5510

MR. JOHN D. ISAACS
PROGRAM DIRECTOR, MARINE LIFE RES.
MLR, 1259 RH

UNIVERSITY OF CALIFORNIA SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

PHYSICAL AND CHEMICAL DATA
CCOFI CRUISE 5510
(MLR 77)
16-30 October 1955

SIO Reference 60-2
15 June 1959

UNIVERSITY OF CALIFORNIA

SCRIPPS INSTITUTION OF OCEANOGRAPHY

PHYSICAL AND CHEMICAL DATA

CCOFI CRUISE 5510
(MLR 77)
16-30 March 1955

Sponsored by

Marine Research Committee

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15 June 1959

Approved for distribution:

Roger Revelle

Roger Revelle, Director

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INTRODUCTION

The data presented in this report were collected on the seventy-seventh consecutive cruise of the California Cooperative Oceanic Fisheries Investigations program. The R/V Black Douglas of the U. S. Fish and Wildlife Service and the R/V Stranger of the Scripps Institution participated in this cruise.

The data are tabulated at observed depths, and the interpolated and computed values are tabulated at standard depths. They are accompanied by charts of horizontal distribution. The presentation of data in this report does not constitute publication; however, the data contained in this report have been carefully edited and no modifications should be necessary before final publication.

STANDARD PROCEDURES

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

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

[1/] Klein, Hans T. A new technique for processing physical oceanographic data. MS.

FOOTNOTES

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

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

Loose bottle cap:	The cap is definitely loose so that it could be moved with very little applied pressure. The salinity values obtained from these samples may be usable depending on time and/or conditions of storage.
Possible evaporation:	Either the cap was sealed with less than usual pressure, the bottle edge chipped, the rubber washer cracked, or the bale broke on opening, etc.

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

In addition to 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.

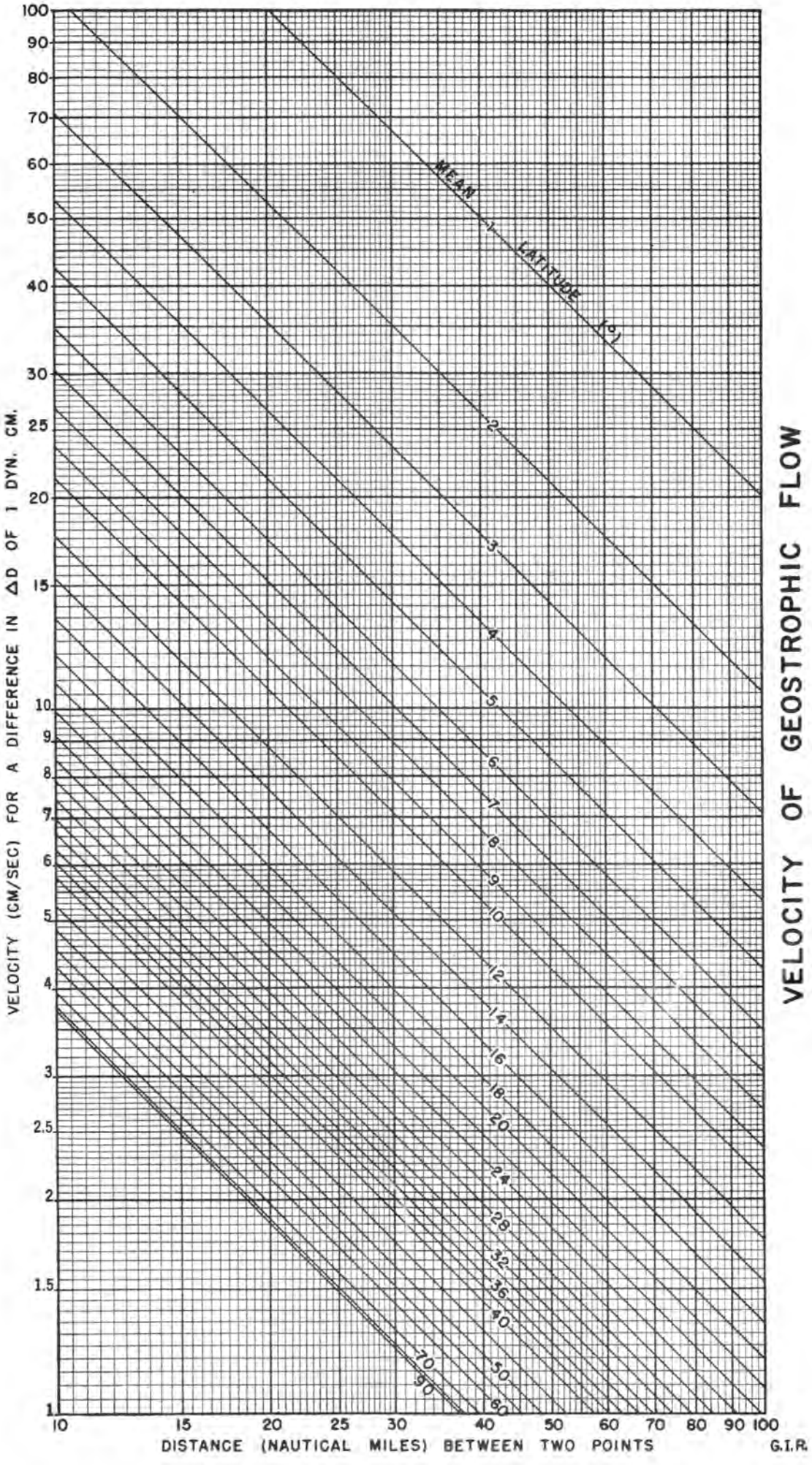
Values which are not drawn through because they seem to be in error without apparent reason are indicated by one of the following natations.

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

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

FORMAT

These data are typed in the format of the University of California Press publication, Oceanic Observations of the Pacific. So that these pages can be used as copy for the 1955 volume, the first page of the Cruise 5510 data is numbered 191.


VELOCITY OF GEOSTROPHIC FLOW
VELOCITY (CM/SEC) FOR A DIFFERENCE IN ΔD OF 1 DYN. CM.
DISTANCE (NAUTICAL MILES) BETWEEN TWO POINTS
MEAN LATITUDE (°)
1
2
3
4
5
6
7
8
9
10
12
14
16
18
20
24
28
32
36
40
50
60
70
90
100
90
80
70
60
50
40
30
25
20
15
10
9
8
7
6
5
4
3
2.5
2
1.5
1
10
15
20
25
30
40
50
60
70
80
90
100
G.I.R.

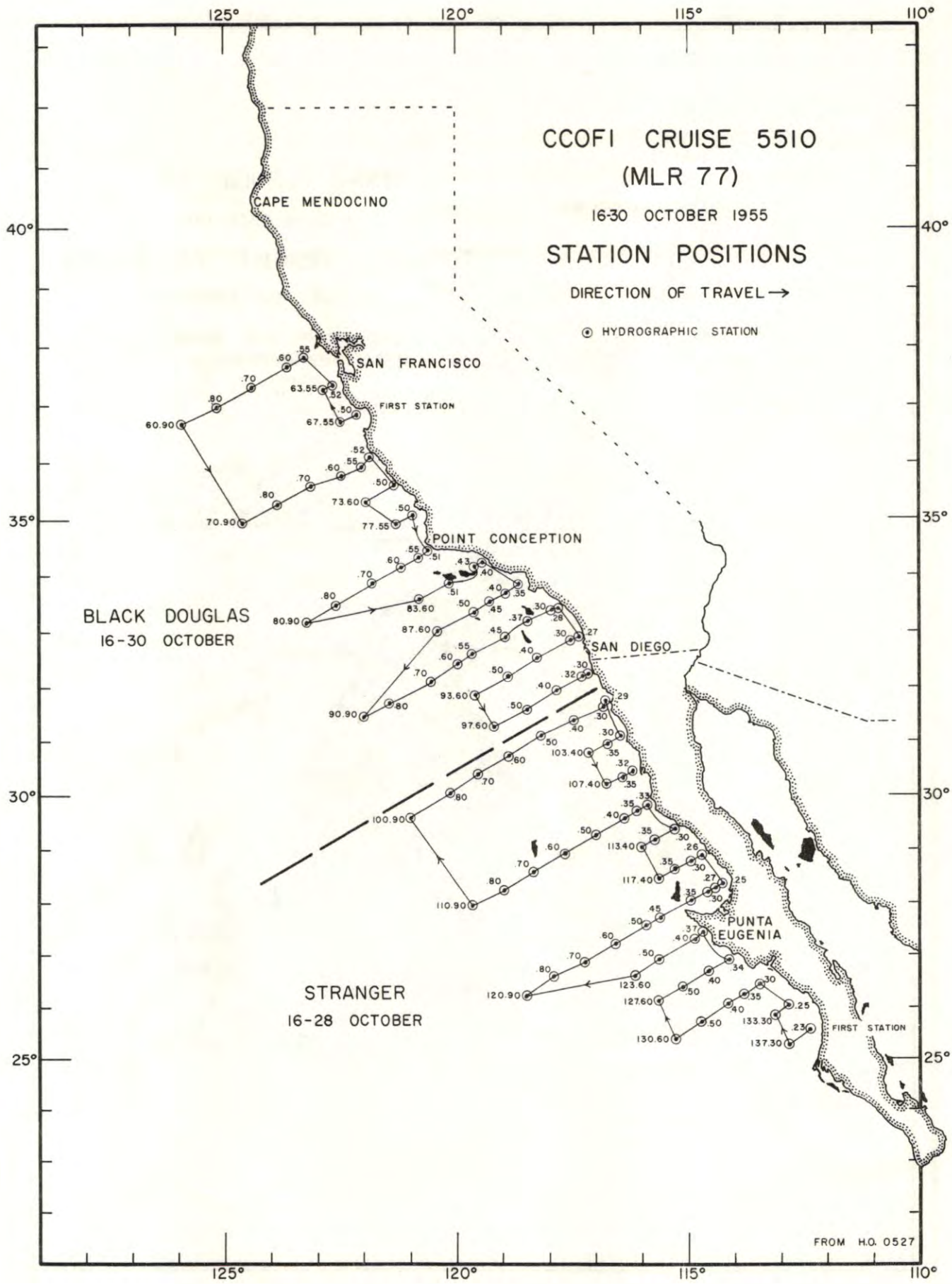

CCOFI CRUISE 5510
(MLR 77)
16-30 OCTOBER 1955
STATION POSITIONS
DIRECTION OF TRAVEL →
⊙ HYDROGRAPHIC STATION
CAPE MENDOCINO
SAN FRANCISCO
FIRST STATION
POINT CONCEPTION
SAN DIEGO
PUNTA EUGENIA
BLACK DOUGLAS
16-30 OCTOBER
STRANGER
16-28 OCTOBER
FIRST STATION
FROM H.O. 0527
125°
120°
115°
110°
40°
35°
30°
25°

FIGURE 1

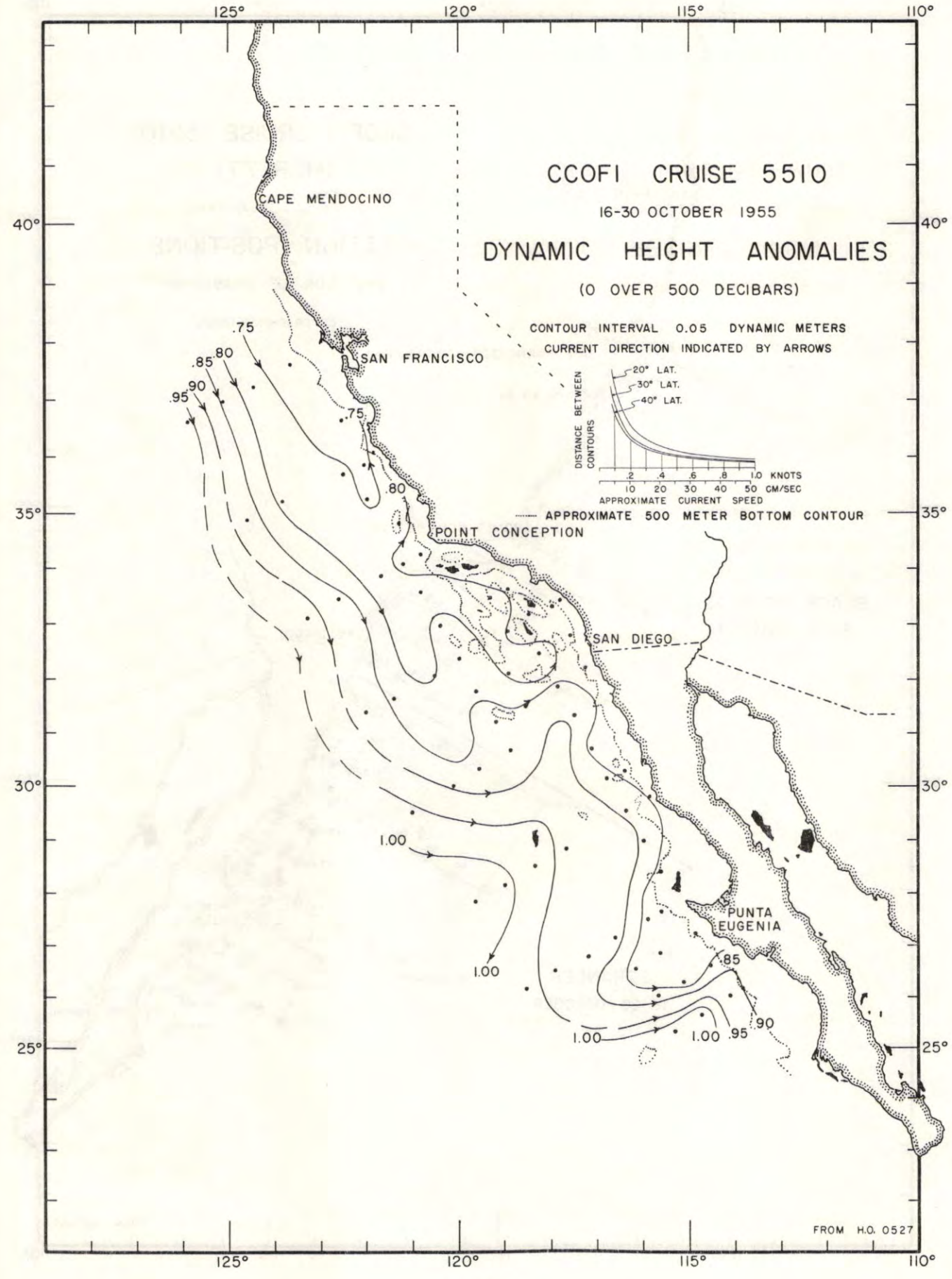

CCOFI CRUISE 5510
16-30 OCTOBER 1955
DYNAMIC HEIGHT ANOMALIES
(0 OVER 500 DECIBARS)
CONTOUR INTERVAL 0.05 DYNAMIC METERS
CURRENT DIRECTION INDICATED BY ARROWS
20° LAT.
30° LAT.
40° LAT.
DISTANCE BETWEEN CONTOURS
.2 .4 .6 .8 1.0 KNOTS
10 20 30 40 50 CM/SEC
APPROXIMATE CURRENT SPEED
APPROXIMATE 500 METER BOTTOM CONTOUR
CAPE MENDOCINO
SAN FRANCISCO
POINT CONCEPTION
SAN DIEGO
PUNTA EUGENIA
.75
.80
.85
.90
.95
1.00
125°
120°
115°
110°
40°
35°
30°
25°
FROM H.O. 0527

FIGURE 2

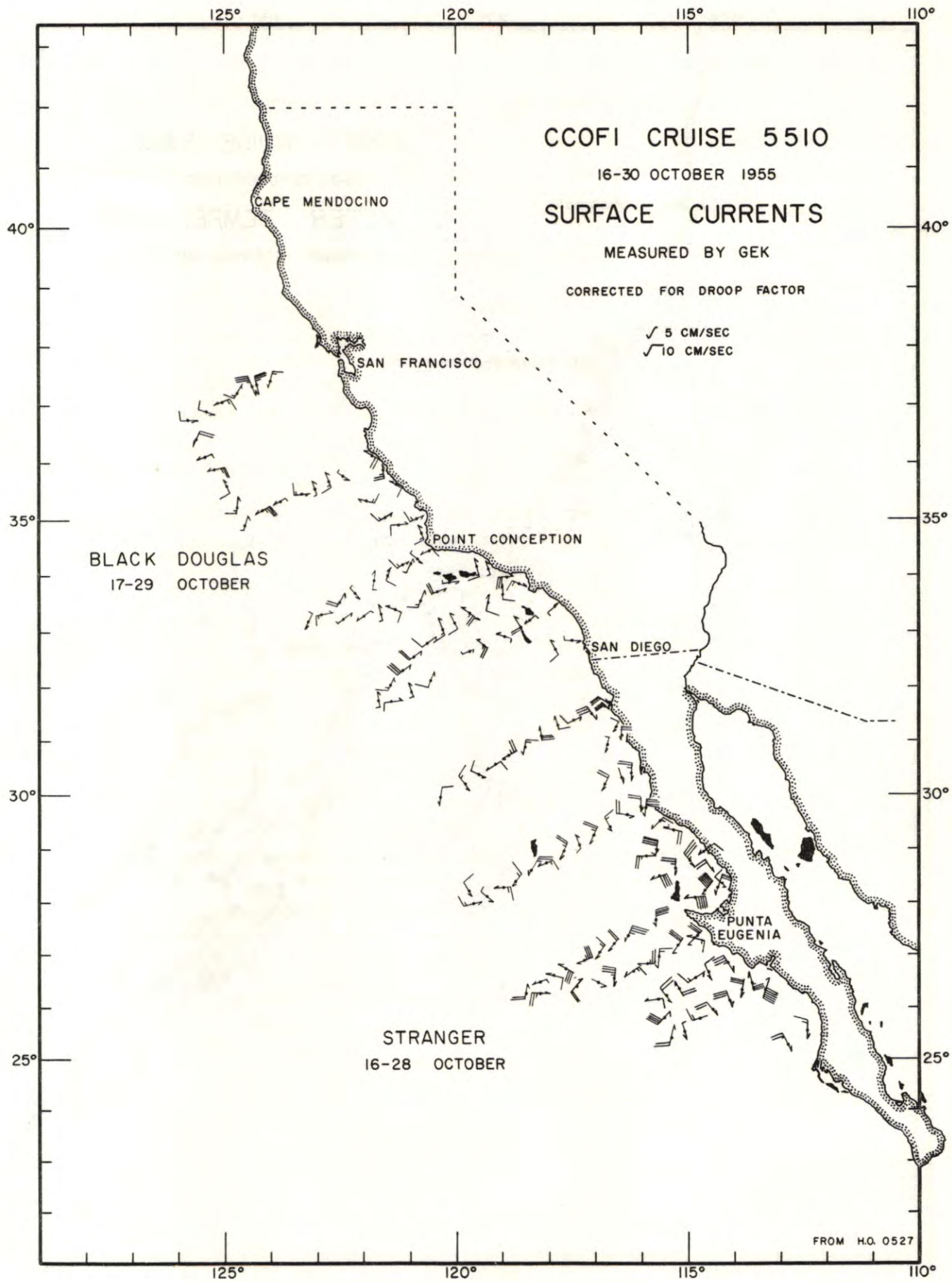

CCOFI CRUISE 5510
16-30 OCTOBER 1955
SURFACE CURRENTS
MEASURED BY GEK
CORRECTED FOR DROOP FACTOR
5 CM/SEC
10 CM/SEC
CAPE MENDOCINO
SAN FRANCISCO
POINT CONCEPTION
SAN DIEGO
PUNTA EUGENIA
BLACK DOUGLAS
17-29 OCTOBER
STRANGER
16-28 OCTOBER
FROM H.O. 0527
125°
120°
115°
110°
40°
35°
30°
25°

FIGURE 3

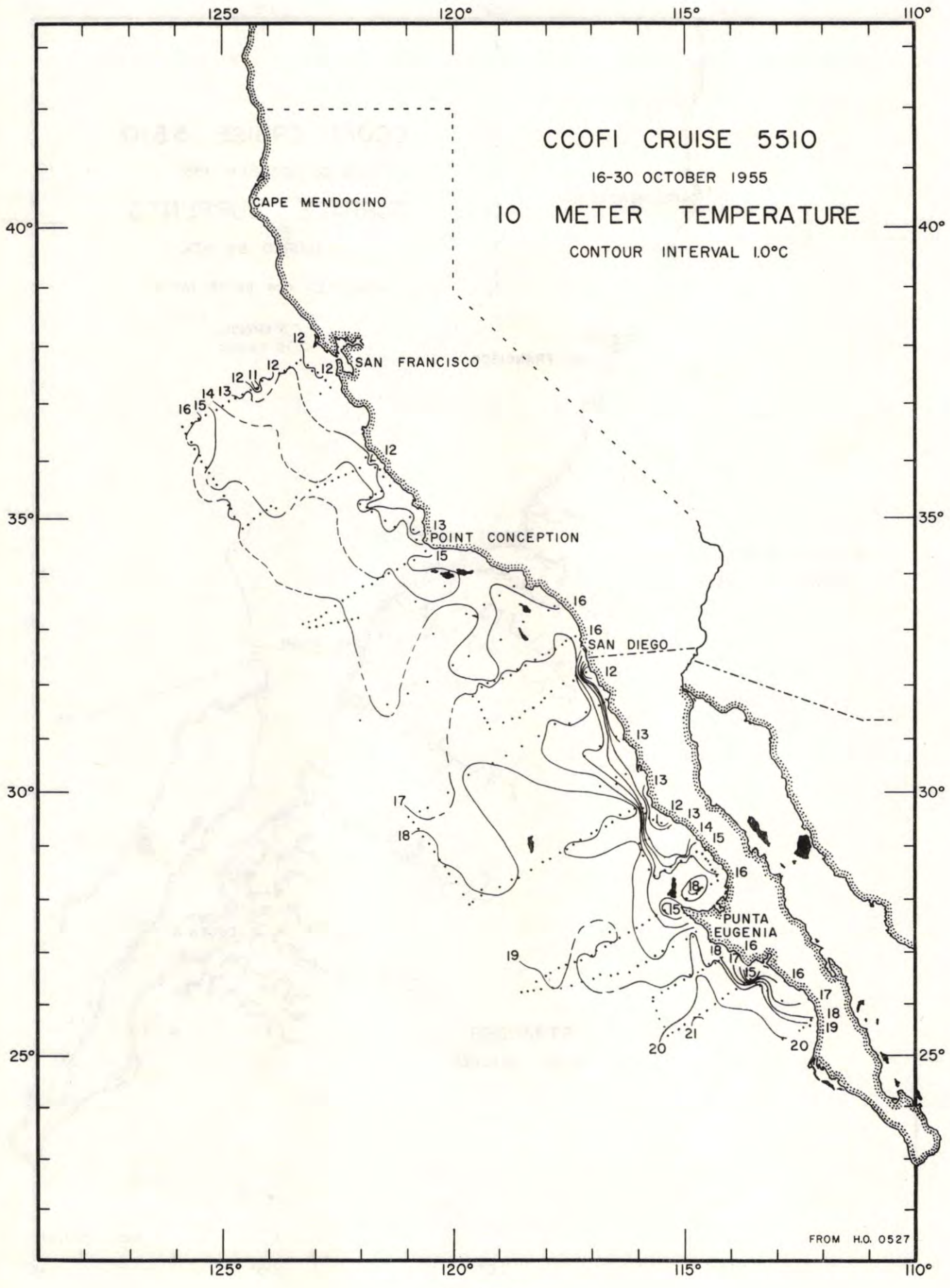

CCOFI CRUISE 5510
16-30 OCTOBER 1955
10 METER TEMPERATURE
CONTOUR INTERVAL 1.0°C
CAPE MENDOCINO
SAN FRANCISCO
POINT CONCEPTION
SAN DIEGO
PUNTA EUGENIA
FROM H.O. 0527
125°
120°
115°
110°
40°
35°
30°
25°

