33.70		25.84	217	0.33
114	10.73	33.98		150	11.64	34.49		26.28	175	0.43
140	11.69	34.43		200	11.09	34.53		26.41	163	0.52
166	11.49	34.53		250	10.35	34.52		26.54	150	0.60
218	10.88	34.53		300	9.97	34.55		26.63	142	0.67
271	10.01	34.52		400	8.76	34.51		26.79	127	0.82
326	9.90	34.57		500	7.28	34.46		26.98	109	0.94
428	8.33	34.48		600	6.15	34.45		27.12	95	1.05
540	6.76	34.45								
649	5.72	34.45								

CREST; August 7, 1953; 0218 GCT; 28°23'N, 114°14.5'W; sounding, 30 fm; wind, 320°, force 4; weather, overcast; sea, moderate; wire angle, 05°.

120.25

0	18.13	33.53		0	18.13	33.53		24.14	379	0.00
10	18.12	33.50		10	18.12	33.50		24.12	380	0.03
20	15.34	33.38		20	15.34	33.38		24.67	328	0.07
30	13.04	33.32		30	13.04	33.32		25.11	286	0.10

CREST; August 7, 1953; 0442 GCT; 28°12.5'N, 114°33.5'W; sounding, 50 fm; wind, 340°, force 3; weather, overcast; sea, moderate; wire angle, 03°.

120.30

0	18.57	33.62		0	18.57	33.62		24.10	382	0.00
10	18.54	33.64		10	18.54	33.64		24.12	380	0.04
20	18.38	33.62		20	18.38	33.62		24.14	379	0.08
30	13.24	33.39		30	13.24	33.39		25.12	385	0.11
49	10.67	33.56		50	10.61	33.58		25.76	224	0.16
74	10.33	33.82		75	(10.32)	(33.83)		(26.00)	(202)	(0.21)

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

120.35 CREST; August 7, 1953; 0707 GCT; 28°03'N, 114°54'W; sounding, 47 fm; wind, 360°, force 3; weather, overcast; sea, moderate; wire angle, 05°.

0	17.06	33.55	6.11	0	17.06	33.55	6.11	24.41	353	0.00
10	17.06	33.51	5.80	10	17.06	33.51	5.80	24.38	356	0.04
20	16.08	33.53	6.15	20	16.08	33.53	6.15	24.62	333	0.07
30	14.25	33.21	6.48	30	14.25	33.21	6.48	24.77	319	0.10
50	13.15	33.29	6.66	50	13.15	33.29	6.66	25.06	291	0.16
75	10.83	33.44	4.77	75	10.83	33.44	4.77	25.61	239	0.23

120.45 CREST; August 13, 1953; 0033 GCT; 27°43'N, 115°33'W; sounding, 1300 fm; wind, 320°, force 5; weather, cloudy; sea, rough; wire angle, 35°.

0	19.43	33.64	5.58	0	19.43	33.64	5.58	23.89	402	0.00
8	19.45	33.61	5.63	10	19.44	33.61	5.64	23.87	404	0.04
20	19.34	33.59	5.66	20	19.34	33.59	5.66	23.88	403	0.08
45	16.44	33.48	6.15	30	18.45	33.55	5.79	24.07	385	0.12
66	14.12	33.42	6.07	50	15.90	33.46	6.14	24.61	334	0.19
90	11.68	33.40	5.09	75	13.20	33.41	5.78	25.14	283	0.27
129	10.18	33.80	3.54	100	10.82	33.41	4.68	25.59	240	0.34
162	10.51	34.26	1.71	150	10.46	34.17	1.95	26.25	178	0.44
201	9.87	34.33	1.67	200	9.90	34.33	1.66	26.47	157	0.53
233	9.54	34.40	1.34	250	9.43	34.43	1.17	26.62	143	0.60
311	9.10	34.51	0.52	300	9.16	34.50	0.62	26.72	133	0.68
385	8.60	34.56	0.25	400	8.40	34.55	0.25	26.88	118	0.81
463	7.42	34.42	0.28	500	6.98	34.39	0.29	26.96	110	0.93
625	5.90	34.35	0.31	600	6.09	34.35	0.30	27.05	102	1.04
797	4.84	34.40	0.41	700	5.40	34.37	0.33	27.15	92	1.15
973	4.00	34.39	0.68	800	4.82	34.40	0.42	27.24	84	1.25
				1000	(3.88)	(34.39)	(0.73)	(27.34)	(74)	(1.42)

120.50 CREST; August 13, 1953; 0358 GCT; 27°32.5'N, 115°52.5'W; sounding, 2300 fm; wind, 320°, force 2; weather, missing; sea, moderate; wire angle, 14°.

