F. Wilkes

UNIVERSITY OF CALIFORNIA SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

PHYSICAL AND CHEMICAL DATA
CCOFI CRUISE 5807
30 June - 22 July 1958

SIO Reference 59-33
24 February 1959

UNIVERSITY OF CALIFORNIA

SCRIPPS INSTITUTION OF OCEANOGRAPHY

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CCOFI CRUISE 5807

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Sponsored by

Marine Research Committee

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Approved for distribution:

Roger Revelle

Roger Revelle, Director

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FIGURES

INTRODUCTION

The data presented in this report were collected on the one hundred and tenth consecutive cruise of the California Cooperative Oceanic Fisheries Investigations program. The R/V Black Douglas of the U. S. Bureau of Commercial Fisheries, the R/V Paolina-T, the R/V Orca 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 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.

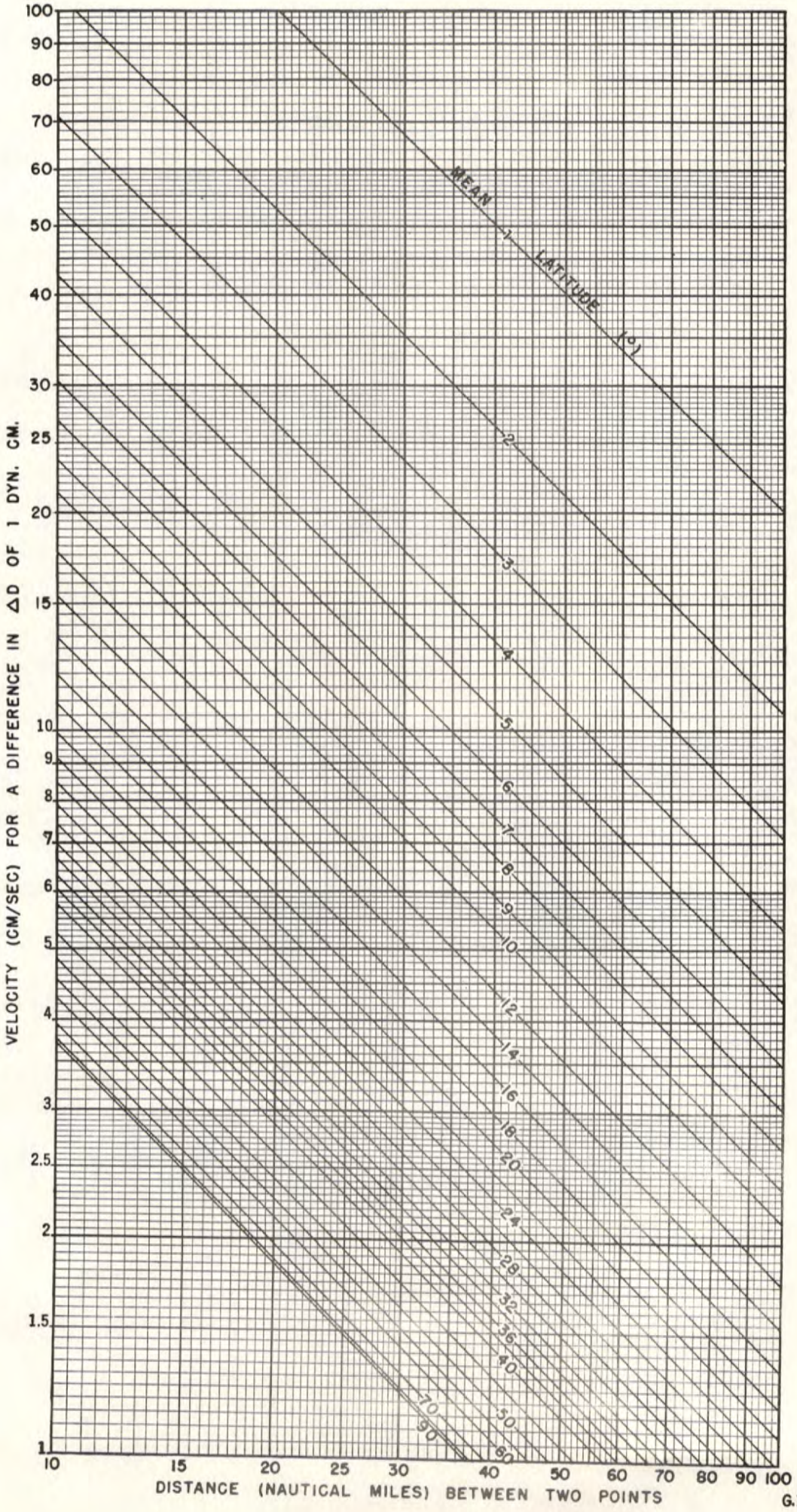
Values which are not drawn through because they seem to be in error without apparent reason are indicated by one of the following notations.

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 1958 volume, the first page of the Cruise 5807 data is numbered 179.


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

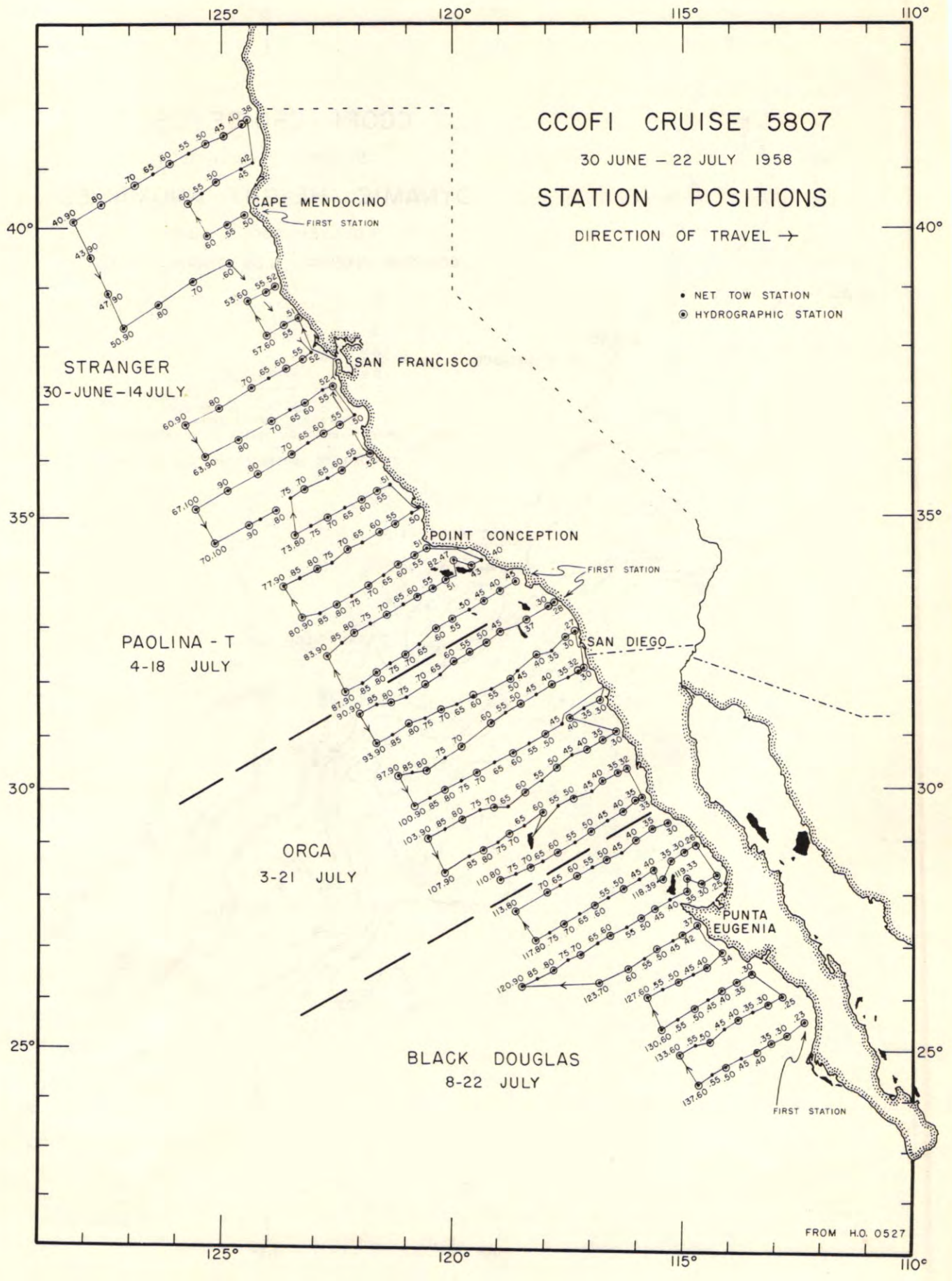

CCOFI CRUISE 5807
30 JUNE – 22 JULY 1958
STATION POSITIONS
DIRECTION OF TRAVEL →
• NET TOW STATION
⊙ HYDROGRAPHIC STATION
125°
120°
115°
110°
40°
35°
30°
25°
CAPE MENDOCINO
FIRST STATION
SAN FRANCISCO
STRANGER
30-JUNE-14 JULY
POINT CONCEPTION
FIRST STATION
SAN DIEGO
PAOLINA - T
4-18 JULY
ORCA
3-21 JULY
PUNTA EUGENIA
BLACK DOUGLAS
8-22 JULY
FIRST STATION
FROM H.O. 0527

FIGURE 1

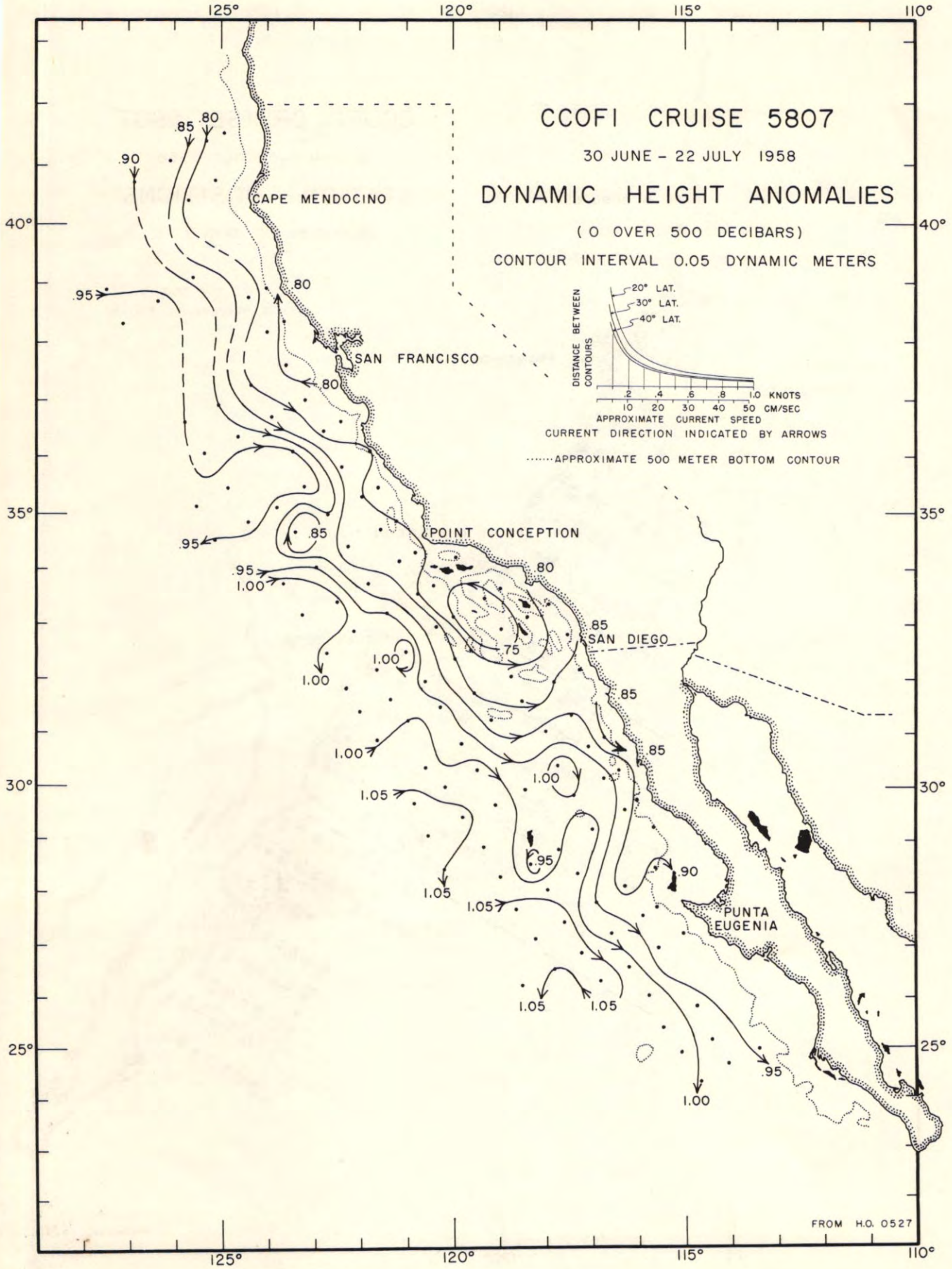

CCOFI CRUISE 5807
30 JUNE – 22 JULY 1958
DYNAMIC HEIGHT ANOMALIES
(0 OVER 500 DECIBARS)
CONTOUR INTERVAL 0.05 DYNAMIC METERS
20° LAT.
30° LAT.
40° LAT.
DISTANCE BETWEEN CONTOURS
.2 .4 .6 .8 1.0 KNOTS
10 20 30 40 50 CM/SEC
APPROXIMATE CURRENT SPEED
CURRENT DIRECTION INDICATED BY ARROWS
APPROXIMATE 500 METER BOTTOM CONTOUR
CAPE MENDOCINO
SAN FRANCISCO
POINT CONCEPTION
SAN DIEGO
PUNTA EUGENIA
125°
120°
115°
110°
40°
35°
30°
25°
.90
.85
.80
.95
.75
1.00
1.05
FROM H.O. 0527

FIGURE 2

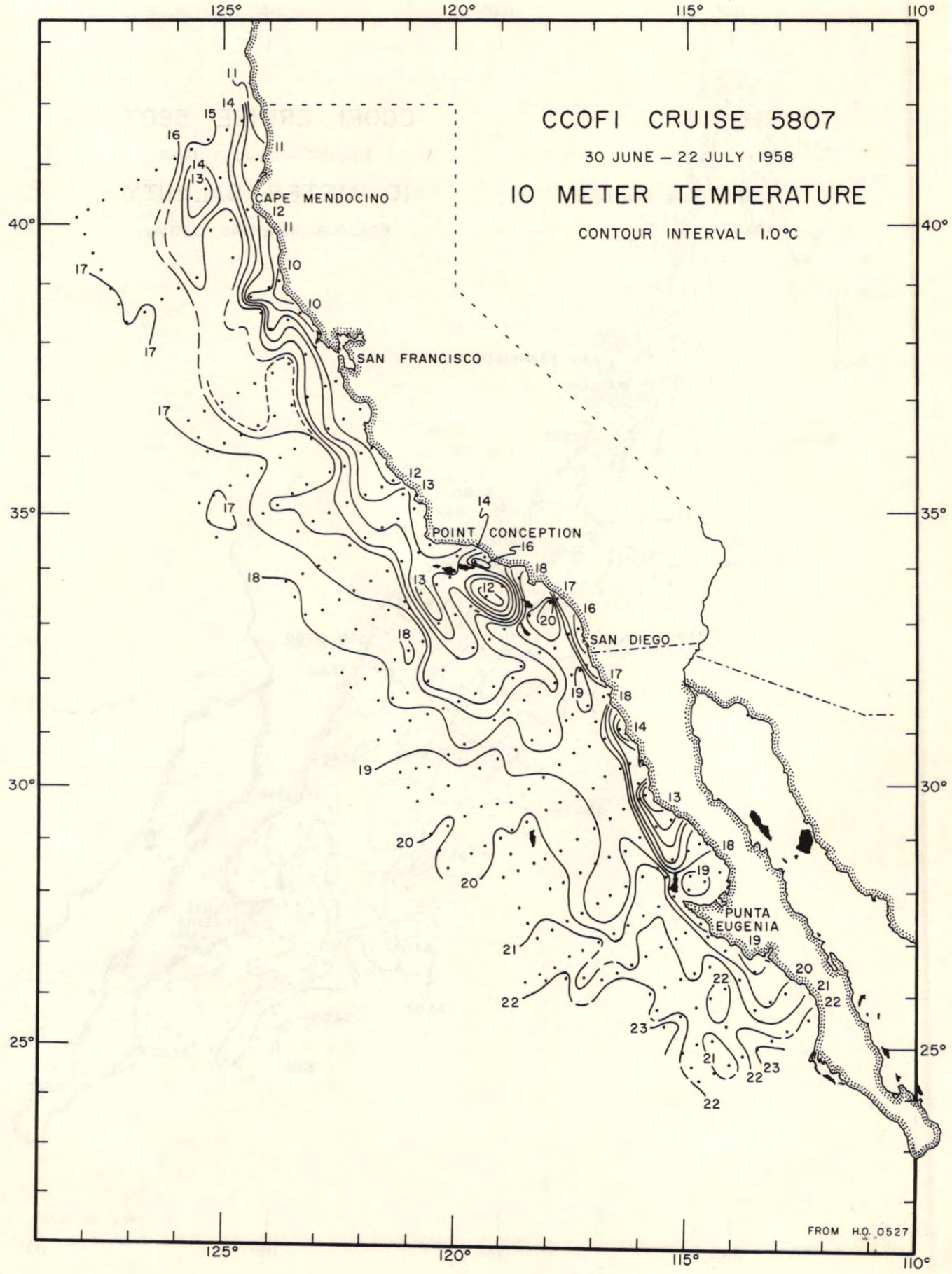

CCOFI CRUISE 5807
30 JUNE — 22 JULY 1958
10 METER TEMPERATURE
CONTOUR INTERVAL 1.0°C
CAPE MENDOCINO
SAN FRANCISCO
POINT CONCEPTION
SAN DIEGO
PUNTA EUGENIA
125°
120°
115°
110°
40°
35°
30°
25°
FROM H.O. 0527

