UNIVERSITY OF CALIFORNIA SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

PHYSICAL AND CHEMICAL DATA
CCOFI CRUISE 5512
(MLR 79)
29 November - 16 December 1955

SIO Reference 60-4
15 July 1959

UNIVERSITY OF CALIFORNIA

SCRIPPS INSTITUTION OF OCEANOGRAPHY

PHYSICAL AND CHEMICAL DATA

CCOFI CRUISE 5512
(MLR 79)
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Sponsored by

Marine Research Committee

SIO Reference 60-4
14 July 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-ninth 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.

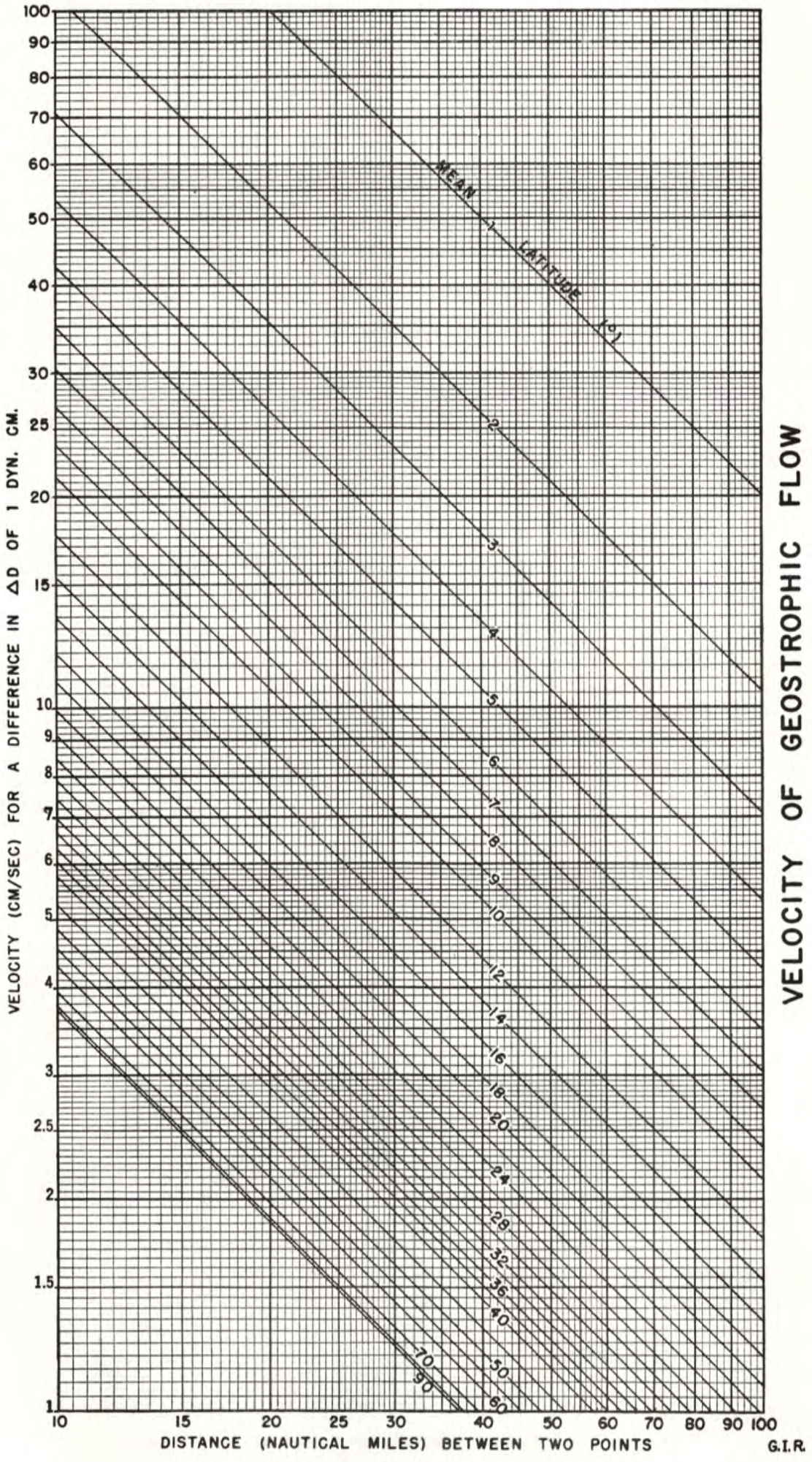
Values which are not drawn through because they seem to be in error without apparent reason are indicated by one of the following notations.

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

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

FORMAT

These data are typed in the format of the University of California Press publication, Oceanic Observations of the Pacific. So that these pages can be used as copy for the 1955 volume, the first page of the Cruise 5512 data is numbered 239.


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.

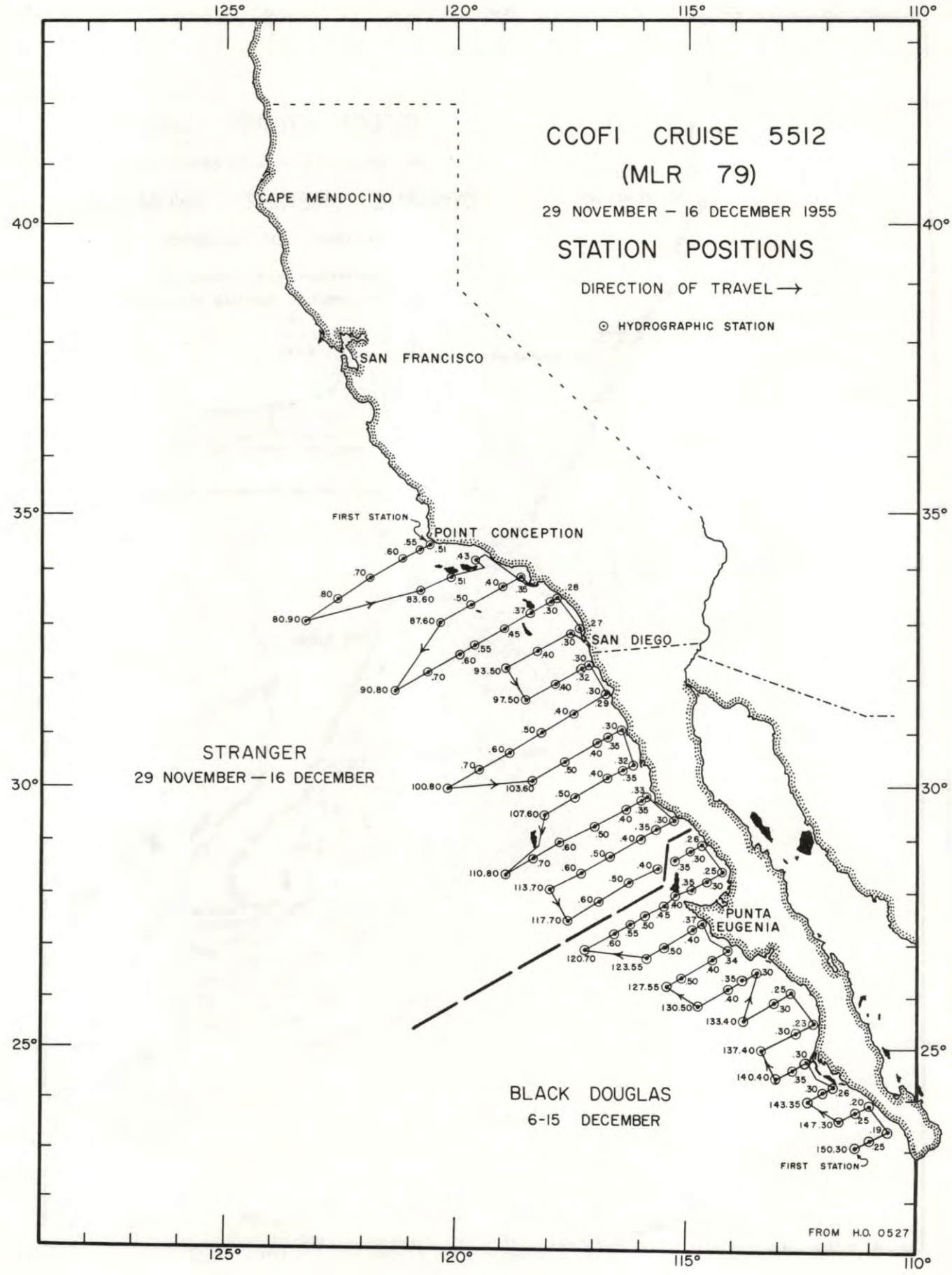

CCOFI CRUISE 5512
(MLR 79)
29 NOVEMBER – 16 DECEMBER 1955
STATION POSITIONS
DIRECTION OF TRAVEL →
⊙ HYDROGRAPHIC STATION
CAPE MENDOCINO
SAN FRANCISCO
POINT CONCEPTION
SAN DIEGO
PUNTA EUGENIA
FIRST STATION
STRANGER
29 NOVEMBER — 16 DECEMBER
BLACK DOUGLAS
6-15 DECEMBER
FROM H.O. 0527
125°
120°
115°
110°
40°
35°
30°
25°

FIGURE 1

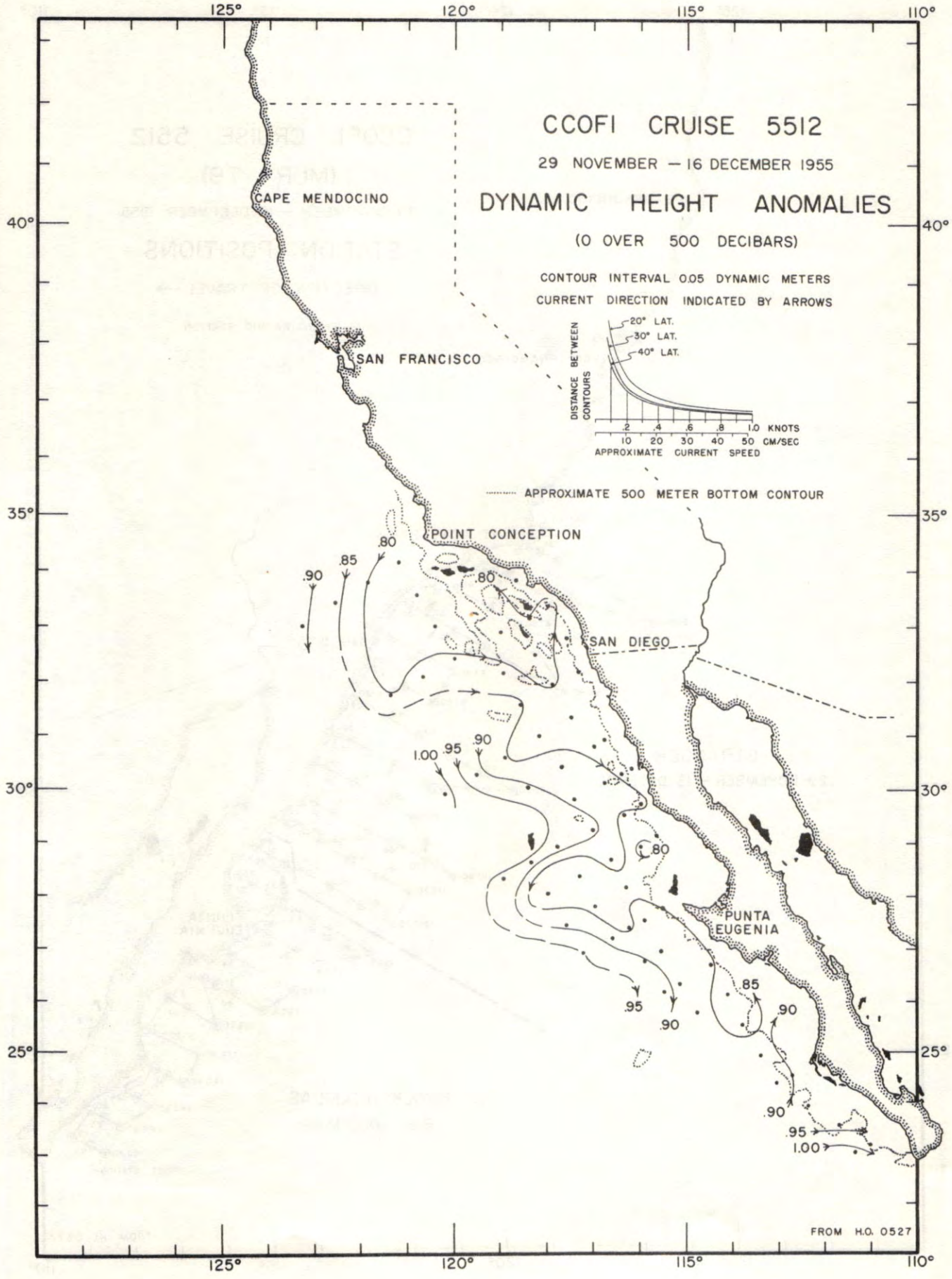

CCOFI CRUISE 5512
29 NOVEMBER – 16 DECEMBER 1955
DYNAMIC HEIGHT ANOMALIES
(0 OVER 500 DECIBARS)
CONTOUR INTERVAL 0.05 DYNAMIC METERS
CURRENT DIRECTION INDICATED BY ARROWS
20° LAT.
30° LAT.
40° LAT.
DISTANCE BETWEEN CONTOURS
.2 .4 .6 .8 1.0 KNOTS
10 20 30 40 50 CM/SEC
APPROXIMATE CURRENT SPEED
APPROXIMATE 500 METER BOTTOM CONTOUR
CAPE MENDOCINO
SAN FRANCISCO
POINT CONCEPTION
SAN DIEGO
PUNTA EUGENIA
125°
120°
115°
110°
40°
35°
30°
25°
.80
.85
.90
.80
1.00
.95
.90
.80
.85
.90
.95
.90
.90
.95
1.00
FROM H.O. 0527

FIGURE 2

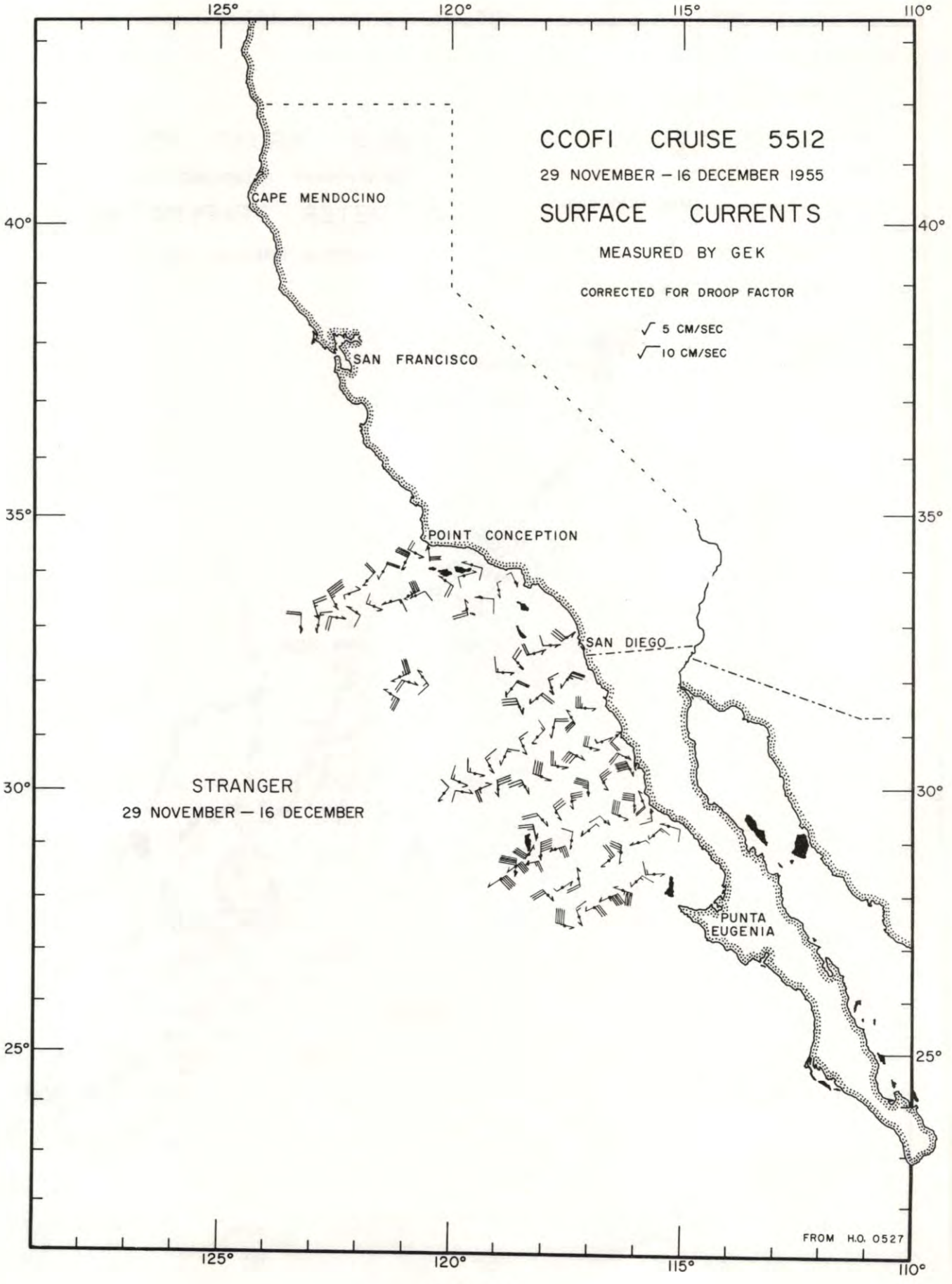

CCOFI CRUISE 5512
29 NOVEMBER – 16 DECEMBER 1955
SURFACE CURRENTS
MEASURED BY GEK
CORRECTED FOR DROOP FACTOR
5 CM/SEC
10 CM/SEC
CAPE MENDOCINO
SAN FRANCISCO
POINT CONCEPTION
SAN DIEGO
PUNTA EUGENIA
STRANGER
29 NOVEMBER – 16 DECEMBER
FROM H.O. 0527
125°
120°
115°
110°
40°
35°
30°
25°

FIGURE 3

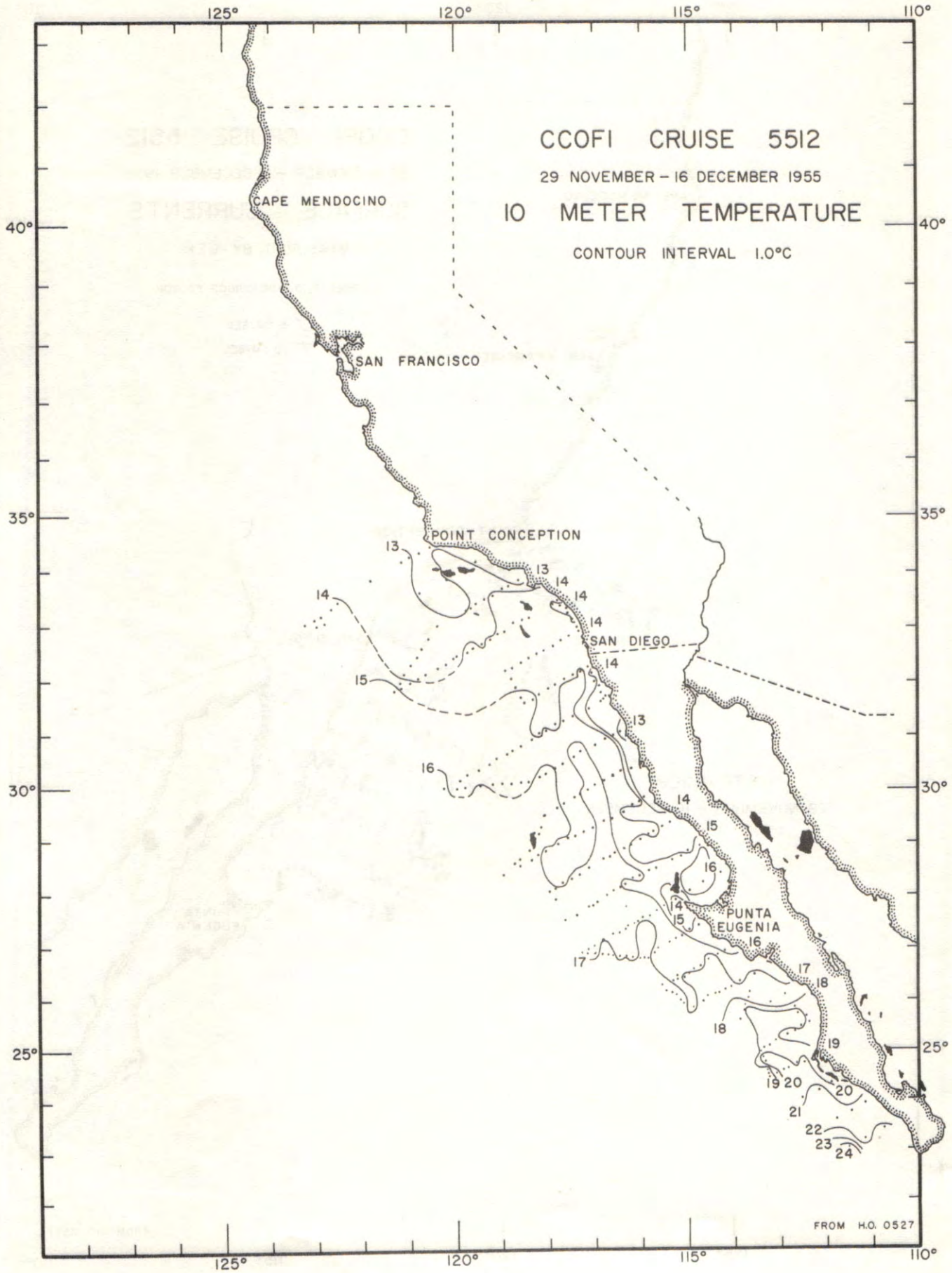

CCOFI CRUISE 5512
29 NOVEMBER – 16 DECEMBER 1955
10 METER TEMPERATURE
CONTOUR INTERVAL 1.0°C
CAPE MENDOCINO
SAN FRANCISCO
POINT CONCEPTION
SAN DIEGO
PUNTA EUGENIA
FROM H.O. 0527
125°
120°
115°
110°
40°
35°
30°
25°

