

UNIVERSITY OF CALIFORNIA SCRIPPS INSTITUTION OF OCEANOGRAPHY

Cover Copy :
STATION POSITIONS HS

data report

PHYSICAL AND CHEMICAL DATA

CCOFI CRUISE 5309
(MLR 52)
9-19 September 1953

CCOFI CRUISE 5310
(MLR 53)
7-24 October 1953

CCOFI CRUISE 5311
(MLR 54)
9-14 November 1953

CCOFI CRUISE 5312
(MLR 55)
1-13 December 1953

SIO Reference 58-44
1 August 1958

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CCOFI CRUISE 5312
(MLR 55)

1-13 December 1953

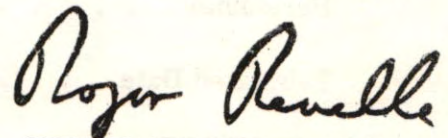
Sponsored by

Marine Research Committee

SIO Reference 58-44

1 August 1958

Approved for distribution:



Roger Revelle, Director

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INTRODUCTION

The data in this report were collected on the fifty-second, the fifty-third, the fifty-fourth and the fifty-fifth cruises of the California Cooperative Oceanic Fisheries Investigations program. The R/V Yellowfin of the California Department of Fish and Game and the R/V Crest, the R/V Horizon and the R/V Paolina-T of the Scripps Institution of Oceanography participated in the fifty-second cruise. The R/V Crest and the R/V Paolina-T participated in the fifty-third cruise. The R/V Paolina-T participated in the fifty-fourth cruise. The R/V Crest and the R/V Paolina-T participated in the fifty-fifth 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. A line is left blank between the observed data of each cast.

FOOTNOTES

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

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

p: pretrip or posttrip.

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

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

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

FORMAT

These data are typed in the format of the University of California Press publication, "Oceanic Observations of the Pacific." So that these pages can be used as copy for the 1953 volume, the first page of the Cruise 5309 data is numbered 344; Cruise 5310, 353; Cruise 5311, 375; Cruise 5312, 379.

FIGURES

1. CCOFI Cruise 5310 (MLR 53), station positions
2. Horizontal distribution of dynamic height anomaly (0 over 500 d-bar)
3. Surface currents measured by geomagnetic electrokinetograph (GEK)
4. Horizontal distribution of temperature at 10 meters
5. Horizontal distribution of salinity at 10 meters
6. Horizontal distribution of temperature at 200 meters
7. Horizontal distribution of salinity at 200 meters

