

CORRECTIONS MADE :
STATION POSITIONS #s

UNIVERSITY OF CALIFORNIA SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

PHYSICAL AND CHEMICAL DATA

CCOFI CRUISE 5403

(MLR 58)

3 March - 5 April 1954

and

CCOFI CRUISE 5404

(MLR 59)

7 April - 13 May 1954

SIO Reference 58-65

15 September 1958

UNIVERSITY OF CALIFORNIA
SCRIPPS INSTITUTION OF OCEANOGRAPHY

PHYSICAL AND CHEMICAL DATA

CCOFI CRUISE 5403
(MLR 58)
3 March - 5 April 1954

and

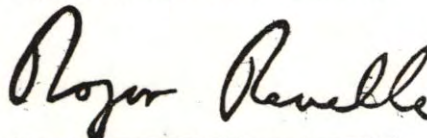
CCOFI CRUISE 5404
(MLR 59)
7 April - 13 May 1954

Sponsored by

Marine Research Committee

SIO Reference 58-65
15 September 1958

Approved for distribution:



Roger Revelle, Director

CONTENTS

INTRODUCTION iii

CRUISE 5403

List of Figures. v

Personnel vi

Tabulated Data. 58

CRUISE 5404

List of Figures. viii

Personnel xi

Tabulated Data. 90

DISTRIBUTION LIST 128

INTRODUCTION

The data in this report were collected on the fifty-eighth and the fifty-ninth 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 R/V Horizon of the Scripps Institution of Oceanography participated in the fifty-eighth cruise while the R/V Crest, the R/V E. W. Scripps, the R/V Horizon and the R/V Spencer F. Baird of the Scripps Institution participated in the fifty-ninth cruise.

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

STANDARD PROCEDURES

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

FOOTNOTES

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

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

p: pretrip or posttrip.

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

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

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

FORMAT

These data are typed in the format of the University of California Press publication, "Oceanic Observations of the Pacific." So that these pages can be used as copy for the 1954 volume, the first page of the Cruise 5403 data is numbered 58 and the first page of 5404 is numbered 90.