0	19.74	33.70	5.57	0	19.74	33.70	5.57	23.86	405	0.00
8	19.72	33.68	5.70	10	19.71	33.68	5.71	23.85	406	0.04
24	19.12	33.64	5.71	20	19.41	33.66	5.71	23.91	400	0.08
38	16.88	33.34	6.05	30	18.10	33.58	5.75	24.18	375	0.12
58	14.77	33.30	6.29	50	15.55	33.30	6.19	24.56	339	0.19
71	12.96	33.33	5.71	75	12.70	33.36	6.71	25.20	278	0.27
89	11.26	33.53	4.32	100	10.73	33.66	2.85	25.80	221	0.33
111	10.57	33.78	2.75	150	10.17	34.11	3.13	26.25	178	0.43
138	10.50	34.11	3.29	200	9.52	34.31	1.53	26.51	153	0.52
166	9.71	34.11	2.37	250	9.00	34.31	1.26	26.60	145	0.59
218	9.42	34.34	1.31	300	8.52	34.33	0.95	26.69	136	0.67
272	8.74	34.30	1.23	400	7.85	34.47	0.35	26.90	116	0.80
326	8.36	34.37	0.69	500	6.99	34.47	0.40	27.02	105	0.92
432	7.60	34.49	0.30	600	6.05	34.41	0.42	27.10	97	1.02
545	6.55	34.44	0.44							
656	5.54	34.40	0.35							

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

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CREST; August 13, 1953; 0855 GCT; 27°11.5'N, 116°31'W; sounding, 2000+ fm; wind, 340°, force 4; weather, overcast; sea, slight; wire angle, 25°.

120.60

0	18.76	5.96		0	18.76	5.96				
8	18.77	6.11		10	18.76	6.14				
23	18.00	6.24		20	18.60	6.22				
49	13.70	6.16		30	17.20	6.22				
72	11.70	6.21		50	13.60	6.16				
96	11.14	6.11		75	11.30	6.22				
141	10.26	2.35		100	11.20	6.03				
181	10.48	1.06		150	10.11	1.90				
227	10.21	0.78		200	10.51	0.90				
265	9.29	1.03		250	9.70	0.94				
355	7.73	0.93		300	8.55	1.02				
442	7.07	0.62		400	7.37	0.78				
529	6.47	0.41		500	6.65	0.48				
708	5.26	0.32		600	5.96	0.36				
894	4.45	0.43		700	5.30	0.32				
1081	3.88	0.72		800	4.80	0.35				
				1000	4.12	0.58				

CREST; August 13, 1953; 1423 GCT; 26°47'N, 117°16.5'W; sounding, 2000+ fm; wind, 340°, force 3; weather, overcast; sea, slight; wire angle, 07°.

120.70

0	20.44	33.80	5.48	0	20.44	33.80	5.48	23.75	416	0.00
10	20.40	33.79	5.49	10	20.40	33.79	5.49	23.76	415	0.04
20	20.41	33.78	5.49	20	20.41	33.78	5.49	23.75	416	0.08
35	18.78	33.62	5.83	30	20.10	33.67	5.62	23.74	417	0.12
54	15.52	33.49	6.21	50	16.40	33.51	6.19	24.53	341	0.20
69	13.40	33.46	6.10	75	12.80	33.46	5.45	25.26	272	0.28
83	12.10	33.48	4.73	100	11.18	33.59	4.26	25.67	233	0.34
106	10.80	33.66	4.01	150	10.22	34.10	2.46	26.23	180	0.45
129	10.25	33.96	2.94	200	9.63	34.31	1.66	26.50	154	0.53
157	10.18	34.13	2.32	250	9.23	34.42	1.18	26.65	140	0.61
207	9.56	34.34	1.59	300	8.67	34.41	0.79	26.73	132	0.68
262	9.13	34.43	1.06	400	7.59	34.41	0.42	26.89	117	0.81
309	8.56	34.41	0.73	500	6.55	34.42	0.29	27.04	103	0.93
416	7.42	34.41	0.39	600	5.77	34.49	0.32	27.20	88	1.03
520	6.36	34.43	0.29							
627	5.60	34.54	0.33							