FIGURE 3

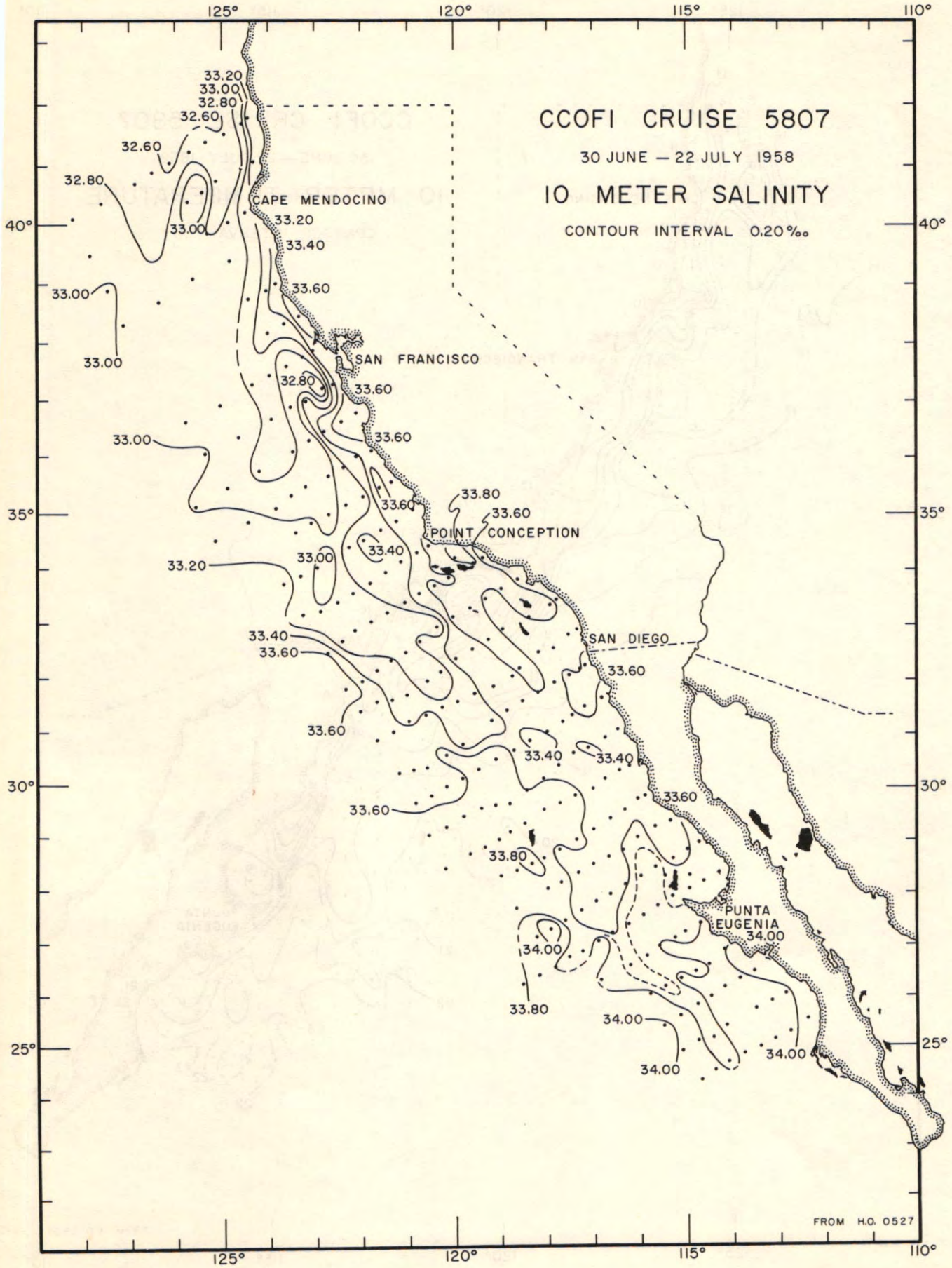

CCOFI CRUISE 5807
30 JUNE — 22 JULY 1958
10 METER SALINITY
CONTOUR INTERVAL 0.20‰
CAPE MENDOCINO
SAN FRANCISCO
POINT CONCEPTION
SAN DIEGO
PUNTA EUGENIA
FROM H.O. 0527
125°
120°
115°
110°
40°
35°
30°
25°
33.20
33.00
32.80
32.60
32.60
32.80
33.00
33.20
33.40
33.60
33.00
33.00
32.80
33.60
33.00
33.60
33.80
33.60
33.40
33.20
33.00
33.40
33.60
33.60
33.40
33.40
33.60
33.60
33.80
34.00
33.80
34.00
34.00
34.00

FIGURE 4

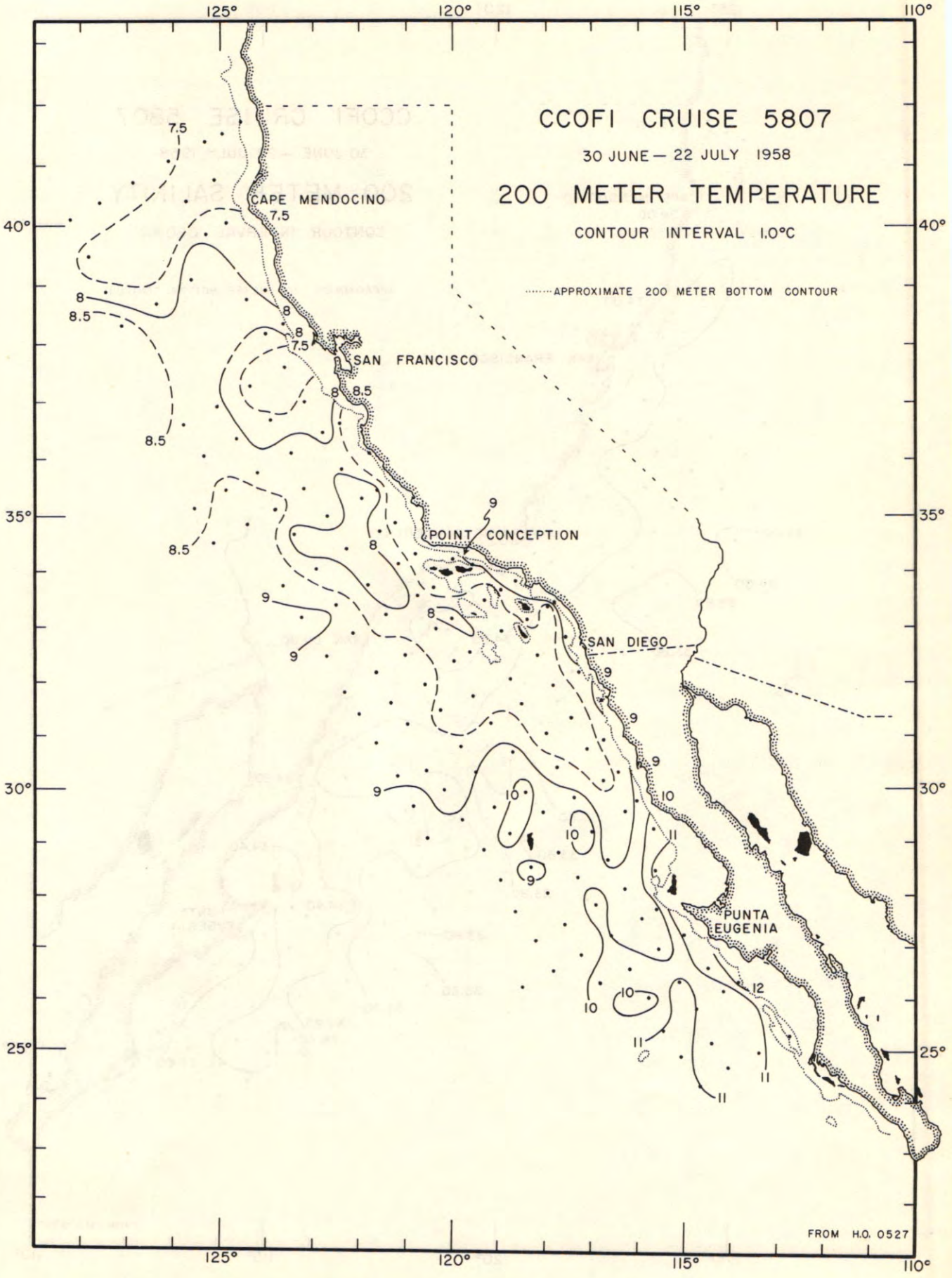

CCOFI CRUISE 5807
30 JUNE — 22 JULY 1958
200 METER TEMPERATURE
CONTOUR INTERVAL 1.0°C
APPROXIMATE 200 METER BOTTOM CONTOUR
CAPE MENDOCINO
SAN FRANCISCO
POINT CONCEPTION
SAN DIEGO
PUNTA EUGENIA
FROM H.O. 0527
125°
120°
115°
110°
40°
35°
30°
25°

FIGURE 5

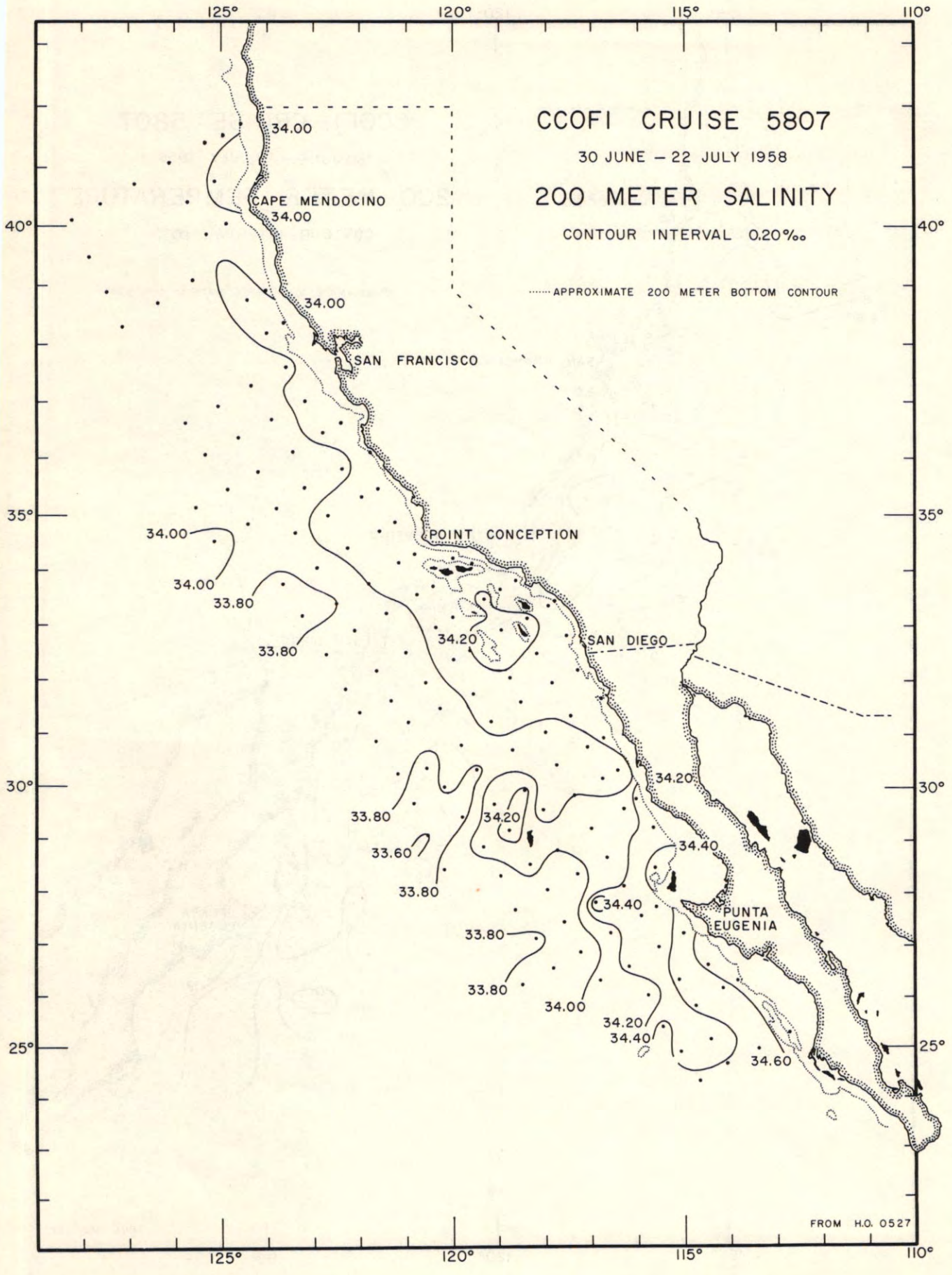

CCOFI CRUISE 5807
30 JUNE – 22 JULY 1958
200 METER SALINITY
CONTOUR INTERVAL 0.20‰
APPROXIMATE 200 METER BOTTOM CONTOUR
125°
120°
115°
110°
40°
35°
30°
25°
34.00
CAPE MENDOCINO
34.00
34.00
SAN FRANCISCO
34.00
34.00
33.80
33.80
POINT CONCEPTION
34.20
SAN DIEGO
34.20
33.80
34.20
33.60
33.80
34.40
34.40
PUNTA EUGENIA
33.80
33.80
34.00
34.20
34.40
34.60
FROM H.O. 0527

FIGURE 6

SHIPS' CAPTAINS

Forster, Charles W., R/V Black Douglas
Hopkins, Marvin F., R/V Orca
Miller, Frank, R/V Paolina-T
Smith, Charles H., R/V Stranger

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

R/V Black Douglas

Kiwala, Robert S., Marine Technician
Blackburn, Gene T., Fishery Aid, Bureau of Commercial Fisheries
Howell, Robert W., Marine Technician
Hubbard, Lyle T., Jr., Fishery Aid, Bureau of Commercial Fisheries
Jenkins, Thomas R., summer trainee

R/V Orca

Worrall, Charles G., Senior Marine Technician
*Baslow, William, visitor
Costello, James P., Laboratory Technician I
Gardner-Smith, Barry, summer trainee
*Goffman, Jackson E., Marine Technician
Justice, David K., Fishery Aid, Bureau of Commercial Fisheries
**Lucas, Jack C., Electronics Technician
***Robinson, Alan, summer trainee
*Tuthill, Douglas C.

R/V Paolina-T

Froerer, Arthur I., Marine Technician
Brennan, Robert E., Marine Technician
Casey, Harold D., Fishery Aid, Bureau of Commercial Fisheries
Goffman, Jackson E., Marine Technician
McMillan, Wesley W., Marine Technician

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*Lines 90 and 93
**Lines 97 through 100
***Lines 97 through 110

R/V Stranger

Brown, Daniel M., Senior Marine Technician
Joyal, Normas F., Marine Technician
Reid, Charles F., Fishery Aid, Bureau of Commercial Fisheries
Coutinho, Lt. Antonio Rosa, Portuguese Navy
Leitao, Lt. Antonio Egidio de Sousa, Portuguese Navy
Lima, Lt. Roland Quelhas, Portuguese Navy

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; July 6, 1958; 1725 GCT; 41°48'N, 124°28'W; sounding, 71 fm; wind, calm; weather, fog; sea, rough; wire angle, 00°.											40.38
0	11.98	32.99		292	0	11.98	32.99		25.05	292	0.00
10	10.72	33.37		241	10	10.72	33.37		25.58	241	0.03
30	9.41	33.60		204	20	9.96	33.52		25.82	218	0.05
49	8.80	33.70		187	30	9.41	33.60		25.98	204	0.07
73	8.37	33.82		172	50	8.78	33.70		26.16	186	0.11
98	7.87	33.91		158	75	8.32	33.83		26.34	170	0.15
					100	(7.85)	(33.91)		(26.47)	(157)	(0.20)
STRANGER; July 6, 1958; 1925 GCT; 41°43'N, 124°38'W; sounding, 400 fm; wind, 330°, force 4; weather, fog; sea, very rough; wire angle, 23°											40.40
0	13.08	32.84		322	0	13.08	32.84		24.74	322	0.00
8	13.05	32.85		321	10	13.04	32.85		24.75	321	0.03
27	10.45	32.92		271	20	13.02	32.85		24.76	320	0.06
40	9.64	33.13		242	30	10.22	32.94		25.35	266	0.09
48	9.30	33.30		224	50	9.28	33.32		25.78	223	0.14
57	9.22	33.42		214	75	8.80	33.57		26.06	196	0.19
65	9.02	33.53		203	100	8.42	33.70		26.21	182	0.24
82	8.68	33.59		194	150	7.90	33.92		26.46	157	0.33
124p	8.18	33.82		169	200	7.26	33.99		26.61	144	0.40
184p	7.44	33.99		146	250	6.58	34.00		26.71	134	0.48
258p	6.41	34.00		132	300	6.06	34.03		26.80	126	0.54
359p	5.66	34.11		115							
STRANGER; July 6, 1958; 2233 GCT; 41°34'N, 124°59'W; sounding, 750 fm; wind, 360°, force 5; weather, fog; sea, high; wire angle, 03°											40.45
0	14.86	32.59		376	0	14.86	32.59		24.17	376	0.00
10	14.82	32.61		373	10	14.82	32.61		24.20	373	0.04
30	10.94	32.97		275	20	14.81	32.61		24.20	373	0.07
44	10.06	33.25		240	30	10.94	32.97		25.23	275	0.11
55	9.66	33.35		227	50	9.87	33.30		25.67	233	0.16
65	9.15	33.48		209	75	8.88	33.57		26.04	198	0.21
74	8.88	33.57		198	100	8.39	33.74		26.24	178	0.26
93	8.53	33.68		184	150	7.80	33.90		26.46	158	0.34
107	8.26	33.79		173	200	7.22	33.98		26.60	144	0.42
121	8.14	33.87		164	250	6.60	34.02		26.72	133	0.49
142	7.88	33.89		160	300	6.10	34.04		26.81	125	0.56
171	7.50	33.95		150	400	5.61	34.12		26.92	114	0.68
206	7.18	33.98		143	500	5.18	34.18		27.03	104	0.79
257	6.46	34.02		131							
336	5.84	34.07		120							
436	5.47	34.15		110							
577	4.76	34.22		97							

S10

CCOFI 5807

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T,S}$ 10^{-5} cm^3/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T,S}$ 10^{-5} cm^3/g	ΔD dyn. m
40.50	STRANGER; July 7, 1958; 0158 GCT; 41°24'N, 125°21'W; sounding, 1750 fm; wind, 360°, force 5; weather, fog; sea, high; wire angle, 10°.										
0	15.22	32.76		370	0	15.22	32.76		24.22	370	0.00
10	15.20	32.75		371	10	15.20	32.75		24.22	371	0.04
29	12.38	32.91		304	20	15.10	32.75		24.24	369	0.07
43	9.99	33.17		244	30	10.78	32.96		25.05	292	0.11
53	9.71	33.21		237	50	9.77	33.20		25.60	239	0.16
63	9.46	33.34		224	75	9.19	33.46		25.90	211	0.22
72	9.27	33.43		214	100	8.41	33.70		26.21	181	0.27
90	8.62	33.63		189	150	7.90	33.91		26.46	158	0.35
104	8.36	33.73		178	200	7.33	33.98		26.60	145	0.43
117	8.16	33.81		170	250	6.65	34.02		26.72	133	0.50
139	7.98	33.89		161	300	6.35	34.06		26.79	127	0.57
166	7.76	33.93		155	400	5.58	34.09		26.91	115	0.69
200	7.33	33.98		145	500	5.06	34.18		27.04	103	0.80
248	6.64	34.02		134							
322	6.22	34.07		124							
415	5.46	34.10		114							
536p	4.95	34.24		97							
40.60	STRANGER; July 7, 1958; 0722 GCT; 41°04'N, 126°07'W; sounding, 1700 fm; wind, 330°, force 4; weather, overcast; sea, very rough; wire angle, 16°.										
0	16.3	-		-	0	16.3	(32.57)		(23.84)	(408)	(0.00)
9	16.28	32.57		408	10	16.28	32.57		23.84	408	0.04
28	15.48	32.61		388	20	16.22	32.58		23.86	405	0.08
42	11.52	32.67		307	30	14.66	32.62		24.23	370	0.12
51	11.05	32.84		286	50	11.10	32.82		25.09	288	0.19
60	10.68	32.98		270	75	10.32	33.20		25.52	247	0.25
68	10.42	33.16		252	100	9.58	33.39		25.79	222	0.31
85	10.12	33.26		240	150	8.07	33.86		26.40	164	0.41
97	9.75	33.35		228	200	7.61	33.94		26.52	152	0.49
109	8.90	33.55		200	250	6.99	34.02		26.67	138	0.56
130	8.50	33.71		182	300	6.39	34.04		26.77	128	0.63
144	8.12	33.85		166	400	5.50	34.10		26.93	113	0.76
189	7.78	33.92		156	500	5.02	34.14		27.01	106	0.87
233	7.21	34.00		142							
306	6.32	34.05		127							
397	5.54	34.10		114							
523	4.96	34.16		103							
40.70	STRANGER; July 7, 1958; 1408 GCT; 40°43'N, 126°53'W; sounding, 1750 fm; wind, 340°, force 5; weather, overcast; sea, high; wire angle, 05°.										
0	16.59	32.77		400	0	16.59	32.77		23.92	400	0.00
10	16.58	32.75		401	10	16.58	32.75		23.91	401	0.04
29	13.40	32.88		326	20	16.58	32.75		23.91	401	0.08
58	11.70	32.96		288	30	13.33	32.88		24.70	325	0.12
67	11.46	32.94		286	50	12.04	32.95		25.00	296	0.18
77	11.30	33.01		278	75	11.38	32.98		25.16	282	0.25
90	10.64	33.13		258	100	9.21	33.31		25.78	223	0.32
101	9.18	33.32		221	150	8.08	33.62		26.20	182	0.42
114	8.50	33.40		205	200	7.58	33.90		26.50	154	0.50
133	8.25	33.48		196	250	7.07	33.93		26.59	146	0.58
149	8.08	33.62		182	300	6.59	33.98		26.70	135	0.65
175	7.78	33.86		160	400	5.98	34.14		26.91	116	0.78
197	7.58	33.90a)		154	500	5.34	34.18		27.01	106	0.90
246	7.12	33.93		146							
323	6.36	34.00		151							
426	5.85	34.17		113							
561	4.84	34.18		100							

a) Salinity bottle number was not recorded on the data sheet. Since standard handling and titrating procedures were used, this salinity value is assumed to be listed correctly.