FIGURES

1. CCOFI Cruise 5404 (MLR 59), 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

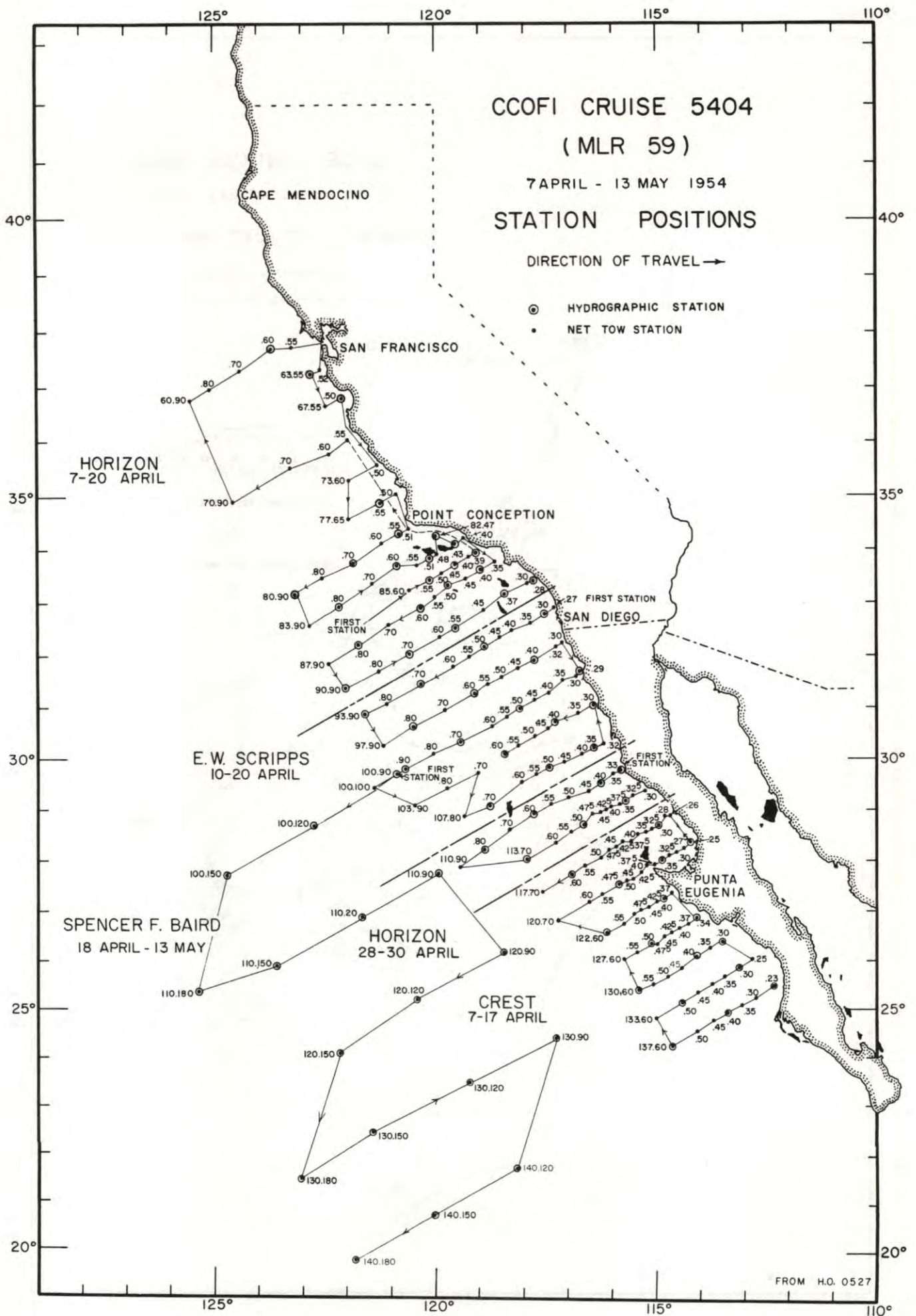


FIGURE 1

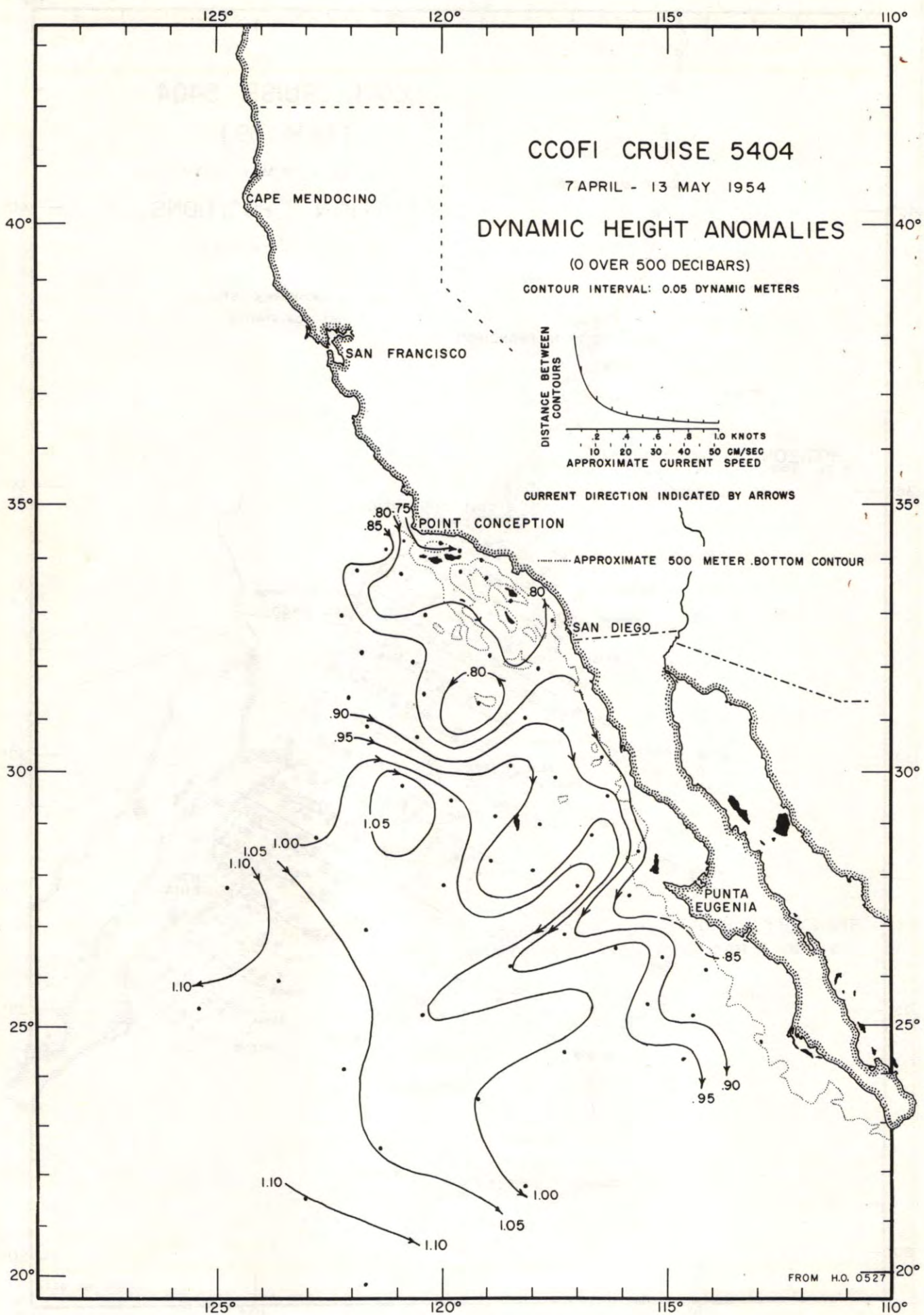


FIGURE 2

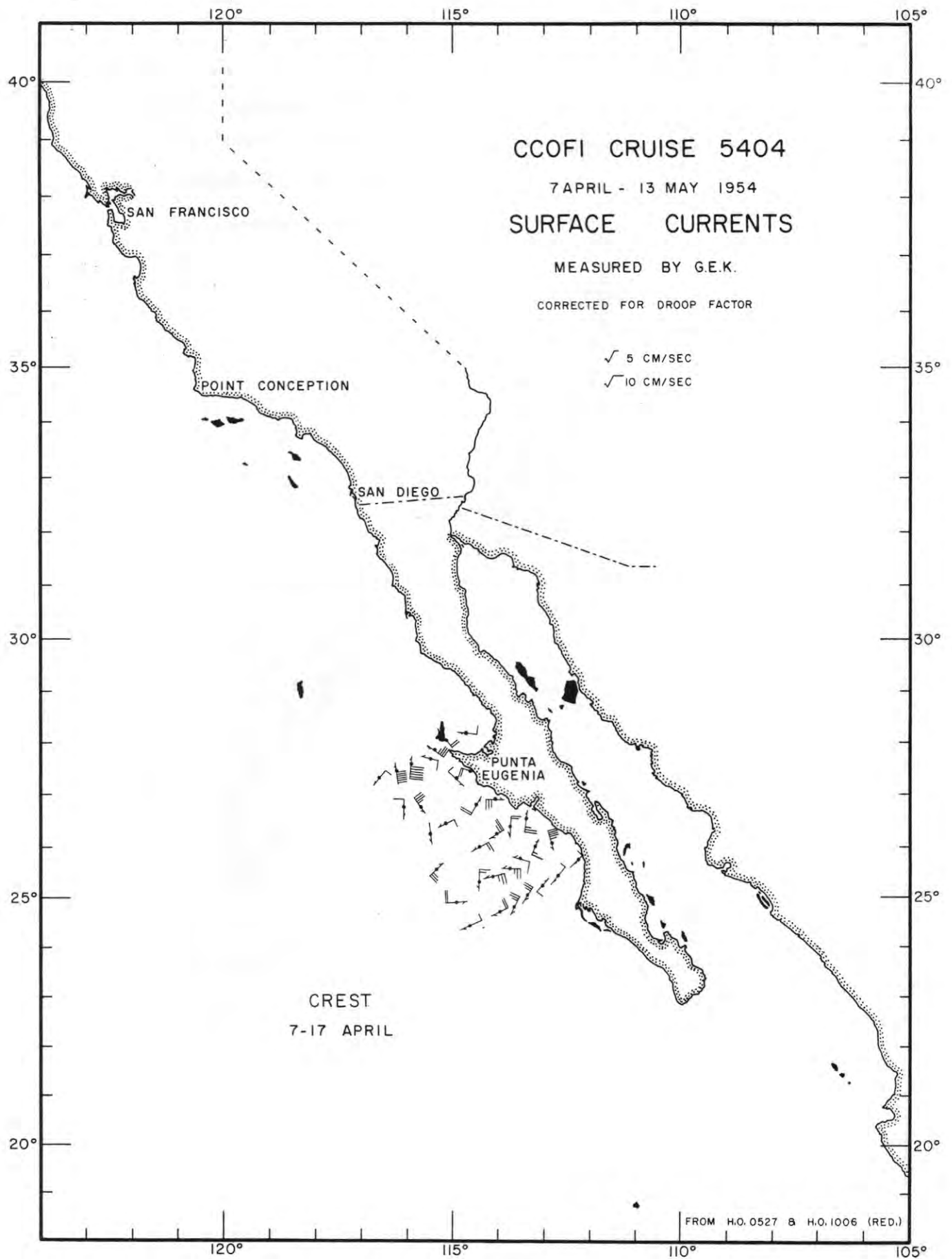


FIGURE 3

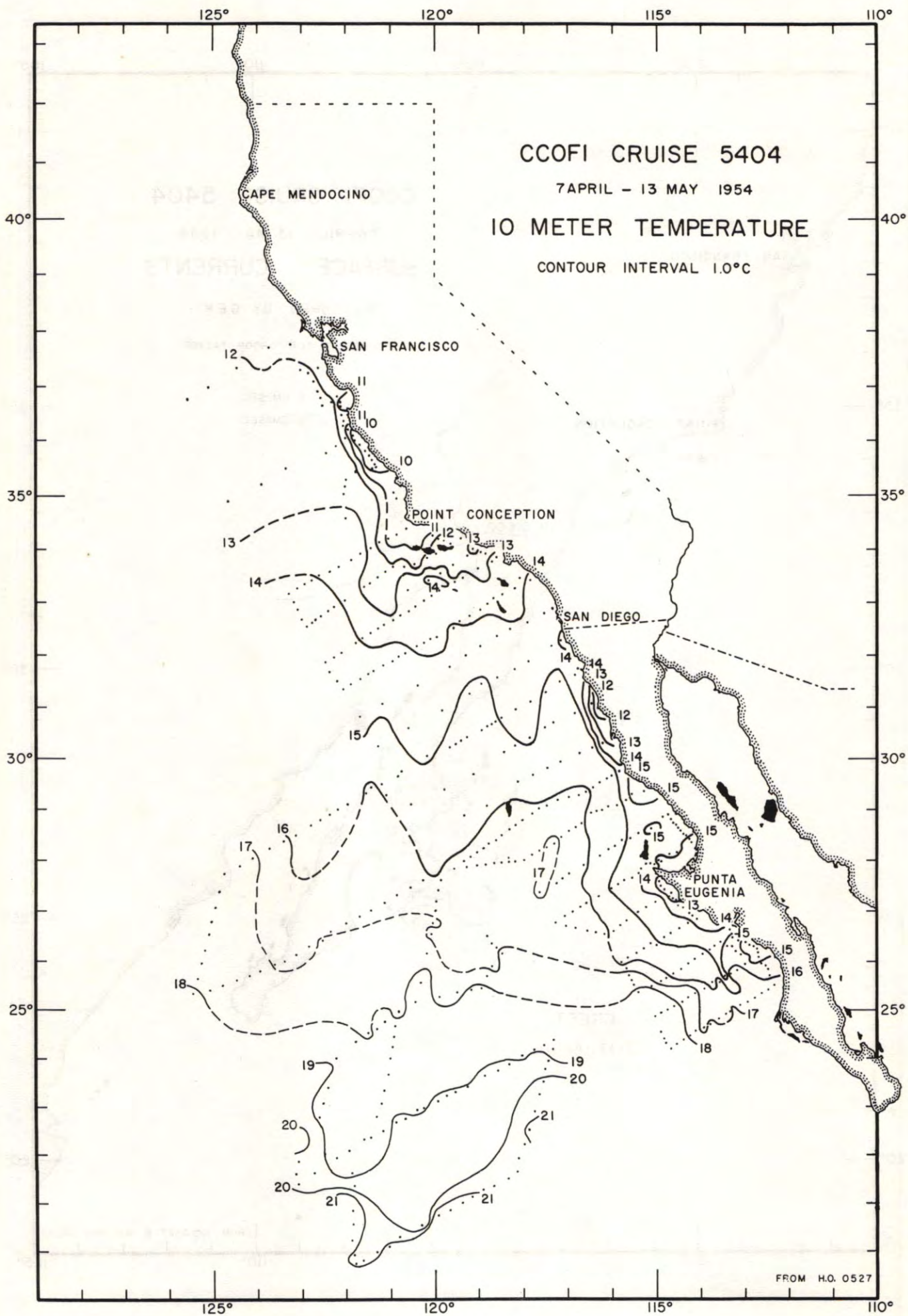


FIGURE 4

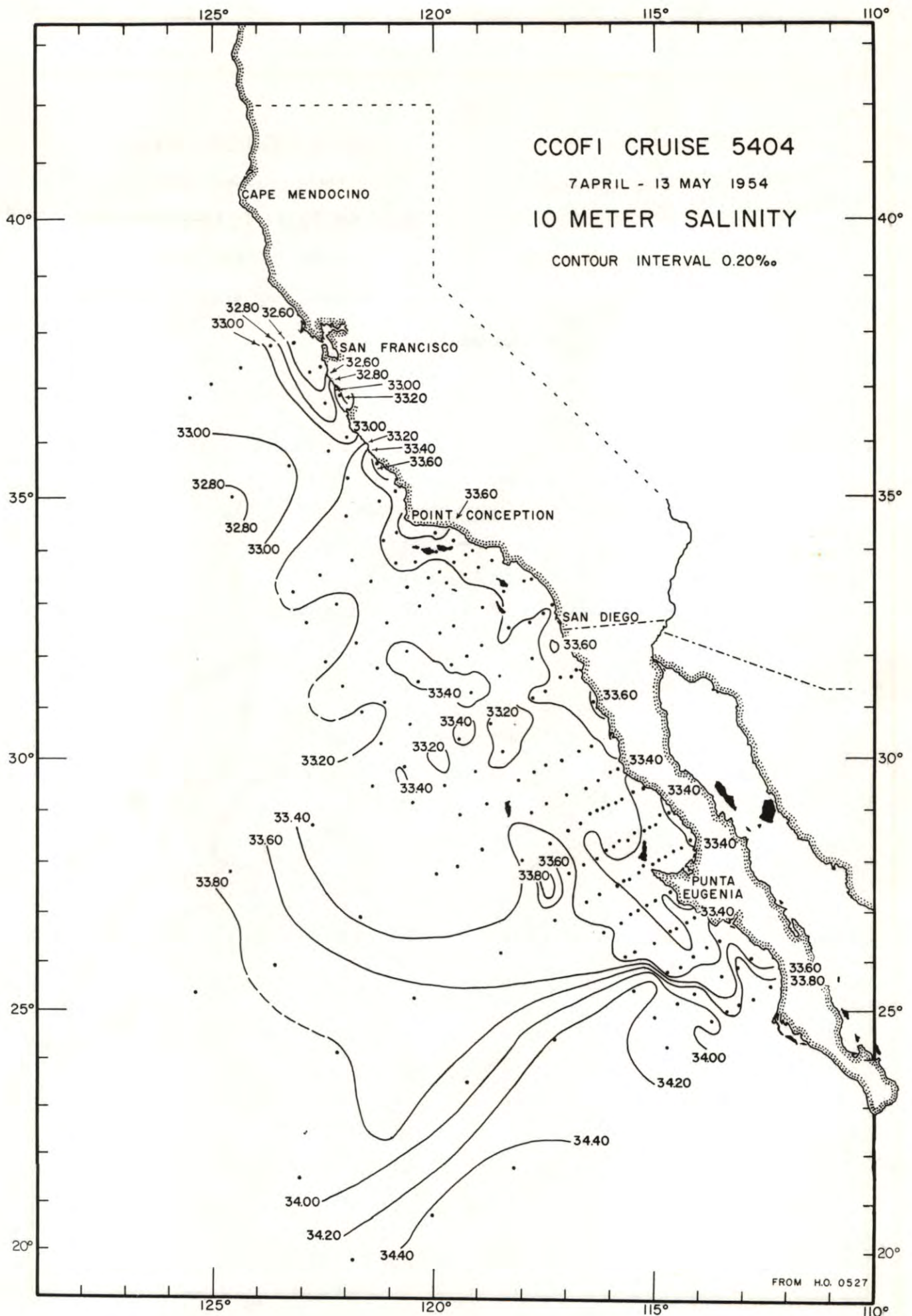


FIGURE 5

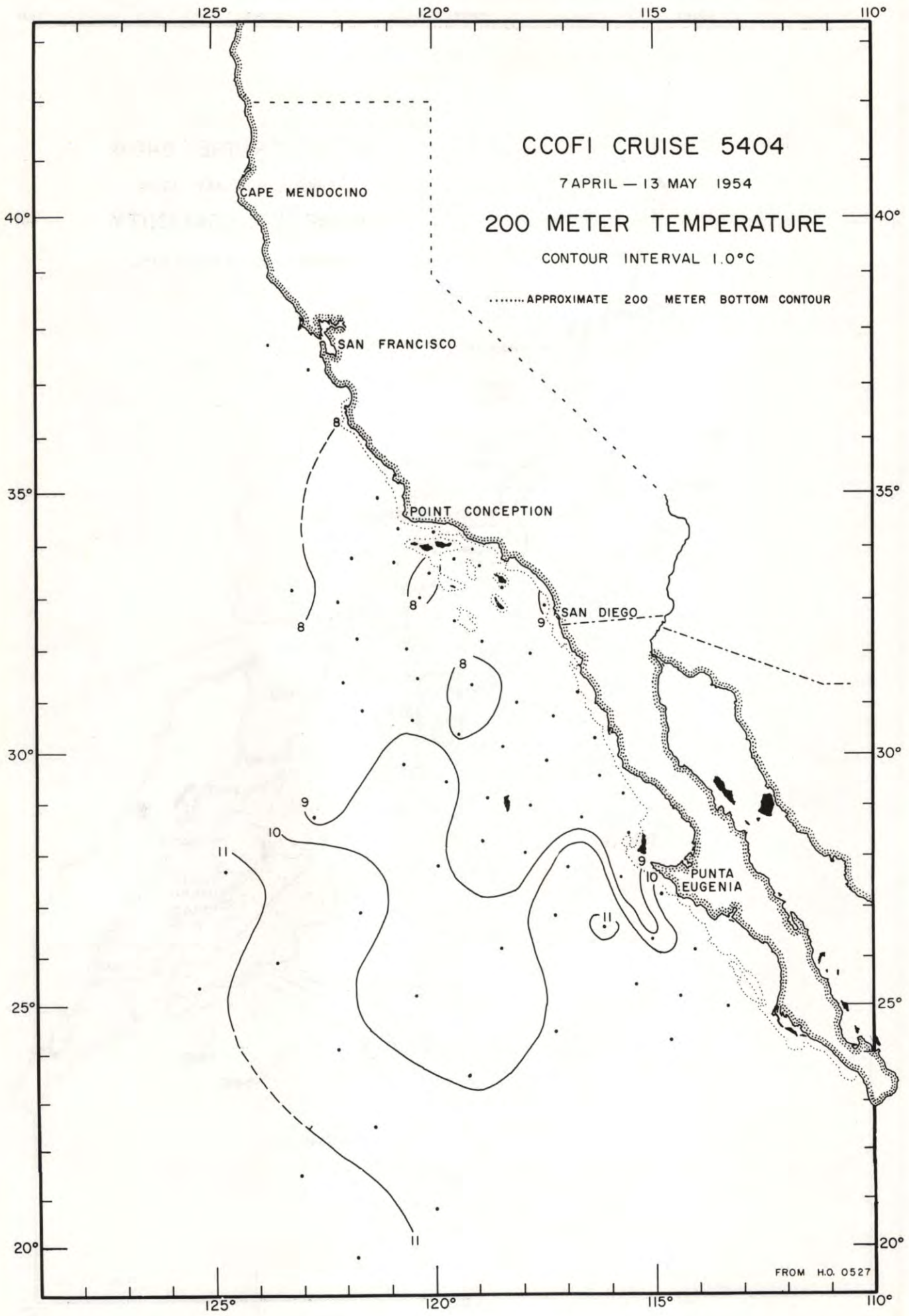


FIGURE 6

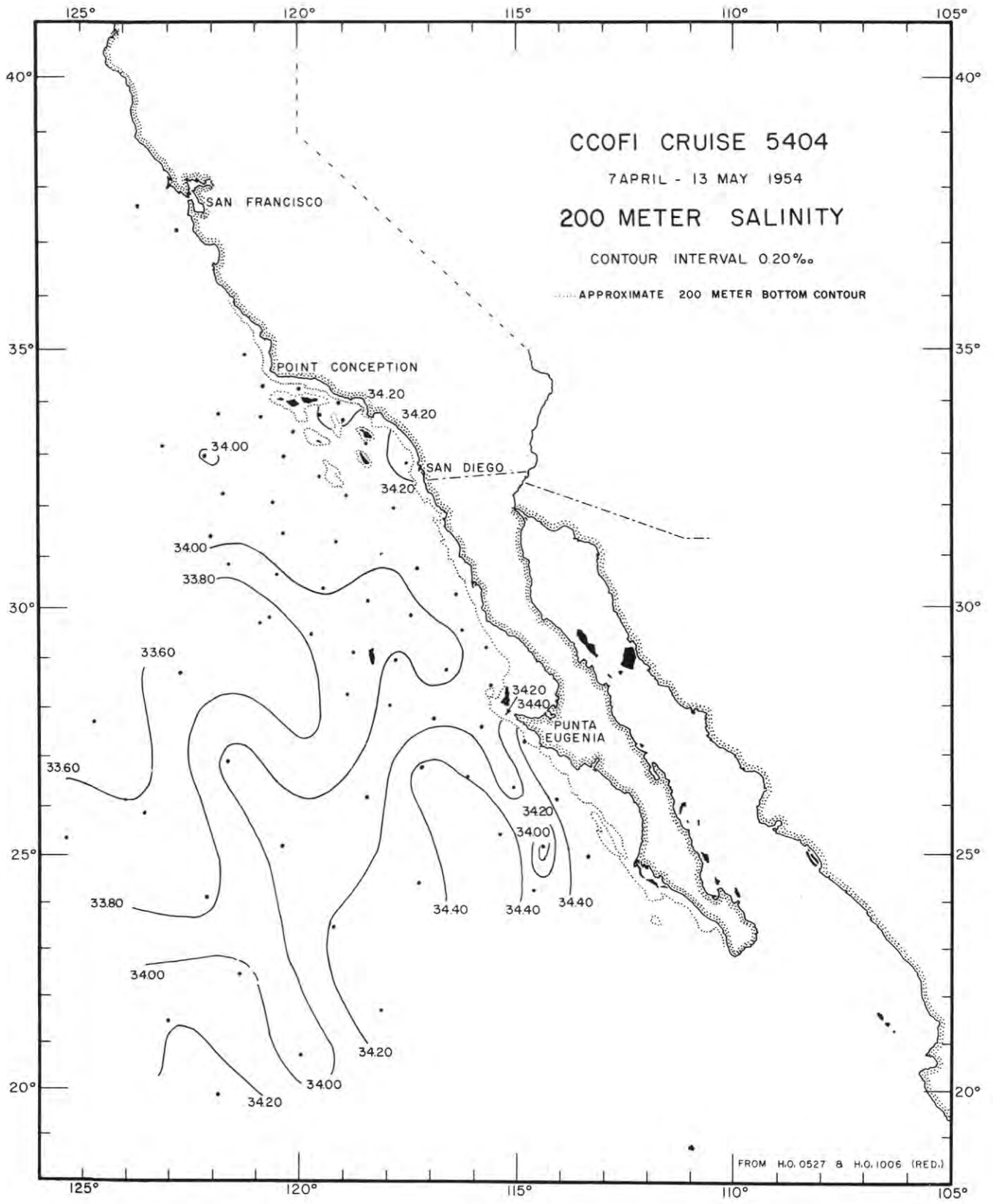


FIGURE 7

FROM H.O. 0527 & H.O. 1006 (RED.)

CRUISE 5404
PERSONNEL

SHIPS' CAPTAINS

Davis, Laurence E., R/V Crest
Ferris, Noel, R/V Horizon
Newbegin, Robert C., R/V E. W. Scripps
Wyatt, Vernon H., R/V Spencer F. Baird

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

R/V Crest

Payne, Miles M., Jr., Senior Marine Technician
Brennan, Robert E., Marine Technician
Grom, Robert A., Fishery Aid, U. S. Fish and Wildlife Service
Lance, James R., Marine Technician
O'Connell, Charles P., Fishery Research Biologist, U. S. Fish and Wildlife Service

R/V E. W. Scripps

Worrall, Charles G., Senior Marine Technician
Hoffman, Raymond L., Jr., Marine Technician
Nair, R. V., visiting biologist, Assistant Research Office, Ministry of
Agriculture, India
Taft, Bruce A., Fishery Aid, U. S. Fish and Wildlife Service
Uren, Leon W., Laboratory Technician

R/V Horizon (First Part)

Gilkey, Robert W., Senior Marine Technician
Linn, Robert J., Marine Technician
Willis, Robert S., Marine Technician
Casey, Harold D., Fishery Aid, U. S. Fish and Wildlife Service
Squier, Earl D., Laboratory Technician (San Diego to Port Hueneme)

R/V Horizon (Second Part)

Payne, Miles M., Jr., Senior Marine Technician
Grom, Robert A., Fishery Aid, U. S. Fish and Wildlife Service
Lance, James R., Marine Technician

R/V Spencer F. Baird

Horrer, Paul L., Assistant Research Oceanographer
Cochrane, John D., Junior Research Oceanographer
Kivlen, John C., Marine Technician
Smith, Alan C., Senior Marine Technician

CCOFI Cruise 5404

Tabulated Data

S10

CCOFI
5404

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

60.60

HORIZON; April 11, 1954; 2036 GCT; 37°42'N, 123°42'W; sounding, missing; wind, 320°, force 6; weather, overcast; sea, rough; wire angle, 28°.

0	11.6	32.91	0	11.6	32.91	25.06	291	0.00
10	11.72	32.95	10	11.72	32.95	25.07	290	0.03
28	11.74	32.94	20	11.77	32.94	25.05	292	0.06
42	11.65	32.98	30	11.74	32.94	25.06	291	0.09
56	10.69	33.04	50	11.09	33.01	25.23	275	0.14
64	10.85	33.19	75	10.56	33.38	25.61	239	0.21
73	10.63	33.35	100	8.98	33.38	25.88	213	0.26
86	9.86	33.47	150	8.45	33.87	26.34	169	0.36
95	9.18	33.37	200	7.93	34.05	26.56	148	0.44
108	8.76	33.51	250	7.50	34.11	26.67	138	0.52
134	8.70	33.81	300	7.00	34.12	26.75	130	0.59
159	8.27	33.91	400	6.04	34.12	26.87	119	0.72
212	7.84	34.07	500	5.54	34.29	27.07	100	0.83
273	7.28	34.12	600	5.01	34.35	27.18	90	0.93
379	6.20	34.11						
506	5.51	34.29						
636	4.79	34.37						

63.55

HORIZON; April 13, 1954; 2129 GCT; 37°14'N, 122°49.5'W; sounding, 150 fm; wind, 320°, force 5; weather, fog; sea, moderate; wire angle, 12°.

0	12.40	31.78	0	12.40	31.78	24.04	388	0.00
10	12.27	32.10	10	12.27	32.10	24.31	362	0.04
16	12.26	32.21	20	12.19	32.28	24.47	347	0.07
21	12.14	32.30	30	11.96	32.45	24.64	331	0.11
24	12.02	32.42	50	10.16	33.15	25.50	249	0.16
31	11.93	32.46	75	9.41	33.66	26.02	200	0.22
36	11.25	32.90	100	8.49	33.86	26.33	170	0.21
46	10.39	33.15	150	8.34	33.97	26.44	160	0.35
56	9.93	33.16	200	7.53	34.06	26.63	142	0.43
66	9.90	33.39						
76	9.36	33.68						
96	8.47	33.84						
111	8.54	33.90						
142	8.48	33.95						
172	7.9	34.01						
207	7.48	34.06						

67.50

HORIZON; April 14, 1954; 0434 GCT; 36°49'N, 122°04.5'W; sounding, 60 fm; wind, 320°, force 6; weather, clear; sea, rough; wire angle, 20°.

0	11.26	33.31	0	11.26	33.31	25.43	256	0.00
10	11.17	33.35	10	11.17	33.35	25.48	251	0.02
15	11.00	33.33	20	10.06	33.55	25.83	218	0.05
20	10.06	33.55	30	9.32	33.62	26.01	201	0.07
25	9.63	33.57	50	8.71	33.85	26.28	175	0.11
30	9.32	33.62	75	8.36	33.95	26.42	162	0.15
34	9.18	33.73						
44	8.82	33.82						
54	8.66	33.86						
63	8.61	33.89						
78	8.28	33.96						

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

S10
CCOFI
5404

HORIZON; April 15, 1954; 0234 GCT; 34°55'N, 121°13.5'W; sounding, 320 fm; wind, 320°, force 6; weather, clear; sea, high; wire angle, 54°.

77.55

0	-	33.17	0	(12.24)	33.17	(25.14)	(283)	(0.00)
7	12.24	33.15	10	12.23	33.15	25.13	284	0.03
20	12.13	33.14	20	12.13	33.14	25.14	283	0.06
25	11.95	33.19	30	11.87	33.22	25.25	273	0.08
32	11.84	33.22	50	11.54	33.30	25.38	260	0.14
38	11.74	33.22	75	10.67	33.45	25.65	235	0.20
44	11.66	33.26	100	9.10	33.75	26.14	188	0.25
50	11.54	33.30	150	8.23	33.99	26.47	157	0.34
56	11.42	33.30	200	8.05	34.01	26.51	153	0.42
62	11.16	33.35	250	7.60	34.07	26.62	143	0.50
72	10.79	33.43	300	(7.11)	(34.16)	(26.76)	(129)	(0.57)
84	10.30	33.52						
93	9.71	33.60						
110	8.47	33.90						
150	8.23	33.99						
211	7.98	34.02						
295	7.14	34.16						

HORIZON; April 15, 1954; 1128 GCT; 34°19'N, 120°48'W; sounding, 430 fm; wind, 040°, force 2; weather, partly cloudy; sea, rough; wire angle, 15°.

80.55

0	-	33.66	0	(10.76)	33.66	(25.80)	(221)	(0.00)
10	10.75	33.66	10	10.75	33.66	25.80	221	0.02
30	10.75	33.66	20	10.75	33.66	25.80	221	0.04
45	10.71	33.68	30	10.75	33.66	25.80	221	0.07
54	10.36	33.68	50	10.54	33.68	25.85	216	0.11
64	10.30	33.71	75	9.97	33.76	26.01	201	0.16
73	10.08	33.75	100	8.73	33.93	26.34	169	0.21
83	9.64	33.78	150	8.38	34.02	26.47	157	0.29
97	8.77	33.87	200	8.12	34.14	26.60	145	0.37
106	8.70	34.00	250	7.63	34.21	26.73	132	0.44
129	8.49	34.00	300	7.24	34.21	26.78	128	0.51
157	8.36	34.03	400	(6.63)	34.20	(26.86)	(120)	(0.64)
208	8.06	34.16	500	(6.00)	34.23	(26.97)	(110)	(0.76)
269	7.48	34.22	600	(5.39)	34.35	(27.14)	(93)	(0.86)
378	6.78	34.20						
505	-	34.23						
637	5.18	34.40						

HORIZON; April 15, 1954; 1829 GCT; 33°48.5'N, 121°50'W; sounding, 2150 fm; wind, 320°, force 2; weather, overcast; sea, high; wire angle, 17°.

80.70

0	-	33.28	0	(13.35)	33.28	(25.01)	(296)	(0.00)
10	13.35	33.51r	10	13.35	33.27	25.00	297	0.03
25	13.33	33.24	20	13.34	33.24	24.98	299	0.06
55	13.30	33.28	30	13.33	33.25	24.99	298	0.09
64	13.26	33.26	50	13.30	33.28	25.02	295	0.15
74	11.96	33.30	75	11.80	33.31	25.36	262	0.22
89	10.26	33.39	100	9.71	33.48	25.84	217	0.28
109	9.41	33.56	150	8.73	33.87	26.30	173	0.38
134	8.86	33.77	200	8.16	34.04	26.52	152	0.46
164	8.62	33.93	250	7.64	34.10	26.64	141	0.54
217	7.97	34.07	300	7.25	34.16	26.74	131	0.61
293	7.28	34.14	400	6.48	34.41	27.05	102	0.73
397	6.50	34.41	500	5.91	34.32	27.05	102	0.84
535	5.74	34.31	600	5.40	34.31	27.10	97	0.94
723	4.88	34.34	700	4.99	34.33	27.17	91	1.04
956	4.06	34.48	800	4.58	34.38	27.25	83	1.14
1270	3.31	34.52	1000	3.93	34.49	27.41	68	1.31

S10

CCOF1
5404

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

80.90

HORIZON; April 16, 1954; 0245 GCT; 33°10'N, 123°10.5'W; sounding, 2300 fm; wind, 300°, force 3; weather, partly cloudy; sea, high; wire angle, 17°.

0	-	33.19	0	(14.04)	33.19	(24.80)	(316)	(0.00)
10	14.03	33.21	10	14.03	33.21	24.82	314	0.03
25	13.90	33.17	20	13.93	33.18	24.82	314	0.06
54	13.09	33.22	30	13.86	33.17	24.82	314	0.09
64	12.11	33.28	50	13.72	33.21	24.88	308	0.16
73	11.42	33.26	75	11.37	33.26	25.38	260	0.23
88	11.25	33.30	100	9.88	33.41	25.75	225	0.29
107	9.33	33.51	150	8.55	33.88	26.33	170	0.39
131	8.82	33.79	200	7.99	34.04	26.54	150	0.47
160	8.41	33.91	250	7.45	34.07	26.64	141	0.54
211	7.87	34.05	300	6.91	34.09	26.74	131	0.62
288	7.05	34.08	400	5.93	34.14	26.90	116	0.74
395	5.98	34.14	500	5.42	34.23	27.04	103	0.86
534	5.28	34.25	600	5.04	34.29	27.13	94	0.96
722	4.64	34.34	700	4.71	34.33	27.20	88	1.06
956	3.92	34.47	800	4.38	34.38	27.28	80	1.15
1264	3.19	-	1000	3.80	(34.49)	(27.42)	(67)	1.32

82.47

HORIZON; April 17, 1954; 0605 GCT; 34°15'N, 119°58'W; sounding, 315 fm; wind, 320°, force 4; weather, fog; sea, rough; wire angle, 23°.

0	-	33.64	0	(11.19)	33.64	(25.70)	(230)	(0.00)
10	11.08	33.68	10	11.08	33.68	25.75	225	0.02
29	10.21	33.75	20	10.53	33.74	25.90	211	0.04
39	9.98	33.74	30	10.19	33.75	25.96	205	0.06
48	9.44	33.80	50	9.41	33.82	26.15	187	0.10
58	9.39	33.87	75	9.22	33.84	26.20	183	0.15
67	9.30	33.85	100	9.23	33.89	26.23	180	0.20
76	9.22	33.84	150	8.71	34.02	26.42	162	0.28
84	9.33	33.88	200	8.54	34.17	26.56	148	0.36
94	9.30	33.87	250	7.96	34.20	26.71	134	0.44
111	9.04	34.00	300	7.45	34.22	26.76	129	0.50
133	8.62	34.02	400	6.78	34.27	26.90	116	0.63
150	8.71	34.02	500	(6.39)	(34.35)	(27.01)	(106)	(0.75)
184	8.68	34.15						
255	7.90	34.20						
354	7.04	34.24						
472	6.48	34.33						

83.43

HORIZON; April 17, 1954; 0846 GCT; 34°08'N, 119°34'W; sounding, 138 fm; wind, 270°, force 4; weather, fog; sea, rough; wire angle, 10°.

0	13.68	33.49	0	13.68	33.49	25.11	286	0.00
10	13.59	33.50	10	13.59	33.50	25.13	284	0.03
20	11.97	33.51	20	11.97	33.51	25.46	253	0.06
30	11.34	33.48	30	11.34	33.48	25.55	244	0.08
40	10.89	33.47	50	10.29	33.50	25.75	225	0.13
51	10.22	33.50	75	9.72	33.67	25.98	204	0.18
61	9.88	33.80	100	9.44	33.91	26.21	182	0.23
71	9.80	33.66						
81	9.60	33.69						
92	9.56	33.78						
102	9.40	33.93						

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

S10
CCOFI
5404

HORIZON; April 17, 1954; 0148 GCT; 33°52.5'N, 120°08.5'W; sounding, 75 fm; wind, 320°, force 4; weather, fog; sea, rough; wire angle, 11°.

83.51

0	12.52	33.42	0	12.52	33.42	25.28	270	0.00
10	12.40	33.42	10	12.40	33.42	25.31	267	0.03
15	11.98	33.44	20	11.71	33.53	25.52	247	0.05
20	11.71	33.53	30	10.70	33.55	25.72	228	0.08
25	11.47	33.48	50	9.27	33.69	26.07	195	0.12
30	10.70	33.55	75	8.84	33.92	26.32	171	0.16
35	10.08	33.77	100		33.98			
45	9.48	33.68						
55	9.12	33.71						
66	8.98	33.82						
81	8.73	33.95						
101	-	33.98						
127	-	34.04						

HORIZON; April 16, 1954; 2100 GCT; 33°42.5'N, 120°51.5'W; sounding, 700 fm; wind, 090°, force 1; weather, overcast; sea, very rough; wire angle, 14°.

83.60

0	-	33.51	0	(12.04)	33.51	(25.45)	(254)	(0.00)
10	12.04	33.48	10	12.04	33.48	25.42	257	0.03
30	11.73	33.51	20	11.93	33.49	25.45	254	0.05
40	11.21	33.57	30	11.73	33.51	25.50	249	0.08
50	10.14	33.64	50	10.14	33.64	25.89	212	0.12
60	9.91	33.66	75	9.48	33.74	26.08	194	0.17
70	9.64	33.70	100	8.91	33.83	26.24	179	0.22
80	9.30	33.76	150	8.35	33.99	26.46	158	0.31
89	9.10	33.77	200	8.27	34.09	26.54	150	0.38
99	8.92	33.83	250	7.42	34.13	26.70	135	0.46
123	8.83	33.91	300	6.97	34.21	26.82	124	0.52
151	8.35	33.99	400	6.43	34.27	26.94	112	0.65
201	8.27	34.09	500	5.94	34.25	26.99	108	0.76
259	7.33	34.14	600	5.25	34.34	27.14	93	0.87
361	6.60	34.28						
480	6.06	34.25						
604	5.22	34.34						

HORIZON; April 16, 1954; 1134, 1235 GCT; 32°58'N, 122°08'W; sounding, 2200 fm; wind, 140°, force 4; weather, overcast; sea, very rough; wire angle, 00°, 00°.