CREST; August 13, 1953; 1852, 2003 GCT; 26°31'N, 117°45'W; sounding, 2000+ fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 15°, 20°.

120.80

0	20.13	5.54		0	20.13	5.54				
9	20.10	5.50		10	20.10	5.50				
23	20.08	5.50		20	20.09	5.50				
53	17.12	6.08		30	20.09	5.52				
76	14.68	6.07		50	17.57	6.07				
103	11.86	4.68		75	14.80	6.07				
153	10.38	2.97		100	12.22	4.90				
200	9.70	-		150	10.49	3.09				
251	9.31	-		200	9.70	1.99				
				250	9.32	1.37				
196	9.69r	2.07		300	8.53	1.23				
247	9.21r	1.38		400	7.66	0.46				
290	8.64	1.30		500	6.69	0.28				
389	7.77	0.49		600	5.93	0.22				
484	6.82	0.30		700	5.32	0.25				
580	6.06	0.22		800	4.79	0.35				
770	4.94	0.31		1000	4.10	0.62				
965	4.20	0.59								
1157	3.68	0.71								

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

120.90

CREST; August 14, 1953; 0102, 0121 GCT; 26°14.5'N, 118°25'W; sounding, 2200 fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 15°, 17°.

0	19.86	33.69	5.45	0	19.86	33.69	5.45	23.82	409	0.00
9	19.85	33.66	5.66	10	19.85	33.66	5.72	23.80	411	0.04
19	19.76	33.68	5.92	20	19.75	33.68	5.92	23.84	407	0.08
33	19.72	-	-	30	19.73	33.69	5.51	23.85	406	0.12
				50	17.38	33.45	6.51	24.26	367	0.20
33	19.70	33.69	5.48	75	15.63	33.45	6.28	24.66	329	0.29
52	17.26	33.45	6.51	100	13.33	33.45	5.69	25.15	282	0.36
66	16.50	33.54	6.35	150	10.58	33.69	3.68	25.85	216	0.49
79	15.36	33.44	6.27	200	10.16	34.18	2.04	26.30	173	0.59
101	13.20	33.45	5.59	250	9.96	34.41	1.26	26.52	152	0.67
121	11.14	33.49	4.46	300	9.10	34.39	1.12	26.64	141	0.75
148	10.60	33.67	3.76	400	7.91	34.42	0.66	26.85	121	0.89
196	10.19	34.14	2.11	500	7.00	34.49	0.31	27.04	103	1.00
249	9.98	34.41	1.27							
293	9.20	34.39	1.13							
396	7.95	34.42	0.68							
462p	7.36	34.48	0.32							
562	6.34	34.49	0.30							

123.37

CREST; August 12, 1953; 0843 GCT; 27°24'N, 114°40'W; sounding, 43 fm; wind, 300°, force 2; weather, missing; sea, moderate; wire angle, 00°.

0	14.29	33.66	6.08	0	14.29	33.66	6.08	25.11	286	0.00
10	14.16	33.67	6.22	10	14.16	33.67	6.22	25.15	282	0.03
20	13.61	33.62	5.35	20	13.61	33.62	5.35	25.22	276	0.06
30	13.02	34.04	2.10	30	13.02	34.04	2.10	25.67	233	0.08
50	13.12	34.26	0.42	50	13.12	34.26	0.42	25.82	219	0.13
75	13.00	34.31	0.28	75	13.00	34.31	0.28	25.88	213	0.18

123.40

CREST; August 12, 1953; 0650 GCT; 27°15.5'N, 114°50.5'W; sounding, 175 fm; wind, 300°, force 4; weather, cloudy; sea, rough; wire angle, 20°.

