

CORRECTIONS MADE :

STATION POSITIONS $\frac{1}{2}$

UNIVERSITY OF CALIFORNIA SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

PHYSICAL AND CHEMICAL DATA

CCOFI CRUISE 5401

(MLR 56)

5 January - 4 February 1954

and

CCOFI CRUISE 5402

(MLR 57)

2-16 February 1954

SIO Reference 58-38

1 August 1958

UNIVERSITY OF CALIFORNIA
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CCOFI CRUISE 5401
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(MLR 57)
2-16 February 1954

Sponsored by
Marine Research Committee

SIO Reference 58-38
1 August 1958

Approved for distribution:



Roger Revelle, Director

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INTRODUCTION

The data in this report were collected on the fifty-sixth and the fifty-seventh consecutive cruises of the California Cooperative Oceanic Fisheries Investigations program. The R/V N. B. Scofield of the California Department of Fish and Game and the R/V Crest and the R/V Horizon of the Scripps Institution of Oceanography participated in the fifty-sixth cruise and the R/V Crest and the R/V Horizon participated in the fifty-seventh cruise.

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

STANDARD PROCEDURES

The processing of the data collected by the N. B. Scofield was carried out using the method described by Klein.^{1/} Certain approximations have been introduced for the determination of the integrated pressure terms which may result in errors whose maximum values are less than 0.5 dynamic centimeter at 0 over 200 decibars, 1.0 dynamic centimeter at 0 over 500 decibars, and 2.0 dynamic centimeters at 0 over 1000 decibars. The 125-meter level was introduced into the integration to obtain greater accuracy in the determination of ΔD . The interpolated values at 125 meters are not tabulated.

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

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

FOOTNOTES

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

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

p: pretrip or posttrip.

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

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

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

FORMAT

These data are typed in the format of the University of California Press publication, "Oceanic Observations of the Pacific." So that these pages can be used as copy for the 1953 volume, the first page of the Cruise 5401 data is numbered 1 and the first page of the Cruise 5402 data is numbered 37.