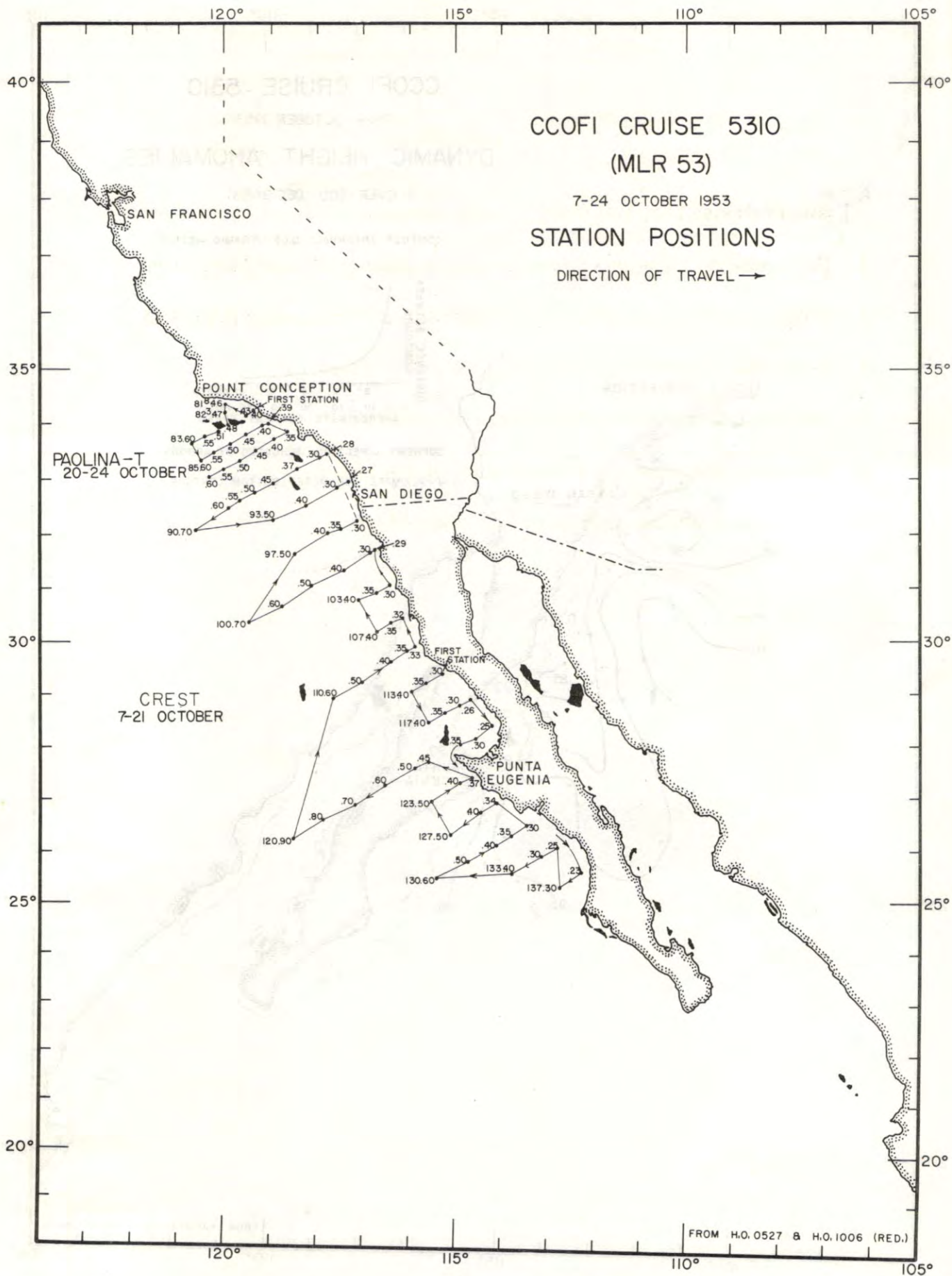


FIGURE 1

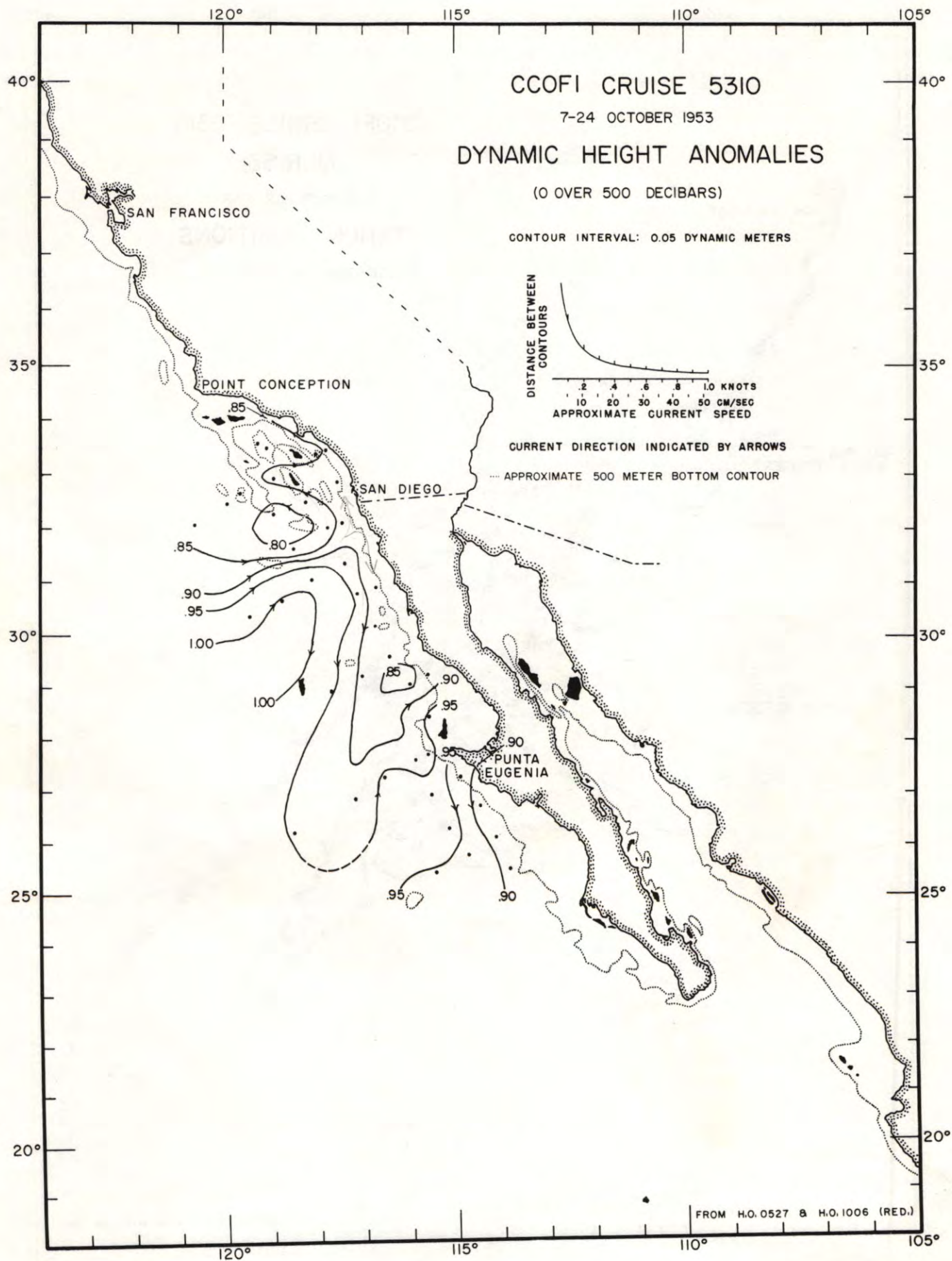


FIGURE 2

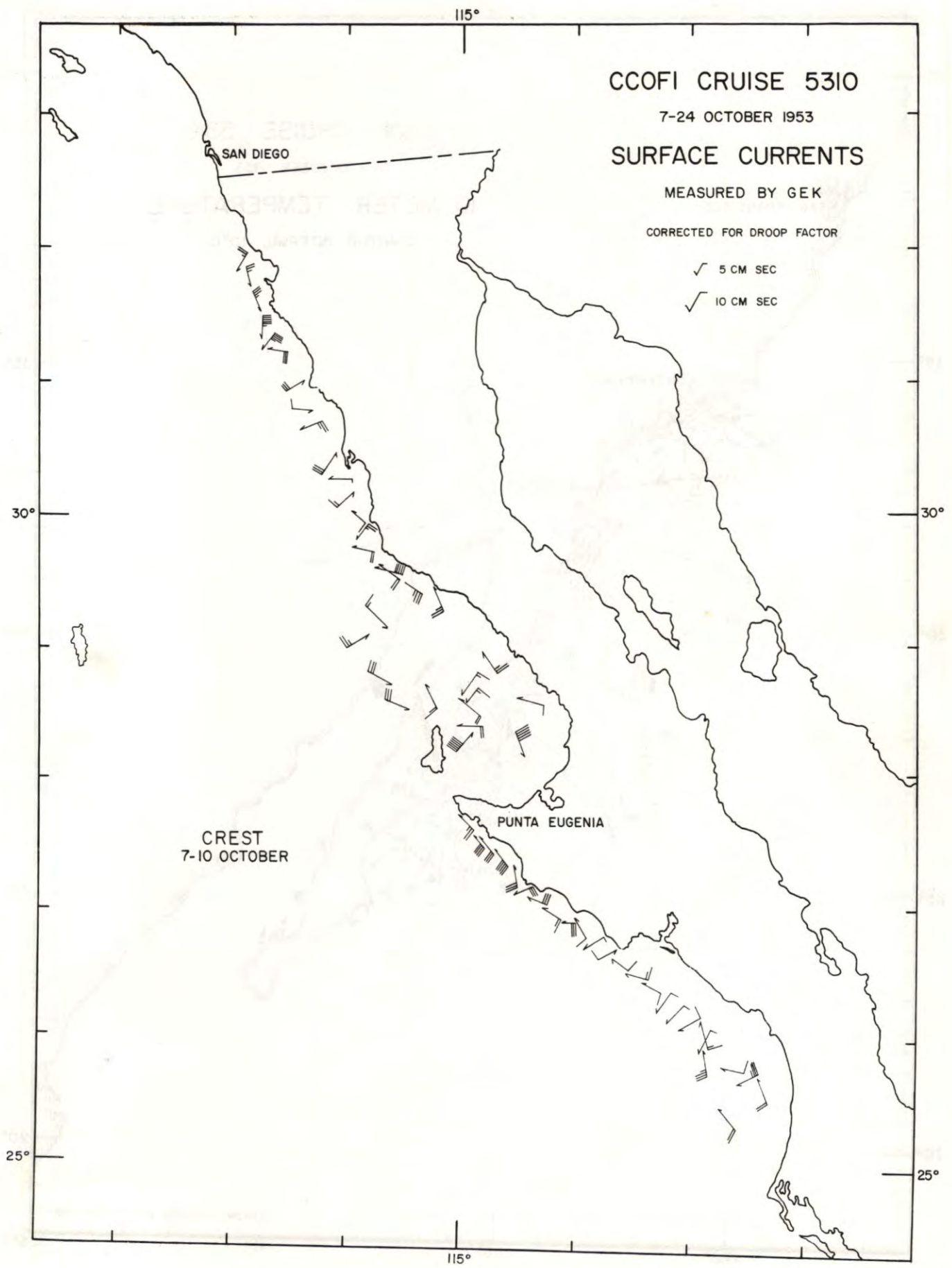


FIGURE 3

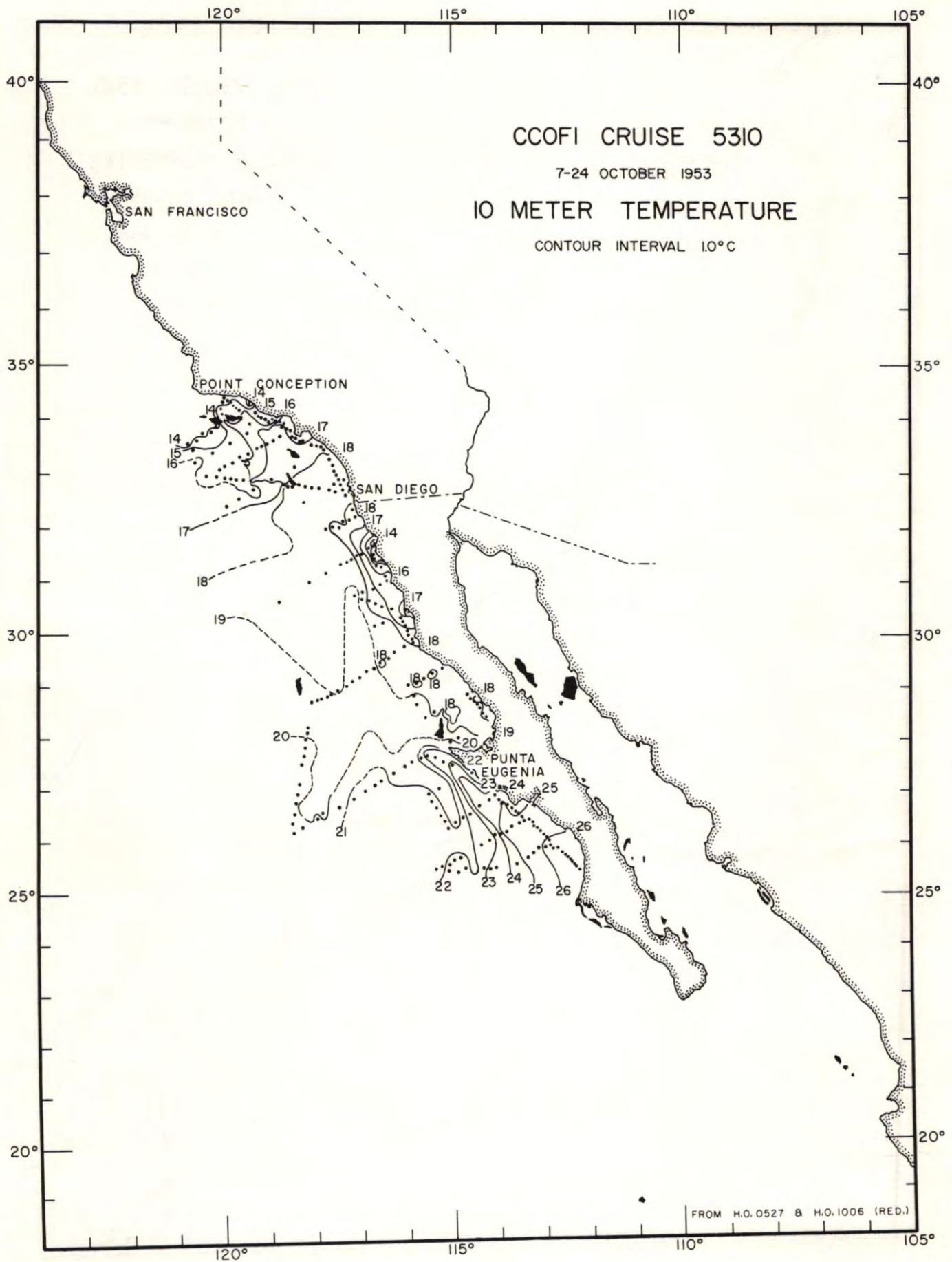


FIGURE 4

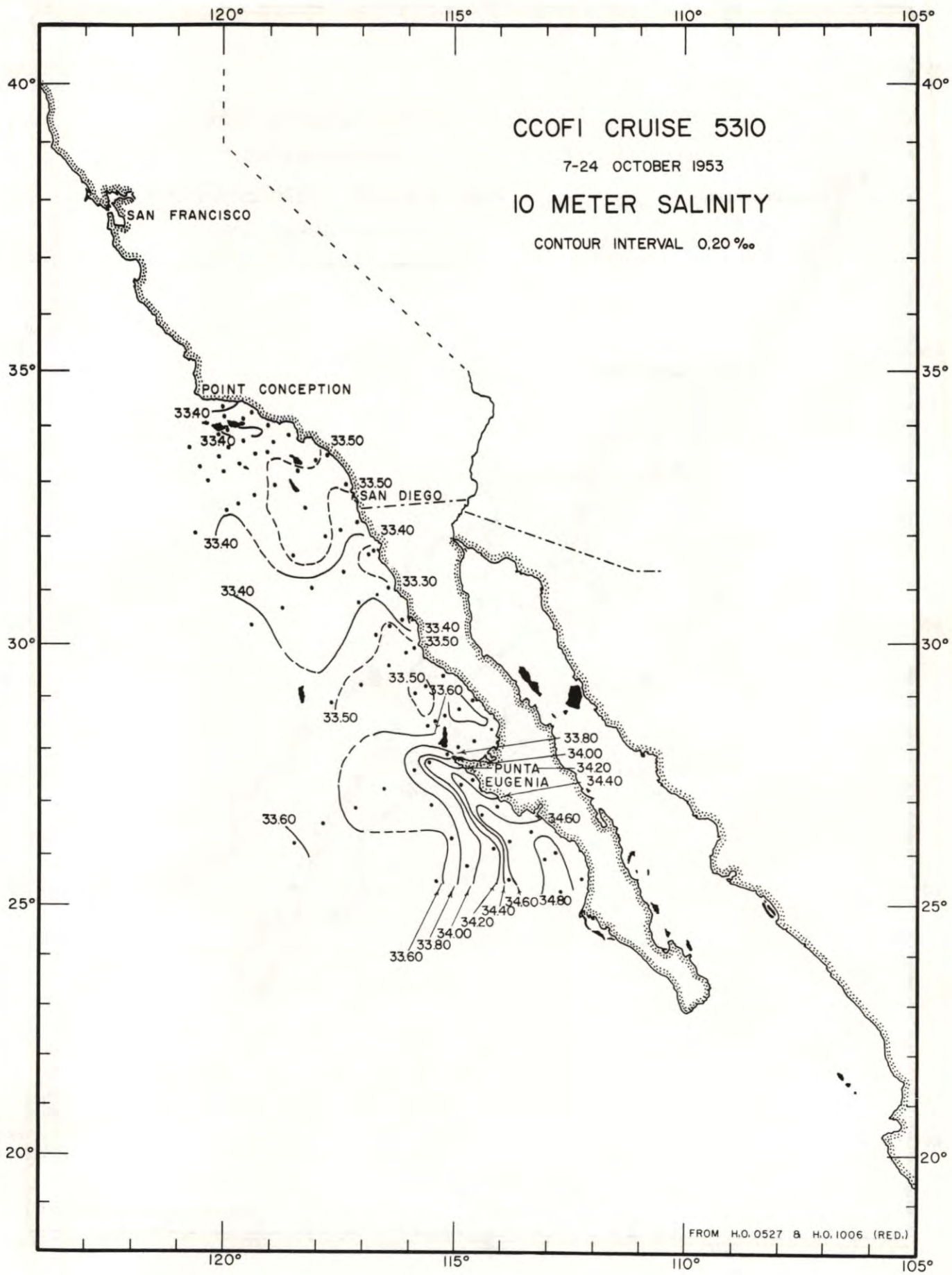


FIGURE 5

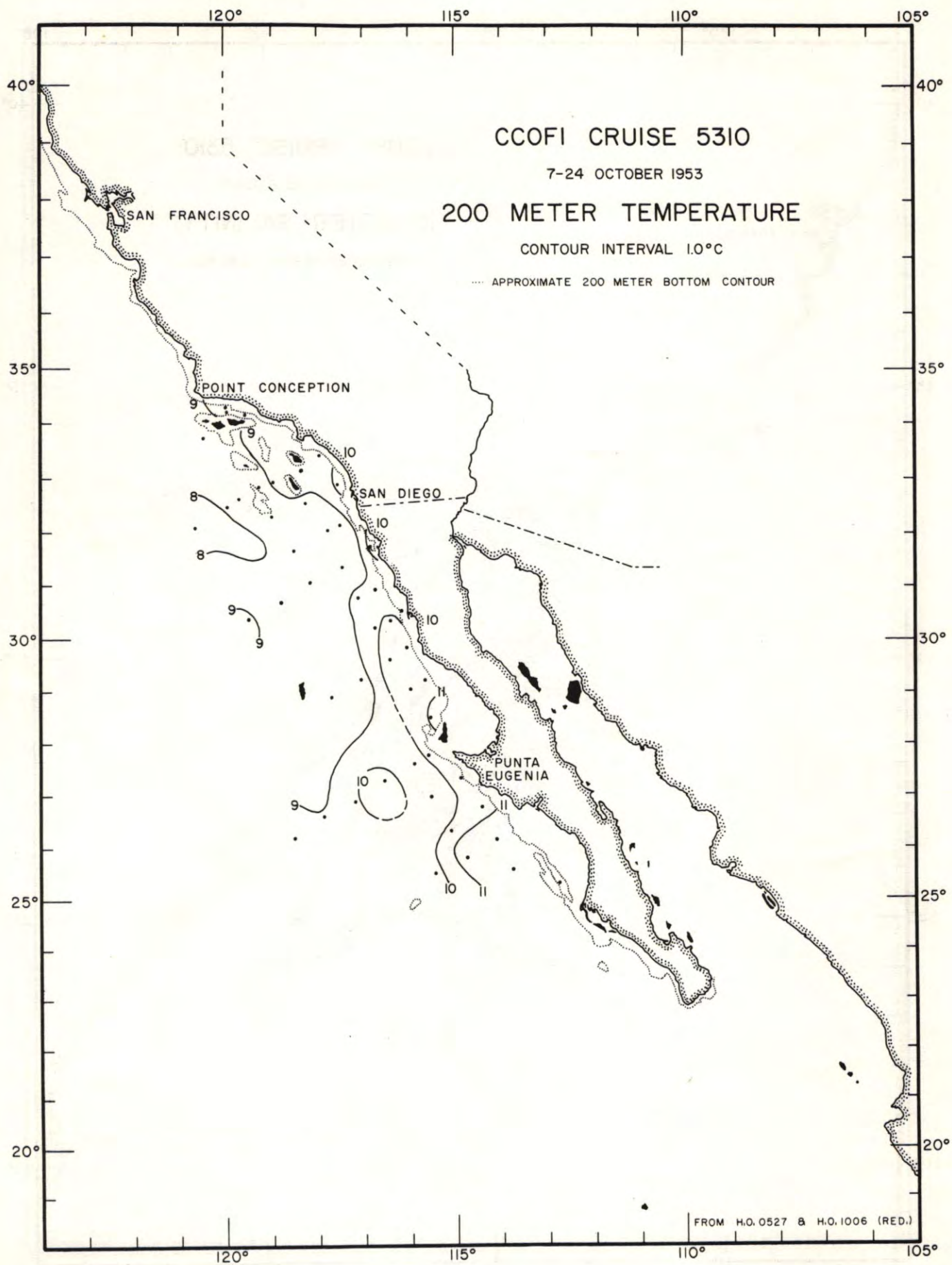


FIGURE 6

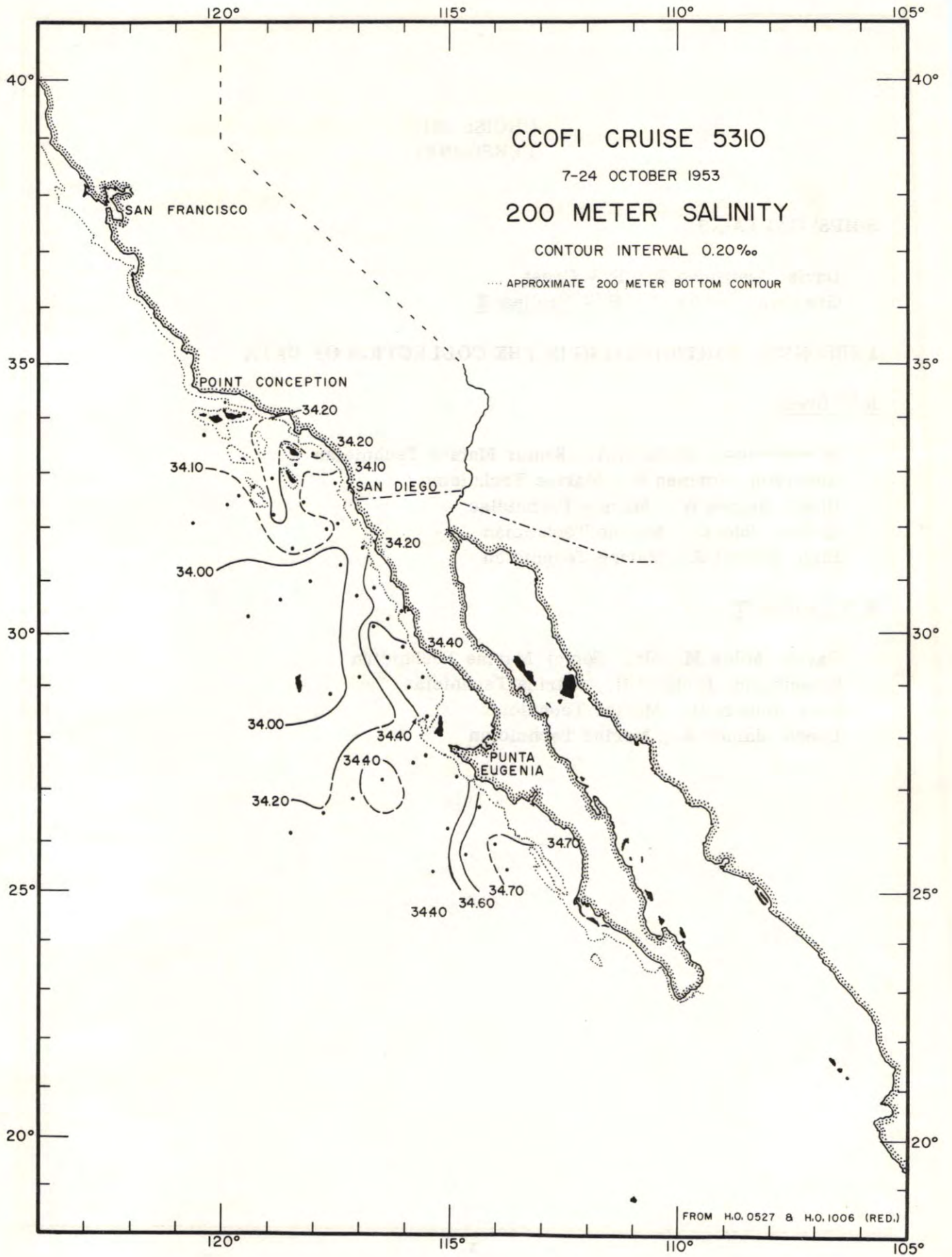


FIGURE 7

CRUISE 5310
PERSONNEL

SHIPS' CAPTAINS

Davis, Laurence E., R/V Crest
Greenway, Glynn C., R/V Paolina-T

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

R/V Crest

Schwartzlose, Richard A., Senior Marine Technician
Anderson, Norman E., Marine Technician
Hinds, James W., Marine Technician
Kivlen, John C., Marine Technician
Linn, Robert J., Marine Technician

R/V Paolina-T

Payne, Miles M., Jr., Senior Marine Technician
Greenbaum, Richard H., Marine Technician
King, Robert D., Marine Technician
Lance, James R., Marine Technician

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

SI
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531

818.46

PAOLINA-T; October 21, 1953; 0632 GCT; 34°18.5'N, 119°58'W; sounding, 290 fm; wind, 310°, force 3; weather, clear; sea, moderate; wire angle, 09°.