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; July 7, 1958; 1922 GCT; 40°23'N, 127°38'W; sounding, 1700 fm; wind, 360°, force 6; weather, overcast; sea, high; wire angle, 11°. 40.80

0	16.70	32.87	394	0	16.70	32.87		23.98	394	0.00
9	16.69	32.97u	-	10	16.69	32.87		23.98	394	0.04
28	16.69	32.87	394	20	16.69	32.87		23.98	394	0.08
54	12.37	32.86	308	30	16.68	32.87		23.98	394	0.12
65	11.86	32.89	297	50	12.65	32.86		24.82	314	0.19
73	11.63	32.90	292	75	11.62	32.90		25.06	291	0.26
88	11.04	32.96	278	100	10.45	33.10		25.42	257	0.34
101	10.40	33.10	257	150	8.46	33.49		26.04	198	0.44
112	9.70	33.30	231	200	7.72	33.88		26.46	158	0.54
128	8.88	33.44a)	208	250	6.96	33.92		26.60	145	0.61
145	8.58	33.48	200	300	6.35	33.93		26.69	136	0.69
169	8.08	33.70	177							
190	7.86	33.86	162							
234	7.20	33.92	148							
310	6.24	33.93	135							

STRANGER; July 8, 1958; 0033, 0120 GCT; 40°06'N, 128°15'W; sounding, 2550 fm; wind, 360, force 5; weather, overcast; sea, high; wire angle, 25°, 48°. 40.90

0	16.50	32.81	395	0	16.50	32.81		23.97	395	0.00
8	16.48	32.88	390	10	16.48	32.87		24.02	390	0.04
27	16.47	32.83	393	20	16.48	32.86		24.01	391	0.08
39	14.98	32.77	366	30	16.47	32.83		23.99	393	0.12
48	12.56	32.81	315	50	12.32	32.82		24.85	311	0.19
57	11.78	32.85	298	75	10.78	32.96		25.26	272	0.26
65	11.31	32.86	290	100	9.50	33.31		25.73	227	0.32
81	10.50	33.05	262	150	8.18	33.89		26.40	264	0.42
				200	7.68	33.97		26.53	151	0.50
100	9.50	33.31b)	227	250	7.28					
117	8.76	33.62	192	300	6.75					
141	8.30	33.87	167							
174	7.92	33.93	157							
232	7.42	34.02	144							
308	6.68	33.92r	-							
424c)	6.26	34.11	-							

STRANGER; July 6, 1958; 0610 GCT; 40°45'N, 125°08'W; sounding, 1500 fm; wind, 360°, force 4; weather, fog; sea, very rough; wire angle, 20°. 43.50

0	14.36	32.74	6.07	354	0	14.36	32.74	6.07	24.39	354	0.00
9	14.26	32.74	6.24	352	10	14.25	32.74	6.24	24.42	352	0.04
28	10.73	32.90	5.91	276	20	12.40	32.83	6.08	24.85	301	0.07
41	10.00	33.17	5.02	245	30	10.50	32.95	5.75	25.28	270	0.10
50	9.79	33.21	4.61	238	50	9.79	33.21	4.61	25.61	238	0.15
59	9.26	33.33	4.49	222	75	8.83	33.50	4.00	25.99	202	0.20
68	9.00	33.44	4.22	209	100	8.28	33.66	3.02	26.21	182	0.25
83	8.62	33.57	3.59	194	150	7.62	33.96	2.45	26.54	151	0.34
96	8.34	33.59	3.24	188	200	7.07	34.02	2.16	26.66	139	0.41
107	8.24	33.80	2.99	172	250	6.80	34.08	1.64	26.74	131	0.48
128	7.98	33.89	2.98	161	300	6.50	34.09	1.36	26.79	127	0.54
150	7.62	33.96	2.45	151	400	5.82	34.18	1.00	26.94	112	0.67
182	7.18	33.99	2.24	142	500	5.28	34.19	0.71	27.02	104	0.78
225	6.94	34.07	1.73	134							
293	6.52	34.09	1.38	127							
375	5.98	34.17	1.03	114							
500	5.28	34.19	0.71	104							

a) Loose bottle cap; value falls on property curve.
b) Salinity bottle number was not recorded on the data sheet. Since standard handling and titrating procedures were used, this salinity value is assumed to be listed correctly.
c) Depth uncertain owing to malfunction of unprotected thermometer.

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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

43.60 STRANGER; July 6, 1958; 0005 GCT; 40°25'N, 125°45'W; sounding, 1550 fm; wind, 010°, force 4; weather, fog; sea, high; wire angle, 12°.

0	12.96	33 06	5.71	304	0	12.96	33.06	5.71	24.92	304	0.00
10	12 93	33 05	5.65	304	10	12.93	33.05	5.65	24.92	304	0.03
29	11.18	33.04	5.12	274	20	12.35	33.04	5.47	25.02	305	0.06
52	9.55	33.29	4.29	229	30	11.05	33.05	5.08	25.27	271	0.09
62	9.23	33.37	3.89	218	50	9.63	33.28	4.38	25.68	232	0.14
71	9.08	33.48	3.66	207	75	9.00	33.53	3.49	25.99	203	0.19
80	8.90	33.58	3.33	198	100	8.46	33.74	3.06	26.24	179	0.24
93	8.62	33.71	3.04	184	150	7.85	33.94	2.74	26.48	156	0.33
105	8.36	33.76	3.07	176	200	7.23	33.98	2.51	26.60	145	0.40
122	8.08	33.84	2.89	166	250	7.22	34.11a)	1.80	26.70	135	0.47
139	7.98	33.91	2.83	159	300	6.54	34.08	1.16	26.79	127	0.54
162	7.72	33.96	2.59	152	400	5.86	34.16	0.77	26.92	114	0.66
182	7.38	33.96	2.53	148	500	5.23	34.21	0.50	27.05	102	0.78
227	7.13	34.05	2.40	138							
290	6.60	34.07	1.24	129							
390	5.95	34.15	0.78	115							
513	5.16	34.22	0.44	101							

43.90 STRANGER; July 8, 1958; 0635 GCT; 39°29.5'N, 127°52'W; sounding, 2400 fm; wind, 360°, force 5; weather, overcast; sea, high; wire angle, 25°.

0	16.68	32.84		397	0	16.68	32.84		23.95	397	0.00
8	16.68	32.83		397	10	16.68	32.83		23.95	397	0.04
26	16.67	32.86		395	20	16.68	32.85		23.96	396	0.08
39	14.16	32.75		350	30	16.66	32.86		23.97	395	0.12
48	11.88	32.77		306	50	11.78	32.80		24.94	302	0.19
56	11.42	32.89		289	75	9.99	32.99		25.41	258	0.26
64	10.77	32.92		276	100	9.06	33.28		25.78	222	0.32
80	9.72	33.04		250	150	7.98	33.76		26.33	171	0.42
92	9.24	33.24		228	200	7.20	33.94		26.58	147	0.50
106p	8.96	33.30		219	250	6.54	34.01		26.73	133	0.57
128p	8.40	33.58		190	300	5.92	34.04		26.83	123	0.64
161p	7.77	33.82		163	400	5.10	34.06		26.95	112	0.76
221p	6.90	33.98		140							
302p	5.91	34.04		123							
429p	4.92	34.07		109							

47.50 STRANGER; July 5, 1958; 1115 GCT; 40°13'N, 124°31.5'W; sounding, 140 fm; wind, 180°, force 2; weather, fog; sea, moderate; wire angle, 20°.

0	12.52	33.12	5.34	292	0	12.52	33.12	5.34	25.05	292	0.00
9	12.24	33.14	5.39	285	10	12.23	33.14	5.39	25.13	285	0.03
29	11.28	33.22	4.89	262	20	12.12	33.15	5.35	25.16	282	0.06
47	10.00	33.58	4.33	214	30	11.27	33.24	4.88	25.38	260	0.08
69	8.72	33.74	3.66	182	50	9.90	33.60	4.32	25.90	212	0.13
92	8.01	33.90	2.40	161	75	8.45	33.78	3.40	26.28	175	0.18
116	7.89	33.95	2.00	155	100	7.99	33.92	2.28	26.45	158	0.22
145	7.75	34.00	1.87	150	150	(7.70)	(34.02)	(1.85)	(26.57)	(148)	(0.30)

a) This value results from an unusual feature produced in the salinity curve by inclusion of a bathythermograph feature in the temperature curve.

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

STRANGER; July 5, 1958; 1453 GCT; 40°03.5'N, 124°54'W; sounding, 800 fm; wind, 110°, force 2; weather, fog; sea, high; wire angle, 03°. 47.55

0	15.72	32.73	5.75	383	0	15.72	32.73	5.75	24.10	383	0.00
10	15.70	32.81	5.81	377	10	15.70	32.81	5.81	24.16	377	0.04
30	13.08	32.74	6.55	330	20	15.42	32.81	5.90	24.21	372	0.08
44	11.64	32.74	6.48	304	30	13.08	32.74	6.55	24.65	330	0.11
54	11.20	32.80	6.12	292	50	11.39	32.77	6.29	24.99	298	0.17
63	10.72	32.86	5.79	279	75	10.04	33.02	5.44	25.42	257	0.24
71	10.32	32.97	5.52	264	100	8.95	33.26	5.21	25.99	222	0.30
90	9.26	33.24	5.25	236	150	8.38	33.79	3.20	26.29	174	0.40
105	8.81	33.33	5.21	215	200	7.74	33.98	2.58	26.54	151	0.49
140p	8.50	33.70	3.36	183	250	7.18	34.04	2.02	26.66	139	0.56
183p	7.98	33.95	2.75	156	300	6.77	34.05	1.55	26.72	133	0.63
249p	7.18	34.04	2.02	139	400	6.19	34.10	0.88	26.85	121	0.76
337p	6.48	34.05	1.22	129							
469p	5.86	34.16	0.56	114							

STRANGER; July 5, 1958; 1807 GCT; 39°52'N, 125°19.5'W; sounding, 1600 fm; wind, 360°, force 3; weather, fog; sea, very rough; wire angle, 03°. 47.60

0	15.62	32.74		380	0	15.62	32.74		24.10	380	0.00
9	15.55	32.81		374	10	15.54	32.80		24.18	374	0.04
29	15.47	32.75		377	20	15.50	32.78		24.17	375	0.08
38	15.46	32.76		376	30	15.47	32.75		24.16	376	0.11
49	15.22	32.72		373	50	15.19	32.72		24.20	373	0.19
58	14.51	32.70		360	75	10.11	33.10		25.45	254	0.27
67	11.29	32.98		280	100	9.08	33.37		25.85	216	0.33
82	9.67	33.16		240	150	8.25	33.81		26.32	171	0.42
131p	8.38	33.66		184	200	7.97	33.98		26.50	154	0.50
167p	8.20	33.89		164	250	7.38	34.03		26.63	142	0.58
231p	7.62	34.02		146	300	6.66	34.04		26.73	132	0.65
315p	6.48	34.05		130	400	6.12	34.16		26.90	116	0.78
433p	5.98	34.23		110							

STRANGER; July 8, 1958; 1145 GCT; 38°54'N, 127°30'W; sounding, 2450 fm; wind, 360°, force 6; weather, overcast; sea, high; wire angle, 13°. 47.90

0	17.00	33.01		391	0	17.00	33.01		24.01	391	0.00
10	17.00	33.04		388	10	17.00	33.04		24.04	388	0.04
29	17.00	32.98		393	20	17.00	33.01		24.01	391	0.08
43	13.16	32.97		314	30	17.00	32.98		23.99	393	0.12
52	12.16	32.95		298	50	12.22	32.95		24.98	299	0.19
61	11.91	32.97		290	75	11.68	33.03		25.14	284	0.26
71	11.76	33.02		285	100	10.46	33.11		25.42	257	0.33
89	11.51	33.06		278	150	8.35	33.47		26.04	198	0.44
102	10.24	33.12		253	200	7.95	33.92		26.46	158	0.53
117	9.14	33.30		222	250	7.22	33.98		26.60	144	0.61
140	8.45	33.42		203	300	6.54	33.97		26.69	136	0.68
168	8.18	33.62		184	400	5.58	33.99		26.84	122	0.81
205	7.92	33.93		157	500	4.97	34.07		26.97	110	0.94
256	7.15	33.98		143							
336	6.17	33.96		132							
434	5.27	34.02		117							
572	4.62	34.15		100							

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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
50.60	STRANGER; July 9, 1958; 1455 GCT; 39°25'N, 124°50'W; sounding, 1220 fm; wind, 340°, force 7; weather, overcast; sea, very high; wire angle, 05°.										
0	15.20	32.78		369	0	15.20	32.78		24.24	369	0.00
9	15.18	32.79		368	10	(15.18)	(32.79)		(24.26)	(367)	(0.04)
58	13.42	32.84		329	20	(15.18)	(32.79)		(24.26)	(367)	(0.07)
114	9.16	33.33		220	30	(15.2)	(32.79)		(24.26)	(367)	(0.11)
					50	(15.2)	(32.79)		(24.26)	(367)	(0.18)
					75	11.8	33.03		25.11	286	(0.26)
					100	10.38	33.20		25.51	248	(0.33)
50.70	STRANGER; July 9, 1958; 0654 GCT; 39°06'N, 125°38'W; sounding, 2000 fm; wind, 360°, force 7; weather, overcast; sea, high; wire angle, 05°.										
0	14.38	32.85		346	0	14.38	32.85		24.48	346	0.00
11	14.36	32.90		343	10	14.36	32.90		24.52	343	0.03
30	13.74	32.84		335	20	14.35	32.90		24.52	343	0.07
44	12.68	32.92		310	30	13.74	32.84		24.60	335	0.10
54	11.98	32.95		294	50	12.27	32.94		24.96	301	0.17
63	11.17	32.98		278	75	10.21	33.14		25.46	253	0.24
73	10.52	33.12		253	100	9.38	33.42		25.86	215	0.30
92	9.31	33.35		220	150	8.52	33.79		26.27	176	0.39
105	9.40	33.47		213	200	8.06	33.98		26.48	156	0.48
120	8.97	33.58		198	250	7.48	34.03		26.61	144	0.56
143	8.58	33.77		178	300	6.95	34.09		26.74	132	0.63
171	8.34	33.88		166	400	6.12	34.14		26.88	118	0.76
207	7.98	33.99		154	500	5.57	34.19		27.00	107	0.87
257	7.40	34.04		142							
338	6.62	34.12		126							
437	5.88	34.15		115							
578	5.13	32.27		97							
50.80	STRANGER; July 9, 1958; 0013 GCT; 38°42.5'N, 126°23'W; sounding, 2320 fm; wind, 360°, force 6; weather, cloudy; sea, very high; wire angle, 20°.										
0	16.52	32.87		390	0	16.52	32.87		24.02	390	0.00
9	16.50	32.86		391	10	16.50	32.86		24.01	391	0.04
28	16.52	32.92		386	20	16.51	32.89		24.03	389	0.08
55	14.15	33.02		330	30	16.52	32.92		24.06	386	0.12
63	13.40	33.04		314	50	16.48	32.92		24.06	386	0.19
71	12.87	33.03		305	75	12.62	33.02		24.96	301	0.28
84	12.25	33.01		295	100	10.80	33.09		25.35	264	0.35
95	11.84	33.04		285	150	8.20	33.53		26.11	191	0.46
106	10.18	33.13		250	200	7.94	33.92		26.46	158	0.56
120	9.22	33.22		229	250	7.30	33.98		26.59	145	0.63
136	8.42	33.37		206	300	6.73	34.02		26.71	134	0.70
159	8.16	33.65		181	400	6.18	34.12		26.86	120	0.84
177	8.12	33.80		177	500	5.35	34.16		26.99	108	0.96
218	7.76	33.95		153							
286	6.82	34.00		137							
379	6.30	34.11		122							
504	5.27	34.16		106							

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; July 8, 1958; 1649 GCT; 38°19'N, 127°08'W; sounding, 2520 fm; wind, 360°, force 6; weather, overcast; sea, high; wire angle, 15°. 50.90

0	17.00	32.99		390	0	17.00	32.99	24.00	390	0.00
9	16.99	32.97		394	10	16.99	32.97	23.98	394	0.04
28	16.99	32.97		394	20	16.99	32.97	23.98	394	0.08
55	13.08	32.99		312	30	16.99	32.97	23.98	394	0.12
66	12.64	33.00		302	50	15.46	32.98	24.33	360	0.19
74	12.44	33.04		296	75	12.43	33.04	25.00	296	0.28
89	12.14	33.10		286	100	11.55	33.21	25.31	268	0.35
101	11.54	33.21		267	150	9.28	33.58	25.98	203	0.46
115	10.10	33.34		234	200	8.66	33.86	26.30	173	0.56
132	9.65	33.46		218	250	8.10	34.02	26.52	153	0.64
151	9.26	33.58		203	300	7.60	34.09	26.64	141	0.72
177	8.96	33.75		185	400	6.83	34.15	26.79	126	0.86
198	8.66	33.86		173	500	6.38	34.20	26.93	114	0.98
248	8.08	34.02		153						
325	7.42	34.11		137						
427	6.63	34.16a)		123						
559	5.84	34.24		108						

PAOLINA-T; July 17, 1958; 2225 GCT; 39°02.5'N, 123°51'W; sounding, 52 fm; wind, 340°, force 3; weather, partly cloudy; sea, moderate; wire angle, 05°. 53.52

0	11.84	33.44	6.86	256	0	11.84	33.44	6.86	25.43	256	0.00
10	9.54	33.55	5.45	209	10	9.54	33.55	5.45	25.92	209	0.02
31	8.74	33.71	3.21	185	20	9.05	33.62	4.91	26.05	197	0.04
51	8.60	33.84	2.74	174	30	8.76	33.71	3.24	26.17	186	0.06
77	8.40	33.93	2.15	164	50	8.60	33.84	2.74	26.29	174	0.10
					75	8.40	33.93	2.18	26.39	164	0.14

PAOLINA-T; July 17, 1958; 2005 GCT; 38°56.5'N, 124°02.5'W; sounding, 380 fm; wind, variable, force 1; weather, partly cloudy; sea, moderate; wire angle, 00°. 53.55

0	13.31	33.19	6.41	301	0	13.31	33.19	6.41	24.96	301	0.00
10	11.32	33.21	6.09	263	10	11.32	33.21	6.09	25.36	263	0.03
31	10.78	33.38	6.53	242	20	11.05	33.34	6.29	25.49	250	0.05
42	10.20	33.39	5.79	232	30	10.79	33.38	6.51	25.58	242	0.08
52	9.30	33.47	4.15	212	50	9.43	33.45	4.37	25.86	215	0.12
61	9.18	33.59	4.25	201	75	9.07	33.65	3.39	26.08	194	0.18
72	9.08	33.66	3.41	194	100	8.92	33.72	3.15	26.16	187	0.22
87	9.02	33.65	3.36	194	150	8.30	33.92	2.37	26.40	164	0.31
103	8.86	33.73	3.02	186	200	7.98	33.99	2.08	26.50	154	0.39
118	8.55	33.80	2.86	176	250	7.41	34.04	1.78	26.62	143	0.47
143	8.36	33.88	2.41	167	300	7.02	34.08	1.40	26.72	134	0.54
174	8.19	33.96	2.24	159	400	6.44	34.14	0.88	26.84	122	0.67
208	7.89	34.00	2.02	152	500	5.95	34.19	0.56	26.94	112	0.79
258	7.35	34.04	1.75	141							
338	6.80	34.12	1.12	128							
438	6.22	34.15	0.73	119							
569	5.62	34.24	0.40	105							

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	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

53.60 PAOLINA-T; July 17, 1958; 1639 GCT; 38°46.5'N, 124°26.5'W; sounding, 1960 fm; wind, calm; weather, fog; sea, moderate; wire angle, 16°.