FIGURE 4

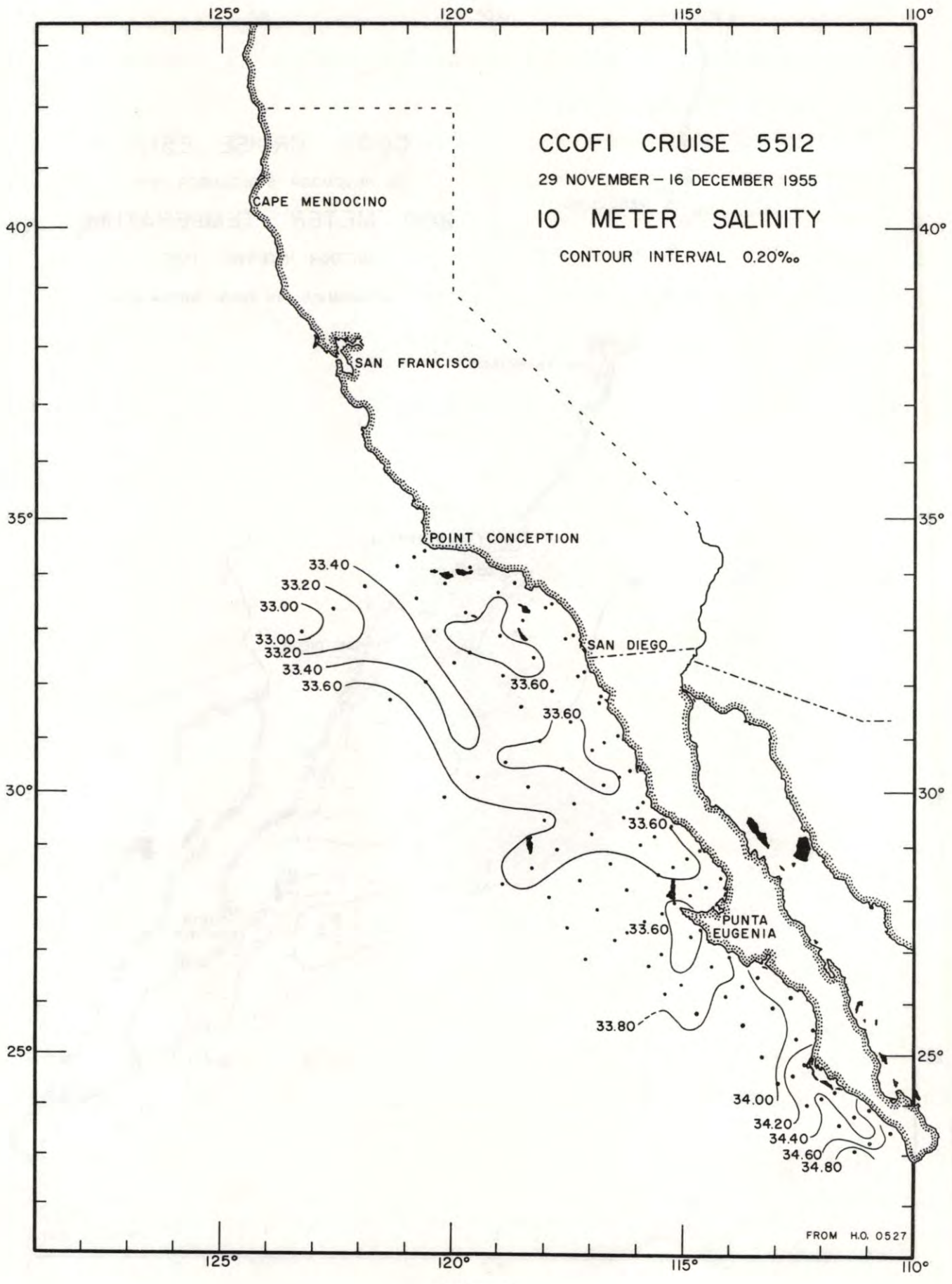

CCOFI CRUISE 5512
29 NOVEMBER – 16 DECEMBER 1955
10 METER SALINITY
CONTOUR INTERVAL 0.20‰
CAPE MENDOCINO
SAN FRANCISCO
POINT CONCEPTION
SAN DIEGO
PUNTA EUGENIA
33.40
33.20
33.00
33.00
33.20
33.40
33.60
33.60
33.60
33.60
33.60
33.80
34.00
34.20
34.40
34.60
34.80
125°
120°
115°
110°
40°
35°
30°
25°
FROM H.O. 0527

FIGURE 5

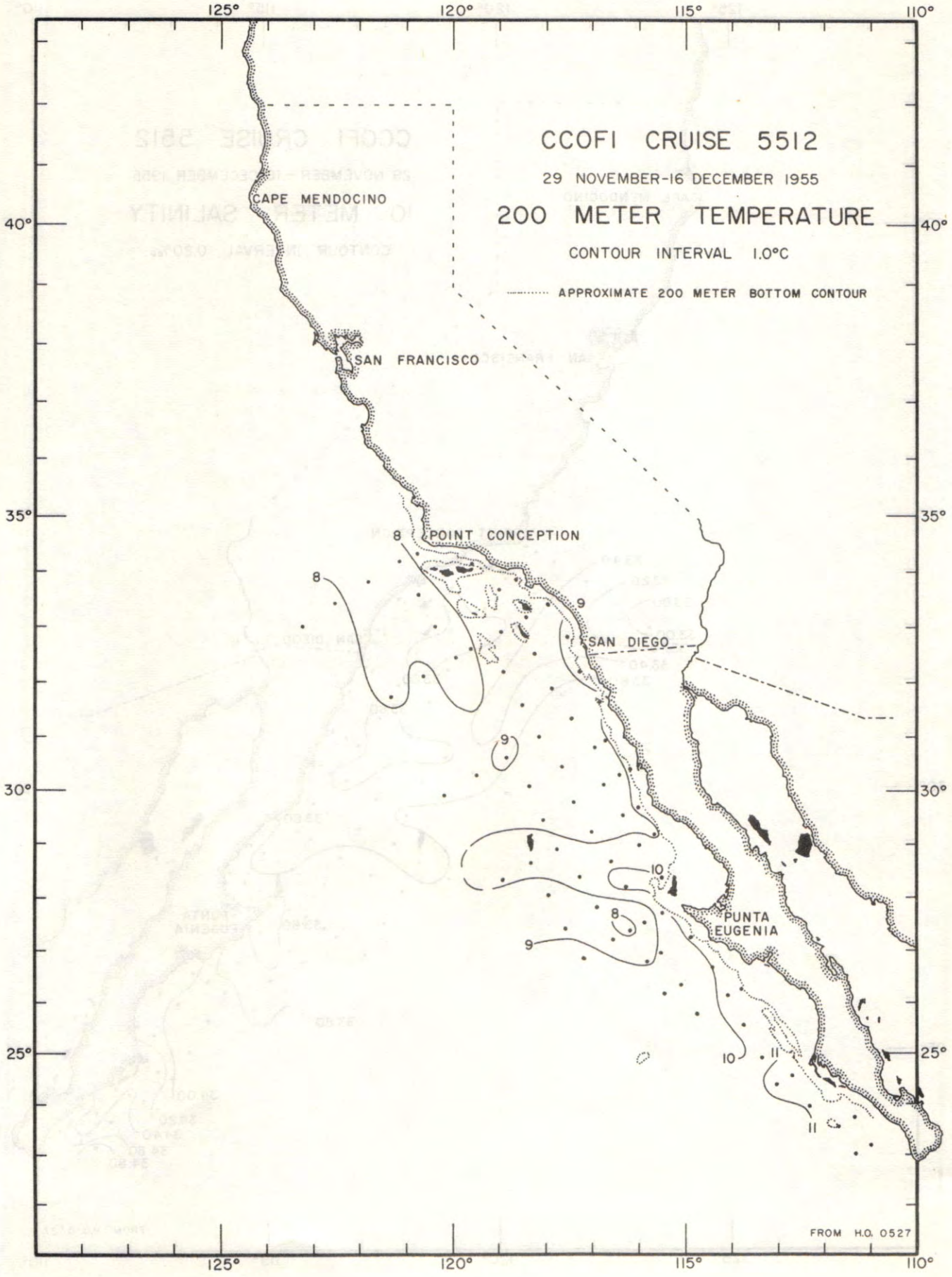

CCOFI CRUISE 5512
29 NOVEMBER-16 DECEMBER 1955
200 METER TEMPERATURE
CONTOUR INTERVAL 1.0°C
APPROXIMATE 200 METER BOTTOM CONTOUR
CAPE MENDOCINO
SAN FRANCISCO
POINT CONCEPTION
SAN DIEGO
PUNTA EUGENIA
125°
120°
115°
110°
40°
35°
30°
25°
8
9
10
11
FROM H.O. 0527

FIGURE 6

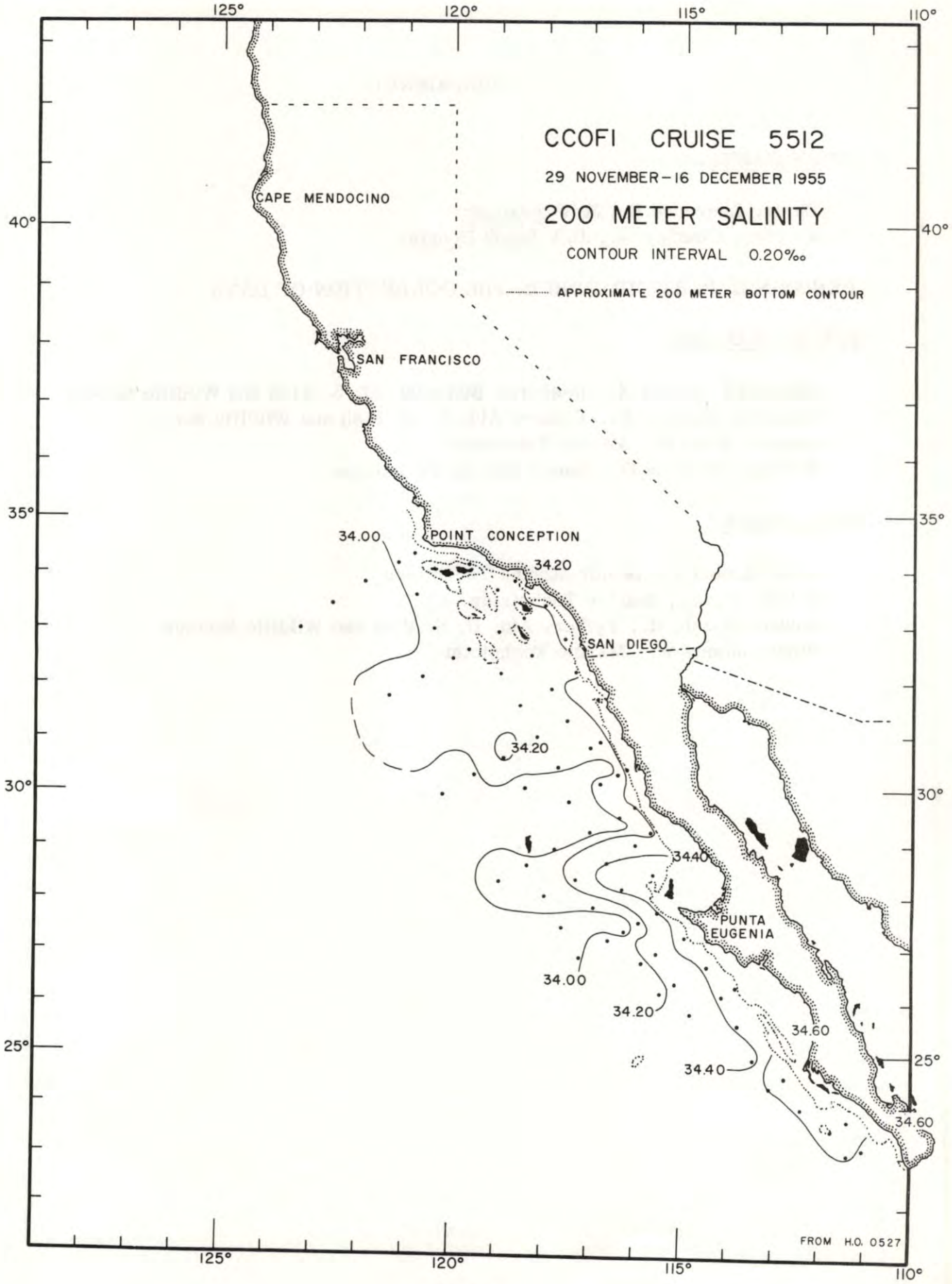

CCOFI CRUISE 5512
29 NOVEMBER–16 DECEMBER 1955
200 METER SALINITY
CONTOUR INTERVAL 0.20‰
APPROXIMATE 200 METER BOTTOM CONTOUR
CAPE MENDOCINO
SAN FRANCISCO
POINT CONCEPTION
SAN DIEGO
PUNTA EUGENIA
34.00
34.20
34.40
34.60
125°
120°
115°
110°
40°
35°
30°
25°
FROM H.O. 0527

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

Thrailkill, James R., Research Biologist, U. S. Fish and Wildlife Service
Hapgood, William F., Fishery Aid, U. S. Fish and Wildlife Service
Henson, Fred D., Marine Technician
Worrall, Charles G., Senior Marine Technician

R/V Stranger

Linn, Robert J., Senior Marine Technician
Abbott, F. M., Marine Technician
Bower, Donald R., Fishery Aid, U. S. Fish and Wildlife Service
Hinds, James W., Marine Technician

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; November 30, 1955; 1729 GCT; 34°26'N, 120°33'W; sounding, 62 fm; wind, 320°, force 6; weather, cloudy; sea, rough; wire angle, missing. 80.51

0	12.72	33.57	262	0	12.72	33.57	25.36	262	0.00
10	12.80	33.58	263	10	12.80	33.58	25.35	263	0.03
20	12.76	33.58	262	20	12.76	33.58	25.36	262	0.05
30	12.54	33.58	258	30	12.54	33.58	25.41	258	0.08
50	10.96	33.56	231	50	10.96	33.56	25.69	231	0.13
75	9.92	33.68	206	75	9.92	33.68	25.96	206	0.18
100	9.29	33.84	184	100	9.29	33.84	26.18	184	0.23

STRANGER; November 30, 1955; 2039 GCT; 34°19'N, 120°48'W; sounding, 410 fm; wind, 330°, force 5; weather, cloudy; sea, rough; wire angle, 30°. 80.55

0	12.1	33.56	252	0	12.1	33.56	25.47	252	0.00
8	12.01	33.55	251	10	12.01	33.55	25.48	251	0.03
27	11.53	33.55	242	20	12.01	33.55	25.48	251	0.05
40	10.80	33.57	228	30	11.31	33.55	25.60	239	0.08
48	-	33.57	-	50	10.52	33.57	25.78	222	0.12
56	10.34	33.57	220	75	9.93	33.64	25.93	208	0.18
64	-	33.60	-	100	9.27	33.78	26.14	188	0.23
71	10.05	33.62	212	150	8.77	33.94	26.35	168	0.32
83	9.59	33.68	200	200	8.46	34.12	26.52	152	0.40
91	9.40	33.73	194	250	8.33	34.20	26.62	143	0.47
111	9.14	33.82	183	300	7.75	34.23	26.73	132	0.54
134	8.89	33.87	176						
177	8.54	34.03	159						
229	8.46	34.18	146						
323	7.44	34.23	128						

STRANGER; December 1, 1955; 0011 GCT; 34°09'N, 121°09'W; sounding, 1200 fm; wind, 320°, force 5; weather, cloudy; sea, rough; wire angle, 27°. 80.60

0	13.3	33.57	273	0	13.3	33.57	25.25	273	0.00
8	13.34	33.58	273	10	13.29	33.58	25.25	273	0.03
26	12.94	33.54	268	20	13.13	33.56	25.28	270	0.05
39	12.36	33.55	257	30	12.79	33.54	25.33	266	0.08
48	-	33.55	-	50	11.70	33.55	25.54	245	0.13
57	11.25	33.60	234	75	10.38	33.49	25.73	228	0.19
66	-	33.58	-	100	9.14	33.78	26.17	186	0.24
74	10.42	33.49	228	150	8.49	33.99	26.43	160	0.33
86	9.56	33.64	203	200	7.83	34.05	26.58	147	0.41
94	9.26	33.73	192	250	7.18	34.07	26.69	136	0.48
114	8.90	33.87	176	300	6.67	34.11	26.78	127	0.55
137	8.65	33.96	166	400	6.07	34.18	26.92	114	0.67
182	8.10	34.03	152	500	5.70	34.22	27.00	107	0.79
234	7.36	34.06	140	600	(4.96)	(34.28)	(27.13)	(94)	(0.84)
333	6.40	34.14	122						
451	5.90	34.20	111						
581	5.04	34.27	96						

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

80.70 STRANGER; December 1, 1955; 0646 GCT; 33°48'N, 121°50.5'W; sounding, 1900 fm; wind, 320°, force 5; weather, overcast; sea, rough; wire angle, 21°.

0	13.1	33.39	283	0	13.1	33.39	25.14	283	0.00
8	13.06	33.40	281	10	13.06	33.40	25.18	280	0.03
23	13.07	33.42	279	20	13.07	33.40	25.18	280	0.06
52	11.13	33.46	242	30	13.07	33.42	25.19	278	0.08
59	-	33.35u	-	50	11.40	33.46	25.52	248	0.14
68	9.95	33.44	224	75	9.67	33.49	25.85	216	0.19
82	-	33.58	-	100	8.94	33.75	26.18	184	0.25
102	8.89	33.77	183	150	8.23	33.93	26.42	162	0.33
123	8.62	33.85	173	200	7.72	33.96	26.52	152	0.40
149	8.24	33.93	162	250	7.40	34.07	26.65	140	0.49
198	7.74	33.96a)	152	300	7.14	34.18	26.78	127	0.55
272	7.24	34.13	133	400	6.63	34.25	26.90	116	0.68
370	6.81	34.24	119	500	5.95	34.28	27.01	106	0.80
503	5.94	34.28	105	600	5.40	34.34	27.13	94	0.90
681	5.02	34.38	88	700	4.97	34.39	27.22	86	1.00
906	4.17	34.43	74	800	4.60	34.41	27.27	81	1.09
1208	3.31	-	-	1000	3.80	(34.45)	(27.39)	(70)	(1.25)

80.80 STRANGER; December 1, 1955; 1340 GCT; 33°24.5'N, 122°32'W; sounding, 2000 fm; wind, 320°, force 5; weather, cloudy; sea, rough; wire angle, 26°.

0	14.1	33.12	322	0	14.1	33.12	24.73	322	0.00
8	14.00	33.12	320	10	13.92	33.12	24.78	318	0.03
23	13.03	33.15	299	20	13.17	33.14	24.94	302	0.06
49	12.76	33.38	280	30	12.92	33.17	25.02	295	0.09
58	-	33.49	-	50	12.74	33.34	25.18	280	0.15
67	12.62	33.51	265	75	12.38	33.54	25.41	258	0.22
79	-	33.55	-	100	10.75	33.44	25.62	237	0.28
97	10.78	33.33	245	150	8.92	33.68	26.13	190	0.39
119	9.76	33.58	210	200	8.03	33.90	26.42	162	0.48
144	9.04	33.65	194	250	7.22	33.98	26.61	144	0.55
188	8.20	33.87	166	300	6.73	34.00	26.69	136	0.63
250	7.22	33.98	144	400	5.92	34.12	26.90	116	0.76
333	6.47	34.02	131	500	5.28	34.24	27.06	100	0.87
446	5.57	34.20	107	600	4.90	34.29	27.14	93	0.97
600	4.90	34.29	93	700	4.60	34.31	27.20	88	1.07
797	4.28	34.34	82	800	4.22	34.34	27.26	82	1.16
1072	3.48	34.48	64	1000	3.66	34.45	27.40	68	1.32

80.90 STRANGER; December 1, 1955; 1900 GCT; 32°59.5'N, 123°13'W; sounding, 2200 fm; wind, 300°, force 5; weather, cloudy; sea, rough; wire angle, 12°.

0	14.7	32.92	348	0	14.7	32.92	24.46	348	0.00
10	14.60	32.94	345	10	14.60	32.94	24.49	345	0.03
25	14.58	32.93	345	20	14.58	32.93	24.49	345	0.07
55	14.40	33.03	334	30	14.56	32.94	24.51	343	0.10
64	-	33.08	-	50	14.43	33.01	24.58	337	0.17
73	12.21	33.15	284	75	12.11	33.15	25.15	282	0.25
89	-	33.14	-	100	10.71	33.13	25.40	259	0.32
108	10.26	33.13	252	150	8.92	33.66	26.11	192	0.43
133	8.96	33.38	213	200	8.17	33.95	26.43	161	0.52
160	8.80	33.73	185	250	7.67	34.02	26.58	147	0.60
213	8.12	33.98	156	300	7.13	34.05	26.68	137	0.67
289	7.24	34.04	140	400	6.05	34.13	26.90	117	0.81
393	6.08	34.13	118	500	5.51	34.22	27.02	105	0.92
530	5.42	34.23	103	600	5.20	34.27	27.09	98	1.03
715	4.59	34.35	85	700	4.65	34.33	27.21	87	1.13
945	3.93	34.47	69	800	4.20	34.42	27.32	76	1.22
1246	3.27	34.54	58	1000	3.82	34.48	27.42	67	1.38

a) Alternate value, 34.04‰, not used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_{T} 10^{-5} T_3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T} 10^{-5} T_3 cm/g	ΔD dyn. m
STRANGER; December 3, 1955; 1311 GCT; 34°07'N, 119°34'W; sounding, 127 fm; wind, 310°, force 2; weather, missing; sea, moderate; wire angle, 03°.											83.43
0	12.97	33.55		268	0	12.97	33.55		25.30	268	0.00
10	13.00	33.55		269	10	13.00	33.55		25.29	269	0.03
15	12.98	33.57		267	20	12.98	33.55		25.30	268	0.05
20	-	33.55		-	30	12.97	33.55		25.30	268	0.08
25	12.98	33.55		268	50	12.94	33.55		25.31	267	0.13
31	-	33.56		-	75	10.19	33.63		25.87	214	0.19
36	12.96	33.55		268	100	9.12	33.85		26.22	180	0.24
46	12.98	33.55		268	150	8.49	34.06		26.48	156	0.33
55	12.86	33.55		266	200	(8.30)	(34.15)		(26.58)	(146)	(0.40)
64	11.16	33.58		233							
74	10.25	33.62		216							
94	9.23	33.80		186							
108	8.96	33.89		175							
136	8.49	34.01		159							
165	8.49	34.11		152							
199	8.32	34.15		146							
STRANGER; December 2, 1955; 1457 GCT; 33°51.5'N, 120°08'W; sounding, 70+ fm; wind, 260°, force 7; weather, cloudy; sea, rough; wire angle, 07°.											83.51
0	12.94	33.53		269	0	12.94	33.53		25.29	269	0.00
10	12.92	33.57		266	10	12.92	33.57		25.33	266	0.03
20	12.72	33.67		255	20	12.72	33.67		25.44	255	0.05
30	11.14	33.58		233	30	11.14	33.58		25.66	233	0.08
50	9.87	33.68		205	50	9.87	33.68		25.96	205	0.12
73	8.90	33.88		175	75	8.88	33.90		26.30	173	0.17
96	8.77	33.94		168	100	(8.70)	(33.97)		(26.38)	(166)	(0.21)
STRANGER; December 2, 1955; 0901, 0955 GCT; 33°33.5'N, 120°45'W; sounding, 700+ fm; wind, 300°, force 5; weather, cloudy; sea, rough; wire angle, 11°, 10°.											83.60
0	12.8	33.50		269	0	12.8	33.50		25.29	269	0.00
10	12.96	33.49		272	10	12.96	33.49		25.26	272	0.03
28	12.96	33.48		273	20	12.96	33.48		25.25	273	0.05
					30	12.96	33.47		25.25	273	0.08
46	11.76	33.42		256	50	11.20	33.45		25.55	244	0.13
56	-	33.51		-	75	9.57	33.63		25.98	203	0.19
66p	10.02	33.55		217	100	8.70	33.80		26.25	178	0.24
91p	8.91	33.76		184	150	8.13	33.97		26.48	156	0.32
134p	8.31	33.91		164	200	7.48	34.05		26.63	142	0.40
186p	7.64	34.03		146	250	6.98	34.09		26.74	132	0.47
279p	6.66	34.11		127	300	6.50	34.13		26.83	123	0.53
390p	5.98	34.20		111	400	5.89	34.21		26.97	110	0.65
509p	5.38	34.28		99	500	5.40	34.27		27.07	100	0.76
STRANGER; December 4, 1955; 0511 GCT; 33°50'N, 118°38'W; sounding, 340 fm; wind, calm; weather, missing; sea, moderate; wire angle, 02°.											87.35
0	13.6	33.57	5.74	279	0	13.6	33.57	5.74	25.19	279	0.00
10	13.56	33.56	5.59	279	10	13.56	33.56	5.59	25.19	278	0.03
30	13.41	33.53	5.58	278	20	13.50	33.55	5.59	25.19	278	0.06
40	11.58	33.46	4.50	249	30	13.41	33.53	5.58	25.20	278	0.08
51	-	33.54	4.01	-	50	10.65	33.54	4.04	25.72	228	0.13
60	10.16	33.55	3.98	219	75	9.79	33.62	3.49	25.93	208	0.19
70	-	33.60	3.58	-	100	9.28	33.78	3.06	26.14	188	0.24
80	9.70	33.65	3.44	206	150	9.17	33.95	2.37	26.30	174	0.33
89	9.44	33.73	3.15	194	200	8.63	34.08	2.13	26.48	156	0.41
99	9.29	33.78	3.07	189	250	8.28	34.15	1.70	26.58	146	0.49
118	9.25	33.91	2.56	178	300	7.96	34.21	1.23	26.68	137	0.56
143	9.18	33.95	2.38	174	400	7.19	34.30	0.66	26.86	120	0.70
162	9.09	33.96	2.35	172	500	6.38	34.34	0.39	27.01	106	0.81
198	8.63	34.07	2.14	157							
300	7.96	34.21	1.23	137							
402	7.18	34.30	0.62	119							
519	6.20	34.34	0.35	104							