0	15.28	33.48		0	15.28	33.48		24.76	320	0.00
10	14.06	33.39		10	14.06	33.39		24.95	301	0.03
25	12.19	33.44		20	12.75	33.41		25.23	275	0.06
49	10.42	33.51		30	11.65	33.46		25.48	251	0.09
73	10.08	33.69		50	10.38	33.52		25.75	225	0.13
99	9.83	33.89		75	10.06	33.72		25.96	205	0.19
150	9.49	34.04		100	9.83	33.90		26.14	188	0.24
198	9.14	34.14		150	9.49	34.04		26.31	172	0.33
				200	(9.11)	(34.15)		(26.46)	(158)	(0.41)

3458

3458

10
COFI
310

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

32³.47 PAOLINA-T; October 21, 1953; 0849 GCT; 34°10.5'N, 119°59.5'W; sounding, 300 fm; wind, 310°, force 2; weather, clear; sea, moderate; wire angle, 13°.

0	14.78	33.45		0	14.78	33.45		24.85	311	0.00
10	14.59	33.49		10	14.59	33.49		24.92	304	0.03
25	10.88	33.48		20	11.75	33.48		25.48	251	0.06
49	10.22	33.57		30	10.65	33.48		25.68	232	0.08
73	9.82	33.78		50	10.20	33.58		25.83	218	0.13
97	9.60	33.83		75	9.82	33.79		26.06	196	0.18
148	9.51	34.05		100	9.59	33.84		26.14	188	0.23
194	9.14	34.14		150	9.50	34.05		26.31	172	0.32
287	8.24	34.24		200	9.06	34.15		26.46	158	0.40
339	7.85	34.22		250	8.56	34.21		26.59	146	0.48
386	7.45	34.24		300	8.15	34.24		26.68	137	0.56
481	6.74	34.29		400	7.34	34.25		26.80	126	0.69
				500	(6.64)	(34.30)		(26.94)	(112)	(0.82)

83.40 PAOLINA-T; October 20, 1953; 2046 GCT; 34°14'N, 119°22'W; sounding, 11 fm; wind, 280°, force 1; weather, clear; sea, rough; wire angle, 01°.

0	13.74	33.39		0	13.74	33.39		25.02	295	0.00
5	12.37	33.34		10	11.73	33.47		25.47	252	0.03
10	11.73	33.47								
15	11.46	33.39								

83.43 PAOLINA-T; October 21, 1953; 0105 GCT; 34°08'N, 119°31.5'W; sounding, 145 fm; wind, 280°, force 2; weather, clear; sea, moderate; wire angle, 04°.

0	16.08	33.45		0	16.08	33.45		24.56	339	0.00
10	15.79	33.47		10	15.79	33.47		24.64	331	0.03
25	15.58	33.44		20	15.62	33.45		24.66	329	0.07
50	11.82	33.44		30	15.55	33.44		24.67	328	0.10
75	10.32	33.66		50	11.82	33.44		25.43	256	0.16
101	9.81	33.92		75	10.32	33.66		25.87	214	0.22
157	9.32	34.14		100	9.84	33.91		26.15	187	0.27
210	8.96	34.16		150	9.37	34.12		26.39	164	0.36
				200	9.03	34.16		26.48	156	0.44

83.48 PAOLINA-T; October 21, 1953; 1139 GCT; 33°58.5'N, 119°55'W; sounding, 113 fm; wind, 310°, force 2; weather, clear; sea, moderate; wire angle, 00°.

0	16.12	33.43		0	16.12	33.43		24.53	341	0.00
10	14.49	33.38		10	14.49	33.38		24.85	311	0.03
20	14.34	33.39		20	14.34	33.39		24.89	307	0.06
30	14.18	33.40		30	14.18	33.40		24.93	303	0.09
50	13.32	33.42		50	13.32	33.42		25.13	284	0.15
75	10.10	33.68		75	10.10	33.68		25.93	208	0.22

83.51 PAOLINA-T; October 21, 1953; 1402 GCT; 33°52'N, 120°08.5'W; sounding, 87 fm; wind, 310°, force 3; weather, clear; sea, moderate; wire angle, 00°.

0	13.74	33.49		0	13.74	33.49		25.10	287	0.00
10	13.38	33.44		10	13.38	33.44		25.13	284	0.03
20	12.54	33.45		20	12.54	33.45		25.30	268	0.06
30	11.90	33.48		30	11.90	33.48		25.45	254	0.08
50	10.70	33.49		50	10.70	33.49		25.67	233	0.13
75	9.95	33.59		75	9.95	33.59		25.88	213	0.19

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

SIC
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53IC

PAOLINA-T; October 21, 1953; 1812 GCT; 33°44'N, 120°24.5'W; sounding, 550 fm; wind, 310°, force 3; weather, clear; sea, very rough; wire angle, 12°.

8355

0	13.93	33.41		0	13.93	33.41		24.99	298	0.00
10	13.84	33.45		10	13.84	33.45		25.04	293	0.03
24	12.94	33.43		20	13.40	33.44		25.13	284	0.06
48	10.11	33.54		30	12.10	33.43		25.37	262	0.09
73	9.48	33.73		50	10.00	33.56		25.85	216	0.13
97	9.42	33.99		75	9.46	33.76		26.09	193	0.18
148	9.11	34.08		100	9.41	34.00		26.29	174	0.23
193	8.86	34.17		150	9.10	34.09		26.41	163	0.32
283	8.40	34.22		200	8.84	34.17		26.51	153	0.40
379	7.38	34.25		250	8.63	34.20		26.57	148	0.47
472	6.52	34.28		300	8.23	34.22		26.65	140	0.55
575	5.80	-		400	7.15	34.26		26.84	122	0.68
				500	6.32	(34.29)		(26.97)	(110)	(0.81)

CREST; October 21, 1953; 0141 GCT; 33°28.5'N, 117°47'W; sounding, 300 fm; wind, 340°, force 3; weather, partly cloudy; sea, moderate; wire angle, 07°.

9028

0	18.68	33.56	5.88	0	18.68	33.56	5.88	24.02	390	0.00
10	18.00	33.57	5.77	10	18.00	33.57	5.77	24.20	373	0.04
25	14.22	33.34	6.81	20	17.67	33.38	6.81	24.13	380	0.08
49	11.67	33.35	5.37	30	13.30	33.34	6.78	25.07	290	0.11
73	10.54	33.45	4.61	50	11.60	33.35	5.33	25.40	259	0.16
97	10.10	33.68	3.38	75	10.52	33.56	4.53	25.76	224	0.22
149	9.52	33.86	3.08	100	10.05	33.69	3.33	25.94	207	0.28
196	9.24	34.16	2.38	150	9.52	33.86	3.05	26.16	186	0.38
242	8.93	34.19	1.88	200	9.22	34.17	2.03	26.45	159	0.47
288	8.48	34.22	1.50	250	8.98	34.19	1.82	26.51	153	0.55
339	7.95	34.29	1.10	300	8.34	34.24	1.40	26.65	140	0.62
385	7.48	34.25	0.90	400	7.31	34.25	0.81	26.81	125	0.76
432	6.94	34.30	0.62	500	(6.02)	(34.34)	(0.40)	(27.05)	(102)	(0.88)
479	6.43	34.33	0.44							

CREST; October 21, 1953; 0321 GCT; 33°24.5'N, 117°54.5'W; sounding, 350 fm; wind, 330°, force 2; weather, partly cloudy; sea, moderate; wire angle, 00°.

9030

0	17.94	-	5.85	0	17.94	(33.49)	5.85	(24.15)	(378)	0.00
10	17.73	33.49	6.03	10	17.73	33.49	6.03	24.20	373	0.04
20	14.04	33.30	6.64	20	14.04	33.30	6.64	24.89	307	0.07
34	12.06	33.32	5.81	30	12.44	33.31	6.10	25.21	277	0.10
48	11.37	33.40	5.12	50	11.25	33.41	5.03	25.51	248	0.15
63	10.70	33.45	4.55	75	10.44	33.72	4.03	25.90	211	0.21
77	10.40	33.73	3.99	100	9.88	33.82	3.26	26.07	195	0.26
97	9.92	34.31r	3.34	150	9.71	34.09	2.24	26.31	172	0.36
120	9.71	33.88	2.90	200	9.41	34.23	1.82	26.47	157	0.44
149	9.69	34.08	2.23	250	8.77	34.21	1.39	26.56	148	0.52
195	9.44	34.23	1.88	300	8.15	34.21	1.14	26.65	140	0.59
240	8.90	34.21	1.48	400	7.21	34.25	0.73	26.82	124	0.73
286	8.28	34.34r	1.20	500	6.29	(34.39)	0.41	(27.06)	101	(0.85)
383	7.37	34.24	0.79	600	(5.54)					
476	6.48	34.36	0.46							
579	5.69	34.46r	0.31							

S10

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5310

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

90.37

CREST; October 21, 1953; 0709 GCT; 33°11'N, 118°24'W; sounding, 650 fm; wind, 260°, force 2; weather, clear; sea, moderate; wire angle, 00°.

0	17.75	33.50	5.98	0	17.75	33.50	5.98	24.21	372	0.00
10	17.72	33.53	5.75	10	17.72	33.53	5.75	24.24	369	0.04
20	14.96	33.42	6.19	20	14.96	33.42	6.19	24.78	318	0.07
35	11.89	33.68	5.68	30	12.65	33.42	6.06	25.26	272	0.10
50	10.70	33.44	4.69	50	10.70	33.44	4.69	25.64	236	0.15
65	10.38	33.58	4.24	75	10.29	33.66	3.30	25.88	213	0.21
79	10.27	33.68	3.16	100	10.15	33.77	2.99	25.99	202	0.26
98	10.16	33.76	3.02	150	10.16	34.06	1.94	26.21	182	0.36
121	10.02	33.87	2.55	200	9.27	34.12	2.04	26.41	163	0.45
148	10.06	34.06	1.93	250	9.00	34.29	1.37	26.58	146	0.53
198	9.31	34.11	2.04	300	8.35	34.32	1.08	26.71	134	0.60
240	9.04	34.27	1.44	400	7.39	34.35	0.70	26.87	119	0.73
285	8.50	34.32	1.15	500	6.46	34.41	0.50	27.05	102	0.85
382	7.56	34.34	0.74							
476	6.67	34.41	0.52							
577	5.88	34.34	0.44							

90.45

CREST; October 21, 1953; 1135, 1210 GCT; 32°55'N, 118°56'W; sounding, 930 fm; wind, 240°, force 2; weather, clear; sea, moderate; wire angle, 08°, 08°.

0	17.28	33.50	5.91	0	17.28	33.50	5.91	24.32	361	0.00
10	17.25	33.51	5.80	10	17.25	33.51	5.80	24.33	360	0.04
25	17.19	33.48	5.78	20	17.21	33.50	5.79	24.33	360	0.07
50	11.66	33.30	5.36	30	17.15	33.44	5.73	24.30	363	0.11
74	10.18	33.53	4.46	50	11.66	33.30	5.36	25.35	263	0.17
98	10.09	33.71	3.24	75	10.16	33.54	4.45	25.81	220	0.23
150	10.12	34.12	1.93	100	10.08	33.74	3.17	25.98	204	0.28
197	9.67	34.26	1.47	150	10.12	34.12	1.93	26.26	177	0.38
244	8.80	34.20	1.49	200	9.53	34.26	1.47	26.47	157	0.47
				250	8.66	34.19	1.50	26.56	148	0.54
239	8.80	-	-	300	7.94	34.18	1.72	26.66	139	0.62
293	8.00	34.18	1.72	400	7.45	34.26	0.78	26.79	127	0.76
386	7.54	34.25	0.85	500	6.46	34.33	0.50	26.99	108	0.88
475	6.64	34.32	0.54	600	5.76	34.39	0.40	27.12	95	0.99
570	5.98	34.37	0.41	700	5.11	34.44	0.40	27.24	84	1.09
757	4.79	34.46	0.39	800	4.59	34.47	0.40	27.32	76	1.18
943	4.16	34.47	0.47	1000	4.04	34.48	0.51	27.39	70	1.34
1087	3.91	34.49	0.58							

90.50

CREST; October 21, 1953; 1515 GCT; 32°45.5'N, 119°20'W; sounding, 305 fm; wind, 300°, force 4; weather, partly cloudy; sea, moderate; wire angle, 09°.