0	14.34	33.69		0	14.34	33.69		25.12	285	0.00
9	14.32	33.72		10	14.32	33.72		25.15	282	0.03
23	14.29	33.72		20	14.30	33.72		25.16	281	0.06
46	12.14	33.56		30	14.28	33.71		25.18	280	0.08
70	12.56	34.17		50	11.87	33.56		25.52	247	0.14
94	12.73	34.39		75	12.68	34.26		25.90	211	0.20
143	12.26	34.52		100	12.71	34.41		26.01	201	0.25
188	11.56	34.70		150	12.17	34.56		26.23	180	0.34
233	10.91	34.61		200	11.39	34.69		26.48	156	0.43

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

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CREST; August 12, 1953; 0016 GCT; 26°58'N, 115°30.5'W; sounding, 1750 fm; wind, 340°, force 4;
weather, partly cloudy; sea, moderate; wire angle, 45°.

123.50

0	17.74	33.49		0	17.74	33.49		24.20	373	0.00
6	17.66	33.53		10	17.58	33.52		24.26	367	0.04
19	17.34	33.51		20	17.31	33.51		24.32	361	0.07
28	17.18	33.51		30	17.10	33.51		24.37	357	0.11
42	15.63	33.48		50	14.40	33.29		24.80	316	0.18
52	13.91	33.26		75	12.26	33.28		25.23	275	0.25
67	12.32	33.25		100	11.42	33.63		25.65	235	0.32
84	12.18	33.52		150	10.28	34.24		26.33	170	0.42
102	11.31	33.65		200	9.72	34.32		26.49	155	0.50
118	10.87	33.86		250	9.50	34.42		26.60	145	0.58
144	10.32	34.19		300	9.12	34.48		26.71	134	0.65
174	10.22	34.31		400	8.13	34.51		26.89	117	0.78
201	9.70	34.32								
266	9.42	34.44								
351	8.60	34.51								
443	7.72	34.51								

CREST; August 11, 1953; 0906 GCT; 26°54'N, 114°08'W; sounding, 53 fm; wind, 350°, force 3;
weather, clear; sea, rough; wire angle, 14°.

127.34

0	17.27	33.98		0	17.27	33.98		24.69	326	0.00
9	17.26	33.97		10	17.26	33.97		24.68	327	0.03
19	15.96	34.05		20	15.00	34.05		25.26	272	0.06
29	12.68	33.74		30	12.42	33.74		25.55	244	0.09
48	12.66	34.20		50	12.66	34.20		25.86	215	0.14
73	12.49	34.22		75	(12.47)	(34.22)		(25.91)	(210)	(0.19)

CREST; August 11, 1953; 1222 GCT; 26°42'N, 114°28.5'W; sounding, 1650 fm; wind, 320°, force 5;
weather, overcast; sea, rough; wire angle, 42°.

127.40

0	17.72	33.62		0	17.72	33.62		24.30	363	0.00
7	17.68	33.61		10	17.63	33.60		24.31	362	0.04
15	17.46	33.58		20	16.50	33.56		24.55	340	0.07
25	14.60	33.54		30	14.00	33.48		25.03	294	0.10
39	13.22	33.45		50	12.34	33.55		25.42	257	0.16
50	12.34	33.55		75	11.78	33.92		25.81	220	0.22
61	11.85	33.51		100	12.45	34.45		26.09	193	0.27
75	11.78	33.92		150	11.92	34.68		26.37	166	0.36
88	12.44	34.41		200	11.42	34.74		26.52	152	0.44
107	12.46	34.48		250	10.73	34.66		26.58	146	0.52
140	12.02	34.64		300	10.05	34.62		26.67	138	0.60
180	11.68	34.76		400	8.80	34.60		26.86	120	0.73
216	11.20	34.71		500	(7.40)	(34.52)		(27.01)	(106)	(0.85)
303	10.00	34.62								
396	8.86	34.60								
496	7.47	34.52								

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

127.50 CREST; August 11, 1953; 1744 GCT; 26°18.5'N, 115°07'W; sounding, 1750 fm; wind, 320°, force 3; weather, overcast; sea, rough; wire angle, 18°.