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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
87.40	STRANGER; December 4, 1955; 0830 GCT; 33°40'N, 118°59'W; sounding, 400+ fm; wind, 190°, force 2; weather, drizzle; sea, moderate; wire angle, 02°.										
0	13.8	33.54	5.72	285	0	13.8	33.54	5.72	25.12	285	0.00
10	13.74	33.58	5.68	281	10	13.74	33.58	5.68	25.16	281	0.03
30	13.75	33.57	5.64	282	20	13.75	33.58	5.65	25.16	281	0.06
39	12.20	33.49	4.78	259	30	13.75	33.57	5.64	25.15	282	0.08
50	-	33.51	4.29	-	50	11.21	33.51	4.29	25.60	240	0.14
59	10.60	33.51	3.97	229	75	10.01	33.59	3.50	25.87	214	0.19
69	-	33.58	3.76	-	100	9.47	33.68	2.74	26.03	199	0.25
79	9.86	33.59	3.30	211	150	8.70	34.00	2.15	26.40	163	0.34
88	9.58	33.64	3.06	203	200	8.41	34.17	1.63	26.58	146	0.42
97	9.47	33.68	2.77	199	250	7.88	34.17	1.02	26.66	139	0.49
122	9.32	33.88	2.54	181	300	7.51	34.21	0.98	26.74	131	0.56
150	8.70	34.00	2.15	163	400	6.78	34.30	0.88	26.92	114	0.68
198	8.42	34.17	1.68	147	500	6.03	34.36	0.69	27.06	100	0.80
255	7.82	34.17	1.00	138	600	(5.50)	(34.45)	(0.51)	(27.20)	(88)	(0.90)
356	7.16	34.26	0.95	122							
473	6.18	34.34	0.72	104							
597	5.54	34.45	0.51	88							
87.50	STRANGER; December 4, 1955; 1309, 1327 GCT; 33°20'N, 119°40'W; sounding, 41 fm; wind, 230°, force 6; weather, rain; sea, moderate; wire angle, 06°, 08°.										
0	12.76	33.53	5.64	266	0	12.76	33.53	5.64	25.33	266	0.00
10	12.64	33.55	5.45	263	10	12.64	33.55	5.45	25.36	263	0.03
20	12.44	33.58	5.27	257	20	12.44	33.58	5.27	25.42	257	0.05
					30	11.98	33.57	4.96	25.51	248	0.08
30	11.98	33.57	4.96	248	50	10.44	33.62	3.98	25.82	219	0.12
50	10.44	33.62	3.98	219							
87.60	STRANGER; December 4, 1955; 1955 GCT; 33°00'N, 120°21.5'W; sounding, 400 fm; wind, 230°, force 5; weather, overcast; sea, rough; wire angle, 02°.										
0	13.8	33.56	6.07	284	0	13.8	33.56	6.07	25.13	284	0.00
10	13.59	33.57	5.89	278	10	13.59	33.57	5.89	25.19	278	0.03
30	13.55	33.58	5.82	277	20	13.56	33.57	5.86	25.20	278	0.06
45	12.42	33.52	5.16	261	30	13.55	33.58	5.82	25.21	277	0.08
57	-	33.58	3.89	-	50	11.60	33.55	4.49	25.56	244	0.14
67	9.86	33.59	3.88	211	75	9.42	33.68	3.48	26.03	198	0.19
76	-	33.68	3.46	-	100	8.77	33.82	2.93	26.25	177	0.24
86	9.08	33.93u	3.02	-	150	8.28	34.00	2.31	26.47	157	0.32
100	8.77	33.82	2.93	177	200	7.53	34.13	1.74	26.68	137	0.40
111	8.66	33.89	2.69	171	250	7.06	34.13	1.48	26.75	130	0.47
136	8.42	33.96	2.45	162	300	6.79	34.14	1.31	26.80	126	0.53
164	8.19	34.05	2.16	152	400	5.98	34.22	0.70	26.97	110	0.65
216	7.30	34.13	1.59	134	500	5.50	34.28	0.42	27.07	100	0.76
280	6.94	34.13	1.38	129	600	5.19	34.34	0.38	27.16	92	0.86
391	6.02	34.21	0.79	112							
518	5.46	34.29	0.41	99							
653	4.95	34.39	0.34	86							

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

STRANGER; December 6, 1955; 1132 GCT; 33°28.5'N, 117°46'W; sounding, 44 fm; wind, 330°, force 2; weather, missing; sea, smooth; wire angle, 00°. 90.28

0	14.19	33.58		290	0	14.19	33.58		25.07	290	0.00
10	14.12	33.57		289	10	14.12	33.57		25.08	289	0.03
20	13.20	33.52		275	20	13.20	33.52		25.23	275	0.06
30	11.98	33.49		254	30	11.98	33.49		25.45	254	0.08
50	10.32	33.54		222	50	10.32	33.54		25.78	222	0.13

STRANGER; December 6, 1955; 0936 GCT; 33°24'N, 117°54.5'W; sounding, 320 fm; wind, calm; weather, overcast; sea, smooth; wire angle, 00°. 90.30

0	14.0	33.53	5.90	290	0	14.0	33.53	5.90	25.07	290	0.00
10	13.92	33.49	5.86	291	10	13.92	33.49	5.86	25.06	291	0.03
30	13.76	33.49	5.70	288	20	13.84	33.49	5.75	25.08	290	0.06
41	11.79	33.46	4.55	253	30	13.76	33.49	5.70	25.10	288	0.09
50	10.90	33.46	4.03	238	50	10.90	33.46	4.03	25.62	238	0.14
60	-	33.49	3.79	-	75	9.87	33.61	3.20	25.90	211	0.20
70	10.04	33.55	3.53	217	100	9.30	33.90	2.53	26.23	180	0.25
79	-	33.68	3.02	-	150	8.95	34.11	2.11	26.45	159	0.33
90	9.46	33.76	2.79	193	200	8.54	34.20	1.65	26.58	146	0.41
99	9.30	33.89	2.54	180	250	7.92	34.20	1.40	26.68	137	0.48
118	9.20	33.97	2.37	173	300	7.42	34.21	1.10	26.76	130	0.55
142	9.00	34.04	2.19	165	400	6.93	34.26	0.67	26.87	119	0.68
160	8.92	34.13	2.05	157	500	(6.38)	(34.34)	(0.36)	(27.01)	(106)	(0.79)
199	8.55	34.20	1.66	146							
275	7.62	34.20	1.27	133							
375	7.04	34.24	0.72	122							
493	6.40	34.33	0.37	107							

STRANGER; December 6, 1955; 0541 GCT; 33°10.5'N, 118°24'W; sounding, 600 fm; wind, variable, force 1; weather, overcast; sea, moderate; wire angle, 03°. 90.37

0	14.4	33.60	5.66	293	0	14.4	33.60	5.66	25.04	293	0.00
10	14.22	33.59	5.80	290	10	14.22	33.59	5.80	25.07	290	0.03
30	14.10	33.57	4.80	289	20	14.19	33.58	5.45	25.07	290	0.06
40	12.31	33.52	4.95	258	30	14.10	33.57	4.80	25.08	289	0.09
50	11.00	33.51	4.37	236	50	11.00	33.51	4.37	25.64	236	0.14
60	-	33.55	4.11	-	75	10.08	33.59	3.81	25.86	215	0.20
69	10.30	33.57	3.93	220	100	9.26	33.66	3.20	26.05	197	0.25
79	-	33.60	3.72	-	150	8.55	33.98	2.32	26.41	162	0.34
89	9.56	33.65	3.39	202	200	8.10	34.13	1.68	26.60	145	0.42
98	9.32	33.66	3.27	198	250	7.72	34.18	1.11	26.70	136	0.49
122	8.97	33.81	2.81	181	300	7.23	34.20	1.09	26.78	128	0.56
150	8.55	33.98	2.32	162	400	6.55	34.24	1.00	26.91	116	0.68
198	8.13	34.13	1.71	145	500	6.10	34.30	0.73	27.01	106	0.80
255	7.64	34.18	1.09	135	600	(5.66)	(34.34)	(0.38)	(27.10)	(97)	(0.90)
356	6.75	34.22	1.07	120							
471	6.21	34.34a)	0.25r	-							
596	5.68	34.34	0.38	98							

a) Loose bottle cap; value does not fall on property curve.

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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

90.45 STRANGER; December 6, 1955; 0149 GCT; 32°54.5'N, 118°56'W; sounding, 900+ fm; wind, 120°, force 3; weather, overcast; sea, rough; wire angle, 00°.

0	14.6	33.58	5.75	298	0	14.6	33.58	5.75	24.98	298	0.00
10	14.37	33.60	5.77	292	10	14.37	33.60	5.77	25.05	292	0.03
30	14.36	33.58	5.70	293	20	14.37	33.59	5.74	25.04	293	0.06
40	14.26	33.59	5.72	290	30	14.36	33.58	5.70	25.04	293	0.09
50	12.20	33.59	4.57	251	50	12.20	33.59	4.57	25.48	251	0.14
60	-	33.53	4.21	-	75	9.97	33.63	3.72	25.92	210	0.20
70	10.18	33.58	3.83	217	100	9.28	33.70	3.15	26.08	194	0.25
80	-	33.65	3.63	-	150	8.53	33.98	2.45	26.41	162	0.34
90	9.50	33.68	3.45	199	200	8.36	34.15	1.76	26.57	147	0.42
99	9.33	33.70	3.16	195	250	7.80	34.21	1.25	26.71	134	0.49
123	8.90	33.86	2.71	177	300	7.35	34.25	0.91	26.82	124	0.56
152	8.49	33.98	2.40	162	400	6.62	34.31	0.59	26.94	112	0.68
199	8.36	34.14	1.78	148	500	6.18	34.35	0.46	27.04	103	0.79
256	7.71	34.22	1.18	133	600	(5.62)	(34.36)	(0.35)	(27.12)	(95)	(0.90)
356	6.91	34.28	0.64	117							
472	6.29	34.34	-	105							
596	5.66	34.36	0.35	96							

90.55 STRANGER; December 5, 1955; 2040, 2100, 2115 GCT; 32°36'N, 119°36'W; sounding, 600 fm; wind, 300°, force 3; weather, overcast; sea, moderate; wire angle, 12°, 15°, 15°.

0	15.0	33.57	307	0	15.0	33.57		24.89	307	0.00
10	14.70	33.60	299	10	14.70	33.60		24.98	299	0.03
30	14.43	33.59	294	20	14.53	33.59		25.01	296	0.06
40	14.36	33.60	291	30	14.43	33.59		25.03	294	0.09
50	12.30	33.48	261	50	12.30	33.48		25.37	261	0.15
59	-	33.46	-	75	10.12	33.56		25.83	218	0.21
69	10.29	33.53	223	100	9.07	33.73		26.13	190	0.26
79	-	33.64u	-	150	8.37	34.04		26.49	156	0.34
				200	7.91	34.13		26.63	142	0.42
86	9.72	33.64	206	250	7.42	34.14		26.71	134	0.49
94	9.28	33.70	194	300	6.99	34.19		26.80	126	0.56
116	8.76	33.84	176							
141	8.43	33.96	163							
186	8.02	34.13	144							
239	7.52	34.14	136							
331	6.76	34.20	121							

90.60 STRANGER; December 5, 1955; 1732 GCT; 32°26'N, 119°56.5'W; sounding, 480 fm; wind, 270°, force 1; weather, overcast; sea, moderate; wire angle, 05°.

0	13.9	33.49	5.80	291	0	13.9	33.49	5.80	25.06	291	0.00
10	13.67	33.51	5.80	285	10	13.67	33.51	5.80	25.12	285	0.03
31	13.66	33.51	5.84	285	20	13.67	33.51	5.82	25.12	285	0.06
41	13.60	33.50	5.82	284	30	13.66	33.51	5.84	25.12	285	0.09
51	-	33.48	5.66	-	50	12.57	33.49	5.69	25.33	266	0.14
61	11.38	33.39	5.08	251	75	10.61	33.38	4.70	25.60	240	0.20
71	-	33.36	4.83	-	100	9.46	33.53	3.25	25.92	210	0.26
80	10.34	33.42	4.52	231	150	8.40	33.92	2.71	26.39	164	0.35
90	9.60	33.53	4.02	212	200	7.76	34.06	2.20	26.60	144	0.43
99	9.48	33.53	3.26	210	250	7.05	34.10	1.64	26.72	133	0.50
125	8.82	33.79	3.10	181	300	6.57	34.14	1.28	26.82	124	0.57
153	8.38	33.93	2.70	164	400	5.95	34.20	0.83	26.95	111	0.69
201	7.71	34.06	2.16	144	500	5.38	34.31	0.48	27.11	96	0.80
258	6.98	34.11	1.56	131	600	(5.07)	(34.35)	(0.34)	(27.18)	(90)	(0.90)
359	6.18	34.16	0.97	117							
475	5.45	34.29a)	0.54	99							
597	5.08	34.34	0.34	91							

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

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; December 5, 1955; 1228 GCT; 32°06'N, 120°37'W; sounding, 2000+ fm; wind, 320°, force 1; weather, cloudy; sea, moderate; wire angle, 16°.											90.70
0	13.5	33.40	6.05	290	0	13.5	33.40	6.05	25.08	290	0.00
10	13.44	33.40	6.00	288	10	13.44	33.40	6.00	25.09	288	0.03
24	13.51	33.46	5.96	285	20	13.48	33.44	5.98	25.11	286	0.06
48	13.46	33.49	5.85	282	30	13.50	33.49	5.88	25.14	284	0.09
57	-	33.42	5.66	-	50	13.43	33.49	5.84	25.16	282	0.14
66	11.09	33.30	5.16	253	75	10.58	33.35	4.77	25.59	240	0.21
76	-	33.35	4.74	-	100	9.67	33.53	3.98	25.88	213	0.27
93	9.90	33.46	4.18	222	150	8.56	33.92	2.61	26.37	166	0.36
116	9.25	33.68	3.58	195	200	8.02	34.09	2.22	26.58	147	0.44
143	8.62	33.87	2.71	172	250	7.57	34.18	1.67	26.72	134	0.51
188	8.16	34.05	2.35	152	300	7.20	34.22	1.31	26.80	126	0.58
251	7.54	34.18	1.65	134	400	6.72	34.26	0.91	26.90	116	0.70
348	7.00	34.23	1.11	122	500	6.10	34.33	0.58	27.04	103	0.82
468	6.30	34.31	0.67	107	600	5.58	34.39	0.44	27.15	92	0.92
639	5.36	34.40	0.43	89	700	5.17	34.41	0.44	27.21	86	1.02
854	4.56	34.43	0.56	78	800	4.78	34.42	0.52	27.27	81	1.11
1151	3.64	34.49	0.87	65	1000	4.02	34.46	0.73	27.38	71	1.27
STRANGER; December 5, 1955; 0630 GCT; 31°44.5'N, 121°19'W; sounding, 2000+ fm; wind, 320°, force 3; weather, drizzle; sea, moderate; wire angle, 00°.											90.80
0	15.4	33.64	5.69	310	0	15.4	33.64	5.69	24.86	310	0.00
9	15.29	33.64	5.62	308	10	15.29	33.64	5.62	24.88	308	0.03
25	15.45	33.73	5.65	305	20	15.37	33.68	5.63	24.89	307	0.06
49	11.68	33.44	4.90	252	30	15.46	33.73	5.65	24.92	305	0.09
59	-	33.45	4.57	-	50	11.64	33.44	4.89	25.47	252	0.15
68	11.34	33.49	4.36	243	75	11.10	33.52	4.16	25.63	236	0.21
78	-	33.55	4.03	-	100	9.08	33.74	3.39	26.14	188	0.26
98	9.15	33.73	3.42	190	150	8.08	33.97	2.50	26.47	158	0.35
123	8.48	33.84	3.04	172	200	7.83	34.12	(1.72)	26.63	142	0.42
152	8.04	33.98	2.48	156	250	7.26	34.14	(1.59)	26.73	132	0.50
199	7.86	34.11	1.74	143	300	6.80	34.17	(1.51)	26.82	124	0.56
266	7.04	34.14	-	130	400	6.37	34.25	1.37	26.94	112	0.68
368	6.49	34.23	1.43	116	500	5.72	34.31	0.39	27.06	100	0.80
494	5.78	34.30	0.39	102	600	5.27	34.35	0.39	27.15	92	0.90
674	5.01	34.39	0.39	87	700	4.98	34.40	0.40	27.22	86	0.99
892	4.34	34.48	0.46	73	800	4.64	34.45	0.40	27.30	78	1.08
1192	3.57	34.52	0.85	62	1000	3.98	34.51	0.61	27.42	67	1.24
STRANGER; December 6, 1955; 1618 GCT; 32°55.5'N, 117°18.5'W; sounding, 50 fm; wind, missing; weather, overcast; sea, moderate; wire angle, 00°.											93.27
0	14.10	33.57	6.00	289	0	14.10	33.57	6.00	25.08	289	0.00
10	14.09	33.57	5.85	289	10	14.09	33.57	5.85	25.08	289	0.03
20	13.40	33.55	5.44	276	20	13.40	33.55	5.44	25.21	276	0.06
30	11.82	33.46	4.59	254	30	11.82	33.46	4.59	25.45	254	0.08
50	10.84	33.51	4.06	233	50	10.84	33.51	4.06	25.67	233	0.13
75	9.95	33.66	3.49	207	75	9.95	33.66	3.49	25.94	207	0.19

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
STRANGER; December 8, 1955; 0301 GCT; 32°14'N, 117°07'W; sounding, 27 fm; wind, 330°, force 4; weather, clear; sea, moderate; wire angle, 05°.											97.30
0	14.60	33.56	5.80	300	0	14.60	33.56	5.80	24.97	300	0.00
10	14.60	33.54	5.58	301	10	14.60	33.54	5.58	24.96	301	0.03
20	13.58	33.53	5.38	281	20	13.58	33.53	5.38	25.16	281	0.06
30	11.92	33.49	4.27	253	30	11.92	33.49	4.27	25.46	253	0.09
STRANGER; December 8, 1955; 0115 GCT; 32°11'N, 117°16.5'W; sounding, 800 fm; wind, 340°, force 6; weather, clear; sea, moderate; wire angle, 18°.											97.32
0	15.2	33.54	5.85	314	0	15.2	33.54	5.85	24.82	314	0.00
9	15.13	33.54	5.74	312	10	15.12	33.54	5.70	24.84	312	0.03
28	15.00	33.55	5.58	309	20	15.06	33.55	5.62	24.86	310	0.06
38	13.33	33.44	5.33	283	30	14.97	33.55	5.57	24.88	308	0.09
47	12.45	33.43	4.99	268	50	12.14	33.45	4.61	25.38	260	0.15
56	-	33.52	3.86	-	75	10.52	33.64	2.89	25.82	218	0.21
65	10.75	33.59	3.26	226	100	10.03	33.77	2.38	26.01	200	0.26
74	-	33.64	2.90	-	150	10.01	34.11	1.52	26.28	176	0.36
84	10.34	33.68	2.70	212	200	9.11	34.12	2.11	26.44	160	0.44
92	10.12	33.73	2.50	205	250	8.96	34.32	1.20	26.62	143	0.52
114	9.98	33.86	2.24	193	300	8.09	34.25	1.20	26.70	136	0.59
141	10.08	34.08	1.51	179	400	7.00	34.28	0.64	26.88	118	0.72
183	9.52	34.14	1.89	165	500	6.23	34.35	0.35	27.03	104	0.84
236	9.16	34.32	1.23	146							
330	7.62	34.23	1.17	131							
440	6.66	34.31	0.45	112							
558	5.85	34.38	0.29	97							
STRANGER; December 7, 1955; 2041 GCT; 31°55'N, 117°49'W; sounding, 400 fm; wind, 300°, force 4; weather, overcast; sea, moderate; wire angle, 03°.											97.40
0	14.9	33.57	5.95	305	0	14.9	33.57	5.95	24.91	305	0.00
10	14.76	33.57	6.01	302	10	14.76	33.57	6.01	24.94	302	0.03
30	14.10	33.55	5.81	290	20	14.60	33.57	6.00	24.98	298	0.06
40	11.88	33.46	5.00	255	30	14.10	33.55	5.81	25.07	290	0.09
50	11.09	33.50	4.50	238	50	11.09	33.50	4.50	25.62	238	0.14
60	-	33.56	4.01	-	75	9.88	33.63	3.73	25.92	209	0.20
70	10.08	33.59	3.80	215	100	9.37	33.73	3.18	26.09	193	0.25
80	-	33.66	3.64	-	150	8.81	33.96	2.48	26.35	168	0.34
89	9.51	33.71	3.34	197	200	8.49	34.19	(1.96)	26.58	146	0.42
100	9.37	33.73	3.18	193	250	7.99	34.22	(1.66)	26.69	136	0.49
124	9.11	33.87	2.94	179	300	7.58	34.26	(1.49)	26.78	128	0.56
152	8.80	33.96	2.45	168	400	6.82	34.31	0.92	26.92	114	0.69
199	8.50	34.19	1.97	146	500	6.14	34.34	0.43	27.03	104	0.80
257	7.94	34.22	0.81u	136	600	(5.62)	(34.38)	(0.46)	(27.13)	(94)	(0.90)
358	7.14	34.29	1.28	120							
474	6.28	34.33	0.43	106							
598	5.62	34.38	0.46	94							