0	16.08	33.44	5.93	0	16.08	33.44	5.93	24.55	340	0.00
10	16.07	33.44	6.00	10	16.07	33.44	6.00	24.55	340	0.03
25	15.96	33.48	5.93	20	16.00	33.47	5.98	24.59	336	0.07
49	11.32	33.35	5.54	30	15.91	33.48	5.90	24.62	333	0.10
75	10.30	33.51	4.39	50	11.20	33.35	5.50	24.48	251	0.16
98	9.36	33.67	3.82	75	10.30	33.51	4.39	25.76	224	0.22
150	9.18	34.00	2.64	100	9.31	33.70	3.78	26.07	195	0.27
195	8.72	34.11	2.20	150	9.18	34.00	2.64	26.33	170	0.36
241	7.98	34.14	1.99	200	8.63	34.12	2.17	26.51	153	0.45
289	7.72	34.20	1.55	250	7.94	34.15	1.92	26.64	141	0.52
339	7.44	34.25	1.27	300	7.65	34.22	1.48	26.73	132	0.59
386	7.12	34.24	0.90							

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O ₂	Z	T	S	O ₂	σ _t	ΔT	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10 ⁵ cm ³ /g	dyn. m

S10
CCOFI
5310

CREST; October 21, 1953; 1846 GCT; 32°36.5'N, 119°37.5'W; sounding, 450 fm; wind, 280°, force 4; weather, clear; sea, very rough; wire angle, 23°.

9055

0	15.64	33.45	5.98	0	15.64	33.45	5.98	24.66	329	0.00
9	15.56	33.48	6.03	10	15.56	33.48	6.03	24.70	325	0.03
19	15.56	33.63r	6.05	20	15.56	33.47	6.05	24.69	326	0.06
32	15.00	33.40	5.49	30	15.15	33.41	5.54	24.73	322	0.10
45	12.82	33.34	5.42	50	12.10	33.31	5.35	25.28	270	0.16
59	11.10	33.30	5.15	75	10.34	33.40	4.85	25.67	233	0.22
71	10.56	33.37	4.91	100	9.38	33.59	4.05	25.98	204	0.28
88	9.67	33.48	4.33	150	8.77	33.84	3.15	26.27	176	0.37
109	9.26	33.64	3.87	200	8.19	34.04	2.43	26.51	153	0.46
133	8.96	33.72	3.43	250	7.82	34.14	1.64	26.65	140	0.53
175	8.37	33.98	2.72	300	7.43	34.19	1.27	26.74	131	0.60
217	8.03	34.08	2.20	400	6.82	34.30	0.66	26.91	115	0.73
259	7.75	34.15	1.55	500	6.14	34.32	0.47	27.02	105	0.84
349	7.06	34.23	0.95							
438	6.62	34.34	0.53							
540	5.82	34.30	0.46							

CREST; October 21, 1953; 2208 GCT; 32°27'N, 119°54'W; sounding, 600 fm; wind, 280°, force 4; weather, clear; sea, very rough; wire angle, 27°.

9060

0	16.60	33.40	6.05	0	16.60	33.40	6.05	24.40	354	0.00
8	16.57	33.40	6.02	10	16.56	33.40	6.02	24.41	353	0.04
17	16.51	33.42	6.04	20	16.48	33.42	6.04	24.44	350	0.07
31	16.18	33.41	6.02	30	16.22	33.42	6.02	24.50	344	0.10
44	12.12	33.19	5.63	50	11.60	33.19	5.48	25.28	270	0.17
56	11.35	33.21	5.37	75	10.51	33.39	4.68	25.63	237	0.23
69	10.78	33.34	4.82	100	9.52	33.56	4.03	25.93	208	0.29
85	10.14	33.43	4.47	150	8.68	33.83	2.96	26.27	176	0.38
105	9.35	33.60	3.88	200	8.05	34.03	2.29	26.53	151	0.47
128	8.93	33.68	3.30	250	7.42	34.11	1.96	26.68	137	0.54
167	8.50	33.94	2.74	300	7.00	34.20	1.27	26.81	125	0.61
203	8.00	34.04	2.27	400	6.32	34.27	0.54	26.96	110	0.73
242	7.50	34.10	2.01	500	5.58	34.28	0.50	27.06	101	0.84
325	6.82	34.24	0.98							
412	6.24	34.27	0.52							
510	5.52	34.28	0.49							

CREST; October 22, 1953; 0407 GCT; 32°02.5'N, 120°37.5'W; sounding, 2000+ fm; wind, 310°, force 5; weather, clear; sea, rough; wire angle, 30°.

9070

0	17.03	33.47	5.80	0	17.03	33.47	5.80	24.35	359	0.00
8	17.00	33.44	5.75	10	17.00	33.44	5.74	24.34	360	0.04
26	17.02	33.46	5.67	20	17.01	33.46	5.70	24.35	359	0.07
52	11.20	33.22	5.11	30	17.00	33.46	5.64	24.35	359	0.11
78	9.56	33.60	3.76	50	11.44	33.23	5.24	25.34	264	0.17
104	8.81	33.73	3.31	75	9.63	33.53	3.82	25.89	212	0.23
156	8.37	33.94	2.62	100	8.92	33.71	3.37	26.14	188	0.28
208	7.73	34.04	2.10	150	8.41	33.92	2.69	26.39	164	0.37
260	7.38	34.12	1.51	200	7.83	34.03	2.17	26.56	148	0.45
312	6.93	34.14	1.17	250	7.43	34.11	1.63	26.68	137	0.52
411	6.31	34.24	0.56	300	7.03	34.14	1.25	26.76	129	0.59
515	5.62	34.22	0.58	400	6.40	34.24	0.60	26.92	114	0.72
615	5.38	34.31	0.42	500	5.70	34.22	0.58	27.00	107	0.84
821	4.54	34.44	0.41	600	5.43	34.29	0.43	27.08	99	0.94
1023	3.86	34.44	0.66	700	5.03	34.39	0.42	27.21	87	1.04
1225	3.31	34.51	0.93	800	4.60	34.44	0.41	27.30	78	1.14
				1000	3.94	34.44	0.63	27.37	72	1.30
				1200	3.38	34.50	0.90	27.47	62	1.45

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

93.27

CREST; October 23, 1953; 0355 GCT; 32°56'N, 117°19'W; sounding, 52 fm; wind, 190°, force 2; weather, partly cloudy; sea, slight; wire angle, 01°.

0	18.40	33.56		0	18.40	33.56		24.09	383	0.00
10	18.40	33.57		10	18.40	33.57		24.10	382	0.04
20	14.16	33.31		20	14.16	33.31		24.87	309	0.07
30	12.59	33.26		30	12.59	33.26		25.15	282	0.10
50	11.30	33.38		50	11.30	33.38		25.48	251	0.16
75	10.50	33.48		75	10.50	33.48		25.70	230	0.22

93.30

CREST; October 23, 1953; 0155 GCT; 32°50'N, 117°31.5'W; sounding, 470 fm; wind, 190°, force 2; weather, partly cloudy; sea, moderate; wire angle, 06°.

0	18.56	33.55		0	18.56	33.55		24.05	387	0.00
10	17.96	33.47		10	17.96	33.47		24.13	380	0.04
20	14.26	33.20		20	14.26	33.20		24.76	320	0.07
35	12.35	33.20		30	12.90	33.20		25.04	293	0.10
50	10.88	33.34		50	10.88	33.34		25.53	246	0.16
64	10.74	33.46		75	10.73	33.57		25.73	227	0.22
78	10.72	33.58		100	10.46	33.75		25.92	209	0.27
97	10.50	33.73		150	10.25	33.90		26.07	195	0.38
118	10.34	33.82		200	10.05	34.09		26.25	178	0.47
146	10.27	33.89		250	9.42	34.20		26.44	160	0.56
193	10.11	34.07		300	8.75	34.27		26.61	144	0.64
238	9.59	34.18		400	7.52	34.30		26.82	124	0.78
285	8.93	34.26		500	6.43	34.35		27.01	106	0.90
384	7.72	34.30		600	(5.83)	(34.43)		(27.14)	(93)	(1.00)
478	6.60	34.34								
581	5.94	34.41								

93.40

CREST; October 22, 1953; 1949, 2049 GCT; 32°30'N, 118°12.5'W; sounding, 900 fm; wind, 130° force 1; weather, partly cloudy; sea, very rough; wire angle, 04°, 04°.

0	18.54	33.53		0	18.54	33.53		24.03	389	0.00
10	18.16	33.53		10	18.16	33.53		24.13	380	0.04
20	18.14	33.51		20	18.14	33.51		24.12	380	0.08
35	13.76	33.26		30	16.70	33.36		24.35	359	0.11
49	12.20	33.24		50	12.08	33.24		25.23	275	0.18
63	11.10	33.40		75	10.36	33.55		25.78	222	0.24
78	10.22	33.57		100	9.50	33.71		26.05	197	0.29
97	9.59	33.69		150	8.50	33.95		26.40	164	0.38
120	9.02	33.81		200	8.20	34.06		26.53	151	0.46
147	8.54	33.94		250	7.74	34.16		26.67	138	0.54
194	8.24	34.05		300	7.51	34.27		26.79	127	0.61
238	7.82	34.12		400	6.76	34.32		26.94	112	0.73
				500	6.02	34.33		27.04	103	0.85
239	7.86	-								
285	7.59	34.25								
380	6.94	34.31								
473	6.15	34.33								
574	5.64	34.29								

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O ₂	Z	T	S	O ₂	σ _t	δ _T ³	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10 ⁵ cm ³ /g	dyn. m

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CREST; October 22, 1953; 1432 GCT; 32°15'N, 118°56.5'W; sounding, 740 fm; wind, 010°, force 4; weather, partly cloudy; sea, very rough; wire angle, 05°.

9350

0	17.88	33.49		0	17.88	33.49		24.17	376	0.00
10	17.88	33.49		10	17.88	33.49		24.17	376	0.04
20	17.78	33.52		20	17.78	33.52		24.21	372	0.08
34	11.84	33.41		30	12.50	33.41		24.28	270	0.11
53	10.11	33.55		50	10.43	33.51		25.74	226	0.16
67	9.56	33.68		75	9.36	33.73		26.09	193	0.21
81	9.26	33.77		100	8.89	33.87		26.27	176	0.26
103	8.82	33.89		150	8.30	34.03		26.49	155	0.34
126	8.55	33.96		200	8.29	34.21		26.63	142	0.42
155	8.23	34.05		250	7.75	34.27		26.76	129	0.49
204	8.30	34.22		300	7.40	34.24		26.79	127	0.55
260	7.68	34.27		400	6.70	34.33		26.95	111	0.68
306	7.36	34.24		500	6.10	34.34		27.04	103	0.79
413	6.60	34.34		600	5.60	34.35		27.11	96	0.90
516	6.02	34.34								
624	5.48	34.35								

CREST; October 20, 1953; 1703 GCT; 32°15'N, 117°09.5'W; sounding, 33 fm; wind, 010°, force 1; weather, clear; sea, moderate; wire angle, 07°.

9730

0	18.31	33.54		0	18.31	33.54		24.10	382	0.00
10	18.24	33.48		10	18.24	33.48		24.07	385	0.04
20	15.98	33.38		20	15.98	33.38		24.53	341	0.08
30	14.22	33.21		30	14.22	33.21		24.78	318	0.11
50	11.62	33.28		50	11.62	33.28		25.35	263	0.17

CREST; October 20, 1953; 1412 GCT; 32°05.5'N, 117°29'W; sounding, 640 fm; wind, 070°, force 1; weather, clear; sea, rough; wire angle, 06°.

9735

0	18.12	33.40		0	18.12	33.40		24.04	388	0.00
10	18.15	33.42		10	18.15	33.42		24.05	387	0.04
20	18.05	33.49		20	18.05	33.49		24.13	380	0.08
35	14.12	33.25		30	17.80	33.26 ⁴⁸		24.01	391	0.12
54	12.07	33.37		50	12.98	33.36		25.15	282	0.18
68	11.08	33.38		75	10.62	33.40		25.62	238	0.25
82	10.08	33.43		100	9.52	33.65		26.00	202	0.30
105	9.43	33.72		150	8.64	33.98		26.40	164	0.40
128	9.17	33.83		200	8.25	34.05		26.51	153	0.48
154	8.59	33.99		250	7.43	34.06		26.64	141	0.55
204	8.22	34.06		300	7.32	34.15		26.73	132	0.62
258	7.37	34.06		400	6.66	34.33		26.96	110	0.75
304	7.30	34.17		500	6.05	34.31		27.02	105	0.86
410	6.59	34.34		600	5.52	34.38		27.14	93	0.97
515	5.97	34.31								
619	5.40	34.40								

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

9740

CREST; October 20, 1953; 1138 GCT; 32°01.5'N, 117°44'W; sounding, 850 fm; wind, 220°, force 2; weather, clear; sea, rough; wire angle, 08°.

0	18.29	33.55		0	18.29	33.55		24.11	382	0.00
10	18.28	33.56		10	18.28	33.56		24.12	380	0.04
20	18.28	33.57		20	18.28	33.57		24.13	380	0.08
30	14.52	33.41		30	14.52	33.41		24.87	309	0.11
54	10.62	33.44		50	10.85	33.42		25.59	240	0.17
68	10.31	33.52		75	10.14	33.60		25.86	215	0.22
83	9.92	33.70		100	9.57	33.75		26.07	195	0.28
106	9.42	33.78		150	8.64	33.97		26.39	164	0.37
129	8.90	33.94		200	8.23	34.14		26.59	146	0.44
156	8.58	33.99		250	7.59	34.13		26.67	138	0.52
205	8.18	34.14		300	7.18	34.21		26.79	127	0.59
258	7.50	34.13		400	6.59	34.33		26.97	110	0.71
303	7.16	34.22		500	6.03	34.37		27.07	100	0.82
408	6.54	34.34		600	5.41	34.38		27.16	92	0.92
510	5.98	34.37								
615	5.31	34.38								

9750

CREST; October 20, 1953; 0615 GCT; 31°37.5'N, 118°27.5'W; sounding, 1200 fm; wind, 320°, force 4; weather, partly cloudy; sea, very rough; wire angle, 17°.