83.80

0	-	33.18	0	(14.19)	33.18	(24.76)	(320)	(0.00)
10	14.15	33.18	10	14.15	33.18	24.77	319	0.03
31	13.97	33.12	20	14.00	33.14	24.77	319	0.06
47	14.05	-	30	13.95	33.12	24.77	319	0.10
			50	14.07	33.13	24.75	320	0.16
57	12.68	33.13	75	11.40	33.18	25.31	267	0.23
67	11.83	33.13	100	9.78	33.29	25.68	232	0.30
77	11.30	33.19	150	8.74	33.74	26.19	184	0.40
87	10.30	33.22	200	8.09	34.00	26.50	154	0.49
102	9.72	33.30	250	7.52	34.15	26.70	135	0.56
112	9.48	33.41	300	7.15	34.18	26.78	128	0.63
136	8.94	33.58	400	6.24	34.16	26.88	118	0.76
176	8.44	33.92	500	5.59	34.26	27.04	103	0.87
220	7.79	34.05	600	5.16	34.34	27.16	92	0.98
285	7.28	34.18						
410	6.16	34.16						
530	5.43	34.29						
668	4.97	34.37						

SIO

CCOFI
5404

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

85.39

HORIZON; April 8, 1954; 1335 GCT; 34°00'N, 119°04.5'W; sounding, 370 fm; wind, 320°, force 2; weather, clear; sea, slight; wire angle, 15°.

0	13.5	33.44	0	13.5	33.44	25.11	286	0.00
10	13.06	33.46	10	13.06	33.46	25.21	277	0.03
30	11.18	33.55	20	11.79	33.52	25.50	249	0.06
40	10.53	33.60	30	11.18	33.55	25.64	236	0.08
49	10.43	33.64	50	10.42	33.64	25.84	217	0.12
59	10.20	33.65	75	9.67	33.74	26.04	198	0.18
68	9.82	33.68	100	9.50	34.20	26.43	161	0.22
78	9.62	33.77	150	8.82	34.13	26.49	155	0.30
88	9.58	33.89	200	8.59	34.22	26.59	146	0.38
97	9.53	34.20	250	8.06	34.23	26.68	137	0.45
120	9.16	34.07	300	7.50	34.30	26.82	124	0.52
148	8.82	34.13	400	6.70	34.34	26.96	110	0.64
195	8.61	34.22	500	6.11	34.33	27.03	104	0.76
252	8.02	34.23	600	(5.39)	(34.35)	(27.14)	(93)	(0.86)
354	7.00	34.34						
470	6.31	34.33						
596	5.41	34.35						

85.45

HORIZON; April 8, 1954; 0738 GCT; 33°47'N, 119°31'W; sounding, 1040 fm; wind, 320°, force 5; weather, partly cloudy; sea, moderate; wire angle, 20°.

0	12.9	33.47	0	12.9	33.47	25.25	273	0.00
10	12.73	33.50	10	12.73	33.50	25.31	267	0.03
30	10.38	33.68	20	11.91	33.56	25.51	248	0.05
44	9.87	33.74	30	10.38	33.68	25.88	213	0.08
58	9.54	33.81	50	9.70	33.77	26.06	196	0.12
68	9.66	33.86	75	9.59	33.88	26.17	185	0.16
77	9.56	33.89	100	9.42	34.01	26.30	173	0.21
91	9.50	34.00	150	9.03	34.10	26.43	161	0.30
100	9.42	34.01	200	8.50	34.21	26.60	145	0.37
114	9.22	34.11	250	8.03	34.24	26.69	136	0.44
141	9.10	34.09	300	7.57	34.28	26.79	127	0.51
168	8.82	34.19	400	6.83	34.34	26.94	112	0.64
223	8.27	34.22	500	6.28	34.36	27.03	104	0.75
393p	6.89	34.34						
559p	6.02	34.36						

85.55

HORIZON; April 8, 1954; 0106 GCT; 33°27'N, 120°06.5'W; sounding, 700 fm; wind, 330°, force 7; weather, partly cloudy; sea, rough; wire angle, 42°.

0	14.0	33.22	0	14.0	33.22	24.83	313	0.00
8	13.88	33.23	10	13.84	33.23	24.87	309	0.03
24	13.84	33.21	20	13.85	33.21	24.86	310	0.06
35	13.8u	33.24	30	13.68	33.22	24.90	306	0.09
45	12.98	33.29	50	12.80	33.29	25.13	284	0.15
52	12.73	33.29	75	11.29	33.41	25.51	248	0.22
58	12.59	33.29	100	9.57	33.52	25.89	212	0.28
66	12.04	33.26	150	8.38	33.98	26.44	160	0.37
72	11.53	33.39	200	7.83	34.09	26.61	144	0.45
80	10.84	33.43	250	7.41	34.20	26.75	130	0.52
96	9.78	33.48	300	7.20	34.22	26.80	126	0.58
112	9.08	33.64	400	6.60	34.28	26.93	113	0.71
142	8.48	33.96						
179	8.10	34.02						
245	7.42	34.20						
332	7.05	34.23						
446	6.24	34.32						

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
CCOFI
5404

HORIZON; April 17, 1954; 1741 GCT; 33°40'N, 118°58.5'W; sounding, 390 fm; wind, 270°, force 2; weather, fog; sea, moderate; wire angle, 06°.

87.40

0	-	33.40	0	(12.99)	(33.40)	(25.18)	(280)	(0.00)
10	12.91	33.42	10	12.91	33.42	25.21	277	0.03
31	12.06	33.51	20	12.48	33.49	25.35	263	0.06
41	11.63	33.49	30	12.10	33.51	25.43	256	0.08
52	10.48	33.57	50	10.70	33.56	25.73	227	0.13
62	9.82	33.54	75	9.59	33.77	26.08	194	0.18
72	9.66	33.69	100	9.07	33.93	26.29	174	0.23
82	9.47	33.86	150	8.72	34.12	26.49	155	0.31
92	9.31	33.89	200	8.39	34.22	26.62	143	0.39
102	9.05	33.94	250	7.91	34.30	26.76	129	0.46
127	8.88	34.00	300	7.47	34.32	26.84	122	0.52
157	8.68	34.14	400	6.72	34.34	26.96	110	0.64
206	8.36	34.23	500	6.09	34.43	27.11	96	0.75
266	7.76	34.31	600	5.49	34.45	27.20	88	0.85
371	6.91	34.33						
492	6.15	34.43						
619	5.40	34.45						

HORIZON; April 17, 1954; 2221 GCT; 33°21.5'N, 119°41'W; sounding, 45 fm; wind, 320°, force 5; weather, overcast; sea, moderate; wire angle, 12°.

87.50

0	13.94	33.31	0	13.94	33.31	24.92	304	0.00
10	13.94	33.31	10	13.94	33.31	24.92	304	0.03
20	13.91	33.31	20	13.91	33.31	24.92	304	0.06
30	13.88	33.31	30	13.88	33.31	24.93	303	0.09
40	13.85	33.31	50	12.66	33.22	25.10	287	0.15
50	12.66	33.22						
60	11.10	33.22						

HORIZON; April 18, 1954; 0325 GCT; 32°59'N, 120°21'W; sounding, missing; wind, 300°, force 5; weather, overcast; sea, rough; wire angle, 37°.

87.60

0	-	33.29	0	(13.44)	33.29	(25.00)	(297)	(0.00)
9	13.38	33.30	10	13.38	33.30	25.02	295	0.03
26	13.06	33.35	20	13.12	33.34	25.10	287	0.06
34	12.98	33.35	30	13.01	33.35	25.13	284	0.09
41	12.94	33.33	50	12.91	33.31	25.12	285	0.14
49	12.92	33.31	75	10.25	33.37	25.66	234	0.21
56	12.62	33.30	100	9.24	33.62	26.02	200	0.26
69	10.68	33.24	150	8.52	34.07	26.49	155	0.35
76	10.18	33.40	200	7.98	34.03	26.54	150	0.43
91	9.40	33.58	250	7.53	34.09	26.65	140	0.51
111	9.16	33.68	300	7.18	34.17	26.76	129	0.58
144	8.60	34.07	400	6.51	34.25	26.92	114	0.70
186	8.12	34.02	500	(5.78)	(34.28)	(27.03)	(104)	(0.82)
262	7.43	34.11						
359	6.80	34.23						
472	5.98	34.27						

SIO

CCOFI
5404

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

87.80

HORIZON; April 18, 1954; 1222 GCT; 32°15'N, 121°42'W; sounding, 2000 fm; wind, 270°, force 4; weather, overcast; sea, rough; wire angle, 23°.

0	-	33.33	0	(14.48)	33.33	(24.82)	(314)	(0.00)
10	14.43	33.30	10	14.43	33.30	24.80	316	0.03
29	14.23	33.22	20	14.30	33.25	24.79	317	0.06
43	14.22	33.26	30	14.26	33.22	24.78	318	0.10
53	14.22	-	50	14.23	33.23	24.79	317	0.16
61	12.58	33.17	75	11.36	33.21	25.34	264	0.23
71	11.58	33.19	100	10.08	33.28	25.62	238	0.30
79	11.18	33.22	150	8.90	33.80	26.22	181	0.40
92	10.24	33.21	200	8.21	34.03	26.50	154	0.49
101	10.07	33.30	250	7.50	34.07	26.64	141	0.56
122	9.31	33.53	300	6.92	34.09	26.73	132	0.63
147	8.94	33.77	400	6.23	34.18	26.84	122	0.76
193	8.34	34.02	500	5.79	34.35	27.09	98	0.88
249	7.52	34.07	600	(5.33)	(34.47)	(27.24)	(84)	(0.98)
349	6.54	34.11						
467	5.94	34.29						
596	5.36	34.47						

90.28

HORIZON; April 20, 1954; 0422 GCT; 33°28.5'N, 117°46.5'W; sounding, 252 fm; wind, 320°, force 2; weather, overcast; sea, calm; wire angle, 06°.

0	14.96	33.46	0	14.96	33.46	24.81	315	0.00
10	13.67	33.45	10	13.67	33.45	25.08	289	0.03
20	13.60	33.45	20	13.60	33.45	25.09	288	0.06
31	10.67	33.81	30	10.79	33.81	25.91	210	0.08
41	10.17	33.71	50	9.91	33.80	26.05	197	0.12
51	9.88	33.81	75	9.64	33.94	26.21	182	0.17
62	9.74	33.88	100	9.57	34.07	26.32	171	0.22
72	9.69	34.42						
82	9.57	33.97						
92	9.55	34.01						
102	9.56	34.09						

90.37

HORIZON; April 19, 1954; 2335 GCT; 33°11.5'N, 118°24'W; sounding, 650 fm; wind, 320°, force 1; weather, overcast; sea, moderate; wire angle, 05°.

0	-	33.42	0	(13.88)	33.42	(25.01)	(296)	(0.00)
10	13.83	33.42	10	13.83	33.42	25.02	295	0.03
31	13.53	33.44	20	13.69	33.43	25.06	291	0.06
41	12.45	33.43	30	13.55	33.44	25.10	287	0.09
51	11.89	33.46	50	11.91	33.46	25.43	256	0.14
61	11.14	33.55	75	10.54	33.59	25.78	222	0.20
71	10.72	33.57	100	9.78	33.87	26.13	189	0.25
81	10.30	33.67	150	9.27	34.15	26.43	161	0.34
90	10.11	33.76	200	8.60	34.15	26.54	150	0.42
100	9.78	33.87	250	8.01	34.24	26.70	135	0.50
125	9.57	33.99	300	7.51	34.30	26.82	124	0.56
155	9.20	34.15	400	(6.70)	34.35	(26.97)	(110)	(0.69)
205	8.54	34.15	500	(6.07)	34.37	(27.07)	(100)	(0.80)
265	7.86	34.26	600	(5.57)	34.41	(27.16)	(92)	(0.90)
369	6.94	34.34						
490	-	34.37						
618	5.50	34.42						

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

SIO
CCOFI
5404

HORIZON; April 19, 1954; 1442 GCT; 32°32'N, 119°30.5'W; sounding, 450 fm; wind, 320°, force 3; weather, overcast; sea, moderate; wire angle, 17°.

90.55

0	-	33.28	0	(13.99)	33.28	(24.88)	(308)	(0.00)
10	13.98	33.28	10	13.98	33.28	24.88	308	0.03
30	13.78	33.27	20	13.87	33.27	24.90	306	0.06
40	12.63	33.26	30	13.78	33.27	24.92	304	0.09
50	12.10	33.23	50	12.10	33.23	25.22	276	0.15
60	11.90	33.34	75	11.15	33.40	25.52	247	0.22
70	11.36	33.39	100	10.31	33.48	25.73	227	0.28
80	10.97	33.40	150	8.76	33.89	26.31	172	0.38
100	10.31	33.48	200	8.26	34.01	26.48	156	0.46
123	9.28	33.93	250	7.61	34.16	26.69	136	0.54
151	8.75	33.89	300	7.17	34.21	26.79	127	0.60
199	8.28	34.01	400	6.52	34.28	26.94	112	0.73
265	7.46	34.18	500	5.87	34.38	27.10	97	0.84
365	6.73	34.25	600	5.43	34.36	27.14	93	0.94
490	5.92	34.38	700	5.05	34.38	27.20	88	1.04
643	5.27	34.36	800	4.70	34.45	27.30	78	1.13
800	4.70	34.45						

HORIZON; April 19, 1954; 0550 GCT; 32°03'N, 120°34'W; sounding, 2100 fm; wind, 300°, force 5; weather, overcast; sea, rough; wire angle, 22°.

90.70

0	14.72	33.46	0	14.72	33.46	24.87	309	0.00
10	14.65	33.45	10	14.65	33.45	24.87	309	0.03
29	14.72	33.40	20	14.72	33.41	24.83	313	0.06
53	14.54	33.40	30	14.72	33.40	24.82	314	0.09
68	11.84	33.44	50	14.71	33.40	24.82	314	0.16
91	10.39	33.52	75	11.22	33.46	25.56	243	0.23
115	9.80	33.75	100	10.10	33.58	25.85	216	0.28
148	9.42	33.96	150	9.40	33.96	26.26	177	0.38
172	8.86	34.02	200	8.53	34.09	26.50	154	0.47
228	8.31	34.15	250	8.12	34.21	26.66	139	0.54
309	7.66	34.34	300	7.71	34.34	26.82	124	0.61
418	6.65	34.22	400	6.80	34.22	26.85	121	0.74
566	5.58	34.33	500	6.00	34.28	27.01	106	0.86
765	4.70	34.42	600	5.38	34.34	27.13	94	0.97
1008	4.01	34.52	700	4.93	34.39	27.22	86	1.06
1335	3.24	34.55	800	4.59	34.44	27.30	78	1.15
			1000	4.03	34.52	27.42	67	1.32

HORIZON; April 18, 1954; 2052 GCT; 31°23.5'N, 122°00'W; sounding, 2000+ fm; wind, 280°, force 4; weather, overcast; sea, moderate; wire angle, 36°.

90.90

0	-	33.31	0	(14.69)	33.31	(24.76)	(320)	(0.00)
9	14.69	33.33	10	14.67	33.33	24.78	318	0.03
22	14.55	33.36	20	14.57	33.36	24.82	314	0.06
47	14.27	33.42	30	14.47	33.38	24.86	310	0.10
55	14.25	33.42	50	14.27	33.42	24.93	303	0.16
63	14.26	33.40	75	12.25	33.15	25.13	284	0.23
74	12.40	33.15	100	10.08	33.29	25.63	237	0.30
88	10.98	33.28	150	8.80	33.74	26.18	184	0.40
106	9.76	33.30	200	8.22	34.03	26.50	154	0.49
126	9.30	33.55	250	7.74	34.15	26.67	138	0.56
162	8.57	33.82	300	7.18	34.18	26.77	128	0.63
216	8.10	34.09	400	6.02	34.18	26.92	114	0.76
290	7.30	34.18	500	5.38	34.24	27.05	102	0.87
389	6.13	34.18	600	4.89	34.33	27.18	90	0.97
528	5.22	34.27	700	4.53	34.40	27.27	81	1.07
716	4.47	34.41	800	4.24	34.45	27.35	74	1.15
979	3.84	34.50	1000	(3.81)	(34.51)	(27.44)	(65)	(1.31)

S10

CCOFI
5404

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

93.30

E. W. SCRIPPS; April 10, 1954; 0630 GCT; 32°50'N, 117°31.5'W; sounding, 430 fm;
wind, 250°, force 3; weather, partly cloudy; sea, slight; wire angle, 05°.

0	14.7	33.39	0	14.7	33.39	24.82	314	0.00
10	14.64	33.40	10	14.64	33.40	24.84	312	0.03
30	12.34	33.40	20	13.65	33.40	25.04	293	0.06
40	11.40	33.44	30	12.34	33.40	25.30	268	0.09
50	10.54	33.58	50	10.54	33.58	25.77	223	0.14
60	10.33	33.66	75	9.95	33.76	26.01	201	0.19
70	10.12	33.73	100	9.74	33.99	26.23	180	0.24
80	9.83	33.80	150	9.43	34.17	26.42	162	0.33
89	-	33.92	200	9.02	34.27	26.56	148	0.41
99	9.74	33.99	250	8.64	34.22	26.58	146	0.48
123	9.55	34.13	300	7.90	34.25	26.72	133	0.55
151	9.42	34.17	400	6.95	34.32	26.91	115	0.68
200	9.02	34.27	500	6.53	34.35	26.99	108	0.80
258	8.59	34.22	600	5.40	34.42	27.19	89	0.91
360	7.04	34.31						
477	6.72	34.34						
601	5.37	34.42						

93.50

E. W. SCRIPPS; April 10, 1954; 2122 GCT; 32°10'N, 118°53'W; sounding, 850 fm;
wind, 270°, force 5; weather, partly cloudy; sea, very rough; wire angle, 27°.

0	14.6	33.37	0	14.6	33.37	24.82	314	0.00
10	14.54	33.38	10	14.54	33.38	24.84	312	0.03
29	14.54	33.37	20	14.54	33.37	24.84	312	0.06
39	14.50	33.39	30	14.53	33.37	24.84	312	0.09
48	13.92	33.36	50	13.72	33.35	24.99	298	0.16
58	12.72	33.34	75	11.09	33.36	25.50	249	0.22
68	11.64	33.35	100	10.31	33.54	25.78	222	0.28
77	10.98	33.37	150	9.32	33.90	26.23	180	0.38
86	10.57	33.44	200	8.25	34.07	26.53	151	0.47
96	10.40	33.51	250	7.96	34.22	26.69	136	0.54
119	9.73	33.70	300	7.42	34.28	26.81	125	0.61
147	9.39	33.89	400	6.68	34.36	26.98	109	0.73
194	8.31	34.05	500	6.04	34.42	27.11	96	0.84
250	7.96	34.22	600	(5.50)	(34.40)	(27.16)	(92)	(0.94)
356	6.97	34.32						
461	6.28	34.42						
582	5.60	34.40						

93.70

E. W. SCRIPPS; April 11, 1954; 1121 GCT; 31°25'N, 120°20'W; sounding, 2100 fm;
wind, 320°, force 4; weather, partly cloudy; sea, very rough; wire angle, 10°.

0	14.4	33.39	0	14.4	33.39	24.88	308	0.00
12	14.52	33.41	10	14.52	33.41	24.87	309	0.03
32	14.54	33.40	20	14.53	33.41	24.87	309	0.06
41	14.54	33.40	30	14.54	33.40	24.86	310	0.09
51	14.46	33.40	50	14.45	33.40	24.88	308	0.16
61	14.52	33.38	75	10.49	33.39	25.63	237	0.22
70	11.23	33.38	100	9.54	33.58	25.94	207	0.28
80	10.16	33.41	150	8.74	33.90	26.32	171	0.38
90	9.78	33.46	200	8.18	34.09	26.55	149	0.46
100	9.54	33.58	250	7.65	34.13	26.66	139	0.53
125	9.11	33.77	300	7.12	34.19	26.79	127	0.60
153	8.70	33.91	400	6.38	34.28	26.96	110	0.72
202	8.15	34.09	500	5.80	34.34	27.08	99	0.83
260	7.54	34.14	600	5.34	34.38	27.17	91	0.94
362	6.64	34.25						
485	5.87	34.33						
606	5.33	34.38						

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

S10
CCOFI
5404

E. W. SCRIPPS; April 11, 1954; 2234 GCT; 30°47'N, 121°35'W; sounding, 2250 fm;
wind, 270°, force 5; weather, overcast; sea, very rough; wire angle, 10°.

93.90

0	14.2	33.14	0	14.2	33.14	24.73	322	0.00
10	14.77	33.14	10	14.77	33.14	24.61	334	0.03
30	14.70	33.15	20	14.76	33.15	24.62	333	0.07
40	14.54	33.12	30	14.70	33.15	24.63	332	0.10
50	13.40	33.02	50	13.40	33.02	24.80	316	0.16
60	12.80	32.93	75	12.50	33.04	24.99	298	0.24
70	12.70	33.04	100	10.29	33.27	25.57	242	0.31
80	12.08	33.04	150	9.00	33.66	26.09	193	0.42
89	11.77	33.26	200	8.19	33.89	26.40	164	0.51
99	10.35	33.27	250	7.50	34.00	26.58	146	0.59
123	9.65	33.43	300	6.94	34.08	26.72	133	0.66
151	8.98	33.67	400	6.02	34.17	26.92	114	0.79
199	8.20	33.89	500	5.39	34.24	27.05	102	0.90
258	7.40	34.02	600	(5.03)	(34.33)	(27.16)	(92)	(1.01)
359	6.40	34.14						
475	5.52	34.22						
598	5.04	34.33						

E. W. SCRIPPS; April 13, 1954; 1040 GCT; 31°55'N, 117°49'W; sounding, 450 fm;
wind, calm; weather, fog; sea, moderate; wire angle, 00°.