FIGURES

1. CCOFI Cruise 5402 (MLR 57), 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

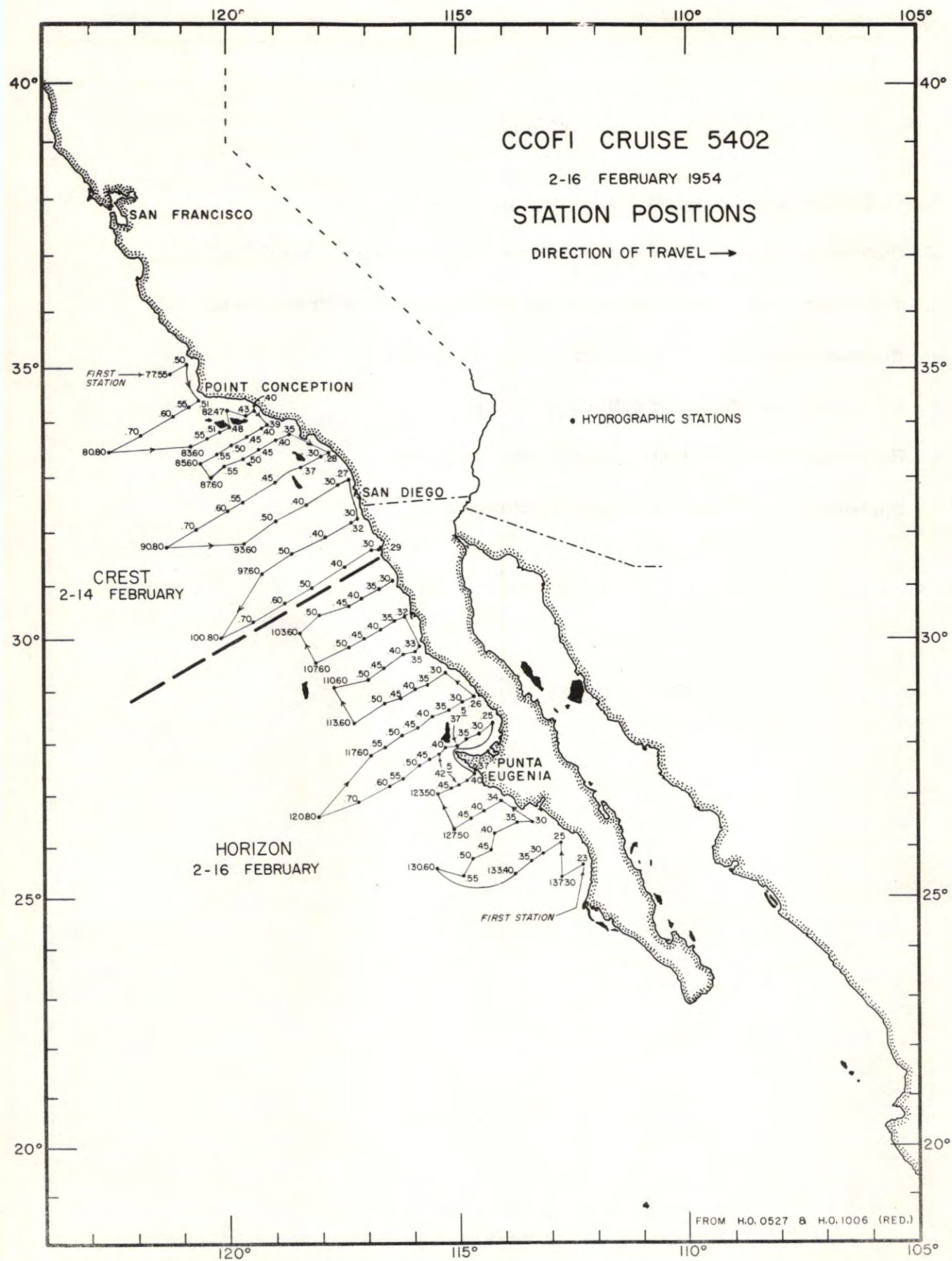


FIGURE 1

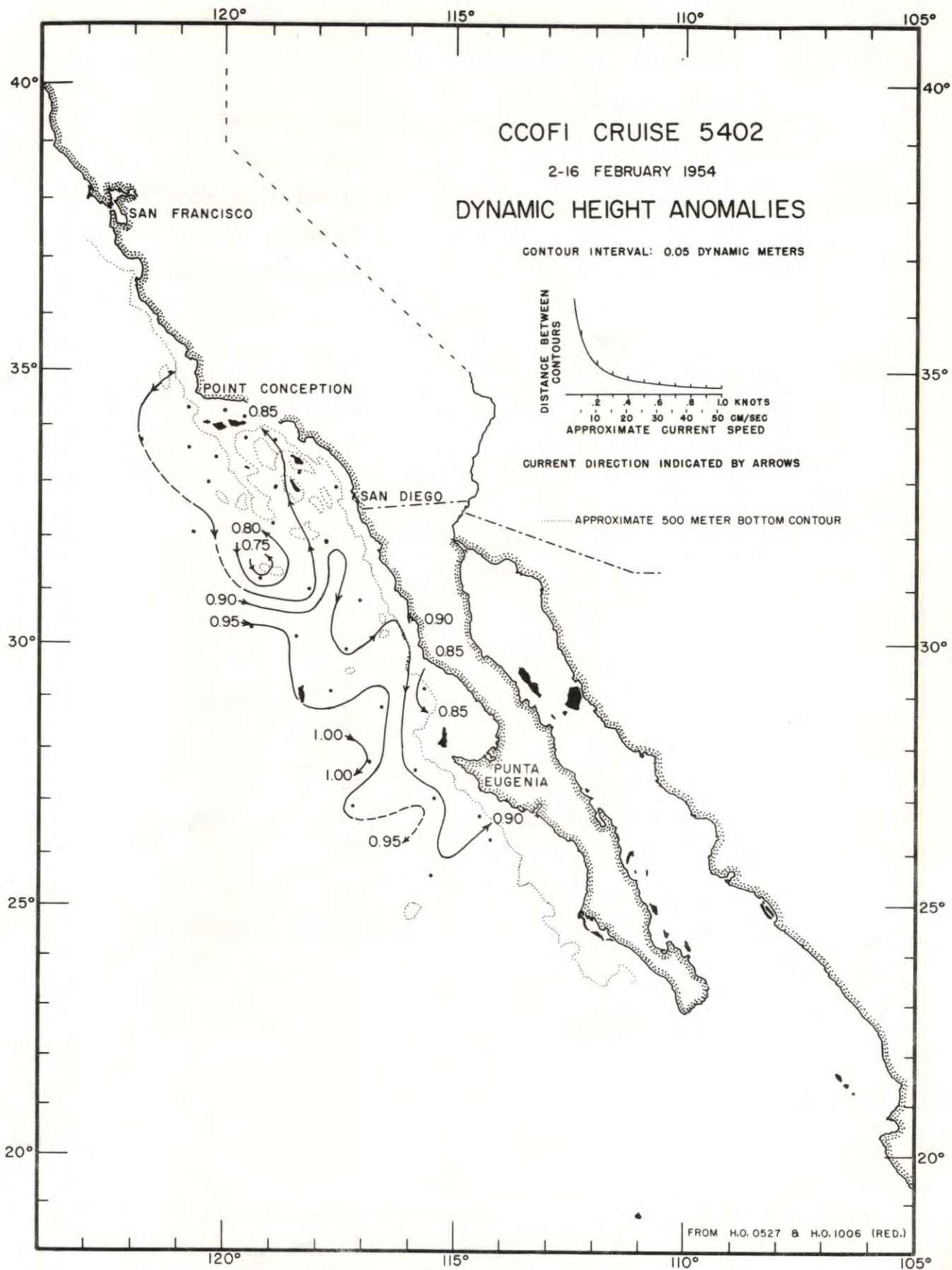


FIGURE 2

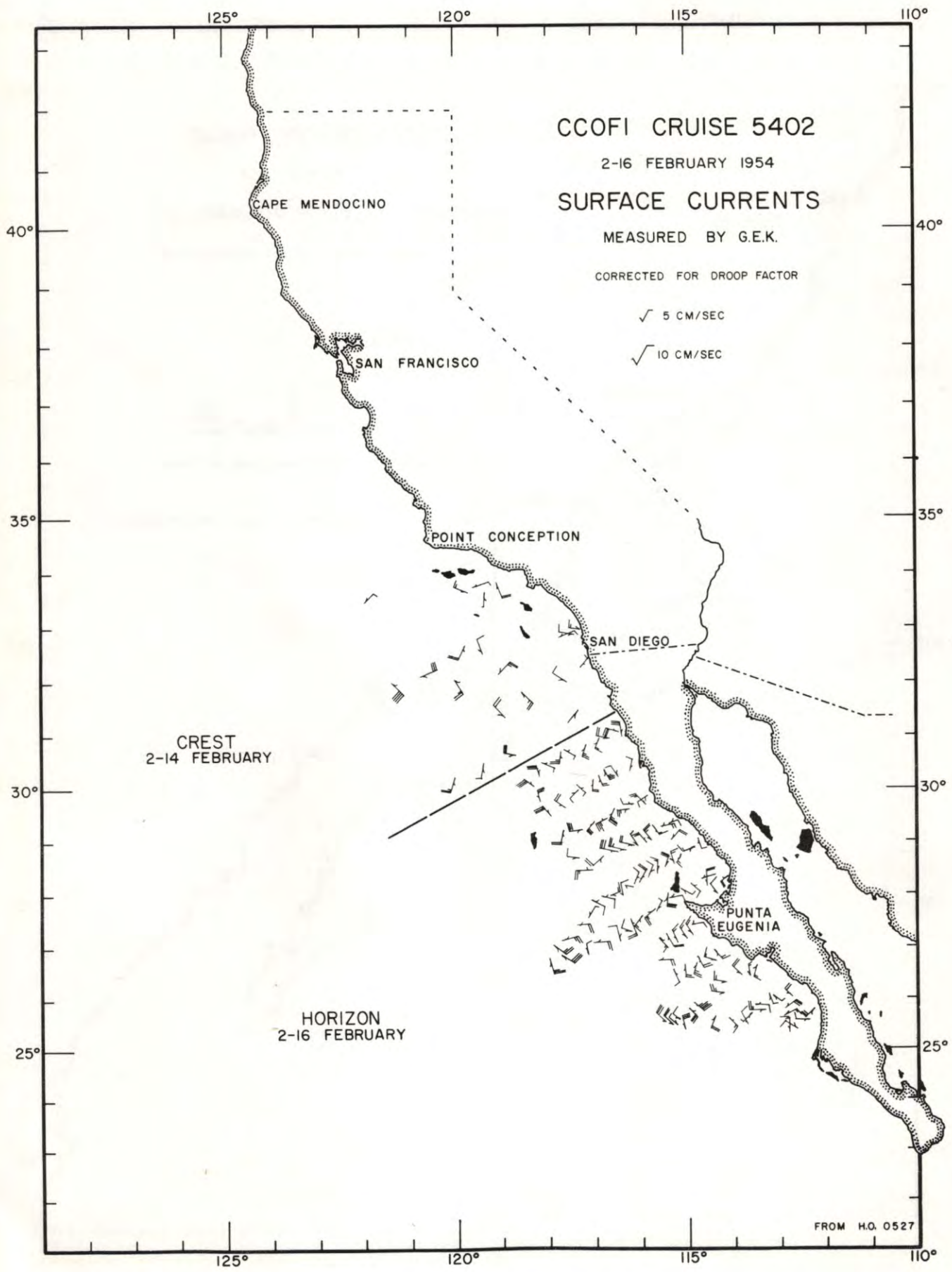


FIGURE 3

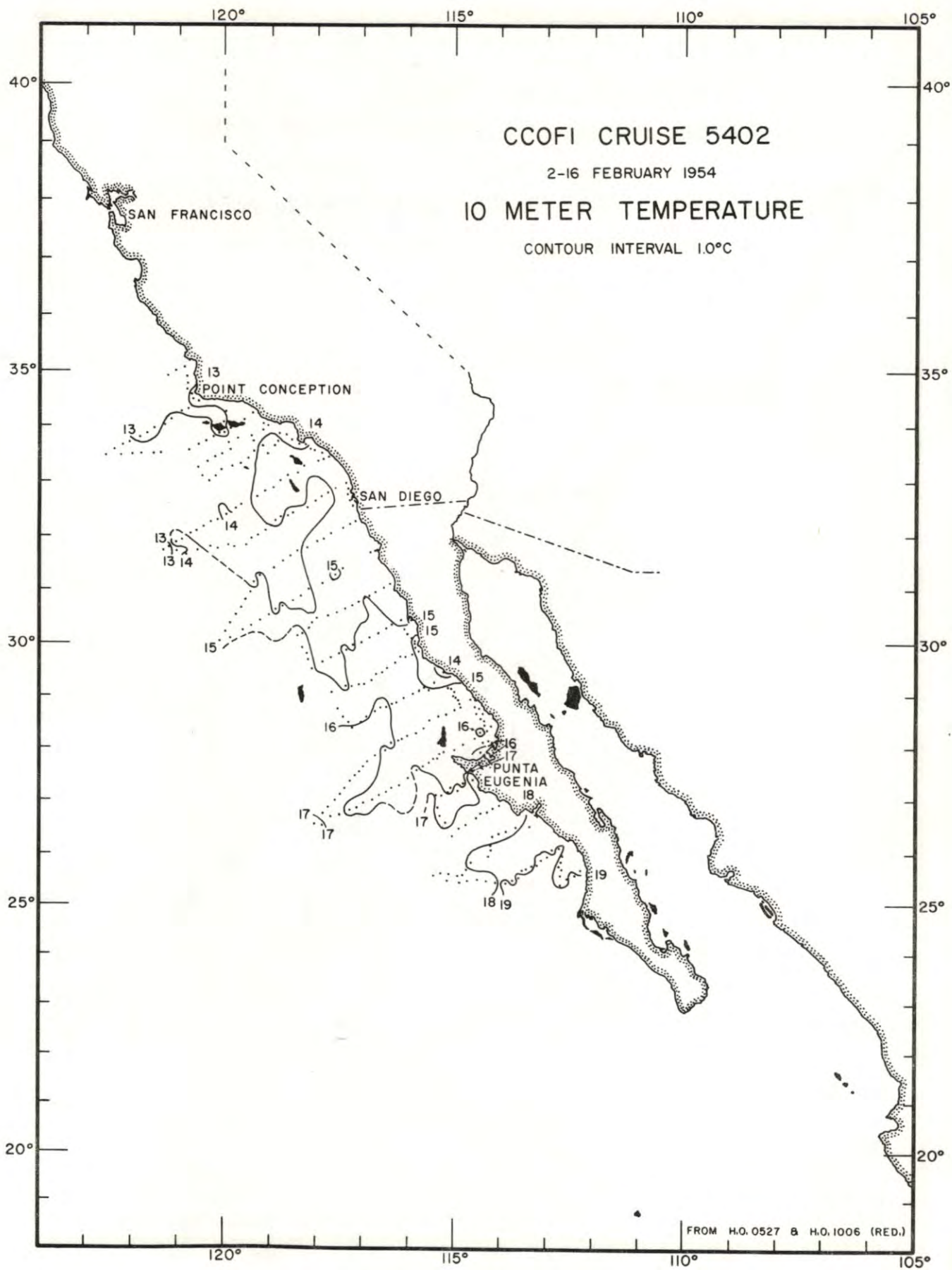


FIGURE 4

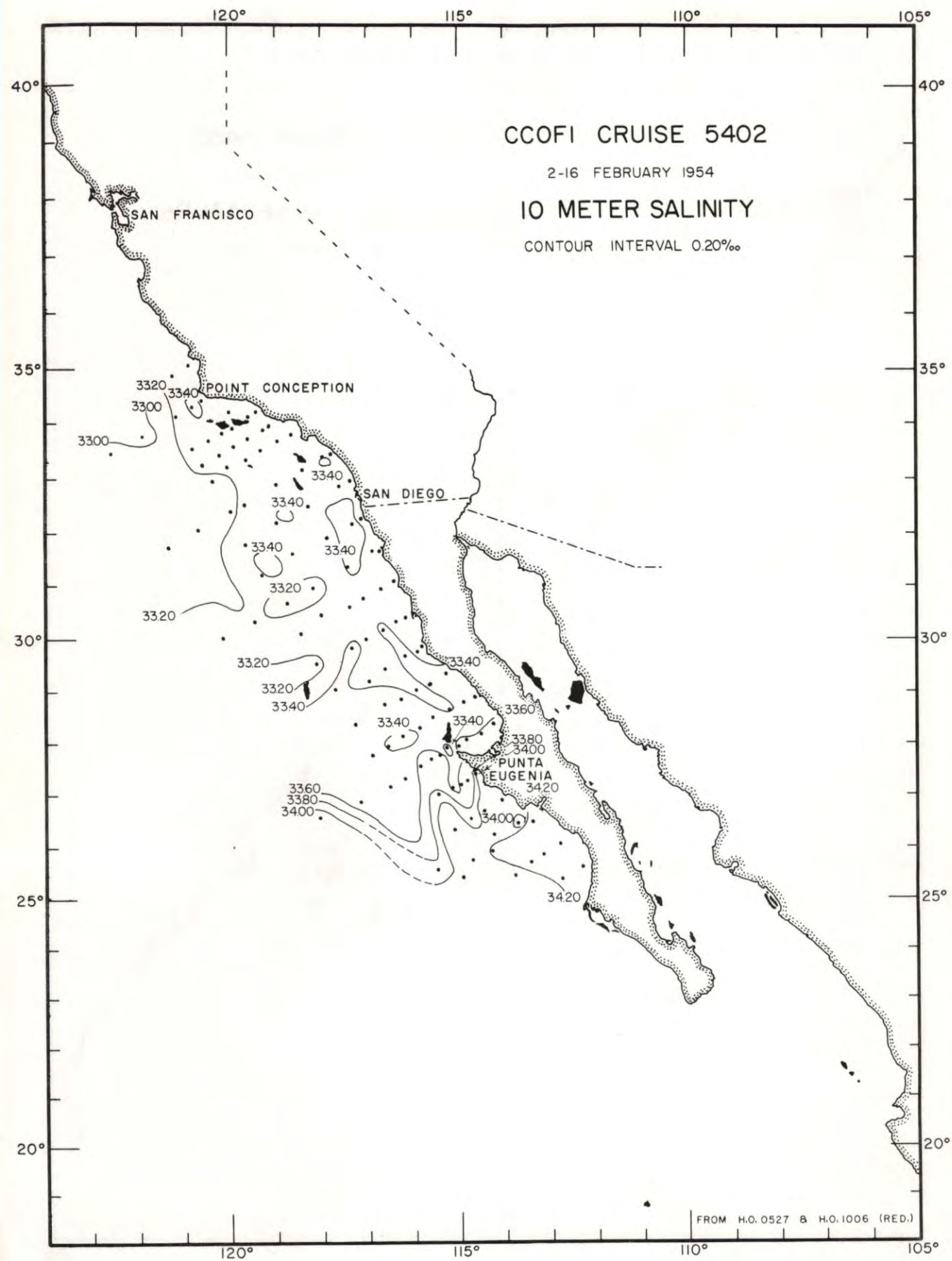


FIGURE 5

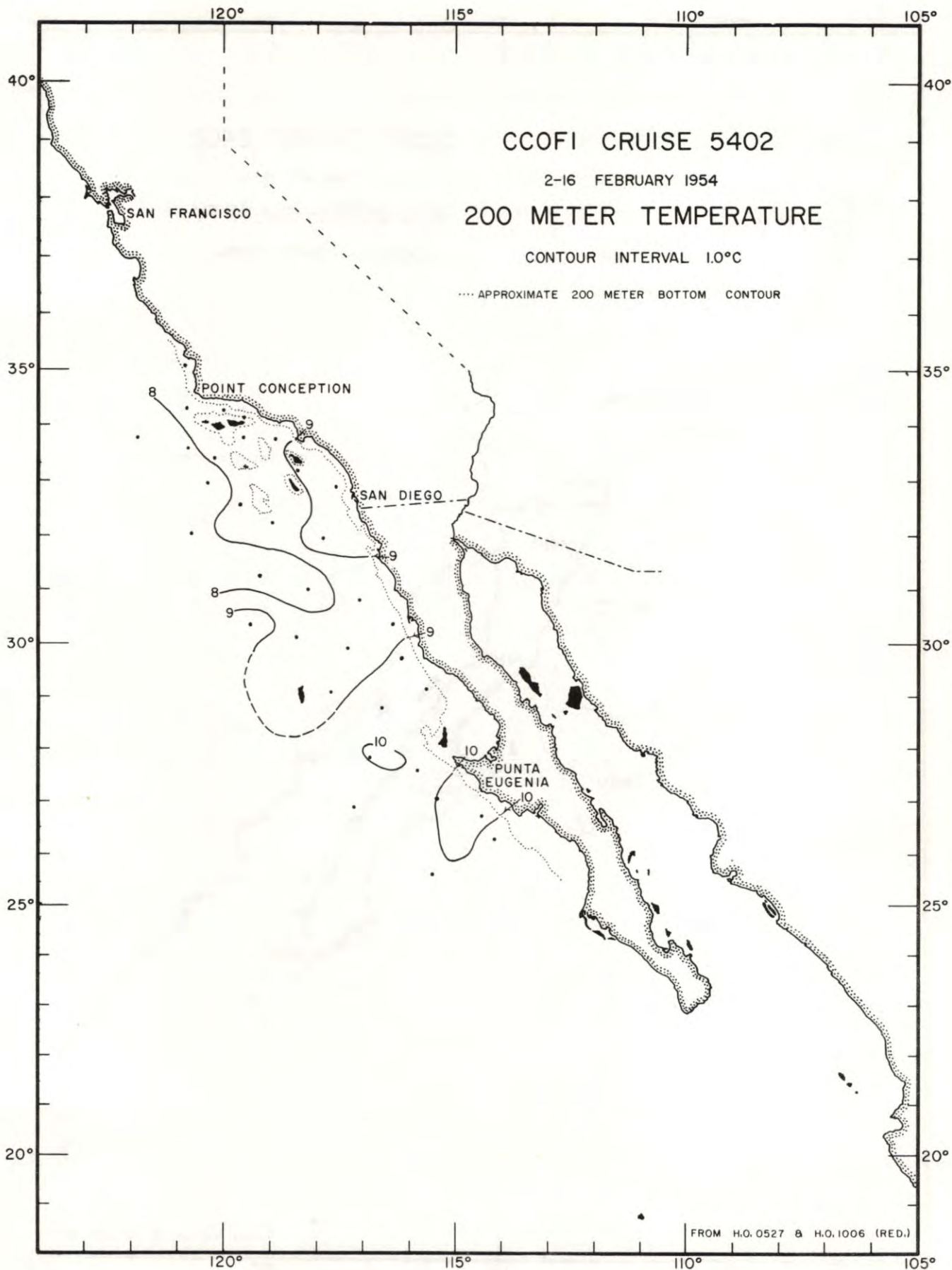


FIGURE 6

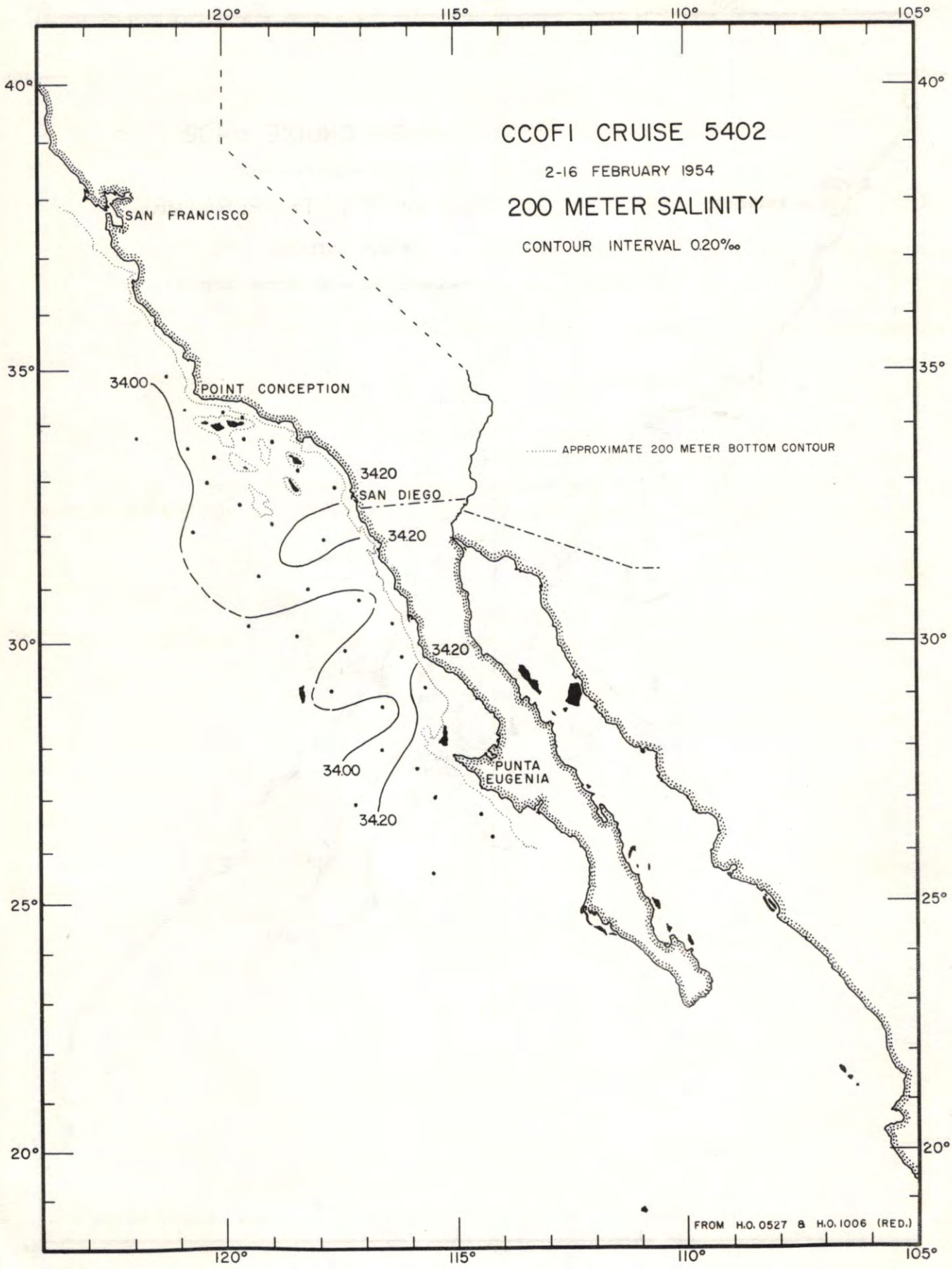


FIGURE 7

CRUISE 5402
PERSONNEL

SHIPS' CAPTAINS

Davis, Laurence E. , R/V Crest
Ferris, Noel L. , R/V Horizon

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

R/V Crest

Worrall, Charles G. , Senior Marine Technician
Anderson, Norman E. , Marine Technician
Holmes, Robert W. , Junior Research Biologist (aboard 4 days only)
O'Connell, Charles P. , Fishery Research Biologist, U. S. Fish and Wildlife Service

R/V Horizon

Coolidge, Richard N. , Senior Marine Technician
Counts, Robert C. , Fishery Research Biologist, U. S. Fish and Wildlife Service
Grom, Robert A. , Fishery Aid, U. S. Fish and Wildlife Service
Lance, James R. , Marine Technician
Owen, Gwilym E. , Jr. , Laboratory Assistant

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

SIO
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5402

CREST; February 3, 1954; 2242 GCT; 34°54.5'N, 121°13'W; sounding, 325 fm; wind, 270°, force 2; weather, haze; sea, moderate; wire angle, 13°.

77.55

0	14.2r	33.25	0	(12.42)	33.25	(25.16)	(281)	(0.00)
10	12.41	33.26	10	12.41	33.26	25.18	280	0.03
30	12.28	33.28	20	12.34	33.27	25.20	278	0.06
40	12.24	33.33	30	12.28	33.28	25.22	276	0.08
50	12.21	33.27	50	12.21	33.27	25.23	275	0.14
60	12.15	33.30	75	11.68	33.41	25.44	255	0.20
70	12.06	33.39	100	10.20	33.61	25.85	216	0.26
79	11.10	33.42	150	9.36	33.95	26.26	177	0.36
88	10.52	33.51	200	8.51	34.04	26.47	157	0.44
98	10.26	-	250	8.22	34.20	26.63	142	0.52
117	9.84	33.76	300	7.84	34.22	26.71	134	0.59
141	9.52	33.93	400	6.94	34.22	26.84	122	0.73
159	9.17	33.96	500	(6.02)	(34.22)	(26.95)	(111)	(0.85)
198	8.52	34.04						
275	8.07	34.22						
378	7.17	-						
498	6.06	34.22						

CREST; February 4, 1954; 0845 GCT; 34°19'N, 120°48'W; sounding, 465 fm; wind, 290°, force 4; weather, clear; sea, moderate; wire angle, 18°.

80.55

0	13.1	33.44	0	13.1	33.44	25.19	279	0.00
10	12.76	33.44	10	12.76	33.44	25.26	272	0.03
29	12.57	33.38	20	12.66	33.40	25.24	274	0.05
43	12.34	33.44	30	12.55	33.38	25.25	273	0.08
53	11.45	33.40	50	11.72	33.40	25.43	256	0.14
63	10.79	33.46	75	10.37	33.53	25.76	224	0.19
72	10.44	33.52	100	9.44	33.70	26.05	197	0.24
82	10.20	33.57	150	8.76	33.90	26.32	171	0.34
96	9.48	33.69	200	8.16	34.02	26.50	154	0.42
105	9.40	33.71	250	7.63	34.07	26.62	143	0.50
130	8.98	33.86	300	7.33	34.13	26.71	134	0.57
157	8.70	33.92	400	6.79	34.24	26.87	119	0.70