0	17.91	33.58		0	17.91	33.58		24.23	370	0.00
9	17.92	33.58		10	17.92	33.58		24.23	370	0.04
23	17.93	33.54		20	17.93	33.55		24.20	373	0.07
38	12.88	33.53		30	17.94	33.53		24.18	375	0.11
57	10.56	33.52		50	11.21	33.52		25.61	239	0.17
71	9.60	33.60		75	9.50	33.61		25.97	204	0.23
90	9.28	33.68		100	9.14	33.78		26.16	186	0.28
113	8.88	33.86		150	8.51	33.98		26.42	162	0.37
139	8.57	33.95		200	8.16	34.11		26.57	148	0.44
165	8.44	34.03		250	7.45	34.14		26.70	135	0.52
218	7.92	34.13		300	6.82	34.15		26.80	126	0.58
270	7.12	34.14		400	6.30	34.31		26.99	108	0.71
323	6.64	34.16		500	5.90	34.35		27.07	100	0.82
421	6.22	34.33		600	5.39	34.37		27.15	92	0.92
534	5.72	34.36								
642	5.19	34.37								

100.29

CREST; October 18, 1953; 1605 GCT; 31°42.5'N, 116°43.5'W; sounding, 66 fm; wind, 320°, force 3; weather, fog; sea, moderate; wire angle, 02°.

0	13.98	33.31		0	13.98	33.31		24.91	305	0.00
10	13.36	33.29		10	13.36	33.29		25.02	295	0.03
20	12.90	33.33		20	12.90	33.33		25.14	283	0.06
30	11.86	33.19		30	11.86	33.19		25.23	275	0.09
50	11.66	33.37		50	11.66	33.37		25.41	258	0.14
76	10.90	33.58		75	10.91	33.58		25.71	229	0.20

100.30

CREST; October 18, 1953; 1708 GCT; 31°40.5'N, 116°46'W; sounding, 225 fm; wind, 060°, force 2; weather, fog; sea, moderate; wire angle, 15°.

0	15.98	33.37		0	15.98	33.37		24.52	342	0.00
10	13.42	33.26		10	13.42	33.26		24.98	299	0.03
24	12.02	33.35		20	12.27	33.30		25.24	274	0.06
47	11.52	33.47		30	11.87	33.38		25.38	260	0.09
69	11.20	33.62		50	11.49	33.50		25.54	245	0.14
91	10.66	33.80		75	11.12	33.67		25.74	226	0.20
133	10.35	33.94		100	10.27	33.85		26.03	199	0.25
161	10.30	33.94		150	10.32	33.94		26.09	193	0.35
208	10.12	34.22		200	10.17	34.20		26.32	171	0.44
244	9.46	34.26		250	9.38	34.27		26.51	153	0.53
288	8.85	34.30		300	(8.69)	(34.31)		(26.65)	(140)	(0.60)

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

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CREST; October 18, 1953; 2215, 2246 GCT; 31°20.5'N, 117°25'W; sounding, 1050 fm; wind, 320°, force 5; weather, partly cloudy; sea, rough; wire angle, 32°, 42°.

10040

0	18.68	33.41	6.05	0	18.68	33.41	6.05	23.91	400	0.00
8	18.65	33.38	5.62	10	18.64	33.38	5.62	23.90	402	0.04
26	18.57	33.47	5.59	20	18.59	33.43	5.59	23.95	397	0.08
51	14.24	33.11	6.47	30	18.53	33.47	6.60	23.99	393	0.12
76	11.40	33.14	5.62	50	14.45	33.11	6.47	24.65	330	0.19
102	10.44	33.31	4.93	75	11.45	33.13	5.63	25.26	272	0.27
				100	10.52	33.28	4.98	25.54	245	0.33
134	9.66	33.60	3.80	150	9.34	33.72	3.60	26.08	194	0.44
177	8.80	33.88	3.29	200	8.42	33.94	3.00	26.40	164	0.54
218	8.13	33.98	2.77	250	8.00	34.15	2.26	26.63	142	0.61
258	7.96	34.15	2.15	300	7.33	34.15	1.74	26.72	133	0.68
333	7.00	34.16	1.45	400	6.63	34.22	0.97	26.88	118	0.82
414	6.56	34.24	0.86	500	6.29	34.40	0.38	27.06	101	0.93
490	6.32	34.39	0.39	600	5.66	34.42	0.31	27.16	92	1.03
649	5.36	34.43	0.31	700	5.10	34.45	0.32	27.25	83	1.13
817	4.59	34.51	0.41	800	4.65	34.51	0.40	27.35	74	1.22
1000	4.01	34.50	0.61	1000	4.01	34.50	0.61	27.41	68	1.38

CREST; October 19, 1953; 0440 GCT; 31°00'N, 118°06'W; sounding, 1000 fm; wind, 320°, force 5; weather, partly cloudy; sea, very rough; wire angle, 35°.

10050

0	18.68			0	18.68					
8	18.66			10	18.66					
21	18.66			20	18.66					
33	18.33			30	18.45					
49	16.39			50	16.25					
60	15.16			75	14.05					
75	14.05			100	12.05					
93	12.42			150	9.49					
112	11.39			200	8.58					
132	10.42			250	8.14					
171	8.89			300	7.53					
211	8.47			400	6.49					
250	8.14			500	6.04					
329	7.16									
420	6.36									
523	5.93									

CREST; October 19, 1953; 1026 GCT; 30°38'N, 118°45'W; sounding, 1000+ fm; wind, 320°, force 5; weather, cloudy; sea, rough; wire angle, 30°.

10060

0	19.00	33.35	5.59	0	19.00	33.35	5.59	23.78	413	0.00
8	18.98	33.34	5.58	10	18.98	33.33	5.58	23.77	414	0.04
26	19.01	33.30	5.75	20	19.00	33.31	5.64	23.75	410	0.08
52	17.40	33.27	6.15	30	18.99	33.29	5.80	23.74	417	0.12
76	14.49	33.27	6.35	50	17.55	33.27	6.11	24.08	384	0.20
100	12.72	33.34	5.84	75	14.55	33.27	6.35	24.76	320	0.29
145	10.38	33.61	3.73	100	12.72	33.34	5.84	25.18	280	0.37
188	8.92	33.79	3.63	150	10.21	33.63	3.73	25.87	214	0.49
230	8.27	33.99	3.30	200	8.63	33.85	3.56	26.30	173	0.59
273	7.84	34.03	2.61	250	8.08	34.01	3.01	26.51	153	0.68
353	6.88	34.09	1.77	300	7.52	34.05	2.29	26.62	143	0.75
438	6.18	34.19	0.93	400	6.43	34.15	1.28	26.85	121	0.89
519	5.80	34.25	0.54	500	5.88	34.23	0.60	26.98	109	1.01
685	5.08	34.41	0.46	600	5.44	34.32	0.47	27.11	96	1.12
857	4.46	34.47	0.63	700	5.02	34.42	0.46	27.24	84	1.22
1041	3.88	34.46	-	800	4.67	34.46	0.56	27.31	77	1.31
				1000	4.01	34.44		27.36	73	1.47

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

100.70

CREST; October 19, 1953; 1707 GCT; 30°21'N, 119°27'W; sounding, 2000+ fm; wind, 320°, force 7; weather, partly cloudy; sea, very rough; wire angle, 32°.

0	19.22	33.45		0	19.22	33.45		23.80	411	0.00
8	19.23	33.50		10	19.23	33.50		23.84	407	0.04
21	19.23	33.48		20	19.23	33.48		23.82	409	0.08
34	19.24	33.48		30	19.24	33.48		23.82	409	0.12
51	17.66	33.32		50	18.30	33.37		23.97	395	0.20
63	15.22	33.24		75	14.43	33.25		24.77	319	0.29
79	14.14	33.26		100	12.06	33.28		25.26	272	0.37
99	12.23	33.28		150	9.82	33.76		26.04	198	0.49
121	10.56	33.42		200	9.03	34.10		26.43	161	0.58
144	9.90	33.69		250	8.36	34.14		26.57	148	0.66
189	9.64	34.06		300	7.72	34.15		26.67	138	0.73
236	8.68	34.14		400	7.23	34.32		26.87	119	0.86
283	7.82	34.14		500	5.86	34.37		27.09	98	0.98
377	7.36	34.28		600	(5.35)	(34.30)		(27.10)	(97)	(1.08)
481	6.56	34.38								
587	5.48	34.30								

103.30

CREST; October 18, 1953; 1111 GCT; 31°03.5'N, 116°26'W; sounding, 43 fm; wind, 310°, force 3; weather, cloudy; sea, slight; wire angle, 05°.

0	16.66	33.36		0	16.66	33.36		24.36	358	0.00
10	16.36	33.34		10	16.36	33.34		24.41	353	0.04
20	13.88	33.21		20	13.88	33.21		24.85	311	0.07
30	12.65	33.44		30	12.65	33.44		25.27	271	0.10
50	11.88	33.64		50	11.88	33.64		25.58	242	0.15
74	11.68	33.77		75	(11.65)	(33.77)		(25.72)	(228)	(0.20)

103.35

CREST; October 18, 1953; 0758 GCT; 30°52'N, 116°43'W; sounding, 1120 fm; wind, 320°, force 4; weather, overcast; sea, rough; wire angle, 20°.

0	17.24	33.36		0	17.24	33.36		24.22	371	0.00
9	17.24	33.40		10	17.24	33.40		24.25	368	0.04
24	13.49	33.42		20	16.50	33.42		24.44	350	0.07
38	11.45	33.39		30	12.50	33.41		25.28	270	0.10
57	10.80	33.40		50	10.98	33.39		25.55	244	0.16
70	10.25	33.49		75	10.11	33.54		25.81	220	0.21
88	9.91	33.64		100	9.76	33.74		26.03	199	0.27
110	9.64	33.80		150	9.17	34.02		26.34	169	0.36
135	9.53	33.95		200	9.02	34.27		26.56	148	0.45
159	9.06	34.06		250	8.83	34.22		26.56	148	0.52
210	9.68	34.40		300	7.52	34.11		26.67	138	0.60
261	7.82	34.04		400	6.89	34.30		26.90	116	0.73
312	7.44	34.15		500	6.22	34.43		27.10	97	0.84
413	6.80	34.32		600	5.59	34.44		27.18	90	0.94
526	6.04	34.45								
634	5.38	34.43								

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

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CREST; October 18, 1953; 0430 GCT; 30°44.5'N, 117°06'W; sounding, 780 fm; wind, 330°, force 5; weather, partly cloudy; sea, rough; wire angle, 27°.

10340

0	19.16	33.40		0	19.16	33.40		23.78	413	0.00
8	19.14	-		10	19.14	33.39		23.78	413	0.04
18	19.15	33.38		20	19.15	33.37		23.76	415	0.08
31	17.34	33.29		30	18.30	33.29		23.91	400	0.12
48	15.22	33.28		50	14.75	33.28		24.72	323	0.20
60	13.32	33.23		75	11.60	33.18		25.27	271	0.27
72	11.90	33.18		100	10.33	33.44		25.70	230	0.33
91	10.70	33.36		150	9.53	33.90		26.19	184	0.44
109	10.04	33.52		200	9.11	34.10		26.42	162	0.53
132	9.72	33.75		250	8.78	34.22		26.56	148	0.61
174	9.30	34.04		300	8.39	34.27		26.66	139	0.68
220	8.99	34.14		400	7.41	34.28		26.82	124	0.82
259	8.72	34.24		500	6.49	34.30		26.96	110	0.94
351	7.93	34.28								
444	6.94	34.27								
544	6.18	34.34								

CREST; October 17, 1953; 0321 GCT; 30°26'N, 116°11'W; sounding, 340 fm; wind, 340°, force 4; weather, cloudy; sea, moderate; wire angle, 16°.

10732

0	16.54	33.40		0	16.54	33.40		24.42	352	0.00
9	15.76	33.38		10	15.60	33.38		24.61	334	0.03
24	14.44	33.38		20	14.80	33.38		24.79	317	0.01
47	12.62	33.47		30	13.95	33.38		24.97	300	0.10
69	12.32	33.57		50	12.50	33.49		25.34	264	0.15
92	11.70	33.73		75	12.22	33.60		25.48	251	0.22
139	11.08	34.06		100	11.59	33.82		25.77	223	0.28
183	10.46	34.15		150	10.94	34.08		26.09	193	0.38
228	10.27	34.42		200	9.80	34.24		26.41	163	0.48
273	9.39	34.35		250	10.00	34.41		26.51	153	0.56
323	8.74	34.36		300	9.05	34.35		26.62	143	0.63

CREST; October 17, 1953; 0525 GCT; 30°20'N, 116°23'W; sounding, 1000 fm; wind, 310°, force 4; weather, cloudy; sea, moderate; wire angle, 12°.

10735

0	17.72	33.54		0	17.72	33.54		24.24	369	0.00
10	17.72	33.55		10	17.72	33.55		24.25	368	0.04
20	17.45	33.50		20	17.45	33.50		24.28	365	0.07
34	14.72	33.49		30	16.20	33.49		24.56	339	0.11
53	12.57	33.42		50	12.90	33.42		25.21	277	0.17
67	12.32	33.77		75	12.30	33.86		25.67	233	0.24
82	12.27	33.89		100	12.00	33.95		25.79	222	0.29
104	11.99	33.97		150	11.54	34.18		26.06	196	0.40
127	11.93	34.06		200	10.03	34.22		26.36	167	0.49
155	11.40	34.20		250	9.71	34.39		26.54	150	0.57
204	9.96	34.22		300	9.08	34.40		26.66	139	0.65
258	9.66	34.40		400	7.78	34.34		26.81	125	0.79
304	9.01	34.40		500	6.77	34.37		26.98	109	0.91
410	7.68	34.34		600	5.83	34.35		27.08	99	1.02
512	6.66	34.38								
619	5.65	34.34								

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

10740

CREST; October 17, 1953; 0833 GCT; 30°10.5'N, 116°43'W; sounding, 1500 fm; wind, 330°, force 4; weather, clear; sea, moderate; wire angle, 02°.

0	18.36	33.52		0	18.36	33.52		24.07	385	0.00
10	18.36	33.48		10	18.36	33.48		24.04	388	0.04
20	17.76	33.44		20	17.76	33.44		24.16	377	0.08
35	15.14	-		30	16.30	33.41		24.48	346	0.11
54	11.77	33.38		50	12.05	33.38		25.34	264	0.17
68	11.38	33.45		75	11.55	33.57		25.58	242	0.24
83	11.68	33.86		100	11.33	34.02		25.97	204	0.29
106	11.20	34.02		150	10.76	34.28		26.28	175	0.39
129	10.03	33.99		200	9.97	34.42		26.53	151	0.47
156	10.78	34.34		250	9.44	34.43		26.62	143	0.55
206	9.91	34.42		300	8.17	34.29		26.71	134	0.62
261	9.24	34.43		400	7.26	34.32		26.87	119	0.75
306	8.08	34.28		500	6.66	34.34		26.97	110	0.88
412	7.18	34.33		600	5.91	34.38		27.10	97	0.99
515	6.56	34.34								
620	5.76	34.39								

11033

CREST; October 16, 1953; 2303 GCT; 29°54.5'N, 115°54'W; sounding, 60 fm; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, 14°.

