

UNIVERSITY OF CALIFORNIA    SCRIPPS INSTITUTION OF OCEANOGRAPHY

# data report

PHYSICAL AND CHEMICAL DATA

CCOFI Cruise 5503  
(MLR 70)  
8-22 March 1955

and

CCOFI Cruise 5504  
(MLR 71)  
5-22 April 1955

SIO Reference 59-37  
1 May 1959

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Sponsored by  
Marine Research Committee

SIO Reference 59-37  
1 May 1959

Approved for distribution:



Roger Revelle, Director

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## INTRODUCTION

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

The data are tabulated at observed depths, and 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; however, the data contained in this report have been carefully edited and no modifications should be necessary before final publication.

## STANDARD PROCEDURES

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

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

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<sup>1/</sup>

Klein, Hans T. A new technique for processing physical oceanographic data. MS.

## FOOTNOTES

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

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

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

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

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

In addition to 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.

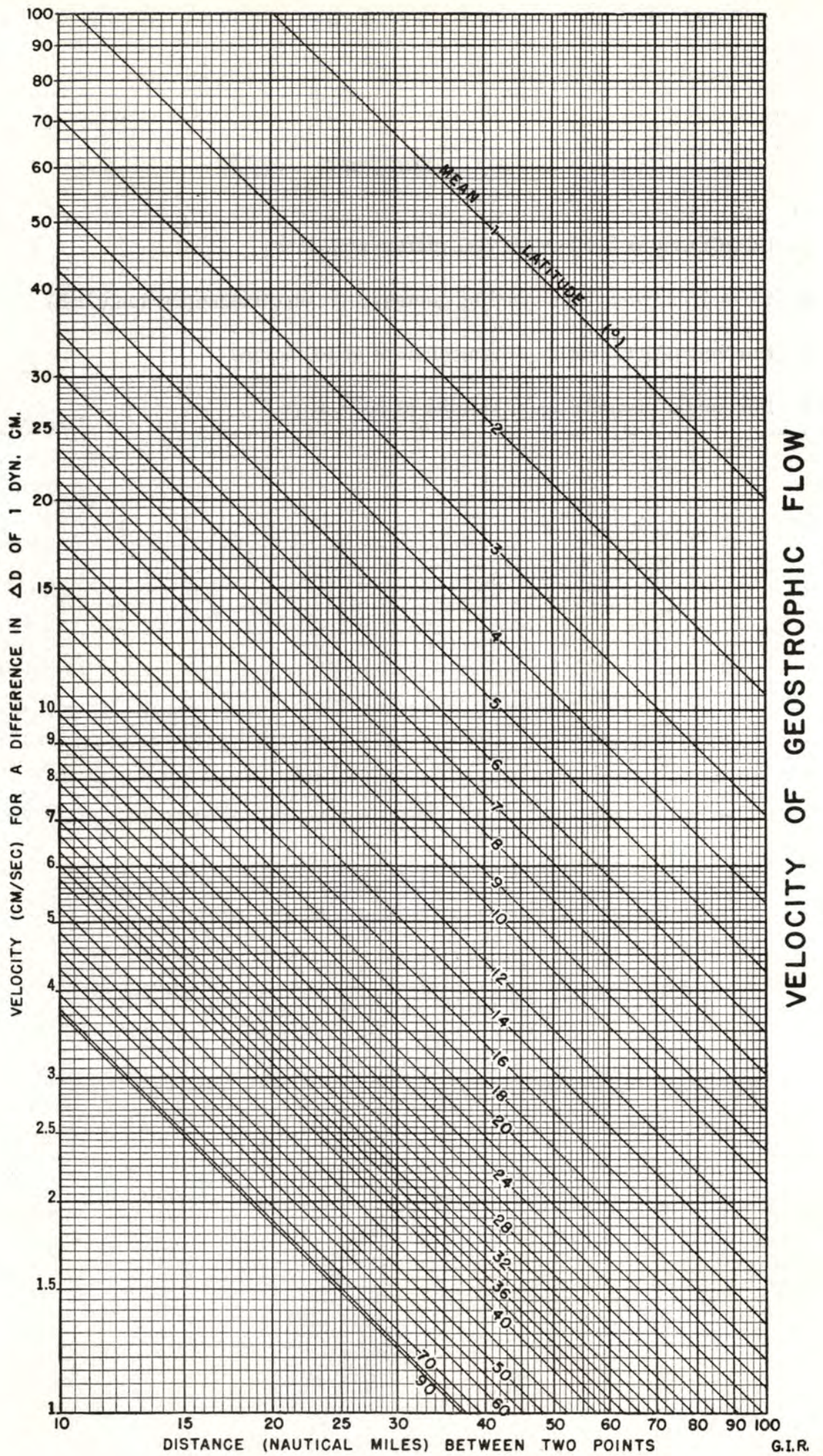
Values which are not drawn through because they seem to be in error without apparent reason are indicated by one of the following notations.

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 1955 volume, the first page of the Cruise 5503 data is numbered 48 and the first page of the Cruise 5504 is numbered 56.



## FIGURES

1. CCOFI Cruise 5504 (MLR 71), station positions
2. Horizontal distribution of dynamic height anomaly (0 over 500 d-bar)
3. Surface currents measured by geomagnetic electrokinetograph (GEK)
4. Horizontal distribution of temperature at 10 meters
5. Horizontal distribution of salinity at 10 meters
6. Horizontal distribution of temperature at 200 meters
7. Horizontal distribution of salinity at 200 meters