97.40

0	14.8	33.39	0	14.8	33.39	24.80	316	0.00
12	14.84	33.37	10	14.85	33.37	24.77	319	0.03
32	14.40	33.37	20	14.69	33.37	24.80	316	0.06
42	12.21	33.29	30	14.45	33.37	24.85	311	0.10
51	11.23	33.25	50	11.29	33.25	25.38	260	0.15
61	10.94	33.57	75	10.61	33.54	25.73	227	0.21
70	10.72	33.53	100	9.99	33.62	25.90	211	0.27
80	10.50	33.55	150	9.15	33.92	26.27	176	0.37
90	10.25	33.59	200	8.72	34.11	26.49	155	0.45
100	9.99	33.62	250	8.53	34.22	26.60	145	0.53
124	9.53	33.78	300	7.98	34.25	26.71	134	0.60
153	9.11	33.93	400	6.93	34.32	26.91	115	0.73
202	8.70	34.12	500	6.20	34.38	27.06	101	0.84
261	8.48	34.23	600	5.56	34.39	27.15	92	0.95
364	7.23	34.29						
483	6.31	34.38						
608	5.51	34.39						

E. W. SCRIPPS; April 12, 1954; 2208 GCT; 31°16'N, 119°07.5'W; sounding, 1700 fm;
wind, 300°, force 4; weather, overcast; sea, rough; wire angle, 10°.

97.60

0	15.1	33.50	0	15.1	33.50	24.81	315	0.00
10	15.08	33.49	10	15.08	33.49	24.81	315	0.03
30	15.07	33.48	20	15.08	33.48	24.80	316	0.06
40	14.38	33.53	30	15.07	33.48	24.81	315	0.10
50	12.22	33.58	50	12.22	33.58	25.47	252	0.15
60	11.00	33.65	75	10.69	33.78	25.90	211	0.21
70	10.20	33.73	100	8.72	33.87	26.30	173	0.26
79	9.37	33.79	150	8.29	34.00	26.47	157	0.34
89	8.94	33.78	200	7.82	34.07	26.59	146	0.42
98	8.76	33.86	250	7.37	34.13	26.70	135	0.49
122	8.43	33.96	300	6.95	34.19	26.81	125	0.56
151	8.28	34.00	400	6.22	34.28	26.98	109	0.68
198	7.82	34.31	500	5.69	34.34	27.09	98	0.79
255	7.31	34.14	600	(5.28)	(34.37)	(27.17)	(91)	(0.89)
355	6.54	34.24						
471	5.83	34.33						
596	5.29	34.37						

S10

CCOFI
5404

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

97.80

E. W. SCRIPPS; April 12, 1954; 0951 GCT; 30°35.5'N, 120°30'W; sounding, 2000 fm;
wind, 300°, force 3; weather, overcast; sea, rough; wire angle, 18°.

0	14.6	33.37	0	14.6	33.37	24.82	314	0.00
10	14.74	33.37	10	14.74	33.37	24.79	317	0.03
28	14.73	33.37	20	14.73	33.37	24.79	317	0.06
37	14.73	33.32	30	14.73	33.36	24.79	317	0.10
46	14.61	33.30	50	14.22	33.25	24.81	315	0.16
54	13.38	33.10	75	11.82	33.12	25.18	280	0.23
63	12.66	33.03	100	9.90	33.22	25.60	240	0.30
72	12.09	33.08	150	9.06	33.84	26.22	181	0.40
80	11.29	33.15	200	8.37	33.99	26.45	159	0.49
89	10.48	33.12	250	7.84	34.07	26.59	146	0.57
111	9.61	33.46	300	7.29	34.15	26.73	132	0.64
136	9.35	33.75	400	6.70	34.25	26.89	117	0.77
179	8.56	33.95	500	5.96	34.30	27.03	104	0.89
231	8.08	34.04						
323	7.10	34.18						
429	6.52	34.27						
546	5.56	34.31						

100.29

E. W. SCRIPPS; April 15, 1954; 0220 GCT; 31°42.5'N, 116°43.5'W; sounding, 50 fm;
wind, 300°, force 2; weather, overcast; sea, moderate; wire angle, 02°.

0	14.30	33.40	0	14.30	33.40	24.91	305	0.00
10	13.22	33.50	10	13.22	33.50	25.21	277	0.03
15	12.60	33.52	20	11.74	33.57	25.55	244	0.06
20	11.74	33.57	30	10.93	33.60	25.72	228	0.08
25	11.42	33.58	50	10.11	33.66	25.91	210	0.12
30	10.93	33.60						
35	10.49	33.66						
40	10.29	33.62						
50	10.11	33.66						

100.50

E. W. SCRIPPS; April 15, 1954; 1550 GCT; 30°58.5'N, 118°04'W; sounding, 904 fm;
wind, 200°, force 1; weather, overcast; sea, rough; wire angle, 07°.

0	15.1	33.17	0	15.1	33.17	24.56	339	0.00
12	14.90	33.19	10	14.91	33.19	24.62	333	0.03
27	14.89	33.17	20	14.89	33.18	24.61	334	0.07
52	13.71	33.10	30	14.89	33.16	24.60	335	0.10
61	12.77	33.12	50	13.94	33.10	24.75	320	0.17
70	11.90	33.10	75	11.57	33.11	25.22	276	0.24
80	11.25	33.12	100	10.31	33.19	25.51	248	0.31
99	10.36	33.18	150	8.79	33.84	26.26	177	0.41
123	9.29	33.48	200	8.13	34.01	26.50	154	0.50
151	8.76	33.85	250	7.95	34.09	26.59	146	0.58
199	8.14	34.01	300	7.49	34.13	26.69	136	0.65
265	7.90	34.11	400	6.10	34.22	26.95	111	0.78
367	6.32	34.18	500	5.62	34.31	27.08	99	0.89
493	5.67	34.31	600	5.21	34.37	27.17	91	0.99
673	4.96	34.41	700	4.85	34.42	27.25	83	1.08
894	4.25	34.49	800	4.53	34.46	27.32	76	1.17
1195	3.45	34.54	1000	3.95	34.51	27.42	67	1.33

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

S10
CCOFI
5404

E. W. SCRIPPS; April 16, 1954; 0451 GCT; 30°20.5'N, 119°26.5'W; sounding, 2000 fm; wind, calm; weather, overcast; sea, moderate; wire angle, 06°.

100.70

0	15.5	33.48	0	15.5	33.48	24.71	324	0.00
15	15.00	33.48	10	15.08	33.48	24.80	316	0.03
30	14.98	33.40	20	15.00	33.46	24.81	315	0.06
55	13.80	33.24	30	14.98	33.40	24.76	320	0.10
64	13.44	33.25	50	14.02	33.26	24.86	310	0.16
74	11.42	33.18	75	11.28	33.18	25.33	265	0.23
83	10.43	33.20	100	9.69	33.41	25.78	222	0.29
102	9.64	33.42	150	8.52	33.76	26.24	179	0.39
126	9.02	33.64	200	7.97	34.03	26.54	150	0.48
153	8.48	33.78	250	7.54	34.09	26.65	140	0.55
200	7.97	34.03	300	7.32	34.08	26.67	138	0.62
240	7.58	34.09	400	6.37	34.14	26.85	121	0.76
365	6.96	34.08	500	5.44	34.26	27.06	101	0.88
490	5.44	34.26	600	5.41	34.31	27.10	97	0.98
577	5.47	34.29	700	4.98	34.43	27.25	83	1.08
760	4.70	34.45	800	4.53	34.46	27.32	76	1.17
1029	3.70	34.47	1000	3.80	34.47	27.41	68	1.33

E. W. SCRIPPS; April 16, 1954; 1630, 1707 GCT; 29°47'N, 120°40'W; sounding, 2000 fm; wind, 300°, force 1; weather, overcast; sea, rough; wire angle, 03°, 02°.

100.90

0	16.2	33.33	0	16.2	33.33	24.44	350	0.00
14	16.10	33.40	10	16.11	33.38	24.50	344	0.04
29	16.10	33.44	20	16.10	33.42	24.53	341	0.07
54	16.10	33.35	30	16.10	33.44	24.55	340	0.10
64	16.09	33.45	50	16.10	33.35	24.48	346	0.17
74	16.08	33.41	75	16.08	33.41	24.53	341	0.26
83	16.06	33.45	100	15.26	33.42	24.72	323	0.34
102	15.10	33.41	150	11.67	33.24	25.31	267	0.49
127	13.36	33.31	200	9.72	33.61	25.93	208	0.61
156	11.33	33.24	250	8.88	33.72	26.16	186	0.71
205	9.61	33.64	300	8.02	33.86	26.40	164	0.80
273	8.51	33.76	400	6.43	34.08	26.79	127	0.95
			500	5.79	34.15	26.93	113	1.08
377	6.66	34.05	600	5.44	34.22	27.03	104	1.20
503	5.78	34.15	700	5.06	34.29	27.13	94	1.30
693	5.07	34.29	800	4.61	34.42	27.28	80	1.40
905	4.24	34.50	1000	3.98	34.50	27.41	68	1.56
1228	3.45	34.47						

SIO

CCOFI
5404

100.90

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

SPENCER F. BAIRD; April 18, 1954; 0917, 0938, 1045, 1115, 1309 GCT; 29°42'N,
120°49'W; sounding, 2120 fm; wind, 330°, force 3; weather, overcast; sea,
moderate; wire angle, 22°, 30°, 36°, 36°, 20°.

0	16.1	33.40	0	16.1	33.40	24.52	342	0.00
10	16.16	33.40	10	16.16	33.40	24.50	344	0.04
			20	16.17	33.40	24.50	344	0.08
26	16.16	33.41	30	16.14	33.42	24.52	342	0.11
39	16.07	33.44	50	16.07	33.42	24.54	340	0.18
47	16.06	33.42	75	16.32	33.45	24.50	344	0.27
55	16.08	33.42	100	15.79	33.37	24.56	339	0.35
64	16.08	33.46	150	11.80	33.42	25.42	257	0.50
72	16.34	33.45	200	9.25	33.63	26.03	199	0.62
84	16.08	33.47	250	8.17	33.85	26.37	166	0.71
91	16.06	33.43	300	7.61	33.95	26.53	151	0.80
110	15.04	33.33	400	6.60	34.10	26.79	127	0.94
132	13.14	33.37	500	5.72	34.21	26.99	108	1.06
175	10.26	33.49	600	5.30	34.34	27.14	93	1.17
			700	5.02	34.34	27.17	91	1.27
222	8.68	33.78	800	4.57	34.45	27.31	77	1.36
			1000	3.99	34.46	27.38	71	1.53
340	7.24	34.02						
458	5.97	34.17						
585	5.38	34.32						
526	5.60	34.23						
631	5.12	34.35						
732	4.94	34.34						
785	4.66	34.43						
848	4.33	34.47						
896	4.20	34.47						
945	4.11	34.51						
994	3.99	34.46						
1043	3.86	34.47						
1093	3.73	34.50						
1152	3.57	34.51						
1252	3.38	34.52						

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

SPENCER F. BAIRD; April 19, 1954; 0313, 0937 GCT; 28°41.5'N, 122°43'W; sounding, 2310 fm; wind, 330°, force 3; weather, cloudy; sea, moderate; wire angle, 25°, 15°.

0	15.8	33.22	0	15.8	33.22	24.45	349	0.00
9	15.96	33.21	10	15.95	33.21	24.40	354	0.04
28	15.46	33.21	20	15.55	33.21	24.49	345	0.07
37	15.45	33.19	30	15.45	33.21	24.52	342	0.10
46	15.47	33.19	50	15.44	33.18	24.49	345	0.17
55	15.36	33.17	75	13.85	33.05	24.73	322	0.26
64	14.90	33.13	100	12.55	33.08	25.02	295	0.33
73	14.00	33.06	150	10.11	33.27	25.60	240	0.47
82	13.48	33.02	200	8.70	33.72	26.19	184	0.58
91	13.16	33.06	250	8.06	33.99	26.49	155	0.66
112	11.78	33.10	300	7.50	34.05	26.62	143	0.74
138	10.57	33.17	400	6.48	34.13	26.83	123	0.88
181	9.06	33.56	500	5.89	34.26	27.01	106	1.00
235	8.25	33.96	600	5.38	34.35	27.14	93	1.11
324	7.24	34.07	700	4.79	34.40	27.25	83	1.20
433	6.21	34.16	800	4.37	34.42	27.31	77	1.29
552	5.54	34.29	1000	3.81	34.54	27.46	63	1.45
486	5.94	34.25						
595	5.42	34.34						
681	4.84	34.40						
733	4.70	34.40						
781	4.43	34.42						
828	4.27	34.43						
876	4.15	34.49						
923	4.00	34.50						
953	3.86	34.51						
972	3.88	34.52						
1020	3.78	34.54						
1073	3.63	34.54						

S10

CCOFI
5404

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

100.150

SPENCER F. BAIRD; April 20, 1954; 0305, 0445 GCT; 27°40.5'N, 124°45.5'W; sounding, 2350 fm; wind, 350°, force 2; weather, overcast; sea, moderate; wire angle, 10°, 10°.

0	17.5	33.80	0	17.5	33.80	24.50	344	0.00
10	17.48	33.78	10	17.48	33.78	24.48	346	0.03
29	17.35	33.84	20	17.40	33.83	24.54	340	0.07
39	17.32	33.84	30	17.35	33.84	24.56	339	0.10
49	17.27	33.84	50	17.26	33.84	24.58	337	0.17
59	17.23	33.84	75	17.07	33.80	24.60	335	0.26
69	17.13	33.82	100	16.80	33.76	24.63	332	0.34
78	17.02	33.78	150	14.59	33.68	25.07	290	0.51
88	16.81	33.71	200	11.13	33.49	25.60	240	0.65
98	16.80	33.75	250	9.23	33.77	26.14	188	0.76
123	16.29	33.82	300	8.18	33.88	26.39	164	0.85
153	14.26	33.66	400	6.80	34.00	26.68	137	1.01
202	10.87	33.49	500	5.68	34.14	26.94	112	1.14
260	8.98	33.80	600	5.20	34.24	27.07	100	1.25
364	7.22	33.96	700	4.91	34.35	27.19	89	1.35
482	5.73	34.11	800	4.65	34.42	27.28	80	1.44
			1000	3.94	34.46	27.38	71	1.61
501	5.68	34.14						
603	5.18	34.24						
700	4.91	34.35						
754	4.80	34.38						
801	4.64	34.42						
851	4.42	34.39						
900	4.36	34.44						
949	4.06	34.44						
998	3.94	34.46						
1047	3.83	34.48						
1100	3.67	34.49						
1200	3.44	34.47						

103.30

E. W. SCRIPPS; April 19, 1954; 1902 GCT; 31°05'N, 116°25'W; sounding, 33 fm; wind, 270°, force 2; weather, overcast; sea, moderate; wire angle, 00°.

0	12.08	33.62	0	12.08	33.62	25.52	247	0.00
10	11.52	33.64	10	11.52	33.64	25.64	236	0.02
15	11.02	33.51	20	10.59	33.60	25.78	222	0.05
20	10.59	33.60	30	10.02	33.62	25.89	212	0.07
25	10.28	33.59	50	9.14	33.66	26.07	195	0.11
30	10.02	33.62						
35	9.64	33.62						
40	9.61	33.66						
50	9.14	33.66						

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

E. W. SCRIPPS; April 20, 1954; 0105 GCT; 30°45'N, 117°17.5'W; sounding, 850 fm;
wind, 280°, force 3; weather, overcast; sea, moderate; wire angle, 11°.

103.40

0	15.1	33.21	0	15.1	33.21	24.59	336	0.00
10	15.00	33.24	10	15.00	33.24	24.64	331	0.03
30	14.92	33.19	20	14.93	33.22	24.64	331	0.07
40	14.91	33.19	30	14.92	33.19	24.62	333	0.10
50	14.42	33.19	50	14.42	33.19	24.72	323	0.17
60	13.13	33.13	75	11.98	33.07	25.12	285	0.24
70	12.45	33.10	100	10.24	33.23	25.55	244	0.31
79	11.56	33.05	150	9.05	33.84	26.22	181	0.42
88	10.86	33.07	200	8.61	34.07	26.47	157	0.50
98	10.32	33.20	250	7.61	34.04	26.60	145	0.58
121	9.36	33.44	300	7.28	34.13	26.72	133	0.65
149	9.08	33.84	400	6.81	34.28	26.90	116	0.78
196	8.67	34.07	500	6.15	34.35	27.04	103	0.90
252	7.58	34.04	600	(5.62)	(34.38)	(27.13)	(94)	(1.00)
351	7.09	34.22						
466	6.38	34.33						
588	5.70	34.38						

E. W. SCRIPPS; April 20, 1954; 1302, 1325 GCT; 30°06'N, 118°25'W; sounding,
1750 fm; wind, 300°, force 3; weather, overcast; sea, moderate; wire angle, 10°, 11°.

103.60

0	15.1	33.17	0	15.1	33.17	24.56	339	0.00
10	15.14	33.17	10	15.14	33.17	24.55	340	0.03
30	15.08	33.14	20	15.12	33.16	24.55	340	0.07
40	14.57	33.10	30	15.08	33.14	24.54	340	0.10
50	14.34	33.11	50	14.34	33.11	24.68	327	0.17
60	14.05	33.09	75	14.09	33.18	24.78	318	0.25
			100	12.00	33.13	25.16	281	0.32
70	14.16	33.19	150	9.71	33.39	25.77	223	0.45
80	13.92	33.15	200	8.70	33.85	26.29	174	0.55
90	12.95	33.10	250	7.88	33.98	26.51	153	0.64
99	12.08	33.13	300	7.58	34.12	26.67	138	0.71
123	10.68	33.24	400	7.00	34.23	26.83	123	0.85
152	9.66	33.40	500	6.30	34.22	26.92	114	0.97
199	8.76	33.84	600	(5.72)	(34.39)	(27.13)	(94)	(1.08)
257	7.80	34.00						
357	7.35	34.25						
473	6.46	34.21						
595	5.76	34.38						

E. W. SCRIPPS; April 17, 1954; 1158 GCT; 29°25'N, 119°43'W; sounding, 1800 fm;
wind, 280°, force 4; weather, overcast; sea, rough; wire angle, 12°.

103.80

0	15.6	33.26	0	15.6	33.26	24.52	342	0.00
10	15.54	33.22	10	15.54	33.22	24.50	344	0.03
30	15.38	33.24	20	15.42	33.23	24.54	340	0.07
40	15.36	33.22	30	15.38	33.24	24.55	340	0.10
50	15.24	33.19	50	15.24	33.19	24.55	340	0.17
59	14.78	33.13	75	13.93	33.03	24.70	325	0.25
68	14.21	33.04	100	13.08	33.13	24.95	301	0.33
78	13.82	33.03	150	10.33	33.31	25.60	240	0.47
88	13.40	33.04	200	9.19	33.82	26.19	184	0.58
97	13.23	33.12	250	8.48	34.09	26.51	153	0.66
120	11.51	33.17	300	8.00	34.14	26.62	143	0.74
149	10.34	33.30	400	7.27	34.21	26.78	128	0.88
196	9.24	33.78	500	6.57	34.29	26.94	112	1.01
253	8.42	34.10	600	(5.89)	(34.29)	(27.02)	(105)	(1.12)
353	7.63	34.17						
469	6.79	34.29						
593	5.95	34.29						

S10

CCOFI
5404

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

107.35

E. W. SCRIPPS; April 19, 1954; 0923 GCT; 30°15'N, 116°25.5'W; sounding, 900 fm;
wind, 280°, force 3; weather, overcast; sea, rough; wire angle, 18°.

0	15.2	33.19	0	15.2	33.19	24.55	340	0.00
10	15.18	33.31	10	15.18	33.31	24.65	330	0.03
29	14.32	33.26	20	14.79	33.29	24.72	323	0.07
39	12.85	33.21	30	14.24	33.26	24.81	315	0.10
48	12.28	33.24	50	12.18	33.25	25.22	276	0.16
58	11.58	33.29	75	10.90	33.49	25.64	236	0.22
67	11.17	33.34	100	9.39	33.52	25.92	209	0.28
76	10.86	33.49	150	8.91	33.89	26.28	175	0.38
85	10.09	33.42	200	8.67	34.13	26.51	153	0.46
94	9.56	33.44	250	8.18	34.20	26.64	141	0.53
116	9.15	33.68	300	7.94	34.34	26.79	127	0.60
142	8.94	33.83	400	7.12	34.29	26.86	120	0.73
186	8.79	34.11	500	6.29	34.29	26.98	109	0.85
240	8.22	34.18	600	(5.61)	(34.36)	(27.12)	(95)	(0.96)
336	7.74	34.38						
445	6.71	34.27						
565	5.82	34.34						

107.50

E. W. SCRIPPS; April 18, 1954; 2339 GCT; 29°51.5'N, 117°24'W; sounding, 1250 fm;
wind, 320°, force 5; weather, overcast; sea, rough; wire angle, 15°.