0	18.06	33.55		0	18.06	33.55		24.17	376	0.00
10	18.04	33.54		10	18.04	33.54		24.17	376	0.04
19	16.10	33.42		20	15.70	33.39		24.60	335	0.07
29	14.14	33.34		30	13.90	33.34		24.95	301	0.10
48	12.40	33.59		50	12.36	33.62		25.47	252	0.16
73	12.29	33.74		75	12.26	33.75		25.59	240	0.22
97	11.88	33.88		100	(11.85)	(33.90)		(25.78)	(222)	(0.28)

11035

CREST; October 16, 1953; 2109 GCT; 29°50'N, 116°03'W; sounding, 750 fm; wind, 330°, force 4; weather, cloudy; sea, moderate; wire angle, 15°.

0	18.24	33.55		0	18.24	33.55		24.12	380	0.00
9	18.20	33.55		10	18.19	33.55		24.14	379	0.04
19	18.00	33.54		20	17.99	33.54		24.18	375	0.08
34	13.54	33.42		30	14.45	33.42		24.89	307	0.11
48	12.26	33.60		50	12.19	33.61		25.49	250	0.17
62	11.87	33.67		75	11.82	33.76		25.68	232	0.23
76	11.80	33.76		100	10.90	33.88		25.94	207	0.28
94	11.15	33.82		150	11.23	34.31		26.22	181	0.38
116	11.06	34.04		200	10.26	34.40		26.46	158	0.47
143	11.24	34.28		250	9.70	34.36		26.52	152	0.55
187	10.74	34.40		300	9.19	34.41		26.65	140	0.62
233	9.88	34.36		400	7.99	34.42		26.84	122	0.76
276	9.44	34.39		500	6.91	34.38		26.96	110	0.88
373	8.29	34.44								
465	7.28	34.37								
564	6.29	34.42								

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

S10

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5310

CREST; October 16, 1953; 1754 GCT; 29°37.5'N, 116°25.5'W; sounding, 1150 fm; wind, 340°, force 4; weather, partly cloudy; sea, rough; wire angle, 05°.

11040

0	18.36	33.39		0	18.36	33.39		23.97	395	0.00
10	18.32	33.54		10	18.32	33.54		24.10	382	0.04
20	18.26	33.46		20	18.26	33.46		24.05	387	0.08
35	13.47	33.24		30	15.30	33.25		24.58	337	0.11
55	12.06	33.53		50	12.25	33.41		25.33	265	0.17
69	11.64	33.59		75	11.10	33.63		25.71	229	0.24
83	10.49	33.71		100	10.80	34.04		26.08	194	0.29
107	11.32	34.14		150	10.29	34.24		26.33	170	0.38
130	10.85	34.26		200	10.13	34.51	##	26.57	148	0.46
157	9.94	34.23		250	9.55	34.47		26.63	142	0.54
206	10.21	34.51		300	9.16	34.43		26.67	138	0.61
261	9.40	34.46		400	7.72	34.37		26.84	122	0.75
306	9.12	34.43		500	6.59	34.37		27.00	107	0.87
410	7.59	34.37		600	5.80	34.41		27.13	94	0.98
512	6.46	34.37								
617	5.68	34.42								

CREST; October 16, 1953; 1225 GCT; 29°13.5'N, 117°01.5'W; sounding, 2000+ fm; wind, 330°, force 4; weather, clear; sea, moderate; wire angle, 18°.

11050

0	19.66	33.54	5.47	0	19.66	33.54	5.47	23.76	415	0.00
9	19.66	33.56	5.49	10	19.66	33.56	5.49	23.77	414	0.04
28	19.63	33.58	5.47	20	19.65	33.58	5.48	23.79	412	0.08
57	12.41	33.35	5.20	30	19.50	33.58	5.46	23.83	408	0.12
84	10.40	33.57	3.80	50	13.30	33.35	5.31	25.08	289	0.19
112	9.60	33.72	3.29	75	10.92	33.46	4.07	25.61	239	0.26
165	8.68	33.99	2.63	100	9.88	33.66	3.50	25.95	206	0.32
218	8.68	34.08	1.55	150	8.85	33.94	2.83	26.33	170	0.41
270	8.34	34.34	0.88	200	8.68	34.04	1.95	26.44	160	0.50
321	7.77	34.37	0.76	250	8.52	34.28	1.07	26.65	140	0.57
421	6.76	34.33	0.42	300	8.04	34.36	0.81	26.79	127	0.64
525	5.94	34.33	0.34	400	6.95	34.34	0.48	26.93	113	0.77
626	5.43	34.38	0.30	500	6.03	34.33	0.36	27.04	103	0.88
835	4.44	34.41	0.46	600	5.56	34.37	0.30	27.13	94	0.99
1038	3.72	34.49	0.71	700	5.11	34.39	0.34	27.20	88	1.09
1239	3.34	34.57	0.93	800	4.59	34.40	0.43	27.27	81	1.18
				1000	3.85	34.48	0.67	27.41	68	1.35
				1200	3.40	34.55	0.91	27.51	58	1.50

CREST; October 16, 1953; 0705 GCT; 28°56'N, 117°40'W; sounding, 2000+ fm; wind, 330°, force 4; weather, clear; sea, moderate; wire angle, 28°.

11060

0	19.28	33.47		0	19.28	33.47		23.80	411	0.00
8	19.29	33.46		10	19.29	33.46		23.79	412	0.04
18	19.30	33.47		20	19.29	33.47		23.80	411	0.08
31	18.08	33.33		30	18.70	33.34		23.85	406	0.12
48	14.85	33.18		50	14.56	33.17		24.68	327	0.20
60	13.94	33.15		75	12.40	33.12		25.08	289	0.27
71	12.89	33.12		100	10.57	33.28		25.53	246	0.34
86	11.27	33.18		150	9.24	33.80		26.16	186	0.45
102	10.47	33.30		200	8.62	33.96		26.38	166	0.54
121	9.69	33.49		250	8.21	34.01		26.49	155	0.62
154	9.18	33.84		300	7.84	34.13		26.64	141	0.70
193	8.69	33.96		400	7.08	34.27		26.85	121	0.84
224	8.39	33.96		500	(6.69)	(34.36)		26.98	(109)	0.96
301	7.82	34.13								
381	7.18	34.25								
472	6.79	34.34								

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

11330

CREST; October 7, 1953; 2320 GCT; 29°23'N, 115°17'W; sounding, 30 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 00°.

0	20.07	33.58		0	20.07	33.58		23.68	422	0.00
10	18.08	33.57		10	18.08	33.57		24.18	375	0.04
20	17.00	33.58		20	17.00	33.58		24.45	349	0.08
30	15.29	33.61		30	15.29	33.61		24.86	310	0.11

11335

CREST; October 8, 1953; 0225 GCT; 29°12'N, 115°38.5'W; sounding, 770 fm; wind, 340°, force 3; weather, partly cloudy; sea, moderate; wire angle, 05°.

0	18.56	33.46		0	18.56	33.46		23.98	394	0.00
10	17.66	33.45		10	17.66	33.45		24.19	374	0.04
20	15.62	33.33		20	15.62	33.33		24.57	338	0.07
35	13.18	33.30		30	13.90	33.30		24.92	304	0.11
55	12.36	33.58		50	12.58	33.58		25.40	259	0.16
69	11.00	33.51		75	10.66	33.52		25.70	230	0.22
83	10.42	33.58		100	9.93	33.69		25.96	205	0.28
107	9.77	33.73		150	9.98	34.08		26.26	177	0.38
128	10.43	34.11		200	10.71	34.51		26.47	157	0.46
156	9.81	34.08		250	10.04	34.50		26.57	148	0.54
206	10.73	34.51		300	9.02	34.41		26.67	138	0.61
262	9.86	34.48		400	7.97	34.42		26.84	122	0.75
308	8.87	34.40		500	6.81	34.39		26.99	108	0.87
417	7.80	34.42		600	5.91	34.40		27.11	96	0.98
521	6.58	34.39								
627	5.68	34.41								

11340

CREST; October 8, 1953; 0530 GCT; 29°02'N, 115°58.5'W; sounding, 1050 fm; wind, 260°, force 2; weather, missing; sea, slight; wire angle, 10°.

0	18.74	33.55		0	18.74	33.55		24.00	392	0.00
10	17.56	33.50		10	17.56	33.50		24.25	368	0.04
20	16.64	33.47		20	16.64	33.47		24.45	349	0.07
35	15.44	33.42		30	15.86	33.43		24.59	336	0.11
53	13.85	33.36		50	14.10	33.37		24.93	303	0.17
67	11.86	33.39		75	11.23	33.44		25.54	245	0.24
81	10.92	33.49		100	10.90	33.87		25.93	208	0.30
103	11.22	33.87		150	9.80	33.98		26.21	182	0.40
125	9.81	33.87		200	10.40	34.45		26.47	157	0.46
152	9.86	34.00		250	9.83	34.52		26.63	142	0.54
202	10.40	34.46		300	8.98	34.44		26.70	135	0.61
255	9.76	34.52		400	7.45	34.38		26.89	117	0.75
301	8.96	34.43		500	6.51	34.38		27.02	105	0.86
408	7.36	34.36		600	5.72	34.40		27.14	93	0.97
509	6.44	34.37								
617	5.60	34.41								

11726

CREST; October 8, 1953; 2343, 2353 GCT; 28°56'N, 114°41'W; sounding, 42 fm; wind, 320°, force 4; weather, partly cloudy; sea, slight; wire angle, 02°, 02°.

0	20.02	33.61		0	20.02	33.61		23.72	419	0.00
10	18.25	33.59		10	18.25	33.59		24.15	378	0.04
20	16.60	33.64		20	16.60	33.64		24.58	337	0.08
25	15.70	33.65		30	14.37	33.66		25.09	288	0.11
30	14.37	33.66		50	12.74	33.75		25.50	249	0.16
40	13.30	33.70								
50	12.74	33.75								

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

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CREST; October 8, 1953; 2121 GCT; 28°48'N, 114°56.5'W; sounding, 55 fm; wind 260°, force 3; weather, partly cloudy; sea, moderate; wire angle, 00°.

117.30

0	20.47	33.61		0	20.47	33.61		23.60	430	0.00
10	18.66	33.63		10	18.66	33.63		24.08	384	0.04
20	16.02	33.51		20	16.02	33.51		24.62	333	0.08
30	14.44	33.90		30	14.44	33.90		25.26	272	0.11
50	14.02	34.02		50	14.02	34.02		25.45	254	0.16
75	11.94	33.85		75	11.94	33.83		25.71	229	0.22

CREST; October 8, 1953; 1405 GCT; 28°38'N, 115°16'W; sounding, 100 fm; wind, 320°, force 1; weather, partly cloudy; sea, slight; wire angle, 00°.

117.35

0	19.04	33.60		0	19.04	33.60		23.96	396	0.00
10	18.70	33.59		10	18.70	33.59		24.04	388	0.04
25	17.02	33.58		20	17.80	33.58		24.25	368	0.08
40	14.48	33.46		30	15.90	33.57		24.69	326	0.11
49	13.80	33.42		50	13.73	33.41		25.04	293	0.17
74	12.20	33.34		75	12.19	33.34		25.29	269	0.24
99	11.42	33.76		100	11.42	33.78		25.77	223	0.31
122	11.60	34.00		150	11.86	34.23		26.04	198	0.41
150	11.86	34.23								

CREST; October 8, 1953; 1054 GCT; 28°28'N, 115°35.5'W; sounding, 480 fm; wind, 300°, force 3; weather, clear; sea, slight; wire angle, 10°.

117.40

0	20.04	33.51		0	20.04	33.51		23.64	426	0.00
10	19.27	33.52		10	19.27	33.52		23.84	407	0.04
20	19.28	33.48		20	19.28	33.48		23.81	410	0.08
34	17.74	33.48		30	18.90	33.48		23.91	400	0.12
53	14.40	-		50	14.90	33.37		24.76	320	0.20
67	13.36	33.32		75	12.65	33.34		25.20	278	0.27
80	12.16	33.40		100	11.11	33.44		25.56	243	0.34
103	11.00	33.45		150	10.32	33.94		26.09	193	0.45
124	10.46	33.82		200	11.00	34.45		26.37	166	0.54
150	10.32	33.94		250	10.24	34.46		26.51	153	0.62
198	11.00	34.44		300	9.51	34.43		26.61	144	0.70
250	10.24	34.46		400	8.02	34.39		26.81	125	0.84
295	9.58	34.43		500	6.69	34.37		26.99	108	0.96
399	8.03	34.39		600	5.96	34.37		27.08	99	1.07
501	6.68	34.37								
606	5.92	34.37								

CREST; October 9, 1953; 0500 GCT; 28°23'N, 114°14.5'W; sounding, 32 fm; wind, 320°, force 2; weather, clear; sea, smooth; wire angle, 00°.

120.25

0	19.51	33.61	6.29	0	19.51	33.61	6.29	23.85	406	0.00
10	17.78	33.58	6.02	10	17.78	33.58	6.02	24.26	367	0.04
20	17.42	33.57	5.62	20	17.42	33.57	5.62	24.34	360	0.08
25	17.14	33.58	5.21	30	16.36	33.58	4.99	24.59	336	0.11
30	16.36	33.58	4.99	50	13.46	33.74	2.79	25.35	263	0.17
40	13.72	33.75	2.99							
51	13.45	33.74	2.78							

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

12030 CREST; October 9, 1953; 0823, 0837 GCT; 28°10'N, 114°34'W; sounding, 53 fm; wind, calm; weather, clear; sea, calm; wire angle, 05°, 05°.