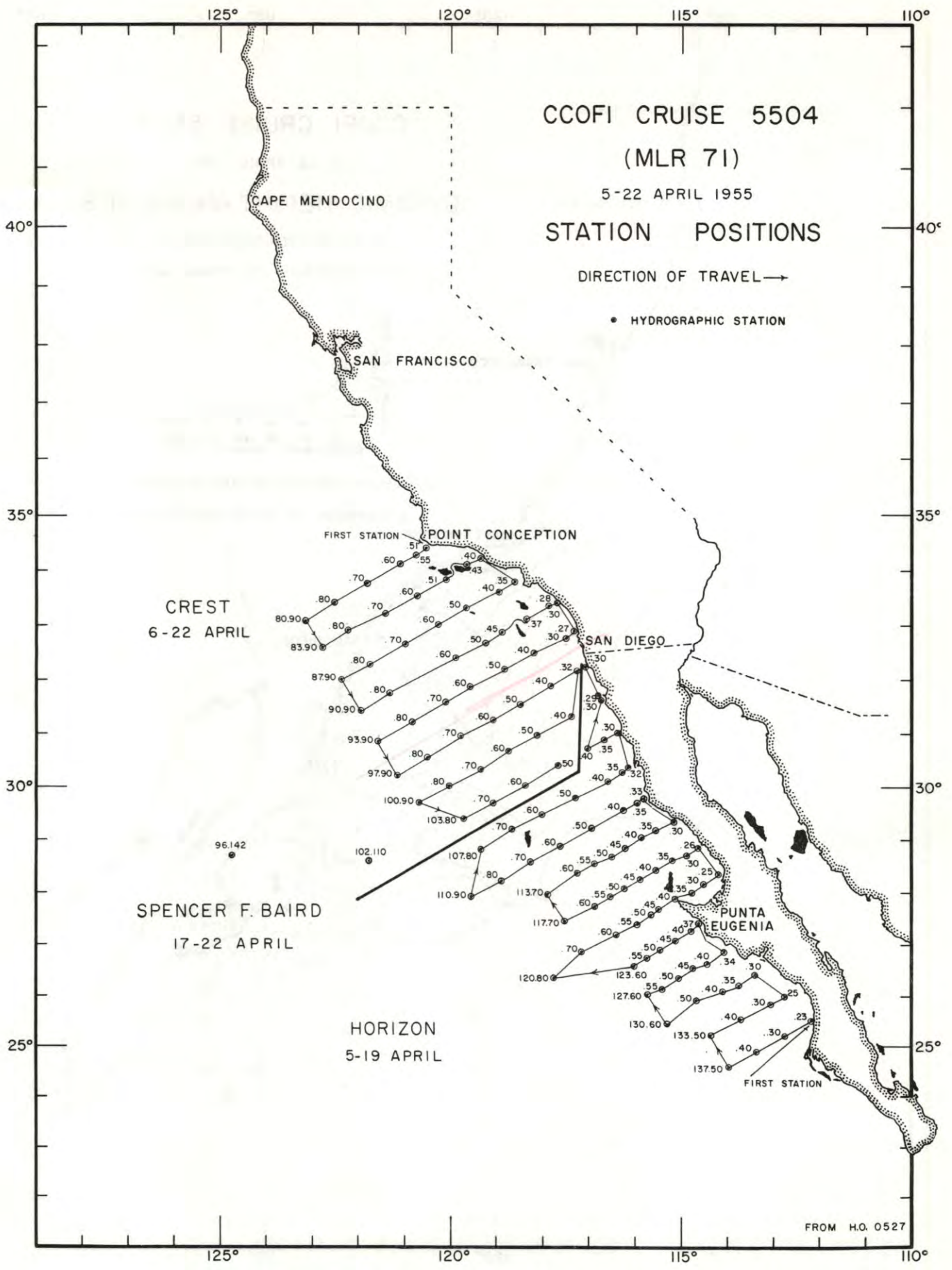


FIGURE 1



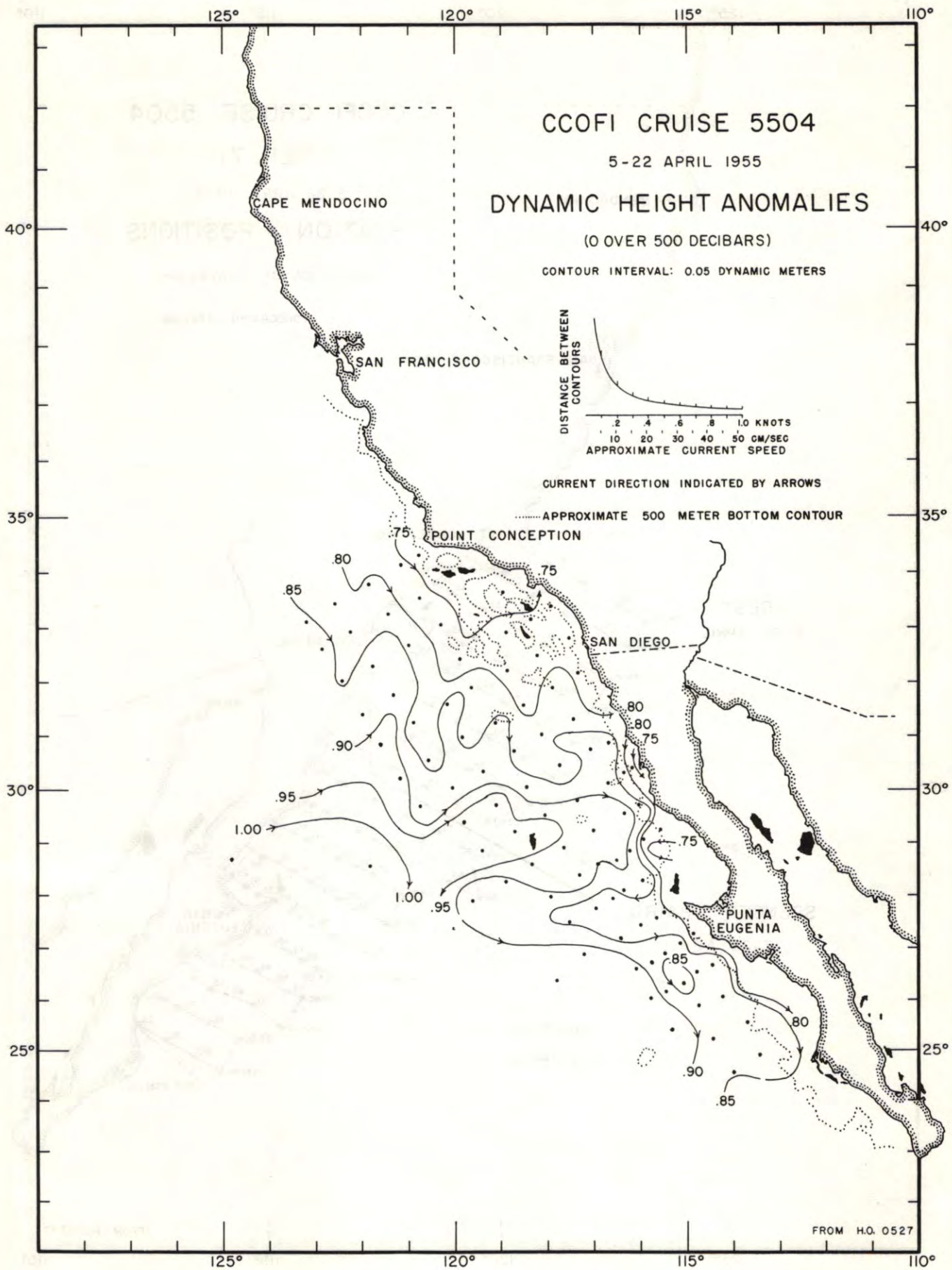


FIGURE 2

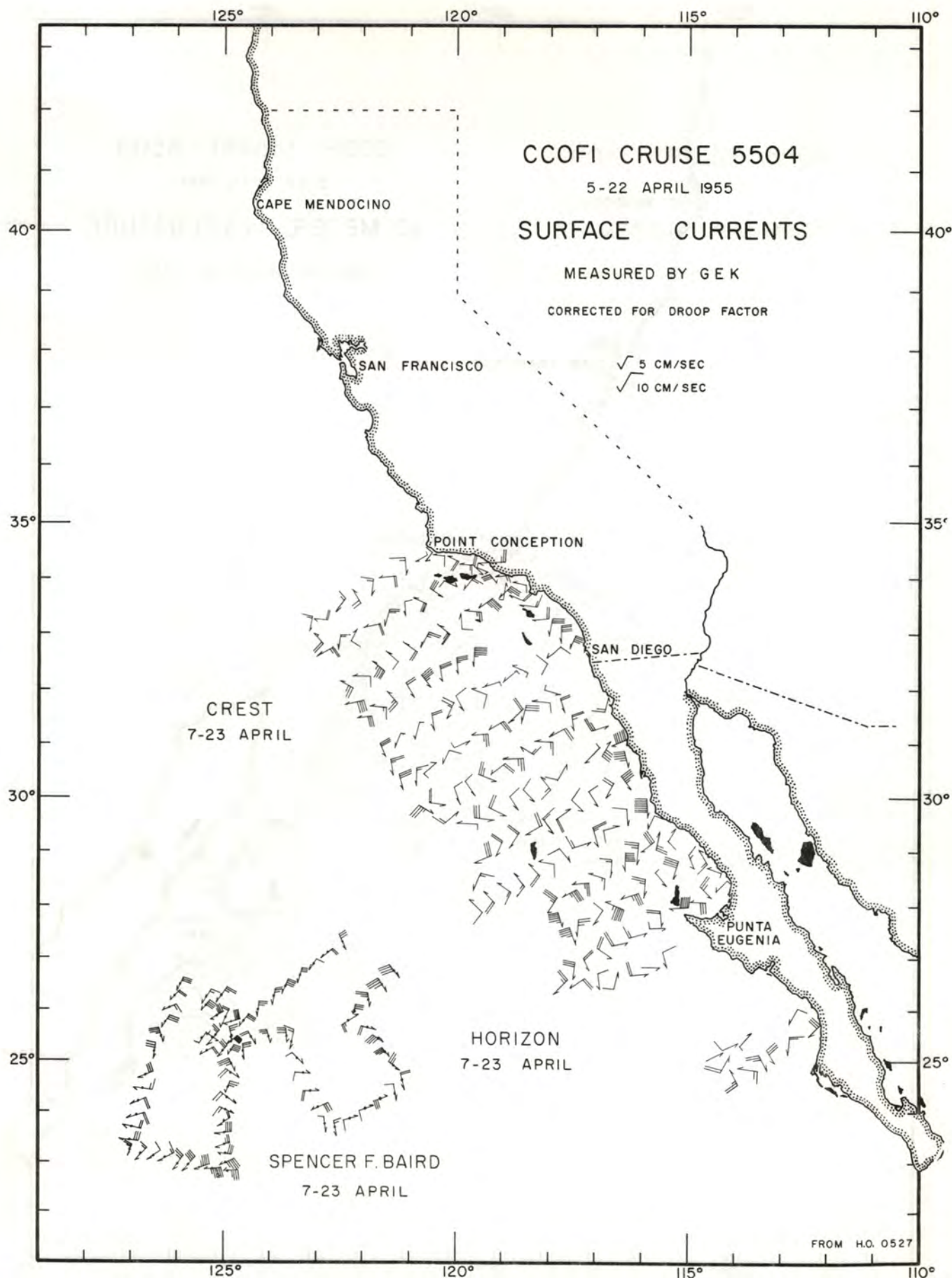


FIGURE 3

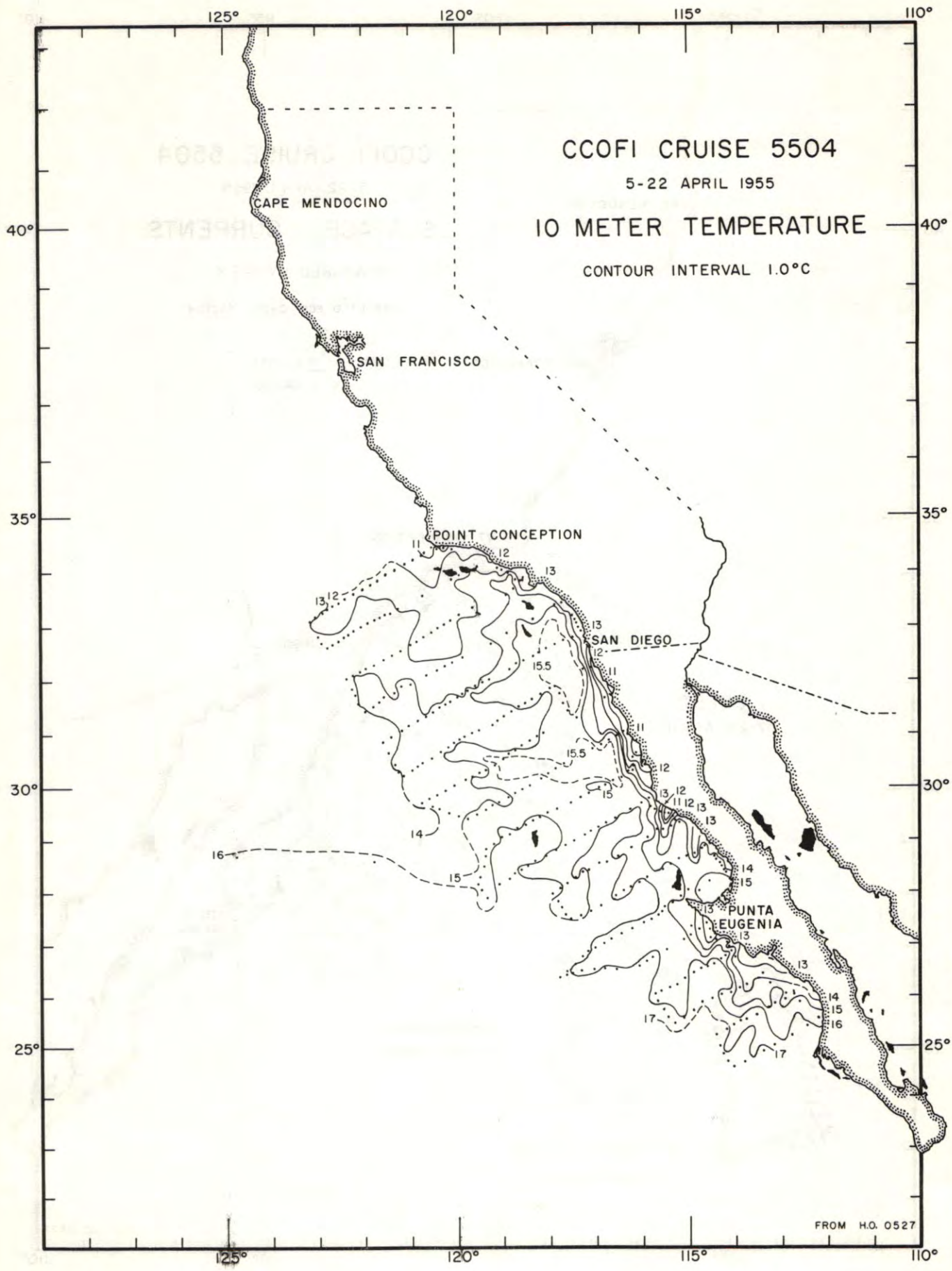


FIGURE 4

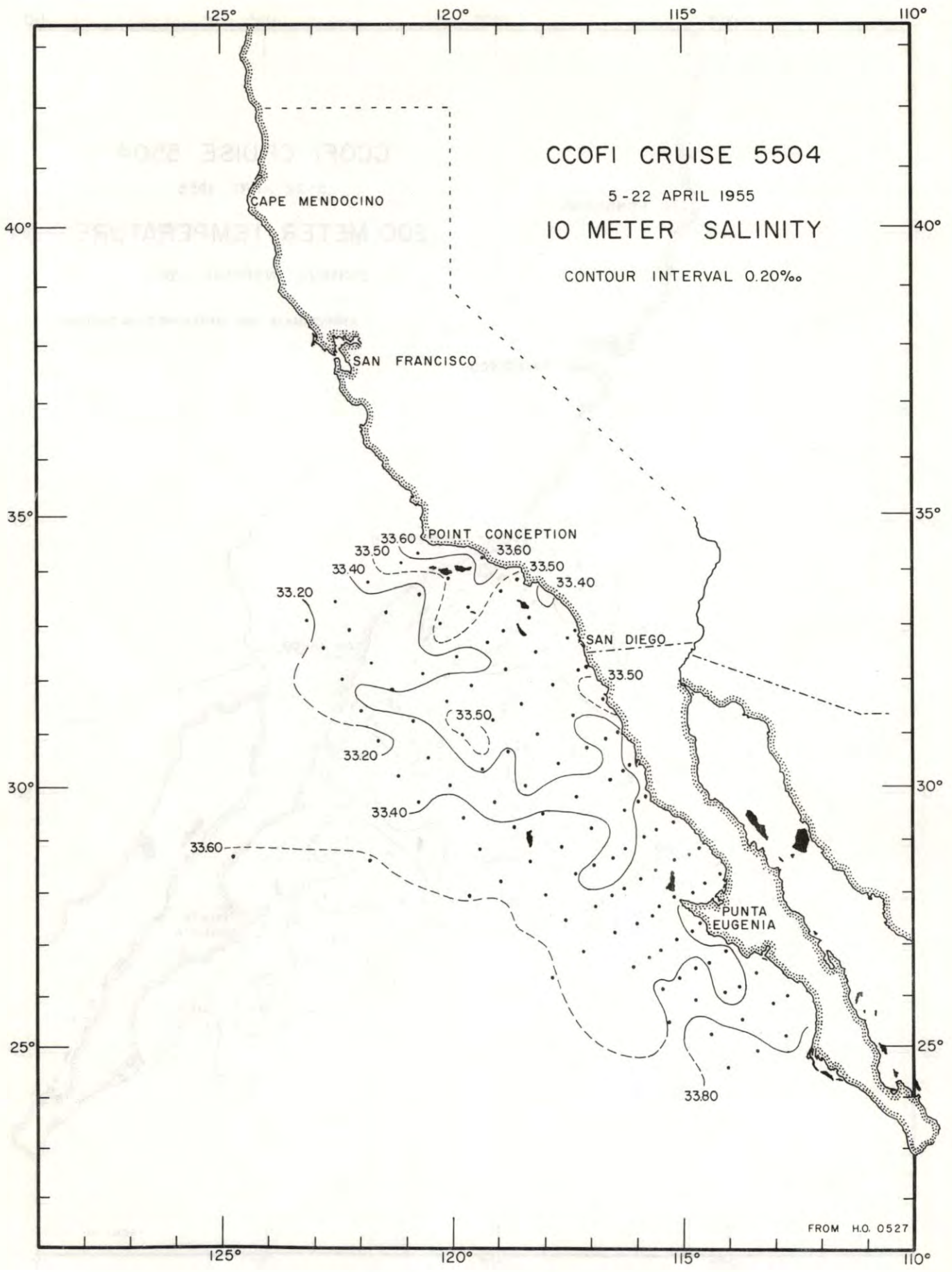


FIGURE 5

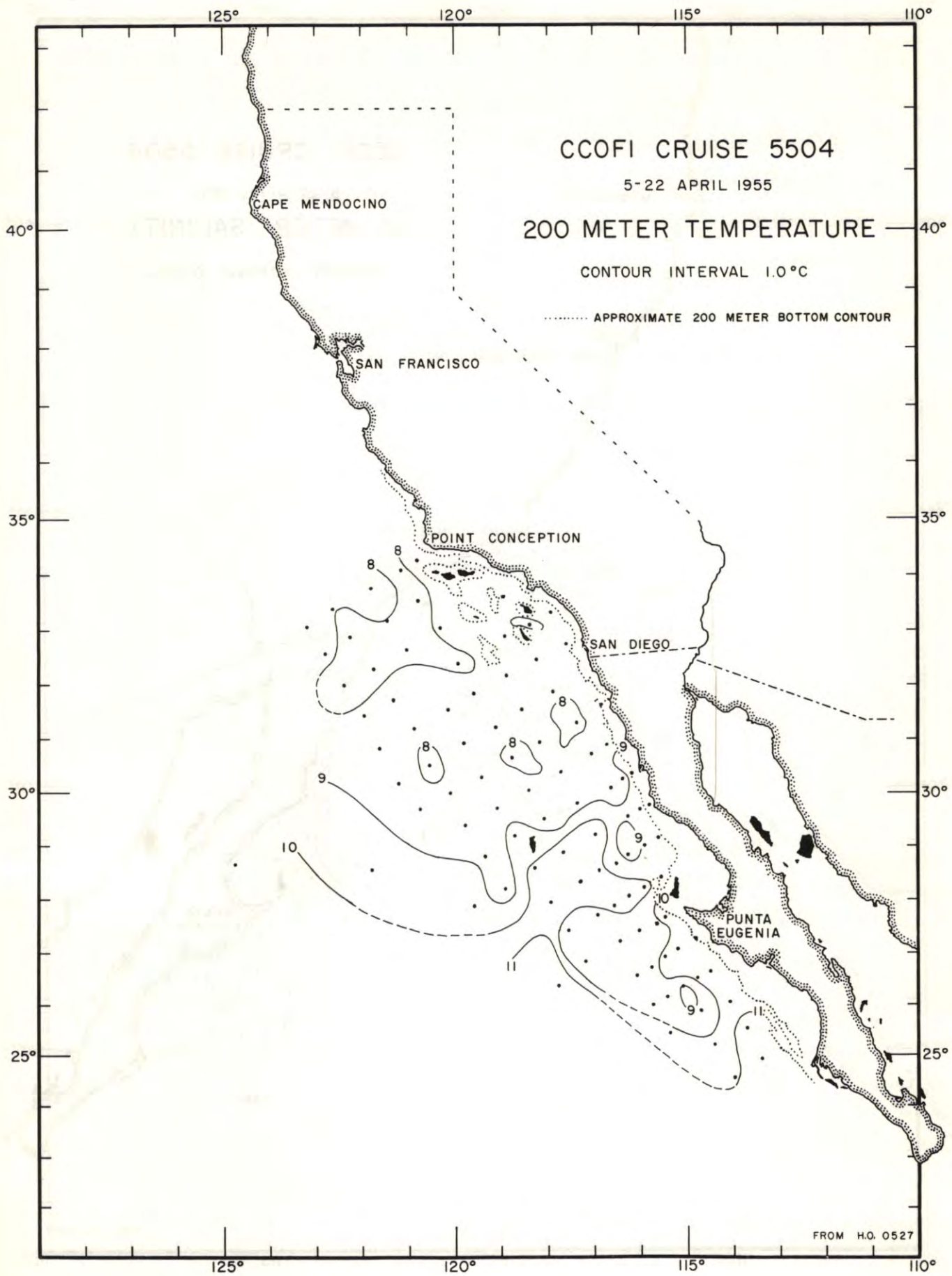


FIGURE 6

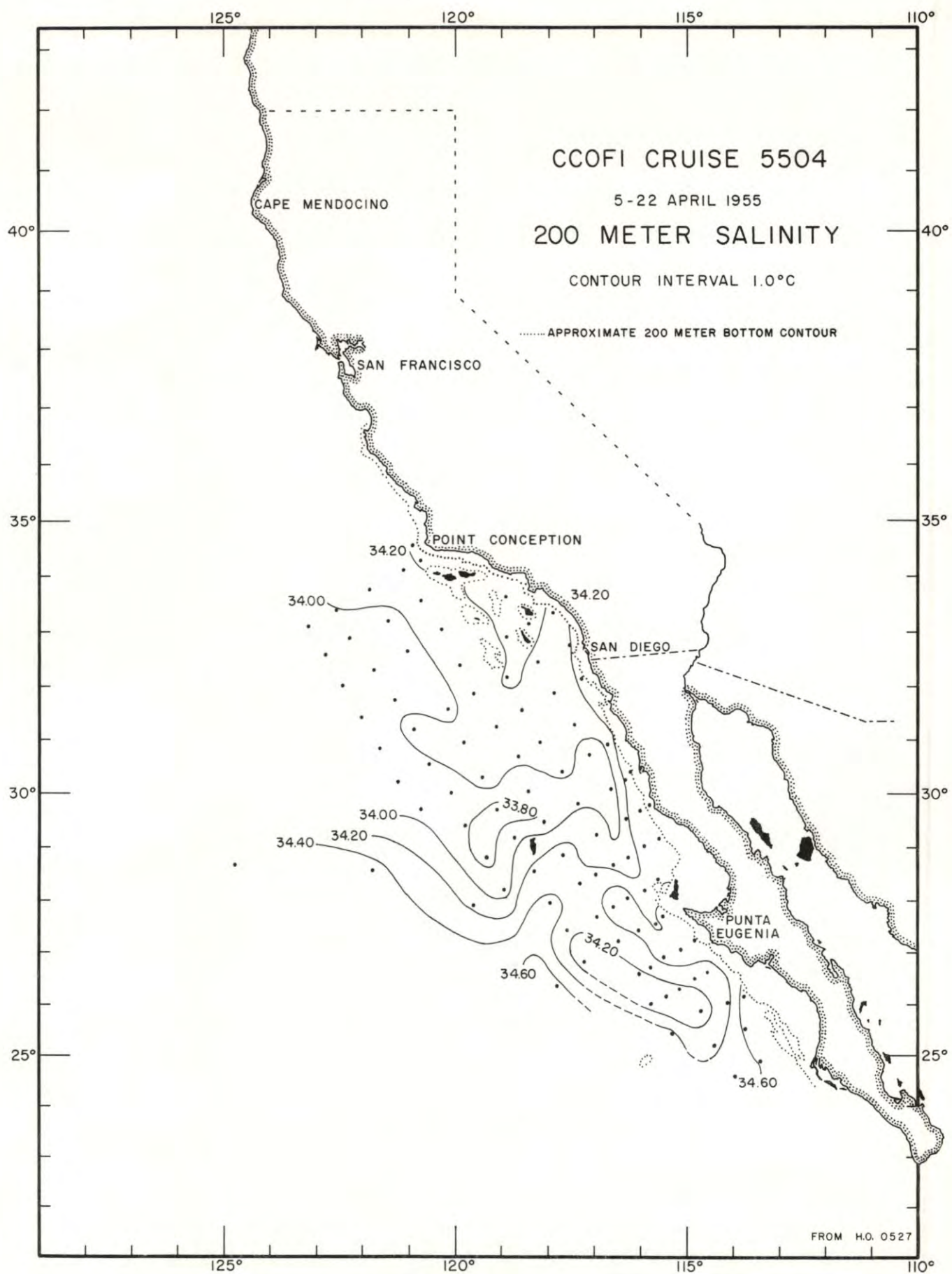


FIGURE 7

PERSONNEL  
Cruise 5504

SHIPS' CAPTAINS

Hopkins, Marvin F., R/V Horizon  
Newbegin, Robert C., R/V Crest  
Wyatt, Vernon H., R/V Spencer F. Baird

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

R/V Crest

Worrall, Charles G., Senior Marine Technician  
Brennan, Robert E., Marine Technician  
Fletcher, Kenneth H., Marine Technician  
Hapgood, William F., Fishery Aid, U. S. Fish and Wildlife Service

R/V Horizon

Schwartzlose, Richard A., Senior Marine Technician  
Bryer, Bruce A., Marine Technician  
Reith, A. Dougall, Marine Technician  
Watson, Frank W., Fishery Aid, U. S. Fish and Wildlife Service

R/V Spencer F. Baird

Smith, Alan C., Senior Marine Technician  
Brown, Daniel M., Marine Technician  
Holmes, Robert W., Junior Research Biologist  
Horrer, Paul L., Assistant Research Oceanographer  
Scott, William W., Research Assistant

S10  
CCOFI  
5504

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

80.51 CREST; April 7, 1955; 2350 GCT; 34°25.5'N, 120°32'W; sounding, 90 fm; wind, 300°, force 6; weather, partly cloudy; sea, moderate; wire angle, 11°.

0	10.17	33.83	4.28	198	0	10.17	33.83	4.28	26.03	198	0.00
5	10.18	33.81	4.17	200	10	10.13	33.83	4.10	26.04	198	0.02
15	10.07	33.85	4.02	196	20	10.10	33.83	4.00	26.04	198	0.04
25	10.11	33.81	3.95	199	30	10.10	33.82	3.88	26.04	198	0.06
35	10.07	33.83	3.83	198	50	9.84	33.86	3.36	26.10	192	0.10
50	9.84	33.86	3.36	192	75	9.22	33.95	1.99	26.28	175	0.14
69	9.30	33.94	2.07	177	100	(9.15)	(33.97)	(1.80)	(26.31)	(172)	(0.19)
93	9.16	33.96	1.82	173							

80.55 CREST; April 8, 1955; 0302 GCT; 34°18'N, 120°46.5'W; sounding, 450 fm; wind, 330°, force 5; weather, cloudy; sea, rough; wire angle, 20°.

0	11.5	33.63	5.34	236	0	11.5	33.63	5.34	25.64	236	0.00
10	11.50	33.65	5.27	234	10	11.50	33.65	5.27	25.65	234	0.02
29	10.96	33.71	4.52	220	20	11.29	33.68	4.90	25.72	228	0.05
38	10.14	33.74	3.27	205	30	10.90	33.71	4.50	25.81	219	0.07
47	9.90	33.86	2.82	192	50	9.78	33.87	2.63	26.13	189	0.11
57	9.55	33.88	2.37	185	75	9.21	33.97	2.18	26.30	173	0.16
66	9.30	33.96	2.24	176	100	8.97	34.05	1.85	26.40	163	0.20
75	9.21	33.97	2.18	173	150	8.64	34.20	1.58	26.56	148	0.28
84	9.01	34.01	2.03	167	200	8.27	34.22	1.21	26.64	141	0.35
92	9.00	34.01	2.06	167	250	8.08	34.23	1.51	26.69	136	0.42
109	8.90	34.09	1.81	160	300	7.88	34.25	1.02	26.73	132	0.49
132	8.78	34.11	1.77	156	400	7.13	34.29	0.75	26.86	120	0.62
150	8.64	34.20	1.58	148	500	(6.10)	(34.32)		(27.02)	(104)	(0.74)
187	8.36	34.22	1.28	142							
225a)	8.19	34.23	1.14	140							
354	7.54	34.27	0.92	127							
469	6.43	34.31	0.51	109							

80.60 CREST; April 8, 1955; 0651 GCT; 34°09'N, 121°09'W; sounding, 1150 fm; wind, 340°, force 5; weather, partly cloudy; sea, moderate; wire angle, 20°.

0	11.4	33.55	5.55	240	0	11.4	33.55	5.55	25.60	240	0.00
10	11.36	33.55	5.60	239	10	11.36	33.55	5.60	25.60	239	0.02
28	11.30	33.55	5.50	238	20	11.34	33.55	5.55	25.61	239	0.05
38	11.16	33.60	5.01	232	30	11.27	33.55	5.30	25.61	238	0.07
47	11.04	33.62	4.86	229	50	10.93	33.61	4.65	25.73	228	0.12
56	10.67	33.58	4.28	226	75	9.95	33.62	3.64	25.91	210	0.17
66	10.38	33.68	3.87	213	100	9.12	33.79	2.98	26.18	185	0.22
74	9.96	33.62	3.64	210	150	8.50	34.01	2.25	26.44	160	0.31
83	9.69	33.68	3.26	202	200	7.99	34.06	2.00	26.57	148	0.39
92	9.36	33.76	2.96	191	250	7.70	34.16	1.35	26.68	137	0.46
110	8.96	33.83	3.00	179	300	7.36	34.20	1.12	26.77	129	0.53
133	8.54	33.95	2.30	165	400	6.65	34.26	0.89	26.91	115	0.65
152	8.48	34.01	2.21	160	500	(6.18)	(34.31)		(27.01)	(106)	(0.77)
188	8.01	34.04	2.10	150							
263	7.60	34.18	1.26	134							
361	6.90	34.24	0.98	120							
477	6.26	34.30	0.47	108							

a) Alternate depth, 257 meters, rejected.



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

CREST; April 8, 1955; 1303 GCT; 33°47.5'N, 121°49.5'W; sounding, 1940 fm; wind, 340°, force 5; weather, partly cloudy; sea, moderate; wire angle, 24°.

80.70

0	12.3	33.46	6.08	263	0	12.3	33.46	6.08	25.35	263	0.00
9	12.22	33.46	6.08	261	10	12.21	33.46	6.07	25.38	261	0.03
23	12.06	33.45	5.91	259	20	12.10	33.45	5.98	25.39	260	0.05
45	11.86	33.47	5.81	254	30	11.99	33.46	5.89	25.42	257	0.08
55	11.86	33.44	5.78	256	50	11.84	33.47	5.80	25.44	255	0.13
63	11.84	33.45	5.75	255	75	11.64	33.43	5.38	25.46	253	0.19
72	11.74	33.43	5.49	255	100	9.89	33.59	3.46	25.89	212	0.25
88	10.52	33.48	4.27	230	150	9.10	33.93	2.48	26.29	174	0.35
110	9.62	33.70	3.02	200	200	8.43	34.05	2.10	26.49	156	0.43
135	9.28	33.88a)	2.58	181	250	7.94	34.14	1.48	26.64	141	0.51
177	8.74	34.00	2.33	164	300	7.48	34.21	1.10	26.75	131	0.58
237	8.03	34.13	1.59	144	400	6.78	34.26	0.68	26.90	117	0.70
327	7.30	34.23	0.92	126	500	6.10	34.30	0.45	27.01	106	0.82
442	6.44	34.28	0.56	112	600	5.58	34.33	0.35	27.11	97	0.93
611	5.49	34.34	0.33	95	700	5.01	34.37	0.36	27.20	88	1.02
820	4.54	34.42	0.41	79	800	4.60	34.41	0.40	27.28	80	1.12
1112	3.66	34.52	0.65	63	1000	4.00	34.48	0.55	27.39	70	1.28

CREST; April 8, 1955; 1916, 1949 GCT; 33°26.5'N, 112°31'W; sounding, 2000+ fm; wind, 290°, force 5; weather, partly cloudy; sea, rough; wire angle, 20°, 30°.

80.80

0	12.7	33.28	5.25	283	0	12.7	33.28	5.25	25.14	283	0.00
10	12.47	33.28	6.07	279	10	12.47	33.28	6.07	25.18	279	0.03
24	12.29	33.33	6.04	272	20	12.35	33.31	6.05	25.23	275	0.06
47	12.13	33.29	6.10	272	30	12.22	33.31	6.04	25.26	272	0.08
58	12.15	33.29	6.07	272	50	12.12	33.29	6.08	25.26	272	0.14
67	12.17	33.30	6.17	272	75	12.15	33.30	6.13	25.26	272	0.20
77	12.15	33.30	6.13	272	100	9.88	33.25	4.96	25.63	237	0.27
95	10.28	33.22	5.26	246	150	8.55	33.82	3.15	26.29	174	0.37
118	9.12	33.46	4.18	209	200	8.00	34.00	2.53	26.52	152	0.46
146	8.60	33.79	3.25	177	250	7.56	34.10	2.08	26.65	140	0.53
190	8.08	33.98	2.62	156	300	7.18	34.12	1.53	26.72	133	0.60
252	7.53	34.10	2.07	139	400	6.65	34.29	0.65	26.93	113	0.73
349	6.96	34.23	0.96	122	500	6.15	34.35	0.45	27.04	103	0.84
					600	5.58	34.38	0.32	27.14	93	0.94
327	7.00	34.14	1.21	129	700	4.98	(34.41)	0.33	(27.24)	(84)	(1.04)
441	6.44	34.32	0.53	108	800	4.60	(34.45)	0.34	(27.30)	(78)	(1.13)
608	5.48	34.38	0.32	93	1000	4.01	(34.49)	0.50	(27.40)	(68)	(1.29)
811	4.56	34.60u	0.36	-							
1097	3.78	34.52	0.67	64							

CREST; April 9, 1955; 0225, 0254 GCT; 33°07'N, 123°09.5'W; sounding, 2350 fm; wind, 330°, force 5; weather, partly cloudy; sea, rough; wire angle, 15°, 20°.

80.90

0	12.9	33.24	5.97	290	0	12.9	33.24	5.97	25.07	290	0.00
11	13.00	33.18	6.07	296	10	13.00	33.18	6.05	25.01	296	0.03
25	12.86	33.19	6.04	292	20	12.90	33.18	6.06	25.03	294	0.06
50	12.37	33.21b)	6.13	282	30	12.78	33.20	6.06	25.06	291	0.09
60	12.24	33.22	5.93	280	50	12.37	33.21	6.13	25.15	282	0.14
68	11.93	33.19	5.94	276	75	11.67	33.20	5.87	25.27	271	0.21
77	11.60	33.20	5.84	269	100	10.79	33.19	5.40	25.43	256	0.28
97	10.92	33.18	5.52	259	150	8.93	33.68	3.17	26.12	190	0.39
120	9.81	33.36	4.26	228	200	8.20	33.94	2.33	26.44	160	0.48
147	9.00	33.65	3.26	194	250	7.41	(34.07)	1.82	(26.65)	(140)	(0.56)
192	8.34	33.91	2.48	165	300	6.92	(34.12)	1.44	(26.76)	(129)	(0.63)
					400	6.18	(34.18)	0.94	(26.91)	(115)	(0.76)
241	7.54	34.06	1.90	142	500	5.59	34.24	0.58	27.03	104	(0.87)
342	6.56	34.26c)	1.24	-	600	5.01	34.31	0.38	27.15	93	(0.98)
464	5.74	34.22	0.62	107							
645	4.85	34.34	0.32	89							

- a) Mean value of 33.85 and 33.90‰.
- b) Mean value of 33.18 and 33.24‰.
- c) Loose bottle cap; value does not fall on property curve.

S10  
CCOFI  
5504

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

83.40 CREST; April 10, 1955; 2025 GCT; 34°13.5'N, 119°21.5'W; sounding, 12 fm; wind, 280°, force 4; weather, partly cloudy; sea, moderate; wire angle, 00°.

0	13.41	33.58	7.14	275	0	13.41	33.58	7.14	25.23	275	0.00
5	12.86	33.59	6.98	263	10	12.02	33.66	5.84	25.57	243	0.03
10	12.02	33.66	5.84	243							

54  
51

83.43 CREST; April 10, 1955; 1801 GCT; 34°06.5'N, 119°33.5'W; sounding, 130 fm; wind, 270°, force 5; weather, partly cloudy; sea, moderate; wire angle, 11°.

0	12.62	33.60	6.36	258	0	12.62	33.60	6.36	25.40	258	0.00
10	12.55	33.58	6.32	258	10	12.55	33.58	6.32	25.40	258	0.03
15	12.16	33.62	5.99	248	20	11.60	33.66	5.40	25.65	235	0.05
20	11.60	33.66	5.40	235	30	11.08	33.64	4.62	25.72	228	0.07
25	11.14	33.65	4.76	228	50	10.29	33.77	3.55	25.97	205	0.12
30	11.08	33.64	4.62	228	75	9.25	33.88	2.50	26.23	180	0.16
35	10.95	33.71	4.40	220	100	9.09	33.98	2.07	26.33	170	0.21
45	10.43	33.77	3.76	208							
55	10.17	33.78	3.43	202							
64	9.72	33.86	2.91	189							
78	9.19	33.89	2.40	179							
97	9.11	33.96	2.09	173							
121	8.92	34.03	1.91	164							

525  
735

83.51 CREST; April 10, 1955; 1155 GCT; 33°51.5'N, 120°08'W; sounding, 90 fm; wind, 320°, force 8; weather, cloudy; sea, rough; wire angle, 37°.

0	12.4	33.55	5.55	258	0	12.4	33.55	5.55	25.41	258	0.00
10	12.41	33.51	5.18	261	10	12.41	33.51	5.18	25.37	261	0.03
14	12.40	33.55	4.92	258	20	12.37	33.54	5.10	25.41	258	0.05
16	12.39	33.53	5.16	259	30	11.74	33.58	4.60	25.55	244	0.08
21	12.37	33.54	5.09	258	50	9.87	33.76	2.80	26.03	199	0.12
30	11.74	33.58	4.60	244	75	9.18	33.97	2.05	26.31	172	0.17
40	10.08	33.71	3.01	206							
49	9.92	33.76	2.84	200							
57	9.60	33.81	2.59	191							
70	9.22	33.97	2.10	174							
89	9.08	33.98	1.98	171							

56  
73

83.60 CREST; April 10, 1955; 0525 GCT; 33°33.5'N, 120°44'W; sounding, 800 fm; wind, 330°, force 5; weather, clear; sea, rough; wire angle, 25°.

0	12.7	33.37	5.97	277	0	12.7	33.37	5.97	25.21	277	0.00
9	12.68	33.38	6.60	276	10	12.69	33.38	6.60	25.22	275	0.03
28	11.96	33.48	5.82	255	20	12.30	33.44	6.23	25.34	264	0.06
42	11.34	33.53	5.34	241	30	11.83	33.49	5.73	25.47	252	0.08
51	11.26	33.58	5.13	236	50	11.25	33.58	5.14	25.64	236	0.13
59	11.13	33.68	4.98	226	75	10.17	33.74	3.43	25.96	205	0.18
67	10.52	33.72	4.00	212	100	8.81	33.82	3.10	26.25	178	0.23
76	10.07	33.74	3.39	204	150	8.22	34.01	2.53	26.48	156	0.32
88	8.96	33.78	3.18	183	200	7.92	34.10	2.17	26.62	143	0.39
97	8.86	33.80	3.12	180	250	7.71	34.21	1.53	26.72	134	0.46
117	8.58	33.99	2.84	161	300	7.40	34.22	1.22	26.77	128	0.53
143	8.28	34.01	2.61	157	400	6.60	34.24	0.71	26.90	116	0.66
188	7.98	34.07	2.30	148	500	5.99	34.25	0.40	27.00	106	0.77
246	7.74	34.20	1.58	135	600	(5.47)	(34.30)	(0.32)	(27.09)	(98)	(0.88)
347	7.01	34.23	0.97	123							
466	6.16	34.26	0.47	109							
593	5.52	34.30	0.32	99							

59

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

CREST; April 9, 1955; 2236 GCT; 33°13.5'N, 121°25.5'W; sounding, 2000+ fm; wind, 320°, force 6; weather, partly cloudy; sea, rough; wire angle, 42°.

83.70

0	13.5	33.30	5.92	297	0	13.5	33.30	5.92	25.00	297	0.00
10	13.22	33.28	5.97	293	10	13.22	33.28	5.97	25.04	293	0.03
26	13.19	33.24	5.99	295	20	13.20	33.26	5.98	25.03	294	0.06
39	13.16	33.25	6.05	294	30	13.19	33.24	5.99	25.02	295	0.09
47	13.14	33.24	6.01	294	50	13.09	33.24	6.02	25.04	293	0.15
56	12.93	33.31	6.07	285	75	11.70	33.28	5.36	25.33	265	0.22
64	12.70	33.29	5.87	283	100	9.85	33.38	4.35	25.74	227	0.28
72	12.12	33.25	-	275	150	8.41	33.91	3.01	26.37	166	0.38
83	10.84	33.34	5.07	246	200	8.00	33.96	2.63	26.49	156	0.46
90	10.46	33.29	4.82	244	250	7.41	34.01	2.13	26.60	144	0.54
109	9.40	33.50	3.98	211	300	6.75	34.09	1.44	26.76	130	0.61
129	8.94	33.64	3.57	193	400	6.14	34.18	0.80	26.91	115	0.73
155	8.34	33.94	2.93	163	500	5.79	34.24	0.61	27.00	106	0.85
210	7.89	33.97	2.55	154							
295	6.80	34.08	1.50	131							
403	6.09	34.18	0.78	115							
526	5.67	34.25	0.60	105							

CREST; April 9, 1955; 1526 GCT; 32°54'N, 122°12.5'W; sounding, 2200 fm; wind, 340°, force 5; weather, clear; sea, rough; wire angle, 25°.

83.80

0	13.7	33.29	5.91	301	0	13.7	33.29	5.91	24.95	301	0.00
10	13.64	33.27	5.95	302	10	13.64	33.27	5.95	24.95	302	0.03
28	13.64	33.22	5.87	305	20	13.64	33.25	5.90	24.93	304	0.06
41	13.42	33.23	5.94	301	30	13.61	33.22	5.88	24.91	305	0.09
50	13.38	33.23	5.91	299	50	13.38	33.23	5.91	24.97	299	0.15
59	13.38	33.20	5.94	302	75	12.66	33.29	5.56	25.16	282	0.22
67	13.38	33.23	5.88	299	100	9.89	33.40	4.13	25.74	226	0.29
75	12.66	33.29	5.56	282	150	8.50	33.82	2.99	26.30	173	0.39
87	11.09	33.25	5.09	257	200	7.79	33.98	2.53	26.53	151	0.47
95	10.20	33.34	4.43	235	250	7.41	34.07	1.95	26.65	140	0.54
116	9.33	33.55	3.62	206	300	6.83	34.10	1.40	26.76	130	0.62
141	8.71	33.78	3.12	180	400	5.92	34.17	0.66	26.93	113	0.74
188	7.92	33.94	2.68	157	500	5.41	34.28	0.40	27.08	100	0.85
244	7.45	34.06	2.05	141	600	(5.23)	(34.40)	(0.34)	(27.20)	(88)	(0.95)
347	6.28	34.13	1.01	121							
466	5.56	34.23	0.54	104							
596	5.24	34.37	0.34	91							

CREST; April 9, 1955; 0838, 0857 GCT; 32°36'N, 122°47.5'W; sounding, 2400 fm; wind, 340°, force 3; weather, clear; sea, moderate; wire angle, 10°, 10°.

83.90

0	13.2	33.22	5.97	297	0	13.2	33.22	5.97	25.00	297	0.00
10	13.35	33.25	5.98	297	10	13.35	33.25	5.98	24.99	297	0.03
					20	13.37	33.23	5.88	24.97	300	0.06
19	13.39	33.23	5.88	300	30	13.18	33.22	5.86	25.01	296	0.09
29	13.18	33.22	5.88	296	50	13.05	33.28	5.82	25.07	290	0.15
37	13.07	33.29	5.85	290	75	12.24	33.22	5.65	25.19	279	0.22
47	13.06	33.28	5.90	290	100	10.45	33.22	5.07	25.51	248	0.29
57	13.04	33.27	5.75	290	150	8.80	33.64	3.74	26.11	191	0.40
67	13.01	33.24	5.79	292	200	8.10	33.89	3.16	26.41	162	0.49
77	11.97	33.22	5.59	274	250	7.39	33.96	2.79	26.57	148	0.57
86	11.12	33.20	5.35	261	300	6.73	34.02	1.97	26.71	134	0.64
110	10.01	33.26	4.79	238	400	5.90	34.12	0.90	26.90	117	0.77
138	8.99	33.53	3.92	202	500	5.33	34.23	0.53	27.05	102	0.88
187	8.28	33.86	3.29	168	600	(4.89)	(34.37)	(0.41)	(27.22)	(86)	(0.98)
243	7.44	33.95	2.84	149							
346	6.25	34.07	1.08	125							
463	5.49	34.19	0.60	107							
587	4.96	34.35	0.41	89							

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

87.35 CREST; April 11, 1955; 0204 GCT; 33°50.5'N, 118°37.5'W; sounding, 257 fm; wind, 310°, force 3; weather, clear; sea, moderate; wire angle, 15°.