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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
97.50	STRANGER; December 7, 1955; 1532 GCT; 31°33.5'N, 118°29'W; sounding, 1300 fm; wind, 300°, force 5; weather, overcast; sea, moderate; wire angle, 09°.											
	0	14.9	33.55	5.72	306	0	14.9	33.55	5.72	24.90	306	0.00
	10	15.15	33.55	5.75	312	10	15.15	33.55	5.75	24.84	312	0.03
	29	15.12	33.54	5.72	312	20	15.15	33.54	5.73	24.83	312	0.06
	39	14.80	33.53	5.72	306	30	15.10	33.54	5.72	24.84	312	0.09
	49	14.30	33.48	5.70	300	50	14.22	33.47	5.69	24.98	298	0.15
	58	-	33.43	5.61	-	75	11.39	33.40	4.79	25.48	252	0.22
	67	12.14	33.39	5.26	265	100	9.97	33.53	4.28	25.83	218	0.28
	76	-	33.40	4.78	-	150	8.74	33.83	3.22	26.27	176	0.38
	86	10.58	33.44	5.10u	234	200	8.17	34.01	2.85	26.50	154	0.47
	93	10.16	33.50	2.96r	223	250	7.72	34.12	1.90	26.65	140	0.54
	116	9.60	33.58	4.13	208	300	7.38	34.18	1.40	26.74	131	0.61
	143	8.87	33.77	3.30	183	400	6.60	34.29	0.67	26.94	112	0.74
	186	8.26	33.98	2.99	158	500	5.92	34.34	0.40	27.06	100	0.85
	241	7.80	34.09	2.04	144							
	336	7.10	34.22	1.10	124							
	447	6.27	34.32	0.51	106							
	569	5.54	34.36	0.35	94							
100.29	STRANGER; December 8, 1955; 0723 GCT; 31°42'N, 116°43.5'W; sounding, 50+ fm; wind, 320°, force 2; weather, fog; sea, moderate; wire angle, 00°.											
	0	13.68	33.51	5.84	285	0	13.68	33.51	5.84	25.12	285	0.00
	10	13.36	33.48	5.67	281	10	13.36	33.48	5.67	25.16	281	0.03
	20	12.21	33.49	4.98	259	20	12.21	33.49	4.98	25.40	259	0.06
	30	11.58	33.51	4.27	246	30	11.58	33.51	4.27	25.53	246	0.08
	50	10.72	33.55	3.55	228	50	10.72	33.55	3.55	25.72	228	0.13
	75	10.23	33.70	2.76	210	75	10.23	33.70	2.76	25.92	210	0.18
100.30	STRANGER; December 8, 1955; 0855 GCT; 31°40.5'N, 116°46.5'W; sounding, 230 fm; wind, 180°, force 4; weather, fog; sea, moderate; wire angle, 00°.											
	0	14.7	33.56	6.00	302	0	14.7	33.56	6.00	24.94	302	0.00
	10	13.64	33.51	5.83	284	10	13.64	33.51	5.83	25.13	284	0.03
	15	12.73	33.50	5.43	267	20	12.04	33.48	4.90	25.43	256	0.06
	20	12.04	33.48	4.90	256	30	10.79	33.49	4.44	25.66	234	0.08
	25	11.34	33.49	4.58	243	50	10.14	33.60	3.40	25.86	215	0.13
	29	-	33.49	4.45	-	75	10.15	33.79	2.51	26.01	201	0.18
	35	10.51	33.51	4.32	228	100	10.10	33.92	2.25	26.11	191	0.23
	45	-	33.53	3.94	-	150	9.62	34.13	1.78	26.35	168	0.32
	54	10.12	33.68	3.26	209	200	8.90	34.22	1.59	26.55	150	0.40
	64	10.18	33.73	2.67	206	250	8.40	34.24	1.26	26.63	142	0.47
	78	10.12	33.82	2.47	198	300	(7.97)	(34.27)	(0.95)	(26.73)	(132)	(0.54)
	98	10.10	33.90	2.29	192							
	122	9.97	34.02	1.89	181							
	160	9.48	34.16	1.75	163							
	200	8.90	34.22	1.59	150							
	238	8.49	34.23	1.33	143							
	298	7.98	34.27	0.99	133							

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
STRANGER; December 8, 1955; 1430 GCT; 31°21'N, 117°27'W; sounding, 1000 fm; wind, 320°, force 3; weather, overcast; sea, rough; wire angle, 00°.											100.40
0	15.0	33.59	5.70	306	0	15.0	33.59	5.70	24.90	306	0.00
10	15.06	33.64	5.67	304	10	15.06	33.64	5.67	24.93	304	0.03
25	15.06	33.58	5.55	307	20	15.06	33.60	5.57	24.90	306	0.06
49	11.51	33.48	4.67	247	30	15.04	33.57	5.52	24.89	307	0.09
60	-	33.48	4.42	-	50	11.42	33.48	4.62	25.54	246	0.15
69	10.24	33.57	3.74	219	75	10.03	33.59	3.53	25.86	214	0.20
79	-	33.60	3.45	-	100	9.43	33.74	3.11	26.08	194	0.26
99	9.44	33.73	3.14	194	150	8.73	33.94	2.60	26.35	168	0.35
123	9.14	33.83	2.71	182	200	8.76	34.19	1.87	26.54	150	0.43
151	8.70	33.95	2.58	167	250	8.18	34.23	1.55	26.67	138	0.50
200	8.76	34.19	1.87	150	300	7.95	34.29	1.21	26.75	130	0.57
268	8.20	34.27	1.39	136	400	6.90	34.31	0.78	26.92	114	0.70
370	7.17	34.30	0.93	119	500	6.19	34.35	0.35	27.04	102	0.81
495	6.22	34.35	0.37	104	600	5.59	34.39	0.30	27.16	92	0.91
674	5.14	34.42	0.30	85	700	5.01	34.42	0.32	27.24	84	1.01
893	4.30	34.47	0.48	73	800	4.65	34.45	0.39	27.30	78	1.10
1194	3.44	34.54	0.84	60	1000	3.93	34.50	0.63	27.42	67	1.25
STRANGER; December 8, 1955; 2000 GCT; 31°01'N, 118°07'W; sounding, 950 fm; wind, calm; weather, clear; sea, rough; wire angle, 02°.											100.50
0	14.9	33.60	5.79	302	0	14.9	33.60	5.79	24.94	302	0.00
10	14.92	33.59	5.92	304	10	14.92	33.59	5.92	24.93	304	0.03
26	14.87	33.59	5.74	303	20	14.88	33.59	5.79	24.94	303	0.06
50	12.16	33.40	4.95	264	30	14.37	33.56	5.59	25.03	294	0.09
60	-	33.42	5.11u	-	50	12.16	33.40	4.95	25.34	264	0.15
69	11.10	33.45	4.42	242	75	10.81	33.47	4.35	25.65	235	0.21
79	-	33.48	4.31	-	100	9.82	33.59	3.67	25.91	210	0.27
99	9.88	33.58	3.72	212	150	8.84	33.91	2.60	26.31	172	0.36
123	9.24	33.75	3.03	190	200	8.38	34.07	2.13	26.51	153	0.44
151	8.82	33.92	2.57	171	250	7.84	34.10	1.79	26.61	144	0.52
200	8.38	34.07	2.13	153	300	7.40	34.17	1.30	26.73	132	0.59
268	7.64	34.11	1.62	140	400	6.79	34.29	0.65	26.91	115	0.72
370	6.98	34.27	0.77	119	500	6.18	34.34	0.38	27.04	103	0.83
496	6.18	34.34	0.40	104	600	5.60	34.38	0.30	27.14	93	0.94
674	5.18	34.41	0.29	87	700	5.08	34.41	0.31	27.22	86	1.03
893	4.26	34.48	0.51	72	800	4.68	34.45	0.39	27.30	78	1.12
1199	3.47	34.55	0.82	59	1000	3.86	34.52	0.66	27.44	65	1.28
STRANGER; December 9, 1955; 0135 GCT; 30°38'N, 118°50'W; sounding, 1500+ fm; wind, 300°, force 3; weather, partly cloudy; sea, rough; wire angle, 05°.											100.60
0	16.0	33.65	5.77	322	0	16.0	33.65	5.77	24.73	322	0.00
10	15.72	33.62	5.75	318	10	15.72	33.62	5.75	24.78	318	0.03
25	15.46	33.63	-	312	20	15.55	33.63	5.72	24.82	314	0.06
50	13.13	33.46	5.28	278	30	15.40	33.63	5.69	24.85	311	0.09
59	-	33.46	4.98	-	50	13.13	33.46	5.28	25.20	278	0.15
70	11.48	33.46	4.63	248	75	11.24	33.47	4.44	25.56	243	0.22
79	-	33.49	4.20	-	100	10.26	33.70	3.33	25.91	210	0.28
98	10.31	33.68	3.38	212	150	9.47	34.04	2.14	26.31	172	0.37
122	9.69	33.82	2.66	192	200	9.14	34.23	1.65	26.52	152	0.46
150	9.47	34.04	2.14	172	250	8.80	34.29	1.32	26.62	142	0.53
198	9.16	34.22	1.68	154	300	8.32	34.32	1.03	26.71	134	0.60
264	8.70	34.30	1.24	141	400	7.18	34.33	0.67	26.89	117	0.73
366	7.57	34.33	0.77	122	500	6.29	34.33	0.48	27.01	106	0.85
490	6.37	34.33	0.50	106	600	5.66	34.37	0.37	27.12	96	0.96
668	5.26	34.40	0.34	89	700	5.10	34.41	0.36	27.22	86	1.05
885	4.46	34.43	0.52	78	800	4.72	34.42	0.45	27.28	80	1.14
1187	3.52	34.54	0.82	60	1000	4.08	34.46	0.63	27.37	72	1.31

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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

100.70 STRANGER; December 9, 1955; 0720 GCT; 30°19'N, 119°29'W; sounding, 2000+ fm; wind, 330°, force 4; weather, partly cloudy; sea, rough; wire angle, 09°.

0	15.9	33.46	5.70	334	0	15.9	33.46	5.70	24.61	334	0.00
10	15.70	33.44	5.74	331	10	15.70	33.44	5.74	24.64	331	0.03
25	15.54	33.41	5.69	330	20	15.60	33.41	5.70	24.65	330	0.07
50	15.06	33.42	5.63	319	30	15.45	33.41	5.68	24.68	328	0.10
60	-	33.34	5.58	-	50	15.06	33.42	5.63	24.77	319	0.16
69	12.94	33.32	5.55	284	75	12.57	33.32	5.54	25.21	277	0.24
79	-	33.25u	5.51	-	100	11.25	33.33	5.28	25.45	254	0.31
99	11.30	33.33	5.30	255	150	8.93	33.45	3.79	25.94	207	0.42
122	10.04	33.35	4.51	232	200	8.08	33.95	3.16	26.46	158	0.52
152	8.88	33.46	3.74	206	250	7.48	34.02	2.64	26.61	144	0.59
200	8.08	33.95	3.16	158	300	6.99	34.06	1.88	26.71	134	0.66
267	7.27	34.03	2.44	141	400	6.20	34.15	0.96	26.88	118	0.80
370	6.40	34.13	1.03	122	500	5.62	34.25	0.79	27.04	103	0.91
495	5.63	34.24	0.81	105	600	5.21	34.34	0.46	27.16	92	1.01
674	5.00	34.39	0.45	86	700	4.98	34.40	0.47	27.24	84	1.11
893	4.24	34.47	0.66	72	800	4.61	34.44	0.55	27.30	78	1.20
1192	3.52	34.53	0.72	61	1000	3.90	34.50	0.70	27.42	67	1.36

100.80 STRANGER; December 9, 1955; 1250 GCT; 29°58'N, 120°09.5'W; sounding, 1950 fm; wind, 330°, force 4; weather, clear; sea, moderate; wire angle, 05°.

0	16.3	33.63	5.59	330	0	16.3	33.63	5.59	24.64	330	0.00
11	16.27	33.64	5.63	329	10	16.28	33.64	5.62	24.66	329	0.03
25	15.51	33.48	5.76	324	20	15.78	33.53	5.72	24.69	326	0.07
52	14.25	33.38	5.73	305	30	15.27	33.45	5.76	24.74	322	0.10
60	-	33.33u	5.69	-	50	14.39	33.38	5.74	24.89	308	0.16
70	12.95	33.39	5.54	279	75	12.48	33.39	5.44	25.28	270	0.23
80	-	33.33u	5.35	-	100	10.68	33.40	4.70	25.61	239	0.30
100	10.68	33.40	4.70	239	150	8.98	33.69	3.55	26.13	190	0.40
123	9.66	33.58	4.67	209	200	8.36	33.95	2.50	26.42	162	0.49
153	8.91	33.70	3.46	188	250	7.72	34.05	2.02	26.59	146	0.57
201	8.33	33.95	2.47	162	300	7.07	34.10	1.64	26.72	133	0.64
269	7.43	34.07	1.84	140	400	6.13	34.18	0.95	26.91	115	0.77
371	6.33	34.14	1.17	120	500	5.62	34.29	0.46	27.06	100	0.89
497	5.62	34.28	0.47	102	600	5.23	34.34	0.38	27.15	92	0.99
675	4.92	34.37	0.37	87	700	4.86	34.38	0.39	27.22	86	1.08
892	4.16	34.46	0.56	72	800	4.53	34.41	0.45	27.29	79	1.17
1198	3.34	34.53	0.90	59	1000	3.79	34.49	0.69	27.43	66	1.33

103.30 STRANGER; December 10, 1955; 1715 GCT; 31°04'N, 116°25'W; sounding, 37 fm; wind, calm; weather, overcast; sea, rough; wire angle, 00°.

0	12.96	33.48	5.48	273	0	12.96	33.48	5.48	25.25	273	0.00
10	12.96	33.51	5.47	271	10	12.96	33.51	5.47	25.27	271	0.03
20	12.26	33.48	4.77	260	20	12.26	33.48	4.77	25.38	260	0.05
30	11.52	33.51	3.76	245	30	11.52	33.51	3.76	25.55	245	0.08
50	10.63	33.68	2.43	217	50	10.63	33.68	2.43	25.84	217	0.13

OBSERVED					INTERPOLATED				COMPUTED			
Z m	T °C	S ‰	O_2 ml/L	δ_T 10^{-5} T_3 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T 10^{-5} T_3 cm/g	ΔD dyn. m	
STRANGER; December 10, 1955; 1442 GCT; 30°56'N, 116°44'W; sounding, 700 fm; wind, 330°, force 3; weather, overcast; sea, rough; wire angle, 07°.												103.35
0	15.2	33.59	5.75	310	0	15.2	33.59	5.75	24.86	310	0.00	
10	15.08	33.55	5.75	310	10	15.08	33.55	5.75	24.86	310	0.03	
30	14.36	33.51	5.72	298	20	14.92	33.54	5.74	24.88	308	0.06	
45	11.76	33.41	5.68	257	30	14.36	33.51	5.72	24.99	298	0.09	
55	-	33.44	4.35	-	50	11.24	33.42	5.10	25.52	248	0.15	
64	10.32	33.49	3.99	226	75	10.40	33.73	2.72	25.91	210	0.20	
74	-	33.68	2.73	-	100	9.68	33.81	2.73	26.10	192	0.26	
83	10.26	33.77	2.66	205	150	8.97	34.01	2.35	26.36	167	0.34	
97	9.84	33.80	3.21u	196	200	8.92	34.17	1.80	26.50	154	0.43	
108	9.23	33.83	2.75	184	250	9.06	34.38	1.02	26.64	141	0.50	
132	9.05	33.93	2.33	173	300	8.29	34.38	0.87	26.75	130	0.57	
160	8.94	34.04	2.36	164	400	6.60	34.31	0.55	26.95	112	0.70	
213	8.56	34.14	1.90	151	500	6.02	34.35	0.39	27.06	101	0.81	
275	8.74	34.39	-	135	600	5.46	34.40	0.30	27.17	91	0.91	
386	6.88	34.30	0.63	115								
510	5.96	34.36	0.35	99								
641	5.25	34.42	0.28	87								
STRANGER; December 10, 1955; 1049, 1111, 1140 GCT; 30°49'N, 116°58'W; sounding, 1100+ fm; wind, 330°, force 5; weather, partly cloudy; sea, rough; wire angle, 11°, 12°, missing.												103.40
0	15.1	33.58	5.70	309	0	15.1	33.58	5.70	24.87	309	0.00	
10	15.03	33.57	5.87	308	10	15.03	33.57	5.87	24.88	308	0.03	
30	15.00	33.57	5.90	307	20	15.02	33.57	5.88	24.88	308	0.06	
45	13.36	33.48	5.53	281	30	15.00	33.57	5.90	24.89	307	0.09	
60	11.86	33.42	4.88	258	50	12.80	33.45	5.31	25.26	272	0.15	
70	-	33.51u	4.39	-	75	10.73	33.43	4.17	25.62	238	0.21	
79	10.51	33.44	4.02	233	100	9.64	33.70	3.28	26.02	200	0.27	
					150	8.87	33.95	2.63	26.33	170	0.36	
93	-	33.60	3.30	-	200	8.23	34.10	2.03	26.55	149	0.44	
102	9.58	33.71	3.28	198	250	7.66	34.16	1.60	26.69	136	0.52	
117	9.26	33.82	3.20	185	300	7.24	34.18	1.30	26.77	129	0.58	
145	8.94	33.93	2.69	172	400	6.38	34.31	0.90	26.99	108	0.71	
					500	5.80	34.33	0.59	27.07	100	0.81	
231	7.82	34.15	1.77	139	600	5.42	34.34		27.13	94	0.92	
299	7.24	34.18	1.31	129	700	(4.89)	(34.42)		(27.25)	(83)	(1.01)	
412	6.22	34.32	0.85	106								
548	5.62	34.33	0.49	98								
685	4.97	34.40	0.81u	85								
STRANGER; December 10, 1955; 0435, 0500 GCT; 30°28'N, 117°39'W; sounding, 1080 fm; wind, 330°, force 6; weather, partly cloudy; sea, rough; wire angle, 21°, 23°.												103.50
0	15.7	33.62	5.75	318	0	15.7	33.62	5.75	24.78	318	0.00	
9	15.74	33.60	5.80	320	10	15.72	33.60	5.80	24.75	320	0.03	
29	15.37	33.58	5.79	314	20	15.53	33.58	5.80	24.78	317	0.06	
43	15.20	33.59	5.70	310	30	15.35	33.58	5.78	24.82	314	0.10	
61	14.65	33.51	5.63	304	50	15.13	33.58	5.68	24.88	308	0.16	
66	-	33.42	5.42	-	75	12.24	33.40	5.20	25.32	266	0.23	
75	12.24	33.40	5.20	266	100	10.39	33.40	4.66	25.66	234	0.29	
89	-	33.39	4.98	-	150	8.87	33.80	3.34	26.23	180	0.40	
97	10.48	33.39	-	236	200	8.62	34.06	2.30	26.46	158	0.48	
111	9.97	33.49	4.24	220	250	8.07	34.16	1.88	26.63	142	0.56	
					300	7.60	34.22	1.30	26.75	130	0.63	
131	9.50	33.62	3.73	204	400	7.00	34.31	0.64	26.90	116	0.76	
155	8.76	33.82	3.20	177	500	5.93	34.38	0.49	27.09	98	0.87	
204	8.62	34.07	2.24	157	600	5.40	34.41	0.56	27.18	90	0.97	
262	7.87	34.18	1.77	138								
365	7.26	34.38	0.84	122								
490	6.02	34.37	0.47	100								
623	5.33	34.41	0.59	88								

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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
103.60	STRANGER; December 9, 1955; 2259 GCT; 30°07'N, 118°21'W; sounding, 1800 fm; wind, 340°, force 4; weather, fog; sea, moderate; wire angle, 12°.										
0	16.0	33.51	5.74	332	0	16.0	33.51	5.74	24.63	332	0.00
10	15.76	33.51	5.63	328	10	15.76	33.51	5.63	24.68	328	0.03
30	15.66	33.51	5.53	326	20	15.67	33.51	5.56	24.68	327	0.07
39	15.62	33.49	-	326	30	15.66	33.51	5.53	24.69	326	0.10
49	14.44	33.40	5.52	308	50	14.37	33.40	5.50	24.89	307	0.16
58	-	33.39	5.41	-	75	12.63	33.39	5.35	25.23	274	0.23
68	13.14	33.40	5.32	283	100	11.00	33.40	4.93	25.55	244	0.30
77	-	33.39	5.35	-	150	9.12	33.74	3.29	26.14	189	0.41
86	11.78	33.37	5.21	260	200	8.34	33.96	(2.43)	26.44	160	0.50
96	11.17	33.39	-	248	250	7.62	34.00	(1.98)	26.57	148	0.58
119	10.00	33.44	4.39	225	300	7.08	34.05	(1.66)	26.69	136	0.65
148	9.15	33.71	3.33	191	400	6.29	34.20	1.07	26.91	116	0.78
195	8.40	33.95	2.48	163	500	5.87	34.27	0.65	27.02	105	0.90
253	7.56	34.00	2.55u	147	600	(5.30)	(34.36)	(0.27)	(27.16)	(92)	(1.00)
353	6.56	34.14	1.36	123							
470	6.00	34.26	0.76	107							
591	5.34	34.35	0.27	93							
107.32	STRANGER; December 11, 1955; 0105, 0150 GCT; 30°24.5'N, 116°10.5'W; sounding, 385 fm; wind, 330°, force 4; weather, cloudy; sea, rough; wire angle, 21°, 26°.										
0	13.8	33.50	5.97	288	0	13.8	33.50	5.97	25.09	288	0.00
9	13.58	33.49	6.12	284	10	13.54	33.49	6.11	25.13	284	0.03
29	13.11	33.47	5.60	277	20	13.28	33.47	5.82	25.18	280	0.06
42	11.60	33.47	4.14	249	30	13.05	33.47	5.54	25.22	276	0.08
52	-	33.58	3.18	-	50	11.36	33.57	3.20	25.62	238	0.14
61	11.02	33.64	2.93	227	75	10.05	33.59	3.52	25.85	216	0.19
70	-	33.61	3.18	-	100	9.33	33.70	3.45	26.07	195	0.24
78	9.92	33.58	3.60	213	150	9.87	34.17	1.49	26.35	168	0.34
92	9.60	33.67	3.41	201	200	9.42	34.32	1.19	26.53	151	0.42
101	9.30	33.70	3.45	195	250	8.98	34.34	0.87	26.63	142	0.49
					300	8.41	34.35	0.72	26.72	133	0.56
121	10.32	34.07	1.53	183	400	7.30	34.35	0.56	26.90	117	0.69
145	9.96	34.16	1.51	171	500	6.20	34.34	0.40	27.03	104	0.81
193	9.50	34.31	1.26	152	600	(5.68)	(34.37)	(0.29)	(27.12)	(95)	(0.91)
250	8.98	34.34	0.87	142							
363	7.74	34.36	0.61	123							
467	6.49	34.34	0.45	108							
598	5.69	34.37	0.29	95							
107.35	STRANGER; December 11, 1955; 0358 GCT; 30°20'N, 116°23'W; sounding, 1000 fm; wind, 330°, force 4; weather, cloudy; sea, rough; wire angle, 12°.										
0	15.5	33.61	5.75	314	0	15.5	33.61	5.75	24.82	314	0.00
9	15.49	33.60	5.74	315	10	15.48	33.60	5.75	24.81	314	0.03
31	15.27	33.58	5.79	312	20	15.39	33.59	5.77	24.82	314	0.06
45	12.54	33.58u	5.43	-	30	15.28	33.58	5.79	24.83	313	0.09
60	11.84	33.40	4.98	259	50	12.30	33.41	5.27	25.32	266	0.15
70	-	33.46u	4.79	-	75	11.11	33.40	4.64	25.53	246	0.22
79	10.90	33.40	4.47	242	100	9.78	33.65	3.42	25.96	206	0.27
94	-	33.60	3.65	-	150	8.90	33.93	2.14	26.32	172	0.37
103	9.64	33.68	3.31	201	200	8.37	34.00	1.65	26.46	158	0.45
118	9.32	33.78	2.90	188	250	7.77	34.02	1.50	26.56	148	0.53
145	8.98	33.89	2.30	175	300	7.04	34.15	1.29	26.77	128	0.60
172	8.63	34.00	1.76	162	400	6.55	34.25	0.89	26.90	116	0.73
227	8.07	34.00	1.59	154	500	6.03	34.33	0.68	27.04	102	0.84
292	7.14	34.13	1.35	131	600	5.50	34.38	0.53	27.15	92	0.94
404	6.54	34.25	0.86	115							
538	5.80	34.46u	0.61	-							
674	5.18	34.41	0.48	87							