209	8.06	34.03	500	6.10	34.28	27.00	107	0.82
271	7.48	34.09	600	5.43	34.34	27.12	95	0.93
383	6.90	34.23						
509	6.04	34.28						
642	5.16	34.37						

CREST; February 4, 1954; 1626 GCT; 33°49'N, 121°50'W; sounding, 2000 fm; wind, 300°, force 4; weather, clear; sea, moderate; wire angle, 17°.

80.70

0	12.8	32.99	0	12.8	32.99	24.90	306	0.00
10	12.66	33.19r	10	12.66	32.98	24.91	305	0.03
25	12.34	32.98	20	12.44	32.98	24.95	301	0.06
55	11.78	33.06	30	12.27	33.00	25.01	296	0.09
65	10.56	33.04	50	11.93	33.06	25.12	285	0.15
74	11.35	33.33	75	11.35	33.33	25.44	255	0.21
89	9.56	33.18	100	9.24	33.22	25.70	230	0.27
108	9.02	33.48	150	8.05	33.78	26.33	170	0.37
131	8.23	33.67	200	7.42	33.86	26.48	156	0.46
159	7.96	33.82	250	6.94	33.90	26.58	146	0.53
211	7.30	33.87	300	6.53	33.96	26.69	136	0.61
286	6.64	33.94	400	5.94	34.20	26.95	111	0.73
390	5.98	34.19	500	5.64	34.27	27.04	103	0.85
529	5.56	34.29	600	5.27	34.33	27.13	94	0.95
719	4.73	34.38	700	4.83	34.37	27.22	86	1.05

SIO

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5402

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

82.47

CREST; February 5, 1954; 1624 GCT; 34°15'N, 119°58'W; sounding, 330 fm; wind, 260°, force 1; weather, clear; sea, slight; wire angle, 00°.

0	14.4r	33.30	0	(13.24)	33.30	(25.05)	(292)	(0.00)
13	12.72	33.33	10	(13.06)	33.31	(25.09)	(288)	(0.03)
33	11.36	33.40	20	12.13	33.36	25.31	267	(0.06)
43	11.10	33.46	30	11.48	33.39	25.46	253	(0.08)
53	10.50	33.51	50	10.64	33.50	25.69	231	(0.13)
63	10.26	33.58	75	10.02	33.69	25.94	207	(0.18)
72	10.08	33.68	100	9.76	33.84	26.11	191	(0.23)
82	9.91	33.72	150	9.39	34.04	26.32	171	(0.32)
92	9.80	33.78	200	8.90	34.13	26.48	156	(0.41)
103	9.72	33.87	250	8.23	34.19	26.63	142	(0.48)
122	9.59	33.96	300	7.70	34.20	26.71	134	(0.56)
147	9.41	34.03	400	7.02	34.18	26.80	126	(0.69)
166	9.26	34.08	500	6.52	34.22	26.89	117	(0.82)
206	8.82	34.14						
285	7.84	34.20						
391	7.06	34.18						
513	6.46	34.23						

83.43

CREST; February 5, 1954; 2044 GCT; 34°08'N, 119°34'W; sounding, 130 fm; wind, 280°, force 2; weather, partly cloudy; sea, slight; wire angle, 00°.

0	14.24	33.30	0	14.24	33.30	24.84	312	0.00
10	13.44	33.29	10	13.44	33.29	25.00	297	0.03
15	13.18	33.30	20	13.03	33.32	25.11	286	0.06
21	13.00	33.32	30	12.38	33.35	25.26	272	0.09
26	12.66	33.33	50	11.28	33.41	25.51	248	0.14
31	12.30	33.35	75	10.44	33.53	25.74	226	0.20
36	12.00	33.37	100	9.89	33.74	26.01	201	0.25
46	11.48	33.39	150	9.16	34.06	26.38	166	0.34
56	11.04	33.45	200	8.62	34.16	26.54	150	0.42
66	10.67	33.51						
75	10.44	33.53						
95	9.95	33.72						
110	9.79	33.78						
140	9.30	33.99						
169	8.90	34.14						
206	8.58	34.16						

83.51

CREST; February 5, 1954; 1134 GCT; 33°52.5'N, 120°08.5'W; sounding, 90 fm; wind, 090°, force 3; weather, clear; sea, slight; wire angle, 00°.