0	14.17	33.43	6.12	300	0	14.17	33.43	6.12	24.96	300	0.00
11	12.77	33.48	5.65	269	10	12.81	33.48	5.69	25.28	270	0.03
16	12.54	33.48	5.47	266	20	12.00	33.48	4.89	25.43	256	0.06
20	12.00	33.48	4.89	256	30	11.47	33.49	4.66	25.53	246	0.08
25	11.82	33.55	4.84	247	50	10.14	33.63	3.27	25.89	212	0.13
30	11.47	33.49	4.66	246	75	9.74	33.79	2.88	26.08	194	0.18
35	10.72	33.53	3.91	230	100	9.40	33.90	2.69	26.22	181	0.22
45	10.19	33.63	3.33	214	150	8.78	34.14	2.05	26.50	154	0.31
55	10.12	33.64	3.23	212							
64	9.96	33.69	3.13	205							
79	9.67	33.81	2.78	192							
98	9.42	33.89	2.70	182							
117	9.20	34.01	2.50	170							
151	8.77	34.14	2.03	154							

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73

87.40 CREST; April 11, 1955; 0604 GCT; 33°39.5'N, 118°58'W; sounding, 450 fm; wind, 320°, force 7; weather, clear; sea, rough; wire angle, 15°.

0	14.1	33.51	6.17	293	0	14.1	33.51	6.17	25.04	293	0.00
10	14.00	33.48	6.18	294	10	14.00	33.48	6.18	25.03	294	0.03
29	11.81	33.59	5.14	244	20	12.38	33.55	5.51	25.41	258	0.06
44	9.87	33.70	3.22	203	30	11.73	33.59	5.09	25.55	244	0.08
54	9.72	33.77	2.88	196	50	9.78	33.75	3.02	26.04	198	0.13
64	9.65	33.78	2.83	194	75	9.50	33.83	2.64	26.15	188	0.17
74	9.51	33.83	2.67	188	100	9.08	34.06	2.23	26.39	164	0.22
83	9.42	33.90	2.60	182	150	8.85	34.27	1.75	26.60	145	0.30
97	9.10	34.05	2.25	165	200	8.60	34.34	1.35	26.68	137	0.37
107	9.06	34.30u	2.26u	-	250	8.19	34.36	1.01	26.76	129	0.44
132	8.90	34.23	1.91	149	300	7.60	34.35	0.73	26.84	122	0.50
160	8.81	34.29	1.73	144	400	6.69	34.31	0.49	26.94	112	0.62
211	8.53	34.35	1.28	135	500	6.12	34.33	0.37	27.03	104	0.73
272	7.95	34.36	0.86	125	600	5.62	34.37	0.20	27.12	95	0.84
380	6.82	34.31	0.53	114							
505	6.08	34.33	0.36	103							
627	5.47	34.38	0.17	93							

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43

87.50 CREST; April 11, 1955; 1219 GCT; 33°20'N, 119°40'W; sounding, 43 fm; wind, 320°, force 6; weather, clear; sea, rough; wire angle, 00°.

0	12.60	33.59	5.64	259	0	12.60	33.59	5.64	25.40	259	0.00
5	12.59	33.55	5.66	261	10	12.56	33.55	5.60	25.37	261	0.03
10	12.56	33.55	5.60	261	20	11.71	33.63	4.82	25.60	239	0.05
15	12.30	33.59	5.35	253	30	10.30	33.69	3.53	25.90	211	0.07
20	11.71	33.63	4.82	239	50	9.46	33.83	2.98	26.15	188	0.11
25	11.16	33.63	3.55	230							
30	10.30	33.69	3.53	211							
40	9.69	33.84	2.98	191							
50	9.46	33.83	2.98	188							

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

CREST; April 12, 1955; 2311 GCT; 33°02.5'N, 120°18.5'W; sounding, 395 fm; wind, 320°, force 6; weather, partly cloudy; sea, very rough; wire angle, 25°.

87.60

0	12.2	33.60	5.75	250	0	12.2	33.60	5.75	25.49	250	0.00
10	11.96	33.57	5.78	248	10	11.96	33.57	5.78	25.51	248	0.02
29	11.75	33.55	5.68	246	20	11.81	33.55	5.71	25.52	247	0.05
39	11.71	33.58	5.63	243	30	11.74	33.55	5.65	25.54	246	0.07
48	11.66	33.55	5.56	244	50	11.62	33.55	5.53	25.56	244	0.12
58	11.47	33.55	5.26	241	75	10.80	33.56	4.42	25.71	229	0.18
66	11.01	33.56	4.61	233	100	9.51	33.73	2.93	26.06	196	0.24
75	10.80	33.56	4.42	229	150	8.76	33.99	2.26	26.39	164	0.33
85	10.16	33.65	3.68	212	200	8.28	34.15	1.62	26.59	146	0.40
94	9.67	33.69	2.97	201	250	7.86	34.17	1.26	26.67	138	0.48
115	9.18	33.83	2.82	183	300	7.32	34.18	0.99	26.75	130	0.55
142	8.83	33.96	2.45	168	400	6.56	34.26	0.66	26.93	114	0.67
186	8.40	34.14	1.76	148	500	6.04	34.31	0.47	27.02	105	0.79
240	7.99	34.17	1.31	140							
334	6.93	34.19	0.82	124							
447	6.33	34.29	0.54	109							
568	5.77	34.32	0.41	100							

CREST; April 13, 1955; 0521, 0553 GCT; 32°40'N, 121°00'W; sounding, 2000+ fm; wind, 350°, force 5; weather, clear; sea, rough; wire angle, 25°, 25°.

87.70

0	12.5	33.40	5.92	271	0	12.5	33.40	5.92	25.27	271	0.00
9	12.50	33.42	6.06	270	10	12.50	33.41	6.07	25.28	270	0.03
28	12.45	33.35	6.10	274	20	12.49	33.39	6.09	25.26	272	0.05
41	12.30	33.34	6.00	271	30	12.42	33.35	6.09	25.25	273	0.08
50	12.30	33.36	5.90	270	50	12.30	33.36	5.90	25.28	270	0.14
59	12.29	33.30	5.92	274	75	12.19	33.30	5.93	25.26	272	0.20
68	12.26	33.30	6.02	274	100	10.17	33.24	4.73	25.57	242	0.27
79	12.12	33.30	5.84	271	150	8.59	33.74	3.25	26.22	181	0.37
92	10.60	33.22	5.09	251	200	7.96	33.91	2.78	26.45	159	0.46
101	10.08	33.24	4.68	241	250	7.36	34.07		26.66	139	0.54
124	8.98	33.54	3.58	201	300	6.90	34.11		26.75	130	0.60
151	8.58	33.74	3.22	180	400	6.20	34.16		26.89	118	0.73
201	7.96	33.92	2.76	158	500	(5.46)	(34.23)		(27.03)	(104)	(0.85)
348	6.54	-	-	-							
260	7.22	34.08	-	137							
366	6.43	34.14	-	122							
487	5.58	34.22	-	105							

CREST; April 13, 1955; 1125 GCT; 32°19.5'N, 121°42'W; sounding, 2000+ fm; wind, 350°, force 5; weather, clear; sea, rough; wire angle, 27°.

87.80

0	13.6	33.21	5.91	305	0	13.6	33.21	5.91	24.91	305	0.00
9	13.64	33.27	5.93	302	10	13.63	33.26	5.93	24.94	302	0.03
27	13.62	33.21	5.83	306	20	13.63	33.24	5.82	24.93	303	0.06
41	13.63	33.18	5.79	308	30	13.62	33.20	5.80	24.90	306	0.09
48	13.62	33.19	5.64	307	50	13.62	33.19	5.70	24.89	307	0.15
58	13.62	33.19	5.80	307	75	13.08	33.39	5.58	25.16	282	0.23
66	13.56	33.22	5.68	304	100	9.78	33.46	4.02	25.81	220	0.29
74	13.28	33.38	5.62	287	150	8.62	33.79	2.90	26.25	178	0.39
88	10.48	33.41	4.48	235	200	7.88	33.99	2.15	26.52	152	0.47
97	9.93	33.45	4.16	222	250	7.21	33.96	2.18	26.59	145	0.55
119	9.20	33.63	3.25	198	300	6.70	34.01	1.63	26.70	135	0.62
145	8.71	33.77	2.95	180	400	5.98	34.09	0.73	26.87	119	0.75
193	8.00	33.99	2.15	154	500	5.30	34.15	0.40	26.99	107	0.87
251	7.20	33.96	2.17	145	600	4.95	34.24	0.33	27.11	96	0.98
358	-	34.07	1.06	-							
478	5.41	34.14	0.45	110							
609	4.92	34.25	0.33	96							

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

8790

CREST; April 13, 1955; 1655 GCT; 32°00'N, 122°23'W; sounding, 2000+ fm; wind, 350°, force 5; weather, partly cloudy; sea, rough; wire angle, 32°.

0	13.8	33.37	6.01	297	0	13.8	33.37	6.01	24.99	297	0.00
10	13.48	33.38	6.04	290	10	13.48	33.38	6.04	25.07	290	0.03
28	13.47	33.33	5.97	294	20	13.48	33.35	6.00	25.05	292	0.06
41	13.46	33.35	6.04	292	30	13.47	33.33	6.00	25.03	294	0.09
51	13.37	33.36	5.94	290	50	13.37	33.36	5.95	25.07	290	0.15
60	12.83	33.30	5.96	284	75	11.34	33.28	5.62	25.40	259	0.22
69	11.76	33.29	5.76	265	100	10.04	33.34	4.88	25.67	233	0.28
78	11.12	33.28	5.55	255	150	8.70	33.74	3.54	26.20	183	0.38
91	10.35	33.30	5.23	240	200	7.80	33.92	3.46	26.48	156	0.47
100	10.04	33.34	4.88	233	250	7.38	34.01	2.40	26.61	143	0.54
123	9.48	33.50	4.42	212	300	6.79	34.03	1.81	26.71	134	0.62
150	8.70	33.74	3.54	183	400	5.86	34.07	1.26	26.86	120	0.75
200	7.80	33.92	3.46	156	500	5.39	34.18	0.41	27.01	106	0.87
259	7.25	34.02	2.20	141	600	4.91	34.24	0.32	27.11	96	0.97
364	6.05	34.05	1.43	124							
487	5.42	34.17	0.45	108							
619	4.82	34.25	0.31	96							

9028

CREST; April 15, 1955; 2008 GCT; 33°28'N, 117°44.5'W; sounding, 25 fm; wind, 290°, force 3; weather, clear; sea, moderate; wire angle, 15°.

0	14.94	33.45	7.01	314	0	14.94	33.45	7.01	24.82	314	0.00
10	13.43	33.49	6.84	282	10	13.43	33.49	6.84	25.16	282	0.03
15	13.04	33.49	6.94	274	20	12.63	33.51	6.79	25.33	265	0.06
20	12.63	33.51	6.79	265							
25	12.30	33.48	5.38	261							
29	11.78	33.50	4.65	250							

9030

CREST; April 15, 1955; 1817 GCT; 33°24'N, 117°54.5'W; sounding, 340 fm; wind, 310°, force 2; weather, cloudy; sea, moderate; wire angle, 10°.

0	15.6	33.40	6.06	332	0	15.6	33.40	6.06	24.63	332	0.00
10	14.98	33.40	5.98	319	10	14.98	33.40	5.98	24.77	319	0.03
31	13.49	33.38	6.08	291	20	14.39	33.39	6.01	24.88	308	0.06 - 75
41	11.58	33.39	4.78	255	30	13.62	33.38	6.08	25.04	293	0.09
50	10.88	33.38	4.14	244	50	10.88	33.38	4.14	25.56	244	0.15
60	10.23	33.50	3.72	224	75	9.80	33.66	3.33	25.95	206	0.20
69	9.84	33.65	3.37	207	100	9.40	33.87	2.69	26.18	184	0.25
79	9.80	33.66	3.31	206	150	8.99	34.03	2.26	26.39	165	0.34
89	9.52	33.83	2.91	188	200	8.62	34.16	1.76	26.54	150	0.42
98	9.42	33.86	2.74	184	250	8.43	34.28	1.09	26.67	138	0.49
117	9.24	33.94	2.57	176	300	8.09	34.30	0.79	26.73	132	0.56
142	9.01	34.02	2.31	166	400	7.13	34.30	0.54	26.87	119	0.69
161	8.87	34.05	2.13	162	500	(6.23)	(34.42)	(0.39)	(27.08)	(98)	(0.81)
199	8.62	34.16	1.77	150							
275	8.29	34.30	0.94	135							
378	7.34	34.29	0.58	122							
496	6.26	34.41	0.39	100							

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

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CREST; April 15, 1955; 0732 GCT; 33°10.5'N, 118.23'W; sounding, 650 fm; wind, 300°, force 4; weather, clear; sea, moderate; wire angle, 06°.

90.37

0	14.7	33.44	6.08	310	0	14.7	33.44	6.08	24.86	310	0.00
10	14.72	33.44	6.07	310	10	14.72	33.44	6.07	24.86	310	0.03
31	11.34	33.40	4.28	250	20	13.40	33.42	5.42	25.10	286	0.06
46	10.68	33.45	3.70	235	30	11.40	33.40	4.34	25.48	251	0.09
57	10.26	33.58	3.52	219	50	10.56	33.49	3.64	25.70	230	0.14
65	9.92	33.64	3.29	209	75	9.72	33.70	3.11	26.00	201	0.19
75	9.72	33.70	3.11	201	100	9.08	33.90	2.69	26.27	176	0.24
86	9.66	33.74	3.07	197	150	9.29	34.24	1.69	26.50	154	0.32
99	9.05	33.88	2.88	177	200	9.07	34.24	1.39	26.53	151	0.40
110	9.36	34.00	2.30	173	250	8.60	34.23	1.17	26.60	144	0.47
134	9.30	34.15	1.84	161	300	(8.07)	34.27	0.88	(26.73)	(132)	(0.54)
163	9.27	34.27	1.55	152	400	(6.82)	34.34	0.40	(26.95)	(112)	(0.67)
217	8.95	34.22	1.32	150	500	(6.07)	34.34	0.36	(26.05)	(102)	(0.78)
281	8.26	34.27	0.99	137	600	5.58	34.35	0.33	27.11	96	(0.89)
394	-	34.34	0.42	-	700	(5.19)	(34.37)	-	(27.18)	(90)	(0.99)
522	5.96	34.34	0.36	101							
687	5.21	34.37	0.29	90							

CREST; April 15, 1955; 0235 GCT; 32°54.5'N, 118°56'W; sounding, 950 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 15°.

90.45

0	14.7	33.46	6.07	309	0	14.7	33.46	6.07	24.87	309	0.00
10	14.66	33.42	6.24	311	10	14.66	33.42	6.24	24.85	311	0.03
29	12.77	33.42	5.24	274	20	14.19	33.42	6.04	24.95	301	0.06
45	10.97	33.49	4.32	236	30	12.66	33.42	5.19	25.26	272	0.09
55	10.60	33.54	4.03	227	50	10.79	33.52	4.17	25.69	232	0.14
64	9.83	33.59	3.57	211	75	9.78	33.63	3.27	25.95	207	0.20
74	9.78	33.63	3.32	207	100	9.34	33.84	2.87	26.18	184	0.24
84	9.73	33.75	3.20	197	150	8.84	34.00	2.43	26.38	165	0.33
99	9.34	33.84	2.91	184	200	8.72	34.20	1.65	26.56	148	0.41
108	9.38	33.89	2.69	181	250	8.40	34.30	1.06	26.68	137	0.49
132	9.08	33.94	2.56	173	300	8.00	34.32	0.83	26.76	129	0.55
160	8.75	34.05	2.31	160	400	7.19	34.34	0.62	26.90	117	0.68
211	8.68	34.24	1.41	145	500	6.21	34.36	0.39	27.04	102	0.80
270	8.22	34.31	0.97	133	600	5.71	34.38	0.29	27.12	95	0.90
382	7.32	34.33	0.65	119							
507	6.19	34.37	0.39	101							
640	5.53	34.38	0.27	93							

CREST; April 14, 1955; 2306 GCT; 32°42.5'N, 119°15'W; sounding, 200 fm; wind, 320°, force 6; weather, cloudy; sea, very rough; wire angle, 15°.

90.50

0	13.74	33.47	6.21	289	0	13.74	33.47	6.21	25.08	289	0.00
10	13.72	33.43	6.26	291	10	13.72	33.43	6.26	25.06	291	0.03
15	13.66	33.42	6.22	291	20	13.55	33.43	6.21	25.09	288	0.06
20	13.55	33.43	6.21	288	30	13.25	33.40	5.82	25.12	285	0.09
24	13.38	33.42	6.05	286	50	10.99	33.47	4.30	25.61	239	0.14
29	13.28	33.40	5.86	285	75	9.83	33.62	3.50	25.92	209	0.20
35	13.14	33.40	5.71	282							
44	12.06	33.40	5.10	263							
53	10.64	33.50	4.08	231							
63	10.32	33.50	3.91	225							
78	9.74	33.65	3.39	205							

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

90.60

CREST; April 14, 1955; 1700 GCT; 32°25'N, 119°54'W; sounding, 1000 fm; wind, 330°, force 5; weather, cloudy; sea, very rough; wire angle, 33°.

0	13.2	33.39	6.02	284	0	13.2	33.39	6.02	25.13	284	0.00
9	13.08	33.37	6.08	284	10	13.08	33.37	6.07	25.13	284	0.03
26	13.07	33.36	6.07	284	20	13.07	33.36	6.07	25.13	284	0.06
40	12.15	33.31	5.80	271	30	13.00	33.35	6.06	25.14	284	0.08
48	11.53	33.42	5.41	251	50	11.39	33.40	5.32	25.49	250	0.14
56	10.44	33.28	4.93	244	75	9.68	33.34	4.46	25.73	227	0.20
65	9.96	33.28	4.65	236	100	9.29	33.67	3.18	26.06	196	0.25
74	9.72	33.34	4.49	228	150	8.56	33.99	2.43	26.42	162	0.34
87	9.35	33.52	3.76	209	200	7.99	34.10	1.87	26.59	145	0.42
95	9.34	33.62	3.37	201	250	7.43	34.18	1.44	26.73	132	0.49
116	9.00	33.86	2.78	178	300	7.12	34.25	0.99	26.84	122	0.56
141	8.64	33.96	2.53	165	400	6.59	34.31	0.59	26.96	111	0.68
184	8.16	34.07	2.03	150	500	6.00	34.34	0.40	27.06	101	0.79
236	7.57	34.16	1.54	135							
332	6.97	34.27	0.80	119							
445	6.30	34.32	0.49	107							
572	5.58	34.38	0.31	93							

90.80

CREST; April 14, 1955; 0450 GCT; 31°48'N, 121°19'W; sounding, 2000+ fm; wind, 340°, force 5; weather, clear; sea, rough; wire angle, 20°.

0	14.0	33.33	5.98	304	0	14.0	33.33	5.98	24.92	304	0.00
10	13.88	33.40	6.10	297	10	13.88	33.40	6.10	25.00	297	0.03
23	13.88	33.30	6.04	304	20	13.88	33.35	6.05	24.94	303	0.06
52	13.83	33.35	6.04	300	30	13.87	33.31	6.04	24.94	303	0.09
61	13.79	33.40	5.95	295	50	13.85	33.35	6.04	24.97	300	0.15
70	13.01	33.37	5.97	282	75	12.92	33.37	5.91	25.17	281	0.22
83	12.78	33.37	5.74	278	100	11.40	33.34	4.90	25.43	256	0.29
101	11.36	33.34	4.89	254	150	9.15	33.67	3.07	26.08	194	0.40
124	9.97	33.45	3.99	223	200	8.30	33.93	2.58	26.41	163	0.50
151	9.12	33.68	3.03	193	250	7.60	33.96	2.54	26.54	150	0.58
200	8.30	33.93	2.58	162	300	7.01	33.99	2.34	26.64	140	0.65
271	7.38	33.97	2.52	147	400	6.02	34.06	1.02	26.83	123	0.79
371	6.26	34.04	1.27	127	500	5.35	34.11	0.57	26.96	110	0.91
501	5.34	34.12	0.57	110	600	5.07	34.20	0.42	27.06	101	1.02
678	4.88	34.26	0.34	95	700	4.80	34.27	0.34	27.14	94	1.12
901	4.22	34.33	0.48	83	800	4.54	34.30	0.37	27.19	88	1.22
1201	3.40	34.52	0.84	61	1000	3.95	34.38	0.60	27.32	76	1.40

90.90

CREST; April 13, 1955; 2216 GCT; 31°25'N, 121°58.5'W; sounding, 2000+ fm; wind, 310°, force 6; weather, cloudy; sea, very rough; wire angle, 33°.

0	14.1	33.32	5.90	307	0	14.1	33.32	5.90	24.89	307	0.00
10	13.91	33.31	5.75	304	10	13.91	33.31	5.75	24.92	304	0.03
22	13.85	33.31	5.78	303	20	13.86	33.31	5.76	24.93	303	0.06
48	13.70	33.24	5.92	305	30	13.80	33.29	5.80	24.93	304	0.09
57	13.16	33.31	5.82	289	50	13.65	33.24	5.92	24.92	304	0.15
67	12.35	33.33	6.01	273	75	11.95	33.35	5.78	25.34	264	0.22
78	11.78	33.35	5.63	261	100	10.29	33.35	4.93	25.63	236	0.29
96	10.48	33.34	5.00	240	150	8.64	33.79	3.10	26.25	178	0.39
118	9.49	33.41	4.50	219	200	8.20	33.93	2.54	26.43	161	0.48
144	8.90	33.68	3.48	190	250	7.46	33.98	2.30	26.58	147	0.56
191	8.30	33.92	2.59	163	300	6.80	34.02	1.86	26.69	136	0.63
259	7.32	33.99	2.22	144	400	6.00	34.12	1.02	26.88	118	0.76
354	6.14	34.08	1.17	122	500	5.58	34.26	0.40	27.05	102	0.88
480	5.62	34.24	0.48	104	600	5.19	34.32	0.28	27.14	93	0.98
653	4.93	34.34	0.26	89	700	4.78	34.35	0.29	27.21	86	1.08
870	4.16	34.37	0.51	79	800	4.40	34.36	0.40	27.26	82	1.17
1168	3.42	34.42	0.84	68	1000	3.80	34.39	0.69	27.35	74	1.34



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

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CREST; April 16, 1955; 0051 GCT; 32°55'N, 117°19'W; sounding, 51 fm; wind, 300°, force 3; weather, partly cloudy; sea, moderate; wire angle, 00°.

93.27

0	15.32	33.48	7.22	320	0	15.32	33.48	7.22	24.75	320	0.00
10	12.48	33.43	6.44	268	10	12.48	33.43	6.44	25.30	268	0.03
15	11.63	33.45	4.62	251	20	10.80	33.45	3.75	25.63	237	0.06
20	10.80	33.45	3.75	237	30	10.38	33.57	3.36	25.79	221	0.08
25	10.69	33.51	3.62	231	50	9.68	33.73	2.92	26.04	198	0.12
30	10.38	33.57	3.36	221							
35	10.14	33.66	3.16	211							
40	9.83	33.64	3.04	208							
50	9.68	33.73	2.92	198							

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CREST; April 16, 1955; 0358 GCT; 32°48.5'N, 117°31'W; sounding, 410 fm; wind, 330°, force 3; weather, clear; sea, moderate; wire angle, 12°.

93.30

0	15.5	33.44	5.95	327	0	15.5	33.44	5.95	24.68	327	0.00
10	14.92	33.43	6.21	316	10	14.92	33.43	6.21	24.80	316	0.03
29	11.79	33.44	4.46	255	20	13.27	33.43	5.50	25.15	282	0.06
39	10.79	33.52	3.68	231	30	11.66	33.44	4.36	25.47	252	0.09
48	10.32	33.62	3.32	217	50	10.25	33.63	3.25	25.86	215	0.14 - <i>.64</i>
59	10.00	33.64	2.97	210	75	9.75	33.78	2.81	26.06	196	0.19
68	9.80	33.75	2.85	199	100	9.39	33.92	2.54	26.23	179	0.24
77	9.73	33.78	2.80	195	150	8.90	34.10	2.00	26.46	158	0.32
86	9.53	33.84	2.62	187	200	8.61	34.21	1.57	26.58	147	0.40
96	9.42	33.91	2.59	181	250	8.25	34.26	1.19	26.67	138	0.47
114	9.20	33.96	2.47	174	300	7.92	34.29	0.89	26.75	130	0.54
139	8.97	34.07	2.13	162	400	7.19	34.33	0.51	26.89	117	0.67
158	8.86	34.11	1.92	157	500	(6.42)	(34.34)	(0.42)	(27.00)	(107)	(0.78)
196	8.66	34.20	1.62	148							
271	8.13	34.27	1.07	135							
375	7.36	34.32	0.58	120							
493	6.48	34.34	0.43	108							

CREST; April 16, 1955; 0930 GCT; 32°29.5'N, 118°11'W; sounding, 950 fm; wind, 310°, force 4; weather, clear; sea, rough; wire angle, 12°.

93.40

1	15.5	33.45	5.70	326	0	15.5	33.45	5.70	24.69	326	0.00
11	15.48	33.44	5.77	327	10	15.48	33.44	5.74	24.68	327	0.03
30	12.04	33.37	5.35	265	20	15.42	33.43	5.75	24.69	326	0.06
40	11.28	33.40	4.75	249	30	12.04	33.37	5.35	25.33	265	0.10
50	10.46	33.49	3.82	229	50	10.46	33.49	3.82	25.71	229	0.14 - <i>.64</i>
60	9.96	33.55	3.54	216	75	9.52	33.63	3.30	25.98	203	0.20
70	9.60	33.60	3.39	206	100	9.06	33.82	2.85	26.20	182	0.25
79	9.45	33.66	3.17	200	150	8.59	34.02	2.30	26.44	160	0.33
89	9.21	33.71	3.01	192	200	8.11	34.13	1.80	26.60	144	0.41
99	9.08	33.82	2.84	182	250	7.69	34.18	1.34	26.70	135	0.48
125	8.78	33.88	2.89	173	300	7.39	34.23	0.99	26.79	127	0.55
154	8.58	34.03	2.20	159	400	6.70	34.32	0.49	26.95	112	0.67
203	8.05	34.14	1.67	143	500	6.08	34.34	0.35	27.05	102	0.78
260	7.61	34.19	1.28	134	600	5.55	34.35	0.28	27.12	95	0.89
363	6.98	34.30	0.58	116							
481	6.18	34.34	0.35	104							
605	5.52	34.35	0.27	95							

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

93.50 CREST; April 16, 1955; 1457, 1542 GCT; 32°12'N, 118°52.5'W; sounding, 750 fm; wind, 330°, force 5; weather, cloudy; sea, rough; wire angle, 13°, 22°.