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; December 11, 1955; 0725 GCT; 30°10'N, 116°43'W; sounding, 1500+ fm; wind, 330°, force 4; weather, missing; sea, rough; wire angle, 12°.											107.40
0	16.0	33.62	5.47	324	0	16.0	33.62	5.47	24.71	324	0.00
10	15.96	33.62	5.51	324	10	15.96	33.62	5.51	24.72	324	0.03
29	15.68	33.62	5.63	317	20	15.84	33.62	5.58	24.74	321	0.06
45	14.56	33.49	5.68	304	30	15.64	33.62	5.64	24.79	317	0.10
55	13.36	33.39	5.61	287	50	13.94	33.43	5.68	25.01	296	0.16
63	-	33.40	5.32	-	75	11.22	33.45	4.59	25.54	245	0.23
74	11.26	33.45	4.63	245	100	10.26	33.56	3.85	25.81	220	0.28
83	-	33.48	4.26	-	150	8.92	33.91	2.79	26.31	172	0.38
98	10.33	33.55	3.92	222	200	8.43	34.04	2.32	26.46	158	0.47
107	10.02	33.61	3.67	213	250	7.98	34.15	1.67	26.63	142	0.54
131	9.28	33.86	2.94	182	300	7.40	34.19	1.19	26.74	132	0.61
159	8.79	33.93	2.72	170	400	6.58	34.23	0.61	26.90	117	0.74
210	8.37	34.09	2.19	151	500	5.79	34.29	0.43	27.04	103	0.86
271	7.68	34.17	1.42	136	600	5.36	34.37	0.32	27.16	92	0.96
380	6.73	34.22	0.75	120							
504	5.78	34.29	0.41	103							
636	5.22	34.40	0.28	88							
STRANGER; December 11, 1955; 1230, 1257 GCT; 29°49'N, 117°23.5'W; sounding, 1575 fm; wind, 340°, force 4; weather, missing; sea, slight; wire angle, 10°, 09°.											107.50
0	15.8	33.53	5.68	327	0	15.8	33.53	5.68	24.68	327	0.00
10	15.74	33.51	5.74	327	10	15.74	33.51	5.74	24.68	327	0.03
30	15.77	33.51	5.72	328	20	15.76	33.51	5.72	24.68	328	0.07
41	15.46	33.49	5.66	323	30	15.77	33.51	5.72	24.67	328	0.10
51	14.66	33.33	5.63	318	50	14.82	33.34	5.63	24.77	318	0.16
61	-	33.34	5.63	-	75	12.79	33.37	5.31	25.20	278	0.24
70	13.16	33.34	5.50	287	100	11.32	33.47	5.06	25.54	245	0.30
79	-	33.40	5.22	-	150	9.34	33.77	3.48	26.12	190	0.42
89	11.90	33.40	5.28	260	200	8.40	33.96	2.53	26.42	162	0.50
98	11.43	33.46	5.13	247	250	7.78	34.09	2.06	26.61	144	0.58
122	9.94	33.49	4.32	220	300	7.22	34.14	1.52	26.73	132	0.65
150	9.34	33.77	3.48	190	400	6.40	34.23	0.80	26.92	114	0.78
196	8.43	33.95	2.54	163	500	5.80	34.35	0.41	27.09	98	0.89
252	7.74	34.09	2.04	143	600	(5.55)	(34.37)	(0.29)	(27.14)	(94)	(0.99)
351	6.76	34.18	1.04	123							
469	5.98	34.32	0.47	102							
591	5.57	34.37	0.29	94							
STRANGER; December 11, 1955; 1750, 1832 GCT; 29°28.5'N, 118°01'W; sounding, 1800 fm; wind, 330°, force 3; weather, cloudy; sea, moderate; wire angle, 05°, 07°.											107.60
0	16.5	33.67	5.63	332	0	16.5	33.67	5.63	24.63	332	
10	16.54	33.66	5.67	333	10	16.54	33.66	5.67	24.62	333	
30	16.56	33.68	5.65	332	20	16.55	33.67	5.66	24.63	332	
45	16.52	33.70	5.67	330	30	16.56	33.68	5.65	24.63	332	
					50	16.4					
303	7.40	34.06	2.71	140	75	14.9					
380	6.64a)	34.15	1.40	124	100	13.9					
506	6.18	34.32	0.52	105	150	10.2					
639	5.52	34.37	0.37	94	200	8.7					
					250	8.0					
					300	(7.42)	(34.06)	(2.73)			
					400	6.51	34.19	1.20			
					500	6.20	34.31	0.57			
					600	5.78	34.35	0.41			

a) Mean value of 6.60 and 6.67°C.

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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

110.33 STRANGER; December 13, 1955; 0830 GCT; 29°50.5'N, 115°52'W; sounding, 50 fm; wind, calm; weather, clear; sea, slight; wire angle, 00°.

0	13.20	33.54	5.70	274	0	13.20	33.54	5.70	25.24	274	0.00
10	13.21	33.55	5.51	273	10	13.21	33.55	5.51	25.25	273	0.03
20	13.10	33.55	5.54	271	20	13.10	33.55	5.54	25.27	271	0.05
30	12.98	33.54	5.49	269	30	12.98	33.54	5.49	25.29	269	0.08
50	12.08	33.55	3.95	252	50	12.08	33.55	3.95	25.46	252	0.13
75	11.34	33.62	2.89	234	75	11.34	33.62	2.89	25.66	234	0.19

110.35 STRANGER; December 13, 1955; 0526, 0619 GCT; 29°45'N, 115°59.5'W; sounding, 700 fm; wind, 330°, force 1; weather, missing; sea, moderate; wire angle, 12°, 19°.

0	15.7	33.58	5.80	321	0	15.7	33.58	5.80	24.74	321	0.00
10	15.42	33.58	5.79	315	10	15.42	33.58	5.79	24.81	315	0.03
29	14.00	33.50	6.06	292	20	14.79	33.55	5.92	24.92	305	0.06
43	13.27	33.49	5.94	279	30	13.98	33.50	6.06	25.05	292	0.09
54	-	33.51u	5.02	-	50	12.73	33.48	5.47	25.29	269	0.15
64	11.38	33.44	4.61	248	75	10.63	33.48	4.22	25.68	232	0.21
73	-	33.47	4.26	-	100	9.84	33.59	3.50	25.89	212	0.27
82	10.38	33.53	3.95	224	150	9.77	34.08	2.10	26.29	174	0.36
96	9.98	33.57	3.58	214	200	9.70	34.27	1.38	26.46	158	0.45
105	9.76	33.62	3.41	208	250	9.46	34.38	1.01	26.58	146	0.53
130	9.40	33.81	2.94	188	300	8.87	34.37	0.85	26.66	138	0.60
					400	7.47	34.32	0.61	26.84	122	0.74
152	9.74	34.08	2.06	173	500	6.41	34.31	0.34	26.98	109	0.86
201	9.70	34.28	1.33	158	600	5.60	34.38	0.30	27.13	94	0.96
260	9.38	34.38	0.98	145							
366	7.90	34.33	0.68	127							
487	6.52	34.31	0.46	110							
617	5.45	34.40	0.28	91							

110.40 STRANGER; December 13, 1955; 0145 GCT; 29°33.5'N, 116°20'W; sounding, 1100 fm; wind, 300°, force 3; weather, partly cloudy; sea, moderate; wire angle, 18°.

0	15.0	33.53	6.04	310	0	15.0	33.53	6.04	24.86	310	0.00
11	14.91	33.53	6.09	308	10	14.91	33.53	6.09	24.88	308	0.03
25	14.75	33.51	6.07	306	20	14.82	33.52	6.08	24.89	307	0.06
54	13.70	33.51	5.88	285	30	14.66	33.51	6.07	24.92	304	0.09
63	-	33.43u	4.89	-	50	13.90	33.51	5.93	25.08	289	0.15
73	11.58	33.47	4.61	249	75	11.20	33.48	4.48	25.58	242	0.22
86	10.30	33.57	3.98	220	100	10.14	33.76	2.90	25.98	204	0.28
105	-	33.80	2.80	-	150	9.49	33.96	2.52	26.25	178	0.37
129	9.98	33.96	2.33	186	200	8.77	34.06	2.40	26.44	160	0.46
157	9.36	33.96	2.57	176	250	8.09	34.12	1.95	26.59	146	0.53
208	8.66	34.07	2.34	157	300	7.49	34.17	1.34	26.72	134	0.61
282	7.66	34.15	1.59	137	400	6.91	34.28	0.97	26.89	117	0.74
387	6.96	34.27	0.98	118	500	6.40	34.35	0.55	27.01	106	0.85
525	6.22	34.36	0.44	103	600	5.72	34.39	0.44	27.13	94	0.96
711	4.85	34.43	0.49	82	700	4.93	34.43	0.48	27.25	83	1.05
943	4.10	34.47	0.68	71	800	4.42	34.45	0.58	27.33	76	1.14
1248	3.42	34.53	1.01	60	1000	3.99	34.48	0.75	27.40	68	1.30

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; December 12, 1955; 2018 GCT; 29°16'N, 116°59'W; sounding, 1900 fm; wind, 340°, force 1; weather, partly cloudy; sea, moderate; wire angle, 02°.											110.50
0	16.0	33.58	5.90	327	0	16.0	33.58	5.90	24.68	327	0.00
11	15.98	33.53	-	330	10	15.98	33.53	5.92	24.65	330	0.03
26	15.98	33.54	5.94	330	20	15.98	33.53	5.94	24.65	330	0.07
56	13.90	33.37	5.48u	300	30	15.98	33.54	5.94	24.66	330	0.10
66	-	33.46u	5.89	-	50	14.84	33.44	5.94	24.83	313	0.16
76	12.76	33.31	5.77	282	75	12.83	33.31	5.79	25.15	282	0.24
91	-	33.37u	5.53	-	100	11.40	33.36	5.32	25.45	254	0.30
110	10.78	33.40	5.08	240	150	9.78	33.74	3.67	26.02	200	0.42
134	9.64	33.51	4.49	214	200	8.41	33.96	3.11	26.42	162	0.51
163	8.96	33.74	3.52	186	250	7.90	34.05	2.61	26.57	148	0.59
216	8.24	34.02	2.99	155	300	7.28	34.09	1.80	26.69	136	0.66
293	7.35	34.08	1.95	138	400	6.80	34.25	0.80	26.88	118	0.80
398	6.81	34.25	0.81	119	500	6.30	34.32	0.58	27.00	107	0.91
538	6.07	34.34	0.52	102	600	5.68	34.37	0.47	27.12	96	1.02
726	4.96	34.42	0.45	83	700	5.10	34.41	0.45	27.22	86	1.12
960	4.09	34.49	0.74	69	800	4.73	34.44	0.51	27.29	79	1.21
1265	3.32	-	1.18	-	1000	3.95	(34.50)	0.81	(27.41)	(68)	(1.37)
STRANGER; December 12, 1955; 1430 GCT; 28°56.5'N, 117°44.5'W; sounding, 2000 fm; wind, 320°, force 2; weather, clear; sea, moderate; wire angle, 08°.											110.60
0	16.0	33.50	5.81	333	0	16.0	33.50	5.81	24.62	333	0.00
10	15.94	33.49	5.84	332	10	15.94	33.49	5.84	24.62	332	0.03
25	15.97	33.51	5.81	332	20	15.96	33.50	5.83	24.63	332	0.07
51	15.75	33.48	5.78	330	30	15.95	33.51	5.80	24.63	332	0.10
60	-	-	5.77	-	50	15.78	33.48	5.78	24.65	330	0.16
70	14.34	33.48	5.85	300	75	13.97	33.49	5.80	25.05	292	0.24
81	-	33.49	5.73	-	100	12.36	33.42	5.37	25.31	267	0.31
100	12.36	33.42	5.37	267	150	9.95	33.64	3.78	25.92	209	0.43
123	10.56	33.42	4.87	235	200	9.15	34.00	2.87	26.33	170	0.53
153	9.89	33.68	3.68	205	250	9.22	34.27	1.40	26.52	152	0.61
201	9.14	34.00	2.86	170	300	8.77	34.33	1.06	26.65	140	0.69
267	9.21	34.33	1.21	147	400	7.30	34.31	0.71	26.86	120	0.82
366	7.66	34.31	0.89	126	500	6.57	34.34	0.40	26.99	108	0.94
491	6.59	34.34	0.42	109	600	5.97	34.37	0.35	27.09	98	1.05
667	5.48	34.39	0.34	92	700	5.27	34.41	0.36	27.20	88	1.15
886	4.50	34.49	0.45	74	800	4.79	34.46	0.41	27.30	78	1.25
1184	3.62	34.53	0.77	62	1000	4.20	34.51	0.54	27.40	68	1.40
STRANGER; December 12, 1955; 0852 GCT; 28°38.5'N, 118°19'W; sounding, 1900 fm; wind, 340°, force 1; weather, missing; sea, rough; wire angle, 09°.											110.70
0	16.2	33.60a)	5.70b)	330	0	16.2	33.60	5.70	24.65	330	0.00
10	16.10	33.56	5.62	331	10	16.10	33.56	5.62	24.64	331	0.03
26	16.04	33.57	5.60	329	20	16.06	33.56	5.61	24.65	330	0.07
56	15.94	33.56	5.63	327	30	16.03	33.57	5.60	24.67	328	0.10
75	14.54	33.47	5.83	305	50	15.95	33.56	5.63	24.68	328	0.16
90	-	33.38	5.66	-	75	14.54	33.47	5.83	24.91	305	0.24
109	11.22	33.39	5.10	249	100	11.75	33.38	5.41	25.40	258	0.32
132	10.50	33.54	4.04	225	150	10.18	33.91	2.45	26.10	192	0.43
159	10.10	34.04	2.16	182	200	9.17	34.06	2.24	26.38	166	0.52
211	9.93	34.26	1.36	162	250	9.77	34.30	1.15	26.47	157	0.60
287	9.22	34.27	1.45	151	300	9.02	34.27	1.43	26.56	148	0.68
390	7.64	34.27	0.83	128	400	7.52	34.27	0.76	26.80	126	0.83
528	6.39	34.33	0.37	107	500	6.55	34.32	0.41	26.96	110	0.95
714	5.18	34.42	0.35	86	600	5.97	34.36	0.35	27.08	99	1.06
945	4.30	34.46	0.50	74	700	5.25	34.41	0.35	27.20	88	1.16
1248	3.46	34.54	0.87	60	800	4.72	34.44	0.41	27.29	79	1.25
					1000	4.16	34.47	0.56	27.38	71	1.42

a) Loose bottle cap; value falls on property curve.
b) Original observed data sheet lost. These values were read from points plotted from the original data.

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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

110.80 STRANGER; December 12, 1955; 0328 GCT; 28°19.5'N, 118°54'W; sounding, 2000+ fm; wind, 340°, force 3; weather, cloudy; sea, rough; wire angle, 12°.

0	16.8	33.61	6.34u	343	0	16.8	33.61		24.51	343	0.00
10	16.72	33.62	5.72	340	10	16.72	33.62	5.72	24.54	340	0.03
31	16.63	33.64	6.61u	337	20	16.65	33.63		24.56	338	0.07
54	16.60	33.63	5.97u	337	30	16.63	33.64		24.58	337	0.10
72p	15.38	33.55	5.44	316	50	16.60	33.63		24.58	337	0.17
97p	-	33.46	5.23	-	75	15.12	33.54	5.40	24.84	312	0.25
130p	10.66	33.62	3.55	222	100	13.00	33.46	5.16	25.22	276	0.33
154p	9.99	33.82	2.84	196	150	10.00	33.81	2.86	26.04	198	0.44
212p	9.65	34.18	2.45	165	200	9.88	34.15	2.48	26.33	170	0.54
293p	8.68	34.29	1.65	141	250	9.14	34.24	2.04	26.53	152	0.62
404p	7.45	34.32	1.01	122	300	8.60	34.29	1.60	26.65	140	0.70
553p	6.24	34.42	0.47	99	400	7.50	34.32	1.04	26.83	122	0.83
757p	5.03	34.49	0.40	79	500	6.68	34.37	0.60	26.98	108	0.95
1001p	4.10	34.54	0.79	66	600	5.98	34.45	0.42	27.14	93	1.06
1328p	3.28	34.57	1.08	56	700	5.38	34.47	0.40	27.24	84	1.15
					800	4.82	34.50	0.46	27.32	76	1.24
					1000	4.10	34.54	0.79	27.43	66	1.40

113.30 STRANGER; December 13, 1955; 1330 GCT; 29°22.5'N, 115°18'W; sounding, 30 fm; wind, 310°, force 3; weather, partly cloudy; sea, moderate; wire angle, 02°.

0	14.85	33.60	5.74	302	0	14.85	33.60	5.74	24.95	302	0.00
10	14.88	33.60	5.74	302	10	14.88	33.60	5.74	24.94	302	0.03
20	13.68	33.57	4.72	280	20	13.68	33.57	4.72	25.17	280	0.06
30	11.68	33.58	3.45	243	30	11.68	33.58	3.45	25.57	243	0.09

113.35 STRANGER; December 13, 1955; 1614 GCT; 29°11.5'N, 115°40'W; sounding, 500+ fm; wind, 310°, force 2; weather, partly cloudy; sea, moderate; wire angle, 01°.

0	15.1	33.55	5.83	310	0	15.1	33.55	5.83	24.86	310	0.00
10	15.07	33.55	5.87	310	10	15.07	33.55	5.87	24.86	310	0.03
30	14.26	33.48	5.96	299	20	14.72	33.53	5.92	24.92	304	0.06
41	13.80	33.49	5.64	289	30	14.26	33.48	5.96	24.98	299	0.09
52	12.14	33.42	5.03	263	50	12.50	33.43	5.18	25.30	268	0.15
62	-	33.42	4.61	-	75	10.70	33.54	3.82	25.72	228	0.21
70	10.88	33.51	4.04	234	100	9.79	33.69	3.37	25.98	203	0.26
81	-	33.66u	3.48u	-	150	8.60	33.91	2.70	26.35	168	0.36
90	10.20	33.64	3.43	213	200	8.14	34.02	2.68	26.51	154	0.44
100	9.79	33.69	3.37	203	250	8.13	34.16	1.93	26.62	143	0.52
124	9.28	33.89	2.92	180	300	7.72	34.20	1.51	26.72	134	0.59
152	8.58	33.91	2.70	168	400	7.00	34.28	0.71	26.88	118	0.72
200	8.14	34.02	2.68	154	500	6.28	34.34	0.62	27.02	105	0.83
256	8.04	34.16	1.90	142	600	(5.62)	(34.39)	(0.51)	(27.14)	(94)	(0.94)
356	7.34	34.25	0.78	125							
471	6.44	34.33	0.65	108							
595	5.66	34.38	0.51	95							