0	19.65	33.54	5.71	0	19.65	33.54	5.71	23.76	415	0.00
10	18.94	33.52	5.68	10	18.94	33.52	5.68	23.93	399	0.04
20	18.83	33.52	5.74	20	18.83	33.52	5.74	23.95	397	0.08
25	18.78	33.51	5.73	30	18.74	33.50	5.71	23.96	396	0.12
30	18.74	33.50	5.71	50	18.54	33.55	5.37	24.05	387	0.20
40	18.66	33.57	5.44	75	16.84	33.56	4.60	24.47	347	0.29
50	18.54	33.55	5.37							
75	16.84	33.56	4.60							

12035 CREST; October 9, 1953; 1117 GCT; 28°03'N, 114°54'W; sounding, 47 fm; wind, 300°, force 1; weather, clear; sea, slight; wire angle, 00°.

0	20.30	33.58	5.73	0	20.30	33.58	5.73	23.62	428	0.00
10	19.54	33.55	5.68	10	19.54	33.55	5.68	23.80	411	0.04
20	19.35	33.59	5.59	20	19.35	33.59	5.59	23.88	403	0.08
25	19.08	33.58	5.64	30	18.87	33.58	5.49	23.99	393	0.12
30	18.87	33.58	5.49	50	18.07	33.65	5.32	24.24	369	0.20
40	18.54	33.58	5.53	75	12.72	33.75	1.58	25.50	249	0.28
50	18.07	33.65	5.32							
75	12.72	33.75	1.58							

12045 CREST; October 13, 1953; 1948 GCT; 27°42'N, 115°34'W; sounding, 1200 fm; wind, 360°, force 4; weather, clear; sea, rough; wire angle, 12°.

0	22.29	34.29	5.76	0	22.29	34.29	5.76	23.62	428	0.00
10	22.28	34.33	5.71	10	22.28	34.33	5.71	23.65	425	0.04
30	18.68	33.82	5.97	20	22.07	34.28	5.87	23.67	423	0.08
58	14.52	33.76	3.70	30	18.68	33.82	5.97	24.22	371	0.12
87	12.58	33.82	3.41	50	15.17	33.76	3.93	25.00	297	0.19
116	11.23	33.86	3.13	75	13.36	33.77	3.47	25.39	260	0.26
172	10.34	34.12	2.02	100	11.99	33.84	3.32	25.71	229	0.32
226	10.02	34.33	1.28	150	10.11	33.99	2.44	26.17	185	0.43
280	9.31	34.33	0.93	200	10.16	34.26	1.60	26.37	166	0.52
335	8.94	34.45	0.64	250	9.64	34.33	1.10	26.51	153	0.60
438	7.30	34.38	0.41	300	9.28	34.39	0.82	26.62	143	0.68
548	6.19	34.39	0.32	400	7.78	34.40	0.47	26.86	120	0.82
654	5.26	34.43	0.30 ^{a)}	500	6.64	34.38	0.34	27.00	107	0.94
872	4.30	34.48	0.53 ^{a)}	600	5.71	34.41	0.31	27.14	93	1.04
1084	3.68	34.55	0.80 ^{a)}	700	5.01	34.44	0.33	27.25	83	1.14
1287	3.22	34.57	1.03 ^{a)}	800	4.56	34.46	0.44	27.32	76	1.23
				1000	3.91	34.52	0.70	27.44	65	1.39
				1200	3.41	34.57	0.94	27.53	56	1.53

a) Assumed order of oxygen samples.

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

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CREST; October 13, 1953; 2312 GCT; 27°33.5'N, 115°52'W; sounding, 2100 fm; wind, 350°, force 4; weather, clear; sea, rough; wire angle, 05°.

12050

0	20.42	33.90	5.58	0	20.42	33.90	5.58	23.83	408	0.00
10	20.40	33.88	5.56	10	20.40	33.88	5.56	23.82	409	0.04
20	20.27	33.88	5.59	20	20.27	33.88	5.59	23.86	405	0.08
35	16.81	33.78	5.18	30	20.10	33.80	5.44	23.84	407	0.12
54	14.36	33.78	4.07	50	14.80	33.78	4.35	25.10	287	0.19
68	13.88	33.95	2.85	75	13.86	34.04	2.47	25.49	250	0.26
83	13.86	34.04	2.44	100	11.40	33.78	3.00	25.77	223	0.32
106	11.02	33.73	3.43	150	9.47	33.90	3.47	26.20	183	0.42
129	9.81	33.77	3.67	200	9.45	34.30	1.58	26.52	152	0.51
156	9.40	33.94	3.24	250	9.36	34.36	1.24	26.58	146	0.58
206	9.82	34.33	1.52	300	8.87	34.41	0.81	26.70	135	0.66
260	9.20	34.37	1.19	400	7.71	34.39	0.54	26.86	120	0.79
305	8.82	34.42	0.77	500	6.82	34.41	0.34	27.00	107	0.91
411	7.60	34.39	0.52	600	5.93	34.40	0.31	27.11	96	1.02
514	6.69	34.41	0.32							
619	5.76	34.40	0.31							

CREST; October 14, 1953; 0405 GCT; 27°13'N, 116°31.5'W; sounding, 2050 fm; wind, 330°, force 4; weather, clear; sea, moderate; wire angle, 07°.

12060

0	21.38	33.74	5.24	0	21.38	33.74	5.24	23.45	444	0.00
10	21.38	33.72	5.29	10	21.38	33.72	5.29	23.44	445	0.04
25	20.30	33.59	5.42	20	21.36	33.64	5.35	23.38	451	0.09
55	14.74	33.30	6.05	30	19.20	33.54	5.51	23.88	403	0.13
79	12.62	33.32	5.58	50	16.00	33.30	6.04	24.46	348	0.21
107	10.93	33.49	4.26	75	12.93	33.31	5.72	25.12	285	0.29
158	10.93	34.23	1.64	100	11.33	33.42	4.57	25.51	248	0.35
208	10.32	34.43	1.06	150	10.75	34.15	2.02	26.18	184	0.46
262	9.33	34.35	1.17	200	10.47	34.43	1.09	26.45	159	0.55
307	9.30	34.51	0.51	250	9.53	34.36	1.16	26.55	149	0.63
411	7.75	34.39	0.42	300	9.30	34.50	0.53	26.70	135	0.70
512	6.72	34.39	0.31	400	7.90	34.40	0.43	26.84	122	0.84
613	5.92	34.42	0.30	500	6.82	34.39	0.35	26.98	109	0.96
810	4.72	34.43	0.33	600	6.01	34.42	0.30	27.11	96	1.07
1011	4.15	34.56	0.54	700	5.31	34.42	0.31	27.20	88	1.17
1208	3.60	-	0.76	800	4.76	34.43	0.33	27.27	81	1.26
				1000	4.18	34.55	0.53	27.43	66	1.43
				1200	3.63	-	0.75			

CREST; October 14, 1953; 0907 GCT; 26°53'N, 117°10'W; sounding, 2050 fm; wind, 320°, force 4; weather, overcast; sea, moderate; wire angle, 20°.

12070

0	20.96	33.70	5.41	0	20.96	33.70	5.41	23.54	436	0.00
9	20.96	33.70	5.49	10	20.96	33.70	5.49	23.54	436	0.04
19	20.98	33.68	5.44	20	20.96	33.68	5.44	23.52	438	0.09
32	20.59	33.68	5.46	30	20.85	33.68	5.45	23.55	435	0.13
50	14.00	33.41	5.99	50	14.00	33.41	5.99	24.98	299	0.20
64	12.44	33.50	4.65	75	11.81	33.50	4.36	25.48	251	0.27
76	11.76	33.50	4.31	100	10.77	33.84	3.00	25.93	208	0.33
97	10.90	33.77	3.12	150	10.26	34.16	1.96	26.27	176	0.43
117	10.44	33.99	2.67	200	9.98	34.36	1.29	26.48	156	0.51
142	10.28	34.12	2.09	250	9.28	34.41	0.91	26.63	142	0.59
188	10.12	34.32	1.41	300	8.81	34.41	0.60	26.71	134	0.66
238	9.51	34.41	1.00	400	7.77	34.46	0.33	26.90	116	0.79
280	8.98	34.41	0.71	500	6.60	34.43	0.30	27.05	102	0.91
379	8.02	34.46	0.34							
477	6.84	34.44	0.30							
578	5.84	34.40	0.32							

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

12080

CREST; October 14, 1953; 1415 GCT; 26°33.5'N, 117°49'W; sounding, 2000 fm; wind, 360°, force 3; weather, overcast; sea, moderate; wire angle, 25°.

0	19.94	33.42	6.00	0	19.94	33.42	6.00	23.59	431	0.00
8	19.93	33.47	5.54	10	19.93	33.47	5.53	23.64	426	0.04
22	19.26	33.40	5.73	20	19.50	33.41	5.66	23.70	421	0.08
49	16.81	33.33	6.11	30	18.65	33.38	5.96	23.89	402	0.13
72	13.56	33.30	6.06	50	16.64	33.33	6.12	24.34	360	0.20
96	11.83	33.54	4.07	75	13.30	33.30	6.03	25.04	293	0.28
144	10.14	33.94	2.79	100	11.68	33.58	3.77	25.57	242	0.35
189	9.40	34.18	2.32	150	9.97	33.98	2.71	26.18	184	0.46
237	8.39	34.20	2.17	200	9.02	34.20	2.28	26.51	153	0.55
276	8.14	34.22	1.50	250	8.29	34.20	2.01	26.62	143	0.62
365	7.86	34.38	0.54	300	8.06	34.25	1.08	26.70	135	0.70
452	7.04	34.42	0.36	400	7.60	34.41	0.44	26.89	117	0.83
541	6.32	34.43	0.30	500	6.64	34.43	0.39	27.04	103	0.94
716	5.28	34.46	0.30	600	5.96	34.44	0.30	27.14	93	1.05
897	4.44	34.48	0.49	700	5.37	34.46	0.30	27.23	85	1.15
1089	3.84	34.53	0.76	800	4.86	34.47	0.38	27.29	79	1.24
				1000	4.11	34.50	0.67	27.40	69	1.40

12090

CREST; October 14, 1953; 1905 GCT; 26°13.5'N, 118°27'W; sounding, 2150 fm; wind, 330°, force 3; weather, overcast; sea, moderate; wire angle, 05°.

0	20.75	33.62	5.31	0	20.75	33.62	5.31	23.53	437	0.00
10	20.74	33.63	5.33	10	20.74	33.63	5.33	23.54	436	0.04
20	20.72	33.63	5.32	20	20.72	33.63	5.32	23.55	435	0.09
34	17.86	33.38	5.95	30	19.30	33.40	5.64	23.74	417	0.13
53	15.14	33.33	6.13	50	15.55	33.34	6.13	24.59	336	0.20
67	13.52	33.29	5.89	75	12.43	33.29	5.52	25.20	278	0.28
82	11.76	33.30	5.28	100	10.81	33.46	4.46	25.63	237	0.35
104	10.58	33.62	4.23	150	10.26	34.08	2.40	26.21	182	0.45
127	10.61	33.94	2.54	200	9.86	34.38	1.54	26.51	153	0.54
155	10.12	34.11	2.38	250	9.73	34.46	0.92	26.60	145	0.62
205	9.95	34.40	1.44	300	9.38	34.51	0.56	26.69	136	0.69
260	9.66	34.47	0.82	400	8.34	34.49	0.34	26.84	122	0.82
306	9.33	34.51	0.54	500	6.77	34.41	0.42	27.01	106	0.94
412	8.14	34.48	0.32	600	6.25	34.47	0.31	27.12	95	1.05
516	6.65	34.41	0.42							
622	6.11	34.49	0.29							

12337

CREST; October 13, 1953; 1401 GCT; 27°24'N, 114°39.5'W; sounding, 40 fm; wind, 260°, force 1; weather, clear; sea, slight; wire angle, 05°.

0	22.21	34.29		0	22.21	34.29		23.64	426	0.00
10	22.18	34.27		10	22.18	34.27		23.63	427	0.04
20	21.10	34.29		20	21.10	34.29		23.95	397	0.08
30	20.06	34.17		30	20.06	34.17		24.13	380	0.12
49	19.20	34.16		50	19.15	34.16		24.36	358	0.20
74	17.24	34.14		75	(17.20)	(34.14)		(24.83)	(313)	(0.28)

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

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CREST; October 13, 1953; 1124 GCT; 27°20'N, 114°55'W; sounding, 480 fm; wind, 350°, force 5; weather, clear; sea, rough; wire angle, 10°.

12340

0	23.62	34.52		0	23.62	34.52		23.41	448	0.00
10	23.60	34.51		10	23.60	34.51		23.41	448	0.04
25	20.00	34.03		20	22.85	34.28		23.45	444	0.09
39	16.10	33.68		30	17.50	33.84		24.53	341	0.13
58	15.71	34.06		50	15.20	33.84		25.05	292	0.19
72	15.12	34.24		75	14.95	34.24		25.42	257	0.26
91	13.68	34.24	?	100	12.45	34.28	21	25.96	205	0.32
114	13.11	34.43		150	11.40	34.32		26.19	184	0.42
140	12.20	34.38		200	10.17	34.25	26	26.36	167	0.51
168	10.58	34.20		250	9.74	34.49	42	26.62	143	0.59
222	9.94	34.33		300	9.99	34.55		26.62	143	0.66
278	10.06	34.56		400	8.37	34.46		26.81	125	0.80
333	9.32	34.49		500	6.95	34.43		27.00	107	0.93
440	7.78	34.45		600	5.90	34.42		27.13	94	1.03
553	6.30	34.42								
664	5.45	34.43								

CREST; October 13, 1953; 0603 GCT; 26°58'N, 115°30.5'W; sounding, 1850 fm; wind, 340°, force 4; weather, clear; sea, moderate; wire angle, 23°.

12350

0	21.20	33.66		0	21.20	33.66		23.44	445	0.00
9	21.21	33.72		10	21.21	33.72		23.48	442	0.04
18	21.23	33.67		20	21.23	33.66		23.43	446	0.09
32	20.85	33.66		30	20.97	33.66		23.50	440	0.13
50	16.16	33.34		50	16.16	33.34		24.46	348	0.21
63	14.84	33.28		75	13.54	33.46		25.11	286	0.29
75	13.54	33.46		100	11.24	33.45		25.55	244	0.36
95	11.65	33.45		150	10.41	34.01		26.13	189	0.47
114	10.50	33.58 ^{a)}		200	9.76	34.30		26.47	157	0.56
137	10.46	33.85 ^{a)}		250	9.34	34.39		26.61	144	0.64
179	10.08	34.26 ^{a)}		300	9.09	34.47		26.71	134	0.71
226	9.42	34.34		400	8.06	34.48		26.88	118	0.84
266	9.30	34.42		500	7.03	34.45		27.00	107	0.96
362	8.47	34.49								
460	7.42	34.45								
564	6.43	34.48								

CREST; October 12, 1953; 1524 GCT; 26°55.5'N, 114°06'W; sounding, 41 fm; wind, 360°, force 5; weather, clear; sea, moderate; wire angle, 07°.