0	14.6	33.41	5.77	311	0	14.6	33.41	5.77	24.85	311	0.00
10	14.67	33.42	5.92	311	10	14.67	33.42	5.92	24.85	311	0.03
30	14.15	33.43	5.75	300	20	14.67	33.43	5.95	24.86	310	0.06
45	11.48	33.46a)	5.15	248	30	14.15	33.43	5.75	24.97	300	0.09
55	10.37	33.48	3.69	228	50	10.86	33.46	4.36	25.62	238	0.15
65	9.97	33.59	3.46	213	75	9.60	33.66	3.34	26.00	202	0.20
75	9.60	33.66	3.34	202	100	9.00	33.82	2.96	26.22	181	0.25
84	9.44	33.78b)	3.07	191	150	8.78	34.10	2.05	26.48	156	0.34
99	9.00	33.82	2.97	181	200	8.60	34.23	1.44	26.60	144	0.41
109	8.93	33.88	2.87	175	250	8.10	34.29	1.04	26.72	133	0.48
133	8.74	34.01	2.45	163	300	7.51	34.30	0.97	26.82	124	0.55
161	8.78	34.14	1.96	154	400	6.79	34.35	0.61	26.96	111	0.67
240	8.22	34.28	1.06	136	500	6.12	34.42	0.41	27.10	97	0.78
276	7.76	34.29	1.02	128	600	5.70	34.42	0.30	27.16	92	0.88
389	6.82	34.34	0.62	112							
516	6.05	34.42	0.37	96							
650	5.52	34.42	0.28	90							

93.60 CREST; April 16, 1955; 2113 GCT; 31°53'N, 119°35'W; sounding, 1350 fm; wind, 350°, force 4; weather, overcast; sea, rough; wire angle, 15°.

0	13.9	33.44	6.00	294	0	13.9	33.44	6.00	25.03	294	0.00
10	13.88	33.44	6.03	294	10	13.88	33.44	6.03	25.03	294	0.03
31	13.52	33.41	6.04	289	20	13.72	33.43	6.03	25.05	292	0.06
44	13.33	33.48	6.00	280	30	13.53	33.41	6.04	25.08	289	0.09
55	13.22	33.46	5.93	280	50	13.29	33.47	5.96	25.17	280	0.14
63	12.47	33.41	5.68	270	75	11.50	33.35	5.29	25.42	257	0.21
73	11.68	33.34	5.40	260	100	10.40	33.52	4.61	25.75	225	0.27
82	11.06	33.42	4.85	244	150	8.79	33.80	3.00	26.23	179	0.37
93	10.91	33.48	4.75	237	200	8.43	34.07	2.16	26.50	154	0.46
106	9.80	33.54	3.76	214	250	8.20	34.17	1.41	26.61	143	0.54
130	9.02	33.68	3.39	192	300	7.83	34.20	0.98	26.70	136	0.61
159	8.70	33.86	2.88	174	400	6.92	34.24	0.54	26.85	120	0.74
210	8.40	34.11	2.00	151	500	6.18	34.35	0.36	27.04	102	0.86
271	8.06	34.19	1.17	140	600	5.54	34.36	0.30	27.13	94	0.96
379	7.08	34.23	0.59	124							
507	6.14	34.36	0.34	101							
640	5.28	34.36	0.30	92							

93.70 CREST; April 17, 1955; 0235 GCT; 31°35'N, 120°08'W; sounding, 2150 fm; wind, 340°, force 4; weather, cloudy; sea, rough; wire angle, 11°.

0	14.2	33.40	5.86	303	0	14.2	33.40	5.86	24.94	303	0.00
10	14.19	33.47	5.86	298	10	14.19	33.47	5.86	24.99	298	0.03
30	13.68	33.40	5.95	293	20	13.94	33.43	5.92	25.01	296	0.06
45	13.46	33.40	5.89	289	30	13.68	33.40	5.95	25.04	293	0.09
55	13.40	33.44	5.84	284	50	13.43	33.43	5.87	25.11	286	0.15
65	13.16	33.40	5.74	283	75	12.40	33.35	5.61	25.25	273	0.22
74	12.43	33.35	5.61	273	100	11.32	33.47	4.80	25.54	245	0.28
84	11.90	33.40	5.38	260	150	9.02	33.75	2.84	26.16	186	0.39
98	11.43	33.47	4.96	247	200	8.57	33.98	2.25	26.41	163	0.48
107	10.70	33.43	4.27	237	250	8.12	34.11	1.70	26.58	146	0.56
131	9.60	33.59	3.33	207	300	7.60	34.19	1.36	26.72	133	0.63
161	8.80	33.85	2.65	176	400	6.60	34.26	0.88	26.91	115	0.76
213	8.48	34.01	2.10	159	500	5.99	34.31	0.30	27.04	103	0.88
276	7.84	34.17	1.50	138	600	5.40	34.34	0.30	27.13	94	0.98
387	6.69	34.25	0.94	117							
513	5.86	34.32	0.28	102							
645	5.13	34.35	0.34	91							

- a) Mean value of 33.42 and 33.50‰.  
b) Mean value of 33.75 and 33.82‰.

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

CREST; April 17, 1955; 0857 GCT; 31°13'N, 120°50'W; sounding, 2200 fm; wind, 330°, force 4; weather, overcast; sea, moderate; wire angle, 08°.

93.80

0	14.4	33.34	5.83	312	0	14.4	33.34	5.83	24.84	312	0.00
10	14.35	33.39	5.95	307	10	14.35	33.39	5.97	24.89	307	0.03
31	13.32	33.36	6.07	289	20	14.30	33.38	5.98	24.90	306	0.06
41	13.16	33.34	6.00	287	30	13.32	33.36	6.07	25.08	289	0.09
50	12.74	33.36	5.80	278	50	12.74	33.36	5.80	25.20	278	0.15
60	12.60	33.34	5.66	277	75	11.20	33.33	4.76	25.45	254	0.21
71	11.56	33.33	5.18	259	100	10.08	33.42	3.94	25.73	227	0.28
81	10.80	33.32	4.20	247	150	8.78	33.94	2.66	26.35	168	0.37
92	10.15	33.41	3.90	229	200	8.30	34.05	2.37	26.51	154	0.46
100	10.08	33.42	3.94	227	250	7.80	34.13	1.70	26.65	140	0.53
123	9.24	33.69	3.07	194	300	7.30	34.18	1.05	26.75	130	0.60
152	8.74	33.95	2.63	167	400	6.58	34.26	0.61	26.92	114	0.73
203	8.26	34.06	2.33	152	500	6.08	34.34	0.31	27.05	102	0.84
263	7.63	34.15	1.39	137	600	5.50	34.37	0.25	27.14	94	0.94
366	6.77	34.23	0.72	119							
484	6.18	34.33	0.34	104							
609	5.44	34.37	0.25	93							

CREST; April 17, 1955; 1520 GCT; 30°50'N, 121°33.5'W; sounding, 2000+ fm; wind, 340°, force 5; weather, overcast; sea, rough; wire angle, 18°.

93.90

0	13.7	33.17	5.93	310	0	13.7	33.17	5.93	24.86	310	0.00
10	13.66	33.16	5.94	310	10	13.66	33.16	5.94	24.86	310	0.03
29	13.65	33.17	5.91	309	20	13.65	33.16	5.92	24.86	310	0.06
39	13.63	33.19	5.96	307	30	13.65	33.17	5.92	24.87	309	0.09
48	13.63	33.18	5.91	308	50	13.62	33.17	5.92	24.87	308	0.15
56	13.59	33.16	5.93	308	75	12.83	33.13	5.87	25.00	296	0.23
65	13.14	33.14	5.88	301	100	11.48	33.14	5.63	25.25	272	0.30
74	12.84	33.13	5.88	297	150	9.31	33.48	3.96	25.91	210	0.42
82	12.55	33.14	5.81	291	200	8.35	33.90	3.33	26.38	166	0.52
91	12.14	33.12	5.81	285	250	7.59	33.97	2.77	26.54	150	0.60
113	10.64	33.18	5.26	254	300	6.85	34.01	2.15	26.68	137	0.68
139	9.59	33.38	4.20	222	400	6.20	34.13	0.89	26.86	120	0.81
181	8.64	33.81	3.53	177	500	5.79	34.26	0.38	27.02	105	0.93
234	7.81	33.96	2.97	153							
327	6.53	34.05	1.78	130							
439	6.04	34.19	0.53	113							
561	5.52	34.31	0.30	98							

SPENCER F. BAIRD; April 17, 1955; 2055, 1805 GCT; 28°42.5'N, 124°47'W; sounding, 2360 fm; wind, 340°, force 3; weather, cloudy; sea, moderate; wire angle, 20°, 28°.

96.142

0	16.05	33.67		322	0	16.05	33.67		24.73	322	0.00
9	16.02	33.66		322	10	16.01	33.66		24.73	322	0.03
23	15.99	33.65		322	20	16.00	33.65		24.73	322	0.06
37	15.99	33.66		321	30	15.99	33.65		24.73	322	0.10
55	16.00	33.66		322	50	16.00	33.66		24.74	321	0.16
68	15.99	33.68		320	75	15.99	33.67		24.75	320	0.24
85	15.98	33.67		320	100	15.67	33.61		24.78	318	0.32
108	15.38	33.57		315	150	13.30	33.48		25.18	280	0.47
160	12.73	33.48		269	200	10.30	33.58		25.81	220	0.60
212	9.60	33.63		204	250	8.68	33.87		26.31	172	0.70
266	8.39	33.96		162	300	7.81	34.02		26.55	150	0.79
319	7.54	34.04		144	400	6.56	34.08		26.77	128	0.93
421	6.32	34.09		124	500	5.70	34.15		26.94	112	1.06
532	5.44	34.18		108	600	5.12	34.25		27.09	98	1.17
643	4.96	34.29		94							
705p	4.66	34.34									
918p	4.04	34.46									
1138p	3.32	34.53									
1489p	2.62	34.62									
1929p	2.14	34.64									

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

97.30 HORIZON; April 19, 1955; 1817 GCT; 32°15.5'N, 117°09'W; sounding, 33 fm; wind, 330°, force 3; weather, clear; sea, rough; wire angle, 05°.

0	12.88	33.47	5.69	273	0	12.88	33.47	5.69	25.25	273	0.00
10	12.34	33.42	5.51	266	10	12.34	33.42	5.51	25.32	266	0.03
15	12.18	33.48	5.76	259	20	11.97	33.48	5.43	25.44	255	0.05
20	11.97	33.48	5.43	255	30	11.32	33.50	4.81	25.57	242	0.08
25	11.70	33.50	5.19	249							
30	11.32	33.50	4.81	242							
40	10.96	33.48	4.18	237							

97.32 CREST; April 22, 1955; 0841 GCT; 32°11.5'N, 117°17.5'W; sounding, 780 fm; wind, 160°, force 4; weather, clear; sea, slight; wire angle, 05°.

0	15.5	33.52	5.88	321	0	15.5	33.52	5.88	24.74	321	0.00
10	15.40	33.48	5.86	322	10	15.40	33.48	5.86	24.73	322	0.03
30	13.88	33.43	5.94	295	20	15.34	33.47	5.87	24.74	321	0.06
40	12.21	33.35	5.28	269	30	13.88	33.43	5.94	25.02	295	0.10
51	10.98	33.44	4.50	241	50	11.03	33.44	4.57	25.58	242	0.15
61	10.28	33.48	3.84	226	75	9.79	33.70	3.29	26.00	202	0.20
71	9.84	33.63	3.40	208	100	9.20	33.88	2.94	26.23	180	0.25
81	9.68	33.75	3.18	197	150	8.81	34.10	2.35	26.47	157	0.34
91	9.32	33.82	3.02	186	200	8.52	34.23	1.59	26.61	144	0.41
101	9.20	33.88	2.94	180	250	8.03	34.25	1.25	26.71	134	0.48
125	9.20	34.08	2.35	165	300	7.61	34.29	0.90	26.79	126	0.55
154	8.67	34.11	2.35	155	400	7.07	34.33	0.50	26.91	116	0.68
203	8.52	34.23	1.58	143	500	6.48	34.36	0.41	27.01	106	0.79
261	7.94	34.26	1.19	133	600	5.62	34.38	0.34	27.13	94	0.90
364	7.22	34.32	0.56	119							
483	6.60	34.35	0.42	108							
606	5.60	34.38	0.33	94							

97.40 CREST; April 19, 1955; 0216 GCT; 31°54.5'N, 117°51.5'W; sounding, 750 fm; wind, 330°, force 6; weather, partly cloudy; sea, rough; wire angle, 25°.

0	15.5	33.42	5.74	328	0	15.5	33.42	5.74	24.67	328	0.00
9	15.46	33.46	5.75	324	10	15.46	33.46	5.74	24.71	324	0.03
27	15.38	33.48	5.70	321	20	15.41	33.47	5.72	24.73	323	0.06
41	14.10	33.43	5.89	299	30	15.30	33.48	5.70	24.76	320	0.10
50	13.70	33.41	5.72	293	50	13.70	33.41	5.72	25.04	293	0.16
60	13.11	33.37	5.42	284	75	11.19	33.34	4.51	25.47	252	0.23
69	11.46	33.33	4.71	257	100	9.91	33.52	3.69	25.83	217	0.29
78	11.01	33.35	4.36	248	150	8.90	33.91	2.77	26.30	173	0.38
92	10.05	33.47	3.84	223	200	8.39	34.09	2.15	26.52	152	0.47
101	9.90	33.52	3.66	217	250	8.00	34.18	1.52	26.65	140	0.54
122	9.42	33.76	3.23	192	300	7.59	34.23	1.18	26.75	130	0.61
147	8.96	33.89	2.84	175	400	6.73	34.28	0.60	26.92	114	0.74
192	8.44	34.07	2.28	154	500	6.05	34.32	0.31	27.03	103	0.85
246	8.02	34.18	1.56	140	600	(5.53)	(34.35)	(0.30)	(27.13)	(95)	(0.96)
346	7.19	34.26	0.90	122							
463	6.23	34.31	0.36	107							
591	5.58	34.35	0.30	95							

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

CREST; April 18, 1955; 2015 GCT; 31°32'N, 118°31'W; sounding, 1200 fm; wind, 340°, force 5; weather, partly cloudy; sea, moderate; wire angle, 25°.

97.50

0	15.1	33.43	5.80	319	0	15.1	33.43	5.80	24.76	319	0.00
9	15.09	33.45	5.88	318	10	15.09	33.45	5.88	24.78	317	0.03
29	15.04	33.48	5.81	314	20	15.06	33.47	5.83	24.80	316	0.06
41	11.68	33.42	4.93	255	30	15.04	33.48	5.80	24.82	314	0.10
50	11.03	33.40	4.29	245	50	11.03	33.40	4.29	25.54	245	0.15
60	10.25	33.51	3.71	224	75	9.79	33.59	3.37	25.91	210	0.21
69	9.94	33.56	3.51	215	100	9.16	33.80	2.91	26.17	185	0.26
78	9.70	33.62	3.25	207	150	8.69	33.98	2.56	26.39	164	0.35
92	9.19	33.76	2.74	188	200	8.17	34.15	1.84	26.60	144	0.42
101	9.16	33.80	2.93	185	250	7.90	34.23	1.32	26.71	134	0.50
124	8.97	33.91	2.74	174	300	7.58	34.27	0.97	26.79	127	0.56
152	8.65	33.98	2.52	164	400	6.76	34.32	0.49	26.94	112	0.69
202	8.15	34.15	1.82	144	500	6.08	34.36	0.31	27.06	101	0.80
257	7.86	34.24	1.24	133	600	5.49	34.38	0.31	27.15	92	0.90
355	7.10	34.30	0.63	119							
473	6.21	34.35	0.32	104							
603	5.44	34.38	0.31	92							

CREST; April 18, 1955; 1444 GCT; 31°17'N, 119°06.5'W; sounding, 1200 fm; wind, 340°, force 5; weather, cloudy; sea, rough; wire angle, 20°.

97.60

0	14.6	33.48	5.83	305	0	14.6	33.48	5.83	24.91	305	0.00
10	14.54	33.46	5.81	305	10	14.54	33.46	5.81	24.91	305	0.03
29	14.53	33.46	5.84	305	20	14.54	33.46	5.83	24.91	305	0.06
43	14.47	33.51	5.81	301	30	14.53	33.46	5.84	24.92	305	0.09
52	14.43	33.48	5.83	302	50	14.44	33.48	5.83	24.95	302	0.15
62	14.16	33.40	5.65	302	75	11.96	33.30	5.05	25.29	269	0.22
71	12.48	33.30	5.20	278	100	9.94	33.39	3.98	25.72	228	0.29
79	11.44	33.30	4.86	259	150	9.37	33.91	2.59	26.24	179	0.39
93	10.25	33.36	4.13	235	200	8.60	34.04	2.32	26.45	159	0.48
102	9.90	33.39	3.97	227	250	8.18	34.17	1.48	26.62	143	0.55
124	9.59	33.58	3.63	208	300	7.76	34.26	1.07	26.75	130	0.62
152	9.36	33.92	2.59	179	400	6.91	34.29	0.69	26.89	117	0.75
202	8.59	34.04	2.34	159	500	6.25	34.27	0.41	26.97	110	0.87
261	8.07	34.20	1.30	139	600	5.79	34.34	0.31	27.09	98	0.98
369	7.16	34.29	0.79	120							
492	6.34	34.27	0.45	111							
623	5.66	34.37	0.30	95							

CREST; April 18, 1955; 0840 GCT; 30°58'N, 119°50'W; sounding, 2150 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 11°.

97.70

0	14.7	33.50	5.72	306	0	14.7	33.50	5.72	24.90	306	0.00
10	14.66	33.50	5.70	305	10	14.66	33.50	5.70	24.91	305	0.03
30	14.66	33.49	5.85	306	20	14.66	33.50	5.75	24.90	306	0.06
41	14.58	33.46	5.89	307	30	14.66	33.49	5.85	24.90	306	0.09
51	14.36	33.48	5.47	300	50	14.39	33.48	5.50	24.96	301	0.15
61	12.57	33.40	5.49	272	75	11.52	33.39	5.08	25.46	253	0.22
71	11.78	33.39	5.18	258	100	10.42	33.37	4.71	25.63	237	0.28
80	11.24	33.40	4.95	249	150	9.12	33.85	3.05	26.23	180	0.39
91	10.74	33.37	4.87	242	200	8.60	34.05	2.36	26.46	158	0.47
100	10.42	33.37	4.71	237	250	7.97	34.15	1.92	26.64	141	0.55
124	9.54	33.67	3.50	200	300	7.32	34.21	1.48	26.78	128	0.62
152	9.09	33.86	3.02	179	400	6.50	34.31	0.75	26.97	109	0.74
200	8.60	34.05	2.36	158	500	6.00	34.39	0.41	27.09	98	0.85
256	7.85	34.16	1.87	139	600	(5.45)	(34.42)	(0.30)	(27.20)	(88)	(0.95)
351	6.80	34.26	1.03	118							
467	6.18	34.37	0.48	101							
592	5.54	34.44	0.30	89							

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

97.80

CREST; April 18, 1955; 0218 GCT; 30°32.5'N, 120°31.5'W; sounding, 2150 fm; wind, 300°, force 4; weather, partly cloudy; sea, moderate; wire angle, 11°.

0	14.4	33.38	5.84	309	0	14.4	33.38	5.84	24.87	309	0.00
10	14.44	33.35	5.71	312	10	14.44	33.35	5.71	24.84	312	0.03
30	14.34	33.40	5.73	306	20	14.39	33.38	5.71	24.87	309	0.06
40	14.32	33.40	5.80	305	30	14.34	33.40	5.73	24.90	306	0.09
51	13.54	33.39	5.93	291	50	13.64	33.39	5.93	25.05	292	0.15
60	12.90	33.35	5.69	282	75	11.98	33.38	5.40	25.36	263	0.22
69	12.48	33.37	5.46	273	100	10.61	33.40	4.84	25.62	238	0.28
79	11.50	33.38	5.40	254	150	8.61	33.81	3.05	26.27	176	0.39
88	10.77	33.28	5.16	249	200	7.89	33.96	2.63	26.50	154	0.47
98	10.68	33.39	4.93	240	250	7.40	34.03	1.93	26.62	143	0.55
122	9.40	33.55	4.26	207	300	6.90	34.07	1.36	26.73	133	0.62
150	8.61	33.81	3.05	176	400	6.08	34.16	0.70	26.91	116	0.75
198	7.92	33.96	2.66	155	500	5.60	34.26	0.40	27.05	102	0.86
255	7.38	34.04	1.89	142	600	(5.19)	(34.32)	(0.35)	(27.14)	(94)	(0.97)
356	6.36	34.12	0.94	122							
473	5.74	34.24	0.44	106							
598	5.20	34.32	0.35	94							

97.90

CREST; April 17, 1955; 2044 GCT; 30°14.5'N, 121°10.5'W; sounding, 2200 fm; wind, 340°, force 4; weather, cloudy; sea, rough; wire angle, 15°.

0	14.2	33.36	5.89	306	0	14.2	33.36	5.89	24.90	306	0.00
10	14.10	33.35	5.88	305	10	14.10	33.35	5.88	24.92	305	0.03
29	14.05	33.33	5.87	305	20	14.07	33.34	5.87	24.91	305	0.06
39	14.02	33.36	5.98	303	30	14.05	33.33	5.87	24.91	305	0.09
49	14.02	33.34	5.88	304	50	14.02	33.34	5.88	24.92	304	0.15
59	14.01	33.33	5.83	304	75	13.38	33.37	5.81	25.08	289	0.23
68	13.60	33.40	5.82	291	100	11.86	33.26	5.67	25.28	270	0.30
78	13.28	33.36	5.81	288	150	9.09	33.58	3.94	26.02	200	0.42
87	12.99	33.36	5.69	283	200	8.60	33.88	2.58	26.32	171	0.51
97	12.11a)	33.26	5.69	274	250	8.18	34.03	1.87	26.51	153	0.59
119	10.48	33.33	5.11	240	300	7.56	34.11	1.39	26.66	139	0.67
146	9.19	33.54	4.08	205	400	6.45	34.13	0.83	26.83	122	0.80
190	8.68	33.85	2.79	174	500	5.72	34.14	0.52	26.93	113	0.93
243	8.22	34.02	1.97	155							
336	7.12	34.13	1.09	131							
449	6.02	34.13	0.66	118							
571	5.28	34.19	0.33	104							

100.29

HORIZON; April 19, 1955; 1411 GCT; 31°42.5'N, 116°43.5'W; sounding, 90 fm; wind, 040°, force 3; weather, partly cloudy; sea, rough; wire angle, 00°.

0	11.38	33.55	5.11	240	0	11.38	33.55	5.11	25.60	240	0.00
10	11.02	33.51	4.69	236	10	11.02	33.51	4.69	25.63	236	0.02
20	10.25	33.56	3.84	220	20	10.25	33.56	3.84	25.81	220	0.05
30	9.96	33.51	3.64	219	30	9.96	33.51	3.64	25.82	219	0.07
40	9.84	33.60	3.59	211	50	9.57	33.59	3.56	25.95	206	0.11
50	9.57	33.59	3.56	206	75	9.10	33.78	2.99	26.17	185	0.16
60	9.35	33.61	3.35	202	100	9.21	33.94	2.43	26.27	175	0.21
70	9.10	33.77	3.11	186							
80	9.11	33.80	2.89	184							
90	9.16	33.86	2.76	180							
100	9.21	33.94	2.43	175							

a) Alternate value, 12.44°C, not used in interpolation.

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

HORIZON; April 19, 1955; 1306 GCT; 31°42'N, 116°46.5'W; sounding, 230 fm; wind, 030°, force 3; weather, partly cloudy; sea, rough; wire angle, 02°.

100.30

0	12.32	33.55	5.57	256	0	12.32	33.55	5.57	25.43	256	0.00
10	12.12	33.51	5.32	256	10	12.12	33.51	5.32	25.43	256	0.03
20	10.21	33.51	3.94	223	20	10.21	33.51	3.94	25.77	223	0.05
30	9.90	33.57	3.59	213	30	9.90	33.57	3.59	25.88	213	0.07
35	9.88	33.57	3.56	213	50	9.59	33.67	3.24	26.01	201	0.11
45	9.74	33.61	3.38	208	75	9.09	33.80	2.90	26.19	184	0.16
55	9.42	33.74	3.11	193	100	9.32	33.95	2.34	26.27	176	0.21
65	9.20	33.78	3.82r	187	150	9.35	34.26	1.44	26.51	153	0.29
80	9.06	33.82	2.05r	182	200	9.00	34.33	1.03	26.62	143	0.36
100	9.32	33.95	2.34	176	250	8.50	34.32	0.93	26.69	136	0.44
126	9.39	34.15	1.79	162	300	8.00	34.35	0.74	26.79	126	0.50
169	9.23	34.31	1.13	149							
208	8.92	34.33	1.01	142							.74
248	8.56	34.32	0.94	137							
307	7.91	34.36	0.73	125							

CREST; April 19, 1955; 0829 GCT; 31°20'N, 117°26.5'W; sounding, 1050 fm; wind, 330°, force 6; weather, clear; sea, very rough; wire angle, 39°.

100.40

0	15.4	33.40	5.81	328	0	15.4	33.40	5.81	24.67	328	0.00
8	15.34	33.41	5.84	326	10	15.34	33.41	5.67	24.69	326	0.03
24	15.35	33.40	5.48	326	20	15.35	33.40	5.57	24.69	326	0.06
37	14.38	33.34	5.74	311	30	15.29	33.39	5.49	24.69	326	0.10
44	13.80	33.36	6.02	298	50	13.27	33.33	5.92	25.08	289	0.16
52	13.00	33.32	5.81	286	75	10.71	33.36	4.13	25.57	242	0.23
60	12.01	33.30	5.14	269	100	9.69	33.67	3.37	25.99	202	0.28
68	11.10	33.31	4.40	252	150	8.66	33.89	2.90	26.32	171	0.38
79	10.53	33.40	4.01	236	200	7.90	34.02	2.42	26.54	150	0.46
86	10.21	33.46	3.79	227	250	7.99	34.23	1.41	26.69	136	0.53
107	9.47	33.73	3.15	195	300	7.98	34.32	0.81	26.77	129	0.60 .24
128	9.08	33.81	2.93	183	400	6.69	34.27	0.62	26.91	116	0.73
166	8.39	33.94	2.85	163	500	6.08	34.36	0.39	27.06	101	0.84
209	7.82	34.05	2.36	147							
288	8.04	34.32	0.90	130							
385	6.84	34.26	0.66	118							
502	6.06	34.36	0.39	101							

CREST; April 19, 1955; 1421, 1452 GCT; 30°59.5'N, 118°08'W; sounding, 2000+ fm; wind, 320°, force 6; weather, partly cloudy; sea, very rough; wire angle, 10°, 15°.