OBSERVED					INTERPOLATED				COMPUTED			SIO
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	CCOFI 5512
STRANGER; December 13, 1955; 1926 GCT; 29°02'N, 115°58.5'W; sounding, 900 fm; wind, 320°, force 2; weather, cloudy; sea, moderate; wire angle, missing.												113.40
0	15.0	33.57a)	5.92	307	0	15.0	33.57	5.92	24.89	307	0.00	
10	14.61	33.51	5.92	304	10	14.61	33.51	5.92	24.92	304	0.03	
30	12.86	33.48	5.11	271	20	14.27	33.50	5.82	24.99	298	0.06	
40	12.12	33.48	4.63	258	30	12.86	33.48	5.11	25.26	271	0.09	
51	11.17	33.46	4.12	243	50	11.23	33.46	4.14	25.56	243	0.14	
61	-	33.49	4.02	-	75	10.27	33.53	3.71	25.78	222	0.20	
71	10.48	33.50	3.85	228	100	9.46	33.69	3.22	26.04	198	0.25	
80	-	33.58	3.59	-	150	9.20	34.07	2.20	26.38	166	0.34	
90	9.60	33.67	3.35	202	200	9.30	34.29	1.22	26.54	150	0.42	
100	9.46	33.69	3.22	198	250	8.62	34.33	0.86	26.67	138	0.50	
124	9.07	33.84	2.81	181	300	7.92	34.33	0.81	26.78	127	0.57	
153	9.20	34.08	2.14	165	400	6.67	34.34	0.60	26.96	110	0.69	
201	9.28	34.29	1.19	150	500	6.02	34.36	0.39	27.06	100	0.80	
258	8.52	34.33	0.85	136	600	(5.62)	(34.39)	(0.31)	(27.14)	(93)	(0.90)	
359	7.16	34.33	0.75	117								
475	6.13	34.35	0.41	102								
599	5.62	34.39	0.31	93								
STRANGER; December 14, 1955; 0022 GCT; 28°42'N, 116°37'W; sounding, 2100 fm; wind, 330°, force 3; weather, fog; sea, moderate; wire angle, 00°.												113.50
0	16.7	33.64	5.79	338	0	16.7	33.64	5.79	24.56	338	0.00	
11	16.18	33.62	5.79	328	10	16.20	33.62	5.79	24.66	329	0.03	
31	15.72	33.62	5.91	318	20	15.99	33.62	5.85	24.71	324	0.07	
41	15.42	33.58	5.86	315	30	15.76	33.62	5.89	24.77	318	0.10	
51	14.38	33.48	5.84	301	50	14.48	33.48	5.84	24.95	301	0.16	
61	-	33.40	5.66	-	75	11.85	33.37	5.18	25.37	261	0.23	
70	12.21	33.35	5.43	269	100	10.17	33.54	4.00	25.81	220	0.29	
79	-	33.40	4.93	-	150	10.29	34.20	1.73	26.30	173	0.39	
90	10.77	33.48	4.47	234	200	9.88	34.34	1.26	26.48	156	0.47	
99	10.18	33.54	4.02	220	250	9.45	34.42	0.75	26.61	144	0.55	
123	9.70	33.80	3.00	193	300	8.73	34.39	0.71	26.71	134	0.62	
152	10.24	34.21	1.71	172	400	7.42	34.36	0.61	26.88	118	0.75	
200	9.88	34.34	1.26	156	500	6.92	34.41	0.48	26.99	108	0.87	
257	9.38	34.42	0.73	142	600	5.88	34.38	0.30	27.10	97	0.98	
360	7.78	34.33	0.70	125								
478	7.08	34.41	0.51	110								
601	5.84	34.38	0.30	97								
STRANGER; December 14, 1955; 0510 GCT; 28°22'N, 117°16'W; sounding, 1200+ fm; wind, 330°, force 1; weather, partly cloudy; sea, moderate; wire angle, 01°.												113.60
0	16.1	33.62	6.08	326	0	16.1	33.62	6.08	24.69	326	0.00	
10	16.08	33.68	5.87	321	10	16.08	33.68	5.87	24.74	321	0.03	
30	15.97	33.66	5.83	321	20	16.03	33.67	5.84	24.74	321	0.06	
40	13.01	33.55	4.44	269	30	15.97	33.66	5.83	24.74	321	0.10	
51	-	33.54	4.02	-	50	12.20	33.54	4.03	25.44	255	0.15	
61	11.52	33.61	3.53	237	75	10.73	33.64	3.43	25.79	222	0.21	
72	-	33.64	3.42	-	100	10.29	33.90	2.45	26.06	195	0.27	
82	10.35	33.64	3.46	216	150	9.35	34.07	2.38	26.35	168	0.36	
90	9.95	33.71	3.32	204	200	9.38	34.30	1.44	26.53	151	0.44	
100	10.29	33.90	2.45	195	250	9.08	34.37	1.21	26.63	142	0.51	
124	10.34	34.11	1.91	180	300	8.58	34.39	0.89	26.73	132	0.58	
153	9.30	34.07	2.39	167	400	7.50	34.41	0.42	26.90	116	0.71	
201	9.38	34.30	1.42	151	500	6.68	34.44	0.35	27.05	102	0.83	
259	9.02	34.37	1.18	140	600	(5.63)	(34.41)	(0.39)	(27.16)	(92)	(0.93)	
359	7.88	34.40	0.54	121								
476	6.92	34.44	0.34	105								
598	5.64	34.41	0.39	92								

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

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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

113.70 STRANGER; December 14, 1955; 1020 GCT; 28°02'N, 117°55'W; sounding, 1800 fm; wind, 330°, force 2; weather, partly cloudy; sea, moderate; wire angle, 03°.

0	16.5	33.75	5.72	326	0	16.5	33.75	5.72	24.69	326	0.00
10	16.64	33.72	5.69	332	10	16.64	33.72	5.69	24.64	332	0.03
31	16.55	33.73	5.64	328	20	16.63	33.73	5.66	24.65	330	0.07
41	16.36	33.68	5.60	328	30	16.58	33.73	5.65	24.67	329	0.10
50	-	33.60	5.65	-	50	15.25	33.60	5.65	24.86	310	0.16
59	12.22	33.47	4.77	261	75	11.50	33.59	3.85	25.61	238	0.23
69	-	33.52	4.40	-	100	10.30	33.77	2.95	25.96	205	0.29
78	11.40	33.62	3.61	235	150	9.34	34.06	2.34	26.35	168	0.38
89	11.12	33.71	3.01	223	200	8.41	34.10	2.24	26.53	152	0.46
98	10.40	33.77	2.97	207	250	7.90	34.19	1.60	26.68	138	0.54
122	9.36	33.82	2.78	186	300	7.32	34.18	1.39	26.75	130	0.61
150	9.34	34.06	2.34	168	400	6.06	34.18	0.95	26.92	114	0.73
198	8.42	34.09	2.25	152	500	5.57	34.31	0.55	27.09	98	0.84
255	7.84	34.19	1.58	137	600	(5.22)	(34.38)	(0.38)	(27.18)	(90)	(0.94)
355	6.44	34.15	1.16	121							
472	5.62	34.28	0.62	102							
596	5.24	34.38	0.38	90							

117.26 BLACK DOUGLAS; December 14, 1955; 1910 GCT; 28°56'N, 114°41'W; sounding, 42 fm; wind, 280°, force 1; weather, fog; sea, slight; wire angle, 00°.

0	16.10	33.64	5.99	325	0	16.10	33.64	5.99	24.70	325	0.00
10	15.99	33.65	6.02	322	10	15.99	33.65	6.02	24.73	322	0.03
15	15.94	33.64	5.99	322	20	14.70	33.57	5.53	24.96	301	0.06
20	14.70	33.57	5.53	301	30	12.70	33.49	4.09	25.31	267	0.09
24	13.67	33.51	4.67	285	50	11.02	33.60	2.56	25.70	230	0.14
29	12.76	33.49	4.09	268							
34	12.33	33.50	4.06	260							
39	11.56	33.50	3.50	246							
48	11.08	33.57	2.73	233							
58	10.92	33.69	1.89	221							

117.30 BLACK DOUGLAS; December 14, 1955; 2153 GCT; 28°48'N, 114°56.5'W; sounding, 57 fm; wind, 280°, force 1; weather, partly cloudy; sea, slight; wire angle, 00°.

0	14.90	33.53	6.59	308	0	14.90	33.53	6.59	24.88	308	0.00
10	14.19	33.50	6.65	296	10	14.19	33.50	6.65	25.01	296	0.03
15	14.13	33.53	6.80	292	20	14.01	33.53	6.62	25.06	290	0.06
19	14.02	33.52	6.57	291	30	13.68	33.49	5.73	25.11	286	0.09
24	14.01	33.53	6.75	290	50	11.67	33.56	4.13	25.55	244	0.14
29	13.76	33.49	6.04	288	75	10.27	33.71	3.02	25.92	209	0.20
33	13.41	33.53	5.08	278							
43	12.19	33.55	4.27	254							
53	11.42	33.57	4.04	239							
62	10.90	33.62	3.57	226							
77	10.22	33.71	3.01	208							

117.35 BLACK DOUGLAS; December 15, 1955; 0055 GCT; 28°38'N, 115°16'W; sounding, 120 fm; wind, 320°, force 2; weather, partly cloudy; sea, slight; wire angle, 00°.

0	15.46	33.58	5.86	316	0	15.46	33.58	5.86	24.80	316	0.00
10	15.37	33.58	5.86	314	10	15.37	33.58	5.86	24.82	314	0.03
15	15.34	33.58	5.83	313	20	15.26	33.57	5.81	24.84	312	0.06
19	15.26	33.57	5.81	312	30	13.85	33.54	5.50	25.11	286	0.09
24	14.88	33.58	5.79	304	50	12.44	33.49	4.67	25.34	264	0.15
29	13.97	33.54	5.53	288	75	11.46	33.61	3.72	25.63	237	0.21
33	13.60	33.53	5.38	282	100	10.69	33.87	2.67	25.97	204	0.27
43	13.14	33.51	4.95	274	150	(10.40)	(34.29)	(1.47)	(26.35)	(168)	(0.36)
53	12.28	33.49	4.60	260							
62	12.04	33.53	4.35	253							
77	11.32	33.64	3.58	232							
96	10.69	33.81	2.76	209							
115	10.80	34.04	2.12	194							
149	10.41	34.29	1.48	168							

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; December 15, 1955; 0641 GCT; 28°28'N, 115°35.5'W; sounding, 300 fm; wind, 310°, force 4; weather, partly cloudy; sea, moderate; wire angle, 04°. 117.40

0	15.3	33.62	6.01	310	0	15.3	33.62	6.01	24.86	310	0.00
10	15.42	33.60	6.00	314	10	15.42	33.60	6.00	24.82	314	0.03
15	15.41	33.59	5.90	314	20	14.97	33.58	5.70	24.91	306	0.06
20	14.97	33.58	5.70	306	30	13.95	33.47	5.23	25.05	292	0.09
25	14.48	33.57	5.25	296	50	12.29	33.43	4.89	25.34	264	0.15
30	-	33.47	5.23	-	75	10.90	33.48	4.08	25.64	236	0.21
40	13.05	33.43	5.21	279	100	9.81	33.68	3.48	25.98	204	0.26
51	-	33.44	4.88	-	150	10.46	34.30	2.76	26.35	169	0.36
66	11.26	33.48	4.34	243	200	9.98	34.44	0.98	26.54	150	0.44
80	10.68	33.48	3.95	233	250	9.42	34.42	0.78	26.62	143	0.51
100	9.81	33.68	3.48	204	300	9.03	34.41	0.78	26.67	138	0.59
124	10.66	34.10	2.92	187	400	8.16	34.40	0.58	26.80	126	0.72
163	10.56	34.40	1.95	163							
201	9.96	34.44	0.93	150							
250	9.42	34.42	0.78	143							
323	8.86	34.40	0.77	136							
402	8.14	34.40	0.56	125							

STRANGER; December 15, 1955; 0124 GCT; 28°11'N, 116°17'W; sounding, 2000+ fm; wind, 010°, force 1; weather, cloudy; sea, moderate; wire angle, 01°. 117.50

0	15.9	33.63	6.09	322	0	15.9	33.63	6.09	24.74	322	0.00
10	15.79	33.62	6.06	320	10	15.79	33.62	6.06	24.76	320	0.03
30	15.08	33.57	5.67	309	20	15.77	33.62	6.02	24.77	318	0.06
40	13.73	33.44	5.64	290	30	15.08	33.57	5.67	24.87	309	0.10
50	12.97	33.40	5.34	279	50	12.97	33.40	5.34	25.19	279	0.15
60	-	33.43	4.95	-	75	10.91	33.50	4.50	25.65	235	0.22
70	11.21	33.48	4.51	242	100	10.94	34.11	1.76	26.12	190	0.27
81	-	33.52	4.17	-	150	10.62	34.33	1.33	26.34	169	0.36
91	10.58	33.75	2.73	211	200	10.06	34.47	0.92	26.55	150	0.44
100	10.94	34.11	1.76	190	250	9.61	34.47	0.78	26.62	142	0.52
124	10.86	34.29	1.44	176	300	9.18	34.46	0.68	26.69	136	0.59
152	10.61	34.34	1.31	168	400	8.05	34.42	0.51	26.84	122	0.72
200	10.06	34.47	0.92	150	500	6.74	34.42	0.40	27.02	104	0.84
256	9.58	34.47	0.75	142	600	(6.03)	(34.43)	(0.36)	(27.12)	(96)	(0.95)
360	8.55	34.43	0.56	129							
471	7.06	34.42	0.42	109							
594	6.09	34.43	0.36	96							

STRANGER; December 14, 1955; 2018 GCT; 27°49'N, 116°53'W; sounding, 1800 fm; wind, 010°, force 3; weather, partly cloudy; sea, moderate; wire angle, 04°. 117.60

0	16.6	33.63	5.60	337	0	16.6	33.63	5.60	24.58	337	0.00
10	16.48	33.64	5.65	334	10	16.48	33.64	5.65	24.61	334	0.03
31	16.26	33.61	5.73	331	20	16.40	33.63	5.69	24.63	332	0.07
40	15.76	33.58	5.78	322	30	16.28	33.61	5.71	24.64	331	0.10
50	13.73	33.42	5.68	292	50	13.73	33.42	5.68	25.04	292	0.16
60	-	33.48u	5.60u	-	75	11.84	33.57	3.95	25.53	246	0.23
69	11.80	33.49	4.44	251	100	10.75	33.81	2.65	25.92	210	0.29
79	-	33.65	3.41	-	150	8.87	33.92	2.95	26.32	172	0.38
89	10.80	33.60	3.61	226	200	8.42	34.11	2.40	26.54	150	0.46
99	10.74	33.80	2.67	210	250	7.93	34.23	1.45	26.70	135	0.54
123	9.66	33.82	2.81	191	300	7.69	34.34	0.51	26.82	124	0.60
151	8.86	33.92	2.96	172	400	7.25	34.45	0.26	26.97	110	0.72
198	8.44	34.11	2.43	151	500	6.32	34.46	0.21	27.11	96	0.83
256	7.88	34.25	1.24	133	600	(5.72)	(34.42)	(0.26)	(27.16)	(92)	(0.93)
357	7.55	34.41	0.34	116							
473	6.54	34.47	0.21	99							
596	5.74	34.42	0.25	92							

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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

117.70 STRANGER; December 14, 1955; 1509 GCT; 27°28'N, 117°32.5'W; sounding, 1800 fm; wind, 040°, force 3; weather, fog; sea, moderate; wire angle, 04°.

0	16.7	33.68	5.60	335	0	16.7	33.68	5.60	24.59	335	0.00
10	16.71	33.62	5.65	340	10	16.71	33.62	5.65	24.54	340	0.03
30	16.68	33.62	5.62	340	20	16.70	33.62	5.64	24.55	340	0.07
41	16.58	33.58	5.62	339	30	16.68	33.62	5.62	24.55	340	0.10
50	-	33.49	5.85	-	50	15.97	33.49	5.85	24.61	334	0.17
61	13.49	33.39	5.69	290	75	12.69	33.40	5.32	25.24	274	0.24
71	-	33.40	5.41	-	100	11.06	33.46	4.89	25.59	241	0.31
81	12.36	33.40	5.23	268	150	9.14	33.80	3.47	26.18	184	0.42
91	11.66	33.40	5.07	256	200	8.22	33.97	3.09	26.45	159	0.50
100	11.06	33.46	4.89	241	250	7.67	34.07	2.33	26.62	143	0.58
123	10.00	33.64	3.73	210	300	7.22	34.20	1.51	26.81	125	0.65
153	9.06	33.81	3.45	183	400	6.53	34.27	0.69	26.93	113	0.78
200	8.22	33.97	3.09	159	500	5.98	34.32	0.39	27.05	102	0.89
258	7.58	34.09	2.20	140	600	(5.20)	(34.36)	(0.33)	(27.17)	(90)	(0.99)
358	6.80	34.23	0.97	120							
474	6.10	34.31	0.41	105							
599	5.20	34.36	0.33	90							

120.25 BLACK DOUGLAS; December 14, 1955; 1356 GCT; 28°23'N, 114°14.5'W; sounding, 31 fm; wind, 300°, force 1; weather, partly cloudy; sea, slight; wire angle, 00°.

0	15.95	33.73	6.90	315	0	15.95	33.73	6.90	24.80	315	0.00
10	15.96	33.71	5.86	317	10	15.96	33.71	5.86	24.79	317	0.03
15	15.94	33.73	5.84	315	20	15.22	33.63	5.52	24.89	307	0.06
19	15.69	33.69	5.71	313	30	12.90	33.52	4.24	25.30	268	0.09
24	14.12	33.53	5.01	292							
29	13.01	33.53	4.27	270							
33	12.44	33.51	4.15	262							
38	11.68	33.56	3.64	244							

120.30 BLACK DOUGLAS; December 14, 1955; 1033 GCT; 28°13'N, 114°34'W; sounding, 52 fm; wind, calm; weather, clear; sea, slight; wire angle, 00°.

0	16.44	33.62	5.60	334	0	16.44	33.62	5.60	24.61	334	0.00
10	16.50	33.62	5.59	336	10	16.50	33.62	5.59	24.59	336	0.03
15	16.48	33.64	5.63	334	20	16.44	33.63	5.61	24.62	333	0.07
19	16.44	33.64	5.61	333	30	16.09	33.63	5.75	24.69	326	0.10
24	16.41	33.63	5.66	333	50	13.30	33.48	5.14	25.18	280	0.16
29	16.16	33.62	5.77	328	75	11.12	33.65	2.96	25.73	227	0.22
34	15.92	33.66a)	5.69	319							
43	14.40	33.55	5.35	296							
53	12.90	33.47	5.02	273							
62	11.86	33.49	4.40	253							
77	11.02	33.68	2.69	224							

120.35 BLACK DOUGLAS; December 14, 1955; 0722, 0731 GCT; 28°03'N, 114°54'W; sounding, 47 fm; wind, 350°, force 1; weather, clear; sea, smooth; wire angle, 00°, 00°.

0	16.44	33.66	6.88	331	0	16.44	33.66	6.88	24.64	331	0.00
10	16.42	33.66	5.99	331	10	16.42	33.66	5.99	24.64	331	0.03
					20	16.14	33.65	5.98	24.70	325	0.07
15	16.22	33.66	6.07	326	30	15.93	33.64	5.89	24.74	322	0.10
19	16.16	33.65	6.01	325	50	14.83	33.57	5.38	24.91	305	0.16
24	16.08	33.65	5.90	324							
29	15.93	33.64	5.90	322							
33	15.94	33.63	5.70	322							
38	15.82	33.62	5.81	321							
48	15.18	33.58	5.53	310							
57	13.70	33.52	4.86	284							

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

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

BLACK DOUGLAS; December 14, 1955; 0430 GCT; 27°56.5'N, 115°14'W; sounding, 21 fm; wind, calm; weather, clear; sea, calm; wire angle, 00°. 120.40

0	13.70	33.58	4.83	280	0	13.70	33.58	4.83	25.18	280	0.00
10	13.71	33.58	5.31	280	10	13.71	33.58	5.31	25.18	280	0.03
14	13.70	33.58	5.40	280	20	13.67	33.61	5.40	25.21	277	0.06
19	13.66	33.61	5.35	277							
24	13.68	33.61	5.40	277							
28	13.01	33.67	4.32	260							

BLACK DOUGLAS; December 14, 1955; 0139 GCT; 27°44'N, 115°30'W; sounding, 900 fm; wind, 300°, force 1; weather, fog; sea, slight; wire angle, 09°. 120.45

0	16.6	33.68	5.63	333	0	16.6	33.68	5.63	24.62	333	0.00
9	16.64	33.69	5.64	333	10	16.63	33.69	5.64	24.62	333	0.03
28	15.55	33.51	5.90	323	20	16.20	33.61	5.78	24.66	329	0.07
37	14.76	33.51	5.81	306	30	15.35	33.50	5.90	24.76	319	0.10
46	14.40	33.60	4.79	293	50	14.20	33.60	4.72	25.09	288	0.16
55	13.58	33.58	4.60	278	75	11.72	33.60	3.80	25.58	242	0.23
64	12.27	33.55	4.32	256	100	10.30	33.74	3.42	25.93	208	0.28
73	11.92	33.60	3.82	245	150	9.47	34.07	2.22	26.34	170	0.38
82	10.87	33.58	3.78	228	200	9.53	34.31	1.27	26.51	153	0.46
91	10.28	33.58	3.77	219	250	8.78	34.33	1.04	26.66	139	0.53
114	10.43	34.00	2.08	190	300	8.40	34.35	0.81	26.73	132	0.60
142	9.47	34.04	2.38	172	400	7.55	34.35	0.43	26.86	120	0.74
187	9.64	34.29	1.39	156	500	6.60	34.35	0.31	26.99	108	0.85
242	8.86	34.33	1.09	141							
340	8.12	34.36	0.62	128							
451	7.02	34.34	0.34	114							
570	6.02	34.38	0.28	99							

BLACK DOUGLAS; December 13, 1955; 2222 GCT; 27°33'N, 115°52.5'W; sounding, 2200 fm; wind, 360°, force 1; weather, clear; sea, slight; wire angle, 00°. 120.50

0	17.4	33.66	5.60	352	0	17.4	33.66	5.60	24.41	352	0.00
9	16.90	33.72	5.64	337	10	16.89	33.72	5.64	24.58	337	0.03
28	16.86	33.70	5.62	337	20	16.88	33.72	5.64	24.58	337	0.07
37	16.84	33.70	5.55	337	30	16.86	33.70	5.61	24.58	337	0.10
47	16.26	33.62	5.64	330	50	15.31	33.53	5.62	24.77	318	0.17
56	13.35	33.41	5.43	286	75	11.83	33.44	5.04	25.43	256	0.24
65	12.51	33.41	5.26	270	100	10.73	33.64	3.48	25.78	222	0.30
75	11.83	33.44	5.04	256	150	8.82	34.01	3.00	26.39	164	0.40
84	11.37	33.57	3.84	238	200	8.93	34.20	1.93	26.53	151	0.48
93	11.04	33.63	3.39	228	250	8.50	34.28	1.48	26.66	139	0.55
117	9.66	33.64	3.93	205	300	8.23	34.34	0.75	26.74	132	0.62
144	8.82	33.86	3.37	176	400	7.48	34.45	0.35	26.94	112	0.75
191	8.96	34.17	2.01	154	500	6.55	34.44	0.28	27.06	101	0.86
246	8.54	34.27	1.52	141							
344	8.02	34.41	0.49	123							
457	6.88	34.45	0.30	104							
575	6.11	34.42	0.28	97							

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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

120.55 BLACK DOUGLAS; December 13, 1955; 1848 GCT; 27°23'N, 116°12'W; sounding, 2000+ fm; wind, 300°, force 1; weather, clear; sea, slight; wire angle, 03°.

0	16.4	33.64	5.75	332	0	16.4	33.64	5.75	24.63	332	0.00
9	16.44	33.66	5.64	332	10	16.43	33.66	5.64	24.64	331	0.03
23	16.42	33.66	5.66	331	20	16.43	33.66	5.64	24.64	331	0.07
46	13.64	33.51	5.19	284	30	16.42	33.66	5.65	24.64	331	0.10
55	12.78	33.56	4.27	264	50	13.22	33.53	4.79	25.22	275	0.16
64	12.20	33.60	3.84	250	75	10.86	33.47	4.40	25.62	238	0.22
73	11.00	33.47	4.40	239	100	9.73	33.61	3.85	25.94	207	0.28
92	10.06	33.53	3.93	219	150	8.98	33.94	2.73	26.32	171	0.38
115	9.25	33.71	3.71	193	200	7.98	33.99	2.90	26.52	152	0.46
143	9.06	33.92	2.72	175	250	7.37	34.04	2.43	26.63	142	0.53
189	8.14	33.98	2.94	157	300	7.57	34.25	1.63	26.77	128	0.60
255	7.33	34.05	2.25	140	400	7.00	34.32	0.57	26.90	116	0.73
353	7.26	34.29	0.69	121	500	6.32	34.37	0.36	27.03	104	0.84
475	6.46	34.35	0.41	107	600	5.90	34.42	0.26	27.12	95	0.95
648	5.75	34.46	0.24	90	700	5.47	34.48	0.25	27.22	85	1.04
860	4.39	34.51	0.43	71	800	4.82	34.50	0.32	27.32	76	1.13
1154	3.60	34.56	0.71	59	1000	3.90	34.54	0.60	27.45	64	1.29

120.60 BLACK DOUGLAS; December 13, 1955; 1450 GCT; 27°13'N, 116°31.5'W; sounding, 2000+ fm; wind, 300°, force 1; weather, clear; sea, slight; wire angle, 12°.