FIGURE 4

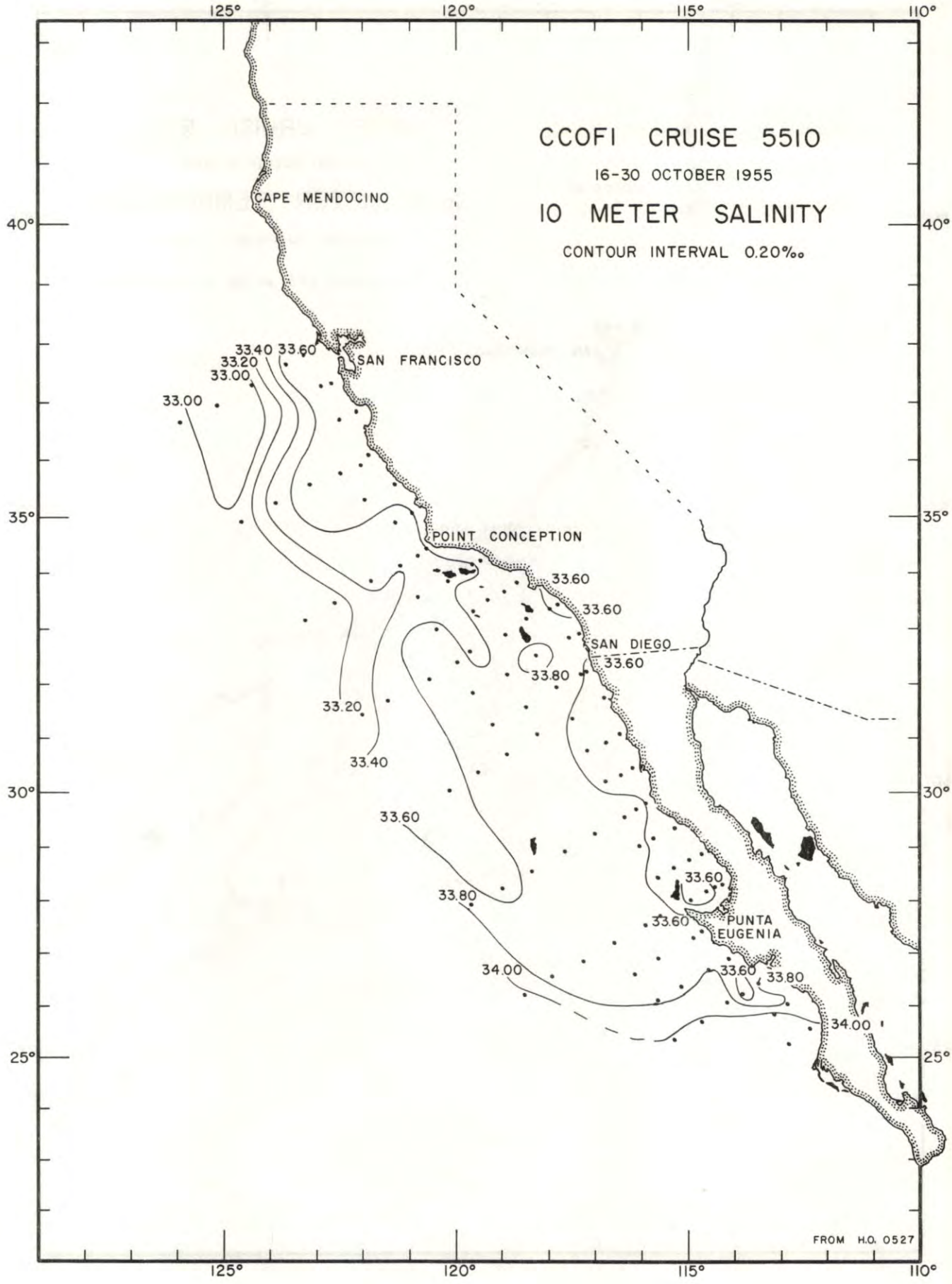

CCOFI CRUISE 5510
16-30 OCTOBER 1955
10 METER SALINITY
CONTOUR INTERVAL 0.20‰
CAPE MENDOCINO
SAN FRANCISCO
POINT CONCEPTION
SAN DIEGO
PUNTA EUGENIA
33.00
33.20
33.40
33.60
33.80
34.00
125°
120°
115°
110°
40°
35°
30°
25°
FROM H.O. 0527

FIGURE 5

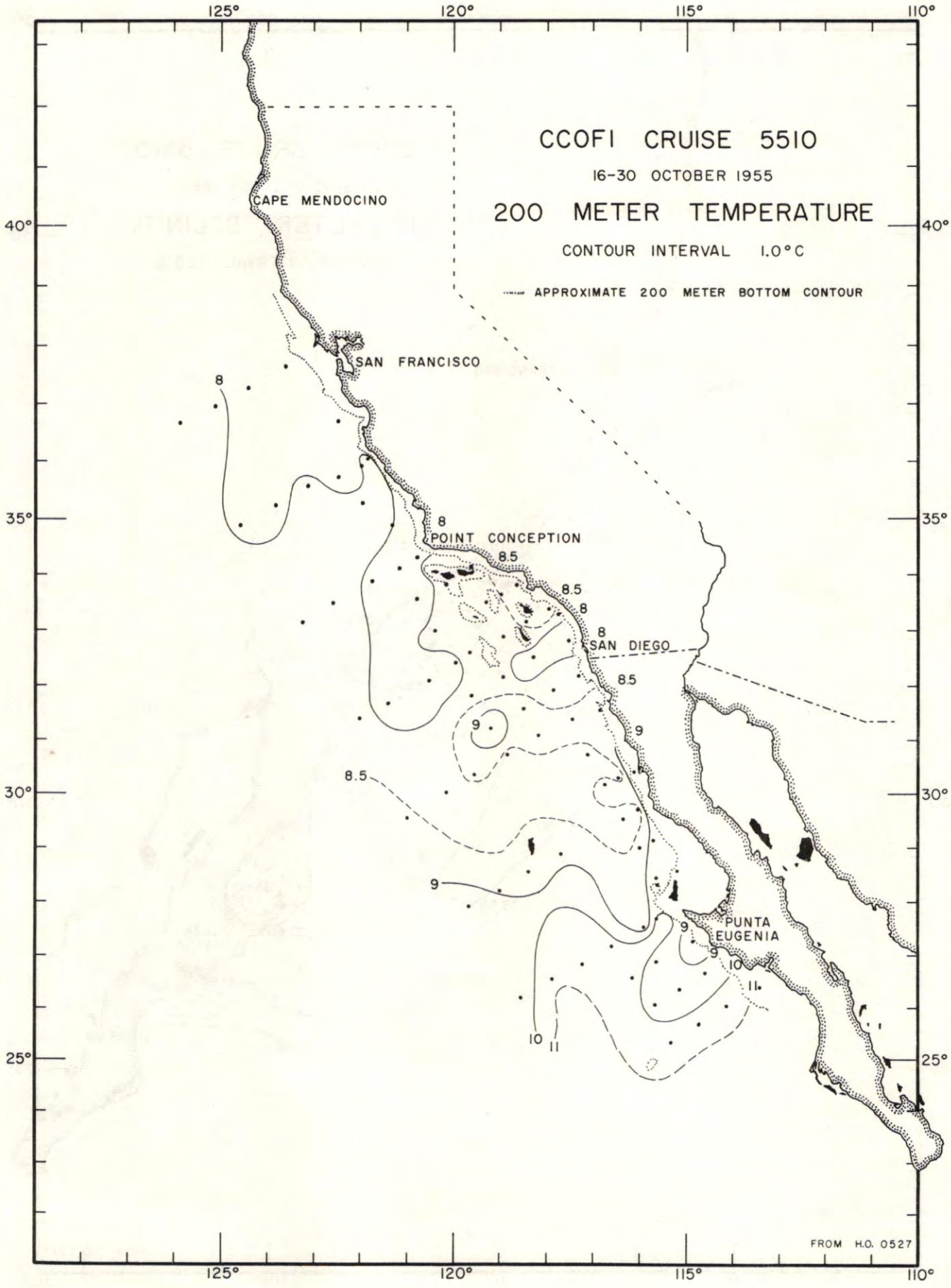

CCOFI CRUISE 5510
16-30 OCTOBER 1955
200 METER TEMPERATURE
CONTOUR INTERVAL 1.0°C
APPROXIMATE 200 METER BOTTOM CONTOUR
CAPE MENDOCINO
SAN FRANCISCO
POINT CONCEPTION
SAN DIEGO
PUNTA EUGENIA
125°
120°
115°
110°
40°
35°
30°
25°
8
8.5
9
10
11
FROM H.O. 0527

FIGURE 6

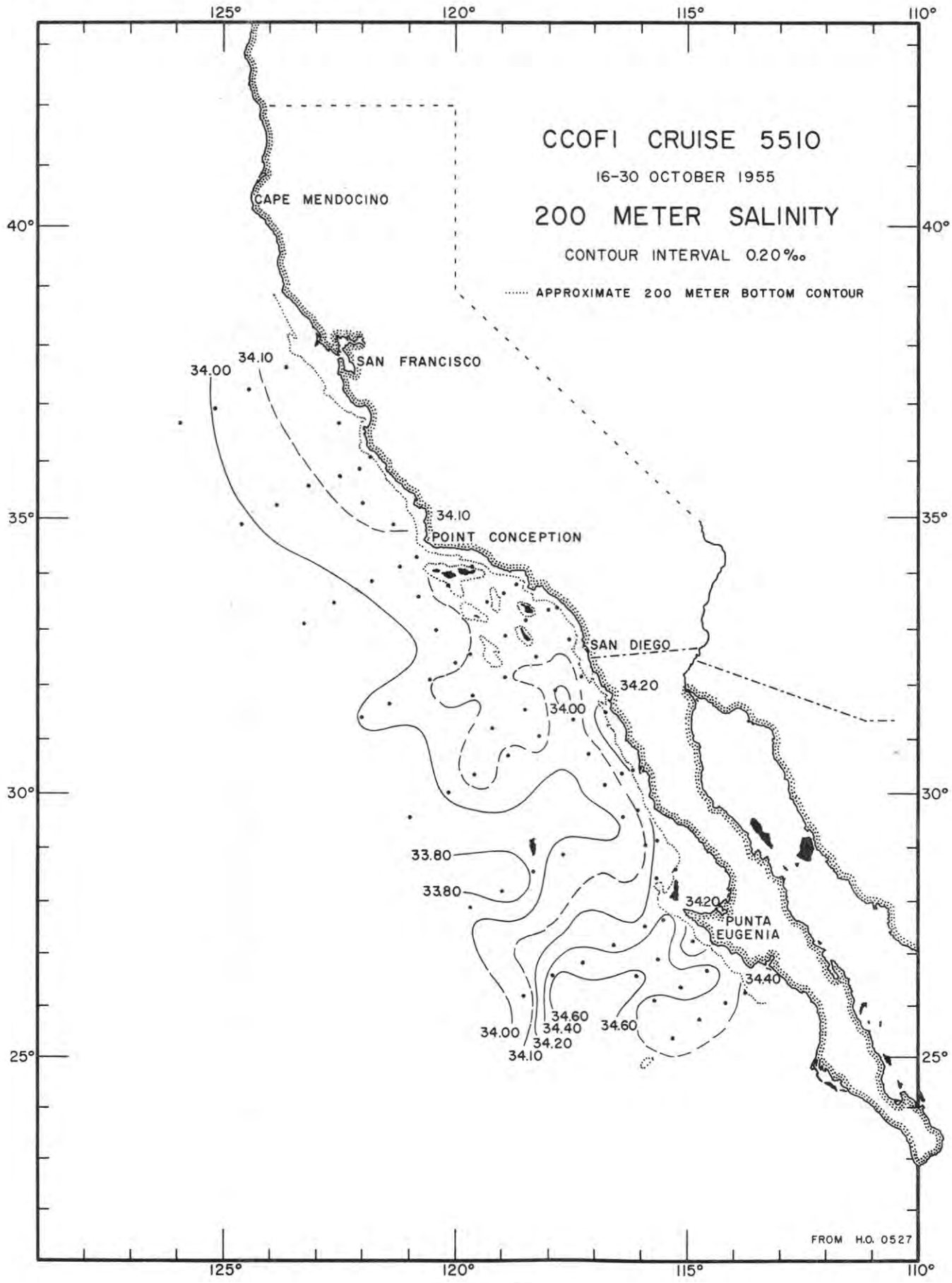

CCOFI CRUISE 5510
16-30 OCTOBER 1955
200 METER SALINITY
CONTOUR INTERVAL 0.20‰
APPROXIMATE 200 METER BOTTOM CONTOUR
CAPE MENDOCINO
SAN FRANCISCO
POINT CONCEPTION
SAN DIEGO
PUNTA EUGENIA
34.00
34.10
34.10
34.20
34.00
33.80
33.80
34.20
34.40
34.00
34.60
34.40
34.20
34.10
34.60
125°
120°
115°
110°
40°
35°
30°
25°
FROM H.O. 0527

FIGURE 7

PERSONNEL

SHIPS' CAPTAINS

Davis, Laurence E., R/V Stranger
Forster, Charles W., R/V Black Douglas

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

R/V Black Douglas

O'Connell, Charles P., Fishery Research Biologist, U. S. Fish and Wildlife Service
Bower, Donald R., Fishery Aid, U. S. Fish and Wildlife Service
Hinds, James W., Jr., Marine Technician
Peters, Richard C., Marine Technician

R/V Stranger

Greenbaum, Richard H., Senior Laboratory Technician
Bryer, Bruce A., Marine Technician
Christiansen, Neils B., Marine Technician
MacGregor, John S., Marine Biologist, U. S. Fish and Wildlife Service

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^3 cm/g	ΔD dyn. m
BLACK DOUGLAS; October 17, 1955; 1527 GCT; 37°47.5'N, 123°15'W; sounding, 60 fm; wind, 110°, force 2; weather, cloudy; sea, moderate; wire angle, 00°.											60.55
0	12.18	33.72	5.76	241	0	12.18	33.72	5.76	25.58	241	0.00
10	12.18	33.72	5.70	241	10	12.18	33.72	5.70	25.58	241	0.02
14	12.17	33.71	5.77	242	20	12.08	33.72	5.73	25.60	240	0.05
19	12.11	33.72	5.76	240	30	11.72	33.72	5.60	25.67	233	0.07
24	11.95	33.73	5.69	236	50	11.18	33.76	5.44	25.79	221	0.12
29	11.75	33.72	5.58	234	75	9.72	33.86	3.78	26.13	189	0.17
33	11.59	33.73	5.61	230							
43	11.52	33.74	5.55	228							
53	10.94	33.77	5.36	216							
62	10.24	33.83	4.51	200							
77	9.65	33.86	3.72	188							
BLACK DOUGLAS; October 17, 1955; 1916, 1942 GCT; 37°37'N, 123°37'W; sounding, 1850 fm; wind, 120°, force 1; weather, cloudy; sea, moderate; wire angle, 00°, 00°.											60.60
0	13.0	33.70	6.08	258	0	13.0	33.70	6.08	25.41	258	0.00
8	12.94	33.71a)	5.95	256	10	12.87	33.71	5.90	25.44	255	0.03
23	12.26	33.69	5.59	245	20	12.43	33.70	5.69	25.51	248	0.05
46	9.96	33.78	3.57	198	30	11.70	33.70	5.18	25.66	234	0.08
55	9.34	33.82	3.17	186	50	9.62	33.80	3.33	26.10	192	0.12
64	9.14	33.83	2.84	182	75	8.96	33.89	2.79	26.28	175	0.16
73	8.98	33.88	2.79	176	100	8.46	33.93	2.84	26.39	165	0.21
91	8.72	33.92	2.89	169	150	8.12	34.10	2.00	26.57	147	0.29
					200	7.71	34.13	1.54	26.66	139	0.36
114	8.15	33.96	2.67	158	250	7.04	34.09	1.56	26.73	133	0.43
141	8.14	34.04a)	2.09	152	300	6.57	34.10	1.37	26.80	126	0.49
187	7.86	34.14	1.54	141	400	6.05	34.17	0.95	26.91	115	0.62
251	7.01	34.09	1.57	133	500	5.72	34.25	0.60	27.02	105	0.73
348	6.26	34.13	1.14	120	600	5.06	34.31	0.32	27.14	93	0.84
468	5.82	34.23	0.68	107	700	4.47	34.38	(0.39)	27.27	81	0.93
642	4.78	34.34	0.32	87	800	4.11	34.45	(0.50)	27.35	73	1.01
852	4.10	34.47	0.78r	71	1000	3.71	34.50	(0.66)	27.44	65	1.16
1143	3.30	34.52	0.81	60							
BLACK DOUGLAS; October 18, 1955; 0230 GCT; 37°17'N, 124°21'W; sounding, 1740 fm; wind, 090°, force 3; weather, drizzle; sea, rough; wire angle, 10°.											60.70
0	13.8	32.74	6.11	344	0	13.8	32.74	6.11	24.50	344	0.00
10	12.99	32.82	6.24	322	10	12.99	32.82	6.24	24.73	322	0.03
24	10.90	33.10	6.12	265	20	11.39	33.00	6.19	25.17	280	0.06
47	10.02	33.47	5.43	223	30	10.55	33.20	5.90	25.47	252	0.09
56	9.90	33.58	5.22	213	50	9.98	33.51	5.34	25.82	219	0.14
65	9.95	33.68	4.56	206	75	9.60	33.69	3.99	26.02	200	0.19
74	9.64	33.69	3.99	201	100	9.18	33.83	4.03	26.19	183	0.24
92	8.84	33.71	4.07	187	150	8.06	34.02	2.06	26.52	152	0.32
114	8.69	33.86	3.26	174	200	7.64	34.08	1.75	26.62	142	0.40
141	8.17	33.98	2.18	157	250	6.90	34.08	1.86	26.73	132	0.47
186	7.82	34.08	1.75	145	300	6.55	34.11	1.50	26.81	125	0.53
250	6.90	34.08	1.86	132	400	6.15	34.19	0.80	26.92	114	0.66
344	6.38	34.16	0.99	119	500	5.62	34.26	0.57	27.04	103	0.77
461	5.80	34.23	0.66	107	600	5.27	34.32	0.38	27.13	94	0.87
634	5.16	34.35	0.37	91	700	4.98	34.36	0.37	27.19	88	0.97
835	4.32	34.42	0.39	77	800	4.54	34.41	0.37	27.28	80	1.06
1122	3.50	34.52	0.68	61	1000	3.90	34.46	0.50	27.39	70	1.22

a) Loose bottle cap; value falls on property curve.

SIO
CCOFI
5510

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m

60.80 BLACK DOUGLAS; October 18, 1955; 1002 GCT; 36°57'N, 125°04'W; sounding, 2000+ fm; wind, 120°, force 2; weather, drizzle; sea, rough; wire angle, 07°.

0	15.3	32.93	6.70	360	0	15.3	32.93	6.70	24.33	360	0.00
10	14.97	32.92	6.66	354	10	14.97	32.92	6.66	24.40	354	0.04
24	12.81	32.85	6.40	316	20	13.35	32.87	6.47	24.70	326	0.07
48	11.45	33.14	6.29	271	30	12.32	32.89	6.37	24.92	304	0.10
57	11.84	33.38	6.21	260	50	11.46	33.16	6.27	25.28	270	0.16
66	11.46	33.40	6.00	252	75	11.00	33.42	5.78	25.57	242	0.22
76	10.98	33.42	5.77	242	100	9.16	33.36	4.66	25.83	218	0.28
94	9.48	33.32	4.86	225	150	8.47	33.89	2.30	26.35	168	0.38
117	8.63	33.63	4.14	190	200	8.19	34.04	2.01	26.51	153	0.46
145	8.50	33.87	2.89	170	250	7.43	34.06	1.83	26.64	141	0.53
191	8.32	34.03	2.05	155	300	7.16	34.12	1.51	26.72	133	0.60
255	7.37	34.06	1.81	140	400	6.39	34.22	0.85	26.91	115	0.73
353	6.82	34.22a)	0.90	121	500	5.43	34.23	0.72	27.04	103	0.85
473	5.68	34.22	0.79	106	600	4.88	34.31	0.47	27.16	91	0.95
645	4.74	34.33	0.42	88	700	4.59	34.35	0.40	27.24	84	1.14
855	4.08	34.42	0.34	76	800	4.27	34.39	0.36	27.30	78	1.13
1146	3.32	34.51	0.27	60	1000	3.65	34.47	0.29	27.42	67	1.29

60.90 BLACK DOUGLAS; October 18, 1955; 1706 GCT; 36°39'N, 125°49'W; sounding, 2050 fm; wind, 130°, force 3; weather, cloudy; sea, very rough; wire angle, 10°.

0	16.2	33.08	5.73	368	0	16.2	33.08	5.73	24.25	368	0.00
10	16.06	33.09	5.71	365	10	16.06	33.09	5.71	24.28	365	0.04
24	16.06	33.09	5.69	365	20	16.06	33.09	5.69	24.28	365	0.07
48	15.88	33.09	5.74	361	30	16.04	33.09	5.69	24.29	364	0.11
57	15.74	33.10	5.71	357	50	15.84	33.09	5.73	24.34	360	0.18
67	13.30	33.04	6.16	312	75	12.17	33.07	6.16	25.08	289	0.26
76	12.02	33.07	6.16	286	100	10.75	33.07	5.83	25.34	264	0.33
95	10.94	33.06	5.87	268	150	9.34	33.43	4.78	25.86	215	0.46
118	10.19	33.12	5.69	251	200	8.38	33.88	3.49	26.36	167	0.55
145	9.42	33.38	4.93	220	250	7.80	33.99	3.20	26.54	151	0.64
191	8.52	33.84	3.60	172	300	7.18	34.03	2.45	26.65	140	0.71
255	7.74	34.00	3.15	149	400	6.06	34.08	1.52	26.84	122	0.87
351	6.48	34.06	1.60	129	500	5.41	34.17	1.37	27.00	107	0.97
469	5.54	34.14	1.42	111	600	5.03	34.29	0.47	27.13	94	1.07
637	4.93	34.34	0.38	89	700	4.77	34.38	0.38	27.24	84	1.17
845	4.27	34.45	0.38	74	800	4.47	34.43	0.38	27.31	78	1.26
1133	3.50	34.51	0.57	62	1000	3.77	34.49	0.51	27.43	66	1.42

63.52 BLACK DOUGLAS; October 17, 1955; 0842, 0855 GCT; 37°19'N, 122°36'W; sounding, 45 fm; wind, 130°, force 2; weather, missing; sea, slight; wire angle, 04°, 04°.

0	12.38	33.68	5.81	248	0	12.38	33.68	5.81	25.51	248	0.00
9	12.41	33.69	5.58	248	10	12.39	33.69	5.53	25.52	248	0.02
15	11.54	33.73	5.30	229	20	11.13	33.76	4.62	25.81	220	0.05
					30	10.55	33.78	3.68	25.93	208	0.07
19	11.22	33.75	4.78	222	50	9.63	33.83	2.85	26.12	190	0.11
23	10.81	33.77	4.12	213							
28	10.61	33.78	3.72	210							
33	10.32	33.78	3.65	205							
43	9.72	33.82	3.02	192							
52	9.61	33.84	2.76	189							
67	9.44	33.86	2.46	185							

a) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T}^{-5}{}_{3}$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T}^{-5}{}_{3}$ 10^{-5} cm/g	ΔD dyn. m
BLACK DOUGLAS; October 17, 1955; 0605 GCT; 37°14'N, 122°49.5'W; sounding, 105 fm; wind, 070°, force 2; weather, missing; sea, slight; wire angle, 03°.											63.55
0	12.86	33.71	5.83	255	0	12.86	33.71	5.83	25.44	255	0.00
10	12.54	33.74	5.70	246	10	12.54	33.74	5.70	25.53	246	0.02
14	11.79	33.71	5.43	235	20	10.58	33.77	4.16	25.91	210	0.05
19	10.76	33.76	4.37	214	30	10.00	33.79	3.24	26.03	198	0.07
24	10.27	33.79	3.80	204	50	9.47	33.84	2.86	26.16	187	0.11
28	10.11	33.79	3.35	200							
33	9.84	33.80	3.17	196							
43	9.55	33.83	2.91	189							
53	9.42	33.84	2.80	186							
BLACK DOUGLAS; October 16, 1955; 1955 GCT; 36°49'N, 122°04.5'W; sounding, 58 fm; wind, 100°, force 1; weather, cloudy; sea, slight; wire angle, 02°.											67.50
0	12.31	33.69	5.77	246	0	12.31	33.69	5.77	25.53	246	0.00
9	12.09	33.69	5.72	242	10	12.04	33.69	5.68	25.59	241	0.02
14	11.79	33.69	5.39	236	20	11.05	33.70	4.40	25.77	223	0.05
19	11.10	33.69	4.52	225	30	10.40	33.73	3.80	25.91	210	0.07
23	10.86	33.72	4.10	218	50	9.68	33.82	3.05	26.11	191	0.11
28	10.49	33.72	3.86	212	75	9.39	33.87	2.48	26.19	183	0.16
33	10.28	33.76	3.66	206							
43	9.84	33.80	3.19	196							
52	9.62	33.83	3.02	190							
61	9.46	33.86	2.73	185							
76	9.38	33.87	2.48	183							
BLACK DOUGLAS; October 16, 1955; 2340 GCT; 36°39'N, 122°26'W; sounding, 1150 fm; wind, 180°, force 2; weather, cloudy; sea, slight; wire angle, 04°.											67.55
0	12.9	33.71	6.76	255	0	12.9	33.71	6.76	25.44	255	0.00
9	12.78	33.71	7.00	253	10	12.76	33.71	6.99	25.47	252	0.02
28	10.19	33.74	3.81	206	20	11.26	33.73	5.14	25.76	224	0.05
37	9.79	33.78	3.20	196	30	10.07	33.74	3.60	25.98	203	0.07
46	9.59	33.84	3.01	189	50	9.55	33.87	2.93	26.17	186	0.11
55	9.47	33.88	3.12u	184	75	9.20	33.86	2.75	26.22	181	0.16
64	9.32	33.88	2.64	181	100	8.81	33.94	2.70	26.34	170	0.20
73	9.22	33.86	2.74	181	150	8.34	34.05	2.00	26.50	154	0.28
82	9.00	33.91	2.76	174	200	7.93	34.16	1.73	26.65	140	0.36
91	8.92	33.92	2.85u	172	250	7.40	34.16	1.90	26.73	133	0.42
113	8.64	33.98	2.59	164	300	7.04	34.20	1.62	26.81	125	0.49
139	8.41	34.04	2.17	156	400	6.44	34.26	1.26	26.94	113	0.61
184	8.10	34.16	1.68	143	500	5.88	34.29	0.94	27.03	104	0.72
237	7.50	34.16	1.90	134							
332	6.80	34.25	1.41	118							
442	6.20	34.27	1.15	109							
559	5.46	34.32	0.57	96							

S10

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

70.52 BLACK DOUGLAS; October 20, 1955; 1645 GCT; 36°08.5'N, 121°50'W; sounding, 380 fm; wind, 320°, force 2; weather, fog; sea, moderate; wire angle, 02°.