0	13.66	32.81	6.01	336	0	13.66	32.81	6.01	24.59	336	0.00
10	10.98	33.06	5.86	269	10	10.98	33.06	5.86	25.29	269	0.03
29	10.59	33.13	5.54	257	20	10.75	33.10	5.69	25.36	262	0.06
39	10.36	33.22	5.55	246	30	10.56	33.13	5.54	25.42	256	0.08
49	10.16	33.24	5.45	242	50	10.14	33.24	5.43	25.58	242	0.13
59	10.08	33.30	5.40	237	75	9.87	33.32	5.38	25.68	232	0.19
69	10.03	33.30	5.41	236	100	9.45	33.55	5.07	25.93	208	0.25
83	9.61	33.34	5.19	226	150	8.62	33.94	2.25	26.37	166	0.34
98	9.51	33.55	5.05	209	200	8.02	34.04	1.74	26.54	150	0.42
111	8.84	33.53	5.24	200	250	7.37	34.06	1.51	26.65	140	0.50
134	8.78	33.82	2.76	178	300	7.12	34.10	1.17	26.71	134	0.57
162	8.52	33.98	2.06	162	400	6.53	34.16	0.78	26.84	122	0.70
192	8.18	34.04	1.79	152	500	6.81	34.20	0.54	26.96	110	0.82
237	7.45	34.05	1.63	142							
314	7.05	34.11	1.21	132							
408	6.44	34.16	0.75	120							
535	5.58	34.21	0.47	106							

57.51 PAOLINA-T; July 17, 1958; 0325 GCT; 38°30'N, 123°22'W; sounding, 58 fm; wind, calm; weather, fog; sea, slight; wire angle, 07°.

0	11.58	33.28	6.17	263	0	11.58	33.28	6.17	25.36	263	0.00
10	10.25	33.64	5.75	214	10	10.25	33.64	5.75	25.87	214	0.02
30	9.59	33.68	5.07	200	20	9.87	33.67	5.44	25.96	206	0.04
50	8.94	33.75	3.26	185	30	9.59	33.68	5.07	26.02	200	0.06
77	8.64	33.80	2.58	178	50	8.94	33.75	3.26	26.18	185	0.10
					75	8.65	33.80	2.60	26.24	178	0.15

57.55 PAOLINA-T; July 17, 1958; 0603, 0630 GCT; 38°22'N, 123°39.5'W; sounding, 400 fm; wind, 340°, force 3; weather, fog; sea, moderate; wire angle, 05°, 05°.

0	13.08	33.33	6.32	287	0	13.08	33.33	6.32	25.10	287	0.00
10	12.92	33.30	6.17	286	10	12.92	33.30	6.17	25.12	286	0.03
31	11.00	33.42	5.00	243	20	12.02	33.36	5.60	25.34	265	0.06
47	10.59	33.53	5.15	228	30	11.02	33.42	5.00	25.56	243	0.08
57	10.24	33.52	4.73	223	50	10.47	33.53	5.03	25.74	226	0.13
67	9.86	33.47	4.37	220	75	8.81	33.42	4.37	25.92	209	0.18
77	8.76	33.41	4.37	208	100	8.60	33.78	3.20	26.25	178	0.23
97	8.60	33.75	3.27	180	150	8.55	33.93	2.01	26.38	166	0.32
111	8.66	33.86	2.46	173	200	8.35	34.01	1.65	26.48	156	0.40
127	8.72	33.89	2.10	172	250	7.89	34.04	1.42	26.56	149	0.48
152	8.55	33.93	2.01	166	300	7.65	34.07	1.31	26.62	143	0.55
181	8.42	34.00	1.74	160	400	6.85	34.11	0.96	26.76	130	0.70
222	8.12	34.01	1.59	154	500	6.11	34.14	0.63	26.88	118	0.82
276	7.77	34.06	1.35	145	600	5.73	34.17	0.49	26.95	111	0.94
362	7.34	34.09	1.14	137							
456	6.32	34.13	0.72	121							
604	5.72	34.17	0.49	111							

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
PAOLINA-T; July 17, 1958; 1003 GCT; 38°12'N, 124°01.5'W; sounding, 1980 fm; wind, 320°, force 3; weather, fog; sea, moderate; wire angle, 08°.											57.60
0	12.36	33.21	6.67	282	0	12.36	33.21	6.67	25.16	282	0.00
10	11.67	33.24	6.35	268	10	11.67	33.24	6.35	25.30	268	0.03
30	10.92	33.31	5.95	250	20	11.30	33.28	6.15	25.40	258	0.05
40	9.94	33.39	5.13	227	30	10.92	33.31	5.95	25.50	250	0.08
50	9.32	33.40	4.60	217	50	9.32	33.40	4.60	25.84	217	0.12
60	9.00	33.42	4.25	211	75	8.95	33.56	3.77	26.02	200	0.18
69	9.02	33.50	4.03	205	100	8.72	33.67	3.01	26.14	188	0.23
84	8.78	33.62	3.45	192	150	8.10	33.89	2.17	26.41	163	0.32
99	8.74	33.84u	3.00	-	200	7.84	34.05	1.45	26.58	147	0.39
113	8.43	33.78	3.13	176	250	7.43	34.10	1.23	26.67	138	0.47
137	8.16	33.84	3.45	167	300	7.12	34.12	1.05	26.73	132	0.54
166	8.08	33.95	2.02	158	400	6.55	34.18	0.73	26.88	118	0.66
200	7.84	34.05	1.45	147	500	5.90	34.20	0.49	26.95	111	0.78
249	7.44	34.10	1.24	138							
327	6.95	34.13	0.98	130							
425	6.39	34.18	0.65	118							
554	5.56	34.20	0.43	106							
STRANGER; July 10, 1958; 0636 GCT; 37°47.5'N, 123°15'W; sounding, 55 fm; wind, 320°, force 4; weather, fog; sea, very rough; wire angle, 08°.											60.55
0	13.96	33.02		326	0	13.96	33.02		24.69	326	0.00
10	13.90	33.01		326	10	13.90	33.01		24.70	326	0.03
29	10.78	33.29		248	20	10.94	33.10		25.34	265	0.06
48	10.45	33.47		230	30	10.78	33.31		25.52	247	0.09
73	8.68	33.67		188	50	10.30	33.47		25.72	228	0.14
					75	(8.68)	(33.69)		(26.17)	(186)	(0.19)
STRANGER; July 10, 1958; 1003 GCT; 37°37'N, 123°37'W; sounding, 1540 fm; wind, 320°, force 4; weather, fog; sea, rough; wire angle, 20°.											60.60
0	15.98	33.01		368	0	15.98	33.01		24.25	368	0.00
9	15.98	32.97		371	10	15.98	32.97		24.22	371	0.04
28	12.70	33.04		301	20	15.98	32.97		24.22	371	0.07
42	11.39	33.15		270	30	12.47	33.05		25.00	296	0.11
51	10.74	33.27		249	50	11.10	33.26		25.42	257	0.16
60	9.72	33.32		229	75	9.10	33.42		25.88	212	0.22
69	9.25	33.35		220	100	8.71	33.60		26.10	192	0.27
85	8.70	33.52		199	150	8.22	33.90		26.40	164	0.36
98	8.70	33.60		193	200	7.30	33.97		26.59	146	0.44
109	8.68	33.68		186	250	6.85	34.02		26.69	136	0.51
130	8.37	33.82		172	300	6.80	34.10		26.76	129	0.58
154	8.20	33.92		162	400	6.25	34.24		26.94	113	0.71
188	7.46	33.96		149	500	5.72	34.28		27.04	103	0.82
238	6.92	34.00		138							
308	6.78	34.14		126							
392	6.29	34.23		113							
537	5.54	34.29		100							

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

60.70 STRANGER; July 10, 1958; 1627, 1713 GCT; 37°17'N, 124°21'W; sounding, 2250 fm; wind, 330°, force 5; weather, overcast; sea, high; wire angle, 13°, 20°.

0	15.27	33.04	352	0	15.27	33.04	24.42	352	0.00
10	15.24	33.06	350	10	15.24	33.06	24.44	350	0.04
30	11.63a)	33.27	264	20	15.22	33.06	24.45	349	0.07
45	10.01	33.39	229	30	11.63	33.27	25.34	264	0.10
53	9.74	33.43	221	50	9.85	33.41	25.76	224	0.15
62	9.26	33.46	212	75	9.05	33.49	25.94	207	0.20
70	9.08	33.48	208	100	8.73	33.70	26.16	186	0.25
89	8.86	33.66	191	150	8.16	33.90	26.40	163	0.34
101b)	8.55	33.73	-	200	7.42	33.99	26.59	146	0.42
				250	6.92	34.00	26.67	138	0.49
111b)	8.72	33.68	-	300	6.72	34.10	26.78	128	0.56
133	8.32	33.82	171	400	5.68	34.13	26.93	114	0.69
159	8.05	33.93	159	500	5.06	34.19	27.05	102	0.80
195	7.50	33.99	147						
244	6.97	34.00	139						
319	6.62	34.13	125						
417	5.44	34.13	111						
553	4.96	34.22	98						

60.80 STRANGER; July 10, 1958; 2200, 2230 GCT; 36°57'N, 125°04'W; sounding, 2375 fm; wind, 350°, force 4; weather, overcast; sea, very rough; wire angle, 15°, 22°.

0	15.10	32.81	365	0	15.10	32.81	24.28	365	0.00
10	15.08	32.84	363	10	15.08	32.84	24.30	363	0.04
29	15.03	32.83	362	20	15.07	32.84	24.30	363	0.07
42	12.91	32.85	318	30	15.02	32.83	24.32	362	0.11
51	12.34	32.88	306	50	12.37	32.88	24.89	307	0.18
60	11.94	32.88	299	75	11.40	33.04	25.10	277	0.25
69	11.82	32.97	290	100	9.82	33.32	25.69	231	0.31
89	10.16	33.24	242	150	8.55	33.72	26.21	182	0.42
				200	8.02	33.95	26.47	157	0.50
98	9.86	33.30	233	250	7.20	34.03	26.65	140	0.58
109	9.44	33.46	214	300	6.65	34.06	26.75	130	0.65
133	8.94	33.59	197	400	6.08	34.12	26.87	119	0.78
158	8.38	33.78	175	500	5.37	34.17	27.00	106	0.90
191	8.14	33.93	160						
238	7.37	34.02	143						
311	6.58	34.07	128						
406	6.02	34.13	118						
540	5.00	34.19	102						

60.90 STRANGER; July 11, 1958; 0325 GCT; 36°37'N, 125°47'W; sounding, 2500 fm; wind, 360°, force 4; weather, overcast; sea, very rough; wire angle, 09°.

0	16.68	32.85	396	0	16.68	32.85	23.96	396	0.00
10	16.67	32.81	398	10	16.67	32.81	23.94	398	0.04
29	16.67	32.84	396	20	16.67	32.84	23.95	397	0.08
43	13.89	32.84	338	30	16.67	32.84	23.96	396	0.12
53	12.52	32.86	310	50	12.88	32.86	24.78	318	0.19
62	11.74	32.86	297	75	11.34	32.93	25.14	284	0.26
71	11.33	32.83	292	100	10.19	33.20	25.53	246	0.33
89	11.36	33.14	269	150	8.73	33.69	26.16	186	0.44
104	9.79	33.22	238	200	8.46	33.96	26.41	163	0.53
116	9.26	33.43	214	250	8.00	34.02	26.53	152	0.61
138	8.82	33.62	193	300	7.47	34.09	26.66	139	0.68
163	8.64	33.80	177	400	6.60	34.14	26.82	124	0.82
198	8.46	33.96	163	500	6.00	34.18	26.92	114	0.95
245	8.04	34.01	153						
318	7.28	34.11	136						
411	6.54	34.14	123						
543	5.74	34.21	108						

a) Mean value of 11.69 and 11.57°C.
b) Depth uncertain; not used in interpolation.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T}{}^{3}_{-5}$ 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T}{}^{3}_{-5}$ 10 cm/g	ΔD dyn. m
STRANGER; July 12, 1958; 0610 GCT; 37°19'N, 122°36'W; sounding, 46 fm; wind, 340°, force 3; weather, fog; sea, moderate; wire angle, 03°.											63.52
0	12.81	33.07		301	0	12.81	33.07		24.96	301	0.00
10	11.05	33.37		247	10	11.05	33.37		25.52	247	0.03
29	9.24	33.64		198	20	9.82	33.54		25.86	234	0.05
49	8.95	33.78		183	30	9.23	33.64		26.04	198	0.07
73	8.82	33.89		174	50	8.94	33.78		26.20	183	0.11
					75	(8.81)	(33.91)		(26.31)	(172)	(0.15)
STRANGER; July 12, 1958; 0137 GCT; 37°02.5'N, 123°12'W; sounding, 1125 fm; wind, 320°, force 5; weather, overcast; sea, very rough; wire angle, 02°.											63.60
0	13.30	33.17		302	0	13.30	33.17		24.94	302	0.00
10	13.28	33.21		300	10	13.28	33.21		24.97	300	0.03
29	10.39	33.40		234	20	13.26	33.22		24.99	298	0.06
44	9.72	33.49		216	30	10.37	33.40		25.67	333	0.09
63	9.45	33.71		196	50	9.61	33.57		25.92	209	0.13
72	9.38	33.78		190	75	9.37	33.80		26.14	188	0.18
91	9.26	33.83		185	100	9.06	33.84		26.22	181	0.23
105	8.98	33.84		179	150	8.57	33.99		26.44	160	0.31
118	8.87	33.91		173	200	7.82	34.05		26.58	147	0.39
140	8.71	33.99		164	250	7.40	34.15		26.71	134	0.46
167	8.03	34.00		154	300	6.81	34.14		26.79	127	0.53
204	7.80	34.07		145	400	6.06	34.19		26.92	114	0.65
254	7.38	34.15		133	500	5.65	34.27		27.04	103	0.77
332	6.48	34.14		123							
431	5.93	34.22		110							
571	5.40	34.31		96							
STRANGER; July 11, 1958; 1940 GCT; 36°42'N, 123°55'W; sounding, 2150 fm; wind, 350°, force 5; weather overcast; sea, very rough; wire angle, 08°											63.70
0	15.58	33.01		360	0	15.58	33.01		24.33	360	0.00
10	15.58	33.03		358	10	15.58	33.03		24.35	358	0.04
29	15.54	32.98		361	20	15.56	33.01		24.34	359	0.07
44	11.36	33.14		269	30	15.54	32.98		24.32	361	0.11
53	10.47	33.33		240	50	10.77	33.25		25.47	252	0.17
62	9.84	33.48		220	75	9.40	33.58		25.96	206	0.23
71	9.46	33.56		208	100	8.81	33.69		26.15	188	0.28
89	9.11	33.64		196	150	8.20	33.84		26.36	168	0.37
103	8.76	33.71		185	200	7.53	33.96		26.55	150	0.45
116	8.68	33.78		180	250	6.89	34.00		26.67	138	0.52
139	8.36	33.78		174	300	6.61	34.08		26.76	129	0.59
164	8.02	33.94		158	400	5.96	34.16		26.91	115	0.72
202	7.51	33.96		150	500	5.48	34.21		27.02	105	0.83
252	6.87	34.00		138							
330	6.43	34.12		123							
429	5.78	34.17		112							
568	5.20	34.27		98							