0	12.82	33.37	0	12.82	33.37	25.20	278	0.00
10	12.76	33.38	10	12.76	33.38	25.21	277	0.03
21	12.68	33.42	20	12.67	33.42	25.26	272	0.06
32	11.96	33.43	30	12.16	33.43	25.36	262	0.08
37	11.70	33.45	50	10.37	33.64	25.85	216	0.13
47	10.60	33.60	75	(9.63)	(33.75)	(26.06)	(196)	(0.18)
57	9.98	33.69						
73	9.66	33.75						

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

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CREST; February 5, 1954; 0558 GCT; 33°34'N, 120°45'W; sounding, 880 fm; wind, 280°, force 2; weather, clear; sea, moderate; wire angle, 14°.

8360

0	13.8	33.36	0	13.8	33.36	24.99	298	0.00
15	13.46	33.36	10	13.64	33.36	25.02	295	0.03
30	12.99	33.36	20	13.28	33.36	25.09	288	0.06
45	10.93	33.38	30	12.99	33.36	25.14	283	0.09
55	10.34	33.40	50	10.62	33.39	25.61	239	0.14
64	9.91	33.43	75	9.56	33.54	25.91	210	0.19
74	9.58	33.54	100	9.09	33.61	26.04	198	0.24
84	9.43	33.49	150	8.50	33.90	26.35	168	0.34
99	9.10	33.61	200	7.90	34.04	26.55	149	0.42
108	8.97	33.64	250	7.54	34.11	26.67	138	0.49
131	8.75	33.80	300	7.19	34.16	26.75	130	0.56
160	8.37	33.94	400	6.50	34.22	26.89	117	0.69
211	7.80	34.06	500	6.09	34.28	27.00	107	0.80
274	7.39	34.14	600	5.54	34.34	27.11	96	0.91
385	6.58	34.21						
512	6.03	34.29						
648	5.24	34.36						

CREST; February 6, 1954; 0231 GCT; 34°00.5'N, 119°04'W; sounding, 45 fm; wind, 320°, force 2; weather, clear; sea, slight; wire angle, 05°.

8539

0	14.05	33.38	0	14.05	33.38	24.94	302	0.00
11	13.58	33.33	10	13.60	33.33	25.01	296	0.03
16	13.44	33.34	20	13.26	33.35	25.08	289	0.06
21	13.23	33.35	30	12.94	33.37	25.16	281	0.09
26	13.14	33.35	50	11.63	33.47	25.49	250	0.11
31	12.88	33.37						
36	12.58	33.33						
40	12.49	33.37						
52	11.44	33.48						

CREST; February 6, 1954; 0716 GCT; 33°46.5'N, 119°33'W; sounding, 1080 fm; wind, 280°, force 2; weather, clear; sea, slight; wire angle, 02°.

8545

0	13.9	33.31	0	13.9	33.31	24.92	304	0.00
10	13.12	33.32	10	13.12	33.32	25.09	288	0.03
31	12.82	33.31	20	12.96	33.31	25.11	286	0.06
41	12.72	33.35	30	12.83	33.31	25.14	283	0.09
50	12.25	33.34	50	12.25	33.34	25.27	271	0.14
60	11.30	33.35	75	10.62	33.46	25.66	234	0.20
70	10.72	33.41	100	10.15	33.72	25.94	207	0.26
81	10.52	33.52	150	9.31	34.05	26.34	169	0.35
91	10.32	33.61	200	8.58	34.07	26.48	156	0.43
100	10.15	33.72	250	8.20	34.20	26.64	141	0.51
125	9.54	33.74	300	7.84	34.24	26.72	133	0.58
154	9.27	34.06	400	7.13	34.27	26.85	121	0.71
204	8.52	34.07	500	6.49	34.31	26.97	110	0.84
264	8.11	34.22	600	5.75	34.34	27.08	99	0.95
369	7.34	34.26						
491	6.55	34.31						
618	5.60	34.35						

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

85.55

CREST; February 7, 1954; 0143 GCT; 33°26.5'N, 120°12.5'W; sounding, 700 fm;
wind, 290°, force 3; weather, cloudy; sea, moderate; wire angle, 04°.

0	13.8	33.31	0	13.8	33.31	24.94	302	0.00
11	13.72	33.29	10	13.74	33.29	24.94	302	0.03
31	13.14	33.30	20	13.50	33.29	24.99	298	0.06
41	12.66	33.29	30	13.18	33.30	25.06	291	0.09
51	11.83	33.38	50	11.93	33.37	25.35	263	0.14
61	10.92	33.40	75	10.34	33.48	25.73	227	0.20
71	10.60	33.46	100	9.72	33.49	25.84	217	0.26
82	9.88	33.51	150	8.60	33.92	26.35	168	0.35
92	9.82	33.56	200	8.07	34.07	26.55	149	0.44
102	9.68	33.48	250	7.86	34.20	26.69	136	0.51
126	9.03	33.71	300	7.61	34.22	26.73	132	0.58
156	8.51	33.95	400	7.00	34.22	26.83	123	0.71
205	8.04	34.09	500	6.30	34.25	26.94	112	0.83
265	7.80	34.21	600	5.74	34.31	27.07	100	0.95
372	7.18	34.22						
493	6.32	34.25						
622	5.61	34.33						

87.40

CREST; February 8, 1954; 0249 GCT; 33°40.5'N, 118°58.5'W; sounding, 500 fm;
wind, 320°, force 1; weather, clear; sea, slight; wire angle, 02°.

0	14.8	33.32	0	14.8	33.32	24.74	321	0.00
11	14.24	33.39	10	14.26	33.39	24.91	305	0.03
31	13.69	33.39	20	14.01	33.39	24.96	300	0.06
42	13.29	33.35	30	13.72	33.39	25.03	294	0.09
52	12.00	33.28	50	12.24	33.29	25.24	274	0.15
62	11.20	33.27	75	10.84	33.45	25.62	238	0.21
73	10.90	33.39	100	10.27	33.63	25.86	215	0.26
83	10.54	33.61	150	9.52	33.97	26.25	178	0.36
93	10.36	33.63	200	8.80	34.09	26.46	158	0.45
102	10.24	33.63	250	8.27	34.16	26.60	145	0.53
127	9.76	33.86	300	7.80	34.24	26.73	132	0.60
156	9.46	33.99	400	6.98	34.31	26.90	116	0.73
205	8.73	34.10	500	6.32	34.29	26.98	109	0.85
264	8.12	34.18	600	5.72	34.36	27.10	97	0.96
370	7.20	34.32						
492	6.37	34.29						
620	5.60	34.39						

87.50

CREST; February 7, 1954; 2110 GCT; 33°20'N, 119°39'W; sounding, 40 fm; wind, 060°,
force 1; weather, clear; sea, slight; wire angle, 04°.

0	14.02	33.30	0	14.02	33.30	24.89	307	0.00
10	13.46	33.30	10	13.46	33.30	25.01	296	0.03
15	13.20	33.31	20	13.14	33.34	25.10	287	0.06
21	13.12	33.34	30	12.52	33.35	25.24	274	0.09
26	13.00	33.34	50	11.51	33.42	25.47	252	0.14
31	12.39	33.35						
36	11.91	33.42						
41	11.72	33.42						
52	11.44	33.42						
62	10.84	33.58						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	$10^5 \frac{\text{cm}^3}{\text{g}}$	dyn. m

SIO
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5402

CREST; February 7, 1954; 0805 GCT; 33°00'N, 120°21'W; sounding, 340 fm; wind, 300°, force 1; weather, clear; sea, moderate; wire angle, 00°.

87.60

0	14.0	33.17	0	14.0	33.17	24.80	316	0.00
11	13.84	33.12	10	13.86	33.12	24.79	317	0.03
31	13.83	33.12	20	13.84	33.12	24.79	317	0.06
41	13.36	33.12	30	13.83	33.12	24.80	316	0.10
52	12.86	33.26	50	12.93	33.26	25.08	289	0.16
62	12.62	33.22	75	10.62	33.13	25.41	258	0.22
72	11.02	33.13	100	9.44	33.43	25.84	217	0.28
82	10.05	33.22	150	8.37	33.93	26.40	164	0.38
92	9.68	33.32	200	7.59	34.01	26.58	146	0.45
102	9.39	33.46	250	7.22	34.09	26.69	136	0.53
122	8.96	33.68	300	6.89	34.16	26.80	126	0.59
146	8.44	33.93	400	6.27	34.22	26.92	114	0.72
166	8.06	33.94	500	5.85	34.21	26.96	110	0.84
206	7.54	34.02						
286	6.99	34.14						
392	6.30	34.22						
514	5.80	34.21						

CREST; February 8, 1954; 1129 GCT; 33°28.5'N, 117°47'W; sounding, 160 fm; wind, 020°, force 1; weather, clear; sea, slight; wire angle, 00°.

90.28

0	14.16	33.30	0	14.16	33.30	24.86	310	0.00
11	14.16	33.30	10	14.16	33.30	24.86	310	0.03
16	14.06	33.29	20	13.83	33.31	24.93	303	0.06
21	13.74	33.31	30	12.45	33.30	25.21	277	0.09
26	13.10	33.30	50	11.32	33.41	25.50	249	0.14
31	12.34	33.30						
37	12.08	33.34						
42	11.72	33.38						
52	11.24	33.41						

CREST; February 9, 1954; 2022 GCT; 33°11'N, 118°23.5'W; sounding, 650 fm; wind, 120°, force 3; weather, cloudy; sea, moderate; wire angle, 10°.

90.37

0	14.9	33.34	0	14.9	33.34	24.73	322	0.00
10	14.16	33.30	10	14.16	33.30	24.86	310	0.03
29	13.15	33.31	20	13.63	33.30	24.96	300	0.06
45	11.90	33.33	30	13.10	33.31	25.09	288	0.09
55	11.22	33.39	50	11.51	33.35	25.42	257	0.15
65	11.00	33.44	75	10.78	33.52	25.68	232	0.20
75	10.78	33.52	100	10.42	33.67	25.87	214	0.26
85	10.56	33.57	150	9.82	33.95	26.18	184	0.36
99	10.42	33.67	200	9.36	34.11	26.38	166	0.45
108	10.26	33.68	250	8.63	34.14	26.52	152	0.53
134	9.92	33.85	300	8.06	34.16	26.63	142	0.61
163	9.73	34.01	400	7.20	34.24	26.82	124	0.74
216	9.16	34.13	500	6.31	34.30	26.99	108	0.87
280	8.24	34.15	600	5.68	34.33	27.08	99	0.98
394	7.25	34.24						
524	6.14	34.31						
661	5.38	34.35						

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

90.55

CREST; February 10, 1954; 0529 GCT; 32°35'N, 119°37'W; sounding, 650 fm; wind, 260°, force 2; weather, cloudy; sea, slight; wire angle, 05°.

0	14.82r	33.18r	0	(14.18)	(33.33)	(24.88)	(308)	(0.00)
11	14.06	33.33	10	(14.10)	(33.33)	(24.90)	(306)	(0.03)
26	13.48	33.31	20	13.68	33.32	24.98	299	(0.06)
52	12.39	33.25	30	13.33	33.30	25.04	293	(0.09)
62	11.15	33.23	50	12.50	33.26	25.16	281	(0.15)
72	10.79	33.22	75	10.56	33.22	25.49	250	(0.21)
82	9.92	33.32	100	9.39	33.47	25.88	213	(0.27)
103	9.35	33.50	150	8.64	33.89	26.32	171	(0.36)
127	9.14	33.72	200	8.19	34.05	26.52	152	(0.45)
157	8.55	33.92	250	7.72	34.12	26.65	140	(0.52)
181	8.42	33.94	300	7.43	34.18	26.73	132	(0.59)
206	8.12	34.07	400	6.82	34.25	26.87	119	(0.72)
274	7.56	34.15	500	6.17	34.29	27.00	107	(0.84)
328	7.30	34.20	600	5.61	34.35	27.11	96	(0.95)
516	6.08	34.30	700	5.12	34.40	27.21	87	(1.05)
727	5.00	34.41	800	4.71	34.43	27.28	80	(1.14)
1053	3.86	34.49	1000	4.02	34.48	27.39	70	(1.31)

90.70

CREST; February 10, 1954; 1423, 1618 GCT; 32°05'N, 120°38.5'W; sounding, 2100 fm; wind, 320°, ^{a)} force 2; weather, cloudy; sea, moderate; wire angle, 05°, 05°.