0	13.8	33.65	6.16	277	0	13.8	33.65	6.16	25.20	277	0.00
10	13.60	33.66	6.32	272	10	13.60	33.66	6.32	25.26	272	0.03
28	12.63	33.64	5.75	256	20	13.23	33.65	6.13	25.33	266	0.05
39	11.33	33.64	4.62	232	30	12.41	33.64	5.56	25.47	252	0.08
47	10.78	33.65	4.22	222	50	10.56	33.66	4.09	25.83	218	0.13
57	10.09	33.69	3.80	208	75	9.27	33.79	3.12	26.14	188	0.18
67	9.63	33.75	3.36	196	100	8.86	33.90	2.64	26.30	173	0.22
74	9.30	33.79	3.14	188	150	8.53	34.04	2.04	26.47	157	0.31
84	9.17	33.80	3.01	185	200	8.18	34.14	1.76	26.59	145	0.38
94	8.97	33.86	2.76	177	250	7.82	(34.19)	1.43	(26.69)	(136)	(0.46)
116	8.71	33.98	2.41	165	300	7.37	(34.22)	1.11	(26.78)	(128)	(0.52)
144	8.55	34.02	2.07	160	400	6.44	(34.27)	0.63	(26.94)	(112)	(0.65)
189	8.24	34.12	1.81	148	500	5.76	34.30	0.43	27.06	101	(0.76)
246	7.82	34.19	1.45	136							
343	6.93	34.40u	0.87	-							
455	6.04	34.29	0.45	106							
573	5.28	34.33	0.42	94							

70.55 BLACK DOUGLAS; October 20, 1955; 1342 GCT; 35°55'N, 121°59'W; sounding, 750 fm; wind, 270°, force 1; weather, fog; sea, moderate; wire angle, 00°.

0	14.2	33.68	5.79	283	0	14.2	33.68	5.79	25.15	283	0.00
10	13.82	33.68	6.04	275	10	13.82	33.68	6.04	25.23	275	0.03
29	11.64	33.66	5.32	236	20	12.99	33.67	5.80	25.39	260	0.05
38	10.27	33.66	4.48	213	30	11.46	33.66	5.24	25.68	232	0.08
47	10.08	33.66	4.40	210	50	10.02	33.66	4.34	25.92	209	0.12
56	9.87	33.71	3.77	203	75	9.22	33.80	2.96	26.16	186	0.17
66	9.25	33.74	3.36	191	100	8.85	33.82	2.72	26.24	178	0.22
75	9.22	33.80	2.96	186	150	8.13	34.00	2.40	26.49	155	0.30
84	9.01	33.82	2.76	181	200	7.84	34.12	(2.00)	26.62	142	0.38
93	8.93	33.82	2.97u	179	250	7.61	34.22	(1.73)	26.74	131	0.45
116	8.72	33.91	2.69	170	300	7.17	34.24	(1.30)	26.82	124	0.51
143	8.20	33.98	2.49	158	400	6.35	34.27	0.77	26.95	111	0.63
189	7.87	34.09	2.01	145	500	5.89	34.30	0.54	27.04	103	0.74
244	7.66	34.22	2.23u	132							
341	6.70	34.25	0.93	117							
453	6.12	34.29	0.66	107							
573	5.41	34.31	0.36	97							

70.60 BLACK DOUGLAS; October 20, 1955; 0843 GCT; 35°45'N, 122°26'W; sounding, 1900 fm; wind, calm; weather, fog; sea, moderate; wire angle, 00°.

0	14.4	33.64	5.97	290	0	14.4	33.64	5.97	25.07	290	0.00
10	14.20	33.68	5.97	283	10	14.20	33.68	5.97	25.15	283	0.03
24	14.02	33.65	6.29	282	20	14.06	33.66	6.25	25.15	282	0.06
48	10.52	33.66	3.88	217	30	13.95	33.65	6.27	25.18	280	0.08
57	9.74	33.71	3.40	200	50	10.20	33.67	3.67	25.90	211	0.13
67	9.43	33.77	3.25	192	75	9.25	33.78	3.07	26.14	188	0.18
76	9.25	33.78	3.01	188	100	8.75	33.90	2.60	26.32	172	0.23
95	8.82	33.88	2.60	174	150	8.20	34.03	2.30	26.50	154	0.31
118	8.43	33.95	2.57	163	200	7.94	34.14	1.60	26.63	142	0.39
145	8.23	34.02	2.33	155	250	7.74	34.21	1.08	26.71	134	0.46
192	7.97	34.13	1.84	143	300	7.45	34.24	0.90	26.78	128	0.52
256	7.73	34.21	1.07	134	400	6.60	34.28	0.62	26.93	114	0.65
353	7.02	34.26	0.74	120	500	5.86	34.32	0.45	27.05	102	0.76
472	6.02	34.31	0.46	104	600	5.41	34.34	0.42	27.13	95	0.86
644	5.23	34.35	0.40	92	700	5.00	34.37	0.40	27.20	88	0.96
854	4.34	34.42	0.41	77	800	4.60	34.40	0.40	27.26	82	1.05
1144	3.38	34.52	0.73	60	1000	3.72	34.48	0.62	27.43	66	1.21

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T,3}$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T,3}$ 10^{-5} cm/g	ΔD dyn. m

BLACK DOUGLAS; October 20, 1955; 0226 GCT; 35°33'N, 123°04'W; sounding, 2000+ fm; wind, 140°, force 2; weather, fog; sea; moderate; wire angle, 02°. 70.70

0	14.7	33.65	6.33	295	0	14.7	33.65	6.33	25.02	295	0.00
10	14.07	33.64	6.12	283	10	14.07	33.64	6.12	25.14	283	0.03
24	13.77	33.66a)	5.95	276	20	13.83	33.65	5.97	25.20	278	0.06
48	13.39	33.79a)	5.85	259	30	13.66	33.70	5.90	25.28	270	0.08
58	9.42	33.82	2.85	187	50	13.08	33.80	5.71	25.47	252	0.14
67	9.26	33.86	2.57	182	75	9.24	33.86	2.52	26.21	181	0.19
76	9.24	33.87	2.52	181	100	9.13	33.91	2.46	26.27	176	0.24
95	9.13	33.91	2.48	176	150	8.82	34.02	2.21	26.41	163	0.32
117	9.00	33.92	2.43	173	200	8.60	34.09	1.85	26.49	155	0.40
144	8.84	33.98	2.26	167	250	8.32	34.20	1.56	26.62	143	0.48
190	8.62	34.09	1.89	157	300	8.01	34.27		26.72	134	0.55
254	8.27	34.21	1.52	142							
351	7.67	34.33	1.90r	124							

BLACK DOUGLAS; October 19, 1955; 2037 GCT; 35°13'N, 123°48'W; sounding, 2400 fm; wind, 180°, force 2; weather, cloudy; sea, rough; wire angle, 04°. 70.80

0	14.7	33.57	5.98	301	0	14.7	33.57	5.98	24.95	301	0.00
10	14.52	33.58	6.09	296	10	14.52	33.58	6.09	25.00	296	0.03
24	14.35	33.58	6.06	293	20	14.39	33.58	6.07	25.03	294	0.06
47	13.78	33.66	6.08	276	30	14.25	33.59	6.06	25.06	290	0.09
57	12.66	33.58	5.64	260	50	13.59	33.65	6.05	25.25	273	0.14
66	10.84	33.58	4.62	228	75	9.83	33.63	4.15	25.93	208	0.20
75	9.83	33.63	4.15	208	100	8.98	33.81	3.30	26.22	181	0.26
94	9.09	33.77	3.60	186	150	8.23	34.06	2.50	26.52	152	0.34
116	8.72	33.90	2.83	171	200	7.80	34.13	1.83	26.64	141	0.41
144	8.27	34.04	2.50	152	250	6.96	34.09	1.64	26.73	132	0.48
190	7.96	34.13	1.91	143	300	6.56	34.12	1.34	26.81	125	0.55
254	6.92	34.09	1.63	131	400	6.05	34.21	0.79	26.95	112	0.67
350	6.34	34.16	1.02	119	500	5.44	34.30	0.57	27.09	98	0.78
469	5.62	34.28	0.57	102	600	5.04	34.35	0.57	27.18	90	0.88
640	4.96	34.37	0.57	87	700	4.77	34.40	0.47	27.25	83	0.97
851	4.32	34.47	0.40	73	800	4.48	34.44	0.40	27.32	77	1.06
1142	3.45	34.54	0.82	60	1000	3.85	34.51	0.59	27.44	65	1.21

BLACK DOUGLAS; October 19, 1955; 1135 GCT; 34°53'N, 124°30'W; sounding, 2480 fm; wind, 130°, force 3; weather, missing; sea, rough; wire angle, 25°. 70.90

0	15.7	33.06	5.74	359	0	15.7	33.06	5.74	24.34	359	0.00
9	15.58	33.08	5.95	355	10	15.56	33.08	5.96	24.39	354	0.04
22	14.74	33.12	6.16	333	20	15.38	33.09	6.02	24.45	349	0.07
42	12.57	33.08	5.98	295	30	14.42	33.17	6.00	24.70	325	0.10
50	11.62	33.05	5.98	281	50	11.62	33.05	5.98	25.17	281	0.16
58	11.04	33.04	5.86	271	75	10.73	33.18	5.70	25.43	255	0.23
66	-	33.04	5.81	-	100	9.76	33.42	5.23	25.79	222	0.29
81	10.69	33.28	5.55	246	150	8.62	33.81	3.43	26.26	176	0.39
101	9.64	33.42	5.23	221	200	7.97	33.95	2.50	26.48	156	0.48
123	8.99	33.63	4.13	195	250	7.21	34.01	2.32	26.63	142	0.55
161	8.46	33.86	3.09	170	300	6.52	34.04	2.27	26.76	130	0.62
215	7.75	33.97	2.38	152	400	6.06	34.14	1.95	26.89	117	0.75
296	6.57	34.04	2.29	130	500	5.56	34.24	1.04	27.03	104	0.87
398	6.06	34.14	1.96	117	600	4.96	34.34	0.47	27.18	90	0.97
548	5.22	34.29	0.64	97	700	4.55	34.40	0.43	27.27	81	1.06
734	4.42	34.42	0.42	78	800	4.22	34.44	0.47	27.34	74	1.14
1004	3.59	34.51	0.66	63	1000	3.59	34.51	0.66	27.46	63	1.29

a) Salinity samples at 24 and 48 meters appear to have been reversed. They are assumed to be in the order listed.

S10

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
73.50	BLACK DOUGLAS; October 20, 1955; 2335 GCT; 35°37'N, 121°16.5'W; sounding, 50+ fm; wind, 300°, force 3; weather, fog; sea, moderate; wire angle, 05°.										
0	12.84	33.62	6.05	261	0	12.84	33.62	6.05	25.38	261	0.00
10	12.84	33.62	5.93	261	10	12.84	33.62	5.93	25.38	261	0.03
14	12.71	33.62	5.81	258	20	12.27	33.61	5.57	25.47	252	0.05
19	12.36	33.61	5.69	253	30	11.98	33.60	5.04	25.53	246	0.08
24	12.13	33.60	5.16	249	50	11.76	33.59	4.94	25.56	243	0.13
28	-	33.60	5.13	-	75	(10.10)	(33.73)	(4.01)	(25.96)	(205)	(0.18)
33	11.94	33.60	5.04	246							
42	11.92	33.59	5.25	246							
52	11.64	33.60	4.73	241							
60	10.78	33.66	4.38	221							
74	10.15	33.73	4.03	206							
73.60	BLACK DOUGLAS; October 21, 1955; 0557 GCT; 35°18'N, 121°58'W; sounding, 1316 fm; wind, 270°, force 2; weather, fog; sea, slight; wire angle, 00°.										
0	14.2	33.68	6.35	283	0	14.2	33.68	6.35	25.14	283	0.00
10	13.96	33.68	6.33	278	10	13.96	33.68	6.33	25.20	278	0.03
29	13.42	33.69	6.05	267	20	13.71	33.69	6.23	25.26	272	0.06
39	12.71	33.60	5.77	260	30	13.39	33.69	6.02	25.32	266	0.08
49	11.08	33.70	4.27	222	50	10.94	33.71	4.16	25.81	220	0.13
58	10.18	33.76	3.68	202	75	9.16	33.84	2.83	26.20	182	0.18
68	9.50	33.78	3.12	192	100	8.67	33.92	2.56	26.34	169	0.23
77	9.09	33.85	2.83	180	150	8.27	34.05	2.20	26.50	154	0.31
87	8.98	33.86	2.84	178	200	8.06	34.16	1.68	26.63	142	0.38
95	8.76	33.90	2.63	171	250	7.59	34.24	1.37	26.76	129	0.45
118	8.55	33.95	2.49	165	300	7.19	34.29	0.97	26.86	120	0.52
145	8.29	34.02	2.20	156	400	6.57	34.31	0.63	26.96	111	0.63
191	8.14	34.14	1.78	145	500	6.05	34.31	0.55	27.02	104	0.74
246	7.62	34.23	1.41	131							
342	6.92	34.31	0.72	115							
455	6.24	34.31	0.59	107							
573	5.57	34.32	0.44	98							
77.50	BLACK DOUGLAS; October 21, 1955; 1640 GCT; 35°04.5'N, 120°52'W; sounding, 77 fm; wind, 300°, force 2; weather, cloudy; sea, moderate; wire angle, 05°.										
0	13.22	33.60	6.08	270	0	13.22	33.60	6.08	25.29	270	0.00
10	13.15	33.60	6.11	268	10	13.15	33.60	6.11	25.30	268	0.03
15	13.06	33.60	5.96	266	20	12.94	33.60	5.74	25.34	264	0.05
20	12.94	33.60	5.74	264	30	12.80	33.63	5.57	25.39	259	0.08
24	12.83	33.60	5.67	262	50	11.31	33.56	4.95	25.62	238	0.13
29	12.82	33.63	5.74	260	75	9.76	33.65	3.98	25.96	205	0.18
33	12.50	33.58	5.53	257	100	9.07	33.85	2.83	26.22	180	0.23
43	11.81	33.58	5.27	245							
54	11.01	33.55	4.83	233							
63	10.52	33.55	4.86	225							
76	9.69	33.66	3.89	204							
95	9.20	33.80	3.02	186							
118	8.74	33.96	2.25	166							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_{T_3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

77.55

BLACK DOUGLAS; October 21, 1955; 1251 GCT; 34°54'N, 121°13'W; sounding, 320 fm; wind, 320°, force 2; weather, fog; sea, smooth; wire angle, 07°.

0	14.3	33.51	6.69	297	0	14.3	33.51	6.69	24.99	297	0.00
10	13.93	33.53	6.33	288	10	13.93	33.53	6.33	25.09	288	0.03
29	12.83	33.54	5.93	266	20	13.47	33.54	6.13	25.19	279	0.06
38	11.29	33.50	5.10	242	30	12.78	33.54	5.88	25.33	265	0.08
47	10.45	33.44	4.96	232	50	10.22	33.43	4.99	25.71	229	0.13
56	9.77	33.45	5.01	220	75	9.41	33.69	3.86	26.05	197	0.19
65	9.50	33.53	4.50	210	100	8.98	33.86	3.05	26.25	178	0.24
74	9.43	33.68	3.93	198	150	8.55	33.93	2.44	26.37	166	0.32
84	9.12	33.79	3.32	185	200	8.00	34.10	1.78	26.59	146	0.40
93	9.04	33.85	3.15	180	250	7.58	34.17	1.40	26.71	134	0.47
111	8.86	33.86	2.89	176	300	7.27	34.22	1.03	26.79	127	0.54
133	8.79	33.88	2.80	173	400	6.81	34.26	0.68	26.88	118	0.67
151	8.50	33.94	2.43	165	500	(6.13)	(34.28)		(27.00)	(107)	(0.78)
187	8.09	34.08	1.89	148							
260	7.50	34.18	1.34	133							
357	7.04	34.25	0.77	121							
469	6.34	34.28	0.53	110							

80.51

BLACK DOUGLAS: October 21, 1955; 2257, 2318 GCT; 34°26.5'N, 120°32.5'W; sounding, 50 fm; wind, 280°, force 2; weather, cloudy; sea, moderate; wire angle, 04°, missing.

0	14.23	33.58	5.87	291	0	14.23	33.58	5.87	25.06	291	0.00
10	14.15	33.60	5.81	288	10	14.15	33.60	5.81	25.10	288	0.03
15	13.57	33.59	5.70	276	20	13.00	33.58	5.03	25.32	266	0.06
19	13.06	33.58	5.09	268	30	12.07	33.58	4.57	25.49	250	0.08
24	12.73	33.58	4.84	261	50	10.20	33.62	3.62	25.86	214	0.13
29	12.18	33.58	4.60	252	75	9.75	33.73	3.30	26.02	200	0.18
33	11.77	33.58	4.51	244							
43	10.51	33.61	4.07	220							
53	10.14	33.63	3.59	213							
62	10.02	33.68	3.55	207							
77	9.71	33.73	3.15	199							

80.55

BLACK DOUGLAS; October 22, 1955; 0209, 0251 GCT; 34°19'N, 120°48'W; sounding, 420 fm; wind, 280°, force 2; weather, cloudy; sea, moderate; wire angle, 28°, 30°.

0	14.9	33.52	5.84	308	0	14.9	33.52	5.84	24.88	308	0.00
9	15.04	33.51	5.84	313	10	15.06	33.51	5.84	24.83	313	0.03
26	14.36	33.50	5.82	299	20	15.10	33.50	5.84	24.81	314	0.06
38	12.23	33.26	5.93	276	30	13.44	33.40	5.83	25.09	288	0.09
47	11.20	33.16	6.22	266	50	10.99	33.17	5.95	25.38	261	0.15
54	10.80	33.21	5.59	255	75	10.04	33.28	5.13	25.65	237	0.21
62	10.60	33.24	5.56	249	100	9.20	33.51	4.16	25.94	207	0.27
69	10.35	33.25	5.35	244	150	8.22	33.95	2.77	26.44	160	0.36
81	9.71	33.35	4.90	227	200	7.71	34.02	2.51	26.57	148	0.44
89	9.40	33.44	4.34	215	250	7.27	34.05	2.47	26.65	140	0.51
108	9.08	33.54	4.10	203	300	6.76	34.11	1.82	26.77	128	0.58
131	8.53	33.87	2.00r	171	400	6.08	34.19	0.97	26.92	114	0.70
175	7.96	34.00	2.49	152	500	5.82	34.24	0.57	27.00	107	0.82
226	7.49	34.03	2.54	144							
317	6.58	34.13	1.60	124							
427	6.00	34.20	0.85	112							
545	5.70	34.35	0.37	97							

S10

CCOFI 5510

	OBSERVED					INTERPOLATED				COMPUTED		
	Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
80.60	BLACK DOUGLAS; October 22, 1955; 0716 GCT; 34°09'N, 121°09'W; sounding, 1200 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 03°.											
	0	15.0	33.33	5.86	325	0	15.0	33.33	5.86	24.70	325	0.00
	10	14.70	33.40	6.03	313	10	14.70	33.40	6.03	24.83	313	0.03
	24	14.03	33.42	5.79	298	20	14.24	33.42	5.88	24.94	303	0.06
	52	10.59	33.05	6.08	263	30	13.74	33.42	5.67	25.04	293	0.09
	61	10.09	33.09	5.76	252	50	12.00	33.27	5.66	25.27	271	0.15
	71	10.05	33.22	5.65	242	75	9.96	33.28	5.51	25.65	235	0.21
	85	9.61	33.39	5.22	222	100	9.19	33.61	4.60	26.03	199	0.27
	105	9.07	33.68	4.38	193	150	8.47	33.90	2.91	26.36	168	0.36
	127	8.75	33.84	3.19	176	200	7.74	34.01	2.46	26.56	148	0.44
	154	8.40	33.91	2.89	165	250	7.18	34.04	2.32	26.67	138	0.51
	204	7.66	34.02	2.44	147	300	6.68	34.06	2.14	26.74	131	0.58
	279	6.88	34.05	2.25	134	400	5.76	34.12	0.92	26.91	115	0.71
	381	5.87	34.10	1.27	118	500	5.43	34.22	0.72	27.03	104	0.82
	515	5.42	34.23	0.70	103	600	5.16	34.30	(0.64)	27.13	95	0.93
	695	4.84	34.36	0.82u	87	700	4.83	34.36	(0.63)	27.21	86	1.03
	919	4.14	34.49	0.62	70	800	4.54	34.42	(0.62)	27.29	79	1.11
	1214	3.25	34.54	1.03	57	1000	3.87	34.51	0.73	27.43	66	1.27
80.70	BLACK DOUGLAS; October 22, 1955; 1437 GCT; 33°53'N, 121°44'W; sounding, 2000 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 27°.											
	0	15.2	33.48	5.89	318	0	15.2	33.48	5.89	24.78	318	0.00
	8	15.14	33.47	6.17	317	10	15.15	33.47	6.16	24.78	317	0.03
	26	15.20	33.58	6.03	310	20	15.16	33.53	6.14	24.82	313	0.06
	47	11.62	33.49	5.59	248	30	15.11	33.58	6.00	24.87	309	0.09
	60	10.81	33.49	5.04	234	50	11.38	33.49	5.44	25.55	244	0.15
	68	10.22	33.58	4.73	218	75	10.03	33.65	4.35	25.91	210	0.21
	81	9.84	33.73	3.97	200	100	9.18	33.81	3.33	26.18	185	0.26
	103	9.10	33.82	3.28	182	150	8.31	33.98	2.29	26.45	159	0.34
	133	8.48	33.93	-	165	200	7.65	34.02	2.31	26.58	147	0.42
	154	8.24	34.01	2.28	156	250	7.23	34.06	1.90	26.66	138	0.49
	205	7.58	34.02	2.31	146	300	6.78	34.12	1.53	26.78	128	0.56
	279	7.02	34.11	1.66	131	400	5.47	34.14	1.05	26.96	110	0.68
	378	5.66	34.14	1.18	112	500	5.16	34.24	0.82	27.08	99	0.79
	514	5.10	34.27	0.77	96	600	4.98	34.34	0.67	27.18	90	0.89
	699	4.68	34.43	0.52	80	700	4.68	34.43	0.52	27.28	80	0.98
	924	3.98	34.51	0.53	66	800	4.40	34.48	0.53	27.35	73	1.07
	1231	3.22	34.57	0.99	55	1000	3.80	34.52	0.62	27.45	64	1.22
80.80	BLACK DOUGLAS; October 22, 1955; 2230 GCT; 33°28'N, 122°31'W; sounding, 2000+ fm; wind, 320°, force 3; weather, cloudy; sea, rough; wire angle, 04°.											
	0	16.0	33.12	6.01	361	0	16.0	33.12	6.01	24.32	361	0.00
	10	16.01	33.12	5.88	361	10	16.01	33.12	5.88	24.32	361	0.04
	24	14.52	33.18	6.02	326	20	16.01	33.12	5.88	24.32	361	0.07
	53	11.75	33.12	6.01	278	30	14.20	33.19	6.05	24.77	318	0.11
	62	11.09	33.13	5.87	266	50	12.14	33.14	6.02	25.14	283	0.17
	72	10.35	33.08	5.79	257	75	10.35	33.11	5.72	25.44	255	0.23
	85	10.44	33.18	5.57	251	100	10.00	33.37	5.02	25.70	230	0.30
	104	9.88	33.40	-	226	150	8.72	33.80	3.68	26.24	178	0.40
	127	9.16	33.61	4.08	199	200	8.08	33.96	3.16	26.47	157	0.48
	154	8.65	33.81	3.64	176	250	7.29	33.99	2.74	26.61	144	0.56
	204	8.02	33.97	3.13	156	300	6.73	34.07	1.80	26.74	131	0.63
	276	6.91	34.01	2.43	137	400	6.39	34.23	0.80	26.91	115	0.76
	377	6.52	34.20	0.89	118	500	5.60	34.29	0.58	27.06	101	0.87
	509	5.56	34.29	0.58	100	600	5.01	34.34	(0.58)	27.17	91	0.97
	688	4.59	34.38	0.65u	83	700	4.53	34.38	(0.59)	27.26	82	1.06
	999	3.89	34.49	0.63	67	800	4.20	34.44	(0.60)	27.34	74	1.15
	1214	3.28	34.54	1.22	58	1000	3.87	34.49	0.64	27.42	67	1.30