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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
63.80	STRANGER; July 11, 1958; 1425 GCT; 36°22.5'N, 124°38'W; sounding, 2300 fm; wind, 330°, force 5; weather, overcast; sea, very rough; wire angle, 05°.										
0	16.05	32.88		379	0	16.05	32.88		24.13	379	0.00
10	16.04	32.89		378	10	16.04	32.89		24.14	378	0.04
29	16.04	32.89		378	20	16.04	32.89		24.14	378	0.08
44	16.06	32.93		376	30	16.04	32.89		24.14	378	0.11
53	16.06	32.94		376	50	16.06	32.94		24.16	376	0.19
63	14.57	33.15		329	75	13.00	33.20		25.03	294	0.27
73	13.88	33.20		312	100	10.75	33.38		25.58	242	0.34
91	11.94	33.27		270	150	8.61	33.68		26.18	184	0.45
105	10.15	33.43		228	200	8.05	33.93		26.45	159	0.54
117	9.12	33.36		217	250	7.54	33.99		26.57	147	0.62
140	8.78	33.57		196	300	6.86	33.99		26.67	138	0.69
166	8.56	33.78		177	400	6.04	34.09		26.85	122	0.82
203	8.02	33.93		159	500	5.68	34.16		26.96	111	0.94
253	7.52	33.99		147							
332	6.47	33.99		134							
430	5.88	34.13		116							
570	5.42	34.18		107							
63.90	STRANGER; July 11, 1958; 0815, 0857 GCT; 36°03'N, 125°21'W; sounding, 2550 fm; wind, 340°, force 5; weather, overcast; sea, very rough; wire angle, 06°, 06°.										
0	17.18	32.99		396	0	17.18	32.99		23.96	396	0.00
10	17.18	33.01		395	10	17.18	33.01		23.97	395	0.04
30	17.16	33.01		395	20	17.17	33.01		23.97	395	0.08
44	15.64	32.94		366	30	17.16	33.01		23.97	395	0.12
54	13.15	32.92		318	50	13.62	32.94		24.70	326	0.19
63	12.49	32.88		309	75	11.62	32.92		25.06	291	0.27
					100	10.00	33.23		25.60	240	0.34
73	11.80	32.90		285	150	8.64	33.68		26.17	186	0.44
91	10.52	33.08		260	200	8.05	33.95		26.46	158	0.53
104	9.78	33.31		231	250	7.48	34.03		26.61	144	0.61
117	9.24	33.42		215	300	6.95	34.07		26.72	134	0.68
138	8.71	33.61		192	400	6.41	34.13		26.83	123	0.81
165	8.57	33.85		172	500	5.93	34.20		26.96	111	0.93
202	8.02	33.95		157							
252	7.47	34.03		144							
331	6.72	34.09		129							
430	6.30	34.15		120							
569	5.58	34.24		104							
67.55	STRANGER; July 12, 1958; 1346 GCT; 36°39'N, 122°26'W; sounding, 1325 fm; wind, 315°, force 4; weather, overcast; sea, rough; wire angle, 08°.										
0	11.34	33.60		235	0	11.34	33.60		25.64	235	0.00
10	11.31	33.62		234	10	11.31	33.62		25.66	234	0.02
29	10.74	33.57		227	20	11.10	33.60		25.69	231	0.05
39	9.55	33.55		209	30	10.70	33.57		25.73	227	0.07
48	9.89	33.71		204	50	9.87	33.71		25.98	203	0.11
57	9.75	33.73		200	75	9.35	33.82		26.15	185	0.16
67	9.54	33.78		192	100	9.17	33.94		26.28	175	0.21
81	9.21	33.85		182	150	8.95	33.99		26.36	168	0.29
94	9.21	33.89		180	200	8.50	34.08		26.50	144	0.37
107	9.16	33.95		174	250	8.23	34.12		26.57	148	0.45
130	9.10	33.96		172	300	7.80	34.14		26.65	140	0.52
157	8.88	34.01		165	400	6.85	34.21		26.84	122	0.66
188	8.58	34.05		158	500	6.10	34.23		26.95	111	0.78
233	8.38	34.12		150							
307	7.76	34.14		139							
402	6.83	34.21		122							
527	5.86	34.23		108							

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; July 12, 1958; 1653 GCT; 36°29'N, 122°47.5'W; sounding, 1700 fm; wind, 340°, force 5; weather, overcast; sea, very rough; wire angle, 21°.											67.60
0	12.48	33.44		268	0	12.48	33.44		25.30	268	0.00
9	12.43	33.41		269	10	12.43	33.41		25.29	269	0.03
28	12.32	33.46		263	20	12.37	33.44		25.33	266	0.05
37	11.95	33.47		256	30	12.26	33.46		25.36	262	0.08
46	11.21	33.53		238	50	11.00	33.53		25.66	234	0.13
54	10.76	33.53		231	75	9.82	33.73		25.93	208	0.18
63	10.24	33.58		218	100	8.84	33.69		26.14	188	0.24
76	9.80	33.63		208	150	8.20	33.91		26.41	163	0.32
87	9.32	33.67		197	200	7.98	34.10		26.59	146	0.40
99	8.84	33.69		188	250	7.41	34.10		26.68	137	0.47
118	8.83	33.77		182	300	7.00	34.12		26.74	131	0.54
141	8.26	33.88		166	400	6.34	34.16		26.86	120	0.67
169	8.14	33.98		156	500	(5.60)	(34.22)		(27.01)	(106)	(0.79)
210	7.92	34.10		145							
277	7.14	34.11		133							
366	6.58	34.14		124							
486	5.71	34.21		108							
STRANGER; July 12, 1958; 2215 GCT; 36°07.5'N, 123°29'W; sounding, 2000 fm; wind, 340°, force 5; weather, overcast; sea, high; wire angle, 07°.											67.70
0	16.76	33.01		386	0	16.76	33.01		24.06	386	0.00
10	16.73	33.01		385	10	16.73	33.01		24.07	385	0.04
29	16.71	32.97		387	20	16.72	32.99		24.06	386	0.08
44	16.65	33.00		384	30	16.71	32.97		24.05	387	0.12
54	14.68	33.04		339	50	16.57	33.00		24.10	382	0.19
63	13.84	33.08		320	75	13.10	33.14		24.96	301	0.28
72	13.26	33.12		306	100	10.52	33.40		25.62	237	0.35
91	11.50	33.33		258	150	8.95	33.69		26.12	190	0.46
105	10.21	33.42		230	200	8.26	33.96		26.44	160	0.54
118	9.85	33.49		218	250	7.63	34.04		26.60	145	0.62
140	9.10	33.65		195	300	7.30	34.10		26.69	136	0.70
167	8.68	33.81		177	400	6.41	34.16		26.86	120	0.83
203	8.22	33.96		159	500	5.80	34.14		26.92	114	0.95
252	7.62	34.04		145							
329	7.13	34.13		132							
420	6.25	34.16		118							
566	5.40	34.11a)		112							
STRANGER; July 13, 1958; 0303 GCT; 35°47'N, 124°12.5'W; sounding, 2200 fm; wind, 340°, force 6; weather, overcast; sea, high; wire angle, 12°.											67.80
0	17.40	33.15		390	0	17.40	33.15		24.02	390	0.00
10	17.40	33.15		390	10	17.40	33.15		24.02	390	0.04
30	17.42	33.19		387	20	17.41	33.17		24.04	388	0.08
39	17.42	33.19		387	30	17.42	33.19		24.05	387	0.12
48	17.26	33.15		386	50	16.80	33.16		24.17	376	0.19
57	14.90	33.18		334	75	13.63	33.12		24.84	312	0.28
66	13.90	33.06		322	100	11.90	33.18		25.20	277	0.36
80	13.56	33.13		310	150	9.07	33.61		26.04	198	0.47
85p	13.46	33.12		308	200	8.28	33.94		26.42	162	0.56
95p	12.66	33.12		295	250	7.54	34.01		26.59	146	0.64
108p	10.90	33.30		250	300	6.93	34.04		26.70	136	0.72
129p	9.63	33.48		216	400	6.34	34.16		26.87	119	0.85
149p	9.08	33.61		198							
182p	8.58	33.90		168							
239p	7.70	34.00		149							
321p	6.74	34.05		132							
438p	6.18	34.21		113							

a) Value seems unusually low; nevertheless it was accepted.

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

67.90 STRANGER; July 13, 1958; 0805 GCT; 35°28.5'N, 124°52'W; sounding, 2450 fm; wind, 340°, force 4; weather, partly cloudy; sea, high; wire angle, 15°.

0	17.36	33.01		399	0	17.36	33.01		23.93	399	0.00
9	17.36	32.96		403	10	17.36	32.96		23.89	403	0.04
28	17.34	33.02		398	20	17.35	33.00		23.92	400	0.08
57	13 66a)	32.98		324	30	17.34	33.02		23.94	398	0.12
66	12.93	32.95		312	50	14.05	32.98		24.64	331	0.19
75	12.48	32.97		302	75	12.48	32.97		24.94	302	0.27
90	12.08	33.12		284	100	11.26	33.24		25.37	261	0.34
103	11.00	33.27		254	150	9.24	33.59		26.01	201	0.46
118	10.04	33.37		231	200	8.79	33.92		26.33	170	0.55
135	9.40	33.46		214	250	8.05	33.98		26.49	155	0.64
154	9.12	33.60		199	300	7.46	34.06		26.64	141	0.72
180	9.04	33.86		179	400	6.48	34.14		26.84	122	0.85
202	8.75	33.93		169	500	5.72	34.18		26.97	110	0.97
252	8.01	33.98		155							
327	7.20	34.11		134							
429	6.21	34.15		118							
560	5.30	34.22		102							

67.100 STRANGER; July 13, 1958; 1301 GCT; 35°09'N, 125°33'W; sounding, 2600 fm; wind, 340°, force 6; weather, cloudy; sea, high; wire angle, 20°.

0	17.38	33.02		399	0	17.38	33.02		23.92	399	0.00
9	17.39	32.99		401	10	17.39	32.99		23.90	401	0.04
28	17.40	33.03		398	20	17.40	33.02		23.92	399	0.08
41	16.12	33.12		364	30	17.40	33.04		23.95	397	0.12
50	14.54	33.13		330	50	14.54	33.13		24.65	330	0.19
60	13.94	33.08		322	75	12.79	32.98		24.88	308	0.27
68	13.23	32.96		317	100	11.62	33.21		25.29	269	0.35
84	12.28	33.01		295	150	8.86	33.65		26.10	192	0.46
97	11.80	33.19		274	200	8.17	33.86		26.38	165	0.55
110	10.90	33.31		249	250	7.65	33.98		26.55	150	0.63
130	9.34	33.48		231	300	7.40	34.10		26.68	137	0.71
155	8.78	33.68		188	400	6.52	34.16		26.85	121	0.84
188	8.28	33.84		169	500	5.87	34.21		26.96	110	0.96
236	7.77	33.96		152							
309	7.36	34.12		135							
402	6.50	34.16		121							
535	5.63	34.23		106							

70.52 PAOLINA-T; July 15, 1958; 0125 GCT; 36°09'N, 121°48'W; sounding, 350 fm; wind, 290°, force 6; weather, clear; sea, very rough; wire angle, 25°.

0	11.88	33.56	6.47	248	0	11.88	33.56	6.47	25.51	248	0.00
9	11.86	33.58	6.36	246	10	11.86	33.58	6.36	25.53	246	0.02
28	11.34	33.52	6.00	241	20	11.82	33.58	6.32	25.54	246	0.05
37	11.03	33.53	4.84	236	30	11.30	33.52	5.92	25.59	240	0.07
47	9.92	33.55	3.78	215	50	9.95	33.62	3.53	25.91	210	0.12
56	9.96	33.69	3.22	205	75	9.63	33.79	2.91	26.08	194	0.17
65	9.83	33.79	3.04	197	100	9.15	33.87	2.57	26.23	180	0.22
78	9.59	33.79	2.86	192	150	8.82	34.01	1.94	26.40	164	0.30
91	9.26	33.85	2.65	183	200	8.60	34.08	1.67	26.48	156	0.38
105	9.10	33.87	2.53	179	250	8.06	34.11	1.96	26.59	146	0.46
128	9.02	33.96	2.13	171	300	7.60	34.11	1.32	26.66	140	0.54
155	8.80	34.02	1.92	164	400	7.17	34.19	0.92	26.78	128	0.67
188	8.70	34.06	1.85	159	500	6.45	34.22	0.63	26.90	116	0.80
234	8.21	34.11	1.52	148							
309	7.56	34.11	1.29	138							
405	7.16	34.19	0.88	128							
532	6.20	34.22	0.57	113							

a) Mean value of 13.60 and 13.73°C.

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
PAOLINA-T; July 14, 1958; 1955 GCT; 35°49.5'N, 122°23'W; sounding, 2000 fm; wind, 320°, force 5; weather, cloudy; sea, high; wire angle, 22°											70.60
0	15.69	32.99	5.90	364	0	15.69	32.99	5.90	24.30	364	0.00
10	14.82	33.03	5.93	343	10	14.82	33.03	5.93	24.51	343	0.04
32	13.12	33.17	6.21	299	20	14.14	33.09	6.04	24.70	325	0.07
43	11.39	33.00	5.65	280	30	13.30	33.16	6.18	24.93	303	0.10
57	10.31	33.13	5.21	252	50	10.75	33.07	5.38	25.34	264	0.16
66	10.14	33.16	5.12	248	75	9.50	33.22	5.01	25.67	233	0.22
75	9.50	33.22	5.01	233	100	9.13	33.49	4.13	25.94	208	0.28
92	9.01	33.35	4.61	216	150	8.73	33.75	3.32	26.21	182	0.37
110	9.26	33.63	3.70	200	200	8.02	33.98	2.40	26.49	155	0.46
122	9.16	33.67	3.59	194	250	7.38	34.02	1.79	26.62	143	0.54
143	8.84	33.73	3.39	186	300	7.03	34.10	1.40	26.72	133	0.61
177	8.14	33.89	3.02	163	400	6.39	34.16	0.88	26.86	120	0.74
211	7.97	34.01	1.97	152	500	5.76	34.20	0.67	26.98	109	0.86
262	7.24	34.03	1.73	141	600	(5.21)	(34.30)		(27.11)	(96)	(0.96)
340	6.86	34.14	1.05	128							
445	6.02	34.17	0.77	115							
589	5.28	34.29	0.40	97							
PAOLINA-T; July 14, 1958; 1138 GCT; 35°30'N, 123°12'W; sounding, 2350 fm; wind, 290°, force 7; weather, partly cloudy; sea, high; wire angle, 29°											70.70
0	16.52	32.91	5.66	387	0	16.52	32.91	5.66	24.05	387	0.00
9	16.53	32.95	5.63	385	10	16.51	32.95	5.63	24.08	384	0.04
30	15.77	32.97	5.75	366	20	16.30	32.96	5.67	24.13	379	0.08
42	14.12	32.97	5.95	333	30	15.77	32.97	5.75	24.27	366	0.11
56	12.79	32.97	5.83	308	50	13.33	32.97	5.89	24.78	318	0.18
62	12.14	33.15	5.46	283	75	11.80	33.25	5.12	25.29	269	0.26
72	11.90	33.22	5.23	273	100	11.02	33.44	4.48	25.58	242	0.32
89	11.28	33.39	4.69	250	150	9.62	33.74	2.76	26.05	197	0.43
109	10.76	33.48	4.23	234	200	8.47	33.84	2.77	26.31	172	0.52
121	10.26	33.63	3.63	215	250	8.15	34.00	1.58	26.49	155	0.61
142	9.77	33.71	2.93	201	300	7.93	34.05	1.43	26.56	148	0.69
177	9.35	33.87	2.40	183	400	6.86	34.10	0.98	26.74	131	0.83
213	8.32	33.88	2.77	167	500	5.83	34.12	0.57	26.90	116	0.96
264	8.12	34.02	1.56	153	600	(5.30)	(34.19)	(0.36)	(27.02)	(105)	(1.08)
345	7.56	34.08	1.27	141							
450	6.20	34.10	0.70	122							
599	5.30	34.19	0.36	105							
STRANGER; July 14, 1958; 0752 GCT; 35°07.5'N, 123°50'W; sounding, 2300 fm; wind, 340°, force 6; weather, clear; sea, high; wire angle, 21°.											70.80
0	15.9	-		376	0	15.9	(32.89)		(24.17)	(376)	(0.00)
9	15.90	32.89		376	10	15.90	32.89		24.17	376	0.04
27	15.92	32.88		376	20	15.91	32.88		24.17	376	0.08
41	15.88	32.88		376	30	15.91	32.88		24.17	376	0.11
50	14.80	32.92		350	50	14.80	32.92		24.44	350	0.18
58	13.54	33.04		317	75	12.38	32.96		24.96	301	0.27
67	12.88	32.97		310	100	10.57	33.19		25.47	252	0.34
84	11.80	32.95		291	150	9.39	33.83		26.16	186	0.45
104	10.18	33.30		238	200	8.60	33.97		26.40	164	0.54
125	9.36	33.52		209	250	7.90	34.10		26.91	144	0.62
147	9.42	33.82		188	300	7.37	34.17		26.70	135	0.69
178	8.64	33.87		172	400	6.72	34.20		26.85	121	0.82
222	8.18	34.02		154	500	5.58	34.22		26.99	108	0.94
292	7.60	34.16		136							
385	6.84	34.20		123							
517	5.60	34.22		106							

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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

70.90 STRANGER; July 14, 1958; 0017 GCT; 34°51.5'N, 124°27'W; sounding, 2425 fm; wind, 340°, force 5; weather, partly cloudy; sea, high; wire angle, 12°.

0	17.14	33.08		389	0	17.14	33.08		24.03	389	0.00
10	17.10	33.04		391	10	17.10	33.04		24.01	391	0.04
29	17.01	33.08		386	20	17.05	33.06		24.04	388	0.08
43	16.68	33.06		380	30	17.01	33.08		24.06	386	0.12
52	14.23	33.07		328	50	14.75	33.07		24.55	339	0.19
61	13.46	33.04		316	75	12.73	33.04		24.95	302	0.27
70	12.95	33.02		307	100	11.25	33.25		25.39	260	0.34
88	12.16	33.12		285	150	9.68	33.76		26.06	196	0.45
102	11.12	33.29		254	200	8.80	33.96		26.35	168	0.55
114	10.50	33.46		232	250	7.98	34.01		26.52	152	0.63
136	9.87	33.67		206	300	7.32	34.04		26.65	140	0.70
161	9.53	33.84		188	400	6.61	34.14		26.80	124	0.84
195	8.86	33.95		170	500	6.00	34.21		26.95	112	0.96
244	8.04	34.01		153							
319	7.16	34.05		138							
414	6.54	34.15		122							
550	5.66	34.24		104							

70.100 STRANGER; July 13, 1958; 1752 GCT; 34°32.5'N, 125°09'W; sounding, 2550 fm; wind, 340°, force 5; weather, cloudy; sea, high; wire angle, 15°.

0	17.75	33.04		406	0	17.75	33.04		23.85	406	0.00
10	17.76	33.04		406	10	17.76	33.04		23.85	406	0.04
29	17.72	33.06		403	20	17.74	33.05		23.86	405	0.08
43	16.65	33.06		380	30	17.72	33.06		23.88	403	0.12
52	15.76	33.04		362	50	15.95	33.04		24.25	366	0.20
62	13.66	33.07		317	75	12.72	33.16		25.04	293	0.28
71	13.04	33.14		300	100	10.98	33.34		25.51	248	0.35
88	11.73	33.19		272	150	9.08	33.60		26.03	199	0.46
101	10.83	33.35		245	200	8.66	34.02		26.43	161	0.55
113	9.96	33.38		228	250	7.82	34.10		26.62	143	0.63
135	9.45	33.49		213	300	7.08	34.13		26.71	134	0.70
160	8.90	33.68		190	400	6.70	34.19		26.87	119	0.84
194	8.75	34.00		164	500	5.92	34.25		27.00	107	0.95
240	7.98	34.09		146							
315	7.17	34.14		131							
409	6.43	34.19		118							
546	5.66	34.29		102							

73.55 PAOLINA-T; July 13, 1958; 0447 GCT; 35°28.5'N, 121°36.5'W; sounding, 550 fm; wind, 320°, force 5; weather, overcast; sea, rough; wire angle, 17°.