0	15.5	33.26	0	15.5	33.26	24.54	340	0.00
10	15.46	33.25	10	15.46	33.25	24.54	340	0.03
30	15.24	33.21	20	15.39	33.22	24.54	340	0.07
40	15.00	33.33	30	15.24	33.21	24.56	339	0.10
49	14.83	33.30	50	14.81	33.30	24.72	323	0.17
58	14.79	33.30	75	13.82	33.25	24.89	307	0.25
68	14.32	33.30	100	11.05	33.14	25.34	264	0.32
78	13.56	33.21	150	9.42	33.73	26.08	194	0.44
88	12.22	33.16	200	8.99	33.99	26.35	168	0.53
97	11.22	33.13	250	8.48	34.17	26.57	148	0.61
120	10.18	33.41	300	7.93	34.24	26.71	134	0.68
149	9.43	33.73	400	7.08	34.31	26.89	117	0.81
196	9.03	33.97	500	(6.35)	(34.36)	(27.02)	(105)	(0.93)
254	8.42	34.18						
354	7.43	34.28						
470	6.56	34.35						

107.70

E. W. SCRIPPS; April 18, 1954; 0549 GCT; 29°05'N, 118°43'W; sounding, 1700 fm;
wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 14°.

0	15.8	33.33	0	15.8	33.33	24.53	341	0.00
10	15.72	33.30	10	15.72	33.30	24.52	342	0.03
30	15.65	33.34	20	15.70	33.32	24.54	340	0.07
39	15.58	33.36	30	15.65	33.34	24.57	338	0.10
49	15.50	33.25	50	15.49	33.25	24.54	340	0.17
58	15.38	33.30	75	14.34	33.28	24.81	315	0.25
68	15.06	33.29	100	12.60	33.23	25.12	285	0.33
77	14.28	33.28	150	9.60	33.54	25.90	211	0.45
86	13.72	33.22	200	(8.63)	(33.84)	(26.29)	(174)	(0.55)
96	12.90	33.22	250	(8.02)	(33.96)	(26.48)	(156)	(0.64)
119	11.02	33.30	300	(7.59)	(34.07)	(26.62)	(143)	(0.71)
147	9.68	33.50	400	6.99	34.25	26.85	121	(0.85)
193	8.76	33.82	500	(6.32)	(34.33)	(27.00)	(107)	(0.97)
349	7.25	34.17						
374p	7.12	34.27r						
465	6.54	34.31						

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

S10
CCOF1
5404

HORIZON; April 28, 1954; 1319 GCT; 29°48.5'N, 115°53'W; sounding, 140 fm; wind, 300°, force 3; weather, partly cloudy; sea, smooth; wire angle, 15°.

110.33

0	14.81	33.43	0	14.81	33.43	24.82	314	0.00
5	14.82	33.40	10	14.82	33.38	24.78	318	0.03
10	14.82	33.38	20	14.13	33.36	24.91	305	0.06
15	14.70	33.40	30	12.28	33.37	25.29	269	0.09
20	14.13	33.36	50	10.76	33.44	25.62	238	0.14
25	12.86	33.37	75	9.79	33.56	25.88	213	0.20
30	12.28	33.37	100	9.52	34.04	26.30	173	0.25
35	11.92	33.42						
40	11.25	33.41						
45	10.78	33.49						
50	10.76	33.44						
55	10.50	33.46						
60	10.11	33.50						
80	9.6	33.58						
100	9.52	34.04						

HORIZON; April 28, 1954; 1719, 1755 GCT; 29°34'N, 116°17.5'W; sounding, 1390 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 31°, 46°.

110.40

0	15.46	34.07r	0	15.46	(33.22)	(24.52)	(342)	(0.00)
10	15.43	33.60r	10	15.43	(33.22)	(24.53)	(341)	(0.03)
28	15.32	33.22	20	15.42	(33.22)	(24.53)	(341)	(0.07)
36	15.08	33.38	30	15.30	33.23	24.56	339	(0.10)
45	14.32	33.26	50	14.01	33.14	24.77	319	(0.17)
53	13.86	33.08	75	12.51	33.14	25.07	290	(0.24)
61	13.43	33.05	100	10.48	33.38	25.63	237	(0.31)
70	12.99	33.13	150	9.01	33.71	26.13	189	(0.42)
84	11.40	33.17	200	8.69	34.02	26.42	162	(0.51)
122	9.65	33.58	250	8.42	34.20	26.60	145	(0.59)
160	8.88	33.77	300	7.87	34.28	26.75	130	(0.66)
237	8.55	34.17	400	6.83	34.31	26.92	114	(0.79)
352	7.22	34.31	500	6.21	34.32	27.01	106	(0.90)
511	6.12	34.32	600	(5.60)	(34.39)	(27.14)	(93)	(1.01)
			700	(4.99)	(34.46)	(27.27)	(81)	(1.10)
859	4.08	34.52	800	(4.33)	(34.50)	(27.38)	(71)	(1.19)
1064	3.76	34.54	1000	3.82	34.54	27.46	63	(1.34)

HORIZON; April 29, 1954; 0359 GCT; 28°58'N, 117°47'W; sounding, 2000 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 36°.

110.60

0	-	-	0	(16.12)	(33.29)	(24.43)	(351)	(0.00)
9	16.05	33.26	10	16.03	33.26	24.42	352	0.04
26	15.48	33.22	20	15.61	33.22	24.49	345	0.07
48	15.10	33.28	30	15.39	33.23	24.54	340	0.10
60	14.77	33.28	50	15.04	33.28	24.66	329	0.17
68	14.51	33.31	75	14.10	33.26	24.84	312	0.25
80	13.52	33.24	100	11.35	33.24	25.36	262	0.32
100	11.35	33.24	150	9.30	33.71	26.08	194	0.44
126	9.93	33.44	200	8.87	34.01	26.38	166	0.53
146	9.35	33.68	250	8.47	34.16	26.56	148	0.61
191	8.94	33.97	300	7.97	34.24	26.70	135	0.68
257	8.40	34.18	400	6.99	34.28	26.87	119	0.82
345	7.50	34.27	500	6.21	34.30	26.99	108	0.94
466	6.44	34.29	600	5.65	34.34	27.10	97	1.05
635	5.49	34.36	700	(5.18)	34.39	(27.19)	(89)	(1.15)
845	-	34.45	800	(4.79)	34.43	(27.27)	(81)	(1.24)
1139	3.70	34.54	1000	(4.10)	34.50	(27.40)	(69)	(1.41)

S10

CCOFI
5404

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

110.80

HORIZON; April 29, 1954; 1215, 1245 GCT; 28°15.5'N, 118°53'W; sounding, 2200 fm; wind, 300°, force 5; weather, drizzle; sea, moderate; wire angle, 41°, 48°.

0	16.6	33.22r	0	(16.67)	(33.31)	(24.32)	(361)	(0.00)
9	16.59	33.31	10	16.58	33.31	24.34	360	0.04
25	16.09	33.31	20	16.19	33.31	24.43	351	0.07
44	15.75	33.27	30	15.99	33.30	24.46	348	0.11
56	14.82	33.34	50	15.43	33.30	24.59	336	0.18
64	14.14	33.26	75	13.34	33.15	24.91	305	0.26
75	13.34	33.15	100	11.09	33.21	25.39	260	0.33
92	11.62	33.17	150	9.44	33.63	26.00	202	0.44
115	10.29	33.39	200	8.61	33.97	26.39	164	0.54
132	9.66	33.55	250	7.92	34.08	26.58	146	0.62
			300	7.52	34.18	26.72	133	0.69
164	9.27	33.70	400	7.09	34.34	26.91	115	0.82
217	8.36	34.02	500	6.21	34.35	27.03	104	0.93
293	7.53	34.16	600	5.58	34.37	27.13	94	1.04
397	7.11	34.34	700	5.07	34.41	27.22	86	1.14
542	5.90	34.36	800	4.67	34.45	27.30	78	1.23
724	4.98	34.42	1000	3.99	34.55	27.45	64	1.39
1001	3.98	34.55						

110.90

SPENCER F. BAIRD; April 23, 1954; 1128, 1327 GCT; 27°49'N, 119°55'W; sounding, 2170 fm; wind, calm; weather, overcast; sea, moderate; wire angle, 05°, 07°.

0	15.6	33.21	0	15.6	33.21	24.48	346	0.00
10	15.74	33.22	10	15.74	33.22	24.46	348	0.03
31	15.64	33.23	20	15.67	33.23	24.49	345	0.07
41	15.62	33.22	30	15.64	33.23	24.49	345	0.10
51	15.58	33.22	50	15.59	33.22	24.49	345	0.17
61	15.52	33.26	75	15.14	33.17	24.55	340	0.26
71	15.35	33.21	100	13.80	33.15	24.82	314	0.34
81	14.60	33.15	150	10.41	33.23	25.52	247	0.48
91	14.14	33.17	200	9.11	33.73	26.13	189	0.59
101	13.78	33.15	250	8.69	34.01	26.41	163	0.68
125	11.74	33.12	300	8.39	34.15	26.57	148	0.76
156	10.18	33.30	400	7.65	34.26	26.77	128	0.91
206	9.02	33.78	500	6.63	34.26	26.91	115	1.04
265	8.60	34.06	600	5.75	34.30	27.05	102	1.16
371	7.90	34.26	700	5.25	34.33	27.14	93	1.26
490	6.57	34.26	800	4.80	34.35	27.21	87	1.36
615	5.65	34.30	1000	4.09	34.45	27.36	73	1.54
			1200	3.61	34.51	27.46	64	1.69
515	6.58	34.25	1500	2.97	34.52	27.53	57	1.90
618	5.64	34.31						
719	5.17	34.33						
822	4.70	34.36						
922	4.37	34.42						
1027	4.04	34.46						
1126	3.80	34.50						
1231	3.55	34.46						
1331	3.28	34.52						
1435	3.06	34.52						
1546	2.87	34.52						

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

S10
CCOFI
5404

SPENCER F. BAIRD; April 22, 1954; 1300, 1547 GCT; 26°57.5'N, 121°35'W;
sounding, 2250 fm; wind, 320°, force 2; weather, overcast; sea, rough; wire angle,
03°, 08°.

110.120

0	16.6	33.43	0	16.6	33.43	24.42	352	0.00
10	16.54	33.42	10	16.54	33.42	24.43	351	0.03
30	16.36	33.41	20	16.48	33.41	24.44	350	0.07
40	16.20	33.36	30	16.36	33.41	24.46	348	0.10
50	16.08	33.34	50	16.08	33.34	24.47	347	0.17
60	15.99	33.33	75	15.28	33.37	24.68	327	0.26
70	15.44	33.37	100	13.84	33.29	24.92	304	0.34
80	15.13	33.37	150	11.50	33.72	25.71	229	0.47
90	14.68	33.34	200	10.68	34.12	26.17	185	0.58
100	13.84	33.29	250	10.02	34.32	26.44	160	0.67
125	12.20	33.33	300	9.42	34.32	26.54	150	0.75
155	11.40	33.81	400	8.13	34.32	26.74	131	0.90
205	10.60	34.15	500	7.03	34.34	26.92	114	1.03
266	9.86	34.32	600	6.20	34.36	27.04	103	1.14
371	8.50	34.32	700	5.50	34.38	27.15	92	1.25
491	7.10	34.32	800	5.05	34.43	27.24	84	1.35
616	6.10	34.37	1000	4.26	34.45	27.34	74	1.52
			1200	3.70	34.52	27.46	64	1.68
			1500	2.95	34.56	27.55	54	1.89
519	6.92	34.34						
623	6.03	34.35						
723	5.37	34.39						
828	4.96	34.43						
928	4.50	34.43						
1032	4.18	34.47						
1133	3.84	34.51						
1238	3.62	34.52						
1338	3.36	34.53						
1443	3.08	34.52						
1554	2.88	34.58						

S10

CCOFI
5404

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

110.150

SPENCER F. BAIRD; April 21, 1954; 1928, 2215 GCT; 25°56'N, 123°32.5'W; sound-
ing, 2265 fm; wind, 340°, force 2; weather, overcast; sea, rough; wire angle, 11°,
20°.

0	17.1	33.68	0	17.1	33.68	24.49	345	0.00
10	17.18	33.67	10	17.18	33.67	24.47	347	0.03
30	16.95	33.65	20	17.01	33.65	24.50	344	0.07
39	16.96	33.65	30	16.95	33.65	24.51	343	0.10
49	16.89	33.65	50	16.90	33.65	24.52	342	0.17
60	16.94	33.65	75	17.08	33.70	24.52	342	0.26
68	16.96	33.68	100	16.78	33.66	24.56	339	0.34
79	17.12	33.70	150	13.64	33.50	25.12	285	0.50
89	16.83	33.70	200	10.26	33.63	25.86	215	0.63
99	16.79	33.66	250	9.25	34.03	26.34	169	0.73
123	16.02	33.64	300	8.69	34.16	26.53	151	0.81
152	13.48	33.50	400	7.62	34.24	26.75	130	0.96
200	10.26	33.63	500	6.48	34.28	26.95	111	1.08
259	9.16	34.08	600	5.62	34.34	27.10	97	1.20
361	8.06	34.22	700	5.25	34.39	27.19	89	1.30
479	6.76	34.27	800	4.85	34.42	27.26	82	1.39
602	-	-	1000	(4.12)	(34.46)	(27.37)	(72)	(1.57)
484	6.60	34.26						
585	5.70	34.33						
682	5.30	34.38						
734	5.12	34.40						
783	4.90	34.41u						
831	4.74	34.42						
880	4.56	34.42						

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

S10
CCOFI
5404

SPENCER F. BAIRD; April 21, 1954; 0045, 0250 GCT; 25°21.5'N, 125°21'W; sounding, 2400 fm; wind, 350°, force 2; weather, overcast; sea, very rough; wire angle, 14°, 12°.

110.180

0	18.1	33.92	0	18.1	33.92	24.44	350	0.00
10	17.89	33.91	10	17.89	33.91	24.48	346	0.03
30	17.67	33.91	20	17.77	33.91	24.51	343	0.07
39	17.58	33.92	30	17.67	33.91	24.54	340	0.10
49	17.90	34.00	50	17.93	34.01	24.55	340	0.17
59	18.18	34.14	75	17.78	34.33	24.83	313	0.25
78	17.77	34.33	100	18.02	34.26	24.72	323	0.33
87	18.21	34.30	150	14.90	33.87	25.14	283	0.49
97	18.12	34.28	200	11.25	33.68	25.72	228	0.62
121	16.97	34.13	250	9.23	33.89	26.23	180	0.72
149	15.00	33.88	300	8.03	33.97	26.48	156	0.81
197	11.48	33.68	400	7.12	34.15	26.76	129	0.96
253	9.11	33.90	500	6.63	34.36	26.99	108	1.08
356	7.32	34.06	600	5.89	34.36	27.08	99	1.19
474	6.88	34.32	700	5.41	34.39	27.16	92	1.30
597	5.90	34.36	800	4.79	34.43	27.27	81	1.39
			1000	4.00	34.49	27.40	69	1.56
495	6.69	34.36						
596	5.96	34.36						
693	5.44	34.39						
747	5.04	34.42						
795	4.80	34.43						
844	4.60	34.43						
893	4.38	34.47						
942	4.19	34.49						
990	4.02	34.49						
1040	3.86	34.50						
1095	3.71	34.51						
1194	3.48	34.54						

HORIZON; April 30, 1954; 1927 GCT; 29°13.5'N, 115°42'W; sounding, 740 fm; wind, 320°, force 4; weather, overcast; sea, rough; wire angle, 42°.

113.35

0	-	-	0	(14.38)	(33.38)	(24.88)	(308)	(0.00)
9	14.38	33.37	10	14.38	33.37	24.87	309	0.03
24	14.3	33.36	20	14.35	33.36	24.87	309	0.06
35	14.21	33.37	30	14.29	33.37	24.89	307	0.09
46	12.76	33.35	50	11.75	33.35	25.38	260	0.15
52	11.46	33.35	75	9.92	33.53	25.84	217	0.21
59	10.97	33.34	100	9.60	33.85	26.14	188	0.26
70	9.99	33.33	150	9.10	34.10	26.42	162	0.35
75	9.92	33.53	200	8.75	34.19	26.54	150	0.43
84	9.73	33.67	250	8.70	34.22	26.58	146	0.50
102	9.58	33.86	300	8.42	34.28	26.67	138	0.58
118	9.42	33.94	400	7.54	34.40	26.89	117	0.71
159	9.02	34.13	500	(6.73)	(34.36)	(26.97)	(110)	(0.83)
196	8.76	34.19						
274	8.65	34.24						
377	7.75	34.40						
499	6.73	34.36						

S10

CCOFI
5404

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

113.50

HORIZON; April 30, 1954; 1045, 1110 GCT; 28°45.5'N, 116°37.5'W; sounding, 2150 fm; wind, 300°, force 5; weather, overcast; sea, rough; wire angle, 48°, 49°.

0	-	-	0	(16.20)	(33.43)	(24.52)	(342)	(0.00)
9	16.20	33.39	10	16.20	33.39	24.49	345	0.03
23	16.2	33.34	20	16.20	33.34	24.45	349	0.07
33	16.18	33.39	30	16.20	33.38	24.48	346	0.10
44	16.06	33.32	50	16.02	33.42	24.55	340	0.17
50	16.02	33.42	75	15.30	33.33	24.64	331	0.26
56	15.94	33.32	100	12.78	33.19	25.06	291	0.34
			150	9.80	33.43	25.78	222	0.46
66	15.82	33.31	200	8.76	33.89	26.31	172	0.57
73	15.3	33.33	250	8.46	34.19	26.59	146	0.65
83	14.29	33.26	300	7.99	34.39	26.82	124	0.72
102	12.61	33.19	400	6.99	34.40	26.97	110	0.84
119	11.01	33.19	500	(6.18)	(34.25)	(26.96)	(110)	(0.96)
149	9.85	33.43						
185	8.89	33.78						
253	8.42	34.20						
345	7.53	34.47						
451	6.53	34.27						

113.70

HORIZON; April 30, 1954; 0123 GCT; 28°02'N, 117°55.5'W; sounding, 1700 fm; wind, 320°, force 5; weather, overcast; sea, rough; wire angle, 15°.

0	-	-	0	(16.72)	(33.42)	(24.39)	(355)	(0.00)
10	16.70	33.42	10	16.70	33.42	24.39	355	0.04
25p	16.60	33.40	20	16.67	33.40	24.39	355	0.07
30	16.49	33.42	30	16.49	33.42	24.44	350	0.11
45	15.90	33.31	50	15.70	33.32	24.54	340	0.18
59	15.38	33.33	75	13.90	33.21	24.85	311	0.26
69	14.42	33.22	100	11.32	33.24	25.37	262	0.33
79	13.63	33.21	150	9.32	33.64	26.02	200	0.45
103	11.09	33.25	200	8.73	34.03	26.42	162	0.54
117	10.36	33.34	250	8.37	34.12	26.55	149	0.62
146	9.40	33.60	300	7.32	34.10	26.69	136	0.69
174	8.89	33.87	400	6.92	34.33	26.92	114	0.82
232	8.59	34.13	500	6.20	34.34	27.03	104	0.94
300	7.32	34.10	600	5.56	34.36	27.12	95	1.04
417	6.86	34.34	700	5.16	34.40	27.20	88	1.14
556	5.78	34.35						
700	5.16	34.40						

117.30

CREST; April 16, 1954; 1458 GCT; 28°48'N, 114°56.5'W; sounding, 55 fm; wind, 330°, force 3; weather, fog; sea, moderate; wire angle, 00°.

0	14.89	33.44	0	14.89	33.44	24.81	315	0.00
10	14.84	33.45	10	14.84	33.45	24.83	313	0.03
20	13.87	33.42	20	13.87	33.42	25.01	296	0.06
26	13.61	33.43	30	13.23	33.44	25.16	281	0.09
31	13.17	33.44	50	10.90	33.58	25.71	229	0.14
36	12.72	33.48	75	9.81	33.79	26.06	196	0.20
41	11.55	33.54						
46	11.02	33.49						
51	10.88	33.59						
57	10.76	33.68						
62	10.30	33.78						
72	9.90	33.78						
82	9.62	33.95						
92	9.60	33.98						

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

CREST; April 16, 1954; 2248 GCT; 28°26.5'N, 115°36'W; sounding, 530 fm; wind, 340°, force 3; weather, fog; sea, moderate; wire angle, 14°.

11740

0	15.1	33.33	0	15.1	33.33	24.68	327	0.00
10	14.90	33.30	10	14.90	33.30	24.70	325	0.03
30	13.60	33.24	20	14.15	33.27	24.84	312	0.06
40	13.26	33.32	30	13.60	33.24	24.93	303	0.10
50	12.76	33.33	50	12.76	33.33	25.17	280	0.15
60	11.79	33.24	75	10.78	33.26	25.48	251	0.22
70	11.19	33.24	100	9.70	33.44	25.81	220	0.28
79	10.42	33.36	150	9.36	33.96	26.27	176	0.38
90	10.04	33.42	200	8.73	34.09	26.47	157	0.46
98	9.74	33.43	250	8.57	34.17	26.56	148	0.54
123	9.52	33.78	300	8.29	34.27	26.68	137	0.62
151	9.34	33.96	400	7.41	34.33	26.85	121	0.75
197	8.73	34.09	500	6.24	34.33	27.01	106	0.87
254	8.53	34.26	600	(5.67)	(34.38)	(27.13)	(94)	(0.98)
352	7.92	34.34						
466	6.54	34.32						
587	5.72	34.37						

CREST; April 17, 1954; 1226 GCT; 27°46'N, 116°54'W; sounding, 1950 fm; wind, 330°, force 5; weather, overcast; sea, rough; wire angle, 25°.