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
BLACK DOUGLAS; October 23, 1955; 0549 GCT; 33°09'N, 123°12'W; sounding, 2400 fm; wind, 330°, force 3; weather, cloudy; sea, rough; wire angle, 18°.											80.90
0	16.3	33.17	5.55	364	0	16.3	33.17	5.55	24.29	364	0.00
9	16.33	33.15	5.65	366	10	16.33	33.14	5.65	24.27	366	0.04
24	15.93	33.12	5.45	360	20	16.13	33.13	5.55	24.30	363	0.07
50	14.10	33.12	5.91	322	30	15.57	33.12	5.53	24.42	352	0.11
59	13.12	33.04	5.96	309	50	14.10	33.12	5.91	24.74	322	0.18
69	12.38	33.00	5.86	298	75	11.95	33.03	5.80	25.09	288	0.25
82	11.35	33.12	5.73	271	100	10.54	33.22	5.36	25.49	250	0.32
100	10.54	33.22	5.36	250	150	8.86	33.68	3.72	26.13	190	0.43
122	9.67	33.45	4.60	219	200	8.14	33.96	3.23	26.46	158	0.52
146	8.94	33.66	3.77	192	250	7.42	33.99	2.87	26.58	146	0.60
195	8.20	33.95	3.28	160	300	6.92	34.03	2.27	26.69	136	0.67
263	7.28	33.99	2.79	144	400	6.15	34.16	1.01	26.89	117	0.80
360	6.40	34.12	1.22	123	500	5.52	34.24	0.65	27.03	104	0.92
487	5.58	34.23	0.68	105	600	5.05	34.31	0.43	27.14	93	1.02
661	4.82	34.36	0.39	87	700	4.73	34.37	0.40	27.23	85	1.12
878	4.12	34.45	0.52	73	800	4.39	34.42	0.45	27.30	78	1.20
1166	3.40	34.55	0.85	58	1000	3.75	34.51	0.70	27.44	65	1.36
BLACK DOUGLAS; October 24, 1955; 1622 GCT; 34°14'N, 119°22'W; sounding, 12 fm; wind, 360°, force 1; weather, fog; sea, moderate; wire angle, 00°.											83.40
0	15.65	33.58	5.59	320	0	15.65	33.58	5.59	24.76	320	0.00
5	14.82	33.58	6.15	302	10	14.38	33.60	6.22	25.05	292	0.03
10	14.38	33.60	6.22	292							
15	-	33.64	6.22	-							
BLACK DOUGLAS; October 24, 1955; 1405 GCT; 34°08'N, 119°34'W; sounding, 135 fm; wind, 360°, force 1; weather, fog; sea, moderate; wire angle, 05°.											83.43
0	15.53	33.63	6.22	314	0	15.53	33.63	6.22	24.82	314	0.00
10	15.49	33.60	6.53	315	10	15.49	33.60	6.53	24.81	315	0.03
14	15.26	33.62	6.19	309	20	15.01	33.60	5.77	24.91	305	0.06
19	15.07	33.60	5.79	306	30	13.88	33.57	5.63	25.13	284	0.09
23	14.52	33.58	5.76	297	50	11.37	33.55	4.55	25.60	239	0.14
28	14.07	33.57	5.73	288	75	9.58	33.68	3.47	26.01	200	0.20
33	13.53	33.58	5.38	277	100	8.97	33.90	3.05	26.29	174	0.25
43	12.20	33.53	4.76	256	150	8.72	34.02	2.32	26.43	161	0.33
52	11.07	33.57	4.44	233	200	(8.47)	(34.14)	(1.70)	(26.54)	(151)	(0.41)
61	10.50	33.60	3.91	221							
70	9.80	33.68	3.60	204							
88	9.12	33.68	3.89u	193							
102	8.96	33.91	3.04	173							
114	8.92	33.94	2.97	171							
146	8.72	34.01	2.34	163							
191	8.54	34.13	1.95	151							

SIO

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
83.51	BLACK DOUGLAS; October 24, 1955; 0725 GCT; 33°52'N, 120°08.5'W; sounding, 125 fm; wind, 360°, force 1; weather, fog; sea, rough; wire angle, 04°.										
0	14.26	33.60	6.01	290	0	14.26	33.60	6.01	25.08	290	0.00
10	14.21	33.59	6.03	290	10	14.21	33.59	6.03	25.08	290	0.03
14	13.91	33.55	5.73	286	20	13.34	33.57	5.41	25.24	274	0.06
19	13.36	33.57	5.42	274	30	12.38	33.53	5.10	25.39	259	0.08
24	12.78	33.57	5.23	263	50	10.54	33.57	4.33	25.76	224	0.13
28	12.48	33.53	5.15	261	75	9.60	33.70	3.50	26.03	199	0.18
34	11.80	33.55	4.85	247	100	9.04	33.88	2.84	26.25	178	0.23
43	10.67	33.57	4.38	226	150	8.50	34.06	2.21	26.49	156	0.32
52	10.46	33.57	4.29	223	200	(8.06)	(34.16)	(1.30)	(26.63)	(142)	(0.39)
62	9.95	33.68	3.71	206							
72	9.68	33.69	3.56	201							
89	9.14	34.00u	3.03	-							
103	9.02	33.90	2.83	175							
131	8.66	33.99	2.36	163							
159	8.44	34.09	2.17	153							
192	8.16	34.15	1.63	144							
83.60	BLACK DOUGLAS; October 24, 1955; 0125 GCT; 33°33'N, 120°45'W; sounding, 900 fm; wind, 300°, force 3; weather, cloudy; sea, rough; wire angle, 18°.										
0	15.2	33.55	6.03	312	0	15.2	33.55	6.03	24.83	312	0.00
9	15.32	33.57	6.01	314	10	15.32	33.57	6.01	24.82	314	0.03
28	13.11	33.47	6.08	277	20	14.34	33.52	6.06	25.00	297	0.06
37	11.98	33.44	5.27	258	30	12.82	33.46	5.96	25.26	272	-0.09
46	11.28	33.39	5.17	250	50	11.03	33.38	5.13	25.53	246	0.14
55	10.78	33.40	5.05	240	75	9.74	33.58	4.17	25.91	210	0.20
64	10.83	33.57	4.49	229	100	9.27	33.75	3.55	26.12	191	0.25
73	9.79	33.57	4.18	212	150	8.30	33.99	2.35	26.46	158	0.34
82	9.58	33.64	4.16	203	200	7.86	34.08	2.03	26.59	145	0.42
91	9.48	33.71	3.72	196	250	7.36	34.15	1.40	26.73	133	0.48
113	8.92	33.80	3.27	180	300	7.18	34.32	0.87	26.88	118	0.55
140	8.42	33.95	2.46	163	400	6.66	34.31	0.60	26.94	112	0.67
184	8.02	34.06	2.13	149	500	5.98	34.33	0.47	27.05	102	0.78
238	7.42	34.14	1.63	135							
332	7.16	34.33	0.85	117							
440	6.36	34.30	0.51	109							
555	5.66	34.37	0.43	95							
87.35	BLACK DOUGLAS; October 24, 1955; 2310, 2328 GCT; 33°50'N, 118°37.5'W; sounding, 260 fm; wind, 240°, force 2; weather, cloudy; sea, slight; wire angle, 00°, missing.										
0	16.4	33.68	5.83	329	0	16.4	33.68	5.83	24.66	329	0.00
10	15.14	33.64	6.00	305	10	15.14	33.64	6.00	24.91	305	0.03
15	14.45	33.58	5.86	296	20	13.64	33.57	5.67	25.18	280	0.06
20	13.64	33.57	5.67	280	30	12.83	33.53	5.54	25.31	267	0.09
24	13.30	33.55	5.19u	275	50	10.90	33.53	4.43	25.67	233	0.14
29	12.88	33.53	5.57	268	75	9.61	33.67	3.53	25.99	202	0.19
38	12.16	33.53	5.02	255	100	9.16	33.83	3.07	26.20	182	0.24
48	11.11	33.53	4.47	236	150	8.82	34.01	2.72	26.39	165	0.33
					200	8.53	34.14	1.90	26.54	150	0.41
58	10.25	33.56	4.36	220	250	8.22	34.20	1.44	26.63	142	0.48
72	9.66	33.66	3.61	203	300	7.95	34.27	1.07	26.73	132	0.55
90	9.32	33.77	3.27	189							
113	8.95	33.91	2.87	173							
150	8.82	34.01	2.72	165							
188	8.60	34.11	2.10	154							
233	8.32	34.18	1.59	144							
303	7.91	34.28	1.05	131							
379	7.18	34.30	0.68	119							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
BLACK DOUGLAS; October 25, 1955; 0258 GCT; 33°40'N, 118°58.5'W; sounding, 460 fm; wind, 240°, force 1; weather, missing; sea, moderate; wire angle, 03°.											87.40
0	17.1	33.68	5.71	344	0	17.1	33.68	5.71	24.50	344	0.00
10	16.98	33.66	5.65	342	10	16.98	33.66	5.65	24.52	342	0.03
29	15.25	33.51	6.00	317	20	16.93	33.66	5.63	24.53	342	0.07
38	13.62	33.46	5.81	287	30	15.00	33.50	5.99	24.83	312	0.10
48	13.12	33.49	5.50	275	50	13.07	33.49	5.48	25.23	274	0.16
58	11.78	33.51	5.02	249	75	10.81	33.51	4.66	25.67	233	0.22
67	11.58	33.54	4.87	243	100	9.76	33.66	3.83	25.97	204	0.28
76	10.76	33.51	4.65	231	150	8.87	33.99	2.46	26.37	166	0.37
85	10.33	33.53	4.36	223	200	8.51	34.14	1.94	26.55	150	0.45
94	9.93	33.62	4.00	210	250	8.14	34.21	1.43	26.65	140	0.53
118	9.28	33.80	3.31	187	300	7.77	34.26	1.03	26.75	130	0.60
145	8.91	33.97	2.59	168	400	7.04	34.34	0.62	26.92	114	0.72
191	8.56	34.13	2.01	151	500	6.21	34.38	0.50	27.06	101	0.83
246	8.17	34.20	1.46	140							
343	7.48	34.31	0.82	123							
455	6.58	34.37	0.52	106							
573	5.72	34.40	0.46	94							
BLACK DOUGLAS; October 25, 1955; 0652, 0717 GCT; 33°30'N, 119°19'W; sounding, 930 fm; wind, 160°, force 1; weather, cloudy; sea, moderate; wire angle, 02°, missing.											87.45
0	15.9	33.69	6.19	317	0	15.9	33.69	6.19	24.78	317	0.00
10	15.64	33.67	6.33	313	10	15.64	33.67	6.33	24.83	313	0.03
29	13.40	33.58	5.89	274	20	14.92	33.63	6.27	24.96	301	0.06
38	12.45	33.55	5.17	259	30	13.33	33.58	5.84	25.25	273	0.09
47	11.00	33.59	4.66	230	50	10.87	33.60	4.53	25.73	227	0.14
57	10.62	33.62	4.40	221	75	9.70	33.71	3.79	26.02	200	0.19
66	10.05	33.64	4.26	210	100	9.22	33.84	3.37	26.20	182	0.24
75	9.70	33.71	3.79	200	150	8.52	34.06	2.57	26.48	156	0.33
84	9.40	33.75	3.53	192	200	8.13	34.15	2.05	26.61	144	0.40
94	9.30	33.82	3.63u	186	250	8.04	34.24	1.84	26.69	136	0.47
117	8.82	33.94	3.08	169	300	7.65	34.30	1.40	26.79	126	0.54
144	8.57	34.04	2.61	158	400	6.95	34.34	0.98	26.93	113	0.66
189	8.16	34.13	2.10	146	500	6.22	34.37	0.69	27.05	102	0.78
235	8.08	34.22	1.91	138							
331	7.42	34.32	1.21	121							
441	6.63	34.35	0.88	109							
558	5.80	34.40	0.53	95							
BLACK DOUGLAS; October 25, 1955; 1040 GCT; 33°20'N, 119°39.5'W; sounding, 35 fm; wind, 200°, force 1; weather, cloudy; sea, slight; wire angle, 00°.											87.50
0	16.69	33.67	5.67	336	0	16.69	33.67	5.67	24.59	336	0.00
10	16.62	33.67	5.50	334	10	16.62	33.67	5.50	24.61	334	0.03
14	16.27	33.68	5.68	326	20	15.95	33.63	5.64	24.73	322	0.07
19	16.02	33.64	5.64	323	30	15.12	33.58	5.82	24.87	309	0.10
24	15.18	33.53	5.75	313							
29	15.13	33.58	5.82	309							
34	15.08	33.55	5.68	310							
38	14.42	33.53	5.65	298							
48	13.74	33.51	5.52	286							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

87.60 BLACK DOUGLAS; October 25, 1955; 1718 GCT; 33°00'N, 120°21.5'W; sounding, 450 fm; wind, 190°, force 1; weather, cloudy; sea, slight; wire angle, 00°.

0	16.6	33.69	5.83	333	0	16.6	33.69	5.83	24.62	333	0.00
10	16.49	33.69	5.87	330	10	16.49	33.69	5.87	24.65	330	0.03
29	14.33	33.49	6.07	299	20	15.43	33.59	6.00	24.82	314	0.06
38	13.01	33.45	5.64	276	30	14.25	33.48	6.04	24.99	297	0.10
48	11.78	33.41	5.28	257	50	11.55	33.42	5.18	25.47	252	0.15
57	10.91	33.46	4.96	238	75	9.99	33.53	4.72	25.83	218	0.21
67	-	33.45	5.00	-	100	9.34	33.70	3.88	26.07	194	0.26
75	9.99	33.53	4.72	218	150	8.62	33.89	3.15	26.33	170	0.35
84	9.73	33.65	4.31	205	200	8.09	34.06	2.32	26.54	151	0.43
94	9.47	33.68	4.10	199	250	7.22	34.10	2.11	26.70	135	0.51
117	8.98	33.78	3.49	184	300	6.67	34.12	1.99	26.79	127	0.58
144	8.67	33.87	3.25	172	400	6.00	34.18	1.68	26.93	113	0.70
190	8.20	34.05	2.38	152	500	5.58	34.26	1.30	27.05	102	0.81
245	7.32	34.09	2.14	137							
343	6.36	34.14	1.88	121							
455	5.76	34.23	1.48	107							
573	5.31	34.34	1.05	93							

90.28 BLACK DOUGLAS; October 28, 1955; 0850 GCT; 33°28.5'N, 117°46.5'W; sounding, 200 fm; wind, 320°, force 1; weather, clear; sea, slight; wire angle, 02°.

0	16.1	33.58	6.04	330	0	16.1	33.58	6.04	24.65	330	0.00
10	15.96	33.57	6.15	327	10	15.96	33.57	6.15	24.68	327	0.03
15	14.26	33.48	6.01	299	20	13.30	33.47	5.53	25.17	280	0.06
19	13.46	33.47	5.60	284	30	12.29	33.45	5.12	25.35	263	0.09
24	12.82	33.46	5.31	274	50	10.56	33.48	4.31	25.69	231	0.14
29	12.38	33.45	5.18	265	75	9.58	33.64	3.93	25.98	203	0.19
33	12.08	33.47	4.69	258	100	9.00	33.76	3.07	26.17	185	0.24
43	10.96	33.48	4.25	237	150	8.87	33.99	2.44	26.36	167	0.33
53	10.39	33.48	4.35	228	200	8.73	34.14	2.14	26.51	153	0.41
62	9.89	33.53	4.22	216	250	8.37	34.19	1.51	26.60	144	0.49
76	9.57	33.65	-	202							
95	9.02	33.74	3.22	188							
119	8.92	33.86	2.72	177							
156	8.87	34.01	2.31	165							
193	8.74	34.13	2.17	154							
231	8.52	34.17	1.65	148							
287	8.04	34.23	1.33	137							

90.30 BLACK DOUGLAS; October 28, 1955; 0615 GCT; 33°24.5'N, 117°55'W; sounding, 340 fm; wind, 320°, force 1; weather, clear; sea, slight; wire angle, 00°.

0	16.8	33.63	5.97	341	0	16.8	33.63	5.97	24.53	341	0.00
10	16.72	33.63	5.97	339	10	16.72	33.63	5.97	24.55	339	0.03
29	12.93	33.48	5.50	273	20	14.47	33.55	5.80	24.99	298	0.07
38	12.06	33.48	4.95	257	30	12.83	33.48	5.43	25.27	271	0.09
48	11.00	33.49	4.25	237	50	10.78	33.52	4.18	25.68	232	0.14
57	10.41	33.57	4.06	222	75	9.67	33.62	3.69	25.94	207	0.20
67	10.0	33.57	3.81	-	100	9.08	33.80	3.21	26.18	184	0.25
76	9.63	33.63	3.67	206	150	8.79	33.99	2.19	26.38	165	0.34
85	9.43	33.68	3.56	198	200	8.60	34.15	1.70	26.53	151	0.42
94	9.23	33.72	3.36	192	250	8.36	34.21	1.52	26.62	142	0.49
112	8.96	33.86	3.05	177	300	7.87	34.25	1.26	26.72	133	0.56
135	8.87	33.92	2.65	172	400	6.84	34.31	0.63	26.92	114	0.69
154	8.78	34.01	2.83u	163	500	(6.13)	(34.35)		(27.05)	(102)	(0.80)
190	8.63	34.13	1.71	153							
264	8.22	34.22	1.45	140							
361	7.19	34.29	0.78	120							
475	6.28	34.34	0.47	105							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T}{}^{-5}{}_{3}$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T}{}^{-5}{}_{3}$ 10^{-5} cm/g	ΔD dyn. m

BLACK DOUGLAS; October 28, 1955; 0141 GCT; 33°11'N, 118°23'W; sounding, 650 fm; wind, 300°, force 2; weather, clear; sea, moderate; wire angle, 14°. 90.37

0	16.8	33.65	5.73	340	0	16.8	33.65	5.73	24.55	340	0.00
9	16.52	33.65	5.85	334	10	16.50	33.65	5.84	24.61	334	0.03
28	14.46	33.52	5.68	299	20	15.75	33.61	5.80	24.76	320	0.07
36	12.81	33.52	5.31	268	30	14.01	33.52	5.60	25.06	291	0.10
45	11.83	33.46	4.91	254	50	11.42	33.47	4.73	25.53	246	0.15
54	11.13	33.49	4.62	240	75	9.98	33.62	3.92	25.90	211	0.21
63	10.66	33.51	4.33	230	100	9.44	33.68	3.20	26.04	198	0.26
72	10.16	33.58	4.03	217	150	8.76	34.03	2.27	26.42	162	0.35
80	9.85	33.63	3.80	208	200	8.65	34.14	2.01	26.52	152	0.43
89	9.71	33.64	3.41	205	250	8.40	34.23	1.42	26.63	142	0.50
111	9.18	33.78	2.96	187	300	7.90	34.27	1.05	26.73	132	0.57
137	8.82	33.98	2.43	166	400	7.07	34.32	0.63	26.89	117	0.70
181	8.68	34.09	2.10	156	500	6.38	34.34	0.41	27.01	106	0.82
234	8.50	34.21	1.55	145							
327	7.62	34.28	0.90	127							
437	6.82	34.33	0.51	113							
552	5.98	34.35	0.36	100							

BLACK DOUGLAS; October 27, 1955; 2005 GCT; 32°54.5'N, 118°56'W; sounding, 960 fm; wind, 320°, force 2; weather, cloudy; sea, moderate; wire angle, 03°. 90.45

0	16.6	33.69	5.78	333	0	16.6	33.69	5.78	24.62	333	0.00
9	16.46	33.68	6.04	330	10	16.43	33.68	6.03	24.66	329	0.03
23	15.99	33.65	5.70	322	20	16.12	33.66	5.80	24.71	324	0.07
48	12.36	33.47	5.56	263	30	14.80	33.58	5.66	24.94	302	0.10
57	11.56	33.49	4.98	247	50	12.12	33.47	5.42	25.40	259	0.15
67	10.93	33.53	4.51	233	75	10.57	33.57	4.25	25.76	224	0.21
76	10.55	33.58	4.21	223	100	8.98	33.73	3.30	26.14	188	0.27
95	8.98	33.67	3.57	192	150	8.63	34.03	2.30	26.44	160	0.35
118	9.17	33.83	2.49	183	200	8.26	34.16	2.14	26.60	145	0.43
146	8.66	34.02	2.31	161	250	7.82	34.24	1.26	26.72	133	0.50
192	8.31	34.15	2.17	146	300	7.38	34.29	0.90	26.83	123	0.57
257	7.75	34.25	1.20	131	400	6.74	34.33	0.61	26.95	111	0.69
354	7.02	34.32	0.71	116	500	6.18	34.34	0.49	27.03	104	0.80
486	6.24	34.34	0.51	105	600	5.64	34.37	0.40	27.12	95	0.91
656	5.35	34.40	0.39	89	700	5.05	34.42	0.39	27.23	85	1.00
865	4.35	34.47	0.44	73	800	4.62	34.45	0.40	27.30	78	1.09
1153	3.84	34.52	0.69	65	1000	3.97	34.51	0.59	27.42	67	1.25

BLACK DOUGLAS; October 27, 1955; 1250 GCT; 32°35'N, 119°37'W; sounding, 625 fm; wind, 320°, force 6; weather, clear; sea, rough; wire angle, 17°. 90.55

0	15.5	33.57	5.78	317	0	15.5	33.57	5.78	24.78	317	0.00
9	15.48	33.57	5.76	317	10	15.48	33.57	5.76	24.79	317	0.03
27	15.46	33.55	5.76	318	20	15.47	33.56	5.76	24.78	318	0.06
40	14.44	33.49	5.48	302	30	15.46	33.54	5.76	24.78	318	0.10
49	11.86	33.40	5.12	259	50	11.73	33.40	5.09	25.42	257	0.14
58	11.12	33.41	4.91	246	75	10.19	33.54	4.27	25.81	220	0.21
67	10.54	33.49	4.51	230	100	9.78	33.64	3.77	25.94	207	0.27
76	10.16	33.55	4.24	219	150	8.40	34.02	2.28	26.46	158	0.36
89	9.83	33.62	3.91	209	200	8.13	34.11	1.78	26.58	146	0.43
98	9.81	33.64	3.88	207	250	7.93	34.21	1.35	26.68	137	0.51
120	9.02	33.80	3.12	183	300	7.16	34.19	1.24	26.78	127	0.58
146	8.46	33.98	2.39	161	400	6.04	34.23	0.63	26.96	110	0.70
195	8.14	34.11	1.90	147	500	5.87	34.32	0.48	27.05	102	0.81
253	7.88	34.21	1.33	136	600	5.36	34.39	0.39	27.17	90	0.91
357	6.20	34.16	1.15	118							
476	5.95	34.30	0.49	104							
604	5.32	34.39	0.39	90							

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OBSERVED					INTERPOLATED				COMPUTED		
Z	T	S	O_2	δT_3	Z	T	S	O_2	σ_t	δT_3	ΔD
m	°C	‰	ml/L	10^{-5} cm/g	m	°C	‰	ml/L	g/L	10^{-5} cm/g	dyn. m

90.60 BLACK DOUGLAS; October 27, 1955; 0902 GCT; 32°25'N, 119°57.5'W; sounding, 500 fm; wind, 320°, force 6; weather, clear; sea, very rough; wire angle, 03°.

0	15.9	33.60	5.96	324	0	15.9	33.60	5.96	24.71	324	0.00
10	15.96	33.61	6.05	324	10	15.96	33.61	6.05	24.71	324	0.03
29	15.98	33.60	5.83	325	20	15.97	33.60	5.90	24.70	325	0.06
43	14.93	33.53	5.63	309	30	15.98	33.60	5.80	24.70	325	0.10
53	13.14	33.46	5.30	278	50	13.72	33.48	5.40	25.09	288	0.16
70p	11.24	33.49	5.06	242	75	10.88	33.51	4.80	25.66	234	0.22
95p	9.64	33.60	3.60	207	100	9.47	33.63	3.51	25.99	202	0.28
142p	8.43	33.88	2.98	168	150	8.33	33.91	2.87	26.39	164	0.37
198p	7.74	34.08	2.14	143	200	7.72	(34.09)	2.14	(26.62)	(142)	(0.45)
298p	6.76	34.31r	1.63	-	250	7.22	(34.13)	1.89	(26.73)	(132)	(0.52)
413p	5.94	34.22	0.77	110	300	6.73	(34.17)	1.62	(26.82)	(123)	(0.59)
535p	5.22	34.30	0.57	96	400	6.03	(34.22)	0.82	(26.95)	(111)	(0.71)
					500	5.44	34.27	0.62	27.07	100	(0.82)

90.70 BLACK DOUGLAS; October 27, 1955; 0147 GCT; 32°06'N, 120°30'W; sounding, 2420 fm; wind, 300°, force 4; weather, partly cloudy; sea, moderate; wire angle, 24°.

0	16.5	33.64	5.67	334	0	16.5	33.64	5.67	24.61	334	0.00
9	16.44	33.63	5.77	334	10	16.44	33.63	5.77	24.61	334	0.03
22	16.38	33.65	5.82	330	20	16.39	33.65	5.82	24.64	331	0.07
44	13.21	33.40	5.71	284	30	16.33	33.65	5.82	24.66	329	0.10
52	12.15	33.42	5.26	263	50	12.29	33.42	5.29	25.33	266	0.16
61	11.65	33.42	5.24	254	75	10.21	33.54	4.57	25.81	220	0.22
70	10.53	33.48	4.82	230	100	9.23	33.75	3.60	26.12	190	0.27
88	9.60	33.67	4.02	202	150	8.19	34.04	2.49	26.51	153	0.36
110	8.95	33.82	3.27	180	200	7.83	34.10	1.93	26.62	143	0.43
136	8.32	34.01	2.71	157	250	7.39	34.20	1.23	26.75	130	0.50
178	8.02	34.07	2.22	148	300	7.28	34.23	1.05	26.80	126	0.57
239	7.46	34.18	1.38	132	400	6.67	34.35	(0.73)	26.98	109	0.69
329	7.21	34.26	0.99	123	500	6.14	34.36	(0.60)	27.05	102	0.80
442	6.34	34.36	-	104	600	6.00	34.36	(0.58)	27.07	100	0.90
603	5.94	34.36	0.58	99	700	5.65	34.37	0.58	27.12	96	1.01
801	5.19	34.41	0.58	87	800	5.20	34.40	0.58	27.21	87	1.11
1081	3.99	34.50	-	67	1000	4.36	34.48		27.36	73	1.28

90.80 BLACK DOUGLAS; October 26, 1955; 1805, 1825 GCT; 31°41'N, 121°22'W; sounding, 2000+ fm; wind, 330°, force 3; weather, cloudy; sea, moderate; wire angle, 15°, missing.