0	14.0	33.10	0	14.0	33.10	24.73	372	0.00
10	13.92	33.09	10	13.92	33.09	24.75	320	0.03
26	13.60	33.18	20	13.72	33.16	24.84	312	0.06
52	13.05	33.14	30	13.53	33.18	24.90	306	0.09
62	12.20	33.04	50	13.13	33.15	24.95	301	0.16
72	11.35	33.12	75	11.03	33.12	25.32	266	0.22
80	10.52	33.12	100	9.69	33.30	25.70	230	0.28
102	9.61	33.33	150	8.73	33.82	26.26	177	0.39
126	8.98	33.59	200	7.98	34.04	26.54	150	0.47
156	8.68	33.87	250	7.41	34.06	26.64	141	0.54
205	7.90	34.04	300	6.98	34.08	26.71	134	0.61
274	7.20	34.06	400	6.15	34.20	26.92	114	0.74
380	6.28	34.19	500	5.56	34.23	27.03	104	0.86
509	5.53	34.32r	600	5.17	34.30	27.12	95	0.96
694	4.90	34.46r	700	4.89	34.40	27.24	84	1.06
923	4.14u	34.44u	800	4.54	34.45	27.32	76	1.15
1234	3.32u	34.52	1000	3.96	34.45	27.38	71	1.31
			1200	3.42	34.52	27.48	61	1.46
0	14.0	33.18u	1500	2.83	34.54	27.56	54	1.66
488	5.64	34.22	2000	2.11	34.63	27.69	42	1.95
544	5.40	34.25						
602	5.15	34.30						
672	4.98	34.38						
746	4.74	34.41						
832	4.43	34.45						
922	4.19	34.45						
1022	3.90	34.45						
1138	3.60	34.53						
1268	3.30	34.51						
1409	3.01	34.52						
1571	2.68	34.56						
1753	2.34	34.72r						
1956	2.13	34.63						
2181	2.00	34.63						
2431	1.85	34.66						

a) Wind, 070°, force 2, on second cast.

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

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CREST; February 11, 1954; 2220 GCT; 32°52'N, 117°33.5'W; sounding, 500 fm;
wind, 300°, force 3; weather, partly cloudy; sea, slight; wire angle, 12°.

93.30

0	15.7	33.33	0	15.7	33.33	24.56	339	0.00
10	14.65	33.39	10	14.65	33.39	24.83	313	0.03
30	13.95	33.34	20	14.31	33.36	24.88	308	0.06
40	13.55	33.31	30	13.95	33.34	24.93	303	0.09
50	12.30	33.34	50	12.30	33.34	25.26	272	0.15
60	11.72	33.36	75	11.00	33.46	25.60	240	0.21
70	11.16	33.42	100	10.49	33.72	25.89	212	0.27
79	10.88	33.49	150	9.82	33.95	26.18	184	0.37
88	10.50	33.60	200	9.31	34.16	26.43	161	0.46
98	10.50	33.72	250	8.96	34.25	26.56	148	0.54
122	10.07	33.77	300	8.06	34.21	26.67	138	0.61
151	9.80	33.96	400	7.00	34.20	26.81	125	0.75
198	9.32	34.16	500	6.36	34.34	27.01	106	0.87
255	8.90	34.25	600	5.76	34.31	27.06	101	0.98
358	7.34	34.16						
477	6.50	34.34						
605	5.72	34.31						

CREST; February 11, 1954; 1132 GCT; 32°13'N, 118°55'W; sounding, 620 fm; wind,
320°, force 1; weather, cloudy; sea, slight; wire angle, 02°.

93.50

0	14.7	33.40	0	14.7	33.40	24.83	313	0.00
10	14.62	33.40	10	14.62	33.40	24.84	312	0.03
31	13.83	33.39	20	14.25	33.40	24.92	304	0.06
41	13.40	33.33	30	13.87	33.39	24.99	298	0.09
51	12.88	33.30	50	12.93	33.30	25.11	286	0.15
62	11.46	33.26	75	10.48	33.35	25.61	239	0.21
71	10.82	33.30	100	9.88	33.68	25.96	205	0.27
81	10.16	33.47	150	8.92	34.01	26.38	166	0.36
92	10.03	33.64	200	8.46	34.17	26.58	146	0.44
101	9.87	33.68	250	8.24	34.26	26.67	138	0.51
126	9.05	33.84	300	7.69	34.28	26.78	128	0.58
156	8.88	34.04	400	6.76	34.32	26.94	112	0.71
206	8.43	34.18	500	6.18	34.36	27.05	102	0.82
266	8.14	34.27	600	5.62	34.39	27.13	94	0.93
371	6.94	34.30						
493	6.22	34.36						
621	5.50	34.40						

CREST; February 12, 1954; 0936 GCT; 31°56'N, 117°50'W; sounding, 650 fm; wind,
270°, force 1; weather, cloudy; sea, slight; wire angle, 01°.

97.40

0	15.2	33.35	0	15.2	33.35	24.68	327	0.00
11	14.77	33.40	10	14.78	33.39	24.80	316	0.03
31	14.30	33.35	20	14.56	33.39	24.85	311	0.06
41	13.71	33.31	30	14.33	33.35	24.87	309	0.09
52	13.30	33.30	50	13.36	33.30	25.03	294	0.15
62	13.06	33.22	75	11.47	33.23	25.33	265	0.22
72	11.85	33.22	100	10.26	33.38	25.66	234	0.28
81	10.80	33.26	150	9.47	33.86	26.17	185	0.39
91	10.42	33.37	200	9.47	34.25	26.48	156	0.48
101	10.24	33.38	250	8.88	34.22	26.54	150	0.55
126	9.52	33.64	300	7.85	34.18	26.67	138	0.63
156	9.48	33.91	400	6.72	34.17	26.83	123	0.76
205	9.46	34.25	500	6.23	34.28	26.98	109	0.89
266	8.52	34.22	600	5.78	34.32	27.07	100	1.00
371	6.90	34.16						
491	6.28	34.27						
619	5.70	34.33						

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

97.60

CREST; February 12, 1954; 1913 GCT; 31°14.5'N, 119°12'W; sounding, 2000 fm; wind, calm; weather, cloudy; sea, slight; wire angle, 00°.

0	15.5	33.52	0	15.5	33.52	24.74	321	0.00
11	14.15	33.45	10	14.17	33.46	24.99	298	0.03
33	13.54	33.60	20	13.94	33.50	25.07	290	0.06
43	12.55	33.67	30	13.67	33.57	25.18	280	0.08
52	11.23	33.69	50	11.54	33.69	25.68	232	0.14
63	9.81	33.67	75	9.10	33.79	26.17	185	0.19
72	9.16	33.80	100	8.68	33.85	26.29	174	0.23
83	9.01	33.77	150	8.17	34.04	26.52	152	0.31
93	8.74	33.79	200	7.68	34.17	26.69	136	0.38
102	8.67	33.87	250	7.28	34.21	26.78	128	0.45
127	8.38	33.99	300	6.93	34.25	26.86	120	0.52
156	8.11	34.06	400	6.28	34.30	26.99	108	0.64
206	7.63	34.18	500	5.60	34.29	27.07	100	0.75
265	7.18	34.22	600	5.17	34.38	27.19	89	0.85
371	6.50	34.30						
493	5.63	34.29						
621	5.10	34.42						

100.29

CREST; February 14, 1954; 0720 GCT; 31°42'N, 116°43.5'W; sounding, 100 fm; wind, 160°, force 6; weather, rain; sea, rough; wire angle, 07°.

0	14.00	33.35	0	14.00	33.35	24.93	303	0.00
10	14.02	33.36	10	14.02	33.36	24.94	302	0.03
15	14.02	33.38	20	13.98	33.36	24.94	302	0.06
20	13.98	33.36	30	12.78	33.37	25.20	278	0.09
25	13.76	33.37	50	12.00	33.40	25.36	262	0.14
30	12.78	33.37						
36	12.63	33.34						
41	12.18	33.40						
51	12.00	33.40						

100.50

CREST; February 13, 1954; 1956 GCT; 30°57'N, 118°06'W; sounding, 760 fm; wind, 170°, force 4; weather, cloudy; sea, rough; wire angle, 25°.

0	14.3	33.12	0	14.3	33.12	24.69	326	0.00
9	14.14	33.14	10	14.03	33.13	24.77	319	0.03
23	13.41	33.04	20	13.47	33.05	24.81	315	0.06
46	13.64	33.33	30	13.48	33.09	24.84	312	0.10
54	13.61	33.44	50	13.64	33.42	25.05	292	0.16
63	11.59	33.18	75	10.70	33.25	25.49	250	0.22
72	10.89	33.22	100	9.55	33.49	25.87	214	0.28
90	9.88	33.39	150	8.50	33.85	26.31	172	0.37
111	9.24	33.59	200	7.86	34.02	26.54	150	0.46
135	8.71	33.78	250	7.41	34.10	26.67	138	0.53
177	8.18	33.95	300	7.18	34.17	26.75	130	0.60
235	7.50	34.08	400	6.55	34.27	26.92	114	0.73
322	7.04	34.19	500	6.00	34.31	27.03	104	0.84
432	6.36	34.29	600	5.49	34.35	27.12	95	0.95
591	5.52	34.34	700	5.03	34.39	27.21	87	1.05
790	4.66	34.42	800	4.62	34.42	27.28	80	1.14
1080	3.80	34.51	1000	4.01	34.49	27.40	69	1.30

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

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CREST; February 13, 1954; 0943 GCT; 30°20'N, 119°26'W; sounding, 2100 fm; wind, 160°, force 4; weather, partly cloudy; sea, moderate; wire angle, 14°.

100.70

0	14.9	33.22	0	14.9	33.22	24.64	331	0.00
10	14.74	33.21	10	14.74	33.21	24.67	328	0.03
25	14.54	33.25	20	14.60	33.23	24.71	324	0.07
55	14.18	33.30	30	14.49	33.26	24.76	320	0.10
65	13.97	33.25	50	14.26	33.30	24.84	312	0.16
74	13.52	33.22	75	13.50	33.22	24.94	302	0.23
89	13.12	33.18	100	12.11	33.18	25.18	280	0.31
108	11.52	33.19	150	10.37	33.76	25.94	207	0.43
133	10.73	33.55	200	9.59	33.98	26.25	178	0.53
161	10.18	33.83	250	8.52	34.10	26.51	153	0.61
214	9.36	34.02	300	7.82	34.16	26.66	139	0.69
290	7.92	34.15	400	7.10	34.18	26.78	128	0.82
394	7.14	34.18	500	6.47	34.25	26.92	114	0.95
535	6.22	34.27	600	5.73	34.31	27.06	101	1.07
726	5.03	34.37	700	5.15	34.36	27.18	90	1.17
965	4.18	34.43	800	4.73	34.39	27.24	84	1.27
1277	3.34	34.52	1000	4.07	34.44	27.36	73	1.44

HORIZON; February 16, 1954; 0313 GCT; 31°06'N, 116°25.5'W; sounding, 40 fm; wind, 320°, force 2; weather, clear; sea, moderate; wire angle, 12°.

103.30

0	14.19	33.28	0	14.19	33.28	24.84	312	0.00
10	14.19	33.27	10	14.19	33.27	24.83	313	0.03
15	14.18	33.28	20	13.90	33.28	24.90	306	0.06
20	13.90	33.28	30	12.36	33.30	25.22	276	0.09
25	13.14	33.29	50	11.34				
30	12.36	33.30						
35	11.66	-						
40	11.64	-						
50	11.34	-						
61	10.58	-						

HORIZON; February 15, 1954; 2133 GCT; 30°46'N, 117°05'W; sounding, 1000 fm; wind, 320°, force 3; weather, partly cloudy; sea, rough; wire angle, 13°.