100.50

0	15.0	33.40	5.60	319	0	15.0	33.40	5.60	24.76	319	0.00
10	15.14	33.47	5.64	317	10	15.14	33.47	5.64	24.78	317	0.03
31	15.14	33.38	5.70	324	20	15.14	33.43	5.65	24.75	320	0.06
45	14.48	33.40	5.83	309	30	15.14	33.38	5.68	24.72	324	0.10
55	12.76	33.34	5.33	280	50	13.55	33.37	5.61	25.05	292	0.16
64	11.52	33.29	4.63	261	75	10.79	33.38	4.09	25.57	242	0.22
73	10.96	33.34	4.21	247	100	9.67	33.60	3.22	25.94	207	0.28
82	10.23	33.57	3.64	219	150	9.05	33.93	2.44	26.29	174	0.38
96	9.69	33.58	3.31	209	200	8.42	34.07	1.94	26.50	154	0.46
107	9.65	33.64	3.07	204	250	8.13	34.19	1.52	26.65	140	0.54
					300	7.72	34.23	0.90	26.73	132	0.60
130	9.28	33.85	2.72	183	400	6.72					24
159	9.00	33.96	2.38	171							84
211	8.36	34.10	1.87	151							
271	8.00	34.21	1.14	137							
380	6.93	34.25	0.50	120							
487p	6.14	34.16u	1.40u	-							

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

100.60

CREST; April 19, 1955; 2015 GCT; 30°41.5'N, 118°46'W; sounding, 1600 fm; wind, 340°, force 5; weather, partly cloudy; sea, rough; wire angle, 15°.

0	15.2	33.43	5.77	321	0	15.2	33.43	5.77	24.74	321	0.00
10	15.01	33.40	5.81	320	10	15.01	33.40	5.81	24.76	320	0.03
25	14.95	33.46	5.75	314	20	14.98	33.44	5.77	24.80	316	0.06
55	13.88	33.35	5.69	301	30	14.95	33.46	5.74	24.82	314	0.10
64	12.30	33.22	5.52	280	50	14.59	33.43	5.70	24.87	309	0.16
74	11.36	33.22	4.95	263	75	11.30	33.22	4.87	25.36	263	0.23
89	10.34	33.36	4.24	236	100	9.44	33.60	3.48	25.97	204	0.29
98	9.50	33.58	3.57	206	150	8.85	33.91	2.82	26.31	172	0.38
131	9.10	33.85	2.99	180	200	7.99	34.02	2.57	26.53	151	0.46
160	8.76	33.93	2.79	169	250	7.80	34.13	1.66	26.64	141	0.54
211	7.94	34.04	2.38	149	300	7.57	34.23	1.05	26.75	130	0.61
287	7.66	34.22	1.19	132	400	6.70	34.28	0.57	26.92	114	0.74
393	6.77	34.28	0.58	115	500	5.96	34.35	0.38	27.07	100	0.85
535	5.73	34.37	0.32	96	600	5.40	34.39	0.33	27.17	91	0.95
725	4.78	34.43	0.35	81	700	4.88	34.42	0.33	27.26	82	1.04
959	4.01	34.49	0.58	69	800	4.49	34.45	0.42	27.32	76	1.13
1264	3.31	34.55	0.87	57	1000	3.93	34.49	0.62	27.41	68	1.28

100.70

CREST; April 20, 1955; 0200, 0233 GCT; 30°20'N, 119°21'W; sounding, 2050 fm; wind, 360°, force 4; weather, partly cloudy; sea, rough; wire angle, 40°, 40°.

0	14.9	33.43	5.74	315	0	14.9	33.43	5.74	24.81	315	0.00
8	14.90	33.41	5.73	316	10	14.90	33.41	5.73	24.79	316	0.03
20	14.87	33.42	5.72	315	20	14.87	33.42	5.72	24.81	315	0.06
44	14.34	33.33	5.73	311	30	14.74	33.41	5.72	24.82	314	0.10
52	13.76	33.24	5.81	306	50	13.90	33.26	5.80	24.88	308	0.16
59	13.08	33.21	5.79	295	75	12.71	33.30	5.36	25.16	282	0.23
71	12.88	33.30	5.47	285	100	10.58	33.34	4.51	25.58	241	0.30
86	12.10	33.31	5.20	270	150	9.14	33.74	3.15	26.13	189	0.41
106	9.91	33.36	4.21	229	200	8.41	34.07	2.20	26.50	154	0.49
					250	7.78	34.13	1.69	26.64	140	0.57
117	9.58	33.40	4.12	221	300	7.20	34.16	1.28	26.75	130	0.64
150	9.14	33.74	3.15	189	400	6.39	34.23	0.71	26.92	115	0.77
199	8.42	34.07	2.21	154	500	5.88	34.34	0.34	27.07	100	0.88
267	7.58	34.14	1.55	137	600	5.40	34.41	0.29	27.18	90	0.98
360	6.62	34.19	0.94	121	700	4.99	34.45	0.32	27.27	81	1.07
491	5.93	34.34	0.36	100	800	4.61	34.48	0.39	27.33	75	1.16
667	5.10	34.44	0.29	84	1000	(3.92)	(34.53)	(0.58)	(27.44)	(64)	(1.31)
935	4.12	34.52	0.53	67							

100.80

CREST; April 20, 1955; 0834, 0908 GCT; 30°02.5'N, 120°02'W; sounding, 2000+ fm; wind, 350°, force 4; weather, clear; sea, moderate; wire angle, 03°, 03°.

0	14.4	33.39	5.68	307	0	14.4	33.39	5.68	24.89	307	0.00
11	14.39	33.37	5.78	309	10	14.39	33.37	5.76	24.87	309	0.03
25	14.38	33.37	5.68	309	20	14.38	33.37	5.72	24.87	309	0.06
50	14.11	33.37	5.63	303	30	14.33	33.37	5.65	24.88	308	0.09
62	13.62	33.37	5.84	294	50	14.11	33.37	5.63	24.93	303	0.15
					75	12.80	33.34	5.59	25.18	280	0.23
63	13.51	33.38	5.78	291	100	10.93	33.42	4.72	25.58	242	0.29
71	13.06	33.32	5.68	287	150	9.11	33.76	3.04	26.15	187	0.40
79	12.43	33.36	5.42	273	200	8.21	33.94	2.99	26.43	161	0.49
99	10.98	33.42	4.73	242	250	7.49	33.95	2.54	26.54	150	0.57
123	9.82	33.49	3.77	218	300	7.30	34.03	1.74	26.64	141	0.64
151	9.08	33.76	3.03	187	400	7.18	34.35	0.58	26.90	116	0.78
200	8.21	33.94	2.99	161	500	6.75	34.44	0.26	27.04	103	0.89
270	7.32	33.96	2.19	147	600	5.88	34.46	0.29	27.17	91	1.00
368	7.22	34.30	0.91	120	700	5.00	34.47	0.38	27.28	80	1.09
500	6.75	34.44	0.26	103	800	4.45	34.47	0.45	27.34	74	1.17
681	5.11	34.47	0.36	82	1000	3.81	34.51	0.66	27.44	65	1.32
903	4.10	34.48	0.55	70							
1204	3.40	34.58	0.82	56							



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

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CREST; April 20, 1955; 1457 GCT; 29°45'N, 120°41'W; sounding, 2200+ fm; wind, 320°, force 3; weather, cloudy; sea, rough; wire angle, 20°.

100.90

0	14.4	33.38	5.38	309	0	14.4	33.38	5.38	24.87	309	0.00
10	14.42	33.36	5.59	311	10	14.42	33.36	5.59	24.85	311	0.03
24	14.43	33.34	5.52	312	20	14.43	33.35	5.54	24.84	312	0.06
49	14.50	33.42	5.56	308	30	14.43	33.36	5.53	24.84	312	0.09
58	14.16	33.35	5.78	306	50	14.49	33.42	5.57	24.89	307	0.16
67	13.66	33.30	5.06u	300	75	13.53	33.31	5.70	25.00	296	0.23
78	13.44	33.31	5.69	295	100	12.47	33.37	5.28	25.25	272	0.30
96	12.79	33.36	5.41	279	150	9.39	33.57	3.21	25.96	206	0.42
118	10.81	33.39	4.48	242	200	8.40	33.99	2.45	26.44	160	0.52
144	9.55	33.52	3.39	211	250	7.92	34.08	1.97	26.58	146	0.59
186	8.58	33.94	2.60	166	300	7.01	34.09	1.61	26.72	134	0.67
245	8.00	34.07	2.04	148	400	6.19	34.23	0.89	26.94	112	0.79
333	6.52	34.10	1.44	126	500	5.73	34.32	0.47	27.07	100	0.90
444	6.00	34.28	0.67	106	600	5.27	34.37	0.38	27.17	91	1.01
602	5.25	34.37	0.37	91	700	4.81	34.43	0.40	27.27	81	1.10
797	4.54	34.49	0.45	74	800	4.52	34.49	0.45	27.35	73	1.18
1082	3.76	34.64	0.69	55	1000	3.99	34.60	0.60	27.49	60	1.33

SPENCER F. BAIRD; April 22, 1955; 2008 GCT; 28°35'N, 121°45'W; sounding, 2380 fm; wind, 340°, force 2; weather, partly cloudy; sea, rough; wire angle, 08°.

102.110

0	16.48	33.64		334	0	16.48	33.64		24.61	334	0.00
10	16.36	33.61		333	10	16.36	33.61		24.62	333	0.03
25	16.33	33.61		332	20	16.33	33.61		24.63	332	0.07
40	16.31	33.61		332	30	16.33	33.61		24.63	332	0.10
59	16.12	33.58		330	50	16.21	33.60		24.64	331	0.17
74	16.06	33.60		327	75	16.06	33.60		24.68	327	0.25
93	16.04	33.59		327	100	15.94	33.57		24.69	326	0.33
117	15.43	33.51		320	150	12.68	33.41		25.24	274	0.48
173	10.59	33.37		239	200	9.71	33.48		25.83	218	0.61
231	8.98	33.74		186	250	8.67	33.85		26.30	174	0.71
289	8.07	34.02		153	300	7.92	34.03		26.55	150	0.79
345	7.31	34.08		138	400	6.70	34.12		26.78	128	0.94
456	6.14	34.16		117	500	5.79	34.21		26.98	108	1.06
571	5.38	34.28		99	600	5.26	34.33		27.13	94	1.17
685	4.99	34.38		87	700	(4.96)	(34.40)		(27.22)	(86)	(1.27)

HORIZON; April 19, 1955; 0009 GCT; 31°02.5'N, 116°24.5'W; sounding, 45 fm; wind, 320°, force 5; weather, partly cloudy; sea, very rough; wire angle, 21°.

103.30

0	11.84	33.40		259	0	11.84	33.40		25.40	259	0.00
10	11.80	33.40		258	10	11.80	33.40		25.41	258	0.03
15	11.75	33.40		257	20	11.65	33.43		25.46	253	0.05
20	11.65	33.43		253	30	11.30	33.41		25.50	249	0.08
24	11.58	33.40		254							
29	11.37	33.40		251							
38	10.16	33.55		219							
49	9.56	33.56		209							

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

103.35 HORIZON; April 19, 1955; 0300 GCT; 30°55'N, 116°45'W; sounding, 980 fm; wind, 320°, force 6; weather, partly cloudy; sea, very rough; wire angle, 12°.

0	15.16	33.34	6.36	327	0	15.16	33.34	6.36	24.68	327	0.00
10	15.37	33.32	5.43	333	10	15.37	33.32	5.43	24.62	333	0.03
30	15.39	33.34	5.80	332	20	15.38	33.33	5.60	24.63	332	0.07
45	15.24	33.33	5.63	330	30	15.39	33.34	5.80	24.62	332	0.10
59	13.53	33.19	6.33	305	50	15.02	33.31	5.69	24.68	327	0.16
69	12.50	33.18	5.83	287	75	12.05	33.15	5.46	25.17	281	0.24
78	11.83	33.15	5.29	277	100	10.07	33.28	4.69	25.62	238	0.31
94	10.34	33.25	4.78	244	150	9.28	33.93	2.83	26.26	176	0.41
104	9.87	33.32	4.53	232	200	8.51	34.07	2.21	26.49	155	0.50
118	9.43	33.58	3.43	205	250	8.43	34.23	1.58	26.62	143	0.57
146	9.36	33.92	2.88	179	300	7.93	34.26	1.32	26.73	132	0.64
176	8.82	34.00	2.50	165	400	7.05	34.30	0.66	26.88	118	0.77
235	8.54	34.20	1.63	146	500	6.23	34.34	0.63	27.02	105	0.89
303	7.88	34.27	1.29	131	600	5.69	34.38	0.63	27.12	95	1.00
421	6.91	34.31	0.63	115	700	5.20	34.42	0.63	27.22	86	1.09
563	5.91	34.36	0.63	99							
732	5.02	34.44	0.63	83							

103.40 HORIZON; April 19, 1955; 0609 GCT; 30°45'N, 117°05.5'W; sounding, 1000 fm; wind, 320°, force 7; weather, partly cloudy; sea, very rough; wire angle, 07°.

0	15.66	33.47	5.42	328	0	15.66	33.47	5.42	24.67	328	0.00
10	15.70	33.48	5.55	328	10	15.70	33.48	5.55	24.67	328	0.03
30	15.72	33.45	5.54	330	20	15.72	33.47	5.55	24.66	329	0.07
45	15.52	33.42	5.57	329	30	15.72	33.45	5.54	24.65	330	0.10
60	14.12	33.32	5.77	307	50	15.30	33.41	5.58	24.70	326	0.16
70	12.90	33.25	5.74	289	75	12.55	33.23	5.62	25.13	284	0.24
80	12.23	33.22	5.50	279	100	10.70	33.32	4.87	25.54	245	0.31
95	10.96	33.28	4.99	252	150	8.89	33.71	3.33	26.15	188	0.42
105	10.53	33.35	4.72	240	200	8.55	33.98	2.91	26.42	162	0.51
120	9.85	33.44	3.98	222	250	8.04	34.12	2.16	26.60	145	0.58
149	8.92	33.71	3.36	188	300	7.29	34.14	1.53	26.72	133	0.66
178	8.67	33.89	3.12	171	400	6.43	34.23	0.70	26.91	115	0.79
237	8.21	34.11	2.33	148	500	5.99	34.36	0.38	27.08	99	0.90
307	7.20	34.14	1.46	132	600	5.50	34.41	0.33	27.18	90	1.00
425	6.32	34.25	0.59	112	700	5.00	34.41	0.32	27.23	85	1.09
564	5.70	34.41	0.34	93							
706	4.98	34.41	0.32	85							

103.50 CREST; April 21, 1955; 2041 GCT; 30°27'N, 117°41'W; sounding, 1350 fm; wind, 330°, force 2; weather, overcast; sea, moderate; wire angle, 05°.

0	15.4	33.53	5.65	318	0	15.4	33.53	5.65	24.77	318	0.00
11	15.36	33.49	5.63	320	10	15.36	33.49	5.64	24.76	320	0.03
31	15.35	33.53	5.60	317	20	15.36	33.51	5.61	24.77	319	0.06
41	15.32	33.54	5.56	316	30	15.35	33.53	5.60	24.78	318	0.10
51	15.32	33.52	5.58	317	50	15.32	33.52	5.57	24.79	317	0.16
61	14.95	33.49	5.60	312	75	11.49	33.39	5.02	25.46	253	0.23
71	12.00	33.40	5.29	262	100	9.59	33.50	4.06	25.87	214	0.29
82	10.82	33.38	4.59	243	150	8.80	33.87	3.01	26.29	174	0.39
91	10.19	33.40	4.52	231	200	8.15	34.00	2.53	26.49	155	0.47
100	9.59	33.50	4.06	214	250	7.59	34.12	1.98	26.67	138	0.54
124	9.18	33.67	3.42	194	300	7.17	34.19	1.45	26.78	128	0.62
154	8.76	33.88	2.97	173	400	6.42	34.25	0.79	26.93	114	0.74
203	8.12	34.01	2.50	154	500	5.77	34.32	0.43	27.07	100	0.85
262	7.48	34.14	1.86	136	600	5.26	34.43	0.30	27.21	87	0.95
364	6.66	34.23	0.92	118							
482	5.85	34.30	0.46	103							
607	5.24	34.43	0.30	86							

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

CREST; April 21, 1955; 1312 GCT; 30°04.5'N, 118°23.5'W; sounding, 1875 fm; wind, 320°, force 2; weather, cloudy; sea, slight; wire angle, 07°.

103.60

0	15.4	33.48	5.64	322	0	15.4	33.48	5.64	24.73	322	0.00
10	15.22	33.49	5.68	317	10	15.22	33.49	5.68	24.78	317	0.03
30	14.99	33.50	5.64	312	20	15.09	33.50	5.64	24.82	314	0.06
41	14.96	33.46	5.68	314	30	14.99	33.50	5.64	24.84	312	0.10
51	14.36	33.41	5.76	306	50	14.53	33.42	5.74	24.88	308	0.16
61	13.06	33.31	5.92	288	75	12.78	33.39	5.58	25.21	277	0.23
71	12.99	33.39	5.71	280	100	10.25	33.37	4.59	25.66	234	0.30
80	11.70	33.51 <sup>r</sup>	5.42	-	150	8.97	33.72	3.19	26.15	188	0.40
90	10.94	33.27	5.31	253	200	8.36	33.94	2.62	26.41	163	0.49
98	10.36	33.35	4.71	237	250	7.65	34.06	1.99	26.61	144	0.57
123	9.49	33.58	3.66	206	300	7.19	34.12	1.51	26.72	133	0.64
153	8.92	33.73	3.11	186	400	6.39	34.20	0.74	26.89	117	0.77
201	8.36	33.94	2.61	162	500	5.78	34.26	0.43	27.02	104	0.88
260	7.56	34.07	1.88	142	600	5.35	34.33	0.35	27.13	95	0.99
362	6.64	34.17	0.94	122							
479	5.82	34.25	0.47	106							
603	5.34	34.33	0.34	94							

CREST; April 21, 1955; 0735 GCT; 29°44.5'N, 119°05'W; sounding, 2000 fm; wind, 330°, force 2; weather, clear; sea, calm; wire angle, 08°.

103.70

0	14.8	33.29	5.64	323	0	14.8	33.29	5.64	24.72	323	0.00
10	14.69	33.30	5.64	320	10	14.69	33.30	5.64	24.75	320	0.03
30	14.74	33.30	5.65	321	20	14.72	33.30	5.64	24.75	321	0.06
40	14.74	33.30	5.62	321	30	14.74	33.30	5.65	24.74	321	0.10
51	14.75	33.32	5.69	320	50	14.75	33.32	5.69	24.75	320	0.16
61	14.72	33.33	5.69	319	75	14.60	33.28	5.62	24.76	320	0.24
71	14.70	33.30	5.62	320	100	13.24	33.21	5.68	24.98	298	0.32
81	14.06	33.23	5.68	313	150	10.21	33.23	4.80	25.55	245	0.46
91	13.57	33.24	5.72	302	200	8.72	33.70	3.65	26.17	186	0.57
100	13.24	33.21	5.68	298	250	8.00	34.00	2.28	26.51	153	0.66
126	12.50	33.26	5.40	281	300	7.31	34.05	1.75	26.65	140	0.73
154	10.03	33.23	4.76	241	400	6.23	34.10	1.06	26.83	123	0.87
202	8.66	33.71	3.58	185	500	5.70	34.21	0.52	26.99	108	0.99
259	7.86	34.02	2.10	150	600	5.39	34.30	0.34	27.10	97	1.10
361	6.59	34.07	1.37	129							
478	5.80	34.19	0.60	110							
602	5.39	34.30	0.34	97							

CREST; April 20, 1955; 2145 GCT; 29°26'N, 119°44.5'W; sounding, 2000+ fm; wind, 340°, force 3; weather, partly cloudy; sea, moderate; wire angle, 05°.

103.80

0	16.0	33.50	5.54	333	0	16.0	33.50	5.54	24.62	333	0.00
10	15.66	33.45 <sup>a</sup>	5.62	329	10	15.66	33.45	5.62	24.66	329	0.03
30	15.64	33.46	5.88	328	20	15.65	33.45	5.74	24.66	329	0.07
40	15.62	33.51	5.55	325	30	15.64	33.46	5.88	24.67	328	0.10
51	15.64	33.50	5.57	326	50	15.64	33.50	5.57	24.70	326	0.16
61	15.58	33.48	5.58	325	75	14.84	33.38	5.69	24.78	318	0.24
70	15.03	33.42	5.73	319	100	13.85	33.40	5.49	25.00	296	0.32
81	14.66	33.36	5.60	315	150	10.20	33.32	4.70	25.62	237	0.46
91	14.21	33.39	5.62	304	200	8.52	33.83	3.55	26.30	173	0.56
100	13.85	33.40	5.49	296	250	7.99	33.98	2.74	26.50	154	0.65
125	11.98	33.27	5.26	271	300	7.40	34.04	2.09	26.63	142	0.72
154	9.91	33.34	4.58	230	400	6.41	34.16	1.27	26.86	120	0.86
202	8.50	33.84	3.53	172	500	5.79	34.27	0.58	27.03	104	0.98
260	7.82	34.00	2.55	151	600	5.36	34.34	0.45	27.14	94	1.08
363	6.76	34.12	1.51	127							
480	5.84	34.25	0.63	106							
606	5.31	34.34	0.43	93							

a) Alternate value, 33.51‰, not used in interpolation.

S10

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

107.70 HORIZON; April 17, 1955; 2130 GCT; 29°13'N, 118°41'W; sounding, 1750 fm; wind, 310°, force 5; weather, cloudy; sea, very rough; wire angle, 30°.

0	15.73	33.47	5.70	329	0	15.73	33.47	5.70	24.66	329	0.00
10	15.76	33.47	5.49	330	10	15.76	33.47	5.49	24.65	330	0.03
27	15.73	33.47	5.70	329	20	15.73	33.47	5.65	24.66	329	0.07
40	15.68	33.47	5.67	329	30	15.71	33.47	5.70	24.66	329	0.10
53	15.49	33.43	5.80	327	50	15.54	33.44	5.73	24.67	328	0.16
62	15.46	33.46	5.89	325	75	15.06	33.39	5.57	24.74	322	0.25
71	15.24	33.41	5.58	324	100	13.38	33.28	5.52	25.00	296	0.32
84	14.43	33.34	5.64	312	150	9.78	33.40	4.09	25.77	224	0.46
92	13.63	33.26	5.51	302	200	9.51	33.99	2.42	26.26	176	0.56
104	13.31	33.28	5.53	294	250	8.20	34.04	2.54	26.51	153	0.64
129	11.24	33.27	5.21	259	300	7.65	34.11	1.92	26.65	140	0.72
153	9.74	33.42	4.07	222	400	7.04	34.28	0.80	26.86	120	0.86
202	9.49	33.99	2.40	176	500	6.40	34.34	0.48	27.00	106	0.97
259	8.02	34.04	2.56	151	600	5.78	34.35	0.38	27.09	98	1.08
362	7.28	34.22	1.06	127							
486	6.47	34.34	0.50	107							
615	5.64	34.35	0.38	97							

107.80 HORIZON; April 17, 1955; 1525, 1618 GCT; 28°51'N, 119°23.5'W; sounding, 2100 fm; wind, 320°, force 4; weather, cloudy; sea, very rough; wire angle, 39°, 25°.

0	15.62	33.51	5.84	324	0	15.62	33.51	5.84	24.71	324	0.00
10	15.67	33.46	5.17	329	10	15.67	33.46	5.17	24.66	329	0.03
24	15.65	33.45	4.97	329	20	15.66	33.45	5.00	24.66	329	0.07
36	15.65	33.50	5.33	325	30	15.65	33.47	5.18	24.68	327	0.10
48	15.52	33.46	-	325	50	15.50	33.46	5.34	24.70	325	0.16
56	15.47	33.47	5.37	324	75	15.03	33.42	5.49	24.77	319	0.24
62	15.37	33.46	5.48	323	100	13.88	33.25	5.75	24.88	308	0.32
75	15.03	33.42	5.49	319	150	10.72	33.55	3.52	25.72	229	0.46
83	14.73	33.33	5.62	319	200	8.96	33.75	3.24	26.17	185	0.56
94	14.21	33.26	5.78	314	250	8.27	33.90	2.65	26.39	164	0.65
115	12.81	33.25	5.40	287	300	7.79	34.06	1.88	26.59	146	0.73
137	11.26	33.47	3.64	243	400	7.16	34.26	0.70	26.84	122	0.87
180	9.37	33.68	3.44	197	500	6.30	34.31	0.42	26.99	107	0.99
232	8.46	-	-	-	600	5.72	34.35	0.36	27.10	97	1.10
321	7.65	-	-	-							
286	7.90	34.02	2.11	150							
400	7.16	34.26	0.70	122							
535	6.06	34.33	0.39	103							
676	5.35	34.40	0.36	89							

110.33 HORIZON; April 16, 1955; 0312 GCT; 29°50.5'N, 115°52'W; sounding, 45 fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 18°.

0	14.35	33.39		307	0	14.35	33.39		24.88	307	0.00
10	14.37	33.41		306	10	14.37	33.41		24.90	306	0.03
15	14.31	33.37		308	20	14.09	33.35		24.94	302	0.06
19	14.10	33.36		304							
24	12.88	33.27		287							

OBSERVED					INTERPOLATED				COMPUTED			
Z	T	S	O <sub>2</sub>	$\delta T_{30}^{-5}$	Z	T	S	O <sub>2</sub>	$\sigma_t$	$\delta T_{30}^{-5}$	$\Delta D$	
m	°C	‰	ml/L	10 <sup>-5</sup> cm/g	m	°C	‰	ml/L	g/L	10 <sup>-5</sup> cm/g	dyn. m	

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HORIZON; April 16, 1955; 0450 GCT; 29°46.5'N, 116°00'W; sounding, 700 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 35°.

110.35

0	15.63	33.37	5.94	335	0	15.63	33.37	5.94	24.60	335	0.00
9	15.69	33.42	5.92	332	10	15.68	33.41	5.88	24.62	332	0.03
26	15.65	33.40	5.87	333	20	15.68	33.41	5.87	24.62	333	0.07
36	14.64	33.34	6.02	317	30	15.40	33.38	5.92	24.66	329	0.10
48	13.50	33.29	5.98	297	50	13.27	33.29	5.93	25.04	293	0.16
56	12.73	33.29	5.74	283	75	11.05	33.25	4.95	25.43	256	0.23
63	12.10	33.22	5.70	277	100	9.98	33.46	4.00	25.78	223	0.29
74	11.12	33.24	5.01	258	150	9.48	33.85	2.68	26.16	186	0.39
82	10.62	33.30	4.55	245	200	9.47	34.33	1.37	26.55	150	0.48
93	10.20	33.39	4.23	232	250	9.19	34.39	1.07	26.63	142	0.55
116	9.58	33.67	3.32	201	300	8.66	34.39	0.81	26.72	133	0.62
138	9.51	33.81	2.72	190	400	7.51	34.37	0.53	26.88	118	0.75
194p	9.43	34.33	1.46	150	500	6.47	34.36	0.45	27.01	106	0.87
264p	9.06	34.40	0.96	139	600	5.73	34.40	0.33	27.14	94	0.98
376p	7.80	34.38	0.58	122							
491p	6.54	34.36	0.46	107							
639p	5.70	34.41	0.32	93							

HORIZON; April 16, 1955; 0734 GCT; 29°36.5'N, 116°19.5'W; sounding, 1400 fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 35°.