0	15.8	33.56	6.11	325	0	15.8	33.56	6.11	24.70	325	0.00
9	15.80	33.55	6.15	326	10	15.80	33.55	6.16	24.70	326	0.03
23	15.82	33.57	6.30	324	20	15.81	33.56	6.27	24.70	325	0.06
47	14.26	33.53	5.54	295	30	15.80	33.57	6.29	24.71	324	0.10
56	12.98	33.46	5.48	275	50	13.85	33.51	5.49	25.09	288	0.16
					75	11.24	33.42	5.40	25.52	247	0.23
65	11.90	33.40	5.58	260	100	9.97	33.60	4.28	25.89	212	0.28
74	11.26	33.42	5.42	247	150	8.61	33.84	3.04	26.29	174	0.38
91	10.33	33.56	4.51	221	200	7.86	34.03	2.52	26.56	149	0.46
113	9.49	33.64	3.97	202	250	7.42	34.09	2.02	26.66	139	0.54
139	8.82	33.79	3.16	181	300	6.84	34.12	1.70	26.77	128	0.61
182	8.08	33.98	2.77	156	400	5.97	34.20	0.92	26.95	111	0.73
242	7.49	34.08	2.09	140	500	5.56	34.27	0.57	27.06	101	0.84
333	6.47	34.14	1.41	122	600	5.17	34.35	0.43	27.16	91	0.94
450	5.72	34.24	0.73	106	700	4.82	34.40	0.55	27.24	84	1.04
613	5.12	34.35	0.43	91	800	4.47	34.45	0.71	27.32	76	1.12
815	4.41	34.46	0.74	75	1000	3.79	34.52	1.04	27.45	64	1.28
1096	3.60	34.54	1.14	61							

OBSERVED					INTERPOLATED				COMPUTED			
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m	

BLACK DOUGLAS; October 26, 1955; 1130 GCT; 31°25'N, 121°57'W; sounding, 2000 fm; wind, 240°, force 1; weather, missing; sea, moderate; wire angle, 03°. 90.90

0	16.4	33.38	5.79	352	0	16.4	33.38	5.79	24.42	352	0.00
10	16.36	33.35	5.82	352	10	16.36	33.35	5.82	24.42	352	0.04
24	15.22	33.41	5.98	323	20	15.59	33.40	5.96	24.63	332	0.07
48	13.82	33.30	5.81	303	30	14.90	33.38	5.94	24.78	318	0.10
57	12.98	33.34	5.71	284	50	13.77	33.30	5.80	24.95	302	0.16
66	12.37	33.36	5.60	271	75	12.23	33.34	5.53	25.28	270	0.24
75	12.23	33.34	5.53	270	100	10.66	33.40	4.99	25.61	238	0.30
94	11.04	33.38	5.12	246	150	9.04	33.77	3.15	26.17	185	0.41
117	9.74	33.49	4.44	217	200	8.19	34.02	2.52	26.50	154	0.49
144	9.16	33.71	3.25	191	250	7.70	34.11	1.89	26.65	140	0.57
190	8.33	33.99	2.64	159	300	7.32	34.18	1.33	26.75	130	0.64
255	7.67	34.12	1.84	139	400	6.63	34.31	0.67	26.94	112	0.76
352	7.00	34.27	0.93	119	500	6.04	34.35	0.42	27.06	101	0.88
472	6.19	34.34	0.42	104	600	5.43	34.37	0.43	27.15	93	0.98
644	5.16	34.37	0.46	90	700	4.83	34.40	0.46	27.24	84	1.07
853	4.38	34.46	0.46	74	800	4.46	34.44	0.46	27.32	77	1.16
1143	3.61	34.51	0.85	63	1000	3.97	34.49	0.60	27.41	68	1.32

BLACK DOUGLAS; October 28, 1955; 1902 GCT; 32°56'N, 117°19'W; sounding, 60 fm; wind, 250°, force 1; weather, clear; sea, moderate; wire angle, 02°. 93.27

0	16.95	33.71	5.13	339	0	16.95	33.71	5.13	24.56	339	0.00
10	16.59	33.67	6.74u	334	10	16.59	33.67	5.50	24.61	334	0.03
14	15.89	33.61	6.11	323	20	15.04	33.58	6.02	24.88	308	0.07
19	15.16	33.58	6.04	310	30	12.81	33.46	6.22	25.27	271	0.10
25	13.94	33.46	5.93	294	50	10.83	33.51	4.58	25.67	233	0.14
28	13.24	33.48	6.23	279	75	9.75	33.64	3.87	25.95	206	0.20
33	12.20	33.44	6.03	262							
43	11.26	33.46	4.66	245							
53	10.70	33.53	4.55	230							
62	10.22	33.57	4.10	219							
77	9.68	33.65	3.85	204							

BLACK DOUGLAS; October 28, 1955; 2103 GCT; 32°50'N, 117°31.5'W; sounding, 350 fm; wind, 270°, force 1; weather, clear; sea, moderate; wire angle, missing. 93.30

0	17.2	33.66	5.57	347	0	17.2	33.66	5.57	24.47	347	0.00
10	17.15	33.64	5.64	348	10	17.15	33.64	5.64	24.46	348	0.04
29	14.47	33.49	6.18	302	20	17.14	33.64	5.66	24.46	348	0.07
38	12.98	33.44	5.29	276	30	14.24	33.48	6.13	24.98	298	0.10
48	11.96	33.44	4.84	258	50	11.76	33.44	4.80	25.44	255	0.16
57	11.21	33.42	4.73	247	75	10.47	33.49	4.13	25.71	229	0.22
67	10.80	33.48	4.48	235	100	9.26	33.72	3.27	26.10	192	0.27
76	10.41	33.49	4.08	228	150	8.59	33.88	2.19	26.33	170	0.36
85	9.98	33.55	3.49	216	200	7.97	34.12	1.77	26.61	144	0.44
94	9.44	33.68	3.38	198	250	7.50	34.24	0.80	26.77	129	0.51
117	8.95	33.78	2.93	183	300	7.27	34.26	0.50	26.82	124	0.58
144	8.62	33.88	2.21	171	400	6.85	34.31	0.35	26.92	114	0.70
190	8.06	34.08	1.92	148	500	6.17	34.38	0.31	27.06	101	0.81
244	7.53	34.23	0.85	130							
341	7.16	34.27	0.41	121							
453	6.44	34.37	0.32	105							
570	5.80	34.38	0.31	96							

	OBSERVED					INTERPOLATED				COMPUTED		
	Z m	T °C	S ‰	O_2 ml/L	$\delta_{T,S,10^{-5}}$ cm³/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T,S,10^{-5}}$ cm³/g	ΔD dyn. m
93.40	BLACK DOUGLAS; October 29, 1955; 0355 GCT; 32°30'N, 118°12.5'W; sounding, 930 fm; wind, 240°, force 2; weather, clear; sea, moderate; wire angle, 00°.											
	0	17.1	33.78	5.73	337	0	17.1	33.78	5.73	24.58	337	0.00
	10	16.62	33.81	5.82	324	10	16.62	33.81	5.82	24.71	324	0.03
	29	13.81	33.60	5.44	281	20	16.31	33.80	5.80	24.78	318	0.06
	38	12.88	33.58	5.13	264	30	13.78	33.60	5.43	25.17	280	0.10
	48	11.83	33.58	4.80	245	50	11.63	33.58	4.70	25.57	242	0.15
	57	10.82	33.57	4.36	229	75	9.72	33.68	3.82	25.99	203	0.20
	66	10.1	33.59	4.20	-	100	9.22	33.79	3.33	26.16	187	0.25
	76	9.70	33.68	3.81	202	150	8.27	33.98	2.61	26.45	159	0.34
	84	9.55	33.68	3.67	199	200	7.81	34.12	2.07	26.64	141	0.42
	94	9.32	33.77	3.45	190	250	7.26	34.13	1.86	26.72	133	0.48
	117	8.88	33.86	3.06	176	300	6.90	34.20	1.16	26.83	123	0.55
	144	8.34	33.96	2.69	161	400	6.48	34.29	0.65	26.95	111	0.67
	188	7.90	34.12	2.11	143	500	6.11	34.35	0.46	27.05	102	0.78
	244	7.30	34.13	1.88	134							
	340	6.72	34.24	0.88	118							
	453	6.31	34.33	0.56	106							
	570	5.68	34.37	0.32	96							
93.50	BLACK DOUGLAS; October 29, 1955; 1006 GCT; 32°10'N, 118°53'W; sounding, 740 fm; wind, 250°, force 2; weather, clear; sea, moderate; wire angle, 02°.											
	0	18.1	33.75	5.54	363	0	18.1	33.75	5.54	24.30	363	0.00
	9	18.05	33.76	5.67	360	10	18.00	33.76	5.69	24.34	359	0.04
	28	13.71	33.55	6.09	283	20	15.92	33.66	5.97	24.76	320	0.07
	38	12.08	33.46	4.95	259	30	13.00	33.51	5.65	25.26	272	0.10
	48	11.24	33.50	4.73	241	50	11.13	33.50	4.70	25.61	239	0.15
	58	10.39	33.51	4.32	226	75	9.60	33.65	3.73	25.99	203	0.21
	67	9.81	33.57	3.91	212	100	9.52	33.77	3.23	26.09	193	0.26
	76	9.59	33.65	3.71	202	150	8.44	34.00	2.54	26.44	160	0.34
	86	9.58	33.68	3.55	200	200	8.09	34.10	2.16	26.58	147	0.42
	96	9.58	33.74	3.30	196	250	7.60	34.18	1.67	26.71	134	0.49
	119	9.06	33.90	3.01	176	300	7.17	34.22	1.19	26.81	125	0.56
	147	8.47	33.99	-	161	400	6.31	34.28	0.64	26.97	109	0.68
	193	8.13	34.09	2.21	148	500	5.88	34.35	0.43	27.08	100	0.79
	248	7.62	34.18	1.70	134							
	346	6.70	34.25	0.80	117							
	458	6.02	34.32	0.53	103							
	577	5.61	34.39	0.25	93							
93.60	BLACK DOUGLAS; October 29, 1955; 1610, 1626 GCT; 31°50'N, 119°32'W; sounding, 1500 fm; wind, 270°, force 2; weather, partly cloudy; sea, moderate; wire angle, 23°, missing.											
	0	17.3	33.68a)	6.26	349	0	17.3	33.68	6.26	24.45	349	0.00
	9	17.21	33.68	6.06	347	10	17.21	33.68	6.06	24.48	347	0.04
	27	17.13	33.68	6.01	345	20	17.17	33.68	6.03	24.48	346	0.07
	35	15.76	33.56	5.97	324	30	16.77	33.65	5.98	24.56	339	0.10
	45	15.06	33.56	6.37	309	50	14.43	33.53	6.27	24.98	298	0.17
						75	11.23	33.54	4.81	25.61	239	0.23
	54	13.48	33.48	5.89	283	100	10.03	33.69	3.43	25.94	207	0.29
	63	11.76	33.48	5.02	251	150	8.98	33.97	2.89	26.34	169	0.39
	71	11.48	33.51	4.99	244	200	8.22	34.10	2.42	26.55	149	0.47
	79	10.82	33.57	4.40	229	250	7.82	34.16	2.04	26.66	139	0.54
	87	10.38	33.60	3.85	219	300	7.72	34.31	1.57	26.80	126	0.61
	109	9.84	33.80	3.30	196	400	7.07	34.34	0.68	26.91	115	0.73
	135	9.27	33.90	3.04	179	500	6.26	34.33		27.01	105	0.85
	177	8.54	34.08	2.63	155							
	228	7.92	34.11	2.21	144							
	319	7.62	34.32	1.37	124							
	424	6.84	34.34	0.41	112							
	537	6.02	34.33	0.75u	102							

a) Salinity bottle numbers were not recorded on the data sheet. Since standard handling and titrating procedures were used, these salinity values are assumed to be in the order listed.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_{T}^{-5} 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T}^{-5} 10^3 cm/g	ΔD dyn. m

BLACK DOUGLAS; October 30, 1955; 1633 GCT; 32°15.5'N, 117°09'W; sounding, 35 fm; wind, calm; weather, fog; sea, slight; wire angle, 00°. 97.30

0	13.02	33.49	6.28	274	0	13.02	33.49	6.28	25.24	274	0.00
10	11.10	33.52	4.55	237	10	11.10	33.52	4.55	25.62	237	0.03
15	11.00	33.51	4.48	236	20	10.95	33.51	4.49	25.64	236	0.05
19	10.96	33.51	4.50	236	30	10.86	33.52	4.38	25.67	233	0.07
24	10.86	33.51	4.39	234							
29	10.87	33.50	4.62u	235							
34	10.80	33.57	4.33	228							
38	10.71	33.52	4.23	230							
49	10.43	33.57	4.00	222							

BLACK DOUGLAS; October 30, 1955; 1459 GCT; 32°11.5'N, 117°17'W; sounding, 700+ fm; wind, 280°, force 1; weather, fog; sea, moderate; wire angle, 04°. 97.32

0	17.3	33.64	5.78	352	0	17.3	33.64	5.78	24.42	352	0.00
10	17.13	33.69	5.93	344	10	17.13	33.69	5.93	24.50	344	0.04
28	13.46	33.45	6.09	285	20	15.00	33.54	6.01	24.86	310	0.07
38	12.87	33.42	6.15	276	30	13.38	33.44	6.10	25.13	284	0.10
47	11.76	33.41	5.64	256	50	11.41	33.43	5.62	25.50	249	0.15
56	10.93	33.46	5.61	238	75	9.81	33.60	4.39	25.91	210	0.21
65	10.30	33.49	4.80	226	100	9.42	33.80	3.42	26.13	189	0.26
74	9.82	33.59	4.40	211	150	9.13	34.08	2.57	26.40	164	0.35
82	9.65	33.64	3.99	205	200	8.34	34.14	(2.27)	26.57	147	0.43
91	9.52	33.71	3.74	197	250	7.71	34.15	(1.98)	26.67	138	0.50
112	9.31	33.93	2.98	178	300	7.55	34.20	(1.88)	26.73	132	0.57
138	9.24	33.99	2.66	172	400	6.93	34.31	1.02	26.91	115	0.70
181	8.65	34.14	2.41	152	500	6.13	34.36	0.54	27.05	102	0.81
232	7.85	34.14	4.19r	140							
324	7.45	34.27	1.81	126							
432	6.61	34.32	0.72	111							
548	5.88	34.38	0.46	97							

BLACK DOUGLAS; October 30, 1955; 1004, 1015 GCT; 31°56'N, 117°50'W; sounding, 720 fm; wind, 240°, force 2; weather, fog; sea, moderate; wire angle, 07°, missing. 97.40

0	17.7	33.71	5.62	356	0	17.7	33.71	5.62	24.38	356	0.00
10	17.68	33.73	5.70	354	10	17.68	33.73	5.70	24.40	354	0.04
28	14.12	33.44	6.20	299	20	17.65	33.73	5.74	24.41	353	0.07
38	13.36	33.46	5.82	282	30	13.98	33.44	6.17	25.00	296	0.10
48	12.50	33.40	5.46	271	50	12.34	33.40	5.43	25.30	268	0.16
57	11.46	33.46	5.23	248	75	10.69	33.48	4.67	25.67	233	0.22
67	10.86	33.47	4.76	236	100	9.77	33.62	3.82	25.94	207	0.28
76	10.66	33.48	4.66	232	150	9.10	33.94	2.64	26.29	174	0.38
85	10.21	33.49	4.30	224	200	8.25	34.00	2.30	26.47	157	0.46
					250	8.02	34.14	1.83	26.62	143	0.54
94	9.94	33.57	4.05	214	300	7.52	34.18	1.46	26.72	133	0.61
118	9.46	33.74	3.30	194	400	6.66	34.24	0.70	26.88	118	0.74
146	9.18	33.92	2.68	176	500	6.28	34.33	0.50	27.01	106	0.85
191	8.38	33.98	2.45	160							
245	8.04	34.13	1.93	144							
342	7.01	34.19	1.08	126							
454	6.54	34.29	0.60	112							
572	5.81	34.37	0.31	97							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_{T_3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

97.50 BLACK DOUGLAS; October 30, 1955; 0355 GCT; 31°32'N, 118°26'W; sounding, 1380 fm; wind, 260°, force 2; weather, clear; sea, slight; wire angle, 06°.

0	18.0	33.71	5.89	363	0	18.0	33.71	5.89	24.30	363	0.00
10	17.46	33.67	5.89	353	10	17.46	33.67	5.89	24.41	353	0.04
29	15.89	33.58	6.04	325	20	16.77	33.63	5.95	24.54	341	0.07
38	14.00	33.48	5.90	293	30	15.60	33.56	6.02	24.76	320	0.10
48	12.88	33.41	6.28	277	50	12.65	33.41	5.99	25.25	273	0.16
57	12.16	33.44	5.51	261	75	11.19	33.40	5.27	25.51	248	0.23
66	11.96	33.40	5.45	261	100	9.93	33.58	4.30	25.88	213	0.29
76	11.15	33.40	5.24	247	150	9.52	34.02	2.50	26.29	174	0.38
86	10.69	33.48	4.83	233	200	8.67	34.23	1.96	26.59	146	0.47
94	10.20	33.53	4.46	221	250	8.24	34.28	(1.65)	26.69	136	0.54
116	9.50	33.69	4.03	198	300	7.95	34.31	(1.40)	26.76	129	0.60
143	9.57	33.97	2.54	178	400	7.21	34.33	(0.95)	26.89	117	0.73
186	8.86	34.20	2.10	151	500	6.41	34.33	0.59	26.99	107	0.85
240	8.30	34.27	1.70	137							
333	7.72	34.33	2.68r	124							
440	6.86	34.33	0.77	113							
554	6.10	34.33	0.49	103							

97.60 BLACK DOUGLAS; October 29, 1955; 2232 GCT; 31°15.5'N, 119°09'W; sounding, 1620 fm; wind, 300°, force 1; weather, clear; sea, moderate; wire angle, 10°.

0	18.1	33.71	5.68	365	0	18.1	33.71	5.68	24.28	365	0.00
10	17.63	33.72	5.64	354	10	17.63	33.72	5.64	24.40	354	0.04
28	17.08	33.70	5.76	343	20	17.33	33.72	5.70	24.47	347	0.07
37	15.06	33.48	6.22	315	30	16.86	33.68	5.82	24.55	339	0.10
47	13.40	33.40	5.93	288	50	13.07	33.40	5.79	25.16	282	0.17
56	12.56	33.40	5.56	272	75	10.87	33.54	4.42	25.68	232	0.23
65	11.56	33.46	4.92	249	100	10.11	33.64	3.52	25.89	212	0.29
74	10.94	33.53	4.49	233	150	9.47	34.00	2.34	26.28	175	0.39
83	10.37	33.57	4.03	221	200	9.19	34.16	2.00	26.45	159	0.47
91	10.28	33.59	3.78	218	250	8.80	34.24	1.35	26.58	147	0.55
114	9.83	33.72	3.12	202	300	8.38	34.29	1.16	26.69	136	0.62
141	9.54	33.93	2.43	181	400	7.51	34.32	0.78	26.84	122	0.76
187	9.25	34.13	2.06	162	500	6.47	34.33	0.46	26.99	108	0.88
244	8.84	34.23	1.38	148							
339	8.06	34.31	1.02	131							
451	6.96	34.33	0.55	114							
571	5.91	34.33	0.40	101							

100.29 STRANGER; October 27, 1955; 2244 GCT; 31°42.5'N, 116°43'W; sounding, 45 fm; wind, 320°, force 3; weather, clear; sea, rough; wire angle, 07°.

0	14.28	33.49	6.44	298	0	14.28	33.49	6.44	24.98	298	0.00
10	12.34	33.49	5.52	262	10	12.34	33.49	5.52	25.37	262	0.03
15	11.26	33.47	4.60	244	20	10.98	33.48	4.72	25.62	237	0.05
20	10.98	33.48	4.72	237	30	10.81	33.49	4.49	25.65	234	0.08
25	10.89	33.48	4.55	236	50	10.27	33.51	4.05	25.76	224	0.12
30	10.81	33.49	4.49	234							
35	10.77	33.49	4.44	233							
45	10.47	33.49	4.39	229							
55	10.13	33.53	3.84	220							
69	9.73	33.58	3.93	210							

OBSERVED					INTERPOLATED				COMPUTED			
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m	

STRANGER; October 27, 1955; 2119 GCT; 31°39'N, 116°46.5'W; sounding, 230 fm; wind, 320°, force 3; weather, clear; sea, rough; wire angle, 17°. 100.30

0	15.9	33.57	6.07	326	0	15.9	33.57	6.07	24.69	326	0.00
9	14.70	33.51	6.06	305	10	14.52	33.50	6.02	24.94	302	0.03
14	12.77	33.43	5.53	273	20	11.97	33.42	5.37	25.39	260	0.06
19	12.08	33.42	5.45	262	30	11.00	33.44	4.72	25.58	241	0.08
23	11.62	33.45	4.59	251	50	10.17	33.60	3.69	25.85	216	0.13
28	11.16	33.44	4.72	244	75	9.48	33.79	2.74	26.12	190	0.18
33	10.71	33.44	4.55	236	100	9.40	33.92	2.51	26.23	180	0.23
43	10.44	33.53	3.97	225	150	8.97	34.04	2.32	26.40	164	0.32
52	10.06	33.62	3.59	212	200	8.78	34.21	1.28	26.57	148	0.39
61	9.60	33.74	3.04	196	250	8.40	34.26	0.56	26.65	140	0.47
74	9.51	33.79	2.75	191							
93	9.43	33.89	2.68	183							
114	9.32	33.95	2.39	174							
150	8.97	34.04	2.32	164							
186	8.85	34.21	1.41	150							
222	-	34.21	1.49	-							
279	8.14	34.27	0.48	135							

STRANGER; October 27, 1955; 1703 GCT; 31°22'N, 117°25'W; sounding, 1050 fm; wind, 310°, force 3; weather, partly cloudy; sea, rough; wire angle, 08°. 100.40

0	17.3	33.58	5.66	356	0	17.3	33.58	5.66	24.38	356	0.00
10	17.26	33.59	5.58	354	10	17.26	33.59	5.58	24.40	354	0.04
30	17.26	33.57	5.71	356	20	17.26	33.58	5.66	24.39	355	0.07
41	16.12	33.47	4.70u	338	30	17.26	33.57	5.71	24.38	356	0.11
50	-	33.36	5.94	-	50	14.77	33.36	5.94	24.80	316	0.17
60	13.48	33.34	5.89	294	75	12.26	33.35	5.46	25.28	270	0.25
70	12.46	33.36	5.55	273	100	10.87	33.46	4.54	25.62	237	0.31
80	12.02	33.35	5.37	266	150	9.12	33.79	3.08	26.18	184	0.42
89	11.34	33.40	4.86	250	200	8.59	34.06	2.38	26.47	157	0.50
99	10.89	33.46	4.58	238	250	8.10	34.15	1.94	26.61	144	0.58
123	9.82	33.61	3.71	210	300	7.58	34.20	1.40	26.73	132	0.65
151	9.08	33.80	3.03	184	400	6.76	34.29	0.63	26.92	114	0.78
200	8.59	34.06	2.38	157	500	6.21	34.35	0.41	27.03	104	0.89
257	8.02	34.16	1.89	142	600	(5.63)	(34.36)	(0.38)	(27.12)	(95)	(1.00)
358	7.02	34.26	0.83	120							
475	6.35	34.34	0.43	106							
597	5.66	24.36	0.38	96							

STRANGER; October 27, 1955; 1153 GCT; 31°05.5'N, 118°07'W; sounding, 750 fm; wind, 340°, force 5; weather, missing; sea, very rough; wire angle, 04°. 100.50

0	17.8	33.63	5.72	364	0	17.8	33.63	5.72	24.29	364	0.00
10	17.64	33.66	5.69	358	10	17.64	33.66	5.69	24.35	358	0.04
29	17.59	33.62	5.22	360	20	17.60	33.63	5.43	24.34	359	0.07
44	13.84	33.39	4.88	297	30	17.58	33.61	5.22	24.34	359	0.11
54	12.57	33.37	4.37	274	50	12.80	33.38	4.53	25.20	278	0.17
63	12.36	33.34	4.11	273	75	11.40	33.25	3.90	25.44	255	0.24
74	11.49	33.35	3.90	256	100	10.01	33.50	3.48	25.80	220	0.30
84	10.58	33.40	3.79	237	150	9.15	33.94	1.57	26.28	175	0.40
98	10.02	33.48	3.64	223	200	8.89	34.14	1.47	26.48	156	0.48
107	9.94	33.56	2.53	215	250	7.97	34.10	1.04	26.59	145	0.56
131	9.28	33.75	1.92	191	300	7.22	34.11	0.57	26.71	134	0.63
159	9.15	33.98	1.55	171	400	(6.66)		(0.25)			
210	8.79	34.14	1.43	154	500	(6.13)		(0.25)			
273	7.50	34.08	0.78	140	600	(5.58)		(0.24)			
382	6.78	34.22	0.25	120							
642	5.29	-	0.24	-							