10340

0	-	33.24	0	(14.45)	33.24	(24.75)	(320)	(0.00)
10	14.40	33.28	10	14.40	33.28	24.80	316	0.03
25	14.27	33.27	20	14.30	33.28	24.82	314	0.06
30	14.25	33.24	30	14.25	33.24	24.80	316	0.10
35	13.90	33.25	50	13.15	33.26	25.04	293	0.16
40	13.52	33.27	75	10.66	33.24	25.49	250	0.22
45	13.42	33.27	100	9.89	33.39	25.74	226	0.28
50	13.15	33.26	150	8.72	33.82	26.26	177	0.39
75	10.66	33.24	200	8.14	33.97	26.47	157	0.47
120	9.40	33.57	250	7.97	34.11	26.60	145	0.55
149	8.77	33.82	300	8.02	34.25	26.70	135	0.62
179	8.32	33.91	400	6.62	34.21	26.87	119	0.75
238	7.98	34.07	500	5.99	34.27	27.00	107	0.87
309	8.01	34.26	600	5.15	34.33	27.15	92	0.98
428	6.34	34.21	700	5.02	34.39	27.21	87	1.08
569	5.68	34.31						
710	4.99	34.39						

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

10360

HORIZON; February 15, 1954; 0552 GCT; 30°07'N, 118°26'W; sounding, 1900 fm;
wind, 320°, force 5; weather, partly cloudy; sea, rough; wire angle, 36°.

0	16.10r	33.36	0	(15.22)	33.36	(24.68)	(327)	(0.00)
8	15.21	33.27	10	15.21	33.26	24.61	334	0.03
25	15.17	33.25	20	15.19	33.26	24.61	334	0.07
32p	15.17	33.24	30	15.18	33.24	24.60	335	0.10
39p	15.14	33.43	50	15.05	33.25	24.63	332	0.17
47	15.10	33.24	75	14.40	33.24	24.77	319	0.25
53p	14.96	33.25	100	12.40	33.18	25.12	285	0.32
59	15.16r	33.23	150	9.40	33.54	25.93	208	0.45
72p	14.52	33.24	200	8.40	33.96	26.42	162	0.54
85p	13.72	33.21	250	7.70	34.04	26.59	146	0.62
116p	11.23	33.18	300	7.13	34.07	26.69	136	0.70
162p	9.00	33.66	400	6.55	34.22	26.89	117	0.83
222p	8.10	34.02	500	6.12	34.29	27.00	107	0.94
303p	7.10	34.07	600	5.60	34.34	27.10	97	1.05
410p	6.52	34.23	700	4.99	34.37	27.20	88	1.15
542p	5.92	34.31						
737p	4.76	34.38						

10735

HORIZON; February 14, 1954; 1205 GCT; 30°21'N, 116°22'W; sounding, 1000 fm;
wind, 270°, force 5; weather, rain showers; sea, moderate; wire angle, 27°.

0	15.04	33.32	0	15.04	33.32	24.69	326	0.00
8	15.02	33.32	10	15.02	33.32	24.69	326	0.03
19	14.97	33.31	20	14.98	33.30	24.69	326	0.06
23	14.52	33.29	30	14.09	33.34	24.91	305	0.10
27	14.14	33.24	50	13.82	33.21	24.86	310	0.16
53	13.78	33.21	75	12.50	33.24	25.15	282	0.23
70	13.34	33.30	100	10.77	33.29	25.51	248	0.30
81	11.78	33.18	150	9.30	33.73	26.10	192	0.41
90	11.30	33.22	200	8.80	34.06	26.43	161	0.50
100	10.77	33.29	250	8.22	34.28	26.70	135	0.58
123	9.88	33.57	300	8.02	34.32	26.80	126	0.64
145	9.50	33.69	400	7.40	34.34	26.86	120	0.77
190	8.92	33.99	500	6.59	34.34	26.98	109	0.90
244	8.29	34.27	600	6.10	34.35	27.05	102	1.01
342	7.87	34.33	700	(5.64)	(34.36)	(27.11)	(96)	(1.12)
464	6.80	34.34						
698	5.65	34.36						

10750

HORIZON; February 14, 1954; 2100 GCT; 29°50.5'N, 117°24'W; sounding, 1500 fm;
wind, 300°, force 4; weather, partly cloudy; sea, rough; wire angle, 08°.

0	15.69	33.42	0	15.69	33.42	24.62	333	0.00
11	15.62	33.42	10	15.63	33.42	24.64	331	0.03
31	15.00	33.44	20	15.50	33.43	24.67	328	0.07
46	14.06	33.31	30	15.09	33.44	24.77	319	0.10
61	13.36	33.29	50	13.81	33.30	24.93	303	0.16
71	12.52	33.23	75	12.34	33.27	25.20	278	0.23
81	12.09	33.30	100	10.10	33.26	25.60	240	0.30
96	10.47	33.26	150	8.59	33.83	26.29	174	0.40
106	9.84	33.30	200	8.58	34.01	26.43	161	0.49
121	9.35	33.51	250	8.84	34.29	26.61	144	0.57
151	8.55	33.84	300	8.37	34.34	26.72	133	0.64
180	8.46	33.92	400	6.87	34.30	26.91	115	0.77
240	8.86	34.27	500	6.13	34.31	27.01	106	0.89
310	8.23	34.34	600	5.62	34.35	27.11	96	0.99
431	6.56	34.29	700	5.10	34.39	27.20	88	1.09
572	5.78	34.34						
715	5.02	34.40						

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

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HORIZON; February 14, 1954; 0522 GCT; 29°51'N, 115°52.5'W; sounding, 55 fm; wind, 180°, force 2; weather, clear; sea, moderate; wire angle, 03°.

110.33

0	14.28	33.29	0	14.28	33.29	24.83	313	0.00
16	13.88	33.29	10	14.00	33.29	24.89	307	0.03
26	13.34	33.30	20	13.65	33.29	24.96	300	0.06
30	13.20	33.30	30	13.20	33.30	25.06	291	0.09
36	12.42	33.21	50	11.62	33.27	25.34	264	0.15
42	11.71	33.20	75	11.22	33.46	25.56	243	0.21
47	11.57	33.22						
57	11.88	33.40						
63	11.72	33.41						
73	11.28	33.45						
83	11.05	33.50						

HORIZON; February 14, 1954; 0128 GCT; 29°42'N, 116°10.5'W; sounding, 1350 fm; wind, 220°, force 3; weather, partly cloudy; sea, moderate; wire angle, 11°.

110.40

0	15.62	33.42	0	15.62	33.42	24.64	331	0.00
10	15.52	33.42	10	15.52	33.42	24.66	329	0.03
25	15.36	33.48	20	15.41	33.47	24.72	323	0.07
50	15.08	33.42	30	15.31	33.48	24.75	320	0.10
60	14.58	33.32	50	15.08	33.42	24.76	320	0.16
70	14.18	33.34	75	13.50	33.28	24.98	299	0.24
80	12.87	33.22	100	11.80	33.26	25.30	268	0.31
100	11.80	33.26	150	9.63	33.64	25.97	204	0.43
124	10.13	33.46	200	9.18	34.10	26.41	163	0.52
154	9.59	33.68	250	8.80	34.28	26.61	144	0.60
203	9.14	34.11	300	8.47	34.32	26.69	136	0.68
274	8.64	34.31	400	7.62	34.34	26.83	123	0.81
378	7.84	34.33	500	6.65	34.35	26.98	109	0.93
507	6.60	34.35	600	5.93	34.37	27.09	98	1.04
691	5.34	34.39	700	5.30	34.40	27.19	89	1.15
918	4.25	34.47	800	4.77	34.44	27.28	80	1.24
1230	3.37	34.52	1000	3.98	34.49	27.40	69	1.41

HORIZON; February 13, 1954; 1224 GCT; 29°04'N, 117°43'W; sounding, 1700 fm; wind, 140°, force 1; weather, clear; sea, slight; wire angle, 03°.

110.60

0	15.44	33.40	0	15.44	33.40	24.66	329	0.00
11	15.44	33.42	10	15.44	33.42	24.68	327	0.03
31	-	33.40	20	15.40	33.41	24.68	327	0.07
41	15.04	33.40	30	15.28	33.40	24.70	325	0.10
52	14.72	33.41	50	14.80	33.41	24.81	315	0.16
62	14.24	33.28	75	13.80	33.27	24.91	305	0.24
72	13.98	33.28	100	11.10	33.23	25.40	259	0.31
82	13.24	33.22	150	9.56	33.77	26.09	193	0.43
92	11.78	33.25	200	8.92	34.08	26.43	161	0.52
102	11.00	33.23	250	8.65	34.24	26.60	145	0.59
127	10.00	33.54	300	8.14	34.23	26.67	138	0.67
157	9.45	33.82	400	6.75	34.17	26.82	124	0.80
207	8.88	34.11	500	6.21	34.16	26.88	118	0.93
267	8.54	34.25	600	5.70	34.30	27.06	101	1.05
372	6.92	34.18						
494	6.24	34.16						
623	5.59	34.35						

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

113.35

HORIZON; February 12, 1954; 1535 GCT; 29°09.5'N, 115°42'W; sounding, 690 fm; wind, 320°, force 5; weather, cloudy; sea, rough; wire angle, 13°.

0	15.07	33.56	0	15.07	33.56	24.87	309	0.00
10	15.07	33.55	10	15.07	33.55	24.86	310	0.03
35	14.96	33.57	20	15.04	33.56	24.87	309	0.06
40	14.04	33.53	30	15.00	33.57	24.89	307	0.09
45	12.89	33.39	50	12.49	33.39	25.27	271	0.15
64	11.62	33.44	75	10.35	33.45	25.70	230	0.21
74	10.48	33.45	100	10.33	33.76	25.95	206	0.27
84	10.28	33.54	150	8.91	34.00	26.37	166	0.36
98	10.34	33.75	200	9.43	34.37	26.58	146	0.44
108	10.27	33.82	250	8.43	34.29	26.67	138	0.52
132	9.85	33.97	300	8.00	34.26	26.71	134	0.59
160	8.79	34.02	400	7.78	34.40	26.86	120	0.72
213	9.48	34.37	500	6.71	34.43	27.03	104	0.84
276	8.05	34.25	600	5.95	34.46	27.15	92	0.94
388	7.88	34.39						
517	6.58	34.43						
653	5.60	34.49						

113.50

HORIZON; February 12-13, 1954; 2352, 0117 GCT; 28°47'N, 116°38'W; sounding, 2000 fm; wind, 300°, force 3; weather, cloudy; sea, moderate; wire angle, 20°, 28°.

0	16.24	33.57	0	16.24	33.57	24.61	334	0.00
10	16.19	33.54	10	16.19	33.54	24.60	335	0.03
29	16.1	33.57	20	16.09	33.56	24.64	331	0.07
44	16.02	33.50	30	16.08	33.57	24.65	330	0.10
53	15.97	33.51	50	15.99	33.51	24.63	332	0.17
63	15.93	33.52	75	15.20	33.49	24.79	317	0.25
72	15.30	33.48	100	12.27	33.21	25.17	280	0.32
81	15.06	33.50	150	10.18	33.65	25.89	212	0.45
95	13.08	33.31	200	9.18	33.93	26.27	176	0.55
104	12.06	33.20	250	8.70	34.12	26.50	154	0.63
127	11.46	33.49	300	8.48	34.25	26.63	142	0.71
153	10.07	33.68	400	7.69	34.33	26.81	125	0.85
203	9.13	33.95	500	6.45	34.34	26.99	108	0.97
263	8.61	34.16	600	5.58	34.34	27.11	96	1.08
372	8.04	34.34	700	5.20	34.43	27.22	86	1.18
498	6.54u	34.34	800	4.81	34.44	27.27	81	1.27
633	5.42	34.40u	1000	4.06	34.50	27.40	69	1.44
			1200	3.57	34.52	27.47	62	1.58
0	16.20u	33.50u	1500	2.88	34.57	27.57	53	1.78
438	7.12	34.32	2000	2.10	34.63	27.69	41	2.07
495	6.47u	34.25r						
552	5.96	34.32						
617	5.49	34.35						
688	5.24	34.43						
768	4.93	34.43						
854	4.62	34.50						
951	4.21	34.52						
1061	3.90	34.48						
1187	3.60	34.51						
1323	3.24	34.56						
1478	2.91	34.57						
1653	2.60	34.62						
1849	2.30	34.62						
2068	2.05	34.63						
2309	1.92	34.68						

OBSERVED			INTERPOLATED			COMPUTED		
Z	T	S	Z	T	S	σ_t	δ_{T_3}	ΔD
m	°C	‰	m	°C	‰	g/L	$10^{-5} \text{ cm}^3/\text{g}$	dyn. m

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HORIZON; February 11, 1954; 1712 GCT; 28°47.5'N, 114°56'W; sounding, 40 fm;
wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 04°.