11760

0	16.3	33.48	0	16.3	33.48	24.53	341	0.00
10	16.32	33.48	10	16.32	33.48	24.53	341	0.03
85	15.51	33.31	20	(16.37)	(33.46)	(24.50)	(344)	(0.07)
94	14.59	33.30	30	(16.37)	(33.45)	(24.49)	(345)	(0.10)
103	13.99	33.22	50	(16.29)	(33.41)	(24.48)	(346)	(0.17)
111	12.87	33.16	75	(15.87)	(33.33)	(24.51)	(343)	(0.26)
120	12.12	33.21	100	14.19	33.28	24.84	312	(0.34)
129	11.22	33.37	150	11.03	33.73	25.80	221	(0.48)
137	10.93	33.33	200	10.44	34.16	26.24	179	(0.58)
145	10.86	33.54	250	9.83	34.30	26.45	159	(0.66)
153	11.09	33.83	300	9.24	34.31	26.56	148	(0.74)
170	10.88	33.87	400	8.28	34.42	26.80	126	(0.89)
221	10.20	34.29	500	7.26	34.38	26.92	114	(1.02)
308	9.18	34.31	600	(6.00)	(34.43)	(27.12)	(95)	(1.13)
399	8.31	34.42						
492	7.38	34.38						
588	6.16	34.42						

CREST; April 16, 1954; 0645 GCT; 28°24.5'N, 114°16'W; sounding, 40 fm; wind, 300°, force 5; weather, cloudy; sea, slight; wire angle, 13°.

12025

0	15.9	33.44	0	15.9	33.44	24.59	336	0.00
5	15.22	33.43	10	15.20	33.39	24.71	324	0.03
10	15.20	33.39	20	15.18	33.40	24.72	323	0.07
15	15.20	33.44	30	14.64	33.46	24.88	308	0.10
20	15.18	33.40	50	11.07	33.67	25.75	225	0.15
24	15.05	33.47						
26	14.98	33.44						
28	14.92	33.43						
30	14.64	33.46						
32	12.28	33.40						
34	11.59	33.37						
36	11.50	33.35						
38	11.25	33.42						
43	11.03	33.53						
48	11.10	33.66						
55	10.92	33.68						
65	10.70	33.73						

S10

CCOFI
5404

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

120.35

CREST; April 15, 1954; 2337 GCT; 28°03'N, 114°54'W; sounding, 44 fm; wind, 330°, force 1; weather, clear; sea, moderate; wire angle, 02°.

0	15.9	33.40	0	15.9	33.40	24.56	339	0.00
10	15.25	33.40	10	15.25	33.40	24.71	324	0.03
21	14.64	33.44	20	14.70	33.44	24.86	310	0.06
31	13.77	33.41	30	13.80	33.41	25.02	295	0.10
36	13.73	33.41	50	11.04	33.38	25.53	246	0.15
42	12.09	33.40	75	(10.50)	(33.75)	(25.91)	(210)	(0.21)
47	11.10	33.35						
52	11.00	33.49						
57	10.70	33.57						
62	10.50	33.66						
68	10.65	33.74						
73	10.56	33.75						

120.50

CREST; April 15, 1954; 1126 GCT; 27°31'N, 115°52'W; sounding, 2200 fm; wind, 340°, force 3; weather, overcast; sea, slight; wire angle, 17°.

0	15.3	33.40	0	15.3	33.40	24.69	326	0.00
10	14.77	33.41	10	14.77	33.41	24.82	314	0.03
30	14.29	33.52	20	14.47	33.45	24.91	305	0.06
45	14.04	33.57	30	14.29	33.52	25.00	297	0.09
60	13.18	33.60	50	13.76	33.58	25.16	281	0.15
74	11.51	33.62	75	11.41	33.62	25.65	235	0.22
88	10.36	33.78	100	9.80	33.82	26.09	193	0.27
102	9.76	33.83	150	9.40	34.15	26.41	163	0.36
122	9.50	33.97	200	8.73	34.15	26.52	152	0.44
155	9.38	34.15	250	8.38	34.28	26.67	138	0.52
193	8.79	34.15	300	8.03	34.34	26.77	128	0.58
288	8.16	34.34	400	6.83	34.31	26.92	114	0.71
431	6.49	34.31	500	6.22	34.33	27.02	105	0.83
576	6.01	34.38	600	5.90	34.39	27.10	97	0.94
769	4.82	34.43	700	5.27	34.42	27.21	87	1.04
967	4.07	34.47	800	4.69	34.44	27.29	79	1.13
1169	3.48	34.54	1000	3.96	34.48	27.40	69	1.29

120.70

CREST; April 15, 1954; 0010 GCT; 26°52'N, 117°11'W; sounding, 2000 fm; wind, 330°, force 3; weather, overcast; sea, rough; wire angle, 12°.

0	16.3	33.48	0	16.3	33.48	24.53	341	0.00
10	16.27	33.45	10	16.27	33.45	24.52	342	0.03
40	17.16	33.94	20	16.34	33.51	24.55	340	0.07
60	16.88	33.94	30	16.40	33.59	24.59	336	0.10
71	15.09	33.63	50	17.12	33.96	24.71	324	0.17
81	13.30	33.47	75	14.15	33.54	25.05	292	0.25
91	12.53	33.41	100	12.07	33.58	25.49	250	0.31
100	12.07	33.58	150	10.95	34.05	26.06	196	0.43
119	11.32	33.88	200	(10.82)	(34.56)	(26.48)	(156)	(0.52)
148	10.98	34.04	250	(10.16)	(34.53)	(26.58)	(146)	(0.59)
198	10.83	34.56	300	(9.54)	(34.51)	(26.67)	(138)	(0.67)
343	9.02	34.50	400	8.32	34.50	26.85	121	(0.80)
490	7.28	34.50	500	7.15	34.50	27.03	104	(0.92)
637	5.82	34.48	600	6.10	34.49	27.16	92	(1.03)
784	5.08	34.43	700	5.48	34.45	27.20	88	(1.13)
982	4.24	34.47	800	5.00	34.43	27.25	83	(1.22)
1183	3.65	34.49	1000	4.20	34.47	27.37	72	(1.40)

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

SIO
CCOFI
5404

SPENCER F. BAIRD; April 26-27, 1954; 2055, 0120 GCT; 26°13'N, 118°28.5'W;
sounding, 2550 fm; wind, 320°, force 1; weather, cloudy; sea, slight; wire angle,
12°, 20°.

120.90

0	17.9	33.55	0	17.9	33.55	24.21	372	0.00
10	17.02	33.43	10	17.02	33.43	24.33	360	0.04
30	15.85	33.28	20	16.13	33.31	24.44	350	0.07
40	15.68	33.28	30	15.85	33.28	24.48	346	0.11
49	15.14	33.22	50	15.08	33.21	24.60	335	0.18
59	14.58	33.13	75	13.04	33.15	24.97	300	0.26
69	13.56	33.13	100	11.13	33.39	25.52	247	0.32
78	12.88	33.18	150	9.54	33.70	26.03	199	0.44
88	12.74	33.30	200	9.22	34.10	26.40	164	0.53
97	11.32	33.37	250	9.07	34.22	26.52	152	0.61
121	10.46	33.51	300	8.61	34.29	26.64	141	0.69
149	9.57	33.69	400	7.57	34.34	26.84	122	0.82
197	9.24	34.09	500	6.62	34.36	26.99	108	0.95
254	9.03	34.23	600	5.99	34.39	27.09	98	1.06
355	8.00	34.33	700	5.38	34.42	27.19	89	1.16
470	7.04	34.34	800	4.78	34.44	27.28	80	1.25
592	6.06	34.38	1000	4.00	34.51	27.42	67	1.42
			1200	3.49	34.54	27.49	60	1.56
			1500	(2.85)	(34.60)	(27.60)	(50)	(1.76)
487	6.75	34.36						
584	6.02	34.40						
681	5.48	34.42						
783	4.86	34.44						
880	4.44	34.45						
980	4.06	34.50						
1078	3.81	34.52						
1181	3.52	34.54						
1279	3.29	34.55						
1383	3.04	34.58						
1492	2.88	34.60						

SIO

CCOFI
5404

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

120.120

SPENCER F. BAIRD; April 28, 1954; 1329, 1511 GCT; 25°13'N, 120°20.5'W; sounding, 2165 fm; wind, 330°, force 4; weather, overcast; sea, moderate; wire angle, 14°, 27°.

0	18.1	33.65	0	18.1	33.65	24.23	370	0.00
10	18.18	33.64	10	18.18	33.64	24.21	372	0.04
29	17.38	33.61	20	17.71	33.62	24.30	363	0.07
39	17.00	33.56	30	17.33	33.61	24.39	355	0.11
48	16.88	33.51	50	16.84	33.51	24.43	351	0.18
57	16.72	33.55	75	16.04	33.50	24.60	335	0.27
67	16.62	33.52	100	13.41	33.39	25.08	289	0.34
76	15.91	33.50	150	10.72	33.68	25.82	219	0.47
86	15.06	33.48	200	9.50	34.01	26.28	175	0.57
96	13.90	33.40	250	9.10	34.16	26.47	157	0.66
119	11.70	33.40	300	8.60	34.24	26.61	144	0.74
147	10.82	33.65	400	7.48	34.32	26.84	122	0.88
194	9.58	33.99	500	6.44	34.34	27.00	107	1.00
250	9.10	34.16	600	5.66	34.35	27.10	97	1.11
349	8.04	34.29	700	5.16	34.39	27.20	88	1.21
465	6.68	34.33	800	4.77	34.41	27.26	82	1.30
596	-	34.40	1000	4.06	34.49	27.40	69	1.47
			1200	3.50	34.49	27.45	64	1.62
			1500	(2.89)	(34.54)	(27.55)	(55)	(1.83)
471	6.82	34.34						
567	5.88	34.34						
661	5.34	34.37						
759	4.92	34.41						
852	4.59	34.42						
951	4.26	34.49						
1045	3.90	34.49						
1145	3.64	34.49						
1241	3.40	34.50						
1343	3.15	34.53						
1450	2.94	34.54						

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

S10
CCOFI
5404
150
120.50

SPENCER F. BAIRD; April 30, 1954; 1627, 1942 GCT; 24°09'N, 122°07'W; sounding, 2305 fm; wind, 340°, force 3; weather, sky obscured; sea, moderate; wire angle, 06°, 25°.

0	18.3	33.84	0	18.3	33.84	24.33	360	0.00
10	18.45	33.82	10	18.45	33.82	24.28	365	0.04
31	18.44	33.84	20	18.46	33.83	24.28	365	0.07
40	17.88	33.75	30	18.45	33.84	24.29	364	0.11
50	17.48	33.66	50	17.48	33.66	24.39	355	0.18
60	17.38	33.68	75	17.63	33.86	24.51	343	0.27
71	17.42	33.75	100	17.07	33.98	24.74	321	0.35
80	18.04	34.03	150	14.00	33.81	25.29	269	0.50
89	18.18	34.18	200	10.19	33.76	25.98	204	0.62
98	17.27	34.00	250	9.57	34.11	26.35	168	0.72
124	15.78	33.87	300	8.98	34.27	26.57	148	0.80
153	13.76	33.80	400	7.72	34.37	26.84	122	0.94
202	10.10	33.76	500	6.74	34.41	27.01	106	1.06
261	9.47	34.20	600	5.99	34.40	27.10	97	1.17
363	8.12	34.34	700	5.40	34.41	27.18	90	1.27
482	7.05u	34.43u	800	4.83	34.44	27.27	81	1.37
606	5.93u	34.42u	1000	4.21	34.49	27.38	71	1.54
472	6.94u	34.38u						
568	6.18u	34.38u						
662	5.62	34.40						
760	5.00	34.43						
856	4.66	34.46						
955	4.35	34.49						
1051	4.04	34.49						
1153	3.73	34.51						
1250	3.51	34.53						

CREST; April 14, 1954; 0332 GCT; 27°18'N, 114°51.5'W; sounding, 211 fm; wind, 330°, force 4; weather, clear; sea, moderate; wire angle, 28°.

12340

0	14.0	33.40	0	14.0	33.40	24.97	300	0.00
10	13.98	33.39	10	13.98	33.39	24.97	300	0.03
19	13.89	33.37	20	13.84	33.37	24.98	299	0.06
28	13.17	33.35	30	12.75	33.36	25.19	279	0.09
37	11.20	33.47	50	10.48	33.47	25.70	230	0.14
46	10.62	33.43	75	9.78	33.75	26.03	199	0.19
54	10.31	33.57	100	10.95	34.44	26.37	166	0.24
62	10.10	33.60	150	10.54	34.39	26.40	164	0.32
69	9.60	33.57	200	10.21	34.48	26.53	151	0.40
77	9.92	33.85	250	9.67	34.49	26.63	142	0.48
85	10.62	34.10	300	8.94	34.49	26.75	130	0.55
94	10.99	34.45						
126	10.74	34.36						
178	10.38	34.45						
232	9.92	34.49						
308	8.82	34.49						

SIO

CCOFI
5404

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

123.60

CREST; April 14, 1954; 1643 GCT; 26°38'N, 116°09'W; sounding, 2050 fm; wind, 300°, force 3; weather, overcast; sea, rough; wire angle, 08°.

0	16.3	33.41	0	16.3	33.41	24.48	346	0.00
10	16.18	33.44	10	16.18	33.44	24.53	341	0.03
30	16.40	33.57	20	16.27	33.49	24.55	340	0.07
45	16.59	33.68	30	16.40	33.57	24.58	337	0.10
55	16.31	33.66	50	16.49	33.67	24.63	332	0.17
66	16.30	33.69	75	15.70	33.67	24.81	315	0.25
87	14.30	33.64	100	13.17	33.71	25.38	260	0.32
102	13.10	33.74	150	11.50	34.37	26.21	182	0.44
112	13.03	33.93	200	11.10	34.40	26.31	172	0.53
136	12.00	34.43	250	10.84	34.40	26.36	167	0.61
166	11.16	34.31	300	10.05	34.39	26.49	155	0.70
220	11.09	34.43	400	8.54	34.53	26.84	122	0.84
282	10.32	34.38	500	7.00	34.43	26.99	108	0.96
393	8.66	34.53	600	6.02	34.40	27.10	97	1.08
521	6.69	34.42						
659	5.69	34.39						

127.34

CREST; April 13, 1954; 0525 GCT; 26°54'N, 114.08'W; sounding, 50 fm; wind, 320°, force 3; weather, partly cloudy; sea, rough; wire angle, 08°.

0	13.67	33.35	0	13.67	33.35	25.00	297	0.00
5	13.68	33.39	10	13.65	33.37	25.02	295	0.03
10	13.65	33.37	20	13.44	33.39	25.08	289	0.06
15	13.57	33.37	30	11.39	33.37	25.46	253	0.09
20	13.44	33.39	50	12.01	33.93	25.78	222	0.13
22	13.35	33.40	75	11.3	34.12	26.06	196	0.19
24	13.02	33.39						
26	12.36	33.37						
28	11.62	33.32						
30	11.39	33.37						
35	11.78	33.57						
40	12.21	33.87						
50	12.01	33.93						
60	11.68	34.02						
70	11.36	34.11						
81	11.3	34.13						

127.50

CREST; April 12, 1954; 1708, 1730, 1805 GCT; 26°24'N, 115°07'W; sounding, 1600 fm; wind, 340°, force 5; weather, overcast; sea, rough; wire angle, 29°, 30°, 28°.

0	15.7	33.44	0	15.7	33.44	24.64	331	0.00
10	15.64	33.39	10	15.64	33.39	24.61	334	0.03
27	15.59	33.40	20	15.60	33.40	24.63	332	0.07
			30	15.56	33.40	24.64	331	0.10
42	15.44	33.39	50	15.28	33.36	24.67	328	0.17
51	15.24	33.36	75	15.00	33.37	24.74	321	0.25
59	15.07	33.34	100	12.70	33.31	25.16	281	0.32
			150	9.68	33.60	25.93	208	0.45
75	15.00	33.37	200	9.00	34.10	26.43	161	0.54
88	14.63	33.34	250	9.20	34.36	26.61	144	0.62
94	13.32	33.30	300	8.92	34.44	26.71	134	0.69
116	11.49	33.34	400	7.87	34.49	26.91	115	0.82
140	10.09	33.51	500	6.80	34.47	27.05	102	0.94
183	8.82	33.88						
235	9.27	34.33						
329	8.72	34.47						
435	7.43	34.49						
552	6.32	34.45						

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

S10

CCOF1
5404

CREST; April 11, 1954; 1100 GCT; 26°29'N, 113°30.5'W; sounding, 43 fm; wind, 300°, force 2; weather, partly cloudy; sea, moderate; wire angle, 12°.

130.30

0	14.89	33.58	0	14.89	33.58	24.92	304	0.00
10	14.85	33.58	10	14.85	33.58	24.93	303	0.03
20	14.28	33.54	20	14.28	33.54	25.02	295	0.06
30	13.61	33.62	30	13.61	33.62	25.22	276	0.09
40	13.10	33.68	50	11.94	33.62	25.55	244	0.14
50	11.94	33.62						

CREST; April 11, 1954; 1710 GCT; 26°09'N, 114°06'W; sounding, 1300 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 15°.

130.40

0	15.1	33.37	0	15.1	33.37	24.72	323	0.00
10	15.05	33.38	10	15.05	33.38	24.73	322	0.03
30	14.83	33.36	20	14.96	33.38	24.75	320	0.06
40	13.04	33.28	30	14.83	33.36	24.77	319	0.10
60	11.45	33.31	50	12.03	33.29	25.28	270	0.16
80	10.50	33.46	75	10.62	33.41	25.63	237	0.22
90	11.30	33.95	100	11.04	33.94	25.96	205	0.28
100	11.04	33.94	150	10.82	34.32	26.30	173	0.37
109	11.11	34.03	200	10.46	34.40	26.42	162	0.46
129	11.13	34.54	250	9.55	34.42	26.59	146	0.54
148	10.83	34.32	300	8.75	34.42	26.72	133	0.61
196	10.50	34.40	400	7.49	34.40	26.90	116	0.74
293	8.83	34.42	500	6.60	34.34	26.97	110	0.86
487	6.71	34.34	600	5.94	34.45	27.15	92	0.97
682	5.48	34.52	700	5.40	34.52	27.27	81	1.06
928	4.37	34.56	800	4.89	34.54	27.35	74	1.15
1180	3.67	34.60	1000	4.10	34.57	27.46	63	1.30

CREST; April 12, 1954; 0457 GCT; 25°29'N, 115°24'W; sounding, 2150 fm; wind, 330°, force 5; weather, partly cloudy; sea, moderate; wire angle, 20°.

130.60

0	18.2	34.22	0	18.2	34.22	24.65	330	0.00
11	18.18	34.22	10	18.18	34.22	24.65	330	0.03
77	15.93	34.03	20	(18.13)	(34.18)	(24.63)	(332)	(0.07)
82	14.77	33.95	30	(18.10)	(34.15)	(24.62)	(333)	(0.10)
86	13.82	33.82	50	(18.09)	(34.10)	(24.58)	(337)	(0.17)
91	13.53	33.90	75	(16.30)	(34.04)	(24.96)	(300)	(0.25)
95	13.36	33.95	100	12.98	34.03	25.67	233	(0.31)
99	12.95	34.02	150	11.90	34.54	26.27	176	(0.42)
104	13.08	34.07	200	10.96	34.59	26.48	156	(0.50)
123	12.98	34.59	250	10.28	34.54	26.56	148	(0.58)
150	11.90	34.54	300	9.52	34.51	26.67	138	(0.66)
187	11.16	34.60	400	8.10	34.51	26.89	117	(0.79)
279	9.88	34.52	500	6.93	34.51	27.06	101	(0.91)
418	7.88	34.51	600	6.04	34.51	27.18	90	(1.01)
654	5.62	34.51	700	5.38	34.51	27.26	82	(1.10)
895	4.48	34.52	800	4.86	34.51	27.32	76	(1.19)
1148	3.69	34.64	1000	4.10	34.55	27.44	65	(1.35)

S10

CCOFI
5404

130.90

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

SPENCER F. BAIRD; May 6, 1954; 1452, 2352 GCT; 24°27'N, 117°15'W; sounding,
2050 fm; wind, 340°, force 4; weather, cloudy; sea, moderate; wire angle, 22°, 20°.

0	18.6	34.45r	0	18.6	(34.25)	(24.57)	(338)	(0.00)
10	18.71	34.25	10	18.71	34.25	24.54	340	0.03
29	18.71	34.24	20	18.72	34.24	24.53	341	0.06
38	18.64	34.22	30	18.71	34.24	24.53	341	0.10
47	18.63	34.21	50	18.68	34.21	24.52	342	0.17
56	18.78	34.22	75	18.52	34.26	24.60	335	0.26
66	18.81	34.27	100	15.92	33.89	24.93	303	0.34
75	18.52	34.26	150	11.26	34.23	26.15	187	0.46
84	17.62	34.25	200	10.37	34.26	26.33	170	0.55
93	16.86	34.05	250	9.72	34.31	26.48	156	0.64
116	13.88	33.79	300	9.07	34.37	26.64	141	0.71
142	11.53	34.22	400	8.02	34.41	26.83	123	0.85
185	10.59	34.25	500	6.93	34.43	27.00	107	0.98
238	9.90	33.76	600	6.13	34.45	27.12	95	1.08
333	8.69	34.39	700	5.60	34.49	27.22	86	1.18
443	7.60	34.38u	800	5.08	34.51	27.30	78	1.27
564	6.34u	34.42u	1000	4.29	34.52	27.40	69	1.44
488	7.08	34.46u						
586	6.31u	34.47u						
683	5.68	34.49						
782	5.18	34.51						
876	4.73	34.57r						
979	4.36	34.52						
1075	4.04	34.54						
1178	3.77	34.38r						
1277	3.51	34.21r						
1381	3.27	33.75r						

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

S10
CCOFI
5404

SPENCER F. BAIRD; May 5-6, 1954; 2056, 0035 GCT; 23°31'N, 119°12'W; sounding, 2205 fm; wind, 350°, force 1; weather, cloudy; sea, moderate; wire angle, 20°, 20°.