SIO

CCOFI 5510

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
100.60	STRANGER; October 27, 1955; 0522, 0555 GCT; 30°43'N, 118°49'W; sounding, 2000+ fm; wind, 330°, force 5; weather, cloudy; sea, very rough; wire angle, 13°, 13°.										
0	17.7	33.64	5.80	361	0	17.7	33.64	5.80	24.33	361	0.00
9	17.58	33.68	5.70	355	10	17.55	33.68	5.72	24.40	354	0.04
24	17.56	33.68	5.80	354	20	17.54	33.68	5.76	24.40	354	0.07
					30	17.55	33.68	5.81	24.40	354	0.11
48	13.34	33.34	6.00	291	50	12.99	33.34	5.92	25.13	284	0.17
59	12.05	33.35	5.42	266	75	11.32	33.40	4.97	25.49	250	0.24
68	11.61	33.40	5.13	255	100	10.02	33.54	3.99	25.83	217	0.30
78	11.17	33.40	4.88	247	150	8.77	33.96	2.61	26.36	168	0.39
97	10.14	33.52	4.06	221	200	8.20	34.09	2.33	26.55	149	0.48
126	9.12	33.71	3.69	191	250	7.75	34.17	1.70	26.68	137	0.55
149	8.80	33.95	2.61	168	300	7.38	34.21	1.18	26.77	128	0.62
195	8.21	34.08	2.36	151	400	6.70	34.28	0.58	26.91	115	0.74
262	7.64	34.18	1.54	135	500	6.19	34.32	0.37	27.02	105	0.86
362	6.98	34.25	0.73	120	600	5.64	34.35	0.32	27.11	96	0.96
490	6.20	34.32	0.38	106	700	(5.02)	34.40	0.36	(27.22)	(86)	(1.06)
659	5.26	34.38	0.32	90	800	(4.53)	34.44	0.43	(27.31)	(77)	(1.15)
872	-	34.47	0.48	-	1000	(3.86)	34.50	0.60	(27.43)	(66)	(1.31)
1167	3.54	34.53	0.73	61							
100.70	STRANGER; October 27, 1955; 0000 GCT; 30°22'N, 119°28'W; sounding, 2000+ fm; wind, 340°, force 5; weather, cloudy; sea, very rough; wire angle, 10°.										
0	18.3	33.73	5.51	368	0	18.3	33.73	5.51	24.25	368	0.00
10	18.25	33.75	5.48	365	10	18.25	33.75	5.48	24.28	365	0.04
25	18.15	33.75	5.53	363	20	18.19	33.75	5.49	24.29	364	0.07
50	14.08	33.50	5.92	294	30	18.12	33.75	5.55	24.31	363	0.11
60	12.84	33.40	5.48	277	50	14.08	33.50	5.92	25.03	294	0.18
70	11.45	33.35	5.24	255	75	10.99	33.40	4.87	25.56	244	0.24
79	10.75	33.45	4.63	236	100	10.14	33.63	3.61	25.88	213	0.30
100	10.14	33.63	3.61	213	150	8.78	33.81	3.02	26.25	178	0.40
124	9.20	33.75	3.26	189	200	8.58	34.13	2.12	26.53	151	0.48
153	8.74	33.82	2.96	177	250	7.98	34.21	1.52	26.68	137	0.56
199	8.58	34.13	2.12	152	300	7.30	34.22	1.14	26.79	127	0.62
265	7.74	34.22	1.35	133	400	6.50	34.26	0.66	26.93	113	0.75
363	6.76	34.23	0.87	119	500	6.00	34.35	(0.42)	27.06	101	0.86
485	6.04	34.34	0.41	102	600	5.45	34.38	(0.33)	27.16	92	0.96
660	5.12	34.41	-	86	700	(4.90)	34.43	(0.38)	(27.26)	(82)	(1.05)
873	-	34.49	0.52	-	800	(4.48)	34.47	(0.45)	(27.33)	(75)	(1.14)
1170	3.50	34.56	0.79	59	1000	(3.82)	34.53	0.67	(27.45)	(64)	(1.29)
100.80	STRANGER; October 26, 1955; 1913 GCT; 30°02'N, 120°05.5'W; sounding, 2000+ fm; wind, 310°, force 4; weather, cloudy; sea, rough; wire angle, 06°.										
0	16.9	33.53	5.66	350	0	16.9	33.53	5.66	24.44	350	0.00
10	16.96	33.55	5.69	350	10	16.96	33.55	5.69	24.44	350	0.04
25	16.94	33.55	5.72	350	20	16.95	33.55	5.72	24.44	350	0.07
50	15.68	33.44	6.00	331	30	16.94	33.55	5.72	24.44	350	0.10
60	14.04	33.39	5.89	301	50	15.68	33.44	6.00	24.64	331	0.17
70	13.34	33.39	5.80	287	75	13.00	33.39	5.72	25.17	280	0.25
80	12.61	33.39	5.64	273	100	11.52	33.38	5.20	25.44	254	0.32
100	11.52	33.38	5.20	254	150	9.17	33.70	3.51	26.10	192	0.43
124	9.98	33.49	4.44	220	200	8.18	34.00	2.80	26.49	155	0.52
153	9.05	33.73	3.41	189	250	7.42	34.07	2.06	26.65	140	0.59
200	8.18	34.00	2.80	155	300	7.01	34.14	1.44	26.77	129	0.66
266	7.24	34.10	1.89	135	400	6.45	34.26	0.66	26.93	113	0.79
366	6.66	34.23	0.82	118	500	5.82	34.34	0.39	27.08	99	0.90
489	5.90	34.34	0.40	100	600	5.39	34.36	0.36	27.15	92	1.00
665	5.06	34.38	0.36	88	700	4.98	34.39	0.37	27.22	86	1.10
885	4.22	34.47	0.52	72	800	4.60	34.43	0.42	27.29	79	1.19
1176	3.46	34.53	0.89	60	1000	3.85	34.50	0.68	27.43	66	1.35

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T_3}^{-5}$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T_3}^{-5}$ 10^{-5} cm/g	ΔD dyn. m
STRANGER; October 26, 1955; 1314 GCT; 29°34'N, 120°54'W; sounding, 2000+ fm; wind, 340°, force 2; weather, missing; sea, slight; wire angle, 09°.											100.90
0	17.6	33.58	5.81	363	0	17.6	33.58	5.81	24.30	363	0.00
10	17.52	33.59	5.64	360	10	17.52	33.59	5.64	24.34	360	0.04
24	17.52	33.58	5.66	360	20	17.52	33.59	5.65	24.34	360	0.07
48	17.12	33.53	5.88	356	30	17.52	33.58	5.66	24.34	360	0.11
59	15.64	33.57	6.26	321	50	16.97	33.53	5.97	24.42	352	0.18
69	14.46	33.35	6.15	312	75	14.08	33.34	6.16	24.90	306	0.26
78	13.89	33.34	6.16	301	100	12.53	33.33	5.87	25.21	277	0.34
98	12.64	33.33	5.89	279	150	9.90	33.57	4.59	25.87	214	0.46
121	11.34	33.39	5.50	251	200	8.64	33.91	2.82	26.34	169	0.56
149	9.94	33.56	4.67	215	250	7.92	34.08	2.28	26.59	146	0.64
196	8.72	33.89	2.93	171	300	7.21	34.10	1.94	26.70	135	0.71
261	7.79	34.09	2.20	143	400	6.22	34.20	1.09	26.92	114	0.84
358	6.46	34.11	1.58	124	500	6.00	34.31	0.65	27.03	104	0.96
479	6.03	34.30	0.70	105	600	5.48	34.38	0.21	27.16	92	1.06
651	5.13	34.42	0.16	85	700	4.84	34.45	0.25	27.28	80	1.15
862	4.26	34.51	0.55	69	800	4.47	34.49	0.46	27.36	73	1.24
1154	3.44	34.54	0.83	60	1000	3.83	34.53	0.70	27.45	64	1.39
STRANGER; October 28, 1955; 0322 GCT; 31°05'N, 116°25'W; sounding, 41 fm; wind, calm; weather, clear; sea, smooth; wire angle, 00°.											103.30
0	13.56	33.44	6.38	287	0	13.56	33.44	6.38	25.10	287	0.00
10	12.97	33.44	6.24	276	10	12.97	33.44	6.24	25.22	276	0.03
15	12.44	33.42	5.50	268	20	11.90	33.42	4.56	25.41	258	0.06
20	-	33.42	4.56	-	30	10.81	33.48	4.01	25.65	235	0.08
25	11.23	33.46	4.03	244	50	10.20	33.62	3.13	25.86	215	0.12
30	10.81	33.48	4.01	235							
35	10.66	33.51	4.01	230							
40	10.38	33.57	3.29	221							
50	10.20	33.62	3.13	215							
60	10.00	33.70	2.57	206							
STRANGER; October 28, 1955; 0557 GCT; 30°55'N, 116°45'W; sounding, 400 fm; wind, 290°, force 3; weather, clear; sea, moderate; wire angle, 05°.											103.35
0	16.1	33.54	6.05	333	0	16.1	33.54	6.05	24.62	333	0.00
10	16.12	33.54	5.94	333	10	16.12	33.54	5.94	24.62	333	0.03
30	12.07	33.38	5.38	264	20	14.90	33.48	5.71	24.84	312	0.06
40	11.53	33.43	4.89	251	30	12.07	33.38	5.38	25.34	264	0.09
50	11.10	33.43	4.76	244	50	11.10	33.43	4.76	25.55	244	0.14
58p	10.58	33.41	4.81	-							
62p	10.32	33.44	4.72	-							
65p	10.08	33.47	4.47	-							
80p	9.66	33.72	3.18	-							
118p	8.92	33.82	3.02	-							
189p	7.94	34.09	2.12	-							
407p	6.64	34.29	0.61	-							
498p	6.19	34.33	0.40	-							

S10

CCOFI 5510

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{-5}T_3$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{-5}T_3$ 10^{-5} cm/g	ΔD dyn. m
103.40	STRANGER; October 28, 1955; 0850 GCT; 30°45'N, 117°05.5'W; sounding, 1000 fm; wind, 300°, force 3; weather, clear; sea, very rough; wire angle, 00°.										
0	16.0	33.55	5.93	329	0	16.0	33.55	5.93	24.66	329	0.00
10	15.76	33.53	6.00	326	10	15.76	33.53	6.00	24.69	326	0.03
30	12.68	33.40	5.61	274	20	13.94	33.44	5.87	25.02	295	0.06
40	11.79	33.40	5.08	258	30	12.68	33.40	5.61	25.24	274	0.09
51	11.23	33.44	4.61	246	50	11.28	33.44	4.63	25.52	247	0.14
60	10.67	33.47	4.52	233	75	10.10	33.50	4.08	25.78	222	0.20
70	10.16	33.50	4.17	223	100	9.72	33.72	3.19	26.02	200	0.26
80	10.06	33.49	3.95	222	150	9.06	33.98	2.73	26.33	170	0.35
90	9.76	33.62	3.61	208	200	8.24	34.07	2.61	26.53	151	0.43
99	9.72	33.70	3.31	201	250	7.75	34.13	1.78	26.65	140	0.50
124	9.62	33.96	2.50	180	300	7.17	34.16	1.33	26.76	130	0.57
152	9.00	33.98	2.76	169	400	6.21	34.22	0.95	26.94	113	0.70
199	8.25	34.07	2.62	152	500	5.78	34.30	0.77	27.06	101	0.81
255	7.72	34.14	1.71	139	600	(5.43)	(34.38)	(0.54)	(27.15)	(92)	(0.91)
354	6.55	34.18	1.04	120							
469	-	34.27	0.85	-							
591	5.46	34.37	0.55	93							
107.32	STRANGER; October 28, 1955; 2058 GCT; 30°26'N, 116°11'W; sounding, 192 fm; wind, 300°, force 3; weather, overcast; sea, very rough; wire angle, 10°.										
0	14.8	33.46	6.22	311	0	14.8	33.46	6.22	24.85	311	0.00
10	13.86	33.43	6.18	294	10	13.86	33.43	6.18	25.03	294	0.03
15	12.65	33.39	5.50	274	20	12.51	33.40	5.49	25.27	271	0.06
20	12.51	33.40	5.49	271	30	11.99	33.42	5.20	25.39	260	0.08
24	12.27	33.42	5.44	265	50	10.62	33.48	4.00	25.68	232	0.13
29	12.06	33.42	5.25	261	75	9.93	33.75	2.81	26.01	201	0.19
34	11.74	33.42	5.07	256	100	9.81	33.92	2.57	26.16	186	0.24
44	11.32	33.44	4.72	246	150	9.73	34.22	2.02	26.41	163	0.33
54	10.38	33.50	3.77	226	200	9.48	34.26	1.31	26.49	155	0.41
64	10.09	33.59	3.29	215	250	9.10	34.32	1.16	26.59	145	0.48
78	9.90	33.78	2.74	198	300	(8.68)	(34.34)	(1.05)	(26.68)	(137)	(0.56)
97	9.84	33.88	1.44r	190							
120	9.64	34.03	2.15	176							
158	9.73	34.23	2.00	162							
196	9.49	34.26	1.32	156							
235	-	34.31	1.20	-							
292	8.77	34.34	1.05	138							
107.35	STRANGER; October 28, 1955; 1631 GCT; 30°21'N, 116°23.5'W; sounding, 900 fm; wind, 310°, force 3; weather, fog; sea, moderate; wire angle, 02°.										
0	15.4	33.48	6.05	322	0	15.4	33.48	6.05	24.73	322	0.00
10	15.38	33.48	6.08	322	10	15.38	33.48	6.08	24.73	322	0.03
31	13.48	33.39	6.00	290	20	15.34	33.48	6.07	24.74	321	0.06
40	12.68	33.37	5.67	276	30	13.67	33.40	6.02	25.04	293	0.10
51	11.88	33.39	5.12	260	50	11.95	33.39	5.16	25.36	262	0.15
61	11.07	33.44	4.64	242	75	10.31	33.51	4.01	25.76	224	0.21
70	10.56	33.49	4.28	230	100	9.43	33.67	3.36	26.03	199	0.26
80	10.02	33.55	3.75	217	150	8.46	33.95	2.90	26.40	164	0.36
90	9.62	33.60	3.48	207	200	8.46	34.15	1.96	26.56	149	0.44
99	9.44	33.66	3.37	200	250	8.38	34.26	1.26	26.66	139	0.51
123	8.88	33.82	2.53u	179	300	7.72	34.31	0.77	26.79	126	0.58
152	8.46	33.95	2.89	164	400	6.83	34.33	0.53	26.94	112	0.70
200	8.46	34.15	1.96	149	500	6.17	34.35	0.42	27.04	102	0.81
256	8.31	34.28	1.17	137	600	(5.40)	(34.38)	(0.37)	(27.16)	(92)	(0.92)
336	7.24	34.32	0.62	119							
596	5.42	34.38	0.37	92							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^3 cm/g	ΔD dyn. m
STRANGER; October 28, 1955; 1335 GCT; 30°11'N, 116°44'W; sounding, 1600 fm; wind, 040°, force 3; weather, clear; sea, moderate; wire angle, 05°.											107.40
0	17.1	33.58	5.61	352	0	17.1	33.58	5.61	24.42	352	0.00
10	17.08	33.58	5.71	352	10	17.08	33.58	5.71	24.42	352	0.04
30	16.89	33.57	5.76	348	20	16.98	33.58	5.74	24.44	350	0.07
40	15.77	33.49	6.03	329	30	16.89	33.57	5.76	24.46	348	0.10
49	13.91	33.37	6.08	299	50	13.87	33.37	6.06	24.98	299	0.17
60	12.85	33.38	5.69	278	75	12.00	33.38	5.19	25.35	263	0.24
70	12.27	33.37	6.21r	269	100	10.47	33.49	4.18	25.72	229	0.30
80	11.68	33.40	5.00	256	150	9.17	33.85	3.23	26.22	181	0.41
89	10.88	33.42	4.46	241	200	8.63	34.06	2.21	26.46	158	0.49
99	10.52	33.48	4.23	230	250	7.94	34.13	1.86	26.62	143	0.57
123	9.68	33.64	3.43	205	300	7.34	34.16	1.33	26.73	132	0.64
151	9.17	33.86	3.21	180	400	6.55	34.24	0.56	26.90	116	0.77
196	8.69	34.05	2.26	159	500	5.95	34.34	0.35	27.06	101	0.88
254	7.90	34.13	1.83	142	600	(5.41)	(34.39)	(0.42)	(27.16)	(91)	(0.98)
352	6.88	34.18	0.91	125							
466	-	34.31	0.34	-							
588	5.47	34.38	0.40	92							
STRANGER; October 24, 1955; 1851 GCT; 29°50.5'N, 115°52.5'W; sounding, 52 fm; wind, 310°, force 3; weather, fog; sea, moderate; wire angle, 07°.											110.33
0	15.04	33.44	6.36	318	0	15.04	33.44	6.36	24.78	318	0.00
15	14.22	33.44	6.24	301	10	14.54	33.44	6.30	24.88	308	0.03
25	12.64	33.41	5.75	272	20	13.60	33.43	6.12	25.07	290	0.06
35	-	33.45	4.93	-	30	12.07	33.42	5.34	25.38	261	0.09
45	10.87	33.51	4.09	234	50	10.79	33.55	4.28	25.71	229	0.14
50	10.79	33.55	4.28	229	75	9.99	33.72	3.01	25.97	204	0.19
55	10.58	33.57	4.26	224							
60	10.46	33.60	3.79	220							
65	10.42	33.60	3.35	220							
70	10.08	33.68	3.12	208							
80	9.89	33.75	2.86	200							
STRANGER; October 24, 1955; 2026 GCT; 29°46.5'N, 116°00'W; sounding, 700 fm; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, 13°.											110.35
0	18.5	33.75	5.50	372	0	18.5	33.75	5.50	24.21	372	0.00
9	18.49	33.74	5.54	373	10	18.48	33.74	5.55	24.20	373	0.04
29	15.25	33.44	6.26	322	20	18.45	33.73	5.59	24.21	372	0.07
39	13.46	33.40	6.03	289	30	15.21	33.43	6.26	24.78	318	0.11
49	13.08	33.41	5.57	281	50	13.04	33.41	5.51	25.18	279	0.17
59	11.79	33.40	5.20	258	75	10.67	33.46	4.50	25.67	233	0.23
68	11.00	33.46	4.71	240	100	9.82	33.66	3.28	25.95	206	0.29
77	10.54	33.47	4.44	231	150	8.89	33.97	2.75	26.35	168	0.38
87	9.86	33.54	4.02	215	200	8.42	34.13	2.23	26.54	150	0.46
96	9.87	33.58	3.84	212	250	8.09	34.21	1.70	26.66	138	0.54
119	9.61	33.79	2.99	193	300	7.80	34.26	1.19	26.74	131	0.61
146	8.96	33.96	2.76	170	400	7.09	34.32	0.92	26.89	117	0.74
191	8.48	34.11	2.23	152	500	6.17	34.36	0.97	27.05	102	0.85
246	8.10	34.21	1.71	139							
343	7.58	34.29	0.83	125							
456	6.51	34.34	1.02	108							
578	5.76	34.40	0.82	94							

S10

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_{T_3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

110.40 STRANGER; October 24, 1955; 2324 GCT; 29°36.5'N, 116°19.5'W; sounding, 1160 fm; wind, 310°, force 5; weather, cloudy; sea, moderate; wire angle, 20°.

0	18.5	33.73	5.16	373	0	18.5	33.73	5.16	24.20	373	0.00
10	18.46	33.74	5.52	371	10	18.46	33.74	5.52	24.22	371	0.04
23	17.59	33.66	5.54	357	20	18.37	33.74	5.54	24.24	369	0.07
48	15.24	33.48	6.07	319	30	16.91	33.60	5.68	24.48	346	0.11
57	13.86	33.39	5.94	297	50	14.90	33.47	6.06	24.82	314	0.18
66	13.02	33.42	5.75	279	75	12.58	33.38	5.63	25.24	274	0.25
76	12.48	33.37	5.62	273	100	10.52	33.44	4.68	25.66	233	0.31
94	10.98	33.39	4.99	244	150	8.91	33.81	3.24	26.23	180	0.42
117	9.76	33.58	3.98	210	200	8.26	34.02	3.03	26.49	155	0.50
144	9.06	33.78	3.28	185	250	8.58	34.29	1.42	26.65	140	0.58
187	8.26	33.97	3.18	159	300	8.23	34.33	0.98	26.73	132	0.65
249	8.58	34.29	1.42	140	400	7.20	34.34	0.58	26.89	117	0.78
343	7.84	34.34	0.74	126	500	6.13	34.36	0.42	27.05	102	0.89
458	6.50	34.34	0.44	108	600	5.59	34.45	0.41	27.20	88	0.99
624	5.46	34.46a)	0.40	86	700	5.10	34.47	0.40	27.27	82	1.08
830	4.50	34.48	0.45	74	800	4.61	34.48	0.42	27.33	76	1.17
1120	3.56	34.55	0.80	59	1000	3.92	34.52	0.64	27.43	66	1.32

110.50 STRANGER; October 25, 1955; 0437 GCT; 29°16'N, 116°59'W; sounding, 2000+ fm; wind, 350°, force 4; weather, partly cloudy; sea, moderate; wire angle, 15°.

0	18.7	33.77	5.48	375	0	18.7	33.77	5.48	24.18	375	0.00
9	18.68	33.73	5.48	377	10	18.66	33.73	5.48	24.15	377	0.04
24	17.90	33.62	5.72	367	20	18.60	33.71	5.51	24.15	377	0.08
55	15.22	33.53	5.96	315	30	17.25	33.59	5.84	24.40	354	0.11
64	14.57	33.50	5.92	303	50	15.61	33.54	5.95	24.74	322	0.18
73	13.67	33.46	5.78	288	75	(13.52)	(33.46)	(5.72)	(25.11)	(286)	(0.26)
106p	10.68	34.50	4.64	-							
395p	7.91	34.35	0.82	-							
696p	5.48	34.38	0.32	-							
890p	4.54	34.47	0.49	-							

110.60 STRANGER; October 25, 1955; 0942 GCT; 28°55.5'N, 117°38'W; sounding, 2000+ fm; wind, 350°, force 4; weather, clear; sea, moderate; wire angle, 12°.

0	18.3	33.71	5.63	370	0	18.3	33.71	5.63	24.23	370	0.00
9	18.43	33.75	5.70	370	10	18.43	33.75	5.71	24.23	370	0.04
23	18.45	33.74	5.73	371	20	18.43	33.74	5.73	24.22	371	0.07
54	15.33	33.48	6.18	321	30	18.43	33.74	5.73	24.22	371	0.11
63	14.57	33.42	6.23	319	50	16.15	33.54	6.10	24.62	333	0.18
72	13.42	33.39	6.02	289	75	13.18	33.39	5.97	25.13	284	0.26
86	12.30	33.39	5.66	268	100	11.20	33.43	5.01	25.53	246	0.33
106	10.84	33.46	4.63	237	150	9.72	33.78	3.33	26.07	195	0.44
129	10.36	33.60	3.81	219	200	8.95	34.04	2.60	26.40	164	0.53
157	9.55	33.82	3.18	190	250	8.26	34.13	2.19	26.57	147	0.61
209	8.82	34.07	2.52	160	300	7.72	34.21	1.65	26.72	133	0.68
285	7.86	34.18	1.89	138	400	7.21	34.33	0.72	26.88	118	0.81
388	7.24	34.33	0.78	118	500	6.40	34.33	0.48	27.00	107	0.93
525	6.16	34.34	0.42	104	600	5.62	34.40	0.37	27.15	92	1.04
722	5.07	34.47	0.36	81	700	5.20	34.46	0.36	27.25	83	1.13
935	4.17	34.51	0.60	68	800	4.79	34.49	0.42	27.32	76	1.22
1234	3.41	34.54	0.93	59	1000	3.89	34.52	0.71	27.44	65	1.37

a) Loose bottle cap; value falls on property curve.