117.30

0	15.31	33.53	0	15.31	33.53	24.79	317	0.00
10	15.29	33.50	10	15.29	33.50	24.77	319	0.03
26	15.18	33.69	20	15.26	33.63	24.88	308	0.06
31	14.44	33.62	30	14.63	33.64	25.02	295	0.09
36	13.46	33.54	50	12.50	33.47	25.33	265	0.15
41	12.80	33.38						
47	12.63	33.39						
52	12.34	33.48						
62	11.44	33.47						
72	11.32	33.45						

HORIZON; February 11, 1954; 1050 GCT; 28°28'N, 115°36.5'W; sounding, 130 fm;
wind, 320°, force 2; weather, cloudy; sea, moderate; wire angle, 06°.

117.40

0	15.72	33.46	0	15.72	33.46	24.65	330	0.00
10	15.71	33.47	10	15.71	33.47	24.66	329	0.03
26	15.59	33.45	20	15.63	33.46	24.67	328	0.07
52	15.31	33.48	30	15.58	33.45	24.67	328	0.10
57	15.12	33.40	50	15.38	33.48	24.74	321	0.16
62	14.78	33.39	75	12.71	33.17	25.05	292	0.24
67	13.83	33.26	100	11.01	33.45	25.59	240	0.31
72	13.00	33.20						
77	12.60	33.17						
82	12.36	33.18						
92	11.32	33.33						
102	10.96	33.48						

HORIZON; February 10, 1954; 2323 GCT; 27°46'N, 116°55'W; sounding, 2000 fm;
wind, 320°, force 1; weather, partly cloudy; sea, slight; wire angle, 00°.

117.60

0	-	33.44	0	(16.13)	33.44	(24.54)	(340)	(0.00)
10	16.12	33.45	10	16.12	33.45	24.55	340	0.03
31	16.07	33.46	20	16.10	33.46	24.56	339	0.07
41	16.02	33.47	30	16.08	33.46	24.57	338	0.10
51	15.84	33.45	50	15.88	33.45	24.60	335	0.17
62	15.84	33.45	75	15.93	33.49	24.62	333	0.25
72	15.93	33.49	100	13.62	33.32	24.99	298	0.33
82	15.30	33.47	150	11.50	33.74	25.72	228	0.46
92	14.61	33.44	200	10.49	34.07	26.16	186	0.57
102	13.38	33.32	250	9.57	34.21	26.43	161	0.66
127	12.08	33.42	300	8.72	34.27	26.61	144	0.74
157	11.36	33.80	400	7.64	34.36	26.85	121	0.88
207	10.36	34.10	500	7.00	34.39	26.96	110	1.00
267	9.29	34.23	600	6.15	34.37	27.06	101	1.11
372	7.84	34.34						
494	7.06	34.39						
621	5.94	34.36						

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

120.25

HORIZON; February 9, 1954; 0339, 0350 GCT; 28°22.5'N, 114°15'W; sounding, 24 fm; wind, 320°, force 4; weather, clear; sea, slight; wire angle, 05°, 05°.

0	15.80	33.60	0	15.80	33.60	24.74	321	0.00
10	15.78	33.69	10	15.78	33.69	24.81	315	0.03
16	15.61	33.60	20	15.60	33.59	24.77	319	0.06
			30	14.61	33.48	24.91	305	0.10
21	15.56	33.58						
26	14.84	33.49						
31	14.60	33.48						
36	14.76	33.53						
41	13.88	33.56						

120.35

HORIZON; February 9, 1954; 0817 GCT; 28°03'N, 114°51'W; sounding, 42 fm; wind, calm; weather, clear; sea, slight; wire angle, 00°.

0	16.00	33.64	0	16.00	33.64	24.72	323	0.00
16	15.65	-	10	15.72	33.63	24.78	318	0.03
26	15.66	33.63	20	15.67	33.63	24.79	317	0.06
37	15.66	33.63	30	15.66	33.63	24.79	317	0.10
42	15.64	33.66						

120.50

HORIZON; February 9, 1954; 1815 GCT; 27°32.5'N, 115°51'W; sounding, 2150 fm; wind, 320°, force 2; weather, partly cloudy; sea, slight; wire angle, 10°.

0	-	33.64	0	(16.12)	33.64	(24.70)	(325)	(0.00)
11	16.13	33.65	10	16.13	33.65	24.70	325	0.03
26	16.15	33.73	20	16.14	33.68	24.72	323	0.06
31	16.22	33.77	30	16.21	33.77	24.77	319	0.10
36	15.65	33.67	50	14.21	33.48	24.99	298	0.16
51	14.00	33.48	75	11.61	33.48	25.50	249	0.23
81	11.46	33.49	100	11.32	33.80	25.80	221	0.29
100	11.32	33.80	150	10.99	34.22	26.19	184	0.39
125	11.68	34.22	200	9.90	34.27	26.42	162	0.48
155	10.82	34.22	250	9.30	34.32	26.56	148	0.56
203	9.84	34.28	300	8.95	34.35	26.64	141	0.63
270	9.14	34.33	400	8.08	34.42	26.83	123	0.77
374	8.37	34.42	500	6.89	34.41	26.99	108	0.89
502	6.86	34.41	600	5.93	34.41	27.12	95	1.00
686	5.38	34.42	700	5.28	34.42	27.20	88	1.10
911	4.33	34.47	800	4.79	34.44	27.28	80	1.19
1221	3.45	34.52	1000	4.05	34.49	27.40	69	1.36

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

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HORIZON; February 10, 1954; 0440 GCT; 26°52'N, 117°10.5'W; sounding, 1750 fm;
wind, 320°, force 3; weather, clear; sea, slight; wire angle, 12°.

120.70

0	16.16	33.45	0	16.16	33.45	24.54	340	0.00
10	15.85	33.46	10	15.85	33.46	24.62	333	0.03
25	15.20	33.40	20	15.24	33.42	24.72	323	0.07
60	15.34	33.57	30	15.20	33.40	24.72	323	0.10
65	15.42	33.75	50	15.25	33.46	24.75	320	0.16
70	15.38	33.65	75	14.10	33.37	24.93	303	0.24
80	13.44	33.35	100	11.94	33.35	25.34	264	0.31
100	11.94	33.35	150	10.82	33.98	26.03	199	0.43
124	10.78	33.57	200	9.73	34.17	26.37	166	0.52
153	10.82	34.01	250	8.90	34.23	26.55	149	0.60
202	9.69	34.18	300	8.33	34.28	26.68	137	0.68
269	8.68	34.24	400	7.47	34.33	26.85	121	0.81
370	7.71	34.32	500	6.74	34.35	26.96	110	0.94
496	6.79	34.35	600	6.11	34.39	27.08	99	1.05
676	5.69	34.42	700	5.52	34.43	27.18	90	1.15
897	4.46	34.49	800	4.92	34.46	27.28	80	1.24
1206	3.44	34.56	1000	4.08	34.52	27.42	67	1.41

HORIZON; February 8, 1954; 0130 GCT; 27°01.5'N, 115°29.5'W; sounding, 2000 fm;
wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 16°.

123.50

0	17.02	33.96	0	17.02	33.96	24.73	322	0.00
10	16.99	33.98	10	16.99	33.98	24.75	320	0.03
30	16.87	33.95	20	16.92	33.96	24.76	320	0.06
40	16.88	33.95	30	16.87	33.95	24.76	320	0.10
55	16.72	33.98	50	16.80	33.98	24.80	316	0.16
65	16.52	33.98	75	15.42	33.84	25.01	296	0.24
75	15.42	33.84	100	12.28	33.45	25.35	263	0.31
80	13.67	33.51	150	11.42	34.28	26.16	186	0.42
90	12.58	33.46	200	10.03	34.33	26.44	160	0.51
100	12.28	33.45	250	9.70	34.50	26.63	142	0.59
124	11.70	34.00	300	8.74	34.46	26.76	129	0.66
154	11.35	34.29	400	7.33	34.38	26.91	115	0.79
204	10.00	34.34	500	6.66	34.43	27.04	103	0.90
263	9.60	34.51	600	6.01	34.47	27.15	92	1.01
369	7.60	34.37						
491	6.72	34.43						
619	5.90	34.47						

HORIZON; February 7, 1954; 1501 GCT; 26°41.5'N, 114°30.5'W; sounding, 1500 fm;
wind, 340°, force 2; weather, cloudy; sea, moderate; wire angle, 15°.

127.40

0	17.53	34.09	0	17.53	34.09	24.71	324	0.00
10	17.48	34.11	10	17.48	34.11	24.74	321	0.03
30	17.49	34.14	20	17.49	34.13	24.75	320	0.06
40	17.22	34.13	30	17.49	34.14	24.76	320	0.10
50	14.56	33.62	50	14.56	33.62	25.02	295	0.16
60	13.60	33.58	75	12.21	33.66	25.53	246	0.23
69	12.90	33.63	100	11.20	33.84	25.86	215	0.28
79	12.18	33.68	150	10.39	34.20	26.28	175	0.38
89	12.07	33.79	200	10.22	34.38	26.45	159	0.47
98	11.23	33.84	250	10.07	34.51	26.58	146	0.55
122	11.09	34.02	300	9.69	34.52	26.65	140	0.62
151	10.38	34.20	400	8.20	34.50	26.87	119	0.76
200	10.22	34.38	500	7.07	34.48	27.02	105	0.88
258	10.03	34.52	600	6.29	34.45	27.10	97	0.99
361	8.78	34.51						
480	7.24	34.49						
607	6.26	34.45						

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

130.30

HORIZON; February 7, 1954; 0707 GCT; 26°30'N, 113°28'W; sounding, 38 fm; wind, 220°, force 1; weather, clear; sea, slight; wire angle, 04°.

0	18.41	34.38	0	18.41	34.38	24.72	323	0.00
15	18.30	34.58r	10	18.37	34.38	24.73	322	0.03
24	18.16	34.37	20	18.23	34.38	24.76	320	0.06
29	18.08	34.36	30	18.07	34.36	24.78	318	0.10
33	18.02	34.37	50	16.50	34.28	25.10	287	0.16
43	17.34	34.33						
47	16.90	34.31						
51	16.38	34.25						
56	15.62	34.21						
67	13.44	34.02						

130.40

HORIZON; February 7, 1954; 0025 GCT; 26°19.5'N, 114°16'W; sounding, 1900 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 07°.