0	20.76	33.73		0	20.76	33.73		23.61	429	0.00
9	20.75	33.69		10	20.75	33.69		23.59	431	0.04
23	18.68	33.66		20	20.74	33.67		23.57	433	0.09
38	14.40	33.60		30	16.80	33.61		24.52	342	0.12
57	12.27	33.67		50	12.87	33.62		25.37	262	0.19
69	11.70	33.86		75	11.47	33.88		25.84	217	0.25
86	11.10	33.91		100	10.49	34.01		26.12	190	0.30
108	10.22	34.04		150	9.77	34.22		26.40	164	0.39
135	9.89	34.14		200	9.23	34.32		26.57	148	0.47
161	9.67	34.26		250	8.88	34.37		26.66	139	0.54
214	9.09	34.33		300	8.53	34.47		26.80	126	0.61
267	8.80	34.40		400	7.58	34.47		26.94	112	0.73
320	8.35	34.49		500	6.71	34.40		27.01	106	0.85
423	7.36	34.45		600	5.97	34.42		27.12	95	0.96
532	6.46	34.39								
643	5.66	34.45								

130.30 CREST; August 11, 1953; 0309 GCT; 26°29'N, 113°29'W; sounding, 40 fm; wind, 310°, force 4; weather, clear; sea, rough; wire angle, 12°.

0	18.39	34.03		0	18.39	34.03		24.45	349	0.00
9	18.22	33.98		10	18.19	33.98		24.46	348	0.04
19	17.58	33.96		20	15.25	33.96		25.14	283	0.07
29	13.74	33.91		30	13.74	33.91		25.42	257	0.09
48	13.78	34.28		50	13.77	34.29		25.71	229	0.14
72	13.51	34.31								

130.35 CREST; August 11, 1953; 0027 GCT; 26°20.5'N, 113°49'W; sounding, 145 fm; wind, 300°, force 4; weather, clear; sea, moderate; wire angle, 23°.

0	17.61	32.84r		0	17.61	(33.72)		(24.41)	(353)	(0.00)
8	16.88	33.68		10	16.70	33.67		24.58	337	0.03
23	15.44	33.55		20	15.73	33.59		24.74	321	0.07
45	12.60	33.46		30	14.75	33.50		24.89	307	0.10
69	11.13	33.62		50	11.80	33.46		25.45	254	0.16
91	12.59	34.41		75	11.24	34.02 <i>3374</i>		25.99	202	0.21
139	12.46	34.59		100	12.58	34.45		26.07	195	0.26
182	11.80	34.71		150	12.32	34.64		26.27	176	0.36
222	11.31	34.69		200	11.59	34.71		26.46	158	0.44

130.40 CREST; August 10, 1953; 2036, 2110 GCT; 26°09'N, 114°08'W; sounding, 1200 fm; wind, 340°, force 5; weather, partly cloudy; sea, rough; wire angle, 22°, 23°.

0	21.12	33.71	5.38	0	21.12	33.71	5.38	23.50	440	0.00
9	21.08	33.64	5.51	10	21.07	33.62 <i>64</i>	5.56	23.45	444	0.04
28	16.44	33.47	6.13	20	21.02	33.49 <i>63</i>	6.04	23.36	453	0.09
55	13.88	33.57	5.84	30	16.26	33.47	6.14	24.53	341	0.13
83	11.62	33.50	4.49	50	14.38	33.56	5.99	25.02	295	0.19
108	10.74	33.80	3.51	75	12.65	33.51	4.85	25.33	265	0.26
160	10.74	34.24	1.54	100	10.97	33.65	3.90	25.75	225	0.32
				150	10.57	34.15	1.58	26.21	182	0.43
195	9.36	34.61r	2.24	200	9.35	34.18	2.21	26.45	159	0.52
242	9.96	34.51	0.79	250	9.95	34.54	0.68	26.63	142	0.59
290	9.68	34.60	0.35	300	9.58	34.60	0.32	26.73	132	0.67
380	8.66	34.58	0.25	400	8.35	34.56	0.25	26.90	116	0.80
477	7.34	34.50	0.25	500	7.11	34.50	0.24	27.03	104	0.91
574	6.49	34.51	0.21	600	6.28	34.51	0.22	27.15	92	1.02
776	4.96	34.48	0.29	700	5.48	34.49	0.24	27.24	84	1.12
975	4.18	34.53	0.59	800	4.83	34.48	0.32	27.30	78	1.21
1171	3.66	34.50	0.88	1000	4.11	34.53	0.62	27.42	67	1.37