0	16.8	33.65	5.69	340	0	16.8	33.65	5.69	24.54	340	0.00
9	16.54	33.64	5.77	335	10	16.53	33.64	5.75	24.60	335	0.03
23	16.51	33.64	5.70	334	20	16.51	33.64	5.71	24.61	334	0.07
46	16.19	33.60	5.70	330	30	16.47	33.64	5.70	24.62	333	0.10
55	15.00	33.49	5.88	313	50	15.92	33.56	5.75	24.68	327	0.17
64	13.55	33.46	5.45	286	75	12.02	33.46	4.65	25.42	257	0.24
73	12.16	33.46	4.74	260	100	10.79	33.57	3.70	25.73	228	0.30
91	11.18	33.51	4.14	239	150	8.99	33.92	3.07	26.30	173	0.40
113	10.20	33.70	3.11	209	200	8.37	34.06	2.38	26.50	154	0.48
141	9.14	33.86	3.27	180	250	7.21	34.03	2.42	26.66	139	0.56
186	8.61	34.06	2.38	157	300	6.69	34.07	1.99	26.76	130	0.63
249	7.22	34.03	2.43	140	400	6.18	34.28	0.58	26.98	109	0.75
344	6.38	34.14	1.26	121	500	6.00	34.34	0.45	27.06	101	0.86
463	6.10	34.31	0.51	105	600	5.47	34.39	0.38	27.16	92	0.97
632	5.27	34.40	0.38	89	700	4.94	34.43	0.45	27.25	83	1.06
837	4.49	34.45	0.53	76	800	4.59	34.45	0.52	27.31	78	1.14
1122	3.62	34.52	0.78	62	1000	3.99	34.49	0.67	27.41	68	1.30

120.70 BLACK DOUGLAS; December 13, 1955; 0806 GCT; 26°52.5'N, 117°10'W; sounding, 2000+ fm; wind, 320°, force 2; weather, clear; sea, slight; wire angle, 00°.

0	16.8	33.62	5.68	342	0	16.8	33.62	5.68	24.52	342	0.00
10	16.93	33.63	5.64	344	10	16.93	33.63	5.64	24.50	344	0.03
24	16.85	33.62	5.69	343	20	16.88	33.62	5.68	24.52	343	0.07
47	16.82	33.62	5.56	342	30	16.84	33.62	5.64	24.52	342	0.10
57	16.64	33.60	5.56	340	50	16.80	33.62	5.56	24.52	342	0.17
66	16.05	33.55	5.69	330	75	14.52	33.41	5.85	24.86	310	0.25
76	14.40	33.40	5.85	307	100	12.50	33.41	5.37	25.28	270	0.33
94	13.02	33.40	5.51	280	150	10.05	33.72	3.21	25.96	205	0.45
117	11.17	33.44	4.90	244	200	9.42	33.98	2.68	26.28	175	0.54
145	10.13	33.70	3.28	208	250	8.81	34.19	1.87	26.54	150	0.63
191	9.54	33.93	2.78	181	300	8.26	34.27	1.27	26.69	136	0.70
256	8.75	34.21	1.81	148	400	7.29	34.31	0.60	26.86	120	0.83
354	7.76	34.30	0.84	127	500	6.21	34.33	0.39	27.02	105	0.95
475	6.46	34.32	0.41	109	600	5.55	34.36	0.35	27.13	94	1.06
647	5.28	34.38	0.35	90	700	5.03	34.40	0.36	27.22	86	1.15
858	4.44	34.45	0.45	76	800	4.70	34.43	0.41	27.29	80	1.24
1148	3.58	34.50	0.78	63	1000	3.90	34.48	0.64	27.40	68	1.41

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_{-5}^{3} 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5}^{3} 10 cm/g	ΔD dyn. m
BLACK DOUGLAS; December 12, 1955; 0917 GCT; 27°24'N, 114°39.5'W; sounding, 38 fm; wind, 360°, force 1; weather, clear; sea, slight; wire angle, 00°.											123.37
0	15.44	33.60	5.90	314	0	15.44	33.60	5.90	24.82	314	0.00
10	15.45	33.59	5.90	315	10	15.45	33.59	5.90	24.80	315	0.03
15	15.31	33.58	6.06	312	20	15.04	33.58	6.29	24.89	308	0.06
20	15.04	33.58	6.29	308	30	14.27	33.50	6.00	25.00	297	0.09
25	14.74	33.55	6.11	303	50	(12.38)	(33.64)	(4.83)	(25.48)	(251)	(0.15)
30	14.27	33.50	6.00	297							
34	13.40	33.48	5.46	282							
39	12.99	33.46	5.41	275							
48	12.44	33.62	4.89	254							
BLACK DOUGLAS; December 12, 1955; 1145 GCT; 27°18'N, 114°51.5'W; sounding, 150+ fm; wind, 320°, force 1; weather, clear; sea, slight; wire angle, 00°.											123.40
0	14.92	33.57	5.90	305	0	14.92	33.57	5.90	24.91	305	0.00
10	14.39	33.54	6.29	297	10	14.39	33.54	6.29	25.00	297	0.03
15	14.20	33.64	6.54	286	20	13.91	33.53	6.37	25.09	288	0.06
20	13.91	33.53	6.37	288	30	11.97	33.47	4.84	25.44	254	0.09
24	12.72	33.48	5.35	269	50	11.72	33.51	4.36	25.51	248	0.14
29	12.01	33.47	4.86	257	75	10.24	33.66	3.67	25.90	211	0.19
34	11.78	33.47	4.74	252	100	11.80	34.41	1.04	26.18	184	0.24
43	11.72	33.48	4.61	251	150	11.31	34.48	0.76	26.33	170	0.34
52	11.75	33.55	4.28	246	200	10.67	34.51	0.78	26.47	157	0.42
66	10.70	33.55	4.10	228	250	(9.70)	(34.41)	(0.74)	(26.56)	(148)	(0.50)
79	10.10	33.69	3.49	208							
97	11.74	34.39	1.11	184							
124	11.82	34.43	0.90	183							
156	11.21	34.49	0.75	167							
193	10.78	34.51	0.79	158							
240	9.90	34.43	0.75	150							
BLACK DOUGLAS; December 12, 1955; 1730 GCT; 26°58'N, 115°32'W; sounding, 1200+ fm; wind, 290°, force 1; weather, clear; sea, moderate; wire angle, 08°.											123.50
0	17.1	33.64	5.69	347	0	17.1	33.64	5.69	24.47	347	0.00
9	16.98	33.63	6.34u	345	10	16.98	33.63	5.56	24.50	345	0.04
28	16.98	33.66	5.56	343	20	16.98	33.64	5.56	24.50	344	0.07
37	16.96	33.65	5.68	343	30	16.98	33.66	5.58	24.52	343	0.10
46	16.05	33.53	6.01	332	50	15.33	33.47	6.00	24.74	322	0.17
56	14.49	33.43	5.94	307	75	12.83	33.46	5.43	25.26	272	0.24
65	13.69	33.43	5.84	291	100	11.10	33.50	4.55	25.60	239	0.31
74	12.96	33.47	5.47	274	150	9.37	34.00	3.00	26.30	173	0.41
82	12.05	33.40	5.37	262	200	9.40	34.35	1.35	26.57	148	0.49
91	11.62	33.45	4.95	251	250	9.11	34.39	0.86	26.65	140	0.57
114	10.16	33.59	4.03	216	300	8.48	34.42	0.64	26.77	128	0.64
141	9.37	33.90	3.23	181	400	7.48	34.45	0.39	26.94	112	0.76
186	9.42	34.27	1.57	154	500	6.64	34.45	0.33	27.05	102	0.87
241	9.22	34.38	0.97	143							
338	8.04	34.43	0.51	122							
451	7.09	34.46	0.33	106							
570	5.98	34.42	0.34	95							

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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
123.55	BLACK DOUGLAS; December 12, 1955; 2128 GCT; 26°48'N, 115°49.5'W; sounding, 2000 fm; wind, 330°, force 1; weather, clear; sea, slight; wire angle, 00°.										
0	17.8	33.69	5.48	360	0	17.8	33.69	5.48	24.34	360	0.00
10	17.28	33.68	5.62	348	10	17.28	33.68	5.62	24.46	348	0.04
29	17.06	33.65	5.47	346	20	17.12	33.66	5.49	24.47	347	0.07
38	17.01	33.65	5.47	345	30	17.06	33.65	5.47	24.48	346	0.10
47	16.88	33.64	5.56	342	50	16.73	33.63	5.61	24.54	341	0.17
56	15.38	33.48	5.80	322	75	12.74	33.42	5.27	25.24	274	0.25
66	13.67	33.46	5.51	288	100	10.88	33.55	4.02	25.70	230	0.31
75	12.74	33.42	5.27	274	150	9.88	33.98	2.63	26.21	182	0.42
84	12.07	33.46	4.74	259	200	8.98	34.19	2.10	26.51	153	0.50
93	11.10	33.48	4.23	240	250	8.63	34.28	1.45	26.64	141	0.58
117	10.52	33.68	3.58	215	300	8.36	34.33	0.88	26.71	134	0.65
144	9.99	33.94	2.69	187	400	7.70	34.44	0.31	26.90	116	0.78
191	9.07	34.16	2.22	157	500	6.92	34.47	0.26	27.03	104	0.90
247	8.63	34.27	1.50	142							
345	8.07	34.38	0.49	126							
457	7.32	34.47	0.26	109							
575	6.11	34.43	0.28	96							
127.34	BLACK DOUGLAS; December 12, 1955; 0317 GCT; 26°55.5'N, 114°06'W; sounding, 40 fm; wind, calm; weather, clear; sea, calm; wire angle, 00°.										
0	15.46	33.69	6.02	308	0	15.46	33.69	6.02	24.88	308	0.00
10	15.54	33.77	5.55	304	10	15.54	33.77	5.55	24.93	304	0.03
15	15.53	33.82	5.17	300	20	15.48	33.86	4.91	25.02	295	0.06
19	15.49	33.86	4.92	296	30	15.28	33.86	4.75	25.05	292	0.09
24	15.41	33.86	4.74	294	50	(14.20)	(33.93)	(2.73)	(25.34)	(265)	(0.15)
29	15.32	33.86	4.75	292							
33	15.18	33.84	4.62	291							
38	14.94	33.80	4.44	289							
48	14.25	33.92	2.85	266							
127.40	BLACK DOUGLAS; December 11-12, 1955; 2325, 0003 GCT; 26°44'N, 114°28'W; sounding, 1600 fm; wind, 290°, force 1; weather, clear; sea, moderate; wire angle, 01°, missing.										
0	17.5	33.69	5.64	353	0	17.5	33.69	5.64	24.41	353	0.00
9	17.08	33.70	5.70	342	10	17.07	33.70	5.70	24.53	342	0.04
28	16.97	33.69	5.64	340	20	17.00	33.69	5.67	24.54	341	0.07
37	16.27	33.64	5.19	329	30	16.94	33.68	5.63	24.55	340	0.10
46	14.74	33.65	4.78	295	50	14.37	33.64	4.69	25.08	289	0.17
56	13.96	33.64	4.55	281	75	12.81	33.76	3.17	25.50	249	0.23
65	13.55	33.80	3.52	261	100	10.10	33.66	3.55	25.91	210	0.29
74	12.94	33.78	3.12	251	150	9.42	34.07	2.46	26.34	169	0.39
83	10.87	33.51	4.14	234	200	10.00	34.42	0.89	26.52	152	0.47
92	10.38	33.58	3.79	220	250	9.35	34.38	0.82	26.60	145	0.54
116	9.70	33.83	3.27	191	300	8.56	34.35	0.72	26.70	135	0.62
144	9.41	34.05	2.60	170	400	7.32	34.36	0.44	26.90	117	0.74
190	10.05	34.42	0.94	153	500	6.67	34.39	0.32	27.01	106	0.86
246	9.41	34.38	0.82	146							
345	7.91	34.34	0.61	126							
458	6.93	34.38	0.33	110							
460	6.93	34.38	0.35	110							
579	6.07	34.40	0.28	98							

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

BLACK DOUGLAS; December 11, 1955; 1610 GCT; 26°23.5'N, 115°08'W; sounding, 1200+ fm; wind, 300°, force 2; weather, clear; sea, moderate; wire angle, 12°. 127.50

0	16.8	33.67	5.81	338	0	16.8	33.67	5.81	24.56	338	0.00
9	16.82	33.62	5.64	342	10	16.82	33.61	5.63	24.51	343	0.03
28	16.82	33.61	5.56	343	20	16.82	33.61	5.61	24.51	343	0.07
36	16.81	33.62	5.59	342	30	16.82	33.61	5.57	24.51	343	0.10
46	14.46	33.36	5.93	312	50	14.07	33.39	5.89	24.96	301	0.17
55	13.75	33.40	5.81	294	75	12.40	33.38	5.38	25.28	270	0.24
64	12.93	33.40	5.57	278	100	10.59	33.46	4.54	25.68	232	0.30
72	12.60	33.39	5.44	273	150	9.68	34.08	2.50	26.31	172	0.40
81	11.71	33.37	5.18	258	200	9.34	34.27	1.81	26.51	153	0.49
90	11.23	33.39	4.99	249	250	8.81	34.29	0.96	26.61	144	0.56
113	9.99	33.58	3.89	214	300	8.60	34.39	0.54	26.73	132	0.63
140	9.74	33.87	2.64	189	400	7.96	34.43	0.30	26.86	120	0.76
185	9.49	34.25	2.04	157	500	6.95	34.41	0.28	26.99	108	0.88
239	8.88	34.28	1.14	145							
335	8.43	34.42	0.40	128							
446	7.47	34.42	0.28	115							
563	6.35	34.40	0.30	101							

BLACK DOUGLAS; December 11, 1955; 1155 GCT; 26°13.5'N, 115°27'W; sounding, 2000+ fm; wind, 300°, force 3; weather, clear; sea, moderate; wire angle, 12°. 127.55

0	17.8	33.70	5.51	359	0	17.8	33.70	5.51	24.35	359	0.00
10	17.86	33.75	5.63	357	10	17.86	33.75	5.63	24.37	357	0.03
28	17.87	33.71	5.51	359	20	17.87	33.74	5.56	24.37	357	0.07
42	17.86	33.73	5.53	358	30	17.87	33.71	5.51	24.34	359	0.11
52	16.42	33.58	5.93a)	337	50	16.80	33.61	5.86	24.51	343	0.18
61	15.73	33.61	5.99	319	75	14.19	33.50	5.81	25.02	295	0.26
71	14.40	33.48	5.88	301	100	11.93	33.46	5.06	25.43	256	0.33
80	13.86	33.51	5.73	288	150	9.67	33.77	3.25	26.06	196	0.44
94	12.55	33.45	5.30	268	200	9.63	34.19	1.90	26.41	163	0.53
103	11.62	33.47	4.94	250	250	9.21	34.32	1.34	26.57	148	0.61
126	10.55	33.55	4.25	225	300	8.80	34.39	0.92	26.70	136	0.69
153	9.65	33.82	3.19	191	400	7.71	34.42	0.43	26.88	118	0.82
204	9.58	34.21	1.88	161	500	6.68	34.40	0.36	27.01	106	0.93
263	9.13	34.35	1.22	144	600	6.02	34.43	0.32	27.13	95	1.04
369	8.05	34.42	0.49	123							
491	6.76	34.40	0.37	106							
616	5.94	34.45	0.31	92							

BLACK DOUGLAS; December 10, 1955; 1341 GCT; 26°29'N, 113°29'W; sounding, 43 fm; wind, 040°, force 2; weather, partly cloudy; sea, moderate; wire angle, 00°. 130.30

0	17.30	34.02	5.68	324	0	17.30	34.02	5.68	24.71	324	0.00
10	17.33	34.03	5.47	324	10	17.33	34.03	5.47	24.71	324	0.03
15	17.33	34.02	5.29	325	20	17.29	34.02	5.38	24.71	324	0.06
19	17.28	34.02	5.40	324	30	17.02	34.00	5.31	24.77	319	0.10
24	17.31	34.02	5.30	324	50	(15.43)	(33.98)	(3.24)	(25.11)	(286)	(0.16)
29	17.02	34.00	5.34	319							
34	17.00	33.99	5.19	319							
38	16.85	33.99	5.37	316							
48	15.64	33.98	3.62	290							

a) Alternate value, 5.12 ml/L, not used in interpolation.

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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
130.35	BLACK DOUGLAS; December 10, 1955; 1705 GCT; 26°19'N, 113°48.5'W; sounding, missing; wind, 300°, force 2; weather, partly cloudy; sea, moderate; wire angle, 05°.										
0	16.8	33.84	5.52	326	0	16.8	33.84	5.52	24.69	326	0.00
9	16.78	33.82	5.49	327	10	16.78	33.82	5.48	24.68	327	0.03
14	16.81	33.86	5.45	325	20	16.78	33.88	5.48	24.73	322	0.06
18	16.82	33.88	5.49	323	30	16.08	33.87	5.16	24.89	308	0.10
23	16.50	33.89	5.27	316	50	12.80	33.67	4.01	25.43	256	0.15
28	16.20	33.88	5.17	310	75	11.63	34.02	2.25	25.92	209	0.21
33	15.46	33.80	5.11	300	100	11.30	34.23	1.60	26.14	188	0.26
42	13.69	33.66	4.52	274	150	11.61	34.52	0.77	26.31	172	0.35
51	12.67	33.68	3.91	253	200	10.88	34.55	0.67	26.47	157	0.44
61	12.11	33.86	2.93	230	250	10.10	34.49	0.60	26.56	148	0.51
75	11.63	34.02	2.25	209							
94	11.28	34.20	1.69	190							
117	12.04	34.51	0.80	180							
155	11.52	34.52	0.77	170							
193	10.99	34.56	0.70	158							
231	10.49	34.52	0.60	153							
289	9.16	34.44	0.66	138							
130.40	BLACK DOUGLAS; December 10, 1955; 2054 GCT; 26°09'N, 114°07.5'W; sounding, 700 fm; wind, 290°, force 3; weather, overcast; sea, rough; wire angle, 05°.										
0	17.3	33.93	5.60	331	0	17.3	33.93	5.60	24.64	331	0.00
10	17.26	33.93	5.73	330	10	17.26	33.93	5.73	24.65	330	0.03
28	15.86	33.81	5.00	308	20	17.22	33.92	5.73	24.66	329	0.07
38	13.94	33.71	4.24	275	30	15.34	33.77	4.81	24.98	298	0.10
47	13.44	33.87	3.06	254	50	13.29	33.91	2.69	25.50	248	0.15
57	12.93	33.94	2.43	239	75	11.92	34.00	2.31	25.85	216	0.21
66	12.04	33.91	2.56	225	100	11.41	34.21	1.73	26.10	192	0.26
76	11.90	34.02	2.30	214	150	11.28	34.52	0.87	26.37	166	0.35
85	11.76	34.05	2.22	209	200	10.81	34.58	0.54	26.51	153	0.43
94	11.55	34.14	1.91	199	250	10.23	34.56	0.50	26.59	146	0.51
118	11.21	34.33	1.30	179	300	9.45	34.52	0.43	26.70	135	0.58
145	11.30	34.50	0.92	168	400	8.04	34.47	0.28	26.88	118	0.71
192	10.87	34.58	0.54	155	500	7.10	34.45	0.24	26.99	107	0.83
248	10.26	34.56	0.50	146							
346	8.70	34.49	0.34	127							
460	7.47	34.46	0.24	111							
579	6.26	34.42	0.24	99							
130.50	BLACK DOUGLAS; December 11, 1955; 0420 GCT; 25°49'N, 114°46'W; sounding, 1600+ fm; wind, 320°, force 3; weather, missing; sea, moderate; wire angle, 26°.										
0	16.7	33.69	5.63	334	0	16.7	33.69	5.63	24.60	334	0.00
8	16.78	33.69	5.55	336	10	16.79	33.69	5.54	24.58	337	0.03
20	16.81	33.68	5.43	338	20	16.81	33.68	5.43	24.57	338	0.07
45	14.72	33.45	5.83	310	30	16.81	33.68	5.43	24.57	338	0.10
53	13.60	33.41	5.66	290	50	14.00	33.42	5.77	24.99	298	0.16
61	12.79	33.43	5.29	274	75	12.02	33.47	4.90	25.42	256	0.23
73	12.04	33.43	4.96	260	100	11.13	33.78	2.99	25.84	217	0.29
89	12.26	33.87	2.60	232	150	9.52	34.03	2.88	26.30	174	0.39
109	10.38	33.73	3.18	209	200	9.43	(34.23)	1.52	(26.48)	(156)	(0.48)
132	9.72	33.91	3.07	186	250	9.54	(34.42)	0.52	(26.60)	(144)	(0.55)
177	9.33	34.17	2.27	160	300	8.82	(34.45)	0.51	(26.74)	(131)	(0.62)
241	9.63	34.17r	0.56	-	400	7.60	34.44	0.40	26.92	114	(0.75)
330	8.40	34.45	0.51	125	500	6.70	34.44	0.27	27.04	103	(0.86)
447	7.15	34.43	0.32	109	600	6.11	34.45	0.23	27.12	96	(0.97)
606	6.10	34.45	0.23	94	700	5.59	34.46	0.27	27.21	87	(1.07)
807	4.95	34.48	0.35	79	800	4.98	34.48	0.34	27.28	80	(1.16)
1085	3.91	34.54	0.62	64	1000	4.14	34.53	0.57	27.42	67	(1.32)