12734

0	23.78	34.42		0	23.78	34.42		23.29	460	0.00
10	23.78	34.45		10	23.78	34.45		23.31	458	0.05
20	23.78	34.45		20	23.78	34.45		23.31	458	0.09
30	21.88	34.29		30	21.88	34.29		23.73	418	0.14
50	17.80	34.00		50	17.80	34.00		24.58	337	0.21
76	16.95	34.00		75	16.96	34.00		24.78	318	0.29

a) Assumed order of salinity samples.

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

127.40 CREST; October 12, 1953; 1833 GCT; 26°46'N, 114°46'W; sounding, 1820 fm; wind, 330°, force 4; weather, clear; sea, moderate; wire angle, 00°.

0	24.51	34.64		0	24.51	34.64		23.24	464	0.00
10	24.42	34.64		10	24.42	34.64		23.27	462	0.05
20	23.70	34.46		20	23.70	34.46		23.34	455	0.09
34	15.56	33.87		30	17.90	33.98		24.54	340	0.13
49	13.82	33.76		50	13.78	33.76		25.29	269	0.19
63	14.14	34.20		75	13.92	34.35		25.72	228	0.26
77	13.82	34.35		100	12.50	34.33		25.99	202	0.31
96	12.71	34.32		150	11.49	34.49		26.31	172	0.40
119	12.03	34.43		200	10.35	34.60		26.60	145	0.49
147	11.56	34.48		250	10.33	34.64		26.63	142	0.56
193	10.50	34.59		300	9.34	34.62		26.79	127	0.63
238	10.46	34.64		400	8.12	34.59		26.95	111	0.76
283	9.60	34.62		500	7.11	34.51		27.04	103	0.87
380	8.34	34.60								
473	7.36	34.51								
576	6.49	34.52								

127.50 CREST; October 13, 1953; 0013 GCT; 26°22.5'N, 115°09'W; sounding, 1870 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 23°.

0	21.07	33.57		0	21.07	33.57		23.41	448	0.00
9	21.00	33.61		10	20.99	33.61		23.46	444	0.04
19	20.84	33.59		20	20.82	33.59		23.49	441	0.09
32	20.52	33.67		30	20.68	33.66		23.58	432	0.13
50	16.74	33.38		50	16.74	33.38		24.35	359	0.21
62	15.25	33.39		75	14.10	33.31		24.88	308	0.30
75	14.10	33.31		100	11.85	33.46		25.44	255	0.37
93	12.20	33.36		150	10.24	33.90		26.07	195	0.48
112	11.44	33.61		200	10.05	34.35		26.46	158	0.57
135	10.72	33.81		250	10.27	34.58		26.60	145	0.65
177	9.80	34.10		300	9.78	34.58		26.68	137	0.72
222	10.38	34.51		400	8.14	34.42		26.82	124	0.86
262	10.15	34.59		500	7.00	34.39		26.96	110	0.98
352	8.99	34.53								
440	7.57	34.38								
539	6.65	34.41								

130.30 CREST; October 12, 1953; 1036 GCT; 26°29'N, 113°29'W; sounding, 44 fm; wind, 070°, force 2; weather, clear; sea, moderate; wire angle, 12°.

0	25.60	34.76		0	25.60	34.76		23.00	487	0.00
10	25.57	34.71		10	25.57	34.71		22.97	490	0.05
20	25.02	34.67		20	25.02	34.67		23.11	477	0.10
30	23.48	34.51		30	23.48	34.51		23.44	445	0.14
49	18.02	34.15		50	17.90	34.15		24.67	328	0.22
72	16.48	34.16		75	(16.40)	(34.16)		(25.03)	(294)	(0.30)

130.35 CREST; October 12, 1953; 0747 GCT; 26°19'N, 113°48.5'W; sounding, 82 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 15°.

0	25.30	34.73	4.93	0	25.30	34.73	4.93	23.07	481	0.00
9	25.29	34.75	4.95	10	25.28	34.75	4.95	23.09	479	0.05
19	25.23	34.72	-	20	25.23	34.70	5.24	23.07	481	0.10
29	22.80	34.45	5.31	30	22.50	34.31	5.33	23.57	433	0.14
48	15.67 ^{a)}	34.12 ^{a)}	3.53 ^{a)}	50	15.56	34.12	2.75	25.19	279	0.21
72	15.24 ^{a)}	34.56 ^{a)}	1.05 ^{a)}	75	15.22	34.57	0.98	25.61	239	0.28
96	14.91	34.60	0.59	100	14.84	34.61	0.54	25.73	227	0.34
120	14.70	34.64	0.46							

a) Assumed order of values.

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

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CREST; October 12, 1953; 0424 GCT; 26°09'N, 114°07'W; sounding, 1170 fm; wind, 320°, force 4;
weather, clear; sea, moderate; wire angle, 17°.

13040

0	23.02	34.17	5.44	0	23.02	34.17	5.44	23.32	457	0.00
9	22.90	34.15	5.02	10	22.90	34.15	5.02	23.34	455	0.05
23	17.68	33.81	5.71	20	18.60	33.81	5.69	24.23	370	0.09
52	13.48	33.94	3.11	30	15.85	33.81	5.67	24.89	307	0.12
75	12.88	34.32	1.57	50	13.62	33.91	3.25	25.44	255	0.18
102	13.19	34.64	-	75	12.88	34.32	1.57	25.91	210	0.24
151	12.39	34.67	0.48	100	13.19	34.63	1.00	26.09	193	0.29
198	11.92	34.70	0.26	150	12.40	34.67	0.49	26.27	176	0.38
249	11.24	34.68	0.17	200	11.89	34.70	0.25	26.40	164	0.47
292	10.51	34.67	0.21	250	11.23	34.68	0.17	26.50	154	0.55
391	8.90	34.53	0.32	300	10.36	34.67	0.23	26.65	140	0.63
485	7.38	34.49	0.18	400	8.74	34.52	0.30	26.80	126	0.77
580	6.40	34.44	0.19	500	7.23	34.48	0.18	27.00	107	0.89
766	5.00	34.46	0.30	600	6.21	34.44	0.20	27.10	97	1.00
958	4.25	34.48	0.57	700	5.39	34.45	0.26	27.22	86	1.10
1150	3.70	34.52	0.68	800	4.83	34.46	0.33	27.29	79	1.19
				1000	4.12	34.49	0.61	27.39	70	1.36

CREST; October 11, 1953; 2252 GCT; 25°49'N, 114°46'W; sounding, 2050 fm; wind, 320°, force 4;
weather, clear; sea, moderate; wire angle, 00°.

13050

0	22.30	33.95		0	22.30	33.95		23.36	453	0.00
10	22.13	33.98		10	22.13	33.98		23.43	446	0.04
20	21.27	33.96		20	21.27	33.96		23.65	425	0.09
35	16.44	33.50		30	18.90	33.51		23.93	399	0.13
55	14.92	33.54		50	15.55	33.53		24.74	321	0.20
69	13.41	33.55		75	13.32	33.61		25.27	271	0.28
83	13.30	33.93		100	12.93	34.24		25.84	217	0.34
107	12.60	34.25		150	12.30	34.62		26.26	177	0.44
129	11.77	34.27		200	11.35	34.65		26.46	158	0.52
155	12.36	34.66		250	9.54	34.41		26.59	146	0.60
206	11.08	34.63		300	9.24	34.46		26.68	137	0.68
260	9.44	34.41		400	8.06	34.49		26.89	117	0.81
306	9.18	34.47		500	6.90	34.44		27.01	106	0.93
412	7.90	34.49		600	6.05	34.45		27.13	94	1.04
515	6.76	34.44								
621	5.88	34.45								

CREST; October 11, 1953; 1705 GCT; 25°29'N, 115°24'W; sounding, 2050 fm; wind, 320°, force 2;
weather, clear; sea, slight; wire angle, 18°.

13060

0	21.46	33.66	5.34	0	21.46	33.66	5.34	23.37	452	0.00
9	20.56	33.59	5.44	10	20.54	33.59	5.46	23.57	433	0.04
23	20.39	33.59	5.48	20	20.43	33.59	5.47	23.60	430	0.09
52	15.68	33.34	6.22	30	20.32	33.59	5.56	23.62	428	0.13
74	13.24	33.50	4.83	50	16.10	33.34	6.21	24.47	347	0.21
101	13.34	34.12	2.23	75	13.20	33.52	4.45	25.23	275	0.29
150	10.47	34.08	2.28	100	13.33	34.12	2.25	25.66	234	0.35
197	9.80	34.25	1.90	150	10.47	34.08	2.28	26.17	185	0.46
249	9.07	34.36	1.35	200	9.76	34.26	1.87	26.44	160	0.54
292	8.63	34.38	0.95	250	9.05	34.36	1.33	26.63	142	0.62
391	7.72	34.44	0.48	300	8.56	34.38	0.88	26.72	133	0.69
488	6.88	34.44	-	400	7.64	34.44	0.47	26.91	115	0.82
584	6.45	34.50	0.30	500	6.81	34.44	0.34	27.02	105	0.94
774	5.18	34.52	0.28	600	6.46	34.50	0.30	27.12	95	1.05
968	4.24	34.53	0.50	700	5.66	34.51	0.28	27.23	85	1.15
1162	3.70	34.56	0.74	800	5.03	34.52	0.30	27.31	77	1.24
				1000	4.15	34.53	0.53	27.42	67	1.40

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

13325 CREST; October 11, 1953; 0010 GCT; 26°05'N, 112°50'W; sounding, 45 fm; wind, 300°, force 4; weather, partly cloudy; sea, moderate; wire angle, 07°.

0	26.78	34.98		0	26.78	34.98		22.79	508	0.00
10	26.79	34.93		10	26.79	34.93		22.75	511	0.05
20	26.50	34.88		20	26.50	34.88		22.81	506	0.10
30	21.92	34.23		30	21.92	34.23		23.68	422	0.15
50	18.27	34.03		50	18.27	34.03		24.48	346	0.22
74	16.88	34.41		75	(16.85)	(34.42)		(25.12)	(285)	(0.30)

13330 CREST; October 11, 1953; 0255 GCT; 25°56'N, 113°09'W; sounding, 103 fm; wind, 300°, force 4; weather, clear; sea, moderate; wire angle, 15°.

0	25.81	34.79		0	25.81	34.79		22.96	491	0.00
10	25.80	34.80		10	25.80	34.80		22.97	490	0.05
24	25.58	34.80		20	25.69	34.80		23.00	487	0.10
48	17.38	33.99		30	24.50	34.80		23.36	453	0.14
72	15.55	34.45		50	17.15	33.99		24.72	323	0.22
97	14.84	34.70		75	15.40	34.57		25.57	242	0.29
120	14.22	34.70		100	14.76	34.70		25.81	220	0.35
149	13.46	34.70		150	(13.45)	(34.70)		(26.09)	(193)	(0.46)

13340 CREST; October 11, 1953; 0742 GCT; 25°34'N, 113°47'W; sounding, 1650 fm; wind, 280°, force 3; weather, clear; sea, moderate; wire angle, 07°.

0	23.84	34.54		0	23.84	34.54		23.36	453	0.00
10	23.86	34.55		10	23.86	34.55		23.36	453	0.04
20	21.16	33.94		20	21.16	33.94		23.67	423	0.09
35	17.26	33.61		30	18.00	33.68		24.28	365	0.13
55	13.74	33.42		50	14.60	33.44		24.88	308	0.20
69	14.92	34.41		75	14.92	34.38		25.53	246	0.27
83	13.94	34.35		100	13.00	34.54		26.06	196	0.32
106	13.30	34.59		150	11.71	34.66		26.40	164	0.41
129	12.08	34.48		200	11.67	34.72		26.45	159	0.50
156	11.92	34.69		250	10.80	34.71		26.61	144	0.57
206	11.46	34.72		300	10.00	34.65		26.70	135	0.65
261	10.64	34.70		400	8.27	34.57		26.92	114	0.78
307	9.90	34.64		500	7.08	34.50		27.03	104	0.90
415	8.02	34.56		600	6.12	34.47		27.14	93	1.00
519	6.89	34.49								
625	5.91	34.47								

13723 CREST; October 10, 1953; 1427 GCT; 25°34'N, 112°18.5'W; sounding, 40 fm; wind, 320°, force 3; weather, clear; sea, slight; wire angle, 01°.

0	26.88	34.73		0	26.88	34.73		22.57	528	0.00
10	26.88	34.75		10	26.88	34.75		22.59	527	0.05
20	26.71	34.74		20	26.71	34.74		22.64	522	0.10
30	26.45	34.73		30	26.45	34.73		22.71	515	0.16
50	21.76	34.52		50	21.76	34.52		23.94	398	0.25

13730 CREST; October 10, 1953; 1801 GCT; 25°20'N, 112°44.5'W; sounding, 210 fm; wind, 300°, force 3; weather, clear; sea, slight; wire angle, 02°.

0	27.01	34.78		0	27.01	34.78		22.57	528	0.00
10	26.20	34.87		10	26.20	34.87		22.89	498	0.05
25	25.15	34.79		20	25.35	34.81		23.11	477	0.10
49	18.39	34.04		30	25.10	34.78		23.16	472	0.15
73	14.87	34.19		50	18.00	34.04		24.56	339	0.23
95	14.12	34.56		75	14.80	34.22		25.43	256	0.31
145	13.10	34.65		100	14.01	34.58		25.88	213	0.37
191	12.12	34.68		150	13.10	34.65		26.12	190	0.47
239	11.38	34.68		200	11.94	34.68		26.37	166	0.56
286	10.90	34.64		250	11.25	34.67		26.49	155	0.64
339	10.64	34.67		300	10.82	34.64		26.55	149	0.72

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