OBSERVED					INTERPOLATED				COMPUTED			
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T_3}^{-5}$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T_3}^{-5}$ 10^{-5} cm/g	ΔD dyn. m	
STRANGER; October 25, 1955; 1447 GCT; 28°34'N, 118°18.5'W; sounding, 2000+ fm; wind, 300°, force 3; weather, cloudy; sea, slight; wire angle, 08°.												110.70
0	18.6	33.71	5.54	377	0	18.6	33.71	5.54	24.16	377	0.00	
10	18.57	33.73	5.84	375	10	18.57	33.73	5.84	24.18	375	0.04	
25	18.57	33.76	5.52	372	20	18.57	33.76	5.52	24.20	372	0.08	
51	16.98	33.57	5.88	349	30	18.57	33.76	5.52	24.20	372	0.11	
60	-	33.49	6.10	-	50	17.13	33.59	5.82	24.42	352	0.18	
70	15.00	33.39	6.23	320	75	14.78	33.39	6.17	24.80	316	0.27	
80	14.53	33.41	6.10	309	100	13.27	33.47	6.24	25.18	280	0.34	
99	13.30	33.47	6.27	281	150	10.07	33.53	4.53	25.81	220	0.47	
125	12.32	33.49	5.26	261	200	8.71	33.84	3.39	26.28	175	0.57	
154	9.82	33.54	4.40	215	250	8.40	34.07	2.62	26.50	154	0.66	
202	8.68	33.86	3.33	173	300	7.94	34.17	1.96	26.66	139	0.73	
269	8.26	34.14	2.33	147	400	6.80	34.27	0.88	26.89	117	0.87	
367	7.03	34.23	1.12	123	500	6.24	34.34	0.41	27.02	105	0.98	
489	6.32	34.34	0.44	105	600	5.71	34.39	0.34	27.13	94	1.09	
663	5.25	34.42	0.32	87	700	5.01	34.44	0.36	27.24	84	1.18	
876	4.29	34.49	0.54	71	800	4.59	34.46	0.44	27.32	76	1.27	
1172	3.50	34.56	0.81	59	1000	3.88	34.52	0.66	27.44	65	1.43	
STRANGER; October 25, 1955; 1930, 1947 GCT; 28°16'N, 118°57.5'W; sounding, 2000+ fm; wind, 320°, force 2; weather, cloudy; sea, moderate; wire angle, 00°, 05°.												110.80
0	17.5	33.56	5.62	362	0	17.5	33.56	5.62	24.31	362	0.00	
10	17.44	33.56	5.62	360	10	17.44	33.56	5.62	24.33	360	0.04	
25	17.43	33.57	5.61	360	20	17.43	33.57	5.61	24.34	360	0.07	
49	16.90	33.57	5.81	348	30	17.43	33.57	5.61	24.34	360	0.11	
					50	16.85	33.57	5.83	24.47	347	0.18	
60	16.10	33.58	5.96	329	75	15.17	33.53	5.94	24.82	314	0.26	
70	15.43	33.58	5.94	315	100	13.82	33.52	5.81	25.10	287	0.34	
79	15.13	33.53	5.94	313	150	11.12	33.53	4.71	25.63	236	0.47	
100	13.82	33.52	5.81	287	200	8.99	33.76	3.86	26.18	184	0.58	
125	12.62	33.50	5.48	266	250	8.10	33.95	3.32	26.46	158	0.67	
154	10.83	33.54	4.61	231	300	7.45	34.04	2.76	26.62	142	0.74	
202	8.92	33.77	3.88	183	400	6.42	34.14	1.44	26.84	122	0.88	
268	7.81	34.01	3.12	150	500	5.80	34.25	0.63	27.01	106	1.00	
369	6.68	34.11	1.77	127	600	5.27	34.33	0.33	27.14	93	1.11	
494	5.84	34.24	0.68	107	700	4.86	34.39	0.36	27.23	85	1.20	
670	4.96	34.38	0.33	87	800	4.60	34.46	0.43	27.31	77	1.29	
885	4.38	34.51	0.54	70	1000	3.98	34.54	0.70	27.44	65	1.45	
1185	3.48	34.56	0.87	58								
STRANGER; October 26, 1955; 0058 GCT; 27°56'N, 119°36'W; sounding, 2000+ fm; wind, 320°, force 2; weather, partly cloudy; sea, slight; wire angle, 02°.												110.90
0	18.9	33.78	5.46	379	0	18.9	33.78	5.46	24.14	379	0.00	
10	18.71	33.78	5.46	374	10	18.71	33.78	5.46	24.19	374	0.04	
25	18.64	33.78	5.40	373	20	18.64	33.78	5.40	24.20	373	0.08	
50	17.49	33.77	5.75	347	30	18.64	33.78	5.40	24.20	373	0.11	
60	16.54	33.69	5.92	331	50	17.49	33.77	5.75	24.47	347	0.18	
70	16.55	33.86	5.85	319	75	16.35	33.86	5.83	24.81	315	0.27	
80	16.07	33.86	5.80	308	100	15.26	33.87	5.64	25.07	290	0.34	
100	15.26	33.87	5.64	290	150	11.14	33.48	5.13	25.59	240	0.48	
125	12.78	33.55	5.39	264	200	9.90	33.96	4.79	26.18	185	0.59	
154	11.02	33.49	-	238	250	9.12	34.20	2.70	26.50	154	0.67	
200	9.90	33.96	4.79	185	300	8.57	34.30	1.33	26.66	139	0.75	
266	8.92	34.25	2.00	147	400	7.61	34.35	0.68	26.84	121	0.88	
365	8.00	34.36	0.79	126	500	6.43	34.33	0.48	26.99	108	1.01	
489	6.56	34.33	0.52	109	600	5.80	34.37	0.40	27.11	96	1.11	
664	5.52	34.40	0.37	91	700	5.40	34.41	0.37	27.19	88	1.21	
879	4.61	34.49	0.42	75	800	4.98	34.46	0.39	27.27	81	1.31	
1177	3.67	34.54	0.81	62	1000	4.21	34.52	0.58	27.40	68	1.47	

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m

113.30 STRANGER; October 24, 1955; 1405 GCT; 29°23'N, 115°18'W; sounding, 28 fm; wind, 330°, force 3; weather, fog; sea, moderate; wire angle, 00°.

0	13.06	33.64	5.66	263	0	13.06	33.64	5.66	25.35	263	0.00
10	13.07	33.53a)	5.73	272	10	13.07	33.53	5.73	25.26	272	0.03
15	13.06	33.51	5.73	273	20	13.05	33.51	5.72	25.25	273	0.05
20	13.05	33.51	4.09r	273	30	12.85	33.48	5.74	25.27	271	0.08
25	13.03	33.51	5.72	273							
30	12.85	33.48	5.74	271							
35	12.27	33.48	5.63	260							
40	10.96	33.53	5.24	233							

113.35 STRANGER; October 24, 1955; 1026, 1045 GCT; 29°10.5'N, 115°41.5'W; sounding, 600 fm; wind, 310°, force 4; weather, clear; sea, slight; wire angle, 19°, 34°.

0	14.3	33.48	7.09	299	0	14.3	33.48	7.09	24.97	299	0.00
9	14.06	33.48	7.10	294	10	14.05	33.48	7.08	25.03	294	0.03
29	12.25	33.43	5.19	264	20	13.78	33.47	6.89	25.08	289	0.06
39	11.71	33.48	4.86	250	30	12.22	33.43	5.16	25.35	263	0.09
49	11.04	33.45	4.59	241	50	10.99	33.45	4.57	25.59	240	0.14
57	10.58	33.50	4.38	230	75	9.83	33.61	3.97	25.91	210	0.19
67	10.10	33.52	4.14	221	100	9.39	33.76	3.53	26.11	191	0.24
76	9.81	33.61	3.94	210	150	9.92	34.20	1.70	26.36	167	0.33
85	9.60	33.68b)	3.67b)	-	200	9.48	34.28	1.56	26.49	155	0.42
					250	8.69	34.32	1.27	26.65	140	0.49
85	9.60	33.64b)	3.84b)	-	300	8.25	34.37	0.72	26.77	129	0.56
106	9.38	33.78	3.40	189	400	7.20	34.37	0.54	26.91	115	0.68
132	9.92	34.11	1.92	174	500	6.24		0.77			
172	9.90	34.28	1.54	161							
222	9.06	34.28	1.62	148							
311	8.18	34.38	0.69	127							
412	7.08	34.37	0.54	113							
520	6.04	-	0.83	-							

113.40 STRANGER; October 24, 1955; 0700 GCT; 29°02'N, 115°58.5'W; sounding, 1000 fm; wind, 310°, force 3; weather, partly cloudy; sea, moderate; wire angle, 20°.

0	18.3	33.68	5.40	372	0	18.3	33.68	5.40	24.21	372	0.00
9	18.28	33.68	5.39	372	10	18.28	33.68	5.39	24.21	372	0.04
28	17.73	33.62	5.56	363	20	18.28	33.68	5.39	24.21	372	0.07
37	15.32	33.44	6.20	323	30	17.25	33.57	5.72	24.39	354	0.11
48	13.85	33.40	5.89	296	50	13.78	33.40	5.89	25.02	295	0.18
57	13.46	33.39	5.84	289	75	12.03	33.40	5.26	25.36	262	0.24
65	12.50	33.40	5.48	271	100	10.91	33.47	4.57	25.63	237	0.31
75	12.03	33.40	5.26	262	150	9.19	33.90	3.26	26.25	178	0.41
85	11.08	33.44u	4.74	-	200	8.78	34.06	2.39	26.44	160	0.50
94	11.02	33.43u	4.70	-	250	8.97	34.34	1.21	26.63	142	0.58
116	10.30	33.70	2.75	210	300	8.38	34.34	0.89	26.72	133	0.65
142	9.36	33.86	3.30	184	400	7.31	34.41	0.66	26.93	113	0.77
188	8.74	34.04	2.46	161	500	6.40	34.41	0.70	27.06	101	0.89
236p	9.04	34.33	1.39	144							
330p	8.02	34.34	0.79	128							
440p	6.95	34.43	0.64	107							
559p	5.83	34.38	0.76	97							

a) Loose bottle cap; value falls on property curve.
b) Averages of the two salinity and two oxygen values obtained at 85 meters were used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_{T_3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

STRANGER; October 23, 1955; 0547 GCT; 28°56'N, 114°41'W; sounding, 42 fm; wind, 280°, force 3; weather, clear; sea, slight; wire angle, 02°. 117.26

0	15.48	33.52	6.45	321	0	15.48	33.52	6.45	24.74	321	0.00
10	15.46	33.56	6.48	317	10	15.46	33.56	6.48	24.78	317	0.03
15	12.68	33.54	5.43	264	20	12.06	33.53	4.40	25.46	253	0.06
20	12.06	33.53	4.40	253	30	11.10	33.56	4.09	25.66	234	0.08
25	11.53	33.49	4.39	247	50	10.38	33.67	2.66	25.87	214	0.13
30	11.10	33.56	4.09	234	75	(10.31)	(33.72)	(1.70)	(25.92)	(209)	(0.18)
35	10.92	33.57	3.66	230							
45	10.45	33.64	3.07	218							
70	10.31	33.71	1.76	210							

STRANGER; October 23, 1955; 0759 GCT; 28°48'N, 114°56.5'W; sounding, 55 fm; wind, 300°, force 6; weather, clear; sea, rough; wire angle, 16°. 117.30

0	16.50	33.58	5.86	338	0	16.50	33.58	5.86	24.57	338	0.00
9	16.52	33.57	6.02	339	10	16.48	33.57	5.93	24.56	339	0.03
14	16.42	33.58	5.78	336	20	15.20	33.50	6.12	24.79	316	0.07
19	15.37	33.50	6.18	320	30	12.45	33.50	4.72	25.35	263	0.10
23	14.08	33.48	5.32	295	50	10.63	33.64	3.28	25.81	220	0.14
33	12.03	33.51	4.59	255							
44	10.88	33.60	3.72	227							
53	10.58	33.66	3.10	218							
67	10.32	33.82	2.19	202							

STRANGER; October 23, 1955; 1107 GCT; 28°38'N, 115°16'W; sounding, 121 fm; wind, 300°, force 4; weather, clear; sea, moderate; wire angle, 10°. 117.35

0	14.30	33.41	6.32	305	0	14.30	33.41	6.32	24.91	305	0.00
10	14.31	33.42	6.35	304	10	14.31	33.42	6.35	24.93	304	0.03
15	14.16	33.43	6.30	300	20	13.77	33.43	6.01	25.05	292	0.06
19	13.82	33.42	6.04	295	30	12.52	33.40	5.23	25.26	272	0.09
24	13.39	33.44	5.80	284	50	10.88	33.56	3.66	25.70	230	0.14
29	12.58	33.40	5.19	272	75	10.32	33.84	2.67	26.01	201	0.19
34	12.46	33.41	5.28	269	100	10.40	34.08	1.96	26.19	184	0.24
43	11.24	33.48	4.36	243	150	10.02	34.19	1.49	26.34	169	0.33
53	10.69	33.62	3.13	223	200	(9.62)	(34.37)		(26.54)	(150)	(0.41)
62	10.32	33.74	2.76	208							
71	10.34	33.80	2.76	204							
90	10.30	34.00	2.11	188							
104	10.44	34.13	1.84	181							
130	10.34	34.17	1.42	176							
159	9.85	34.21	1.53	165							
192	9.66	34.33	1.09	153							

S10

CCOFI 5510

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T}{}^{-5}{}_{3}$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T}{}^{-5}{}_{3}$ 10^{-5} cm/g	ΔD dyn. m
117.40	STRANGER; October 23, 1955; 1355, 1434 GCT; 28°28'N, 115°36'W; sounding, 300 fm; wind, 340°, force 3; weather, partly cloudy; sea, moderate; wire angle, 10°, 10°.										
0	15.9	33.51	5.91	330	0	15.9	33.51	5.91	24.65	330	0.00
10	15.86	33.51	5.92	329	10	15.86	33.51	5.92	24.66	329	0.03
29	14.38	33.46	5.19	302	20	15.85	33.51	5.92	24.66	329	0.07
39	13.85	33.42	4.96	295	30	14.28	33.45	5.14	24.95	301	0.10
49	-	33.40	5.29	-	50	12.62	33.40	5.27	25.25	273	0.16
58	11.76	33.41	4.91	257	75	11.03	33.54	3.98	25.66	234	0.22
69	11.33	33.42	4.55	248	100	10.62	34.08	1.78	26.14	188	0.27
					150	10.09	34.20	1.48	26.33	170	0.36
77	10.96	33.58	3.79	230	200	9.66	34.30	1.10	26.48	156	0.44
87	10.72	33.70	3.26	217	250	9.18	34.33	0.90	26.59	145	0.52
96	10.62	33.91	2.42	200	300	8.62	34.34	0.81	26.68	137	0.60
114	10.60	34.12	1.69	184	400	7.58	34.34	0.64	26.84	122	0.73
137	10.22	34.16	1.47	175	500	(6.32)	(34.34)	(0.29)	(27.01)	(106)	(0.85)
156	10.02	34.22	1.48	168							
193	9.73	34.29	1.10	158							
269	8.99	34.34	0.87	142							
367	7.95	34.34	0.71	127							
484	6.54	34.34	0.36	108							
120.25	STRANGER; October 23, 1955; 0100 GCT; 28°22.5'N, 114°14'W; sounding, 26 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 00°.										
0	16.65	33.58	5.78	341	0	16.65	33.58	5.78	24.53	341	0.00
10	16.65	33.57	5.81	342	10	16.65	33.57	4.81	24.52	342	0.03
15	16.02	33.57	6.00	329	20	15.54	33.47	6.04	24.69	326	0.07
20	15.54	33.47	6.04	326	30	12.64	33.48	4.97	25.31	268	0.10
25	13.31	33.48	5.36	280							
30	12.64	33.48	4.97	268							
35	12.10	33.48	4.66	257							
40	11.52	33.48	4.56	247							
120.27	STRANGER; October 22, 1955; 2324 GCT; 28°18.5'N, 114°22.5'W; sounding, 46 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 10°.										
0	16.70	33.57	5.87	343	0	16.70	33.57	5.87	24.51	343	0.00
10	16.48	33.57	5.89	339	10	16.48	33.57	5.89	24.56	339	0.03
15	16.12	33.57	6.00	330	20	15.53	33.51	6.05	24.72	323	0.07
20	15.53	33.51	6.05	323	30	13.69	33.46	5.87	25.08	289	0.10
24	15.38	33.51	5.91	319	50	11.45	33.48	4.45	25.52	247	0.15
29	13.87	33.46	5.94	292							
34	13.22	33.46	5.48	280							
44	12.08	33.47	4.70	258							
54	11.19	33.49	4.30	241							
68	10.60	33.69	2.68	216							
120.30	STRANGER; October 22, 1955; 1631 GCT; 28°13'N, 114°34'W; sounding, 50 fm; wind, 330°, force 5; weather, partly cloudy; sea, rough; wire angle, 13°.										
0	17.92	33.64	5.59	366	0	17.92	33.64	5.59	24.27	366	0.00
10	17.93	33.62	5.61	368	10	17.93	33.62	5.61	24.25	368	0.04
14	17.90	33.62	5.69	366	20	17.89	33.64	5.58	24.28	365	0.07
19	17.89	33.64	5.58	365	30	17.46	33.60	5.72	24.35	359	0.11
24	17.69	33.60	5.69	363	50	14.00	33.48	5.61	25.04	293	0.18
29	17.51	33.60	5.73	359							
33	17.34	33.58	5.72	357							
43	16.06	33.55	5.72	331							
53	13.29	33.46	5.47	281							
69	11.36	33.58	3.71	237							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{3}^{-5} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{3}^{-5} 10^{-5} cm/g	ΔD dyn. m
STRANGER; October 22, 1955; 1341 GCT; 28°03'N, 114°54'W; sounding, 44 fm; wind, 330°, force 5; weather, partly cloudy; sea, moderate; wire angle, 00°.											120.35
0	17.10	33.71	5.76	342	0	17.10	33.71	5.76	24.52	342	0.00
10	17.10	33.61	5.70	349	10	17.10	33.61	5.70	24.45	349	0.04
20	16.93	33.58	5.83	348	20	16.93	33.58	5.83	24.46	348	0.07
25	-	33.58	5.86	-	30	16.40	33.57	5.96	24.58	337	0.10
30	16.40	33.57	5.96	337	50	12.86	33.54	4.71	25.31	267	0.16
35	15.68	33.53	5.84	324							
40	14.45	33.52	5.38	300							
45	13.40	33.51	4.91	279							
50	12.86	33.54	4.71	267							
60	11.70	33.50	4.34	248							
STRANGER; October 22, 1955; 0812 GCT; 27°43'N, 115°33'W; sounding, 1200 fm; wind, 350°, force 5; weather, missing; sea, moderate; wire angle, 26°.											120.45
0	17.3	33.64	5.98	352	0	17.3	33.64	5.98	24.42	352	0.00
8	17.22	33.68	6.24	347	10	17.22	33.68	6.24	24.47	347	0.04
23	14.70	33.48	6.04	307	20	17.13	33.68	6.23	24.49	345	0.07
50	11.00	33.51	4.54	236	30	13.00	33.48	5.65	25.24	274	0.10
60	-	33.53	4.35	-	50	11.00	33.51	4.54	25.64	236	0.15
68	10.00	33.60	3.93	213	75	9.87	33.66	3.61	25.95	206	0.21
82	9.83	33.75	3.15	200	100	9.98	33.97	2.49	26.17	185	0.26
100	9.98	33.97	2.49	185	150	10.91	34.50	0.79	26.43	161	0.34
121	10.15	34.16	2.02	174	200	10.05	34.48	0.73	26.56	149	0.42
145	10.96	34.50	0.80	162	250	9.78	34.59	0.37	26.69	136	0.49
190	10.16	34.47	0.76	151	300	9.13	34.54	0.33	26.76	130	0.56
256	9.72	34.59	0.34	135	400	7.81	34.45	0.28	26.89	117	0.69
348	8.42	34.48	0.32	124	500	6.89	34.46	0.22	27.03	104	0.80
469	7.14	34.45	0.23	108	600	6.14	34.49	0.21	27.16	92	0.91
631	5.88	34.49a)	0.21	89	700	5.41	34.48	0.28	27.24	84	1.00
834	4.59	34.41	0.43	76	800	4.79	34.47	0.39	27.30	78	1.09
1112	3.70	34.54	0.70	62	1000	3.97	34.51	0.62	27.42	66	1.25
STRANGER; October 22, 1955; 0418 GCT; 27°33'N, 115°52.5'W; sounding, 2000+ fm; wind, 330°, force 4; weather, partly cloudy; sea, moderate; wire angle, 15°.											120.50
0	17.8	33.66	5.56	362	0	17.8	33.66	5.56	24.31	362	0.00
9	17.76	33.64	5.48	362	10	17.76	33.64	5.48	24.31	362	0.04
24	16.44	33.56	5.76	339	20	17.74	33.63	5.48	24.32	362	0.07
53	11.80	33.49	4.61	252	30	15.12	33.53	5.60	24.83	312	0.11
63	11.34	33.59	4.05	236	50	12.19	33.49	4.82	25.40	258	0.16
71	12.13	33.95	2.26	224	75	12.08	33.98	1.96	25.81	220	0.22
85	11.83	34.01	1.61	214	100	11.58	34.10	1.50	25.99	203	0.28
104	11.50	34.11	1.50	200	150	9.95	34.20	1.71	26.35	168	0.37
127	9.70	33.98	2.72	180	200	8.98	34.23	1.86	26.54	150	0.45
156	9.98	34.23	1.64	166	250	8.59	34.39	1.42	26.73	132	0.52
206	8.87	34.23	1.89	149	300	8.45	34.45	0.71	26.80	126	0.59
281	8.52	34.42	0.97	130	400	7.73	34.49	0.25	26.90	116	0.71
385	8.08	34.49	0.28	118	500	6.67	34.48	0.25	27.08	100	0.83
520	6.47	34.48	0.23	97	600	5.95	34.49	0.25	27.19	89	0.93
703	5.40	34.52	0.26	81	700	5.42	34.52	0.25	27.27	81	1.02
930	4.34	34.54	0.46	68	800	4.95	34.53	0.32	27.33	75	1.10
1226	3.44	34.67	0.87	50	1000	4.07	34.55	0.57	27.45	64	1.25

a) Loose bottle cap; value falls on property curve.

SIO

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5510

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_{T_3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

120.60 STRANGER; October 21, 1955; 2247 GCT; 27°12.5'N, 116°31'W; sounding, 2000+ fm; wind, 350°, force 4; weather, cloudy; sea, moderate; wire angle, 11°.

0	19.1	33.74	5.31	387	0	19.1	33.74	5.31	24.06	387	0.00
10	19.00	33.77	5.31	382	10	19.00	33.77	5.31	24.10	382	0.04
24	18.62	33.75	5.31	375	20	18.72	33.76	5.31	24.16	377	0.08
49	15.98	33.51	5.97	332	30	18.42	33.73	5.35	24.21	372	0.11
59	14.76	33.51	5.56	306	50	15.90	33.51	5.96	24.66	329	0.18
68	13.51	33.46	5.69	285	75	12.80	33.48	4.93	25.28	270	0.26
77	12.62	33.48	4.83	267	100	11.17	33.51	4.62	25.60	239	0.32
95	11.32	33.49	4.75	243	150	10.65	34.16	1.68	26.21	182	0.43
118	10.84	33.81	2.80	211	200	10.21	34.39	1.17	26.46	158	0.51
146	10.69	34.13	1.74	185	250	9.68	34.45	0.78	26.60	145	0.59
191	10.31	34.36	1.28	162	300	8.64	34.36	0.92	26.70	135	0.66
254	9.64	34.45	0.76	144	400	6.99	34.31	0.79	26.90	116	0.80
349	7.51	34.28	1.03	125	500	6.39	34.36	0.48	27.02	105	0.91
466	6.58	34.35	0.51	108	600	5.77	34.40	0.38	27.13	94	1.02
634	5.58	34.41	0.35	91	700	5.20	34.43	0.35	27.23	85	1.11
839	4.56	34.49	0.43	74	800	4.72	34.48	0.40	27.32	77	1.20
1125	3.64	34.57	0.73	59	1000	3.78	34.56	0.68	27.48	61	1.35

120.70 STRANGER; October 21, 1955; 1734 GCT; 26°52.5'N, 117°10'W; sounding, 2000+ fm; wind, 340°, force 4; weather, cloudy; sea, moderate; wire angle, 11°.

0	18.9	33.75	5.48	381	0	18.9	33.75	5.48	24.12	381	0.00
10	18.96	33.75	5.28	382	10	18.96	33.75	5.28	24.10	382	0.04
24	18.30	33.64	5.40	375	20	18.93	33.75	5.26	24.10	382	0.08
55	14.44	33.49	5.84	302	30	17.20	33.58	5.60	24.40	354	0.11
64	-	33.47	5.62	-	50	14.83	33.50	5.84	24.87	309	0.18
74	13.20	33.58	5.37	270	75	13.18	33.58	5.36	25.28	270	0.25
89	11.43	33.46	4.67	247	100	11.00	33.59	3.47	25.70	230	0.32
107	10.86	33.82	2.76	211	150	10.74	34.20	1.52	26.22	181	0.42
131	10.73	34.04	1.85	192	200	10.73	34.50	0.91	26.45	158	0.50
159	10.75	34.27	1.35	176	250	10.25	34.52	0.63	26.56	149	0.58
210	10.68	34.51	0.80	157	300	9.69	34.53	0.47	26.65	140	0.66
284	9.84	34.52	0.55	143	400	9.03	34.60	0.19	26.82	124	0.78
388	9.16	34.60	0.19	126	500	7.74	34.50	0.21	26.94	112	0.92
522	7.50	34.49	0.21	110	600	6.60	34.45	0.25	27.06	101	1.03
704	5.52	34.43	0.29	89	700	5.57	34.43	0.27	27.18	90	1.13
928	4.49	34.50	0.43	73	800	4.98	34.46	0.34	27.27	81	1.22
1224	3.60	34.59	0.75	57	1000	4.26	34.52	0.50	27.40	68	1.39

120.80 STRANGER; October 21, 1955; 1215 GCT; 26°37'N, 117°50'W; sounding, 2000+ fm; wind, 350°, force 4; weather, clear; sea, moderate; wire angle, 15°.