0	18.22	34.05	0	18.22	34.05	24.51	343	0.00
10	17.85	34.07	10	17.85	34.07	24.62	333	0.03
25	17.52	34.04	20	17.64	34.05	24.65	330	0.07
51	16.89	34.05	30	17.45	34.04	24.69	326	0.10
61	14.84	33.71	50	17.00	34.05	24.81	315	0.16
71	13.89	33.62	75	13.50	33.60	25.23	275	0.24
82	13.00	33.59	100	11.69	33.69	25.65	235	0.30
102	11.54	33.71	150	10.51	33.97	26.08	194	0.41
123	10.79	33.82	200	9.64	34.24	26.44	160	0.50
157	10.44	34.01	250	9.42	34.42	26.62	143	0.58
207	9.58	-	300	9.21	34.47	26.69	136	0.65
277	9.35	34.47	400	8.15	34.44	26.83	123	0.79
382	8.34	34.44	500	7.08	34.42	26.97	110	0.91
512	6.97	34.42	600	6.24	34.43	27.09	98	1.02
697	5.53	34.45	700	5.51	34.45	27.20	88	1.12
924	4.36	34.47	800	4.91	34.46	27.28	80	1.22
1237	3.56	34.52	1000	4.10	34.48	27.38	71	1.39

130.60

HORIZON; February 6, 1954; 0345 GCT; 25°33'N, 115°29'W; sounding, 2000 fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 22°.

0	17.02	33.77	0	17.02	33.77	24.59	336	0.00
10	16.92	33.81	10	16.92	33.81	24.64	331	0.03
25	16.64	33.87	20	16.71	33.86	24.73	322	0.07
50	16.36	33.88	30	16.59	33.88	24.77	319	0.10
60	15.64	33.79	50	16.36	33.88	24.82	314	0.16
70	12.84	33.40	75	12.68	33.40	25.24	274	0.24
99	12.11	33.80	100	12.05	33.82	25.68	232	0.30
123	11.12	33.96	150	10.42	34.09	26.19	184	0.40
152	10.38	34.09	200	9.89	34.30	26.44	160	0.49
197	9.91	34.29	250	9.58	34.41	26.58	146	0.57
264	9.48	34.42	300	8.99	34.41	26.68	137	0.64
363	8.11	34.39	400	7.72	34.40	26.86	120	0.78
483	6.96	34.45	500	6.79	34.46	27.04	103	0.90
656	5.54	34.49	600	5.94	34.48	27.17	91	1.00
869	4.56	34.53	700	5.26	34.50	27.27	81	1.10
1167	3.68	34.55	800	4.80	34.52	27.34	74	1.18
			1000	4.10	34.54	27.43	66	1.34

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

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HORIZON; February 5, 1954; 1213 GCT; 25°53'N, 113°11'W; sounding, 62 fm; wind, 270°, force 1; weather, clear; sea, slight; wire angle, 04°.

133.30

0	19.11	34.20	0	19.11	34.20	24.40	354	0.00
20	19.00	34.20	10	19.05	34.20	24.42	352	0.04
36	18.90	34.14	20	19.00	34.20	24.43	351	0.07
51	17.74	34.01	30	18.97	34.17	24.41	353	0.11
56	15.63	33.79	50	17.92	34.03	24.57	338	0.18
61	15.18	33.73	75	14.31	33.88	25.28	270	0.25
71	14.56	33.84	100	13.49	34.19	25.69	231	0.32
76	14.30	33.89						
81	14.31	33.96						
86	14.08	34.00						
91	13.88	34.02						
101	13.41	34.20						

HORIZON; February 5, 1954; 0027 GCT; 25°37.5'N, 112°20.5'W; sounding, 40 fm; wind, 220°, force 2; weather, partly cloudy; sea, moderate; wire angle, 02°.

137.23

0	19.35	34.34	0	19.35	34.34	24.45	349	0.00
11	18.82	34.33	10	18.88	34.33	24.56	339	0.03
21	18.52	34.32	20	18.58	34.32	24.63	332	0.07
26	18.30	34.33	30	17.80	34.25	24.77	319	0.10
31	17.65	34.22	50	15.68	34.23	25.25	273	0.16
37	16.87	34.15						
42	16.56	34.24						
47	15.96	34.22						
52	15.56	34.23						
61	15.38	34.17						

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
77.50-C	II-4	0205	35°03.5'	120°52.0'	82	270°	1	partly cloudy	moderate	12.52	33.35		
80.51-C	4	0625	34°26.0'	120°33.5'	105	320°	2	partly cloudy	moderate	13.62	33.30		
80.60-C	4	1140	34°09.0'	121°09.0'	1200	300°	4	clear	moderate	12.98	33.22		
80.80-C	4	2125	33°29.0'	122°32.0'	2200	320°	5	clear	rough	12.98	33.01		
83.40-C	5	2245	34°14.0'	119°22.0'	12	260°	3	partly cloudy	slight	13.49	33.31		
83.48-C	5	1420	33°58.0'	119°55.0'	100	310°	1	clear	slight	12.84	33.37		
83.55-C	5	0920	33°44.0'	120°24.5'	1320	270°	3	clear	slight	13.46	33.30		
85.40-C	6	0400	33°57.0'	119°10.5'	420	310°	3	clear	slight	13.86	33.32		
85.50-C	6	2230	33°36.5'	119°53.0'	125	290°	2	fog	moderate	13.54	33.35		
85.60-C	7	0520	33°17.0'	120°33.5'	780	330°	3	partly cloudy	moderate	13.39	33.31		
87.35-C	8	0605	33°50.0'	118°37.0'	130	360°	1	clear	slight	13.76	33.30		
87.45-C	8	0000	33°30.0'	119°19.0'	930	240°	1	clear	slight	13.52	33.35		
87.55-C	7	1110	33°12.0'	120°03.0'	700	320°	2	clear	slight	13.56	33.26		
90.30-C	8	1330	33°24.5'	117°55.0'	370	280°	1	clear	slight	14.48	33.40		
90.45-C	10	0040	32°54.5'	118°56.0'	980	220°	1	cloudy	moderate	14.37	33.35		
90.60-C	10	0945	32°25.0'	119°57.0'	520	250°	1	overcast	slight	14.00	33.18		
90.80-C	10	2205	31°45.0'	121°19.0'	2170	320°	2	overcast	moderate	13.27	33.05		
93.27-C	12	0040	32°57.0'	117°18.5'	41	320°	1	partly cloudy	slight	14.54	33.33		
93.40-C	11	1740	32°30.0'	118°12.5'	900	calm		overcast	moderate	14.68	33.38		

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

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
93.60-C	II-11	0650	31°49.0'	119°34.0'	1900	290°	1	overcast	moderate	14.40	33.38		
97.30-C	12	0440	32°15.5'	117°10.0'	31	320°	2	partly cloudy	slight	14.32	33.34		
97.32-C	12	0600	32°11.5'	117°17.5'	800	320°	1	partly cloudy	slight	14.92	33.42		
97.50-C	12	1500	31°38.0'	118°32.0'	1400	270°	1	overcast	slight	14.10	33.32		
100.30-C	14	0630	31°40.5'	116°47.0'	240	170°	5	overcast	very rough	14.00	33.35		
100.40-C	14	0200	31°21.5'	117°26.5'	1020	220°	5	cloudy	rough	14.90	33.41		
100.60-C	13	1555	30°39.0'	118°45.0'	1800	160°	4	overcast	rough	14.58	33.18		
100.80-C	13	0500	30°01.0'	120°07.0'	2300	200°	1	overcast	moderate	14.84	33.36		
103.35-H	16	0040	30°56.0'	116°44.5'	900	320°	3	partly cloudy	rough	14.78	33.28		
103.45-H	15	1855	30°37.0'	117°22.5'	1100	320°	4	cloudy	rough	14.32	33.23		
103.50-H	15	1505	30°27.5'	118°00.0'	1500	320°	5	partly cloudy	rough	14.08	33.28		
107.32-H	14	0955	30°25.0'	116°11.5'	180	180°	3	missing	rough	14.49	33.36		
107.40-H	14	1515	30°10.0'	116°43.5'	1575	260°	4	overcast	rough	15.76	33.41		
107.45-H	14	1755	30°00.0'	117°03.0'	860	260°	4	partly cloudy	moderate	15.42	33.34		
107.60-H	15	0140	29°32.0'	118°05.0'	1800	340°	4	partly cloudy	moderate	14.96	33.16		
110.35-H	14	0355	29°46.5'	115°58.5'	660	220°	1	missing	smooth	14.96	33.34		
110.45-H	13	2225	29°27.0'	116°38.0'	210	140°	2	partly cloudy	smooth	15.64	33.38		
110.50-H	13	1940	29°15.0'	116°59.0'	1600	140°	2	partly cloudy	smooth	15.42	33.34		
113.30-H	12	1230	29°21.0'	115°20.0'	35	320°	1	missing	smooth	15.49	33.43		

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

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

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
113.40-H	II-12	1810	29°01.0'	115°57.5'	1175	300°	4	cloudy	rough	14.95	33.34		
113.45-H	12	2100	28°52.0'	116°19.0'	-	300°	4	cloudy	moderate	-	33.44		
113.60-H	13	0650	28°23.0'	117°17.0'	2025	320°	3	missing	slight	-	33.46		
117.26-H	11	1850	28°55.0'	114°41.0'	40	320°	1	overcast	smooth	15.50	33.51		
117.35-H	11	1405	28°37.0'	115°16.5'	125	320°	2	overcast	smooth	15.28	33.40		
117.45-H	11	0735	28°19.5'	115°55.0'	1745	360°	3	overcast	slight	15.84	33.41		
117.50-H	11	0455	28°08.0'	116°15.0'	2500	360°	3	overcast	smooth	15.67	33.39		
117.55-H	11	0215	27°57.5'	116°35.0'	1700	360°	1	cloudy	smooth	15.94	33.39		
120.30-H	9	0640	28°12.5'	114°34.0'	47	290°	1	missing	smooth	15.90	33.63		
120.37 ⁵ -H	9	1040	27°59.0'	115°03.0'	37	320°	1	missing	calm	15.87	33.68		
120.40-H	9	1230	27°56.0'	115°20.0'	45	180°	1	missing	calm	16.58	33.98		
120.42 ⁵ -H	9	1345	27°49.0'	115°24.0'	90	320°	1	missing	calm	15.64	33.60		
120.45-H	9	1525	27°42.5'	115°34.0'	1450	320°	2	partly cloudy	smooth	15.78	33.67		
120.55-H	9	2145	27°19.5'	116°14.0'	2250	320°	2	cloudy	smooth	15.60	33.47		
120.60-H	10	0015	27°10.0'	116°31.0'	2050	320°	2	partly cloudy	smooth	15.69	33.44		
120.80-H	10	1255	26°35.0'	118°03.0'	2200	320°	2	missing	smooth	17.44	34.11		
123.37-H	8	0950	27°24.0'	114°41.5'	40	320°	2	partly cloudy	smooth	17.48	34.01		
123.40-H	8	0755	27°17.0'	114°53.0'	440	320°	4	partly cloudy	moderate	15.74	33.64		
123.42 ⁵ -H	8	0615	27°13.0'	115°01.0'	1750	320°	4	partly cloudy	moderate	16.31	33.74		

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
123.45-H	II-8	0440	27°08.5'	115°11.0'	2100	320°	3	partly cloudy	moderate	15.61	33.52		
127.34-H	7	1135	26°55.0'	114°06.5'	45	360°	3	cloudy	slight	-	34.05		
127.45-H	7	1800	26°33.5'	114°48.5'	1500	300°	1	cloudy	missing	17.46	33.94		
127.50-H	7	2020	26°21.5'	115°11.5'	2000+	320°	3	cloudy	moderate	17.55	34.08		
130.35-H	7	0435	26°28.0'	113°48.0'	55	320°	1	missing	smooth	12.51	33.97		
130.45-H	6	2110	25°56.5'	114°22.0'	2000	270°	2	partly cloudy	slight	18.73	34.21		
130.50-H	6	1900	25°46.5'	114°44.0'	2000	270°	3	partly cloudy	slight	18.45	34.14		
130.55-H	6	1550	25°28.0'	115°58.0'	2000	280°	2	partly cloudy	slight	17.65	34.10		
133.25-H	5	0905	26°05.0'	112°48.5'	45	-	-	missing	missing	19.00	34.29		
133.35-H	5	1510	25°41.5'	113°29.5'	350	270°	1	cloudy	slight	18.57	34.21		
133.40-H	5	1805	25°29.0'	113°49.0'	1000	270°	1	partly cloudy	slight	19.05	34.19		
137.30-H	5	0405	25°25.0'	112°44.0'	130	-	-	missing	missing	18.95	34.22		

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