0	12.34	33.59	5.93	254	0	12.34	33.59	5.93	25.45	254	0.00
10	12.33	33.62	5.96	251	10	12.33	33.62	5.96	25.48	251	0.02
29	11.99	33.58	5.32	248	20	12.30	33.62	5.93	25.48	251	0.05
44	11.04	33.57	4.61	233	30	11.97	33.58	5.30	25.51	248	0.08
53	10.84	33.69	3.72	220	50	10.94	33.65	4.24	25.76	224	0.12
64	10.32	33.73	3.28	208	75	10.06	33.76	3.18	25.98	203	0.18
73	10.12	33.75	3.22	204	100	9.17	33.84	2.72	26.20	182	0.22
91	9.68	33.80	2.69	193	150	8.75	34.06	1.97	26.44	160	0.31
105	8.89	33.87	2.76	176	200	7.87	34.04	1.94	26.56	148	0.39
120	9.19	34.00	2.01	170	250	7.34	34.13	1.52	26.72	134	0.46
142	8.94	34.07	1.87	162	300	6.93	34.20	1.05	26.82	124	0.53
170	8.21	34.01	2.29	156	400	6.43	34.22	0.69	26.90	116	0.65
209	7.80	34.05	1.84	147	500	6.00	34.25	0.47	26.98	108	0.77
259	7.24	34.31u	1.47	-	600	(5.60)	(34.34)		(27.10)	(97)	(0.87)
339	6.76	34.22	0.84	120							
440	6.22	34.22	0.59	113							
586	5.66	34.32	0.34	99							

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

PAOLINA-T; July 13, 1958; 0825 GCT; 35°19.5'N, 121°58.5'W; sounding, 1300 fm; wind, 320°, force 5; weather, drizzle; sea, rough; wire angle, 10°. 73.60

0	12.80	33.14	5.96	295	0	12.80	33.14	5.96	25.02	295	0.00
10	12.61	33.15	5.94	291	10	12.61	33.15	5.94	25.06	291	0.03
30	12.18	33.17	5.76	281	20	12.67	33.17	5.81	25.07	290	0.06
45	12.06	33.40	5.52	263	30	12.18	33.17	5.76	25.16	281	0.09
56	10.05	33.22	5.09	242	50	11.28	33.33	5.33	25.45	254	0.14
65	9.54	33.30	4.92	228	75	9.17	33.47	4.74	25.91	210	0.20
76	9.16	33.47	4.74	210	100	8.69	33.64	3.90	26.12	190	0.25
96	8.72	33.57	4.15	196	150	8.39	33.97	2.39	26.43	161	0.34
110	8.68	33.73	3.46	183	200	7.75	34.03	2.00	26.57	148	0.42
120	8.68	33.87	2.71	172	250	7.34	34.11	1.58	26.69	136	0.49
150	8.39	33.97	2.39	161	300	7.20	34.15	1.20	26.74	131	0.55
179	8.03	34.00	2.14	154	400	6.60	34.25	0.61	26.91	116	0.68
218	7.52	34.05	1.89	143	500	5.85	34.28	0.44	27.02	105	0.80
271	7.26	34.13	1.39	134	600	5.17	34.30	0.33	27.12	95	0.90
355	6.96	34.22	0.85	122							
459	6.15	34.27	0.50	108							
605	5.12	34.30	0.33	95							

PAOLINA-T; July 13, 1958; 1529 GCT; 35°00.5'N, 122°43.5'W; sounding, 2480 fm; wind, 320°, force 5; weather, cloudy; sea, very rough; wire angle, 10°. 73.70

0	15.61	32.97	5.81	364	0	15.61	32.97	5.81	24.29	364	0.00
10	15.53	32.98	5.78	361	10	15.53	32.98	5.78	24.32	361	0.04
30	14.66	32.99	5.93	343	20	15.16	32.98	5.84	24.40	354	0.07
45	14.46	33.03	5.97	336	30	14.66	32.99	5.93	24.52	343	0.11
56	13.85	33.13	5.89	316	50	14.22	33.08	5.93	24.68	327	0.17
65	13.24	33.16	5.75	302	75	11.41	33.04	5.50	25.20	278	0.25
74	11.44	33.04	5.52	279	100	10.58	33.46	4.10	25.68	232	0.31
94	10.56	33.40	4.34	236	150	9.00	33.79	2.99	26.19	184	0.42
111	10.01	33.58	3.57	215	200	8.24	34.01	2.31	26.48	156	0.50
126	9.58	33.69	3.20	200	250	7.63	34.09	1.90	26.64	142	0.58
150	9.00	33.79	2.99	184	300	7.15	34.12	1.47	26.73	132	0.65
179	8.51	33.95	2.48	164	400	6.36	34.19	0.78	26.89	117	0.78
215	8.03	34.04	2.17	151	500	5.81	34.26	0.47	27.02	106	0.90
267	7.46	34.11	1.74	138	600	(5.25)	(34.29)	(0.35)	(27.11)	(96)	(1.00)
348	6.68	34.14	1.07	125							
451	6.06	34.24	0.58	110							
595	5.32	34.29	0.36	98							

PAOLINA-T; July 13, 1958; 2150 GCT; 34°41'N, 123°24'W; sounding, 2500 fm; wind, 320°, force 6; weather, cloudy; sea, high; wire angle, 24°. 73.80

0	16.52	33.04	5.69	378	0	16.52	33.04	5.69	24.14	378	0.00
10	16.44	33.08	5.73	374	10	16.44	33.08	5.73	24.19	374	0.04
28	13.04	33.30	5.72	288	20	16.41	33.08	5.73	24.20	373	0.07
43	11.46	33.41	4.86	252	30	12.87	33.31	5.67	25.13	284	0.11
52	10.54	33.49	4.51	230	50	10.73	33.48	4.57	25.67	233	0.16
61	9.88	33.49	4.14	219	75	9.38	33.58	3.54	25.97	204	0.21
70	9.46	33.55	3.65	208	100	8.97	33.70	3.29	26.13	189	0.26
90	9.08	33.68	3.32	193	150	8.38	33.91	2.67	26.38	166	0.35
104	8.89	33.71	3.27	188	200	7.79	33.99	2.20	26.54	151	0.43
118	8.72	33.77	3.13	180	250	7.21	34.04	1.64	26.66	140	0.51
142	8.44	33.88	2.78	168	300	6.93	34.09	1.23	26.74	132	0.58
169	8.15	33.96	2.29	158	400	6.19	34.17	0.68	26.89	117	0.71
207	7.70	34.00	2.18	149	500	5.55	34.18	0.52	26.98	108	0.82
258	7.18	34.04	1.60	139							
338	6.68	34.14	0.89	125							
437	5.94	34.17	0.61	114							
575	5.02	34.18	0.43	103							

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

77.55 PAOLINA-T; July 11, 1958; 1335 GCT; 34°54'N, 121°13.5'W; sounding, 312 fm; wind, 360°, force 5; weather, overcast; sea, very rough; wire angle, 08°.

0	13.98	33.46	6.07	294	0	13.98	33.46	6.07	25.03	294	0.00
9	13.96	33.46	6.02	294	10	13.96	33.46	5.98	25.03	294	0.03
30	12.02	33.58	5.07	249	20	13.88	33.46	5.96	25.04	293	0.06
41	11.30	33.63	4.23	232	30	12.02	33.58	5.07	25.50	249	0.08
52	10.06	33.66	3.68	210	50	10.10	33.66	3.71	25.90	211	0.13
62	10.05	33.67	3.46	209	75	9.22	33.68	3.50	26.07	195	0.18
72	9.28	33.64	3.63	199	100	9.25	33.93	2.70	26.26	177	0.23
85	9.23	33.81	2.93	186	150	8.95	34.04	1.79	26.40	164	0.32
101	9.26	33.93	2.62	177	200	8.57	34.12	1.52	26.52	152	0.40
114	9.12	33.98	2.41	171	250	8.37	34.16	1.47	26.58	146	0.47
141	9.01	34.01	1.93	168	300	8.00	34.23	1.26	26.69	136	0.54
170	9.76	34.10	1.61	156	400	7.30	34.22	1.01	26.79	127	0.68
204	8.52	34.13	1.52	151	500	6.42	34.26	0.63	26.94	112	0.80
254	8.32	34.17	1.45	145							
304	7.98	34.23	1.25	136							
409	7.24	34.22	0.99	127							
510	6.36	34.27	0.61	111							

77.60 PAOLINA-T; July 11, 1958; 0952 GCT; 34°44.5'N, 121°34'W; sounding, 550 fm; wind, 320°, force 6; weather, overcast; sea, very rough; wire angle, 06°.

0	13.98	33.43	5.95	296	0	13.98	33.43	5.95	25.00	296	0.00
10	13.95	33.34	5.94	302	10	13.95	33.34	5.94	24.94	302	0.03
31	12.94	33.51	5.71	270	20	13.81	33.36	5.92	24.98	299	0.06
46	11.87	33.57	4.95	247	30	13.00	33.50	5.73	25.25	273	0.09
57	10.82	33.49	4.15	235	50	11.45	33.54	4.67	25.57	242	0.14
67	10.34	33.55	3.79	222	75	9.95	33.59	3.55	25.89	212	0.20
77	9.84	33.60	3.51	210	100	9.27	33.70	3.01	26.08	194	0.25
97	9.36	33.69	3.13	196	150	8.62	33.87	2.74	26.32	172	0.34
113	9.17	33.79	2.89	186	200	8.35	34.05	2.05	26.50	154	0.42
128	9.02	33.82	2.92	182	250	7.93	34.14	1.50	26.63	142	0.50
152	8.61	33.87	2.73	172	300	7.57	34.18	1.24	26.72	134	0.57
182	8.46	34.02	2.20	158	400	6.85	34.26	0.58	26.87	119	0.70
220	8.34	34.11	1.77	150	500	6.08	(34.29)	0.53	(27.01)	(106)	(0.82)
277	7.69	34.16	1.37	137	600	5.39		0.38			
359	7.20	34.24	0.63	124							
468	6.32	34.27	0.56	110							
613	5.24	34.41u	0.35	-							

77.70 PAOLINA-T; July 11, 1958; 0100 GCT; 34°25'N, 122°16.5'W; sounding, 2200 fm; wind, 320°, force 6; weather, overcast; sea, very rough; wire angle, 25°.

0	16.50	33.26	5.50	362	0	16.50	33.26	5.50	24.32	362	0.00
8	16.54	33.22	5.53	365	10	16.54	33.22	5.54	24.28	365	0.04
33	11.82	33.48	4.67	253	20	16.45	33.22	5.53	24.30	363	0.07
41	10.72	33.42	4.32	238	30	13.20	33.41	4.91	25.15	283	0.10
55	10.02	33.48	4.02	222	50	10.20	33.46	4.09	25.73	227	0.16
65	9.68	33.57	3.78	210	75	9.30	33.61	3.53	26.00	202	0.21
74	9.33	33.61	3.57	202	100	8.90	33.74	3.24	26.17	186	0.26
92	9.06	33.70	3.36	191	150	8.62	34.00	2.12	26.42	162	0.35
108	8.76	33.78	3.12	180	200	7.89	34.06	1.99	26.57	147	0.42
123	8.90	33.93	2.34	172	250	7.39	34.09	1.64	26.67	138	0.50
143	8.76	33.99	2.17	165	300	6.89	34.10	1.50	26.75	131	0.57
180	8.05	34.04	2.07	151	400	6.35	34.17	1.12	26.88	118	0.70
215	7.74	34.07	1.88	144	500	5.82	34.28	0.46	27.03	104	0.81
267	7.21	34.09	1.54	136	600	5.27	34.33	0.37	27.14	94	0.92
349	6.58	34.11	1.47	126							
455	6.05	34.25	0.53	109							
602	5.26	34.33	0.36	94							

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
PAOLINA-T; July 10, 1958; 1755 GCT; 34°02.5'N, 122°56'W; sounding, 2500 fm; wind, 320°, force 6; weather, overcast; sea, very rough; wire angle, 18°.											77.80
0	16.89	33.01	5.43	389	0	16.89	33.01	5.43	24.03	389	0.00
10	16.89	32.99	5.57	390	10	16.89	32.99	5.57	24.02	390	0.04
35	15.58	33.07	5.92	355	20	16.83	32.99	5.59	24.03	389	0.08
45	14.00	33.01	6.15	328	30	16.80	32.99	5.60	24.04	388	0.12
59	12.54	32.90	6.22	308	50	13.70	33.00	6.18	24.73	323	0.19
68	12.32	32.92	6.00	303	75	12.21	32.94	5.58	24.97	300	0.26
78	12.13	32.95	5.43	297	100	11.30	33.13	5.30	25.29	269	0.34
97	11.40	33.08	5.38	275	150	9.30	33.74	3.59	26.10	192	0.45
117	10.45	33.35	4.71	239	200	8.45	33.97	2.48	26.42	162	0.54
132	9.53	33.49	4.13	214	250	8.00	34.05	2.00	26.55	150	0.62
156	9.15	33.77	3.15	187	300	7.27	34.06	1.73	26.66	138	0.70
195	8.54	33.94	2.58	166	400	6.19	34.12	0.95	26.86	120	0.83
233	8.20	34.04	2.10	153	500	5.60	34.20	0.51	27.00	107	0.95
292	7.39	34.06	1.79	140	600	5.15	34.28	0.32	27.11	96	1.06
378	6.34	34.11	1.08	123							
491	5.65	34.19	0.56	109							
641	4.98	34.31	0.26	92							
PAOLINA-T; July 10, 1958; 1055 GCT; 33°46'N, 123°39.5'W; sounding, 2500 fm; wind, 330°, force 5; weather, overcast; sea, very rough; wire angle, 06°.											77.90
0	18.00	33.19	5.28	401	0	18.00	33.19	5.28	23.91	401	0.00
11	18.01	33.21	5.30	400	10	18.01	33.21	5.30	23.92	400	0.04
36	18.00	33.18	5.31	402	20	18.00	33.18	5.31	23.90	402	0.08
66	14.66	33.26	5.49	323	30	18.00	33.18	5.31	23.90	402	0.12
76	14.37	33.30	5.41	314	50	18.00	33.18	5.31	23.90	402	0.20
92	14.20	33.28	5.51	312	75	14.39	33.30	5.41	24.82	314	0.29
100	13.62	33.22	5.42	305	100	13.62	33.22	5.42	24.91	305	0.37
121	12.40	33.41	5.15	268	150	9.89	33.45	4.68	25.78	223	0.50
134	11.06	33.38	4.95	247	200	8.72	33.77	3.46	26.22	180	0.60
153	9.70	33.46	4.60	218	250	8.22	34.00	2.16	26.48	156	0.69
177	9.04	33.58	4.02	200	300	7.42	34.04	1.67	26.63	142	0.77
207	8.67	33.78	3.39	180	400	6.20	34.08	1.15	26.83	123	0.91
236	8.41	33.98	2.33	161	500	5.78	(34.18)	0.47	(26.96)	(110)	(1.03)
293	7.54	34.04	1.68	144	600	5.30		0.32			
382	6.38	34.06	1.34	127							
497	5.79	34.18	0.48	111							
644	5.06	34.49r	0.25	-							
PAOLINA-T; July 8, 1958; 2140 GCT; 34°26.5'N, 120°32.5'W; sounding, 50 fm; wind, 320°, force 6; weather, partly cloudy; sea, rough; wire angle, 13°.											80.51
0	13.05	33.64	3.28u	264	0	13.05	33.64		25.35	264	0.00
26	10.94	33.63	3.56u	226	10	12.90	33.64		25.38	260	0.03
46	10.48	33.67	3.91u	216	20	12.20	33.64		25.51	248	0.05
65	10.31	33.71	5.59u	210	30	10.79	33.63		25.77	224	0.08
74	10.21	33.75	3.32u	206	50	10.42	33.68		25.87	214	0.12
					75	(10.20)	(33.75)		(25.97)	(205)	(0.17)

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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

80.55 PAOLINA-T; July 9, 1958; 0035 GCT; 34°18.5'N, 120°48.5'W; sounding, 414 fm; wind, 320°, force 7; weather, overcast; sea, very rough; wire angle, 30°.

0	13.11	33.46	5.96	278	0	13.11	33.46	5.96	25.20	278	0.00
8	13.10	33.48	5.90	276	10	13.07	33.48	5.87	25.22	276	0.03
26	12.88	33.50	5.83	270	20	12.99	33.49	5.86	25.25	273	0.06
39	11.25	33.40	4.57	248	30	12.60	33.49	5.62	25.31	267	0.08
48	10.22	33.37	4.40	234	50	10.23	33.42	4.35	25.70	230	0.13
57	10.43	33.53	3.99	225	75	10.12	33.74	3.16	25.97	204	0.19
65	10.70	33.67	3.58	219	100	9.41	33.94	2.30	26.24	179	0.24
81	9.80	33.77	2.97	197	150	9.10	34.01	1.72	26.35	168	0.32
93	9.46	33.89	2.50	183	200	8.75	34.12	1.48	26.49	155	0.40
103	9.40	33.95	2.27	178	250	8.55	34.16	1.28	26.55	149	0.48
119	9.36	33.95	2.13	176	300	8.20	34.20	1.11	26.64	141	0.56
142	9.18	33.98	1.72	172	400	7.40	34.23	0.68	26.78	128	0.70
170	8.96	34.07	1.71	162	500	(6.60)	(34.27)	(0.37)	(26.92)	(114)	(0.82)
213	8.66	34.13	1.36	153							
281	8.36	34.19	1.21	144							
368	7.63	34.22	0.78	132							
498	6.60	34.27	0.37	114							

80.60 PAOLINA-T; July 9, 1958; 0420 GCT; 34°08.5'N, 121°09'W; sounding, 1250 fm; wind, 340°, force 6; weather, overcast; sea, very rough; wire angle, 15°.

0	14.72	33.31	6.02	320	0	14.72	33.31	6.02	24.76	320	0.00
10	14.70	33.34	6.06	318	10	14.70	33.34	6.06	24.78	318	0.03
34	13.16	33.46	5.52	278	20	14.66	33.34	6.05	24.78	317	0.06
44	11.45	33.23	5.11	265	30	13.80	33.41	5.74	25.03	294	0.09
59	10.48	33.36	4.64	238	50	11.00	33.28	4.93	25.46	253	0.15
68	10.10	33.47	4.29	224	75	10.00	33.47	4.02	25.78	223	0.21
78	9.97	33.48	3.94	221	100	9.29	33.67	3.22	26.04	198	0.26
99	9.32	33.66	3.24	198	150	8.76	33.90	2.27	26.36	168	0.35
119	9.07	33.76	2.76	187	200	8.07	34.01	1.82	26.50	154	0.44
133	8.96	33.86	2.32	177	250	7.60	34.06	1.39	26.62	143	0.51
157	8.68	33.88	2.25	172	300	7.05	34.10	1.17	26.72	133	0.58
196	8.11	34.00	1.85	155	400	6.55	34.18	0.53	26.86	120	0.71
235	7.80	34.05	1.48	146	500	5.85	34.27	0.36	27.02	105	0.83
293	7.14	34.09	1.22	135	600	5.27	34.32	0.27	27.12	95	0.94
382	6.64	34.16	0.61	123							
494	5.88	34.27	0.38	106							
646	5.01	34.33	0.24	92							

80.70 PAOLINA-T; July 9, 1958; 1130 GCT; 33°46'N, 121°49'W; sounding, 2200 fm; wind, 320°, force 5; weather, overcast; sea, very rough; wire angle, 18°.