130.120

0	19.7	33.95	0	19.7	33.95	24.06	386	0.00
10	19.26	33.96	10	19.26	33.96	24.18	375	0.04
29	19.20	33.98	20	19.21	33.98	24.21	372	0.08
38	19.18	33.96	30	19.20	33.98	24.21	372	0.11
48	18.76	33.95	50	18.71	33.95	24.31	362	0.19
57	18.58	33.91	75	16.96	33.78	24.61	334	0.27
67	17.73	33.80	100	14.19	33.57	25.06	291	0.35
76	16.86	33.78	150	11.16	33.89	25.90	211	0.48
85	15.70	33.64	200	9.94	34.22	26.38	166	0.58
95	14.66	33.57	250	9.20	34.32	26.57	148	0.66
118	12.44	33.60	300	8.64	34.36	26.69	136	0.73
146	11.27	33.86	400	7.67	34.41	26.88	118	0.86
191	10.10	34.18	500	6.91	34.43	27.00	107	0.98
245	9.28	34.31	600	6.11	34.43	27.11	96	1.09
342	8.22	34.38	700	5.54	34.43	27.18	90	1.19
454	7.13	34.43	800	4.99	34.43	27.25	83	1.29
			1000	4.23	34.51	27.39	70	1.46
170	10.07r	34.14r						
283	8.67r	34.11r						
490	7.00	34.36r						
591	6.14	34.43						
686	5.62	34.43						
787	5.03	34.43						
883	4.65	34.45						
986	4.29	34.51						
1085	3.97	34.51						
1189	3.67	34.56r						
1287	3.42	34.52						

S10

CCOF1
5404

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

130,150

SPENCER F. BAIRD; May 4, 1954; 0513, 0653 GCT; 22°29'N, 121°21'W; sounding, 2250 fm; wind, 360°, force 2; weather, overcast; sea, slight; wire angle, 15°, 11°.

0	18.6	33.80	0	18.6	33.80	24.23	370	0.00
10	18.72	33.78	10	18.72	33.78	24.18	375	0.04
29	18.68	33.82	20	18.70	33.81	24.21	372	0.07
40	18.65	33.80	30	18.68	33.82	24.22	371	0.11
48	18.11	33.74	50	18.10	33.74	24.30	363	0.18
58	18.10	33.77	75	17.50	33.64	24.37	357	0.28
68	18.04	33.78	100	15.16	33.51	24.81	315	0.36
77	16.93	33.62	150	11.41	33.55	25.59	240	0.50
88	16.10	33.55	200	10.40	34.06	26.17	185	0.61
96	15.44	33.52	250	9.50	34.25	26.47	157	0.70
121	13.54	33.51	300	8.97	34.33	26.62	143	0.78
149	11.44	33.55	400	8.03	34.36	26.79	127	0.92
198	10.44	34.05	500	6.93	34.38	26.96	110	1.04
254	9.44	34.26	600	6.03	34.42	27.11	96	1.16
355	8.51	34.36	700	5.40	34.42	27.19	89	1.26
470	7.12	34.36	800	5.00	34.43	27.25	83	1.35
591	6.04	34.42	1000	4.24	34.47	27.36	73	1.53
			1200	3.67	34.52	27.46	63	1.68
			1500	2.90	34.56	27.57	53	1.89
506	6.88	34.39						
609	6.03	34.42						
707	5.38	34.42						
811	4.95	34.43						
910	4.52	34.47						
1014	4.19	34.47						
1114	3.88	34.52						
1218	3.62	34.52						
1317	3.32	34.53						
1422	3.08	34.55						
1532	2.86	34.58						

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
CCOFI
5404

SPENCER F. BAIRD; May 2, 1954; 0322, 0505 GCT; 21°32'N, 123°00'W; sounding, 2280 fm; wind, 040°, force 3; weather, overcast; sea, rough; wire angle, 16°, 18°.

130.180

0	19.4	33.87	0	19.4	33.87	24.08	384	0.00
11	19.52	33.87	10	19.52	33.87	24.05	387	0.04
30	19.44	33.89	20	19.47	33.88	24.07	385	0.08
39	19.43	33.87	30	19.44	33.89	24.08	384	0.12
48	19.35	33.87	50	19.33	33.88	24.10	382	0.19
58	19.27	33.98	75	19.12	34.08	24.31	362	0.29
68	19.17	34.11	100	18.48	33.72	24.19	374	0.38
78	19.10	34.04	150	14.60	33.64	25.03	294	0.55
88	18.79	33.88	200	11.35	34.19	26.10	192	0.67
97	18.58	33.76	250	9.81	34.34	26.49	155	0.76
121	17.33	33.57	300	9.08	34.39	26.65	140	0.84
149	14.62	33.63	400	7.93	34.43	26.86	120	0.97
195	11.58	34.16	500	6.88	34.43	27.01	106	1.10
251	9.78	34.34	600	6.23	34.43	27.09	98	1.20
351	8.50	34.42	700	5.58	34.44	27.19	89	1.31
466	7.26	34.43	800	5.14	34.48	27.27	81	1.40
589	6.31	34.44	1000	4.40	34.54	27.40	69	1.57

492	6.94	34.42
590	6.29	34.42
686	5.64	34.44
786	5.21	34.48
882	4.76	34.52
983	4.43	34.53
1081	4.12	34.56
1184	3.84	34.56

CREST; April 11, 1954; 0237 GCT; 25°56'N, 113°08.5'W; sounding, 100 fm; wind, 290°, force 4; weather, partly cloudy; sea, moderate; wire angle, 02°.

133.30

0	16.5	33.81	0	16.5	33.81	24.74	321	0.00
10	16.27	33.84	10	16.27	33.84	24.81	315	0.03
15	16.28	33.87	20	15.78	33.86	24.94	302	0.07
20	15.78	33.86	30	15.70	33.84	24.94	302	0.10
25	15.73	33.86	50	13.51	33.86	25.43	256	0.16
31	15.65	33.84	75	12.69	34.00	25.70	230	0.22
36	14.68	33.80	100	12.04	34.28	26.04	198	0.27
41	14.04	-	150	11.7	34.60	26.36	168	0.37
46	13.54	33.96						
51	13.50	33.86						
56	13.41	33.92						
61	13.15	33.96						
72	12.79	33.99						
92	12.12	34.22						
112	11.96	34.37						
132	11.79	34.54						
153	11.7	34.61						

S10

CCOFI
5404

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

133.50

CREST; April 10, 1954; 1427 GCT; 25°14.5'N, 114°24'W; sounding, 1900 fm; wind, 020°, force 4; weather, overcast; sea, rough; wire angle, 13°.

0	17.9	34.02	0	17.9	34.02	24.57	338	0.00
10	17.87	34.06	10	17.87	34.06	24.60	335	0.03
50	17.22	33.96	20	17.83	34.05	24.61	334	0.07
60	15.58	33.86	30	17.81	34.03	24.60	335	0.10
66	14.59	33.80	50	17.22	33.96	24.68	327	0.17
71	13.90	33.72	75	13.64	33.72	25.29	269	0.24
81	13.26	33.73	100	11.90	33.81	25.71	229	0.31
90	12.38	33.78	150	11.12	34.32	26.24	179	0.41
100	11.90	-	200	10.76	34.47	26.44	160	0.50
119	11.40	33.87	250	10.42	34.58	26.57	148	0.58
147	11.15	34.31	300	9.62	34.58	26.71	134	0.65
186	10.85	34.42	400	8.40	34.57	26.90	116	0.78
241	10.52	34.58	500	7.00	34.49	27.04	103	0.90
340	9.09	34.58	600	6.21	34.49	27.15	92	1.00
437	8.00	34.56						
535	6.60	34.47						
635	6.06	34.52						

137.23

CREST; April 9, 1954; 0707, 0720 GCT; 25°34'N, 112°19'W; sounding, 42 fm; wind, 090°, force 2; weather, clear; sea, moderate; wire angle, 00°, 00°.

0	16.30	33.87	0	16.30	33.87	24.83	313	0.00
5	16.32	33.94	10	16.29	33.94	24.89	307	0.03
10	16.29	-	20	15.78	33.91	24.98	299	0.06
			30	15.17	34.02	25.20	278	0.09
15	16.32	33.91	50	13.80	34.25	25.67	233	0.14
20	15.78	33.91						
26	15.56	33.94						
36	14.36	34.14						
46	13.84	34.22						
56	13.76	34.30						

137.40

CREST; April 9, 1954; 1708, 1735 GCT; 25°00'N, 113°23.5'W; sounding, 1868 fm; wind, 310°, force 3; weather, overcast; sea, rough; wire angle, 05°, 00°.

0	16.1	33.64	0	16.1	33.64	24.70	325	0.00
10	15.92	33.64	10	15.92	33.64	24.74	321	0.03
26	15.93	33.64	20	15.91	33.64	24.74	321	0.07
30	15.95	33.70	30	15.95	33.70	24.78	318	0.10
40	15.83	33.71	50	13.64	33.43	25.07	290	0.16
46	14.52	33.46	75	12.69	33.54	25.34	264	0.23
			100	11.92	33.90	25.77	223	0.29
52	13.38	33.43	150	11.15	34.39	26.29	174	0.39
61	12.98	33.42	200	10.66	34.54	26.50	154	0.47
102	11.82	33.93	250	10.02	34.53	26.60	145	0.55
149	11.15	34.38	300	9.44	34.52	26.69	136	0.62
198	10.68	34.54	400	8.09	34.55	26.93	113	0.76
295	9.50	34.52	500	6.80	34.47	27.05	102	0.87
393	8.20	34.55	600	6.12	34.47	27.14	93	0.98
493	6.88	34.47						
595	6.15	34.47						
647	5.82	34.54						

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

SIO
CCOFI
5404

CREST; April 10, 1954; 0406 GCT; 24°19.5'N, 114°39.5'W; sounding, 2020 fm; wind, 330°, force 4; weather, cloudy; sea, rough; wire angle, 13°.

137.60

0	18.6	34.17	0	18.6	34.17	24.51	343	0.00
56	18.38	34.14	10	(18.45)	(34.17)	(24.55)	(340)	(0.03)
65	16.89	33.85	20	(18.41)	(34.17)	(24.56)	(339)	(0.07)
76	15.78	33.77	30	(18.40)	(34.16)	(24.55)	(340)	(0.10)
86	14.32	33.73	50	(18.37)	(34.15)	(24.55)	(340)	(0.17)
96	13.35	33.62	75	16.00	33.77	24.82	314	(0.25)
105	12.60	33.69	100	13.00	33.63	25.35	263	(0.32)
114	11.96	33.71	150	11.26	34.19	26.12	190	(0.44)
124	11.68	33.78	200	10.34	34.31	26.37	166	(0.53)
134	11.40	34.10	250	9.72	34.31	26.48	156	(0.61)
158	11.18	34.22	300	9.18	34.31	26.57	148	(0.69)
196	10.40	34.31	400	8.03	34.46	26.87	119	(0.83)
292	9.25	34.31	500	6.90	34.42	27.00	107	(0.95)
399	8.04	34.46	600	6.10	34.47	27.14	93	(1.06)
518	6.76	34.42						
640	5.86	34.51						

SPENCER F. BAIRD; May 8, 1954; 0120, 0236 GCT; 21°45.5'N, 118°05'W; sounding, 2130 fm; wind, 360°, force 1; weather, overcast; sea, moderate; wire angle, 10°, 10°.

140.120

0	20.7	34.47	0	20.7	34.47	24.19	374	0.00
10	20.72	34.48	10	20.72	34.48	24.19	374	0.04
30	20.62	34.47	20	20.68	34.47	24.20	373	0.07
41	20.57	34.48	30	20.62	34.47	24.21	372	0.11
51	20.30	34.39	50	20.35	34.41	24.24	369	0.19
60	18.72	34.06	75	17.72	33.93	24.54	340	0.28
70	18.16	33.98	100	14.18	33.63	25.11	286	0.35
79	17.17	33.89	150	12.07	34.08	25.88	213	0.48
90	15.68	33.75	200	10.60	34.31	26.33	170	0.58
98	14.42	33.63	250	9.90	34.39	26.51	153	0.66
122	12.63	33.78	300	9.20	34.43	26.66	139	0.74
151	12.02	34.09	400	7.99	34.45	26.87	119	0.87
200	10.60	34.31	500	7.03	34.46	27.01	106	0.99
258	9.80	34.40	600	6.26	34.46	27.11	96	1.10
360	8.45	34.45	700	5.66	34.48	27.21	87	1.20
478	7.26	34.47	800	5.09	34.49	27.28	80	1.30
602	6.24	34.47	1000	4.23	34.52	27.40	69	1.46
			1200	3.61	34.55	27.49	61	1.61
510	6.90	34.45	1500	2.92	34.59	27.59	51	1.81
614	6.13	34.46						
714	5.57	34.48						
817	5.00	34.49						
918	4.52	34.50						
1022	4.18	34.52						
1122	3.83	34.53						
1226	3.56	34.56						
1326	3.35	34.58						
1430	3.07	34.59						
1540	2.83	34.59						

S10

CCOFI
5404

140.150

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

SPENCER F. BAIRD; May 9, 1954; 0637, 0835 GCT; 20°41.5'N, 119°56.5'W; sound-
ing, 2140 fm; wind, 030°, force 2; weather, drizzle; sea, moderate; wire angle, 05°,
00°.

0	21.7	34.47	0	21.7	34.47	23.92	400	0.00
15	21.80	34.44	10	21.84	34.45	23.86	406	0.04
35	20.19	34.42	20	21.17	34.43	24.03	389	0.08
45	19.91	34.24	30	20.42	34.43	24.24	369	0.12
54	19.82	34.27	50	19.87	34.25	24.24	369	0.19
64	19.58	34.23	75	19.13	34.22	24.41	353	0.28
74	19.16	34.22	100	18.51	34.16	24.52	342	0.37
84	19.08	34.27	150	12.10	33.55	25.46	253	0.52
93	18.83	34.21	200	10.85	33.87	25.94	207	0.64
103	18.36	34.13	250	9.92	34.27	26.42	162	0.73
127	15.04	33.66	300	9.05	34.34	26.61	144	0.81
157	11.52	33.54	400	8.01	34.38	26.81	125	0.95
206	10.78	34.10	500	6.83	34.37	26.97	110	1.08
267	9.52	34.30	600	6.14	34.40	27.08	99	1.19
370	8.33	34.38	700	5.57	34.44	27.18	90	1.29
492	6.98	34.38	800	5.08	34.48	27.28	80	1.39
616	6.06	34.40	1000	4.21	34.49	27.38	71	1.56
			1200	3.53	34.49	27.45	64	1.71
			1500	2.82	34.57	27.58	52	1.92
519	6.66	34.36						
624	5.99	34.42						
723	5.48	34.45						
826	4.94	34.49						
925	4.44	34.50						
1029	4.12	34.49						
1128	3.77	34.50						
1233	3.48	34.49						
1332	3.24	34.57						
1437	2.98	34.56						
1547	2.76	34.58						

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

S10
CCOFI
5404

SPENCER F. BAIRD; May 10, 1954; 1610, 1753 GCT; 19°50'N, 121°42'W; sounding, 2370 fm; wind, 040°, force 3; weather, overcast; sea, moderate; wire angle, 20°, 20°.

140,180

0	21.3	34.31	0	21.3	34.31	23.91	401	0.00
10	21.47	34.31	10	21.47	34.31	23.86	406	0.04
28	21.04	34.31	20	21.27	34.31	23.92	400	0.08
42	20.46	34.46	30	20.98	34.32	24.00	392	0.12
52	19.93	34.41	50	20.03	34.42	24.33	360	0.20
61	19.62	34.40	75	19.10	34.33	24.50	344	0.28
70	19.35	34.37	100	18.44	34.28	24.63	332	0.37
80	18.87	34.30	150	12.70	33.95	25.66	234	0.51
94	18.55	34.29	200	11.38	34.31	26.19	184	0.62
103	18.39	34.27	250	10.72	34.34	26.33	170	0.71
127	15.62	34.00	300	10.06	34.38	26.48	156	0.80
153	12.54	33.95	400	8.63	34.49	26.80	126	0.94
203	11.32	34.33	500	7.51	34.49	26.97	110	1.07
262	10.56	34.34	600	6.59	34.48	27.09	98	1.18
369	9.07	34.49	700	5.86	34.50	27.20	88	1.28
490	7.61	34.47	800	5.33	34.52	27.28	80	1.39
619	6.50	34.47	1000	4.35	34.56	27.42	67	1.55
			1200	3.66	34.57	27.50	60	1.69
489	7.62	34.51	1500	(2.97)	(34.60)	(27.59)	(51)	(1.88)
587	6.66	34.48						
681	5.96	34.49						
782	5.42	34.52						
877	4.90	34.53						
978	4.46	34.56						
1075	4.07	34.56						
1177	3.74	34.57						
1274	3.48	34.59						
1376	3.22	34.60						
1486	3.00	34.56						

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters	
						Dir	Force			T	S
60.55-H	IV-12	0730	37°44.5'	123°13.5'	275	300°	6	overcast	moderate	11.58	32.59
60.70-H	11	1550	37°18.0'	124°24.5'	2200	310°	6	overcast	moderate	12.40	33.04
60.80-H	11	1152	36°58.0'	125°04.0'	2500	320°	6	sky obscured	rough	12.26	33.04
60.90-H	11	0815	36°44.0'	125°31.5'	2300	310°	6	cloudy	rough	12.49	33.07
63.52-H	13	1930	37°19.0'	122°36.0'	45	310°	5	cloudy	slight	11.30	32.52
67.55-H	14	0120	36°37.5'	122°27.5'	1300	310°	5	fog	slight	12.12	32.68
70.55-H	8	1930	36°03.0'	122°02.0'	550	310°	8	partly cloudy	rough	11.83	32.98
70.60-H	8	2305	35°53.0'	122°23.0'	1500	310°	8	partly cloudy	rough	12.76	33.07
70.70-H	9	0330	35°33.0'	123°06.0'	2100	310°	6	missing	rough	12.60a)	32.99
70.90-H	10	1115	34°53.0'	124°30.0'	2350	310°	6	missing	rough	12.38	32.75
73.50-H	14	1200	35°37.0'	121°18.5'	70	310°	6	fog	moderate	9.56	33.72
73.60-H	14	1637	35°19.0'	121°58.0'	1500	310°	7	cloudy	rough	12.53	33.22
77.50-H	16	0500	35°04.0'	120°52.0'	70	310°	5	clear	moderate	10.65	33.55
77.65-H	14	2115	34°34.0'	121°55.0'	2150	310°	6	partly cloudy	very rough	13.33	33.30
80.51-H	15	0910	34°26.5'	120°32.5'	49	310°	2	clear	slight	11.26	33.48
80.60-H	15	1350	34°10.0'	121°11.5'	1200	310°	2	cloudy	rough	11.96	33.42
80.80-H	15	2225	33°30.0'	122°33.0'	2200	310°	2	partly cloudy	moderate	13.90	33.26

a) Alternate value, 12.77°C.