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

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CREST; August 10, 1953; 1455 GCT; 25°49'N, 114°44.5'W; sounding, 1950 fm; wind, 340°, force 5; weather, cloudy; sea, rough; wire angle, 21°.

130.50

0	20.49	33.66		0	20.49	33.66		23.63	427	0.00
9	20.47	33.69		10	20.47	33.69		23.66	424	0.04
18	20.46	33.66		20	20.44	33.65		23.64	426	0.08
33	18.03	33.58		30	19.60	33.60		23.82	409	0.13
51	15.90	33.42		50	15.93	33.42		24.57	338	0.20
65	15.20	33.57		75	13.65	33.43		25.07	290	0.28
79	13.41	33.43		100	12.06	33.57		25.49	250	0.35
100	12.06	33.57		150	11.29	34.15		26.08	194	0.46
120	10.88	33.82		200	9.55	34.22		26.44	160	0.55
144	11.32	34.13		250	8.84	34.29		26.61	144	0.63
190	9.78	34.21		300	8.54	34.42		26.76	129	0.70
240	8.90	34.24		400	7.69	34.43		26.89	117	0.83
282	8.68	34.42		500	6.94	34.53		27.08	099	0.95
382	7.82	34.41		600	(6.06)	(34.45)		(27.13)	(94)	(1.05)
478	7.12	34.54								
580	6.25	34.46								

CREST; August 10, 1953; 1005 GCT; 25°29.5'N, 115°21'W; sounding, 2000+ fm; wind, 320°, force 5; weather, clear; sea, rough; wire angle, 25°.

130.60

0	20.72	33.68	5.90	0	20.72	33.68	5.90	23.59	431	0.00
9	20.68	33.72	5.46	10	20.67	33.72	5.46	23.63	427	0.04
23	18.55	33.58	5.91	20	20.10	33.64	5.59	23.72	419	0.08
49	15.76	33.54	6.75	30	17.80	33.57	6.40	24.25	368	0.12
73	13.90	33.46	6.21	50	15.70	33.54	6.73	24.71	324	0.19
100	12.02	33.69	3.72	75	13.95	33.46	6.20	25.03	294	0.27
147	11.44	34.27	1.39	100	12.02	33.69	3.72	25.59	240	0.34
192	10.36	34.33	1.35	150	11.44	34.28	1.37	26.15	187	0.45
240	9.75	34.44	1.03	200	10.25	34.35	1.32	26.42	162	0.54
279	9.20	34.45	0.53	250	9.60	34.44	0.90	26.60	145	0.62
371	8.26	34.48	0.41	300	8.98	34.46	0.49	26.72	133	0.69
459	7.24	34.43	0.29	400	7.92	34.46	0.37	26.88	118	0.82
551	6.40	34.50	0.25	500	6.85	34.46	0.25	27.04	103	0.94
734	5.14	34.54	0.30	600	6.02	34.52	0.25	27.19	89	1.04
925	4.36	34.52	0.39	700	5.36	34.54	0.38	27.29	79	1.13
1118	3.74	34.59	0.69	800	4.82	34.53	0.32	27.35	74	1.22
				1000	4.10	34.54	0.48	27.43	66	1.38

CREST; August 9, 1953; 1559 GCT; 26°05'N, 112°48'W; sounding, 45 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 05°.