0	18.9	33.75	5.04	381	0	18.9	33.75	5.04	24.12	381	0.00
9	18.90	33.75	5.91u	381	10	18.90	33.75	4.92	24.12	381	0.04
23	18.92	33.77	4.71	379	20	18.92	33.77	4.80	24.13	379	0.08
53	15.77	33.64	6.07	318	30	18.91	33.77	4.71	24.14	379	0.11
63	14.74	33.62	5.65	298	50	16.26	33.66	5.88	24.67	328	0.18
73	14.32	33.66	5.66	287	75	14.27	33.66	5.64	25.12	285	0.26
86	13.48	33.65	5.37	271	100	12.37	33.56	5.15	25.42	257	0.33
105	12.05	33.53	5.05	253	150	10.87	34.19	1.72	26.19	184	0.44
128	11.16	33.81	2.59	217	200	10.92	34.61	0.52	26.51	153	0.53
157	10.82	34.23	1.43	180	250	10.29	34.63	0.37	26.64	141	0.60
209	10.93	34.63	0.46	152	300	9.44	34.58	0.32	26.74	131	0.67
284	9.70	34.60	0.35	134	400	8.17	34.51	0.17	26.89	117	0.80
387	8.33	34.52	0.17	119	500	7.00	34.48	0.23	27.03	104	0.92
524	6.75	34.47	0.24	101	600	6.11	34.46	0.25	27.13	94	1.02
708	5.32	34.45	0.28	85	700	5.40	34.45	0.26	27.22	86	1.12
936	4.33	34.53	0.44	78	800	4.84	34.48	0.34	27.30	78	1.21
1237	3.45	34.60	0.47u	55	1000	4.13	34.55		27.44	65	1.37

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
STRANGER; October 21, 1955; 0657 GCT; 26°15'N, 118°28'W; sounding 2000+ fm; wind, 340°, force 3; weather, partly cloudy; sea, rough; wire angle, 00°.											120.90
0	20.2	34.11	5.10	387	0	20.2	34.11	5.10	24.05	387	0.00
10	20.28	34.19	4.99	384	10	20.28	34.19	4.99	24.09	384	0.04
25	19.79	34.01	5.08	384	20	20.27	34.19	4.99	24.09	384	0.08
50	17.54	33.74	5.59	350	30	19.26	33.93	5.18	24.16	377	0.12
60	16.61	33.70	5.66	332	50	17.54	33.74	5.59	24.44	350	0.19
69	15.85	33.69	5.77	316	75	15.54	33.69	5.71	24.86	310	0.27
80	15.32	33.69	5.68	305	100	14.17	33.64	5.42	25.12	285	0.35
100	14.17	33.64	5.42	285	150	10.07	33.65	3.87	25.90	211	0.47
123	12.22	33.49	4.69	259	200	9.37	34.07	2.48	26.35	168	0.57
151	10.02	33.66	3.83	209	250	9.04	34.28	1.87	26.56	148	0.65
199	9.39	34.07	2.49	168	300	8.81	34.43	1.13	26.72	133	0.72
267	8.95	34.34	1.63	141	400	8.11	34.59	0.20	26.96	110	0.85
366	8.46	34.61	0.20	114	500	6.73	34.51	0.19	27.10	98	0.96
490	6.86	34.52	0.19	99	600	5.65	34.48	0.26	27.21	87	1.06
666	5.19	34.48	0.31	82	700	5.00	34.50	0.35	27.30	78	1.15
881	4.40	34.60	0.42	64	800	4.63	34.56	0.39	27.38	70	1.23
1179	3.62	34.61	0.78	56	1000	4.03	34.61	0.53	27.49	60	1.37
STRANGER; October 20, 1955; 0617 GCT; 27°27'N, 114°40'W; sounding, 39 fm; wind, 360°, force 2; weather, clear; sea, slight; wire angle, 06°.											123.37
0	18.64	33.75	5.56	375	0	18.64	33.75	5.56	24.18	375	0.00
10	18.62	33.76	5.28	374	10	18.62	33.76	5.28	24.19	374	0.04
22	15.38	33.58	6.23	314	20	15.90	33.60	6.12	24.72	324	0.07
27	14.57	33.55	6.32	300	30	13.64	33.54	5.91	25.15	282	0.10
32	12.89	33.53	5.42	268							
STRANGER; October 20, 1955; 0845 GCT; 27°18'N, 114°51.5'W; sounding, 315 fm; wind, 320°, force 3; weather, clear; sea, slight; wire angle, 03°.											123.40
0	18.6	33.78	5.54	373	0	18.6	33.78	5.54	24.20	373	0.00
10	18.64	33.75	5.57	375	10	18.64	33.75	5.57	24.18	375	0.04
30	14.40	33.57	5.89	295	20	16.20	33.62	5.67	24.67	328	0.07
40	13.42	33.57	6.36	276	30	14.40	33.57	5.89	25.02	295	0.10
49	11.77	33.59	4.37	243	50	11.65	33.60	4.25	25.60	240	0.16
59	10.66	33.68	3.50	218	75	10.10	33.91	2.58	26.11	192	0.21
69	10.31	33.87	2.80	198	100	9.22	33.90	3.25	26.25	178	0.26
79	9.98	33.94	2.57	187	150	9.54	34.27		26.48	156	0.34
89	9.60	33.96	2.74	180	200	8.52	34.17		26.57	148	0.42
98	9.24	33.90	3.25	179	250	8.55	34.32		26.68	137	0.49
117	9.34	34.09	2.45	166	300	8.38	34.40	0.72	26.76	129	0.56
140	9.72	34.28	1.77	158	400	7.56	34.43	0.37	26.91	115	0.68
160	9.28	34.25	2.97r	154	500	(7.02)	(34.45)	(0.19)	(27.01)	(106)	(0.80)
198	8.52	34.17	0.80u	148							
274	8.58	34.38	0.83	133							
375	7.77	34.42	0.40	118							
493	7.04	34.45	0.20	106							

S10

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^{-5} cm/g	ΔD dyn. m

123.50 STRANGER; October 20, 1955; 1347 GCT; 26°57'N 115°35'W; sounding, 1990 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 17°.

0	17.5	33.73	5.78	350	0	17.5	33.73	5.78	24.44	350	0.00
9	17.52	33.71	5.76	352	10	17.52	33.71	5.76	24.42	352	0.04
28	16.23	33.72	5.45	322	20	17.51	33.71	5.76	24.42	352	0.07
38	15.84	33.71	5.51	315	30	16.19	33.72	5.47	24.74	321	0.10
47	13.05	33.57	5.11	268	50	12.64	33.56	4.99	25.37	262	0.16
57	11.81	33.55	4.57	248	75	10.56	33.71	3.05	25.87	214	0.22
66	10.88	33.66	3.33	223	100	9.40	33.82	3.08	26.15	187	0.27
75	10.56	33.71	3.05	214	150	9.79	34.26	1.50	26.43	160	0.36
84	10.08	33.82	2.69	198	200	9.42	34.41	0.97	26.61	144	0.44
93	9.38	33.77	3.25	190	250	9.22	34.47	0.62	26.69	136	0.51
115	9.86	34.09	2.17	174	300	8.70	34.49	0.39	26.79	127	0.58
142	9.84	34.25	1.55	162	400	7.40	34.42	0.32	26.93	113	0.70
187	9.52	34.38	1.07	147	500	6.39	34.41	0.30	27.06	101	0.81
241	9.28	34.47	0.62	137							
337	8.28	34.48	0.32	122							
448	6.77	34.39	0.32	107							
567	6.08	34.47	0.24	93							

123.60 STRANGER; October 20, 1955; 1812 GCT; 26°39'N, 116°08.5'W; sounding, 2000+ fm; wind, 330°, force 4; weather, partly cloudy; sea, moderate; wire angle, 10°.

0	18.5	33.78	5.50	369	0	18.5	33.78	5.50	24.24	369	0.00
10	18.45	33.70	5.51	374	10	18.45	33.70	5.51	24.19	374	0.04
29	15.25	33.51	5.96	317	20	18.42	33.70	5.52	24.19	374	0.08
39	12.81	33.49	4.72	270	30	15.00	33.50	5.91	24.84	312	0.11
49	12.22	33.64	3.47	248	50	12.10	33.66	3.42	25.55	244	0.16
58	10.97	33.73	3.33	219	75	10.34	33.91	2.58	26.06	195	0.22
67	10.05	33.68	2.88	208	100	10.26	34.11	1.80	26.24	179	0.27
76	10.34	33.93	2.58	194	150	9.89	34.25	1.60	26.41	163	0.35
85	10.30	33.98	2.11	190	200	10.72	34.66	0.40	26.58	146	0.43
94	10.29	34.02	1.90	186	250	9.64	34.52	0.49	26.66	139	0.51
118	10.20	34.14	1.74	176	300	8.70	34.44	0.52	26.75	130	0.58
146	9.88	34.24	1.62a)	164	400	7.44	34.41	0.49	26.92	114	0.70
192	10.82	34.67	0.40a)	148	500	6.46	34.42	0.38	27.06	101	0.81
249	9.64	34.52	0.49	139	600	(5.43)	(34.42)	(0.35)	(27.19)	(89)	(0.92)
349	8.00	34.41	0.55	122							
464	6.80	34.42	0.41	104							
587	5.59	34.42	0.35	90							

127.34 STRANGER; October 19, 1955; 0855 GCT; 26°55'N, 114°06'W; sounding, 41 fm; wind, 320°, force 4; weather, clear; sea, moderate; wire angle, 00°.

0	19.24	33.78	5.36	387	0	19.24	33.78	5.36	24.05	387	0.00
10	17.97	33.68	5.67	364	10	17.97	33.68	5.67	24.29	364	0.04
15	16.99	33.62	6.10	346	20	16.31	33.57	6.49	24.60	335	0.07
20	16.31	33.57	6.49	335	30	14.33	33.49	5.85	24.97	300	0.10
25	14.53	33.47	6.54	325	50	11.72	33.48	5.15	25.48	251	0.16
30	14.33	33.49	5.85	300							
35	12.96	33.47	5.36	274							
40	12.30	33.52	5.23	258							
50	11.72	33.48	5.15	251							

a) Oxygen samples at 146 and 192 meters appear to have been reversed; they are assumed to be in the order listed.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10^{-5} cm/g	ΔD dyn. m
STRANGER; October 19, 1955; 0522 GCT; 26°41.5'N, 114°31.5'W; sounding, 1700 fm; wind, 320°, force 5; weather, clear; sea, rough; wire angle, 15°.											127.40
0	19.4	33.78	5.48	391	0	19.4	33.78	5.48	24.01	391	0.00
9	19.42	33.80	5.45	390	10	19.42	33.80	5.45	24.02	390	0.04
28	19.43	33.80	5.45	390	20	19.43	33.80	5.45	24.02	390	0.08
38	17.78	33.63	5.93	363	30	19.43	33.80	5.45	24.02	390	0.12
47	14.66	33.57	5.74	300	50	14.09	33.54	5.88	25.06	290	0.18
56	13.16	33.49	6.13	276	75	11.22	33.55	2.92	25.63	237	0.25
65	12.28	33.55	3.69	256	100	10.36	33.85	1.37	26.01	200	0.31
74	11.24	33.55	2.96	238	150	8.82	34.03	1.36	26.41	163	0.40
84	11.00	33.63	2.09	227	200	9.60	34.41	0.78	26.58	146	0.48
93	10.50	33.77	2.94r	208	250	9.11	34.44	0.65	26.69	136	0.55
116	10.07	34.06	1.08	180	300	8.34	34.39	0.65	26.77	129	0.62
143	8.80	33.99	6.21r	166	400	7.15	34.42	0.40	26.96	110	0.74
188	9.60	34.38	4.11r	149	500	6.44	34.47	0.28	27.09	98	0.85
243	9.21	34.45	0.65	138							
340	7.72	34.36	0.65	122							
454	6.79	34.46	0.28	102							
573	5.95	34.47	0.26	91							
STRANGER; October 19, 1955; 0019 GCT; 26°24'N, 115°07'W; sounding, 2000+ fm; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, 06°.											127.50
0	19.3	33.77	5.63	389	0	19.3	33.77	5.63	24.03	389	0.00
10	19.32	33.75	5.73	391	10	19.32	33.75	5.73	24.01	391	0.04
30	17.78	33.68	5.96	360	20	19.30	33.75	5.74	24.01	391	0.08
40	14.74	33.63	5.67	297	30	17.78	33.68	5.96	24.34	360	0.12
50	13.20	33.59	4.85	270	50	13.20	33.59	4.85	25.28	270	0.18
60	12.07	33.59	3.83	249	75	11.25	33.70	3.14	25.73	227	0.24
69	11.65	33.70	3.10	233	100	10.42	33.89	2.41	26.03	198	0.30
80	10.96	33.69	3.19	222	150	9.36	34.14	2.23	26.40	163	0.39
90	10.60	33.77	2.81	210	200	9.52	34.41	0.93	26.59	145	0.47
99	10.42	33.87	2.48	200	250	8.95	34.42	0.88	26.70	135	0.54
123	10.28	34.07	2.08	183	300	8.34	34.42	0.54	26.79	127	0.60
151	9.36	34.14	2.25	163	400	7.38	34.43	0.21	26.94	113	0.73
198	9.56	34.40	0.93	146	500	6.48	34.44	0.26	27.07	100	0.84
256	8.84	34.42	0.87	134	600	(5.70)	(34.44)	(0.26)	(27.17)	(90)	(0.94)
356	7.78	34.42	0.21	119							
472	6.69	34.44	0.25	103							
596	5.77	34.44	0.26	91							
STRANGER; October 18, 1955; 1938, 1953 GCT; 26°08'N, 115°37'W; sounding, 2000+ fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 05°, 05°.											127.60
0	19.5	33.78	5.43	393	0	19.5	33.78	5.43	23.99	393	0.00
10	19.48	33.80	5.14	392	10	19.48	33.80	5.14	24.00	392	0.04
30	17.35	33.68	5.90	350	20	19.45	33.80	5.16	24.00	392	0.08
40	14.61	33.49	5.44	305	30	17.35	33.68	5.90	24.44	350	0.12
49	13.43	33.51	4.77	280	50	13.40	33.51	4.72	25.19	279	0.18
60	12.71	33.59	2.97r	260	75	11.50	33.59	3.84	25.61	239	0.24
					100	10.43	33.88	2.60	26.02	199	0.30
70	11.90	33.60	3.90	245	150	9.62	34.18	2.05	26.40	164	0.39
80	11.10	33.58	3.79	233	200	9.56	34.36	1.26	26.55	149	0.47
89	10.60	33.72	3.11	214	250	9.21	34.41	0.88	26.64	140	0.54
99	10.43	33.86	2.66	201	300	8.57	34.39	0.77	26.73	132	0.62
123	10.28	34.09	1.94	181	400	7.32	34.41	0.41	26.93	113	0.74
152	9.60	34.19	2.05	163	500	6.75	34.45	0.17	27.05	102	0.86
200	9.56	34.36	1.26	149	600	6.05	34.47	0.17	27.16	92	0.96
259	9.18	34.41	0.84	140							
360	7.62	34.38	0.62	120							
477	6.87	34.45	0.17	104							
600a)	6.05	34.47	0.17	92							

a) Alternate depth, 577 meters.

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
130.30	STRANGER; October 17, 1955; 1948 GCT; 26°29.5'N, 113°28'W; sounding, 41 fm; wind, 310°, force 2; weather, clear; sea, moderate; wire angle, 00°.										
0	16.61	33.96	7.19	313	0	16.61	33.96	7.19	24.83	313	0.00
10	14.69	33.83	5.68	282	10	14.69	33.83	5.68	25.16	282	0.03
15	13.46	33.76	4.66	262	20	11.18	33.49	4.46	25.59	240	0.06
20	11.18	33.49	4.46	240	30	11.98	33.84	2.77	25.72	228	0.08
25	11.59	33.69	3.45	233	50	13.44	33.43	0.35	25.88	213	0.12
30	11.98	33.84	2.77	228							
35	12.86	34.16	1.44	221							
40	13.34	34.35	0.57	217							
50	13.44	33.43	0.35	213							
130.35	STRANGER; October 17, 1955; 2241 GCT; 26°19'N, 113°48'W; sounding, 560 fm; wind, 320°, force 5; weather, clear; sea, very rough; wire angle, 13°.										
0	19.4	33.76	5.36	392	0	19.4	33.76	5.36	23.99	392	0.00
10	19.34	33.75	4.89	392	10	19.34	33.75	4.89	24.00	392	0.04
28	16.54	33.55	6.13	342	20	19.30	33.74	4.90	24.01	391	0.08
43	14.94	33.57	5.89	306	30	16.38	33.55	6.12	24.56	338	0.12
58	14.02	33.62	5.82	284	50	14.89	33.64	5.88	24.98	298	0.18
67	12.88	33.46	5.45	274	75	11.90	33.46	5.27	25.43	256	0.25
76	11.77	33.46	5.22	253	100	13.13	34.38	0.73	25.91	210	0.31
90	10.78	33.54	4.60	230	150	11.62	34.46	0.89	26.26	177	0.40
99	13.15	34.38	0.73	211	200	11.09	34.59	0.59	26.46	158	0.49
113	12.28	34.36	0.71	196	250	10.42	34.60	0.50	26.59	146	0.57
140	11.66	34.44	0.94	179	300	9.72	34.58	0.37	26.69	136	0.64
167	11.56	34.52	0.67	171	400	7.98	34.47	0.35	26.88	188	0.77
223	10.77	34.60	0.58	151	500	6.80	34.45	0.32	27.03	104	0.89
287	9.94	34.59	0.37	139	600	5.87	34.46	0.30	27.17	91	0.99
399	8.00	34.47	0.35	118							
515	6.66	34.45	0.32	102							
669	5.25	34.48	0.28	82							
130.40	STRANGER; October 18, 1955; 0205 GCT; 26°08'N, 114°06'W; sounding, 1200 fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 23°.										
0	19.5	33.80	6.15	392	0	19.5	33.80	6.15	24.00	392	0.00
8	19.48	33.82	5.61	390	10	19.48	33.82	5.58	24.02	390	0.04
22	19.49	33.80	5.32	392	20	19.48	33.80	5.36	24.00	392	0.08
46	17.52	33.75	5.77	349	30	19.47	33.80	5.36	24.00	392	0.12
54	16.64	33.66	5.97	336	50	17.08	33.71	5.86	24.52	342	0.19
64	15.74	33.60	6.06	321	75	14.62	33.56	5.98	24.97	300	0.27
73	14.86	33.58	5.98	303	100	12.40	33.49	5.52	25.36	262	0.34
89	13.40	33.49	5.93	281	150	11.22	34.11	2.21	26.06	196	0.46
109	11.72	33.51	4.75	248	200	10.37	34.38	1.43	26.43	161	0.55
140	11.34	33.98	2.81	208	250	9.49	34.44	1.12	26.62	143	0.63
178	10.78	34.35	1.51	170	300	8.91	34.48	0.54	26.74	131	0.70
237	9.68	34.42	1.28	147	400	7.62	34.44	0.37	26.90	116	0.83
325	8.66	34.49	0.44	126							
438	7.17	34.42	0.35	110							
803	4.89	34.51	0.33	76							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
STRANGER; October 18, 1955; 0753 GCT; 25°46'N, 114°43'W; sounding, 1960 fm; wind, 310°, force 4; weather, missing; sea, moderate; wire angle, 15°.											130.50
0	21.0	34.13	5.18	406	0	21.0	34.13	5.18	23.85	406	0.00
9	21.00	34.14	5.16	405	10	21.00	34.14	5.16	23.86	405	0.04
23	21.02	34 13	5.14	406	20	21.02	34.13	5.16	23.85	406	0.08
53	19.77	33.99	5.55	385	30	21.03	34.13	5.16	23.85	406	0.12
62	17.99	33.78	5.91	358	50	21.03	34.13	5.16	23.85	406	0.20
72	16.89	33.69	6.04	339	75	16.62	33.68	5.96	24.61	334	0.30
85	15.74	33.65	5.59	317	100	13.60	33.48	5.92	25.11	286	0.38
104	13.00	33.44	5.96	277	150	10.94	33.96	2.71	26.00	201	0.50
128	10.94	33.58	4.09	230	200	10.78	34.35	1.33	26.33	170	0.59
154	10.94	34.04	2.43	196	250	10.72	34.55	0.72	26.49	155	0.67
205	10.76	34.36	1.28	169	300	10.38	34.59	0.49	26.58	146	0.75
276	10.72	34.60	0.49	151	400	8.58	34.47	0.54	26.79	126	0.89
376	8.89	34.47	0.61	131	500	7.43	34.49	0.23	26.98	109	1.02
508	7.39	34.49	0.21	108	600	6.40	34.48	0.22	27.11	96	1.12
686	5.70	34.47	0.29	88	700	5.59	34.47	0.30	27.21	87	1.22
907	4.48	34.51	0.56	72	800	5.01	34.48	0.44	27.29	80	1.32
1201	3.57	34.57	0.81	58	1000	4.20	34.53	0.64	27.41	68	1.48
STRANGER; October 18, 1955; 1335 GCT; 25°25'N, 115°18'W; sounding, 2000+ fm; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, 04°.											130.60
0	20.8	34.11	5.09	402	0	20.8	34.11	5.09	23.89	402	0.00
10	20.82	34.11	4.90	403	10	20.82	34.11	4.90	23.88	403	0.04
25	20.82	34.10	5.19	404	20	20.82	34.10	5.19	23.87	404	0.08
55	19.90	34.14	5.45	378	30	20.82	34.10	5.19	23.87	404	0.12
65	17.60	33.69	5.75	355	50	20.82	34.10	5.19	23.87	404	0.20
74	17.01	33.69	5.82	342	75	17.00	33.69	5.82	24.53	341	0.30
89	15.79	33.58	5.83	323	100	14.46	33.50	5.65	24.95	302	0.38
110	12.94	33.46	5.26	274	150	10.79	33.83	3.00	25.92	209	0.50
134	11.20	33.66	3.77	229	200	10.70	34.36	1.20	26.34	169	0.60
162	10.62	-	2.43	-	250	10.25	34.52	0.73	26.56	149	0.68
214	10.71	34.43	1.09	163	300	9.54	34.52	0.57	26.69	136	0.76
290	9.70	34.53	0.60	139	400	8.10	34.46	0.40	26.86	120	0.89
395	8.18	34.46	0.41	121	500	7.11	34.48	0.28	27.01	105	1.01
533	6.83	34.48	0.27	102	600	6.30	34.47	0.28	27.11	96	1.11
719	5.40	34.45	0.38	87	700	5.58	34.45	0.37	27.19	88	1.21
948	4.30	34.51	0.60	70	800	4.92	34.47	0.48	27.28	80	1.30
1249	3.43	34.56	0.82	58	1000	4.10	34.52	0.66	27.42	67	1.47
STRANGER; October 17, 1955; 1431 GCT; 26°04.5'N, 112°48'W; sounding, 43 fm; wind, 300°, force 5; weather, clear; sea, rough; wire angle, 05°.											133.25
0	16.33	33.82	5.88	318	0	16.33	33.82	5.88	24.78	318	0.00
10	16.35	33.82	5.86	318	10	16.35	33.82	5.86	24.78	318	0.03
15	16.22	33.78	5.85	318	20	14.69	33.66	5.78	25.02	294	0.06
20	14.69	33.66	5.78	294	30	12.24	33.53	4.73	25.42	257	0.09
25	12.76	33.51	4.96	267	50	14.10	34.45	1.04	25.76	224	0.14
30	12.24	33.53	4.73	257							
35	11.76	33.58	4.22	244							
40	12.09	33.75	3.59	238							
50	14.10	34.45	1.04	224							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_{T_3} 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T_3} 10^{-5} cm/g	ΔD dyn. m

133.30 STRANGER; October 17, 1955; 1110 GCT; 25°53'N, 113°07'W; sounding, 106 fm; wind, 310°, force 4; weather, clear; sea, rough; wire angle, 08°.

0	17.36	34.09	6.07	320	0	17.36	34.09	6.07	24.75	320	0.00
10	17.36	34.12	5.62	318	10	17.36	34.12	5.62	24.78	318	0.03
15	17.30	34.11	5.14	317	20	17.28	34.11	3.80	24.79	316	0.06
19	17.29	34.11	3.81	317	30	17.14	34.13	3.37	24.84	312	0.10
24	17.22	34.14	3.67	314	50	12.42	33.76	3.10	25.57	243	0.15
29	17.17	34.14	3.37	312	75	12.15	34.08	2.53	25.88	213	0.21
34	15.49	33.86	3.18	296	100	13.36	34.72	0.73	26.12	190	0.26
44	13.46	33.78	3.14	261	150	12.24	34.69	0.38	26.32	171	0.35
54	12.18	33.76	2.99	238							
64	12.22	33.94	2.84	226							
80	12.12	-	-	-							
99	13.37	34.70	-	192							
119	13.10	34.76	0.32	182							
153	12.17	34.68	0.39	170							

137.23 STRANGER; October 16, 1955; 2210 GCT; 25°33.5'N, 112°20'W; sounding, 43 fm; wind, 320°, force 4; weather, clear; sea, rough; wire angle, 05°.

0	19.38	34.10	4.76	367	0	19.38	34.10	4.76	24.26	367	0.00
10	19.35	34.11	5.06	366	10	19.35	34.11	5.06	24.27	366	0.04
15	19.22	34.10	5.04	364	20	18.50	33.99	4.73	24.40	354	0.07
20	18.50	33.99	4.73	354	30	14.41	33.53	5.44	24.98	298	0.11
25	18.16	33.95	5.26	349	50	13.46	34.09	2.92	25.62	238	0.16
30	14.41	33.53	5.44	298							
35	13.72	33.55	5.23	283							
40	13.64	33.68	4.33	272							
50	13.46	34.09	2.92	238							

137.30 STRANGER; October 17, 1955; 0312 GCT; 25°19'N, 112°48.5'W; sounding, 65 fm; wind, 310°, force 6; weather, clear; sea, very rough; wire angle, 08°.

0	20.18	34.14	4.20	384	0	20.18	34.14	4.20	24.08	384	0.00
10	20.20	34.14	4.41	385	10	20.20	34.14	4.41	24.08	385	0.04
15	20.18	34.14	4.40	384	20	20.15	34.13	5.09	24.08	384	0.08
20	20.15	34.13	5.09	384	30	14.45	33.62	5.26	25.05	292	0.11
25	16.18	33.73	5.22	320	50	13.55	33.92	3.53	25.46	253	0.16
30	14.45	33.62	5.26	292	75	13.43	34.44	1.51	25.89	212	0.22
35	13.46	33.59	4.89	275	100	(12.98)	(34.53)	(1.10)	(26.05)	(197)	(0.28)
45	13.76	33.85	3.89	262							
54	13.42	33.96	3.22	247							
64	13.62	34.33	2.01	224							
79	13.36	34.46	1.36	209							
98	13.00	34.53	1.10	197							

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Golden Gate Park
San Francisco 18, California

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Pacific Marine Fishery Commission
340 State Office Building
1400 S. W. Fifth Avenue
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Kobe Marine Observatory
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Dr. E. C. LaFond
Code 2250
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Nanaimo, B. C.
Canada

U. S. Hydrographic Office (2)
Navy Department
Washington 25, D. C.
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Division of Oceanography

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Washington 25, D. C.

Mr. William E. Warne
California Department of Fish and Game
926 J Street
Sacramento 14, California

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