110.40

0	15.88	33.42	6.03	336	0	15.88	33.42	6.03	24.58	336	0.00
8	15.90	33.38	6.02	339	10	15.91	33.38	6.06	24.55	339	0.03
26	15.93	33.41	6.10	338	20	15.92	33.40	6.08	24.56	338	0.07
45	15.68	33.40	5.57	334	30	15.89	33.41	6.05	24.57	337	0.10
56	15.51	33.46	5.64	326	50	15.60	33.42	5.60	24.64	331	0.17
64	15.01	33.67r	5.82	-	75	14.37	33.38	5.67	24.89	308	0.25
76	14.33	33.38	5.64	307	100	11.85	33.37	5.18	25.37	262	0.32
95	12.50	33.36	5.33	274	150	10.27	33.85	2.76	26.04	198	0.44
122	10.50	33.58	3.75	222	200	9.38	34.13	2.25	26.40	164	0.53
142	10.38	33.77	2.87	207	250	9.28	34.34	1.29	26.58	147	0.61
187	9.48	34.04	2.50	172	300	8.83	34.36	0.87	26.67	138	0.68
248	9.28	34.34	1.30	147	400	7.47	34.31	0.60	26.84	122	0.82
334	8.38	34.36	0.66	132	500	6.27	34.31	0.50	27.00	107	0.94
446	6.85	34.29	0.58	116	600	5.73	34.37	0.43	27.11	96	1.04
602	5.73	34.37	0.43	96	700	5.18	34.41	0.43	27.21	86	1.14
797	4.72	34.44	0.46	80	800	4.67	34.44	0.46	27.29	79	1.24
1081	3.82	34.64	0.62	55	1000	4.00	34.55	0.57	27.45	64	1.39

HORIZON; April 16, 1955; 1250 GCT; 29°15.5'N, 116°60'W; sounding, 2150 fm; wind, 340°, force 4; weather, partly cloudy; sea, rough; wire angle, 18°.

110.50

0	15.87	33.50	5.82	330	0	15.87	33.50	5.82	24.65	330	0.00
10	15.90	33.44	5.60	335	10	15.90	33.44	5.60	24.59	335	0.03
30	15.93	33.46	5.62	334	20	15.92	33.45	5.61	24.60	335	0.07
54	15.57	33.48	5.72	325	30	15.93	33.46	5.62	24.61	334	0.10
68	15.41	33.44	5.78	325	50	15.59	33.48	5.70	24.69	326	0.17
78	15.04	33.42	5.81	319	75	15.19	33.42	5.81	24.73	322	0.25
93	13.87	33.48	5.38	291	100	13.27	33.48	5.06	25.19	279	0.32
117	11.66	33.48	4.02	249	150	10.43	33.90	2.52	26.03	198	0.44
148	10.44	33.89	2.54	199	200	10.19	34.16	1.81	26.28	174	0.54
172	10.31	34.00	2.22	188	250	9.90	34.38	1.11	26.51	153	0.62
229	10.03	34.32	1.33	160	300	9.36	34.46	0.80	26.66	139	0.70
307	9.26	34.46	0.76	137	400	7.70	34.35	0.65	26.83	123	0.84
412	7.53	34.34	0.62	121	500	6.89	34.38	0.40	26.97	110	0.96
555	6.53	34.41	0.23	103	600	6.18	34.43	0.23	27.11	97	1.07
753	5.23	34.48	0.31	82	700	5.52	34.46	0.30	27.21	87	1.16
992	4.14	34.53	0.58	67	800	5.02	34.49	0.37	27.29	79	1.26
1325	3.20	34.61	0.90	52	1000	4.08	34.53	0.58	27.43	66	1.42

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

110.60

HORIZON; April 16, 1955; 1751 GCT; 28°56.5'N, 117°40'W; sounding, 2050 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 29°.

0	15.86	33.49	5.88	331	0	15.86	33.49	5.88	24.64	331	0.00
9	15.89	33.50	5.77	331	10	15.88	33.50	5.75	24.64	331	0.03
27	15.85	33.46	5.70	333	20	15.88	33.48	5.70	24.63	332	0.07
49	15.60	33.50	5.71	324	30	15.83	33.46	5.71	24.62	333	0.10
62	15.47	33.41	5.75	328	50	15.59	33.50	5.71	24.71	324	0.16
71	14.90	33.40	5.75	317	75	14.50	33.40	5.67	24.86	310	0.24
84	13.65	33.39	5.41	293	100	12.07	33.28	4.90	25.26	272	0.32
107	11.59	33.27	4.74	264	150	10.63	33.89	2.28	26.00	201	0.44
139	10.58	33.79	3.00	208	200	10.13	34.25	1.51	26.37	166	0.53
160	10.65	33.95	2.13	198	250	9.72	34.38	1.16	26.54	151	0.61
214	9.94	34.31	1.34	160	300	9.38	34.42	0.81	26.63	142	0.69
288	9.50	34.42	0.91	144	400	8.17	34.42	0.52	26.82	124	0.83
391	8.27	34.42	0.55	126	500	6.70	34.43	0.39	27.03	104	0.95
525	6.59	34.43	0.38	102	600	5.83	34.42	0.41	27.14	93	1.05
718	5.26	34.42	0.46	87	700	5.37	34.42	0.44	27.20	88	1.15
947	4.37	34.51	0.51	71	800	4.92	34.44	0.46	27.26	82	1.24
1267	3.44	34.57	0.82	57	1000	4.19	34.52	0.55	27.41	68	1.40

110.70

HORIZON; April 16, 1955; 2230 GCT; 28°36.5'N, 118°17.5'W; sounding, 2050 fm; wind, 340°, force 2; weather, cloudy; sea, moderate; wire angle, 13°.

0	16.21	33.44	6.02	342	0	16.21	33.44	6.02	24.52	342	0.00
10	16.23	33.44	5.93	343	10	16.23	33.44	5.93	24.52	343	0.03
30	15.80	33.43	6.15	334	20	16.17	33.43	5.96	24.55	339	0.07
54	15.51	33.40	6.15	330	30	15.80	33.43	6.15	24.61	334	0.10
69	15.46	33.40	6.33	329	50	15.54	33.41	6.15	24.65	330	0.17
79	13.58	33.31	5.94	297	75	14.80	33.37	6.32	24.78	318	0.25
94	12.14	33.30	5.07	272	100	11.83	33.34	4.77	25.35	263	0.32
118	11.12	33.59	3.56	232	150	10.32	33.90	1.94	26.06	196	0.44
151	10.31	33.90	1.94	196	200	10.21	34.25	1.66	26.35	168	0.53
175	10.25	34.08	2.19	181	250	10.03	34.45	1.01	26.54	150	0.61
232	10.13	34.43	1.06	154	300	9.60	34.47	0.88	26.62	142	0.69
313	9.46	34.47	0.85	140	400	8.10	34.41	0.70	26.82	124	0.83
426	7.70	34.40	0.67	119	500	6.80	34.44	0.50	27.03	104	0.95
568	6.12	34.46	0.38	94	600	5.90	34.46	0.38	27.16	92	1.05
769	4.98	34.42	0.45	83	700	5.31	34.43	0.41	27.21	87	1.14
1009	4.13	34.54	0.63	66	800	4.86	34.43	0.47	27.26	82	1.24
1340	3.33	34.56	0.89	57	1000	4.17	34.53	0.62	27.42	66	1.40

110.80

HORIZON; April 17, 1955; 0334 GCT; 28°16'N, 118°56'W; sounding, 2250 fm; wind, 330°, force 4; weather, cloudy; sea, rough; wire angle, 19°.

0	16.12	33.56	a)	331	0	16.12	33.56		24.64	331	0.00
10	16.17	33.58		331	10	16.17	33.58		24.64	331	0.03
29	16.09	33.58		329	20	16.14	33.58		24.65	330	0.07
54	15.53	33.51		322	30	16.09	33.58		24.66	329	0.10
67	14.68	33.42		312	50	15.68	33.53		24.71	324	0.16
77	13.83	33.34		300	75	14.01	33.35		24.94	302	0.24
92	12.53	33.30		278	100	11.83	33.31		25.33	265	0.32
115	10.55	33.38		238	150	9.64	33.79		26.09	193	0.43
148	9.69	33.78		194	200	8.38	33.96		26.43	161	0.52
171	9.00	33.87		177	250	8.18	34.15		26.61	144	0.60
228	8.32	34.12		149	300	7.92	34.21		26.69	136	0.67
307	7.88	34.22		135	400	7.33	34.39		26.91	115	0.80
415	7.24	34.40		113	500	6.60	34.43		27.05	102	0.92
560	6.10	34.44		95	600	5.85	34.44		27.15	92	1.02
757	4.96	34.45		81	700	5.27	34.44		27.22	85	1.11
994	4.06	34.54		65	800	4.78	34.46		27.30	79	1.20
1333	3.25	34.61		43	1000	4.04	34.54		27.44	65	1.36

a) One oxygen sample missing; values are listed in order of increasing depth: 5.64, 5.64, 5.48, 5.64, 5.82, 5.76, 4.91, 4.24, 3.04, 3.84, 2.68, 1.12, 0.66, 0.33, 0.41, 0.74.

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

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HORIZON; April 17, 1955; 0836 GCT; 27°56'N, 119°35.5'W; sounding, 2050 fm; wind, 340°, force 5; weather, cloudy; sea, rough; wire angle, 20°.

110.90

0	16.01	33.57	5.45	328	0	16.01	33.57	5.45	24.67	328	0.00
10	16.06	-	5.62	-	10	16.06	33.57	5.62	24.66	329	0.03
29	16.06	33.57	5.27	329	20	16.06	33.57	5.46	24.66	329	0.07
53	15.83	33.55	5.16	326	30	16.05	33.57	5.21	24.66	329	0.10
66	15.34	33.45	5.59	323	50	15.89	33.56	5.16	24.68	327	0.16
75	13.60	33.39	5.21	292	75	13.60	33.39	5.21	25.05	292	0.24
89	11.49	33.30	4.52	260	100	10.87	33.40	4.16	25.58	242	0.31
111	10.36	33.53	3.82	224	150	9.67	33.86	2.62	26.14	188	0.42
142	9.62	33.78	2.96	193	200	9.43	34.15	1.99	26.40	164	0.51
165	9.79	34.01	2.24	179	250	8.86	34.25	1.62	26.58	146	0.58
219	9.19	34.20	1.87	155	300	8.35	34.33	1.17	26.72	134	0.66
297	8.38	-	-	-	400	7.51	34.41	0.46	26.90	116	0.79
402	7.51	34.41	0.45	116	500	6.52	34.38	0.38	27.02	105	0.90
546	6.04	34.37	0.36	100	600	5.78	34.38	0.33	27.12	96	1.01
741	5.02	34.47	0.33	81	700	5.25	34.45	0.33	27.23	84	1.10
977	4.08	34.52	0.58	67	800	4.80	34.49	0.36	27.32	77	1.19
1304	3.30	34.54	0.89	58	1000	4.05	34.52	0.59	27.42	66	1.35

HORIZON; April 15, 1955; 2133 GCT; 29°22.5'N, 115°17.5'W; sounding, 15 fm; wind, 340°, force 3; weather, cloudy; sea, moderate; wire angle, 08°.

113.30

0	15.23	33.58	5.56	311	0	15.23	33.58	5.56	24.85	311	0.00
5	14.47	33.56	5.56	297	10	12.88	33.54	4.02	25.31	267	0.03
10	12.88	33.54	4.02	267	20	11.87	33.59	2.25	25.55	244	0.06
15	11.96	33.58	2.43	247							
19	11.87	33.58	2.27	246							
25	11.86	33.66	2.03	240							

HORIZON; April 15, 1955; 1848 GCT; 29°13'N, 115°36.5'W; sounding, 550 fm; wind, 330°, force 4; weather, partly cloudy; sea, rough; wire angle, 09°.

113.35

0	13.00	33.53	5.80	270	0	13.00	33.53	5.80	25.28	270	0.00
10	12.66	33.49	5.61	267	10	12.66	33.49	5.61	25.31	267	0.03
30	11.99	33.58	4.88	248	20	12.39	33.50	5.39	25.37	261	0.05
45	10.21	33.45	4.17	225	30	11.99	33.58	4.88	25.51	248	0.08
60	9.94	33.52	3.86	218	50	9.99	33.46	3.95	25.78	222	0.13
70	9.89	33.63	3.35	209	75	9.92	33.70	3.05	25.98	204	0.18
80	9.94	33.78	2.82	199	100	9.77	33.92	2.73	26.17	185	0.23
95	9.80	33.87	2.75	190	150	9.86	34.29	1.30	26.44	160	0.32
105	9.74	34.00	2.13	179	200	9.27	34.33	1.07	26.58	147	0.39
120	9.74	34.11	2.00	171	250	8.86	34.36	0.60	26.67	138	0.46
150	9.86	34.29	1.30	160	300	8.86	34.47	0.43	26.74	131	0.53
180	9.60	34.34	1.11	152	400	7.68	34.44	0.34	26.90	116	0.66
237	8.86	34.33	0.91	141	500	6.60	34.41	0.34	27.03	104	0.78
306	8.85	34.47	0.40	131	600	5.97	34.41	0.33	27.12	96	0.88
423	7.40	34.43	0.34	113	700	(5.45)	(34.43)	(0.29)	(27.19)	(88)	(0.98)
561	6.18	34.40	0.34	99							
699	5.43	34.43	0.29	88							

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

113.40 HORIZON; April 15, 1955; 1542 GCT; 29°03.5'N, 115°55.5'W; sounding, 1000 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 20°.

0	14.54	33.47	6.02	305	0	14.54	33.47	6.02	24.91	305	0.00
10	14.59	33.45	6.07	308	10	14.59	33.45	6.07	24.89	308	0.03
28	12.60	33.44	5.48	270	20	14.54	33.45	6.07	24.90	307	0.06
43	11.08	33.50	4.09	238	30	12.32	33.45	5.28	25.34	265	0.09
56	10.25	33.52	3.55	223	50	10.62	33.51	3.78	25.70	230	0.14
66	10.12	33.59	3.20	215	75	9.48	33.76	3.58	26.09	193	0.19
75	9.48	33.76	3.58	193	100	9.52	33.94	2.45	26.23	180	0.24
88	9.54	33.88	2.78	185	150	9.33	34.13	1.76	26.41	163	0.33
97	9.47	33.89	2.73	183	200	9.10	34.33	1.06	26.60	144	0.40
110	9.72	34.09	1.95	172	250	8.52	34.35	0.92	26.71	134	0.48
138	9.31	34.07	2.06	167	300	7.90	34.35	0.84	26.80	126	0.54
165	9.34	34.19	1.67	159	400	7.06	34.42	0.49	26.98	109	0.66
221	8.90	34.36	0.98	139	500	6.44	34.39	0.36	27.04	103	0.77
284	8.09	34.34	0.90	129	600	5.87	34.41	0.30	27.13	95	0.88
394	7.10	34.42	0.51	109							
525	6.30	34.39	0.32	101							
660	5.56	34.44	0.29	88							

113.45 HORIZON; April 15, 1955; 1203 GCT; 28°51'N, 116°17'W; sounding, 1200 fm; wind, 310°, force 5; weather, partly cloudy; sea, rough; wire angle, 18°.

0	15.58	33.33	5.90	337	0	15.58	33.33	5.90	24.58	337	0.00
10	15.61	33.36	5.85	335	10	15.61	33.36	5.85	24.60	335	0.03
29	15.63	33.34	5.62	337	20	15.63	33.35	5.70	24.58	336	0.07
44	15.18	33.34	5.70	328	30	15.61	33.34	5.63	24.58	337	0.10
58	13.63	33.23	5.82	305	50	14.58	33.31	5.78	24.79	317	0.17
67	12.36	33.20	5.52	283	75	11.70	33.21	5.07	25.28	270	0.24
76	11.62	33.22	5.05	268	100	10.38	33.36	4.10	25.63	236	0.30
90	10.86	33.34	4.63	246	150	9.48	33.88	2.83	26.18	184	0.41
99	10.41	33.36	4.15	237	200	8.33	34.04	2.26	26.49	155	0.50
112	9.72	33.41	3.99	222	250	8.75	34.26	1.29	26.60	145	0.57
140	9.69	33.80	3.00	193	300	8.63	34.36	0.81	26.70	135	0.64
166	8.94	33.96	2.64	169	400	7.26	34.34	0.54	26.89	117	0.78
220	8.74	34.16	1.79	152	500	6.79	34.32	0.50	26.96	110	0.89
284	8.75	34.36	0.90	137	600	5.92	34.38	0.43	27.10	97	1.00
393	7.34	34.35	0.56	118							
526	6.42	34.32	0.50	108							
659	5.46	34.51	0.38	83							

113.50 HORIZON; April 15, 1955; 0849 GCT; 28°42'N, 116°37.5'W; sounding, 1950 fm; wind, 330°, force 4; weather, partly cloudy; sea, rough; wire angle, 08°.

0	15.78	33.43	5.11	334	0	15.78	33.43	5.11	24.61	334	0.00
10	15.84	33.37	5.36	340	10	15.84	33.37	5.36	24.55	340	0.03
30	15.50	33.35	5.27	334	20	15.73	33.36	5.33	24.57	338	0.07
45	15.06	33.34	5.41	325	30	15.50	33.35	5.27	24.61	334	0.10
60	14.60	33.30	5.67	319	50	14.91	33.33	5.50	24.72	323	0.17
70	14.11	33.29	5.49	309	75	13.58	33.24	5.47	24.94	303	0.25
80	13.02	33.18	5.51	297	100	11.27	33.17	5.00	25.33	265	0.32
94	11.81	33.19	4.96	274	150	10.07	33.69	3.00	25.94	208	0.44
104	11.01	33.17	5.02	262	200	9.68	34.05	2.20	26.28	175	0.52
119	10.62	33.24	4.69	249	250	9.84	34.34	1.09	26.48	156	0.62
148	10.10	33.67	3.08	209	300	8.62	34.25	1.31	26.61	144	0.70
177	9.91	33.92	2.51	188	400	7.42	34.23	0.73	26.77	128	0.84
234	9.96	34.32	1.28	159	500	6.49	34.28	0.44	26.95	112	0.96
300	8.62	34.25	1.31	144	600	5.87	34.36	0.34	27.08	99	1.08
415	7.25	34.23	0.65	126	700	(5.38)	(34.42)	(0.28)	(27.20)	(88)	(1.18)
552	6.14	34.32	0.38	105							
692	5.39	34.42	0.28	88							



OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O <sub>2</sub>	$\delta T_{30}^{-5}$	Z	T	S	O <sub>2</sub>	$\sigma_t$	$\delta T_{30}^{-5}$	$\Delta D$
m	°C	‰	ml/L	10 <sup>-5</sup> cm/g	m	°C	‰	ml/L	g/L	10 <sup>-5</sup> cm/g	dyn. m

HORIZON; April 15, 1955; 0540 GCT; 28°32'N, 116°57'W; sounding, 1950 fm; wind, 330°, force 5, weather, partly cloudy; sea, rough; wire angle, 30°.

113.55

0	15.77	33.38	5.85	337	0	15.77	33.38	5.85	24.58	337	0.00
9	15.82	33.39	5.63	338	10	15.82	33.39	5.60	24.57	337	0.03
27	15.80	33.40	5.45	336	20	15.82	33.40	5.50	24.58	337	0.07
40	15.65	33.39	5.83	334	30	15.78	33.40	5.45	24.59	336	0.10
53	15.58	33.50	5.49	324	50	15.60	33.49	5.80	24.70	325	0.17
62	14.58	33.39	5.69	312	75	13.08	33.28	5.18	25.08	289	0.24
70	13.60	33.30	5.24	299	100	10.87	33.38	4.13	25.57	243	0.31
82	12.27	33.29	5.14	275	150	9.49	33.80	2.80	26.12	190	0.42
90	12.02	33.33	4.56	268	200	10.13	34.29	1.40	26.40	164	0.51
102	10.78	33.39	4.10	241	250	9.39	34.33	1.32	26.55	150	0.59
125	10.46	33.74	2.95	210	300	8.63	34.30	1.13	26.65	140	0.66
147	9.47	33.78	3.22	191	400	7.60	34.39	0.60	26.88	118	0.80
193	10.18	34.28	1.42	165	500	7.04	34.42	0.33	26.98	108	0.92
246	9.46	34.33	1.34	150	600	6.53	34.40	0.33	27.03	104	1.03
341	8.06	34.29	0.90	132	700	(6.02)	(34.38)	0.34	(27.08)	(99)	(1.14)
460	7.21	34.42	0.33	111							
693	6.04	34.38	0.33	99							

HORIZON; April 15, 1955; 0233 GCT; 28°23'N, 117°17'W; sounding, 2050 fm; wind, 340°, force 5; weather, cloudy; sea, very rough; wire angle, 30°.

113.60

0	16.04	33.46	5.67	337	0	16.04	33.46	5.67	24.58	337	0.00
9	16.06	33.40	4.22	342	10	16.06	33.40	4.27	24.53	341	0.03
27	16.01	33.42	5.29	339	20	16.05	33.41	4.75	24.54	340	0.07
40	15.70	33.40	5.42	334	30	15.98	33.42	5.32	24.56	338	0.10
53	15.60	33.40	5.29	332	50	15.61	33.40	5.30	24.62	332	0.17
62	15.19	33.42	5.35	322	75	13.35	33.27	5.28	25.01	295	0.25
70	13.71	33.29	5.32	301	100	11.58	33.29	4.60	25.36	262	0.32
84	12.74	33.26	5.14	285	150	9.88	33.82	2.66	26.07	195	0.43
92	12.22	33.27	5.01	275	200	10.40	34.27	1.25	26.33	170	0.52
106	11.16	33.30	4.28	254	250	10.08	34.45	0.80	26.53	151	0.61
128	10.46	33.61	3.12	220	300	9.58	34.50	0.49	26.66	139	0.68
150	9.88	33.82	2.66	195	400	8.24	34.47	0.27	26.84	122	0.82
192	10.42	34.24	1.53	173	500	6.99	34.42	0.23	26.99	108	0.94
242	10.14	34.44	0.86	153							
330	9.20	34.51	0.35	133							
435	7.80	34.45	0.26	117							
554	6.28	34.41	0.20	100							

HORIZON; April 14, 1955; 2047 GCT; 28°00'N, 117°54.5'W; sounding, 1800 fm; wind, 340°, force 5; weather, cloudy; sea, very rough; wire angle, 30°.

113.70

0	16.18	33.46	5.81	340	0	16.18	33.46	5.81	24.54	340	0.00
9	16.16	33.42	5.25	342	10	16.16	33.42	5.25	24.52	342	0.03
27	15.82	33.39	5.98	338	20	15.98	33.40	5.72	24.55	340	0.07
41	15.75	33.40	5.51	335	30	15.81	33.39	5.98	24.57	337	0.10
54	14.78	33.35	5.49	318	50	15.26	33.38	5.49	24.69	326	0.17
62	14.19	33.29	5.62	311	75	13.40	33.26	5.69	24.99	298	0.25
71	13.77	33.27	5.80	305	100	10.59	33.30	4.40	25.55	244	0.32
84	12.20	33.25	4.32	276	150	10.70	34.12	1.68	26.16	186	0.42
92	11.30	33.23	4.72	262	200	10.34	34.45	0.86	26.49	155	0.51
104	10.42	33.36	4.28	238	250	9.91	34.49	0.58	26.58	146	0.59
129	10.56	33.84	2.17	204	300	9.21	34.43	0.53	26.66	139	0.66
153	10.70	34.15	1.65	184	400	7.42	34.33	0.57	26.86	120	0.79
203	10.30	34.45	0.82	155	500	(6.84)	(34.35)	(0.42)	(26.95)	(112)	(0.92)
262	9.81	34.49	0.52	144	600	(6.42)	(34.36)	(0.36)	(27.01)	(106)	(1.03)
364	7.94	34.33	0.62	128	700	(5.88)	(34.38)	(0.28)	(27.10)	(97)	(1.14)
488	6.89	34.35	0.43	112							
717	5.76	34.39	0.27	95							

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

117.60

HORIZON; April 14, 1955; 1059 GCT; 27°46'N, 116°56.5'W; sounding, 1800 fm; wind, 280°, force 4; weather, partly cloudy; sea, rough; wire angle, 18°.

0	16.03	33.53	5.77	332	0	16.03	33.53	5.77	24.63	332	0.00
10	16.08	33.54	5.87	332	10	16.08	33.54	5.87	24.63	332	0.03
29	15.74	33.53	5.61	325	20	16.02	33.54	5.86	24.64	331	0.07
43	13.76	33.40	5.93	295	30	15.58	33.52	5.60	24.73	322	0.10
53	12.97	33.34	5.32	284	50	13.08	33.35	5.43	25.11	286	0.16
62	12.58	33.40	4.69	272	75	11.13	33.66	3.22	25.74	227	0.22
72	11.39	33.60	3.43	236	100	10.39	33.84	2.75	26.00	202	0.28
76	11.03	33.68	3.14	224	150	10.21	34.22	1.60	26.32	171	0.37
95	10.41	33.79	2.72	206	200	9.73	34.36	1.19	26.52	152	0.45
104	10.38	33.87	2.76	199	250	9.19	34.41	0.81	26.65	140	0.53
127	10.54	34.10	2.21	185	300	8.58	34.44	0.60	26.77	129	0.60
155	10.18	34.23	1.55	169	400	7.36	34.44	0.40	26.95	112	0.72
205	9.66	34.37	1.12	150	500	6.20	34.42	0.35	27.09	98	0.83
265	9.00	34.42	0.72	136	600	5.60	34.44	0.31	27.18	90	0.93
372	7.67	34.44	0.43	116							
495	6.26	34.42	0.36	99							
625	5.50	34.44	0.30	88							

117.70

HORIZON; April 14, 1955; 1507, 1525 GCT; 27°28'N, 117°31'W; sounding, 2200 fm; wind 330°, force 4; weather, cloudy; sea, rough; wire angle, 35°, 25°.