133.25

0	20.28	34.04		0	20.28	34.04		23.98	394	0.00
10	19.58	33.97		10	19.58	33.97		24.11	382	0.04
20	14.32	33.76		20	14.32	33.76		25.18	280	0.07
30	13.34	33.86		30	13.34	33.86		25.46	253	0.10
50	12.94	34.14		50	12.94	34.14		25.76	224	0.15
75	13.64	34.48		75	13.64	34.48		25.88	213	0.20

CREST; August 9, 1953; 1819 GCT; 25°55'N, 113°07.5'W; sounding, 106 fm; wind, 310°, force 4; weather, partly cloudy; sea, moderate; wire angle, 05°.

133.30

0	19.97	33.83		0	19.97	33.83		23.90	402	0.00
10	19.79	33.88		10	19.79	33.88		23.98	394	0.04
25	15.37	33.53		20	17.75	33.54		24.24	369	0.08
50	13.43	33.69		30	14.95	33.53		24.87	309	0.11
73	12.78	34.11		50	13.43	33.69		25.31	267	0.17
97	13.21	34.34		75	12.77	34.14		25.79	222	0.23
122	12.82	34.50		100	13.21	34.37		25.88	213	0.29
149	12.32	34.59		150	(12.30)	(34.59)		26.23	(180)	0.39

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

13340

CREST; August 9, 1953; 2334, 0009 GCT; 25°34'N, 113°42'W; sounding, 1550 fm; wind, 300°, force 4; weather, partly cloudy; sea, rough; wire angle, 10°, 15°.

0	21.49	33.72		0	21.49	33.72		23.41	448	0.00
9	21.39	33.72		10	21.36	33.72		23.44	445	0.04
19	20.82	33.76		20	20.70	33.76		23.65	425	0.09
34	18.77	33.77		30	19.37	33.77		24.01	391	0.13
54	16.96	33.68		50	17.35	33.68		24.44	350	0.20
68	16.16	33.70		75	15.60	33.69		24.85	311	0.29
83	14.87	33.56		100	12.72	33.46		25.28	270	0.36
106	12.01	33.45		150	10.53	34.02		26.12	190	0.48
128	10.47	33.69		200	10.92	34.52		26.44	160	0.57
154	10.56	34.09		250	10.39	34.56		26.56	148	0.65
202	10.88	34.52		300	9.81	34.60		26.69	136	0.72
				400	8.50	34.54		26.86	120	0.86
250	10.39	34.56		500	7.43	34.55		27.02	105	0.98
295	9.88	34.60		600	6.47	34.52		27.13	94	1.08
400	8.50	34.54								
501	7.41	34.55								
605	6.42	34.52								

13723

CREST; August 9, 1953; 0708 GCT; 25°34'N, 112°18.5'W; sounding, 40 fm; wind, 310°, force 2; weather, clear; sea, slight; wire angle, 04°.

0	21.53	34.07		0	21.53	34.07		23.66	424	0.00
10	20.10	34.11		10	20.10	34.11		24.08	384	0.04
20	18.12	34.34		20	18.12	34.34		24.76	320	0.08
30	17.06	34.51		30	17.06	34.51		25.14	283	0.11
50	16.00	34.56		50	16.00	34.56		25.43	256	0.16

13730

CREST; August 9, 1953; 1033 GCT; 25°18'N, 112°49'W; sounding, 230 fm; wind, 290°, force 2; weather, missing; sea, moderate; wire angle, 03°.

0	22.56	34.22		0	22.56	34.22		23.49	441	0.00
10	22.55	34.07		10	22.55	34.07		23.38	451	0.04
25	15.12	33.73		20	18.00	33.74		24.33	360	0.08
50	13.48	34.04		30	14.58	33.74		25.11	286	0.12
74	12.96	34.32		50	13.48	34.04		25.57	242	0.17
98	13.16	34.54		75	12.96	34.32		25.89	212	0.23
149	12.46	34.64		100	13.14	34.55		26.04	198	0.28
194	11.91	34.64		150	12.44	34.64		26.24	179	0.38
				200	(11.87)	(34.64)		(26.35)	(164)	(0.46)

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