0	16.58	33.27	5.61	362	0	16.58	33.27	5.61	24.31	362	0.00
9	16.56	33.34	5.65	355	10	16.56	33.34	5.66	24.37	355	0.04
34	15.24	33.28	5.99	333	20	16.52	33.34	5.67	24.38	356	0.07
44	13.80	33.28	6.22	304	30	15.78	33.31	5.83	24.51	343	0.11
59	11.88	33.21	5.34	274	50	13.02	33.25	5.90	25.06	291	0.17
68	11.22	33.20	5.04	263	75	10.93	33.29	4.67	25.48	251	0.24
78	10.76	33.32	4.55	246	100	10.08	33.44	4.27	25.73	227	0.30
98	10.10	33.43	4.31	227	150	8.85	33.82	2.90	26.25	178	0.40
117	9.26	33.60	3.54	202	200	7.89	34.00	3.07	26.52	152	0.48
132	9.09	33.71	3.28	191	250	7.39	34.10	2.10	26.68	137	0.56
155	8.74	33.85	2.84	175	300	7.00	34.13	1.22	26.76	130	0.63
191	8.02	33.97a)	3.10	156	400	6.32	34.18	0.62	26.88	118	0.75
229	7.54	34.07a)	2.55	142	500	5.81	34.26	0.33	27.02	105	0.87
285	7.14	34.12	1.40	133	600	5.36	34.32	0.21	27.12	96	0.98
369	6.46	34.15	0.73	122							
479	5.90	34.25	0.36	107							
627	5.20	34.33	0.19	93							

a) Salinity samples at 191 and 229 meters appear to have been reversed; they are assumed to be in the order listed.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	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
PAOLINA-T; July 9, 1958; 1816, 1855 GCT; 33°25'N, 122°30.5'W; sounding, 2400 fm; wind, 330°, force 6; weather, overcast; sea, very rough; wire angle, 26°, 23°.											80.80
0	17.58	33.06	5.56	400	0	17.58	33.06	5.56	23.92	400	0.00
9	17.60	33.03	5.48	403	10	17.60	33.03	5.48	23.89	403	0.04
32	16.54	33.08	5.65	376	20	17.60	33.03	5.48	23.89	403	0.08
41	16.18	33.15	5.66	362	30	16.65	33.08	5.64	24.13	379	0.12
55	15.19	33.06	5.86	348	50	15.61	33.10	5.75	24.40	354	0.19
64	14.00	33.01	5.97	328	75	13.35	33.03	5.95	24.83	313	0.28
72	13.54	33.04	5.96	317	100	12.27	33.02	5.67	25.03	294	0.35
90	12.59	33.00	5.87	302	150	10.02	33.43	4.37	25.74	226	0.48
107	12.02	33.06	5.50	287	200	8.80	33.80	3.17	26.23	180	0.59
120	11.26	33.22	5.09	262	250	8.10	33.96	2.82	26.46	158	0.68
					300	7.43	34.00	2.42	26.59	146	0.75
148	10.08	33.42	4.39	228	400	6.37	34.08	1.36	26.80	126	0.90
186	9.02	33.69	3.36	191	500	5.61	34.16	0.72	26.96	110	1.02
223	8.53	33.91	2.98	168	600	5.17	34.25	0.34	27.08	99	1.13
277	7.77	33.98	2.65	151							
362	6.78	34.04	1.75	134							
468	5.76	34.14	0.85	114							
613	5.06	34.27	0.29	96							
PAOLINA-T; July 10, 1958; 0130 GCT; 33°10'N, 123°14'W; sounding, 2400+ fm; wind, 320°, force 5; weather, cloudy; sea, very rough; wire angle, 11°.											80.90
0	17.96	33.15	5.48	402	0	17.96	33.15	5.48	23.89	402	0.00
11	17.96	33.15	5.44	402	10	17.96	33.15	5.45	23.89	402	0.04
36	18.01	33.34	5.46	390	20	17.98	33.21	5.45	23.93	399	0.08
46	17.41	33.40	5.79	372	30	18.00	33.25	5.45	23.96	396	0.12
61	14.76	33.33	6.04	320	50	16.06	33.37	5.92	24.50	344	0.19
71	14.71	33.31	5.93	320	75	14.62	33.31	5.87	24.77	318	0.28
80	14.50	33.31	5.82	316	100	14.30	33.42	5.75	24.93	304	0.36
100	14.30	33.42	5.75	304	150	10.28	33.56	3.90	25.80	221	0.48
121	11.56	33.51	4.32	246	200	9.27	33.78	2.94	26.14	188	0.59
136	10.52	33.48	4.17	230	250	8.22	34.00	2.14	26.48	156	0.68
161	10.16	33.61	3.69	215	300	7.62	34.06	1.81	26.61	144	0.75
199	9.28	33.78	2.95	189	400	6.80	34.17	0.82	26.82	124	0.89
237	8.42	33.98	2.26	161	500	6.05	34.20	0.37	26.94	113	1.02
296	7.70	34.05	1.88	145	600	5.45	34.25	0.25	27.05	102	1.13
383	6.92	34.16	0.92	127							
496	6.08	34.20	0.38	113							
648	5.16	34.29	0.22	96							
PAOLINA-T; July 8, 1958; 0431 GCT; 34°14.5'N, 119°58'W; sounding, 325 fm; wind, 300°, force 2; weather, fog; sea, moderate; wire angle, 12°.											8247
0	14.32	33.78	7.16	278	0	14.32	33.78	7.16	25.20	278	0.00
10	13.26	33.82	6.72	254	10	13.26	33.82	6.72	25.45	254	0.03
30	10.42	33.68	3.43	214	20	11.80	33.74	4.92	25.67	233	0.05
41	9.56	33.86	2.45	186	30	10.42	33.68	3.43	25.87	214	0.07
51	9.45	33.89	2.34	183	50	9.45	33.89	2.35	26.20	183	0.11
60	9.42	33.92	2.20	180	75	9.40	33.94	2.20	26.25	178	0.16
71	9.41	33.89u	2.20	-	100	9.30	33.96	1.91	26.28	175	0.20
86	9.36	33.96	2.00	176	150	9.09	34.06	1.63	26.39	165	0.29
100	9.30	33.96	1.91	175	200	8.81	34.11	1.26	26.47	157	0.37
114	9.25	33.96	1.82	174	250	8.40	34.18	1.02	26.58	146	0.45
138	9.14	34.05	1.67	166	300	7.82	34.20	0.72	26.69	136	0.52
166	9.02	34.06	1.60	164	400	7.07	34.25	0.33	26.84	122	0.65
200	8.81	34.11	1.26	157	500	6.54	34.27	0.16	26.93	114	0.78
248	8.42	34.18	1.04	146							
297	7.87	34.20	0.74	136							
399	7.08	34.25	0.35	122							
500	6.54	34.27	0.16	114							

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δT_3 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_3 10^{-5} cm/g	ΔD dyn. m
83.43	PAOLINA-T; July 8, 1958; 0805 GCT; 34°07'N, 119°34.5'W; sounding, 150 fm; wind, 300°, force 3; weather, fog; sea, rough; wire angle, 20°.										
0	16.14	33.66	6.33	324	0	16.14	33.66	6.33	24.71	324	0.00
10	16.07	33.80	6.31	312	10	16.07	33.80	6.31	24.84	312	0.03
29	11.68	33.54	4.60	246	20	15.73	33.78	6.17	24.89	307	0.06
48	10.60	33.60	3.69	223	30	11.60	33.54	4.54	25.55	244	0.09
71	9.94	33.74	3.17	202	50	10.58	33.60	3.67	25.78	222	0.14
96	9.58	33.84	2.91	188	75	9.82	33.76	3.09	26.04	198	0.19
120	9.47	33.94	2.47	180	100	9.57	33.85	2.88	26.15	188	0.24
157	9.26	34.09	1.84	165	150	9.27	34.08	1.85	26.37	167	0.33
195	9.06	34.15	1.57	158	200	9.00	34.16	1.52	26.48	156	0.41
244	8.53	34.17	1.16	148	250	(8.42)	(34.17)	(1.11)	(26.58)	(146)	(0.49)
83.51	PAOLINA-T; July 8, 1958; 0015 GCT; 33°51.5'N, 120°07.5'W; sounding, missing; wind, 320°, force 2; weather, overcast; sea, moderate; wire angle, 00°.										
0	16.24	33.56	6.21	334	0	16.24	33.56	6.21	24.61	334	0.00
10	14.28	33.58	5.95	292	10	14.28	33.58	5.95	25.05	292	0.03
32	11.51	33.60	4.57	238	20	13.90	33.58	5.73	25.13	284	0.06
52	10.90	33.60	4.11	228	30	11.60	33.60	4.60	25.60	240	0.09
77	10.19	33.66	3.57	212	50	10.97	33.60	4.15	25.71	229	0.13
103	9.47	33.87	2.74	185	75	10.25	33.65	3.62	25.88	213	0.19
130	9.30	33.91	2.64	179	100	9.55	33.86	2.82	26.16	186	0.24
83.55	PAOLINA-T; July 7, 1958; 2135 GCT; 33°43.5'N, 120°24'W; sounding, 595 fm; wind, 320°, force 2; weather, overcast; sea, moderate; wire angle, 08°.										
0	15.06	33.58	6.20	308	0	15.06	33.58	6.20	24.88	308	0.00
10	14.58	33.62	6.04	294	10	14.58	33.62	6.04	25.02	294	0.03
30	10.47	33.64	3.64	218	20	14.00	33.62	5.68	25.14	283	0.06
41	10.32	33.64	3.54	215	30	10.47	33.64	3.64	25.83	218	0.08
51	10.07	33.70	3.39	207	50	10.08	33.70	3.40	25.94	207	0.13
61	9.84	33.73	3.11	201	75	9.42	33.88	2.66	26.19	184	0.18
71	9.54	33.84	2.79	188	100	9.15	34.02	2.26	26.34	169	0.22
85	9.27	33.96	2.49	175	150	8.97	34.10	1.81	26.44	160	0.30
101	9.15	34.02	2.26	169	200	8.62	34.14	1.59	26.52	152	0.38
115	9.13	34.05	2.04	166	250	8.29	34.20	1.28	26.62	143	0.46
140	9.00	34.07	1.92	163	300	7.95	34.23	1.07	26.70	135	0.53
170	8.92	34.14	1.72	156	400	7.23	34.27	0.70	26.84	122	0.66
204	8.58	34.14	1.57	151	500	6.47	34.30	0.42	26.96	110	0.78
253	8.27	34.20	1.27	142							
333	7.64	34.25	0.92	130							
433	7.01	34.28	0.61	119							
564	5.84	34.33	0.31	101							
83.60	PAOLINA-T; July 7, 1958; 1819 GCT; 33°33.5'N, 120°44'W; sounding, 800 fm; wind, 320°, force 2; weather, overcast; sea, moderate; wire angle, 10°.										
0	13.44	33.46	7.06a)	284	0	13.44	33.46	7.06	25.13	284	0.00
10	12.71	33.58	6.03	261	10	12.71	33.58	6.03	25.38	261	0.03
30	12.23	33.58	5.42	253	20	12.42	33.58	5.69	25.42	257	0.05
40	11.86	33.59	5.09	245	30	12.23	33.58	5.42	25.46	253	0.08
50	11.06	33.50	4.74	238	50	11.06	33.50	4.74	25.62	238	0.13
60	10.66	33.51	4.33	230	75	10.35	33.55	4.03	25.79	221	0.18
69	10.74	33.60	4.10	225	100	9.32	33.58	3.71	25.98	204	0.24
83	9.62	33.49	3.95	216	150	8.67	33.96	2.10	26.38	166	0.33
99	9.34	33.58	3.72	204	200	8.17	34.02	1.73	26.50	154	0.41
112	9.10	33.73	3.18	190	250	7.85	34.14	1.26	26.64	141	0.49
135	8.84	33.89	2.35	174	300	7.35	34.15	1.13	26.73	133	0.56
164	8.50	33.99	1.95	161	400	6.39	34.20	0.61	26.89	117	0.69
197	8.18	34.02	1.75	154	500	5.95	34.26	0.37	27.00	107	0.80
241	7.94	34.13	1.30	142							
320	7.14	34.16	1.05	130							
416	6.29	34.21	0.56	115							
546	5.65	34.31	0.25	100							

a) Mean value of 6.99 and 7.14 ml/L.

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
PAOLINA-T; July 7, 1958; 1120 GCT; 33°14'N, 121°25.5'W; sounding, 2000 fm; wind, 320°, force 3; weather, overcast; sea, moderate; wire angle, 15°.											83.70
0	17.26	33.07	5.60	392	0	17.26	33.07	5.60	24.00	392	0.00
10	17.24	33.12	5.61	388	10	17.24	33.12	5.61	24.04	388	0.04
30	16.80	33.08	5.80	381	20	17.04	33.10	5.72	24.07	385	0.08
44	14.35	33.09	6.18	329	30	16.80	33.08	5.80	24.11	381	0.12
55	14.21	33.21	5.89	317	50	14.25	33.18	6.00	24.75	321	0.19
65	13.84	33.21	5.83	310	75	13.13	33.03	5.65	24.87	309	0.26
74	13.13	33.03	5.65	310	100	11.60	33.26	5.07	25.34	264	0.34
93	12.25	33.11	5.38	288	150	9.05	33.68	3.55	26.10	192	0.45
108	10.89	33.43	4.77	240	200	8.25	33.95	2.27	26.43	161	0.54
123	9.98	33.44	4.11	224	250	7.62	34.01	1.62	26.57	147	0.62
147	9.12	33.64	3.68	196	300	7.21	34.06	1.23	26.67	138	0.70
176	8.76	33.86	2.48	174	400	6.39	34.16	0.67	26.86	120	0.83
212	8.10	33.98	2.19	156	500	5.80	34.23	0.39	27.00	107	0.95
267	7.46	34.03	1.49	144	600	(5.32)	(34.33)	(0.28)	(27.13)	(94)	(1.06)
350	6.81	34.12	0.95	128							
454	6.00	34.20	0.48	112							
595	5.36	34.32	0.29	96							
PAOLINA-T; July 7, 1958; 0443, 0502 GCT; 32°54'N, 122°08'W; sounding, 2400 fm; wind, 310°, force 2; weather, overcast; sea, moderate; wire angle, 17°, 17°											83.80
0	17.62	33.13	5.51	396	0	17.62	33.13	5.51	23.96	396	0.00
10	17.41	33.15	5.54	390	10	17.41	33.15	5.54	24.02	390	0.04
29	16.88	33.24	5.54	372	20	17.10	33.20	5.54	24.13	379	0.08
44	15.86	33.36	5.73	340	30	16.87	33.24	5.54	24.22	371	0.12
53	14.65	33.27	5.96	322	50	15.00	33.30	5.90	24.68	327	0.18
63	14.20	33.28	5.99	312	75	13.63	33.31	5.97	24.98	299	0.26
73	13.76	33.30	5.97	302	100	12.41	33.43	5.92	25.31	267	0.34
93	12.84	33.42	5.93	276	150	9.64	33.65	3.55	25.98	204	0.45
108	11.86	33.43	5.83	257	200	8.65	33.94	2.53	26.36	167	0.55
122	10.88	33.48	5.23	236	250	7.92	34.06	1.93	26.57	148	0.63
					300	7.46	34.10	1.55	26.66	139	0.70
147	9.72	33.64	3.60	206	400	6.68	34.18	0.83	26.84	122	0.84
176	9.00	33.84	3.04	180	500	5.83	34.25	0.42	27.00	106	0.96
214	8.44	34.00	2.31	160	600	(5.35)	(34.32)	(0.28)	(27.12)	(95)	(1.07)
265	7.73	34.07	1.79	144							
348	7.16	34.15	1.15	130							
451	6.18	34.22	0.52	113							
597	5.35	34.31	0.29	96							
PAOLINA-T; July 6, 1958; 2158, 2215 GCT; 32°27'N, 122°43'W; sounding, 2400 fm; wind, 300°, force 2; weather, overcast; sea, moderate; wire angle, 05°, 07°.											83.90
0	19.07	33.58	5.43a)	397	0	19.07	33.58	5.43	23.95	397	0.00
10	18.71	33.57	5.37a)	390	10	18.71	33.57	5.37	24.02	390	0.04
31	18.77	33.58	5.29a)	390	20	18.73	33.57	5.35	24.02	390	0.08
61	15.99	33.53	5.77a)	330	30	18.77	33.58	5.30	24.02	390	0.12
71	15.58	33.55	5.76	320	50	18.78	33.58	5.29	24.02	390	0.20
81	14.72	33.49	5.72	307	75	15.20	33.52	5.75	24.81	315	0.28
96	13.07	33.44	5.33	278	100	12.45	33.43	5.13	25.30	268	0.36
112	11.02	33.42	4.67	244	150	9.55	33.63	3.80	25.99	203	0.48
127	10.20	33.49	4.20	224	200	8.66	33.95	2.52	26.37	167	0.57
147	9.60	33.62	3.91	205	250	7.90	34.02	2.02	26.54	150	0.65
					300	7.40	34.09	1.52	26.67	138	0.73
164	9.27	33.70	3.29	194	400	6.59	34.20	0.72	26.86	120	0.86
193	8.80	33.94	2.63	169	500	5.99	34.27	0.36	27.01	106	0.98
217	8.36	33.95	2.29	162	600	5.47	34.33	0.25	27.11	96	1.09
270	7.72	34.05	1.87	146							
354	6.88	34.16	0.99	126							
460	6.19	34.25	0.43	110							
601	5.46	34.33	0.25	96							

a) Owing to error in measuring oxygen samples, these values may be about 5 per cent high.

S10

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

87.35 PAOLINA-T; July 4, 1958; 2130 GCT; 33°50'N, 118°37.5'W; sounding, 235 fm; wind, 270°, force 1; weather, clear; sea, moderate; wire angle, 22°.

0	19.47	33.54	6.92	410	0	19.47	33.54	6.92	23.81	410	0.00
9	18.15	33.54	6.63	380	10	18.00	33.52	6.57	24.16	377	0.04
28	11.62	33.57	4.13	242	20	12.20	33.57	4.32	25.46	253	0.07
47	10.64	33.58	3.60	225	30	11.58	33.57	4.11	25.58	242	0.10
70	10.04	33.69	3.08	208	50	10.56	33.58	3.52	25.77	224	0.14
92	9.88	33.80	3.09	196	75	10.00	33.72	3.08	25.97	204	0.20
113	9.66	33.85	2.55	189	100	9.80	33.82	3.04	26.08	194	0.25
147	9.31	33.96	1.95	176	150	9.24	34.00	1.87	26.31	172	0.34
180	9.12	34.08	1.53	164	200	9.17	34.13	1.40	26.44	160	0.42
222	9.18	34.15	1.30	159	250	8.93	34.19	1.13	26.52	152	0.50
264	8.80	34.20	1.10	150	300	8.47	34.24	1.02	26.62	142	0.58
357	7.93	34.32	0.87	128							

87.40 PAOLINA-T; July 5, 1958; 0059 GCT; 33°41'N, 118°59'W; sounding, 525 fm; wind, 330°, force 1; weather, cloudy; sea, moderate; wire angle, 00°.