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

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters	
						Dir	Force			T	S
83.40-H	IV-17	1015	34°14.0'	119°22.0'	19	310°	3	fog	slight	12.50	33.46
83.48-H	17	0335	33°58.5'	119°55.0'	50	310°	6	fog	slight	12.42	33.44
83.55-H	16	2315	33°44.0'	120°24.5'	530	340°	3	cloudy	slight	11.57	33.48
83.70-H	16	1650	33°24.0'	121°23.0'	2050	090°	1	cloudy	slight	12.30	33.30
83.90-H	16	0640	32°33.5'	122°50.0'	2400	290°	3	cloudy	slight	14.34	33.19
85.40-H	8	1130	33°57.5'	119°12.0'	400	340°	4	partly cloudy	slight	12.44	33.48
85.50-H	8	0415	33°37.0'	119°50.5'	170	330°	7	clear	rough	13.69	33.28
85.60-H	7	2125	33°17.0'	120°33.5'	650	310°	7	partly cloudy	rough	13.66	33.31
87.35-H	17	1415	33°50.5'	118°37.0'	230	090°	2	fog	slight	13.34	33.46
87.45-H	17	1943	33°30.5'	119°19.0'	540	340°	5	cloudy	smooth	13.64	33.42
87.55-H	18	0025	33°10.0'	120°00.5'	650	270°	5	cloudy	moderate	13.68	33.30
87.70-H	18	0725	32°36.5'	121°01.5'	-	340°	5	cloudy	moderate	13.49	33.26
87.90-H	18	1730	31°53.0'	122°22.5'	2000+	340°	5	cloudy	slight	14.38	33.12
90.30-H	20	0245	33°24.5'	117°53.5'	350	270°	1	cloudy	smooth	14.20	33.47
90.45-H	19	1925	32°53.5'	118°52.5'	915	310°	3	cloudy	slight	13.82	33.29
90.60-H	19	1115	32°22.0'	119°57.0'	525	310°	4	cloudy	moderate	13.90	33.26
90.80-H	19	0130	31°43.0'	121°16.5'	2050	310°	4	cloudy	slight	14.35	33.39
93.27-E	10	0410	32°56.0'	117°19.0'	50	270°	1	partly cloudy	calm	15.11	33.40
93.35-E	10	1045	32°39.5'	117°51.5'	600	260°	2	partly cloudy	slight	14.44	33.40

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

CCOFI
5404

S10

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters	
						Dir	Force			T	S
93.40-E	IV-10	1430	32°30.0'	118°12.5'	190	310°	2	partly cloudy	slight	14.14	33.40
93.45-E	10	1730	32°22.0'	118°30.0'	850	280°	3	partly cloudy	slight	14.37	33.41
93.55-E	10	1535	31°59.0'	119°14.5'	180	310°	4	partly cloudy	very rough	14.54	33.39
93.60-E	11	0500	31°48.0'	119°35.5'	1800	300°	5	partly cloudy	very rough	14.06	33.35
93.80-E	12	0230	31°02.0'	121°05.0'	2150	260°	5	partly cloudy	very rough	14.65	33.22
97.30-E	13	1700	32°15.5'	117°49.0'	30	calm		cloudy	slight	13.48	33.44
97.32-E	13	1445	32°12.5'	117°15.5'	750	calm		cloudy	smooth	14.94	33.62
97.45-E	13	0630	31°45.0'	118°08.5'	780	290°	1	cloudy	slight	14.84	-
97.50-E	13	0415	31°35.0'	118°29.0'	2150	310°	3	cloudy	moderate	14.80	33.37
97.55-E	13	0130	31°25.0'	118°50.0'	250	310°	4	cloudy	moderate	14.92a)	33.40
97.70-E	12	1615	30°56.0'	119°48.5'	1800	290°	4	cloudy	moderate	14.77	33.35
97.90-E	12	0415	30°15.0'	121°10.0'	1950	250°	5	missing	very rough	15.16	33.24
100.30-E	15	0330	31°40.5'	116°46.5'	183	180°	1	cloudy	slight	14.50	33.42
100.35-E	15	0625	31°31.0'	117°06.5'	650	180°	1	cloudy	smooth	15.14	33.41
100.40-E	15	0915	31°19.5'	117°26.0'	1100	180°	1	cloudy	slight	15.10	33.40
100.45-E	15	1200	31°09.0'	117°45.0'	700	180°	1	cloudy	slight	14.92	33.42

a) Alternate value, 15.05°C.

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

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters	
						Dir	Force			T	S
100.55-E	IV-15	2000	30°49.0'	118°22.0'	1310	180°	1	cloudy	smooth	14.69a)	33.13
100.60-E	15	2245	30°38.5'	118°42.0'	1200	220°	1	cloudy	smooth	14.19	33.18
100.80-E	16	1100	30°04.0'	120°03.5'	2010	calm		cloudy	slight	14.60	33.15
100.100-E	16	2345	29°28.0'	121°22.5'	2000	360°	1	partly cloudy	rough	16.40	33.27
103.35-E	19	2215	30°55.0'	116°45.0'	900	310°	2	cloudy	slight	15.18	-
103.45-E	20	0430	30°35.5'	117°25.0'	1200	270°	2	cloudy	moderate	15.18	-
103.50-E	20	0730	30°25.5'	117°45.0'	1000	270°	2	cloudy	moderate	14.92	-
103.55-E	20	1020	30°15.5'	118°05.0'	1400	270°	2	cloudy	moderate	15.14	-
103.70-E	17	1910	29°44.0'	119°03.0'	1750	240°	4	cloudy	rough	15.22	33.21
103.90-E	17	0620	29°07.5'	120°25.0'	2000	310°	1	cloudy	rough	15.72	33.31
107.32-E	19	2245	30°22.0'	116°11.5'	85	310°	2	cloudy	moderate	13.20	35.55
107.40-E	19	0625	30°07.0'	116°45.0'	400	310°	4	cloudy	rough	15.36	33.21
107.45-E	19	0330	29°59.0'	117°04.5'	780	310°	5	cloudy	rough	15.36	33.27
107.55-E	18	2030	29°43.5'	117°42.5'	1700	310°	4	cloudy	rough	15.45b)	33.31
107.60-E	18	1700	29°32.5'	118°02.5'	1850	270°	4	cloudy	rough	15.34	33.29
107.80-E	18	0010	28°52.0'	119°20.0'	2100	020°	3	cloudy	rough	15.62	33.26
110.35-H	28	1430	29°46.0'	116°00.0'	600	310°	4	partly cloudy	smooth	15.09	33.39

a) Alternate value, 14.96°C.
b) Alternate value, 14.94°C.

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

SIO
CCOFI
5404

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters	
						Dir	Force			T	S
110.45-H	IV-28	2030	29°22.5'	116°33.5'	540	310°	3	partly cloudy	slight	15.80	33.24
110.50-H	28	2310	29°16.5'	117°00.0'	2000	310°	4	partly cloudy	slight	16.36	33.34
110.55-H	29	0130	29°07.5'	117°25.5'	2000	310°	6	partly cloudy	slight	16.07	33.30
110.70-H	29	0810	28°36.0'	118°18.0'	1950	310°	5	missing	slight	16.88	33.40
110.90-H	29	1710	27°54.5'	119°27.0'	2215	310°	5	cloudy	moderate	16.00	33.24
113.30-H	30	2345	29°24.5'	115°19.0'	30	310°	4	partly cloudy	slight	15.68	33.53
113.32 ⁵ -H	30	2235	29°19.0'	115°29.5'	60	310°	4	partly cloudy	slight	15.88	33.43
113.37 ⁵ -H	30	1740	29°08.5'	115°51.5'	990	310°	4	cloudy	moderate	15.31	33.33
113.40-H	30	1620	29°04.0'	116°01.5'	990	310°	5	cloudy	moderate	15.41	33.21
113.42 ⁵ -H	30	1505	28°59.5'	116°11.0'	400	310°	5	cloudy	moderate	15.58	33.24
113.45-H	30	1400	28°56.5'	116°17.5'	750	310°	5	cloudy	moderate	15.69	33.26
113.47 ⁵ -H	30	1145	28°51.5'	116°27.0'	1800	300°	5	missing	moderate	15.73	33.27
113.55-H	30	0810	28°34.0'	116°56.5'	1900	310°	5	missing	moderate	16.70	33.39
113.60-H	30	0550	28°23.0'	117°17.0'	2015	310°	5	missing	moderate	16.87	33.40
117.26-C	16	1200	28°55.5'	114°42.0'	44	300°	3	missing	missing	14.30	33.39
117.28-C	16	1315	28°52.0'	114°48.5'	50	310°	4	fog	slight	14.30	33.51
117.32 ⁵ -C	16	1700	28°42.0'	115°05.0'	74	310°	3	fog	slight	14.92	33.46
117.35-C	16	1845	28°36.5'	115°15.0'	90	320°	3	fog	slight	14.90	33.44
117.37 ⁵ -C	16	2045	28°32.0'	115°25.5'	145	320°	4	fog	slight	14.29	33.31

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

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters	
						Dir	Force			T	S
117.42 ⁵ -C	IV-17	0115	28°24.0'	115°46.5'	1120	340°	3	partly cloudy	slight	15.52	33.32
117.45-C	17	0230	28°19.0'	115°56.0'	2000	340°	4	fog	moderate	15.88	33.36
117.47 ⁵ -C	17	0415	28°14.0'	116°06.0'	2450	330°	4	fog	moderate	15.88	33.37
117.50-C	17	0605	28°08.5'	116°15.5'	2150	340°	4	fog	moderate	15.90	33.42
117.55-C	17	0910	27°57.0'	116°35.0'	1900	330°	4	fog	moderate	15.92	33.28
117.70-C	17	1800	27°24.5'	117°32.0'	2100	320°	4	partly cloudy	moderate	17.08	33.85
120.27 ⁵ -C	16	0510	28°15.0'	114°24.0'	48	320°	4	clear	slight	15.28	33.49
120.30-C	16	0055	28°13.0'	114°34.0'	55	330°	4	clear	slight	14.14	33.53
120.32 ⁵ -C	15	0915	28°08.0'	114°44.5'	50	340°	2	clear	slight	15.27	33.47
120.37 ⁵ -C	15	2200	27°58.5'	115°03.5'	32	350°	1	partly cloudy	slight	14.76	33.49
120.40-C	15	2015	27°58.0'	115°16.5'	-	-	-	partly cloudy	slight	14.97	33.50
120.42 ⁵ -C	15	1830	27°47.0'	115°23.5'	1550	130°	1	sky obscured	smooth	14.42	33.56
120.45-C	15	1627	27°39.0'	115°30.0'	150	030°	2	sky obscured	smooth	14.03	33.46
120.47 ⁵ -C	15	1340	27°35.0'	115°40.0'	2000	360°	2	sky obscured	smooth	14.66	33.46
120.55-C	15	0805	27°22.0'	116°11.0'	2000	330°	1	cloudy	slight	15.66	33.31
120.60-C	15	0500	27°13.0'	116°32.0'	2000	340°	2	missing	slight	16.23	33.30
123.37-C	14	0120	27°24.0'	114°40.0'	39	310°	4	missing	slight	12.52	33.58
123.42 ⁵ -C	14	0530	27°13.0'	115°01.0'	1150	320°	3	missing	slight	15.06	33.53
123.45-C	14	0730	27°08.0'	115°10.5'	2200	320°	2	missing	smooth	14.68	33.46

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

CCOFI
5404

S10

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters	
						Dir	Force			T	S
123.47 ⁵ -C	IV-14	0935	27°03.5'	115°20.0'	2000	300°	2	missing	smooth	14.83	33.35
123.50-C	14	1110	26°58.0'	115°30.5'	2000	310°	2	sky obscured	smooth	14.88	33.28
123.55-C	14	1352	26°48.0'	115°46.0'	1950	320°	2	sky obscured	smooth	15.42	33.24
127.37-C	13	0325	26°49.5'	114°17.5'	1150	320°	6	cloudy	moderate	14.84	33.33
127.40-C	13	0135	26°44.5'	114°28.0'	1800	330°	5	overcast	moderate	15.12	33.48
127.42 ⁵ -C	12	2345	26°39.0'	114°39.5'	2000	330°	5	overcast	moderate	14.94	33.41
127.45-C	12	2210	26°34.0'	114°49.0'	1950	320°	5	cloudy	moderate	14.52	-
127.47 ⁵ -C	12	1925	26°23.0'	115°00.0'	2100	340°	5	cloudy	moderate	15.65	33.36
127.55-C	12	1400	26°13.5'	115°27.0'	2000	330°	5	overcast	very rough	15.82	33.22
127.60-C	12	1050	26°04.0'	115°46.0'	2000	350°	6	missing	very rough	15.54	33.38
130.35-C	11	1355	26°19.0'	113°48.5'	290	330°	4	cloudy	moderate	14.92	33.32
130.45-C	11	2030	25°54.5'	114°27.5'	2000	330°	4	cloudy	moderate	15.09	33.33
130.50-C	11	2315	25°48.5'	114°46.5'	1950	330°	4	partly cloudy	rough	15.36	33.33
130.55-C	12	0205	25°37.0'	115°08.0'	2050	340°	5	partly cloudy	rough	18.00	34.23
133.25-C	11	0540	26°06.0'	112°50.5'	46	300°	2	partly cloudy	smooth	14.48	33.43
133.35-C	10	2315	25°46.0'	113°27.5'	500	270°	2	partly cloudy	smooth	14.91	33.48
133.40-C	10	2015	25°35.5'	113°46.0'	2200	090°	2	sky obscured	slight	15.96	-
133.45-C	10	1735	25°25.0'	114°05.0'	1900	010°	3	sky obscured	slight	17.28	33.96
133.60-C	10	0915	24°54.0'	115°02.0'	2150	340°	4	overcast	slight	18.39	34.14

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

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters	
						Dir	Force			T	S
137.30-C	IV-9	1045	25°20.0'	112°45.5'	42	090°	2	clear	slight	16.33	33.93
137.35-C	9	1345	25°10.0'	113°04.5'	1788	300°	3	overcast	moderate	16.65	33.82
137.45-C	9	2045	24°48.0'	113°42.5'	1880	120°	2	sky obscured	moderate	17.54	34.04
137.50-C	10	0550	24°37.5'	114°02.0'	2150	040°	2	sky obscured	moderate	17.24	33.96

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

SIO
CCOFI
5404

DISTRIBUTION LIST

Dr. E. H. Ahlstrom
U. S. Bureau of Commercial Fisheries
c/o Scripps Institution of Oceanography
La Jolla, California

Mr. William Anderson
U. S. Bureau of Commercial Fisheries
Brunswick, Georgia

Dr. Leo D. Berner
University of California
Scripps Institution of Oceanography
La Jolla, California

Dr. Edward Brinton
University of California
Scripps Institution of Oceanography
La Jolla, California

Dr. Wayne V. Burt
Assoc. Prof. of Oceanography
School of Science
Oregon State College
Corvallis, Oregon

Librarian (4)
Department of Fish and Game
California State Fisheries Laboratory
Terminal Island, California

Chief, Division of Fisheries
Commonwealth Scientific and Industrial
Research Organization
P. O. Box 21
Crunulla, N. S. W., Australia

Mr. R. S. Croker, Director
California Department of Fish and Game
Marine Fisheries Laboratory Branch
772 Capitol Avenue
Sacramento 14, California

Dr. Ernest R. Anderson
Code 2233
U. S. Navy Electronics Laboratory
San Diego 52, California

Mr. Thomas S. Austin
Pacific Oceanic Fishery Investigations
U. S. Bureau of Commercial Fisheries
P. O. Box 3830
Honolulu 12, T. H.

Dr. Rolf Bolin
Hopkins Marine Station
Pacific Grove, California

British Joint Services
(Navy Staff)
1910 K Street N. W.
Washington, D. C.

Mr. J. G. Burnette, Chairman
Marine Research Committee
P. O. Box 807
Los Altos, California

Mr. Ray Cannon
Ocean Fish Protective Association
645 N. Serrano Street
Los Angeles 4, California

Mr. Harold B. Clemens, Jr.
Marine Resources Operations
California State Fisheries Laboratory
Terminal Island, California

Herrn Professor Dr. A. Defant
Sternwartestrasse 38
Innsbruck
Austria

Director of Research
Fish Commission of Oregon
Route 1, Box 31A
Clackamas, Oregon

Mr. Jeffery D. Frautschy
University of California
Scripps Institution of Oceanography
La Jolla, California

Mr. Seth Gordon, Director
California Department of Fish and Game
926 J Street
Sacramento 14, California

Mr. John Hawk
c/o Seafarers' International Union
of North America
450 Harrison Street
San Francisco 5, California

Mr. T. Hirano
Tokai Regional Fisheries Research
Laboratory
Tsukishima
Tokyo, Japan

Mr. John D. Isaacs
Program Director, Marine Life Research
University of California
Scripps Institution of Oceanography
La Jolla, California

Japan Meteorological Agency
Oceanographical Section
Tokyo, Japan

Dr. H. Kitamura
Oceanographic Section
Kobe Marine Observatory
Kobe, Japan

Dr. Richard H. Fleming
University of Washington
Oceanographic Laboratories
Seattle 5, Washington

Dr. Paul M. Fye
Woods Hole Oceanographic Institution
Woods Hole, Massachusetts

Hancock Library of Biology and
Oceanography
Allan Hancock Foundation
University of Southern California
Los Angeles 7, California

Dr. Robert W. Hiatt
University of Hawaii
Honolulu, T. H.

Director
Instituto de Geofísica
Torre de Ciencias, 3er piso
Universidad Nacional Autónoma de
México
Villa Obregon, D. F.
Mexico

Mr. Milton C. James
Pacific Marine Fishery Commission
340 State Office Building
1400 S. W. Fifth Avenue
Portland 1, Oregon

Dr. Martin W. Johnson
University of California
Scripps Institution of Oceanography
La Jolla, California

Mr. Hans T. Klein
University of California
Scripps Institution of Oceanography
La Jolla, California

Dr. E. Koto
Institute of Fisheries
Hokkaido University
Hakodate, Japan

Mr. Joseph Mardesich
Franco-Italian Packing Company
Fish Harbor Wharf
Terminal Island, California

Dr. J. L. McHugh
Virginia Fisheries Laboratory
Gloucester Point, Virginia

Mr. Arthur H. Mendonca
c/o R. E. Booth Company, Inc.
280 Battery Street
San Francisco 11, California

Mr. John V. Morris
French Sardine Company
582 Tuna Street
Terminal Island, California

Dr. A. W. H. Needler, Director
Pacific Biological Station
Nanaimo, B. C.
Canada

Director
Norwegian Polar Institute
Observatorieggt 1
Oslo, Norway

Dr. Yngve H. Olsen
Journal of Marine Research
Yale University
New Haven, Connecticut

Librarian
Pacific Oceanic Fishery Investigations
P. O. Box 3830
Honolulu 12, T. H.

Dr. E. C. LaFond
Code 2235
U. S. Navy Electronics Laboratory
San Diego 52, California

Mr. J. C. Marr
U. S. Bureau of Commercial Fisheries
c/o Scripps Institution of Oceanography
La Jolla, California

Dr. H. J. McLellan
Atlantic Oceanographic Group
St. Andrews, New Brunswick
Canada

Dr. R. C. Miller, Director
California Academy of Science
Golden Gate Park
San Francisco 18, California

National Marine Consultants, Inc.
Administration Airport
Goleta, California
Attn: Dr. R. Kent

Mr. Kenneth S. Norris, Curator
Marineland of the Pacific
Portuguese Bend
Marineland, California

Pusan Fisheries College
Pusan
Korea

Chief of Naval Research
Office of Naval Research
Geophysics Branch
Washington 25, D. C.

Dr. E. L. Pickard
Institute of Oceanography
University of British Columbia
Vancouver, B. C.
Canada

Mr. Don Powell
U. S. Bureau of Commercial Fisheries
2725 Montlake Boulevard
Seattle 2, Washington

Mr. John Radovich
California Department of Fish and Game
California State Fisheries Laboratory
Terminal Island, California

Dr. Roger Revelle
University of California
Scripps Institution of Oceanography
La Jolla, California

Dr. Gordon A. Riley
Bingham Oceanographic Foundation
Yale University
New Haven, Connecticut

Mr. Gunnar I. Roden
University of California
Scripps Institution of Oceanography
La Jolla, California

Dr. M. B. Schaefer
Inter-American Tropical Tuna
Commission
c/o Scripps Institution of Oceanography
La Jolla, California

Dr. O. E. Sette, Chief
Ocean Research
U. S. Bureau of Commercial Fisheries
450-B Jordan Hall
Stanford, California

Mr. W. E. Stewart
c/o California State Chamber of
Commerce
350 Bush Street
San Francisco 4, California

Dr. D. W. Pritchard, Director
Chesapeake Bay Institute
The Johns Hopkins University
121 Maryland Hall
Baltimore 18, Maryland

Mr. Joseph L. Reid, Jr.
University of California
Scripps Institution of Oceanography
La Jolla, California

Mrs. Margaret K. Riedel
University of California
Scripps Institution of Oceanography
La Jolla, California

Mrs. Margaret K. Robinson
University of California
Scripps Institution of Oceanography
La Jolla, California

Mr. Don T. Saxby
California Division
California Packing Corporation
2600 Seventh Street
Berkeley 10, California

Mr. Richard A. Schwartzlose
University of California
Scripps Institution of Oceanography
La Jolla, California

Mr. D. Shoji
Japanese Hydrographic Office
Tsukiji
Tokyo, Japan

Miss Margaret Storey, Librarian
Natural History Museum
Stanford, California

Dr. Y. Takenouti
Oceanographical Section
Japanese Meteorological Agency
Chuo-ku
Tokyo, Japan

Department of Oceanography
Texas A. and M. College
College Station, Texas

Dr. M. Uda
Tokyo University of Fisheries
Minato-ku
Tokyo, Japan

Library (2)
U. S. Navy Electronics Laboratory
San Diego, 52, California

Library (4)
University of California
Scripps Institution of Oceanography
La Jolla, California

University of California
Serials Department
General Library
Berkeley 4, California

Librarian
University of Washington
Oceanographic Laboratories
Friday Harbor, Washington

Director
University of Washington
School of Fisheries
Seattle 4, Washington

Chief
Division of Biological Research
Bureau of Commercial Fisheries
U. S. Fish and Wildlife Service
Washington 25, D. C.

Dr. John P. Tully
Pacific Oceanographic Group
P. O. Drawer 6
Nanaimo, B. C.
Canada

U. S. Hydrographic Office
Navy Department
Washington 25, D. C.
Attn: Dr. John Lyman

University of California
Department of Zoology
Berkeley 4, California

Library
University of California
Scripps Institution of Oceanography
Scripps Field Annex
La Jolla, California

Director
University of Miami
Marine Laboratory
Coral Gables, Florida

Librarian (2)
University of Washington
Oceanographic Laboratories
Seattle 5, Washington

Mr. Gilbert C. Van Camp, Sr.
772 Tuna Street
Terminal Island, California

Mr. Richard C. Vetter
Secretary to the Committee
on Oceanography
National Academy of Sciences
2101 Constitution Avenue
Washington 25, D. C.

Dr. Boyd W. Walker
University of California
Department of Zoology
Los Angeles 24, California

Mr. John G. Wyllie (20)
University of California
Scripps Institution of Oceanography
La Jolla, California

Dr. Lionel A. Walford, Chief
Atlantic Fishery Oceanographic
Research Center
U. S. Bureau of Commercial Fisheries
734 Jackson Place, N. W.
Washington 25, D. C.

Dr. Warren S. Wooster
University of California
Scripps Institution of Oceanography
La Jolla, California

Dr. Kozo Yoshida
Geophysical Institute
Tokyo University
Bunkyo-ku
Tokyo, Japan