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; December 9, 1955; 1928 GCT; 26°04.5'N, 112°48'W; sounding, 42 fm; wind, 320°, force 1; weather, partly cloudy; sea, slight; wire angle, 00°.											133.25
0	17.48	33.99	5.45	330	0	17.48	33.99	5.45	24.65	330	0.00
10	17.20	34.01	5.47	322	10	17.20	34.01	5.47	24.73	322	0.03
15	17.03	34.01	4.91u	318	20	16.91	34.02	5.13	24.81	315	0.06
19	16.92	34.02	5.14	315	30	16.40	33.98	4.62	24.89	307	0.10
24	16.80	34.00	5.02	314	50	(14.12)	(34.00)	(2.67)	(25.41)	(258)	(0.15)
29	16.53	33.99	4.72	309							
33	15.96	33.95	4.20	299							
38	15.70	34.03	3.53	288							
48	14.32	34.00	2.74	262							
BLACK DOUGLAS; December 9, 1955; 2317 GCT; 25°54.5'N, 113°07.5'W; sounding, 95 fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 04°.											133.30
0	18.26	33.93	5.60	353	0	18.26	33.93	5.60	24.41	353	0.00
10	17.76	33.92	5.62	342	10	17.76	33.92	5.62	24.52	342	0.04
15	17.63	33.91	5.67	340	20	17.44	33.90	5.67	24.59	336	0.07
19	17.44	33.89	5.67	337	30	17.25	33.86	5.80	24.61	334	0.10
24	17.44	33.96	5.75	332	50	14.96	33.69	5.38	24.99	297	0.16
28	17.32	33.87	5.81	335	75	12.00	33.79	3.10	25.67	233	0.23
33	17.11	33.86	5.73	331	100	11.27	34.04	2.30	26.00	201	0.29
43	16.23	33.80	5.67	316	150	(12.19)	(34.67)	(0.45)	(26.31)	(172)	(0.38)
52	13.90	33.60	5.01	282							
61	12.88	33.68	4.00	257							
74	12.06	33.78	3.14	235							
92	11.24	33.95	2.57	208							
109	11.44	34.20	1.87	193							
141	12.16	34.64	0.47	173							
BLACK DOUGLAS; December 10, 1955; 0537 GCT; 25°34.5'N, 113°45.5'W; sounding, 1000+ fm; wind, 300°, force 2; weather, clear; sea, moderate; wire angle, 07°.											133.40
0	18.4	33.94	5.52	355	0	18.4	33.94	5.52	24.38	355	0.00
10	18.36	33.93	5.44	355	10	18.36	33.93	5.44	24.39	355	0.04
29	17.81	33.91	5.51	344	20	18.34	33.93	5.44	24.39	354	0.07
38	15.48	33.62	5.80	313	30	17.65	33.90	5.56	24.53	341	0.11
48	14.24	33.67	4.83	284	50	13.94	33.66	4.71	25.19	279	0.17
57	12.20	33.57	4.24	253	75	11.50	33.87	2.70	25.82	218	0.23
67	11.54	33.77	3.24	226	100	11.09	34.10	2.08	26.07	195	0.28
76	11.49	33.89	2.68	216	150	10.96	34.42	1.06	26.35	168	0.37
86	11.21	33.95	2.53	207	200	10.16	34.44	0.84	26.51	153	0.45
95	11.08	34.05	2.15	198	250	9.52	34.48	0.55	26.65	140	0.53
117	11.41	34.38	1.23	179	300	8.96	34.48	0.37	26.74	131	0.60
145	11.04	34.41	1.09	170	400	7.81	34.44	0.29	26.89	117	0.73
191	10.30	34.43	0.91	156	500	6.79	34.42	0.27	27.01	106	0.84
246	9.59	34.48	0.58	141							
343	8.46	34.47	0.30	125							
455	7.19	34.42	0.28	111							
573	6.35	34.42	0.24	100							
BLACK DOUGLAS; December 9, 1955; 1323 GCT; 25°29.5'N, 112°17.5'W; sounding, 35 fm; wind, 290°, force 1; weather, clear; sea, slight; wire angle, 00°.											137.23
0	18.44	34.13	4.95	343	0	18.44	34.13	4.95	24.51	343	0.00
10	18.46	34.13	5.06	343	10	18.46	34.13	5.06	24.52	343	0.03
15	18.46	34.13	4.99	343	20	18.42	34.12	5.05	24.51	343	0.07
19	18.43	34.12	5.06	343	30	18.20	34.10	5.05	24.55	339	0.10
24	18.28	34.11	4.90	340	50	(14.39)	(33.94)	(3.30)	(25.31)	(267)	(0.16)
29	18.21	34.10	5.05	339							
33	16.10	33.86	4.52	309							
38	14.76	33.72	4.33	291							
48	14.39	33.93	3.35	268							

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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

137.30 BLACK DOUGLAS; December 9, 1955; 1009 GCT; 25°19'N, 112°38.5'W; sounding, 60 fm; wind, calm; weather, clear; sea, slight; wire angle, 00°.

0	18.11	34.07	5.40	339	0	18.11	34.07	5.40	24.56	339	0.00
10	18.10	34.06	5.19	339	10	18.10	34.06	5.19	24.55	340	0.03
14	18.03	34.07	5.19	337	20	17.93	34.07	5.17	24.60	335	0.07
19	17.93	34.07	5.18	336	30	17.90	34.07	5.15	24.61	334	0.10
24	17.91	34.07	5.17	334	50	14.32	33.66	4.63	25.11	286	0.16
28	17.90	34.07	5.35u	334	75	12.68	34.03	2.33	25.72	228	0.23
33	17.89	34.07	5.12	334							
43	16.70	33.94	4.58	316							
52	13.46	33.60	4.67	274							
62	12.51	33.68	3.73	250							
76	12.70	34.04	2.30	227							

137.40 BLACK DOUGLAS; December 9, 1955; 0329 GCT; 24°59'N, 113°23'W; sounding, 1200 fm; wind, 300°, force 2; weather, partly cloudy; sea, moderate; wire angle, 12°.

0	19.0	33.94	5.40	370	0	19.0	33.94	5.40	24.23	370	0.00
9	19.00	33.94	5.36	370	10	18.99	33.94	5.36	24.23	370	0.04
27	17.30	33.80	5.75	340	20	17.60	33.84	5.72	24.51	344	0.07
36	17.11	33.71	5.68	342	30	17.23	33.78	5.71	24.54	340	0.11
45	16.76	33.71	5.68	334	50	15.25	33.66	5.81	24.91	306	0.17
54	14.41	33.62	5.81	292	75	12.34	33.55	4.48	25.42	257	0.24
63	13.49	33.57	5.21	277	100	11.23	33.81	3.00	25.83	218	0.30
72	12.49	33.54	4.64	260	150	10.52	34.28	1.80	26.32	171	0.40
81	11.99	33.62	4.07	245	200	10.08	34.38	1.23	26.47	157	0.48
90	11.28	33.63	3.80	232	250	9.85	34.52	0.63	26.62	143	0.56
113	11.18	34.04	2.21	200	300	9.44	34.56	0.37	26.72	134	0.63
140	10.68	34.24	1.90	177	400	8.43	34.51	0.20	26.84	121	0.76
185	10.16	34.36	1.39	159	500	7.27	34.46	0.23	26.97	109	0.88
239	9.93	34.50	0.71	145							
335	9.11	34.56	0.28	128							
445	7.94	34.47	0.19	117							
561	6.54	34.45	0.30	100							

140.30 BLACK DOUGLAS; December 8, 1955; 1101 GCT; 24°45'N, 112°24'W; sounding, 60 fm; wind, 290°, force 1; weather, partly cloudy; sea, slight; wire angle, 00°.

0	20.07	34.39	5.17	364	0	20.07	34.39	5.17	24.30	364	0.00
10	20.08	34.38	5.16	364	10	20.08	34.38	5.16	24.29	364	0.04
15	20.09	34.39	5.30	364	20	20.04	34.38	5.23	24.30	364	0.07
20	20.04	34.38	5.23	364	30	20.02	34.38	5.32	24.30	364	0.11
24	20.07	34.39	5.25	364	50	16.93	33.96	4.86	24.76	320	0.18
29	20.04	34.38	5.27	364	75	(15.08)	(34.18)	(2.28)	(25.35)	(263)	(0.25)
33	19.98	34.37	5.52	363							
42	18.86	34.17	4.95	350							
51	16.59	33.93	4.83	314							
60	14.97	33.82	4.29	288							
74	15.01	34.14	2.52	266							

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

BLACK DOUGLAS; December 8, 1955; 1425 GCT; 24°36'N, 112°43'W; sounding, 550 fm; wind, 290°, force 1; weather, cloudy; sea, slight; wire angle, 00°. 140.35

0	20.2	34.31	5.14	372	0	20.2	34.31	5.14	24.21	372	0.00
9	20.16	34.33	5.02	370	10	20.16	34.33	5.05	24.23	370	0.04
28	20.17	34.32	5.26	371	20	20.17	34.32	5.13	24.22	371	0.07
38	19.98	34.31	4.91	367	30	20.16	34.32	5.26	24.22	371	0.11
48	18.04	34.07	4.96	337	50	17.40	34.03	4.80	24.69	326	0.18
57	15.08	33.95	3.48	281	75	13.65	33.97	2.75	25.48	251	0.25
67	14.54	34.04	2.80	263	100	11.73	34.00	2.41	25.88	212	0.31
76	13.46	33.95	2.74	248	150	11.65	34.52	0.80	26.30	173	0.41
86	12.27	33.84	2.68	234	200	11.50	34.65	0.32	26.43	161	0.49
95	11.83	33.91	2.57	221	250	10.32	34.55	0.73	26.57	148	0.57
118	11.53	34.25	1.52	191	300	9.60	34.52	0.62	26.67	138	0.65
146	11.65	34.51	0.86	174	400	8.33	34.48	0.47	26.84	122	0.78
193	11.60	34.65	0.30	162	500	7.03	34.45	0.45	27.00	106	0.90
249	10.34	34.55	0.73	148							
347	9.02	34.51	0.53	130							
459	7.50	34.45	0.42	112							
578	6.31	34.45	0.53	97							

BLACK DOUGLAS; December 8, 1955; 1815 GCT; 24°25.5'N, 113°02'W; sounding, 1840 fm; wind, 290°, force 1; weather, partly cloudy; sea, moderate; wire angle, 18°. 140.40

0	18.3	33.99	5.45	350	0	18.3	33.99	5.45	24.44	350	0.00
9	18.34	33.99	5.56	350	10	18.33	33.99	5.55	24.44	350	0.04
27	18.24	33.98	5.51	349	20	18.32	33.99	5.55	24.44	350	0.07
36	17.88	33.92	5.55	345	30	18.18	33.97	5.52	24.46	348	0.10
45	15.82	33.68	5.64	316	50	14.80	33.61	5.51	24.96	300	0.17
53	14.26	33.59	5.38	291	75	12.73	33.73	4.01	25.48	251	0.24
62	13.19	33.61	4.81	268	100	12.53	34.19	2.08	25.88	212	0.30
71	12.88	33.68	4.23	257	150	12.31	34.67	0.56	26.29	174	0.40
80	12.49	33.82	3.67	240	200	11.44	34.67	0.45	26.45	159	0.48
89	12.30	33.99	2.75	224	250	10.33	34.58	0.43	26.59	145	0.56
111	12.91	34.54	1.13	194	300	9.67	34.54	0.39	26.67	138	0.63
138	12.48	34.65	0.65	178	400	8.50	34.52	0.23	26.84	121	0.76
182	11.84	34.69	0.45	164	500	7.30	34.48	0.21	26.99	108	0.88
236	10.58	34.60	0.45	148							
330	9.31	34.53	0.36	133							
438	8.07	34.52	0.19	115							
553	6.54	34.42	0.25	102							

BLACK DOUGLAS; December 8, 1955; 0430 GCT; 24°19'N, 111°48'W; sounding, 40 fm; wind, 310°, force 2; weather, clear; sea, slight; wire angle, 08°. 143.26

0	19.90	34.36	5.40	361	0	19.90	34.36	5.40	24.32	361	0.00
10	19.84	34.34	5.46	361	10	19.84	34.34	5.46	24.32	361	0.04
15	19.70	34.34	5.27	358	20	19.45	34.31	5.45	24.40	354	0.07
19	19.46	34.31	5.45	354	30	19.10	34.27	5.12	24.46	348	0.11
24	19.38	34.33	5.29	350							
29	19.24	34.29	5.17	350							
33	18.39	34.22	5.01	335							
38	17.62	34.13	4.70	324							
47	16.48	34.16	3.74	296							

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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

143.30 BLACK DOUGLAS; December 8, 1955; 0125 GCT; 24°11'N, 112°03'W; sounding, 109 fm; wind, 300°, force 2; weather, partly cloudy; sea, slight; wire angle, 11°.

0	21.16	34.51	5.17	383	0	21.16	34.51	5.17	24.10	383	0.00
10	21.17	34.49	5.09	384	10	21.17	34.49	5.09	24.08	384	0.04
15	21.14	34.47	5.10	385	20	21.08	34.50	5.10	24.11	382	0.08
20	21.08	34.50	5.10	382	30	21.06	34.50	5.20	24.13	380	0.12
24	21.10	34.49	5.23	383	50	13.64	33.60	4.85	25.20	278	0.18
29	21.07	34.51	5.17	380	75	13.07	34.07	2.40	25.68	232	0.24
34	20.99	34.49	5.27	380	100	12.33	34.16	1.88	25.89	212	0.30
43	15.80	33.77	5.18	309	150	(12.00)	(34.48)	(1.02)	(26.21)	(182)	(0.40)
53	13.47	33.60	4.73	274							
62	13.26	33.94	3.18	245							
76	13.05	34.07	2.34	232							
95	12.40	34.13	2.13	215							
114	12.25	34.23	1.59	205							
147	12.02	34.45	1.08	184							

143.35 BLACK DOUGLAS; December 7, 1955; 2135 GCT; 24°01'N, 112°22'W; sounding, 520 fm; wind, 300°, force 2; weather, partly cloudy; sea, moderate; wire angle, 08°.

0	21.0	34.27	4.89	396	0	21.0	34.27	4.89	23.96	396	0.00
10	20.94	34.28	5.08	393	10	20.94	34.28	5.08	23.99	393	0.04
28	20.93	34.29	5.05	392	20	20.94	34.28	5.07	23.99	393	0.08
37	20.94	34.33	5.04	390	30	20.94	34.30	5.05	24.00	392	0.12
46	20.84a)	34.27	4.84	392	50	19.08	33.99	5.04	24.25	368	0.19
55	16.32	33.62	5.45	331	75	13.55	33.86	3.28	25.43	256	0.27
64	14.72	33.84	4.13	281	100	12.44	34.20	2.08	25.90	211	0.33
73	13.56	33.82	3.40	260	150	11.38	34.51	1.36	26.34	169	0.43
82	13.51	34.02	2.88	244	200	11.04	34.61	0.70	26.48	156	0.51
92	12.78	34.13	2.46	222	250	10.53	34.62	0.40	26.59	146	0.59
115	12.02	34.34	1.34	193	300	9.92	34.59	0.39	26.67	138	0.66
142	11.46	34.48	1.41	173	400	8.56	34.54	0.42	26.85	120	0.80
189	11.14	34.60	0.80	158	500	7.22	34.49	0.43	27.01	106	0.91
244	10.60	34.62	0.41	147							
342	9.38	34.56	0.39	132							
454	7.78	34.52	0.46	111							
576	6.56	34.45	0.39	100							

147.20 BLACK DOUGLAS; December 7, 1955; 0605 GCT; 23°56'N, 111°03.5'W; sounding, 71 fm; wind, 300°, force 3; weather, partly cloudy; sea, moderate; wire angle, 10°.

0	21.2	34.58	5.30	378	0	21.2	34.58	5.30	24.14	378	0.00
10	21.29	34.56	5.18	383	10	21.29	34.56	5.18	24.10	383	0.04
20	21.30	34.56	5.15	383	20	21.30	34.56	5.15	24.10	383	0.08
29	20.76	34.43	5.28	378	30	20.42	34.37	5.33	24.19	374	0.11
48	14.88	33.51	5.91	309	50	14.86	33.52	5.90	24.88	308	0.18
71	14.70	33.96	3.47	272	75	14.58	33.98	3.22	25.29	269	0.25
95	14.06	34.46	1.19	223	100	(13.95)	(34.58)	(0.85)	(25.89)	(212)	(0.32)

a) Mean value of 20.78 and 20.89°C.

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; December 7, 1955; 0955 GCT; 23°46.5'N, 111°22.5'W; sounding, 110 fm; wind, 290°, force 3; weather, partly cloudy; sea, moderate; wire angle, 08°.											147.25
0	21.12	34.33	5.27	394	0	21.12	34.33	5.27	23.97	394	0.00
10	21.15	34.36	5.27	393	10	21.15	34.36	5.27	23.99	393	0.04
15	21.14	34.34	5.36	394	20	21.11	34.36	5.20	24.00	392	0.08
20	21.11	34.36	5.20	392	30	21.11	34.34	5.56	23.99	393	0.12
25	21.12	34.34	5.64	393	50	20.45	34.24	5.40	24.08	384	0.20
30	21.11	34.34	5.56	393	75	14.05	33.61	5.36	25.13	284	0.28
34	21.12	34.36	5.18	392	100	13.47	34.33	1.90	25.80	221	0.34
44	21.15	34.38	5.35	392	150	11.71	34.50	0.97	26.28	175	0.44
53	19.30	34.04	5.51	370	200	(11.03)	(34.61)	(0.53)	(26.48)	(156)	(0.53)
62	14.80	33.55	6.12	304							
71	14.18	33.55	5.63	291							
90	13.70	34.08	2.67	243							
103	13.40	34.34	1.79	219							
129	12.24	34.46	1.05	188							
162	11.43	34.51	0.94	170							
197	11.06	34.60	0.57	157							
BLACK DOUGLAS; December 7, 1955; 1353 GCT; 23°36'N, 111°41.5'W; sounding, 280 fm; wind, 300°, force 2; weather, partly cloudy; sea, moderate; wire angle, 10°.											147.30
0	21.5	34.40	5.03	399	0	21.5	34.40	5.03	23.92	399	0.00
9	21.48	34.40	5.01	399	10	21.48	34.40	5.01	23.92	399	0.04
28	21.50	34.40	5.02	399	20	21.50	34.40	5.02	23.92	399	0.08
38	21.50	34.40	4.99	399	30	21.50	34.40	5.00	23.92	399	0.12
47	21.49	34.40	5.06	399	50	21.43	34.39	5.06	23.93	398	0.20
56	20.44	34.26	5.06	382	75	13.27	33.73	3.91	25.38	261	0.28
65	15.71	33.86	4.57	300	100	11.20	33.96	3.70	25.95	206	0.34
75	13.27	33.73	3.91	261	150	11.68	34.50	0.79	26.28	175	0.44
84	12.02	33.58	4.25	249	200	11.25	34.64	0.38	26.47	157	0.52
93	11.20	33.95	4.13	207	250	10.63	34.65	0.30	26.59	146	0.60
111	11.30	33.54r	2.64	-	300	9.95	34.63	0.24	26.70	135	0.68
134	11.94	34.34	1.34	191	400	8.64	34.57	0.19	26.86	120	0.81
152	11.65	34.52	0.76	173	500	(7.80)	(34.52)		(26.95)	(111)	(0.93)
189	11.36	34.63	0.40	160							
263	10.46	34.65	0.28	143							
360	9.10	34.59	0.20	125							
475	7.98	34.53	0.19	113							
BLACK DOUGLAS; December 6, 1955; 2243, 2304 GCT; 23°23.5'N, 110°39'W; sounding, 110 fm; wind, 290°, force 2; weather, clear; sea, moderate; wire angle, 15°, 17°.											150.19
0	22.1	34.65	5.08	397	0	22.1	34.65	5.08	23.95	397	0.00
9	22.04	34.67	4.93	394	10	22.01	34.68	4.95	23.99	393	0.04
13	21.99	34.70	4.98	390	20	21.91	34.69	5.00	24.04	389	0.08
18	21.94	34.69	5.01	390	30	19.53	34.20	5.19	24.31	363	0.12
23	21.82	34.70	4.68	386	50	15.15	33.89	4.06	25.10	287	0.18
27	21.46	34.69	4.79	377	75	13.87	34.28	1.96	25.68	232	0.25
32	17.60	33.78	5.32	348	100	13.16	34.67	1.32	26.13	190	0.30
41	16.24	33.84	4.56	314							
50	15.15	33.89	4.06	287							
59	14.48	34.14	2.71	255							
73	13.90	34.27	2.03	234							
90	13.49	34.57	1.15	204							
109	12.86	34.69	1.41	182							
139	12.28	34.69	0.68	172							

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

150.25 BLACK DOUGLAS; December 6, 1955; 1825 GCT; 23°12'N, 111°01.5'W; sounding, 750 fm; wind, 320°, force 2; weather, clear; sea, moderate; wire angle, 12°.

0	21.8	34.38	4.57	409	0	21.8	34.38	4.57	23.82	409	0.00
9	21.70	34.41	4.75	404	10	21.70	34.41	4.72	23.87	404	0.04
28	21.68	34.37	4.58	407	20	21.69	34.39	4.65	23.86	406	0.08
37	21.70a)	34.49	4.77	398	30	21.70	34.39	4.60	23.86	405	0.12
46	21.60	34.38	4.29	403	50	21.57	34.37	4.49	23.89	403	0.20
55	21.52	34.36	4.68	402	75	14.96	33.72	4.44	25.02	295	0.29
64	17.03	33.78	-	335	100	13.65	34.16	1.90	25.63	237	0.36
73	15.14	33.69	4.51	301	150	12.45	34.44	1.00	26.09	193	0.47
83	14.29	33.93	3.27	266	200	11.33	34.59	0.55	26.42	162	0.56
92	13.76	34.07	2.49	245	250	10.47	34.54	0.47	26.53	151	0.64
115	13.52	34.42	1.40	215	300	9.96	34.57	0.27	26.65	140	0.71
142	12.71	34.43	1.09	199	400	8.85	34.55	0.12	26.82	124	0.85
188	11.56	34.60	0.57	165	500	7.47	34.52	0.16	26.99	108	0.97
244	10.58	34.54	0.48	153							
342	9.57	34.58	0.16	133							
454	8.04	34.52	0.10	115							
574	6.76	34.51	0.25	98							

150.30 BLACK DOUGLAS; December 6, 1955; 1332 GCT; 23°04'N, 111°21'W; sounding, 1440 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 17°.

0	24.1	34.85	4.38	438	0	24.1	34.85	4.38	23.52	438	0.00
9	24.04	34.87	4.06	435	10	24.04	34.87	4.06	23.55	435	0.04
28	24.07	34.84	4.25	437	20	24.04	34.85	4.14	23.54	436	0.09
41	23.80	34.80	4.14	433	30	24.06	34.84	4.25	23.53	437	0.13
51	22.77	34.68	4.43	413	50	22.80	34.68	4.41	23.78	415	0.22
60	22.30	34.64	4.54	403	75	18.44	34.34	3.51	24.68	328	0.31
79	17.16	34.23	3.29	305	100	14.49	34.30	2.23	25.56	244	0.38
92	13.94	33.84	3.44	266	150	12.82	34.61	0.86	26.14	188	0.49
101	14.50	34.36	2.21	239	200	11.53	34.61	0.49	26.40	164	0.58
124	13.36	34.35	1.56	217	250	10.58	34.60	0.38	26.56	148	0.66
151	12.80	34.61	0.84	187	300	10.20	34.60	0.40	26.63	142	0.74
201	11.48	34.61	0.49	163	400	9.79	34.63	0.43	26.72	134	0.88
261	10.46	34.60	0.38	147	500	(9.60)	(34.64)	(0.47)	(26.76)	(129)	(1.01)
486	9.62	34.64	0.45	130							

a) Mean value of 21.64 and 21.75°C.

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