0	15.94	33.53	6.01	330	0	15.94	33.53	6.01	24.66	330	0.00
9	15.98	33.54	5.81	330	10	15.98	33.53	5.79	24.65	330	0.03
26	15.69	33.48	5.74	328	20	15.80	33.50	5.75	24.66	329	0.07
38	14.44	33.40	6.10	308	30	15.62	33.46	5.76	24.68	328	0.10
					50	13.91	33.44	5.82	25.03	294	0.16
51	13.85	33.44	5.80	293	75	12.72	33.41	4.98	25.24	274	0.23
60	13.32	33.31	5.72	293	100	10.72	33.80	2.73	25.91	210	0.29
69	12.66	33.32	5.35	280	150	10.43	34.20	1.70	26.27	176	0.39
78	12.79	33.48	4.64	270	200	9.54	34.25	1.48	26.46	158	0.48
91	10.97	33.66	3.54	224	250	9.53	34.47	0.68	26.64	141	0.55
100	10.72	33.80	2.73	210	300	8.99	34.44	0.65	26.71	134	0.62
123	10.86	34.07	1.86	193	400	7.40	34.38	0.61	26.90	116	0.75
149	10.44	34.20	1.70	176	500	6.51	34.42	0.38	27.05	102	0.87
198	9.54	34.24	1.50	158	600	5.79	34.39	0.32	27.12	95	0.97
257	9.50	34.48	0.64	140							
361	7.92	34.34	0.68	126							
486	6.61	34.42	0.40	103							
619	5.64	34.39	0.32	94							

120.25

HORIZON; April 13, 1955; 0929 GCT; 28°23'N, 114°14'W; sounding, 40 fm; wind, 270°, force 3; weather, clear; sea, slight; wire angle, 16°.

0	14.83	33.58	6.00	303	0	14.83	33.58	6.00	24.93	303	0.00
10	14.88	33.58	5.98	304	10	14.88	33.58	5.98	24.92	304	0.03
15	14.85	33.58	6.38	303	20	14.72	33.58	6.14	24.96	300	0.06
20	14.72	33.58	6.14	300	30	13.94	33.54	5.58	25.10	288	0.09
25	14.29	33.53	5.61	296	50	11.40	33.77	1.46	25.77	224	0.14
30	13.94	33.54	5.58	288							
35	12.45	33.54	3.83	260							
40	11.86	33.61	2.58	244							
49	11.42	33.76	1.53	225							
59	11.24	33.90	0.84	212							

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

HORIZON; April 13, 1955; 0641 GCT; 28°14'N, 114°34'W; sounding, 50 fm; wind 340°, force 5; weather, clear; sea, slight; wire angle, 08°.

120.30

0	15.26	33.55	6.06	314	0	15.26	33.55	6.06	24.82	314	0.00
10	15.30	33.56	6.01	314	10	15.30	33.56	6.01	24.82	314	0.03
15	15.32	33.56	5.90	315	20	15.28	33.55	6.28	24.81	315	0.06
20	15.28	33.55	6.28	315	30	15.20	33.53	5.64	24.82	314	0.09
25	15.29	33.55	5.86	315	50	12.38	33.53	3.81	25.39	259	0.15
30	15.20	33.53	5.64	314							
35	14.06	33.54	5.48	291							
40	13.35	33.48	4.98	281							
50	12.38	33.53	3.81	259							
60	11.38	33.68	2.43	230							

HORIZON; April 13, 1955; 0355 GCT; 28°02'N, 114°52'W; sounding 45 fm; wind 340°, force 6; weather, clear; sea, moderate; wire angle, 10°.

120.35

0	15.17	33.54	5.61	312	0	15.17	33.54	5.61	24.83	312	0.00
10	15.16	33.54	5.95	312	10	15.16	33.54	5.95	24.83	312	0.03
15	14.97	33.58	5.77	305	20	14.80	33.57	5.93	24.93	303	0.06
20	14.80	33.57	5.93	303	30	14.62	33.57	5.86	24.97	300	0.09
25	14.70	33.54	5.69	303	50	11.59	33.48	3.78	25.51	248	0.15
30	14.62	33.57	5.86	300							
35	14.55	33.56	5.54	299							
40	12.64	33.55	4.51	263							
50	11.59	33.48	3.78	248							
60	11.21	33.68	2.79	227							

HORIZON; April 12, 1955; 1924 GCT; 27°57.5'N, 115°15.5'W; sounding, 30 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 05°.

120.40

0	15.93	33.65	5.53	320	0	15.93	33.65	5.53	24.75	320	0.00
5	15.72	33.56	5.31	323	10	15.45	33.53	5.31	24.76	320	0.03
10	15.45	33.53	5.31	320	20	13.83	33.57	4.79	25.14	284	0.06
15	15.38	33.53	5.53	318	30	11.88	33.82	3.06	25.72	228	0.09
20	13.83	33.57	4.79	284							
25	12.75	33.69	4.12	254							
30	11.88	33.82	3.06	228							
40	10.72	34.22	1.96	179							

HORIZON; April 12, 1955; 1635 GCT; 27°42.5'N, 115°33.5'W; sounding, 1000 fm; wind 040°, force 5; weather, clear; sea, very rough; wire angle, 18°.

120.45

0	15.06	33.57	6.09	308	0	15.06	33.57	6.09	24.88	308	0.00
10	15.11	33.56	5.74	310	10	15.11	33.56	5.74	24.86	310	0.03
29	15.00	33.51	5.64	312	20	15.08	33.53	5.67	24.85	311	0.06
43	12.91	33.34	5.40	282	30	14.98	33.50	5.62	24.84	312	0.09
58	12.41	33.66	3.89	250	50	12.67	33.49	4.57	25.32	267	0.15
67	11.20	33.60	3.54	233	75	10.90	33.80	2.77	25.88	213	0.21
76	10.86	33.82	2.71	211	100	10.40	33.99	2.38	26.09	193	0.26
89	10.47	33.89	2.43	199	150	10.55	34.39	1.04	26.40	163	0.35
99	10.55	33.99	2.40	193	200	10.17	34.49	0.63	26.54	150	0.43
112	10.40	34.06	1.95	185	250	9.47	34.49	0.51	26.66	139	0.51
140	10.55	34.33	1.28	168	300	8.89	34.50	0.45	26.77	129	0.58
166	10.58	34.49	0.83	156	400	7.99	34.50	0.37	26.90	116	0.70
220	9.88	34.48	0.58	146	500	7.13	34.46	0.25	26.99	107	0.82
284	9.06	34.50	0.46	131	600	6.32	34.45	0.23	27.10	97	0.92
395	8.05	34.50	0.39	117							
528	6.90	34.45	0.22	104							
657	5.88	34.46	0.24	91							

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

120.50

HORIZON; April 12, 1955; 1414 GCT; 27°34.5'N, 115°39'W; sounding, 2550 fm; wind, 330°, force 6; weather, partly cloudy; sea, very rough; wire angle, 27°.

0	15.79	33.51	5.70	328	0	15.79	33.51	5.70	24.67	328	0.00
10	15.80	33.49	5.78	330	10	15.80	33.49	5.78	24.65	330	0.03
28	15.79	33.48	6.16	330	20	15.80	33.49	6.00	24.65	330	0.07
41	14.28	33.44	6.21	302	30	15.78	33.48	6.18	24.64	330	0.10
48p	13.10	33.43	5.67	279	50	12.91	33.45	5.43	25.24	274	0.16
55	12.30	33.54	4.32	257	75	11.42	33.57	3.59	25.61	239	0.22
64	11.65	33.58	3.61	242	100	10.47	33.75	2.79	25.93	209	0.28
73	11.50	33.57	3.60	240	150	10.05	34.14	1.74	26.30	174	0.38
86	10.76	33.70	2.85	218	200	9.24	34.26	1.50	26.52	152	0.46
95	10.51	33.74	2.81	211	250	9.38	34.45	0.79	26.65	140	0.53
133p	10.20	34.04	1.92	184	300	8.78	34.45	0.52	26.75	131	0.60
184p	9.58	34.25	1.52	158	400	7.64	34.44	0.30	26.91	116	0.73
270p	9.15	34.45	0.73	137	500	(6.81)	(34.43)		(27.01)	(105)	(0.85)
372p	7.95	34.44	0.30	120							
479p	7.00	34.43	0.30	107							

120.55

HORIZON; April 12, 1955; 1029 GCT; 27°26'N, 116°01'W; sounding, 2300 fm; wind, 330°, force 6; weather, clear; sea, very rough; wire angle, 35°.

0	15.82	33.53	5.57	327	0	15.82	33.53	5.57	24.68	327	0.00
9	15.82	33.53	5.51	327	10	15.80	33.53	5.51	24.68	327	0.03
26	15.47	33.50	5.61	323	20	15.65	33.51	5.55	24.70	325	0.06
46	14.06	33.53	5.51	291	30	15.27	33.50	5.63	24.78	317	0.10
58	13.16	33.45	4.80	279	50	13.78	33.51	5.35	25.11	286	0.16
78	11.74	33.68	3.56	236	75	12.00	33.62	3.78	25.54	246	0.22
96	10.84	33.76	2.68	215	100	10.70	33.79	2.59	25.91	210	0.28
121	10.24	33.95	2.31	191	150	10.41	34.19	1.19	26.27	176	0.38
139	10.45	34.11	1.75	183	200	9.80	34.41	0.98	26.54	150	0.46
180	10.18	34.39	0.98	157	250	8.99	34.42	0.85	26.69	136	0.54
238	9.10	34.42	0.94	138	300	8.68	34.45	0.50	26.76	130	0.60
321	8.58	34.45	0.41	128	400	7.72	34.45	0.28	26.91	115	0.73
429	7.36	34.45	0.25	111	500	6.71	34.44	0.22	27.04	103	0.84
583	6.03	34.43	0.20	95	600	5.98	34.43	0.20	27.13	94	0.95
780	5.02	34.51	0.27	78	700	5.39	34.47	0.23	27.24	84	1.04
1067	3.90	34.52	0.54	65	800	4.99	34.52	0.29	27.32	77	1.13
					1000	4.20	34.52	0.48	27.41	68	1.29

120.60

HORIZON; April 12, 1955; 0644 GCT; 27°16.5'N, 116°27'W; sounding, 2000 fm; wind, 330°, force 6; weather, clear; sea, very rough; wire angle, 25°.

0	15.91	33.47	6.54	333	0	15.91	33.47	6.54	24.61	333	0.00
10	15.91	33.47	5.53	333	10	15.91	33.47	5.53	24.61	333	0.03
28	15.70	33.51	5.59	326	20	15.84	33.50	5.56	24.65	330	0.07
51	13.57	33.43	6.84u	289	30	15.63	33.51	5.59	24.71	324	0.10
64	11.66	33.30	4.66	263	50	13.65	33.44	5.33	25.07	290	0.16
74	11.04	33.49	4.36	238	75	11.03	33.53	4.35	25.65	235	0.23
87	11.00	33.73	3.40	220	100	10.69	33.78	2.97	25.90	211	0.28
110	10.45	33.81	2.74	205	150	9.90	34.14	2.09	26.32	172	0.38
142	10.10	34.12	2.14	176	200	9.81	34.37	1.33	26.51	153	0.46
163	9.60	34.15	2.02	166	250	9.40	34.45	0.82	26.64	141	0.54
217	9.89	34.47	0.94	147	300	8.46	34.40	0.75	26.75	130	0.61
293	8.58	34.40	0.77	131	400	7.68	34.50	0.46	26.95	111	0.73
396	7.72	34.50	0.48	112	500	6.79	34.46	0.36	27.04	102	0.84
535	6.49	34.45	0.36	99	600	6.08	34.46	(0.36)	27.14	94	0.95
728	5.20	34.52	-	79	700	5.39	34.51	(0.37)	27.26	82	1.04
965	4.18	34.55	0.52	65	800	4.80	34.53	(0.42)	27.35	73	1.12
1292	3.27	34.62	0.78	52	1000	4.02	34.55	0.58	27.45	64	1.28

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

HORIZON; April 12, 1955; 0050 GCT; 26°53'N, 117°10'W; sounding, 2050 fm; wind, 340°, force 5; weather, clear; sea, very rough; wire angle, 17°.

120.70

0	16.23	33.53	5.90	336	0	16.23	33.53	5.90	24.58	336	0.00
10	16.20	33.55	5.79	334	10	16.20	33.55	5.79	24.61	334	0.03
29	16.14	33.58	5.78	330	20	16.18	33.57	5.77	24.63	332	0.07
53	15.24	33.45	5.48	321	30	16.13	33.58	5.74	24.65	330	0.10
67	14.82	33.41	5.68	315	50	15.38	33.47	5.49	24.73	322	0.16
77	14.39	33.37	5.53	309	75	14.46	33.37	5.58	24.86	310	0.24
91	13.05	33.33	4.33	286	100	12.36	33.35	4.38	25.26	272	0.32
115	11.32	33.41	4.53	249	150	9.26	33.79	3.71	26.15	187	0.44
148	9.27	33.78	3.73	188	200	9.27	34.16	2.00	26.44	160	0.52
173	9.20	33.96	2.98	174	250	9.22	34.30	1.12	26.56	149	0.60
229	9.30	34.28	1.55	151	300	8.89	34.32	0.63	26.63	142	0.68
308	8.80	34.32	0.58	141	400	7.81	34.37	0.32	26.83	123	0.82
416	7.62	34.38	0.31	120	500	6.81	34.40	0.25	27.00	107	0.94
559	6.32	34.42	0.25	100	600	6.03	34.44	0.29	27.13	95	1.04
757	5.12	34.49	0.40	81	700	5.43	34.48	0.36	27.23	85	1.14
998	4.06	34.52	0.58	67	800	4.91	34.50	0.44	27.31	77	1.23
1328	3.26	34.60	1.45	53	1000	4.05	34.52	0.58	27.42	67	1.38

HORIZON; April 11, 1955; 1827 GCT; 26°24'N, 117°44.5'W; sounding, 2200 fm; wind, 320°, force 5; weather, partly cloudy; sea, high; wire angle, 38°.

120.80

0	16.50	33.56	5.63	340	0	16.50	33.56	5.63	24.55	340	0.00
8	16.48	33.60	5.32	337	10	16.47	33.60	5.31	24.58	337	0.03
24	16.45	33.59	5.18	337	20	16.45	33.59	5.20	24.58	337	0.07
44	16.41	33.64	4.81	332	30	16.43	33.61	5.00	24.60	335	0.10
56	16.33	33.58	4.86	335	50	16.38	33.61	4.83	24.61	334	0.17
64	16.10	33.52	5.05	334	75	15.70	33.58	5.69	24.74	321	0.25
75	15.70	33.58	5.69	321	100	13.50	33.50	4.39	25.15	282	0.33
94	14.50	33.48	4.86	303	150	12.28	34.37	0.55	26.07	195	0.44
120	11.70	33.80	3.01	227	200	11.96	34.66	0.29	26.35	168	0.54
138	12.16	34.28	1.12	200	250	11.21	34.74	0.25	26.55	149	0.62
180	12.16	34.58	0.35	178	300	10.54	34.68	0.29	26.63	142	0.69
236	11.40	34.75	0.25	152	400	8.62	34.52	0.29	26.82	124	0.83
333	10.04	34.64	0.33	137	500	7.41	34.51	0.20	26.99	108	0.95
417	8.29	34.50	0.26	120	600	6.60	34.51	0.19	27.11	96	1.06
562	6.88	34.51	0.19	100	700	5.78	34.52	0.20	27.22	86	1.16
748	5.48	34.52	0.22	82	800	5.23	34.53	0.23	27.29	79	1.25
1045	4.20	34.59	0.40	63	1000	4.40	34.57	0.35	27.43	66	1.40

HORIZON; April 10, 1955; 0657 GCT; 27°24.5'N, 114°40.5'W; sounding 38 fm; wind, 280°, force 2; weather, partly cloudy; sea, slight; wire angle, 02°.

123.37

0	12.42	33.68	4.49	249	0	12.42	33.68	4.49	25.50	249	0.00
10	12.42	33.72	4.56	246	10	12.42	33.72	4.56	25.53	246	0.02
15	12.05	33.70	3.95	241	20	11.68	33.68	4.20	25.64	235	0.05
20	11.68	33.68	4.20	235	30	10.89	33.77	3.01	25.86	215	0.07
25	11.03	33.73	3.33	220	50	10.84	33.94	2.30	26.00	202	0.11
30	10.89	33.77	3.01	215							
35	10.86	33.84	2.59	209							
40	10.87	33.88	2.51	207							
50	10.84	33.94	2.30	202							
60	10.87	34.04	1.81	195							

SIO  
CCOFI  
5504

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

123,40 HORIZON; April 10, 1955; 0859 GCT; 27°17.5'N, 114°51'W; sounding, 480 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 29°.

0	13.62	33.62	5.15	276	0	13.62	33.62	5.15	25.22	276	0.00
9	13.60	33.63	5.01	275	10	13.59	33.63	5.02	25.23	274	0.03
26	13.38	33.71	5.41	264	20	13.48	33.69	5.25	25.31	268	0.06
39	13.14	33.60	5.12	268	30	13.32	33.68	5.41	25.34	265	0.08
47	11.90	33.50	3.58	252	50	11.54	33.47	3.74	25.51	248	0.13
56	11.25	33.46	3.93	244	75	11.17	33.83	2.57	25.85	216	0.19
63	11.44	33.65	3.28	234	100	10.78	34.06	1.85	26.10	192	0.24
71	11.30	33.79	2.60	221	150	10.81	34.40	0.83	26.36	167	0.33
81	10.90	33.87	2.53	208	200	10.13	34.47	0.70	26.53	151	0.41
88	10.75	33.92	2.51	201	250	9.65	34.50	0.48	26.64	141	0.49
106	10.81	34.13	1.67	187	300	9.30	34.52	0.29	26.72	134	0.56
126	11.02	34.34	0.90	175	400	8.50	34.54	0.26	26.86	120	0.69
165	10.61	34.42	0.83	163	500	7.48	34.50	0.19	26.98	108	0.81
212	9.98	34.48	0.66	147							
298	9.32	34.52	0.31	134							
401	8.50	34.54	0.26	120							
522	7.23	34.49	0.18	106							

123,45 HORIZON; April 10, 1955; 1235 GCT; 27°05.5'N, 115°10.5'W; sounding, 2350 fm; wind, 290°, force 4; weather, partly cloudy; sea, rough; wire angle, 18°.

0	15.66	33.54	7.52	323	0	15.66	33.54	7.52	24.72	323	0.00
10	15.68	33.45	6.07	330	10	15.68	33.45	6.07	24.65	330	0.03
29	15.70	33.49	5.76	328	20	15.70	33.47	5.90	24.66	329	0.07
43	15.48	33.48	4.68	324	30	15.69	33.49	5.70	24.68	327	0.10
57	13.18	33.42	5.44	282	50	14.47	33.45	4.96	24.92	304	0.16
67	-	33.30	4.64	-	75	11.79	33.34	4.82	25.36	262	0.23
76	11.73	33.35	4.82	260	100	10.60	33.65	3.14	25.82	219	0.29
90	10.90	33.49	3.60	236	150	10.12	34.07	2.40	26.23	180	0.40
98	10.61	33.62	3.22	221	200	10.11	34.43	1.22	26.51	153	0.48
112	10.53	33.78	3.09	208	250	9.77	34.52	0.59	26.64	140	0.55
139	10.32	33.98	2.19	189	300	9.13	34.49	0.52	26.72	133	0.62
165	9.94	34.16	2.52	170	400	8.20	34.51	0.44	26.88	118	0.76
216	10.16	34.54	0.65	146	500	7.11	34.44	0.30	26.98	108	0.87
277	9.35	34.49	0.56	137							
385	8.36	34.52	0.47	119							
518	6.89	34.42	0.28	107							

123,50 HORIZON; April 11, 1955; 0243 GCT; 26°55'N, 115°30'W; sounding, 1900 fm; wind, 310°, force 5; weather, cloudy; sea, very rough; wire angle, 18°.

0	15.95	33.47	5.46	334	0	15.95	33.47	5.46	24.61	334	0.00
10	15.96	33.53	5.53	330	10	15.96	33.53	5.53	24.65	330	0.03
29	15.82	33.51	5.54	328	20	15.92	33.52	5.54	24.66	329	0.07
44	15.27	33.48	5.56	319	30	15.81	33.51	5.55	24.67	328	0.10
58	13.27	33.52	5.14	276	50	14.38	33.49	5.50	24.96	301	0.16
68	12.42	33.54	4.23	259	75	11.92	33.61	3.32	25.55	244	0.23
78	11.68	33.69	2.94	235	100	11.32	34.01	1.88	25.97	204	0.29
92	11.40	33.95	2.13	211	150	11.00	34.23	1.33	26.20	182	0.38
101	11.31	34.02	1.88	204	200	10.61	34.49	0.81	26.47	157	0.47
116	11.24	34.13	1.79	195	250	10.11	34.51	0.48	26.57	148	0.55
143	11.06	34.21	1.43	185	300	9.34	34.45	0.50	26.66	139	0.62
170	10.79	34.31	1.18	174	400	7.87	34.47	0.28	26.90	116	0.76
224	10.45	34.54	0.48	151	500	6.82	34.47	0.27	27.05	102	0.87
288	9.53	34.45	0.51	142	600	6.17	34.47	0.25	27.14	94	0.97
400	7.87	34.47	0.28	116							
534	6.57	34.47	0.27	99							
675	5.78	34.47	0.25	89							

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

HORIZON; April 11, 1955; 0519 GCT; 26°48.5'N, 115°48'W; sounding, 2100 fm; wind, 320°, force 5; weather, cloudy; sea, rough; wire angle, 27°.

123.55

0	16.05	33.55	5.32	331	0	16.05	33.55	5.32	24.64	331	0.00
9	16.06	33.55	5.35	331	10	16.05	33.55	5.36	24.64	331	0.03
28	16.02	33.62	5.42	325	20	16.05	33.59	5.40	24.68	328	0.07
41	15.88	33.52	5.95	329	30	16.01	33.61	5.51	24.71	324	0.10
55	15.75	33.49	6.28	328	50	15.81	33.50	6.21	24.66	329	0.16
64	14.75	33.42	5.62	313	75	13.00	33.40	4.85	25.17	280	0.24
72	13.52	33.41	5.06	289	100	11.09	33.58	4.06	25.68	232	0.30
85	11.58	33.39	4.32	255	150	10.03	34.02	2.87	26.20	182	0.41
94	11.22	33.48	4.24	243	200	9.77	34.31	1.42	26.48	156	0.50
106	10.94	33.66	3.80	224	250	9.38	34.41	1.05	26.62	143	0.57
132	10.28	33.86	3.40	198	300	8.82	34.42	0.73	26.71	134	0.64
156	9.99	34.07	2.27	178	400	7.71	34.43	0.38	26.89	117	0.78
207	9.73	34.34	1.39	154	500	6.85	34.47	0.34	27.04	102	0.89
266	9.21	34.42	0.96	140	600	6.02	34.46	0.35	27.15	93	0.99
369	8.02	34.42	0.42	122							
494	6.92	34.47	0.34	103							
626	5.82	34.46	0.35	91							

HORIZON; April 11, 1955; 0825 GCT; 26°37.5'N, 116°06.5'W; sounding, 2150 fm; wind, 320°, force 5; weather, cloudy; sea, rough; wire angle, 23°.

123.60

0	16.21	33.58	5.90	332	0	16.21	33.58	5.90	24.63	332	0.00
9	16.22	33.55	5.58	334	10	16.21	33.55	5.60	24.61	334	0.03
28	16.21	33.54	5.76	335	20	16.21	33.54	5.67	24.60	334	0.07
42	16.22	33.57	5.63	333	30	16.22	33.54	5.70	24.61	334	0.10
56	16.00	33.51	5.57	332	50	16.13	33.54	5.58	24.62	332	0.17
66	15.19	33.43	5.78	321	75	14.97	33.42	5.58	24.78	317	0.25
75	14.97	33.42	5.58	317	100	13.28	33.35	5.37	25.08	289	0.33
89	14.34	33.42	5.37	304	150	10.51	33.97	2.32	26.08	194	0.45
98	13.51	33.35	5.39	293	200	9.14a)	34.03	2.05	26.36	168	0.54
111	11.59	33.34	4.52	259	250	9.80	34.43	0.64	26.56	148	0.62
139	10.60	33.78	2.68	209	300	9.53	34.54	0.48	26.69	136	0.69
166	10.40	34.06	1.96	185	400	8.33	34.53	0.24	26.88	118	0.82
218	9.82	34.31	1.35	158	500	7.12	34.47	0.20	27.01	106	0.94
280	9.68	34.53	0.52	139	600	6.20	34.49	0.22	27.15	92	1.05
388	8.48	34.54	0.27	120							
518	6.96	34.47	0.20	104							
652	5.74	34.52	0.27	85							

HORIZON; April 10, 1955; 0225 GCT; 26°55'N, 114°06'W; sounding, 44 fm; wind, 300°, force 4; weather, cloudy; sea, rough; wire angle, 07°.

127.34

0	14.79	33.56	6.16	303	0	14.79	33.56	6.16	24.93	303	0.00
10	14.52	33.51	6.26	301	10	14.52	33.51	6.26	24.95	301	0.03
15	13.91	33.55	5.84	286	20	12.95	33.58	4.79	25.33	266	0.06
20	12.95	33.58	4.79	266	30	12.34	33.58	4.16	25.44	255	0.08
25	12.57	33.60	4.29	257	50	10.86	33.78	2.69	25.87	214	0.13
30	12.34	33.58	4.16	255							
35	11.78	33.68	3.59	237							
40	11.39	33.72	3.03	227							
50	10.86	33.78	2.69	214							
60	10.76	33.89	2.27	204							

a) Bathythermograph feature.

S10

CCOFI  
5504

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

127.40

HORIZON; April 9, 1955; 2325 GCT; 26°41.5'N, 114°30'W; sounding, 1900 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 15°.

0	16.18	33.56	5.07	332	0	16.18	33.56	5.07	24.62	332	0.00
10	16.15	33.58	4.72	330	10	16.15	33.58	4.72	24.64	330	0.03
30	15.88	33.57	5.06	326	20	16.08	33.58	4.79	24.66	329	0.07
44	15.00	33.49	5.82	313	30	15.88	33.57	5.06	24.69	326	0.10
59	13.84	33.33	5.78	301	50	14.71	33.44	5.82	24.85	311	0.16
68	13.38	33.48	5.08	281	75	12.98	33.44	4.92	25.21	277	0.24
78	12.66	33.41	4.87	273	100	10.77	33.53	4.21	25.70	230	0.30
92	11.04	33.46	4.21	241	150	10.24	34.01	2.60	26.16	186	0.40
101	10.76	33.54	4.21	229	200	10.12	34.31	1.27	26.41	162	0.49
115	10.51	33.78	3.43	208	250	9.61	34.35	0.89	26.53	151	0.57
144	10.24	33.96	2.81	191	300	9.07	34.36	0.63	26.63	142	0.65
172	10.27	34.18	1.96	175	400	8.06	34.41	0.36	26.82	123	0.79
229	9.82	34.35	1.02	155	500	7.04	34.44	0.33	27.00	107	0.91
296	9.09	34.36	0.66	142	600	6.25	34.43	0.32	27.10	98	1.01
410	7.98	34.42	0.32	121	700	(5.60)	(34.42)		(27.16)	(91)	(1.12)
546	6.61	34.44	0.35	102							
685	5.66	34.42	0.28	92							

127.45

HORIZON; April 9, 1955; 2023 GCT; 26°34.5'N, 114°49'W; sounding, 1900 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 24°.

0	16.48	33.75	5.78	326	0	16.48	33.75	5.78	24.70	326	0.00
10	16.46	33.64	5.21	334	10	16.46	33.64	5.21	24.61	334	0.03
28	16.36	33.63	5.29	331	20	16.40	33.63	5.21	24.62	333	0.07
42	16.34	33.63	5.45	330	30	16.34	33.63	5.35	24.64	331	0.10
56	15.14	33.52a)	4.89	313	50	16.32	33.63	5.46	24.65	330	0.17
65	14.55	33.58	5.32	297	75	12.80	33.43	4.31	25.25	273	0.24
74	13.06	33.45	4.39	277	100	11.09	33.52	3.61	25.63	237	0.31
87	11.53	33.46	4.20	249	150	9.89	33.93	2.55	26.16	186	0.41
96	11.23	33.49	3.64	242	200	9.97	34.32	1.75	26.45	159	0.50
110	10.64	33.58	3.56	225	250	9.66	34.47	0.75	26.62	143	0.58
136	9.91	33.77	3.00	199	300	9.00	34.49	0.53	26.74	132	0.65
163	9.90	34.05	2.15	178	400	7.95	34.44	0.27	26.86	120	0.78
216	9.99	34.40	1.02	153	500	6.97	34.44	0.21	27.00	106	0.90
281	9.21	34.49	0.60	134	600	6.16	34.44	0.20	27.11	96	1.00
394	8.01	34.44	0.29	120							
528	6.70	34.44	0.21	103							
668	5.65	34.45	0.20	89							

127.50

HORIZON; April 9, 1955; 1725 GCT; 26°23'N, 115°08'W; sounding, 2100 fm; wind, 320°, force 5; weather, cloudy; sea, very rough; wire angle, 34°.

0	15.90	33.62	5.72	322	0	15.90	33.62	5.72	24.73	332	0.00
10	15.88	33.60	5.53	323	10	15.88	33.60	5.53	24.72	323	0.03
28	15.80	33.60	5.05	322	20	15.84	33.60	5.14	24.73	322	0.07
41	14.14	33.61	5.59	287	30	15.77	33.60	5.05	24.75	321	0.10
54	12.78	33.58	4.76	262	50	13.20	33.59	5.10	25.29	269	0.16
62	12.24	33.52	4.02	257	75	11.74	33.60	3.28	25.57	242	0.22
71	11.85	33.56	3.41	247	100	10.83	33.78	2.69	25.89	212	0.28
84	11.43	33.76	2.93	225	150	9.73	34.04	2.20	26.27	176	0.38
92	11.07	33.83	2.76	213	200	8.97	34.13	1.92	26.47	157	0.46
105	10.76	33.78	2.66	211	250	8.79	34.29	1.48	26.62	143	0.54
130	10.54	34.04	1.92	189	300	8.49	34.41	0.68	26.75	130	0.61
154	9.59	34.04	2.24	173	400	7.63	34.47	0.24	26.93	113	0.73
206	8.93	34.14	1.89	156	500	6.76	34.45	0.24	27.04	103	0.85
265	8.73	34.33	0.99	139	600	6.09	34.49	0.24	27.16	91	0.95
369	7.92	34.47	0.24	117							
497	6.80	34.45	0.24	103							
632	5.88	34.52	0.24	87							

a) Mean value of 33.49 and 33.55‰.



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

HORIZON; April 9, 1955; 1308 GCT; 26°12'N, 115°25.5'W; sounding, 2025 fm; wind, 320°, force 5; weather, partly cloudy; sea, rough; wire angle, 12°.

127.55

0	15.84	33.63	6.15	321	0	15.84	33.63	6.15	24.75	321	0.00
10	15.84	33.66	6.02	318	10	15.84	33.66	6.02	24.78	318	0.03
30	15.85	33.59	5.86	324	20	15.85	33.62	5.94	24.74	321	0.06
45	15.24	33.53	5.79	315	30	15.85	33.59	5.86	24.72	324	0.10
60	14.26	33.49	5.70	298	50	14.96	33.51	5.79	24.86	310	0.16
70	13.43	33.55	4.69	277	75	12.85	33.57	4.28	25.34	264	0.23
80	12.42	33.58	4.08	256	100	11.68	33.72	2.99	25.68	232	0.30
94	11.94	33.68	3.09	240	150	9.89	33.97	2.45	26.19	183	0.40
103	11.49	33.75	2.96	227	200	9.60	34.19	1.60	26.41	162	0.49
118	11.06	33.94	2.14	205	250	8.89	34.29	1.22	26.60	144	0.56
147	9.90	33.96	2.47	185	300	8.32	34.31	0.98	26.70	135	0.64
176	9.85	34.10	1.90	173	400	7.30	34.33	0.53	26.87	119	0.77
237	9.06	34.28	1.30	148	500	6.62	34.38	0.25	27.00	106	0.89
305	8.27	34.31	0.94	134							
422	7.14	34.34	0.42	116							
563	6.34	34.42	0.19	100							

HORIZON; April 9, 1955; 0920 GCT; 26°03'N, 115°46'W; sounding, 2150 fm; wind, 290°, force 5; weather, partly cloudy; sea, very rough; wire angle, 22°.

127.60

0	15.82	33.50	5.82	330	0	15.82	33.50	5.82	24.65	330	0.00
10	15.83	33.47	6.09	332	10	15.83	33.47	6.09	24.63	332	0.03
30	15.85	33.47	6.28	332	20	15.85	33.47	6.18	24.63	332	0.07
44	15.84	33.46	5.75	332	30	15.85	33.47	6.28	24.63	332	0.10
59	15.44	33.45	6.31	325	50	15.76	33.45	5.88	24.64	331	0.17
68	15.06	33.43	6.63	319	75	14.67	33.40	6.28	24.84	312	0.25
78	14.52	33.40	6.18	309	100	14.10	33.50	5.81	25.03	294	0.32
93	14.44	33.46	6.23	304	150	10.85	33.82	3.06	25.90	211	0.45
102	13.93	33.50	5.49	290	200	9.48	34.07	2.86	26.33	170	0.55
116	11.62	33.36	4.36	258	250	8.92	34.23	1.60	26.55	149	0.63
144	11.03	33.78	3.04	217	300	8.29	34.26	1.12	26.68	138	0.70
173	9.75	33.90	3.35	187	400	7.20	34.30	0.57	26.86	120	0.84
229	9.16	34.20	1.86	155	500	6.40	34.36	0.38	27.02	105	0.95
295	8.34	34.26	1.16	139	600	5.80	34.38	0.37	27.11	96	1.06
410	7.13	34.31	0.54	118	700	(5.33)	(34.38)		(27.17)	(91)	(1.16)
548	6.08	34.38	0.35	99							
688	5.38	34.38	0.42	91							

HORIZON; April 8, 1955; 1105 GCT; 26°30.5'N, 113°27'W; sounding, 45 fm; wind, 320°, force 1; weather, cloudy; sea, slight; wire angle, 02°.

130.30

0	13.64	33.68	5.74	271	0	13.64	33.68	5.74	25.27	271	0.00
10	13.64	33.67	5.22	272	10	13.64	33.67	5.22	25.26	272	0.03
15	13.38	33.65	5.77	269	20	13.15	33.61	5.11	25.31	267	0.05
20	13.15	33.61	5.11	267	30	12.28	33.66	4.04	25.51	248	0.08
25	12.70	33.67	4.16	255	50	11.36	33.90	2.37	25.87	214	0.13
30	12.28	33.66	4.04	248							
35	11.60	33.76	3.11	228							
40	11.42	33.84	2.65	219							
50	11.36	33.90	2.37	214							
60	11.34	34.09	1.68	199							

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

130.35

HORIZON; April 8, 1955; 1351 GCT; 26°16'N, 113°47.5'W; sounding, 360 fm; wind, 340°, force 4; weather, partly cloudy; sea, moderate; wire angle, 15°.

0	13.47	33.62	5.86	273	0	13.47	33.62	5.86	25.25	273	0.00
10	13.48	33.60	5.80	274	10	13.48	33.60	5.80	25.24	274	0.03
35	12.66	33.53	4.76	264	20	13.48	33.57	5.79	25.22	276	0.06
44	11.24	33.55	3.72	238	30	13.11	33.55	5.23	25.27	271	0.08
54	11.20	33.64	3.43	230	50	11.23	33.61	3.70	25.67	233	0.13
63	10.95	33.73	3.10	219	75	11.01	33.99	2.19	26.00	202	0.19
73	11.01	33.98	2.19	202	100	11.15	34.16	1.71	26.11	191	0.24
82	11.01	34.00	2.21	200	150	11.14	34.63	0.58	26.49	156	0.32
97	11.10	34.10	1.90	194	200	10.50	34.61	0.31	26.58	146	0.40
107	11.26	34.25	1.43	186	250	9.81	34.57	0.28	26.66	138	0.47
131	11.32	34.51	0.75	168	300	9.28	34.54	0.29	26.73	132	0.54
159	11.01	34.64	0.46	153	400	8.33	34.53	0.20	26.88	118	0.67
211	10.36	34.60	0.28	145	500	7.38	34.52	0.18	27.01	106	0.79
274	9.53	34.55	0.29	135	600	6.73	34.51	0.23	27.09	98	0.90
384	8.48	34.53	0.22	121							
511	7.26	34.52	0.18	104							
645	6.50	34.50	0.29	96							

130.40

HORIZON; April 8, 1955; 1640, 1853 GCT; 26°08'N, 114°06.5'W; sounding, 1225 fm; wind, 290°, force 4; weather, clear; sea, rough; wire angle, 37°, 11°.

0	15.94	33.57	a)	327	0	15.94	33.57		24.68	327	0.00
8	15.92	33.56		327	10	15.91	33.55		24.68	327	0.03
25	15.15	33.51		314	20	15.43	33.52		24.76	319	0.06
45	14.29	33.55		294	30	14.90	33.52		24.87	309	0.10
57	14.10	33.63u		-	50	14.20	33.57		25.06	290	0.16
65	14.10	33.61u		-	75	12.83	33.43		25.23	274	0.23
76	12.78	33.43		274	100	11.34	33.55		25.61	239	0.29
97	11.46	33.53		243	150	10.61	34.02		26.10	192	0.40
125	10.79	33.78		212	200	10.32	34.35		26.41	163	0.49
144	10.64	33.96		197	250	9.54	34.39		26.57	147	0.57
191	10.46	34.34		165	300	8.92	34.43		26.71	134	0.64
					400	7.72	34.42		26.88	118	0.77
172	10.60	34.28		172	500	6.82	34.43		27.01	105	0.89
226	9.88	34.35		155	600	6.09	34.46		27.14	94	1.00
299	8.92	34.43		134	700	5.45	34.53		27.28	80	1.09
399	7.77	34.42		118	800	4.90	34.53		27.34	74	1.17
534	6.58	34.43		102	1000	4.20	34.53		27.42	67	1.33
720	5.32	34.54		79							
946	4.37	34.53		69							
1267	3.46	34.56		58							

a) Two oxygen samples missing; values are listed in order of increasing depth: 5.39, 5.50, 5.70, 5.37, 5.49, 5.70, 4.76, 4.01, 2.88, 1.30, 0.93, 0.59, 0.43, 0.26, 0.30, 0.43, 0.83.

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

HORIZON; April 8, 1955; 2323 GCT; 25°47.5'N, 114°46'W; sounding, 2000 fm; wind, 300°, force 5; weather, partly cloudy; sea, rough; wire angle, 28°.

130.50

0	16.67	33.57	5.56	343	0	16.67	33.57	5.56	24.52	343	0.00
9	16.66	33.66	5.28	336	10	16.66	33.67	5.28	24.59	336	0.03
27	16.57	33.68	5.76	332	20	16.60	33.67	5.65	24.61	334	0.07
50	15.50	33.53	5.82	320	30	16.52	33.68	5.79	24.63	332	0.10
63	14.97	33.46	5.18	314	50	15.50	33.53	5.82	24.75	320	0.17
72	14.57	33.42	5.27	309	75	14.20	33.39	5.27	24.93	303	0.24
85	12.38	33.36	4.97	271	100	11.12	33.44	4.61	25.56	244	0.31
107	10.80	33.48	4.52	235	150	9.89	33.90	3.00	26.14	189	0.42
135	9.98	33.79	3.44	199	200	9.30	34.18	1.84	26.45	159	0.51
157	9.84	33.94	2.63	185	250	8.97	34.31	1.20	26.60	144	0.59
207	9.22	34.21	1.74	156	300	8.77	34.38	0.78	26.70	136	0.66
279	8.82	34.35	0.97	139	400	8.14	34.48	0.30	26.87	120	0.79
375	8.38	34.48	0.34	123	500	6.92	34.44	0.25	27.01	106	0.91
506	6.86	34.44	0.25	105	600	6.11	34.46	0.27	27.14	94	1.02
688	5.58	34.49	0.31	85	700	5.50	34.49	0.31	27.24	84	1.11
911	4.52	34.54	0.42	70	800	4.98	34.52	0.36	27.32	76	1.20
1227	3.59	34.59	0.78	57	1000	4.25	34.55	0.51	27.43	66	1.36

HORIZON; April 9, 1955; 0358 GCT; 25°30'N, 115°23'W; sounding, 2120 fm; wind, 340°, force 5; weather, partly cloudy; sea, very rough; wire angle, 27°.

130.60

0	16.73	33.68	5.78	336	0	16.73	33.68	5.78	24.59	336	0.00
9	16.72	33.60	5.74	341	10	16.72	33.60	5.73	24.53	341	0.03
27	16.72	33.68	5.41	336	20	16.72	33.65	5.57	24.57	338	0.07
50	16.44	33.59	5.53	336	30	16.71	33.67	5.41	24.59	335	0.10
63	15.30	33.51	5.89	317	50	16.44	33.59	5.53	24.59	336	0.17
72	14.71	33.45	5.93	309	75	14.51	33.44	5.74	24.90	306	0.25
86	14.02	33.44	4.44	297	100	12.75	33.41	4.99	25.24	274	0.32
109	11.88	33.40	5.37	260	150	10.40	33.81	2.70	25.97	204	0.44
141	10.41	33.69	3.04	213	200	10.52	34.48	1.53	26.48	156	0.53
163	10.38	33.96	2.39	192	250	9.93	34.48	0.99	26.58	147	0.61
216	10.55	34.53	1.27	153	300	8.87	34.41	0.70	26.70	135	0.68
287	9.05	34.41	0.76	138	400	7.91	34.42	0.50	26.86	120	0.82
387	8.03	34.42	0.51	122	500	6.98	34.43	0.37	27.00	107	0.94
521	6.79	34.43	0.34	104	600	6.18	34.45	0.37	27.12	96	1.04
708	5.42	34.49	0.46	84	700	5.50	34.49	0.46	27.23	85	1.14
937	4.32	34.53	0.46	69	800	4.94	34.51	0.46	27.31	77	1.23
1261	3.47	34.60	0.74	55	1000	4.16	34.54	0.50	27.43	66	1.39

HORIZON; April 8, 1955; 0638 GCT; 26°05'N, 112°48'W; sounding, 45 fm; wind, 300°, force 2; weather, cloudy; sea, slight; wire angle, 03°.

133.25

0	14.87	33.66	6.44	298	0	14.87	33.66	6.44	24.99	298	0.00
10	14.54	33.63	5.74	294	10	14.54	33.63	5.74	25.03	294	0.03
15	14.40	33.73	5.09	283	20	14.28	33.82	4.84	25.24	274	0.06
20	14.28	33.82	4.84	274	30	13.97	33.91	3.93	25.37	261	0.08
25	14.09	33.85	4.04	268	50	12.63	34.04	0.93	25.74	226	0.13
30	13.97	33.91	3.93	261							
35	13.88	33.93	3.83	258							
40	13.52	33.94	2.45	250							
50	12.63	34.04	0.93	226							
60	12.48	34.12	0.58	218							

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

133.30 HORIZON; April 8, 1955; 0315 GCT; 25°54.5'N, 113°07.5'W; sounding, 100 fm; wind, 270°, force 3; weather, cloudy; sea, moderate; wire angle, 06°.

0	16.21	33.68	5.72	325	0	16.21	33.68	5.72	24.71	325	0.00
10	15.80	33.66	5.57	317	10	15.80	33.66	5.57	24.78	317	0.03
15	15.55	33.64	5.59	313	20	15.24	33.62	5.62	24.88	308	0.06
20	15.24	33.62	5.62	308	30	14.64	33.61	5.28	25.00	297	0.09
25	15.04	33.61	5.55	305	50	12.38	33.71	3.28	25.54	246	0.15
30	14.64	33.61	5.28	297	75	11.93	34.04	2.40	25.88	213	0.21
35	13.76	33.58	5.02	281	100	11.72	34.34	1.22	26.15	187	0.26
45	12.77	33.68	3.61	255	150	11.53	34.54	0.42	26.35	169	0.34
55	12.18	33.74	3.09	240							
65	11.94	33.86	2.67	227							
80	11.91	34.13	1.83	206							
100	11.72	34.34	1.22	187							
120	11.70	34.52	0.42	173							
155	11.49	34.54	0.42	168							

133.40 HORIZON; April 7, 1955; 1845, 1917 GCT; 25°34'N, 113°45'W; sounding, 1700 fm; wind, 320°, force 3; weather, cloudy; sea, rough; wire angle, 22°, 24°.

0	16.36	33.59	5.39	335	0	16.36	33.59	5.39	24.60	335	0.00
10	16.23	33.58	5.86	332	10	16.23	33.58	5.86	24.63	332	0.03
28	16.19	33.62	5.78	328	20	16.19	33.61	5.82	24.66	329	0.07
42	16.18	33.60	5.51	329	30	16.18	33.62	5.70	24.67	328	0.10
52	16.09	33.63	5.29	325	50	16.16	33.63	5.35	24.69	326	0.16
61	15.04	33.54	5.64	311	75	13.61	33.47	5.57	25.10	287	0.24
70	14.23	33.51	5.74	296	100	11.19	33.40	4.33	25.53	246	0.31
80	13.07	33.42	5.37	279	150	11.57	34.26	1.27	26.12	190	0.42
95	11.81	33.39	4.59	259	200	11.39	34.60	0.75	26.42	162	0.51
103	11.10	33.42	4.24	244	250	10.73	34.64		26.56	148	0.59
126	11.86	34.06	1.76	210	300	10.03	34.62		26.67	138	0.66
154	11.51	34.30	1.20	187	400	8.63	34.56		26.85	121	0.79
203	11.38	34.61	0.45	161	500	7.48	34.51		26.99	108	0.92
21p	16.19	33.67u		-							
48p	16.18	33.61		329							
158p	11.45	34.37		181							
263p	10.55	34.64		145							
385p	8.84	34.57		123							
518p	7.28	34.51		105							

133.50 HORIZON; April 7, 1955; 1345 GCT; 25°17'N, 114°25.5'W; sounding, 1750 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 19°.

0	17.72	33.96	5.06	338	0	17.72	33.96	5.06	24.57	338	0.00
10	17.71	33.94	5.16	339	10	17.71	33.94	5.16	24.56	339	0.03
29	17.73	33.96	5.21	338	20	17.72	33.95	5.17	24.57	338	0.07
43	17.70	33.95	5.26	338	30	17.71	33.95	5.21	24.57	338	0.10
52	17.66	33.92	5.18	340	50	17.67	33.93	5.19	24.55	339	0.17
62	15.94	33.75	5.32	313	75	13.69	33.62	4.31	25.21	277	0.25
71	14.20	33.61	4.64	288	100	12.37	33.91	2.61	25.69	231	0.31
80	13.32	33.66	4.02	267	150	11.42	34.26	1.43	26.14	188	0.42
103	12.32	33.93	2.35	228	200	10.24	34.38	1.09	26.45	159	0.50
127	12.28	34.23	1.52	206	250	9.64	34.44	0.79	26.60	145	0.58
154	11.29	34.27	1.42	185	300	9.28	34.48	0.53	26.69	136	0.66
205	10.14	34.39	1.04	157	400	8.46	34.51	0.22	26.84	122	0.79
265	9.53	34.45	0.72	142	500	7.40	34.48	0.23	26.97	109	0.91
371	8.74	34.52	0.26	125	600	6.49	34.49	0.34	27.10	97	1.02
495	7.44	34.48	0.22	110							
626	6.22	34.49	0.38	93							

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

HORIZON; April 6, 1955; 1932 GCT; 25°35'N, 112°15'W; sounding, 45 fm; wind, 320°, force 2; weather, partly cloudy; sea, moderate; wire angle, 07°.

137.23

0	16.16	33.73	5.33	320	0	16.16	33.73	5.33	24.76	320	0.00
10	15.70	33.77	5.37	307	10	15.70	33.77	5.37	24.89	307	0.03
15	15.63	33.78	5.19	305	20	14.84	33.69	4.83	25.02	295	0.06
20	14.84	33.69	4.83	295	30	12.81	33.78	3.06	25.51	248	0.09
25	12.96	33.72	3.27	255	50	12.44	34.02	2.09	25.77	224	0.14
30	12.81	33.78	3.06	248							
35	12.64	33.82	2.70	243							
40	12.64	33.86a)	2.68	240							
50	12.44	34.02a)	2.09	224							
60	12.43	34.17	0.81	213							

HORIZON; April 6, 1955; 2258 GCT; 25°17'N, 112°51'W; sounding, 45 fm; wind, 310°, force 3; weather, partly cloudy; sea, rough; wire angle, 09°.

137.30

0	16.40	33.64	5.53	332	0	16.40	33.64	5.53	24.63	332	0.00
10	16.28	33.64	5.40	329	10	16.28	33.64	5.40	24.66	329	0.03
15	16.09	33.72	6.09	319	20	16.00	33.63	5.40	24.72	324	0.07
20	16.00	33.63	5.40	324	30	15.95	33.60	5.37	24.71	324	0.10
25	15.98	33.61	5.38	325	50	13.84	33.51	5.63	25.09	288	0.16
30	15.95	33.60	5.37	324							
35	15.60	33.67	5.74	312							
40	15.00	33.58	5.65	306							
50	13.84	33.51	5.63	288							
60	12.78	33.53	4.59	266							

HORIZON; April 7, 1955; 0318 GCT; 24°58.5'N, 113°25.5'W; sounding, 2125 fm; wind 300°, force 3; weather, partly cloudy; sea, moderate; wire angle, 23°.

137.40

0	17.82	33.94	4.49	342	0	17.82	33.94	4.49	24.53	342	0.00
10	17.82	33.95	5.52	341	10	17.82	33.95	5.52	24.53	341	0.03
28	17.74	34.00	5.17	335	20	17.77	33.98	5.43	24.57	337	0.07
42	16.88	33.89	5.37	324	30	17.72	34.00	5.12	24.60	334	0.10
51	16.32	33.85	5.25	314	50	16.37	33.86	5.28	24.80	316	0.17 <sup>.74</sup>
60	15.43	33.77	4.78	302	75	15.00	33.78	4.33	25.05	292	0.24
69	15.22	33.75	4.68	299	100	13.42	33.93	2.89	25.50	249	0.31
77	14.88	33.80	4.24	288	150	11.88	34.42	1.17	26.18	184	0.42
91	13.70	33.81	3.58	263	200	11.13	34.61	0.56	26.46	158	0.51
100	13.42	33.93	2.89	249	250	10.52	34.64	0.42	26.60	145	0.58
122	12.50	34.17	1.91	214	300	9.83	34.63	0.32	26.71	134	0.66
149	11.89	34.41	1.18	185	400	8.43	34.59	0.20	26.91	115	0.79
198	11.18	34.60	0.57	159	500	7.41	34.59	0.16	27.05	102	0.91
256	10.46	34.64	0.39	144	600	6.48	34.53	0.14	27.14	93	1.00
359	8.98	34.60	0.23	123							
480	7.60	34.59	0.17	104							
609	6.40	34.53	0.14	92							

a) Salinity samples at 40 and 50 meters appear to have been reversed; they are assumed to be in the order listed.

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

13750 HORIZON; April 7, 1955; 0809 GCT; 24°38.5'N, 114°01.5'W; sounding, 2100 fm; wind, 300°, force 5; weather, cloudy; sea, rough; wire angle, 10°.

0	17.44	33.91	5.41	336	0	17.44	33.91	5.41	24.59	336	0.00
10	17.44	33.90	5.29	336	10	17.44	33.90	5.29	24.59	336	0.03
14p	17.47	33.94	5.08	334	20	17.46	33.94	5.35	24.61	334	0.07
26p	17.42	33.92	5.61	334	30	17.40	33.91	5.56	24.60	334	0.10
40p	17.30	33.87	5.45	335	50	16.72	33.92	5.34	24.77	319	0.17
49p	16.81	33.92	5.35	320	75	14.25	33.66	5.06	25.12	285	0.24
58p	16.07a)	33.90	5.40	305	100	12.43	33.75	3.07	25.56	244	0.31
71p	14.83	33.73	5.03	292	150	10.72	34.19	1.70	26.21	182	0.41
80p	13.67	33.63	5.07	276	200	10.87	34.59	0.60	26.50	154	0.50
92p	12.73	33.68	3.71	254	250	10.14	34.62	0.29	26.65	140	0.57
118p	11.86	34.05	1.92	212	300	9.49	34.63	0.19	26.76	129	0.64
144p	10.72	34.14	1.97	185	400	8.32	34.62	0.15	26.95	112	0.77
196p	10.88	34.58	0.66	155	500	7.25	34.57	0.18	27.07	100	0.88
257p	10.06	34.62	0.27	139	600	6.43	34.55	0.11	27.16	91	0.98
363p	8.76	34.63	0.13	117							
486p	7.39	34.58	0.19	102							
614p	6.33	34.55	0.11	90							

a) Alternate value, 16.51°C, not used in interpolation.

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