0	20.56	33.62	5.86	432	0	20.56	33.62	5.86	23.58	432	0.00
10	12.83	33.62	6.14	261	10	12.83	33.62	6.14	25.38	261	0.03
29	10.74	33.62	3.85	224	20	11.22	33.62	4.33	25.68	232	0.06
46	10.24	33.66	3.49	213	30	10.70	33.62	3.82	25.78	223	0.08
56	9.88	33.78	3.22	200	50	10.08	33.70	3.37	25.94	207	0.12
67	9.77	33.82	3.12	193	75	9.64	33.89	2.70	26.16	187	0.17
77	9.63	33.89	2.60	186	100	9.57	33.93	2.57	26.21	182	0.22
97	9.58	33.93	2.58	182	150	9.41	33.98	2.22	26.27	176	0.31
112	9.51	33.95	2.46	179	200	8.93	34.14	1.75	26.48	156	0.40
127	9.48	33.96	2.32	178	250	8.75	34.29	1.10	26.62	143	0.47
153	9.40	33.99	2.21	174	300	8.15	34.30	0.80	26.72	133	0.54
183	9.16	34.09	2.00	164	400	7.07	34.30	0.53	26.87	119	0.67
223	8.98	34.27	1.34	147	500	6.38	34.31	0.32	26.98	108	0.79
280	8.32	34.29	0.85	136	600	5.78	34.38	0.30	27.11	96	0.90
365	7.44	34.30	0.69	124							
460p	6.60	34.29	0.35	113							
609p	5.73	34.38	0.30	95							

87.45 PAOLINA-T; July 5, 1958; 0501 GCT; 33°30'N, 119°19'W; sounding, 950 fm; wind, 300°, force 1; weather, cloudy; sea, moderate; wire angle, 06°.

0	17.84	33.62	5.72	366	0	17.84	33.62	5.72	24.27	366	0.00
10	11.51	33.55	4.64	242	10	11.51	33.55	4.64	25.58	242	0.03
30	10.42	33.68	3.85	214	20	10.85	33.63	4.31	25.75	225	0.05
40	10.16	33.66	3.45	211	30	10.42	33.68	3.85	25.87	214	0.08
50	9.84	33.74	3.23	200	50	9.84	33.74	3.23	26.02	200	0.12
60	9.56	33.77	3.04	193	75	9.25	33.90	2.47	26.24	179	0.16
70	9.32	33.87	2.59	182	100	8.99	34.04	2.18	26.39	165	0.21
85	9.18	33.95	2.28	174	150	8.42	34.10	1.86	26.52	152	0.29
102	8.98	34.04	2.17	164	200	8.27	34.21	1.27	26.64	141	0.36
116	8.88	34.08	1.95	160	250	7.84	34.36	1.07	26.82	124	0.43
141	8.60	34.10	1.88	154	300	7.53	34.36	0.82	26.86	120	0.49
170	8.48	34.16	1.47	148	400	6.80	34.32	0.42	26.94	113	0.61
205	8.21	34.22	1.22	140	500	6.19	34.33	0.30	27.03	104	0.72
256	7.80	34.37a)	1.05	123							
335	7.28	-	0.66	-							
437	6.56	34.31	0.35	110							
569	5.79	34.36	0.26	98							

a) The use of this value results in an unusual density structure, but nevertheless value was accepted in drawing 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
PAOLINA-T; July 5, 1958; 1142 GCT; 33°10'N, 120°00.5'W; sounding, 675 fm; wind, 290°, force 4; weather, overcast; sea, rough; wire angle, 13°.											87.55
1	14.98	33.62	5.86	303	0	15.01	33.61	5.86	24.92	304	0.00
11	14.64	33.67	5.73	292	10	14.65	33.67	5.74	25.04	293	0.03
30	11.79	33.67	3.94	238	20	14.50	33.67	5.62	25.08	289	0.06
60	9.61	33.79	2.95	193	30	11.79	33.67	3.94	25.62	238	0.08
71	9.42	33.83	2.72	186	50	10.18	33.75	3.20	25.97	205	0.13
79	9.33	33.84	2.61	184	75	9.40	33.83	2.67	26.16	186	0.18
94	9.06	33.93	2.28	174	100	9.04	33.93	2.23	26.30	174	0.22
109	8.98	33.94	2.18	172	150	8.38	34.06	1.58	26.50	154	0.31
124	8.70	33.95	2.08	167	200	7.83	34.17	1.11	26.67	138	0.38
142	8.46	34.02	1.71	158	250	7.58	34.21	0.89	26.74	132	0.45
162	8.24	34.10	1.45	149	300	7.32	34.26	0.69	26.82	124	0.52
190	7.95	34.18	1.14	139	400	6.72	34.30	0.43	26.93	114	0.64
214	7.70	34.16	1.08	137	500	6.20	34.32	0.31	27.01	106	0.75
268	7.50	34.23	0.83	129	600	(5.80)	(34.33)	(0.22)	(27.08)	(100)	(0.86)
350	7.00	34.28	0.55	119							
457	6.35	34.31	0.34	108							
596	5.81	34.33	0.22	100							
PAOLINA-T; July 5, 1958; 1930 GCT; 33°00'N, 120°21'W; sounding, 420 fm; wind, 320°, force 4; weather, overcast; sea, moderate; wire angle, 25°.											87.60
0	13.43	33.04	6.12	314	0	13.43	33.04	6.12	24.82	314	0.00
9	13.11	33.13	5.86	302	10	13.10	33.13	5.85	24.94	302	0.03
28	13.01	33.18	5.81	296	20	13.09	33.15	5.84	24.97	299	0.06
50	12.56	33.27	5.43	281	30	13.00	33.19	5.79	25.01	296	0.09
67	12.64	33.57	5.09	261	50	12.56	33.27	5.43	25.16	281	0.15
76	12.59	33.58	5.03	259	75	12.65	33.60	4.97	25.39	260	0.22
88	10.48	33.53	3.68	226	100	9.48	33.56	3.80	25.93	208	0.28
100	9.48	33.56	3.80	208	150	8.68	33.87	2.68	26.31	172	0.37
118	9.34	33.71	3.06	194	200	8.42	34.02	1.90	26.47	158	0.46
132	9.01	33.72	3.17	189	250	7.79	34.06	1.35	26.59	146	0.53
152	8.66	33.87	2.67	172	300	7.37	34.10	1.13	26.68	137	0.61
172	8.52	34.06u	2.18	-	400	6.85	34.22	0.44	26.84	122	0.74
212	8.36	34.04	1.48	155	500	(5.97)	(34.28)	(0.26)	(27.01)	(106)	(0.86)
278	7.42	34.08	1.30	140							
361	7.10	34.18	0.59	128							
481	6.16	34.27	0.30	108							
PAOLINA-T; July 6, 1958; 0205 GCT; 32°30.5'N, 121°00'W; sounding, 2380 fm; wind, 300°, force 3; weather, overcast; sea, rough; wire angle, 10°.											87.70
0	18.04	33.17	5.31	403	0	18.04	33.17	5.31	23.88	403	0.00
10	18.06	-	5.44	-	10	18.06	33.17	5.44	23.89	403	0.04
30	17.88	33.19	5.46	400	20	17.98	33.18	5.45	23.90	402	0.08
45	15.92	33.17	5.83	355	30	17.88	33.19	5.46	23.92	400	0.12
56	15.62	33.19	5.80	348	50	15.78	33.18	5.82	24.42	352	0.20
65	15.20	33.19	5.76	339	75	14.61	33.18	5.88	24.68	328	0.28
76	14.56	33.18	5.89	327	100	12.90	33.18	5.47	25.03	294	0.36
96	13.04	33.17	5.55	298	150	9.62	33.48	4.03	25.85	216	0.49
110	12.58	33.69u	5.15	-	200	8.89	33.89	2.54	26.29	174	0.59
126	11.27	33.40	4.58	249	250	8.25	34.00	2.03	26.47	157	0.67
149	9.65	33.48	4.07	216	300	7.61	34.06	1.60	26.62	143	0.75
177	9.14	33.77	3.17	187	400	6.65	34.14	0.87	26.81	125	0.89
216	8.72	33.95	2.27	167	500	6.00	34.18	0.44	26.92	114	1.02
264	8.08	34.02	1.21	153	600	(5.47)	(34.30)		(27.09)	(98)	(1.13)
346	7.08	34.11	1.21	133							
445	6.30	34.15	0.61	120							
588	5.56	34.28	0.27	100							

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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

87.80 PAOLINA-T; July 6, 1958; 0845 GCT; 32°10'N, 121°37.5'W; sounding, 2200 fm; wind, 300°, force 3; weather, overcast; sea, moderate; wire angle, 07°.

0	18.24	33.30	5.30	398	0	18.24	33.30	5.30	23.93	398	0.00
10	18.24	33.31	5.35	398	10	18.24	33.31	5.35	23.94	398	0.04
31	18.08	33.29	5.53	396	20	18.18	33.30	5.43	23.94	397	0.08
46	16.50	33.46	5.81	347	30	18.09	33.29	5.52	23.96	396	0.12
56	15.79	33.44	5.73	333	50	16.20	33.45	5.79	24.54	341	0.19
67	15.06	33.42	5.68	320	75	14.41	33.40	5.57	24.89	307	0.27
77	14.34	33.40	5.54	306	100	12.82	33.43	4.90	25.23	275	0.35
97	13.09	33.42	5.02	280	150	9.58	33.63	3.60	25.98	204	0.47
113	11.80	33.45	4.56	254	200	8.80	33.88	2.85	26.30	174	0.57
128	11.00	33.46	4.39	240	250	8.20	34.07	1.83	26.54	150	0.65
152	9.53	33.64	3.55	202	300	7.47	34.15	1.49	26.73	133	0.72
181	8.82	33.79	2.92	181	400	6.67	34.22	0.86	26.87	119	0.85
218	8.73	33.96	2.17	166	500	6.16	34.29	0.40	27.00	107	0.97
270	7.90	34.11	1.71	144	600	5.51	34.31	0.33	27.09	98	1.08
352	6.98	34.16	1.19	128							
454	6.44	34.27	0.51	112							
600	5.51	34.31	0.33	98							

87.90 PAOLINA-T; July 6, 1958; 1525 GCT; 31°49'N, 122°14.5'W; sounding, 2435 fm; wind, 290°, force 3; weather, cloudy; sea, moderate; wire angle, 05°.

0	18.86	33.58	5.16	394	0	18.86	33.58	5.16	23.98	394	0.00
10	18.86	33.64	5.28	388	10	18.86	33.64	5.28	24.04	388	0.04
30	18.86	33.57	5.24	394	20	18.86	33.57	5.26	23.98	394	0.08
61	15.42	33.44	6.00	326	30	18.86	33.57	5.24	23.98	394	0.12
72	14.58	33.46	5.80	307	50	18.85	33.57	5.25	23.98	394	0.20
82	14.11	33.48	5.87	296	75	14.41	33.47	5.82	24.94	302	0.28
97	12.72	33.50	5.19	267	100	12.38	33.49	5.05	25.37	262	0.36
112	11.13	33.46	4.58	242	150	9.55	33.65	3.72	26.00	202	0.47
127	10.65	33.48	4.32	232	200	8.70	33.93	2.70	26.36	168	0.57
146	9.70	33.61	3.87	208	250	8.07	34.05	2.09	26.54	151	0.65
165	9.12	33.77	3.14	187	300	7.59	34.09	1.67	26.64	141	0.72
196	8.78	33.91	2.76	171	400	6.62	34.17	0.83	26.84	122	0.86
220	8.38	34.00	2.33	158	500	5.99	34.26	0.34	27.00	107	0.98
274	7.87	34.07	1.89	146	600	5.50	34.33	0.24	27.11	96	1.09
358	6.98	34.13	1.18	130							
468	6.10	34.24	0.39	110							
607	5.45	34.34	0.24	95							

90.28 ORCA; July 3, 1958; 0555 GCT; 33°28.5'N, 117°47.5'W; sounding, 250 fm; wind, 290°, force 2; weather, partly cloudy; sea, slight; wire angle, 03°.

0	20.87	33.68	5.98	435	0	20.87	33.68	5.98	23.55	435	0.00
10	16.64	33.55	6.30	344	10	16.64	33.55	6.30	24.50	344	0.04
30	12.42	33.51	6.07	262	20	14.07	33.52	6.16	25.05	292	0.07
50	10.89	33.53	4.02	233	30	12.42	33.51	6.07	25.37	262	0.10
75	10.36	33.62	3.77	216	50	10.89	33.53	4.02	25.67	233	0.15
99	9.79	33.73	3.36	200	75	10.36	33.62	3.77	25.84	216	0.20
123	9.60	33.87	2.88	187	100	9.75	33.73	3.35	26.02	200	0.26
162	9.34	33.98	2.43	174	150	9.42	33.94	2.62	26.24	179	0.35
173p	9.22	34.05	2.10	168	200	9.35	34.18	1.25	26.44	160	0.44
216p	9.21	34.23	1.16	154	250	8.97	34.28	1.15	26.58	146	0.52
258p	8.88	34.29	1.15	145							

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

ORCA; July 3, 1958; 0805 GCT; 33°24.5'N, 117°55.5'W; sounding, 340 fm; wind, 320°, force 2; weather, partly cloudy; sea, slight; wire angle, 00°. 90.30

0	20.68	33.66		432	0	20.68	33.66		23.58	432	0.00
10	20.56	33.68		427	10	20.56	33.68		23.63	427	0.04
30	12.82	33.53		267	20	17.80	33.62		24.28	365	0.08
40	11.54	33.71r		-	30	12.82	33.58		25.31	267	0.11
50	11.26	33.58		235	50	11.26	33.58		25.65	235	0.16
60	10.80	33.58		228	75	10.28	33.65		25.87	214	0.22
70	10.41	33.64		217	100	9.83	33.78		26.05	197	0.27
85	10.04	33.69		207	150	8.98	33.99		26.35	168	0.36
99	9.84	33.78		197	200	8.48	34.11		26.52	152	0.45
114	9.49	33.80		190	250	8.45	34.25		26.64	142	0.52
138	9.18	33.96		173	300	8.30	34.33		26.73	133	0.59
167	8.77	34.03		162	400	7.30	34.33		26.87	119	0.72
199	8.48	34.11		152	500	(6.30)	(34.34)		(27.02)	(105)	(0.84)
248	8.47	34.25		142							
295	8.33	34.33		133							
397	7.35	34.33		120							
496	6.38	34.34		106							

ORCA; July 3, 1958; 1252 GCT; 33°10.5'N, 118°23.5'W; sounding, 600 fm; wind, 270°, force 3; weather, partly cloudy; sea, moderate; wire angle, 10°. 90.37

0	19.58	33.67	5.98	404	0	19.58	33.67	5.98	23.88	404	0.00
10	19.13	33.60	5.92	398	10	19.13	33.60	5.92	23.94	398	0.04
29	11.32	33.53	4.17	240	20	13.60	33.55	4.63	25.17	281	0.07
39	10.74	33.60	3.89	225	30	11.29	33.53	4.16	25.60	239	0.10
48	10.36	33.68	3.56	212	50	10.28	33.68	3.46	25.90	211	0.14
58	10.14	33.71	3.33	207	75	9.93	33.82	3.25	26.07	195	0.20
67	10.00	33.78	3.34	200	100	9.60	33.89	2.90	26.17	186	0.24
82	9.82	33.86	3.02	191	150	9.40	34.21	1.70	26.46	158	0.33
96	9.62	33.88	3.01	186	200	8.62	34.22	1.42	26.59	146	0.41
109	9.58	33.96	2.52	180	250	8.08	34.24	1.25	26.69	136	0.48
133	9.46	34.10	2.17	168	300	7.86	34.31	0.90	26.78	127	0.55
161	9.28	34.28	1.46	151	400	6.70	34.33	0.51	26.95	111	0.67
194	8.69	34.22	1.44	147	500	6.12	34.35	0.38	27.05	102	0.78
241	8.16	34.23	1.29	138							
318	7.74	34.33	0.76	125							
411	6.60	34.33	0.49	110							
538	5.96	34.36	0.33	99							

ORCA; July 3, 1958; 2107 GCT; 32°55.5'N, 118°56.5'W; sounding, 950 fm; wind, 270°, force 4; weather, cloudy; sea, moderate; wire angle, 05°. 90.45

0	17.64	33.60	4.79	363	0	17.64	33.60	4.79	24.30	363	0.00
10	17.46	33.55	5.42	362	10	17.46	33.55	5.42	24.31	362	0.04
30	10.56	33.68	3.54	216	20	11.80	33.66	3.84	25.61	239	0.07
39	10.02	33.75	3.20	203	30	10.56	33.68	3.54	25.85	216	0.09
49	9.66	33.82	3.06	192	50	9.63	33.82	3.03	26.11	191	0.13
59	9.44	33.84	2.79	186	75	9.22	33.91	2.42	26.26	177	0.18
68	9.30	33.89	2.48	180	100	9.01	33.99	2.09	26.32	169	0.22
83	9.16	33.93	2.37	175	150	8.64	34.15	1.46	26.54	151	0.30
97	9.02	33.98	2.10	170	200	8.21	34.23	1.12	26.66	139	0.37
113	8.88	34.06	1.76	162	250	7.65	34.29	0.92	26.78	127	0.44
135	8.74	34.10	1.70	156	300	7.24	34.29	0.73	26.84	122	0.50
164	8.55	34.21	1.27	145	400	6.63	34.32	0.45	26.96	111	0.62
196	8.23	34.23	1.57u	140	500	6.00	34.36	0.29	27.07	100	0.73
244	7.78	34.29	0.95	128							
322	7.10	34.29	0.67	120							
419	6.52	34.33	0.40	108							
548	5.70	34.38	0.24	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

90.50 ORCA; July 4, 1958; 0035 GCT; 32°44.5'N, 119°15'W; sounding, 58 fm; wind, 290°, force 4; weather, cloudy; sea, rough; wire angle, 05°.

0	16.52	33.64		334	0	16.52	33.64		24.61	334	0.00
11	16.53	33.62		336	10	16.53	33.62		24.59	336	0.03
31	13.22	33.63		267	20	16.25	33.62		24.65	330	0.07
50	10.80	33.57		228	30	13.85	33.63		25.18	279	0.10
75	9.58	33.74		196	50	10.80	33.57		25.72	228	0.15
					75	9.58	33.74		26.06	196	0.20

90.55 ORCA; July 4, 1958; 0405, 0445 GCT; 32°34'N, 119°36.5'W; sounding, 600 fm; wind, 300°, force 4; weather, overcast; sea, rough; wire angle, 25°, 28°.

0	14.87	33.64	6.30	300	0	14.87	33.64	6.30	24.97	300	0.00
9	14.90	33.59	6.33	304	10	14.89	33.59	6.32	24.93	304	0.03
27	14.54	33.61	5.87	294	20	14.70	33.60	6.07	24.98	299	0.06
41	12.89	-	5.36	-	30	14.44	33.61	5.83	25.04	293	0.09
50	11.58	33.49	4.68	248	50	11.58	33.49	4.68	25.52	248	0.14
59	11.03	33.50	4.43	238	75	10.02	33.52	4.23	25.81	219	0.20
68	10.64	33.51	4.25	230	100	9.17	33.92	3.45	26.11	191	0.26
86	9.62	33.54	4.22	212	150	8.59	34.16	2.43	26.55	150	0.34
					200	8.39	34.20	1.75	26.60	144	0.42
93	9.22	33.69	3.70	194	250	8.00	34.20	1.50	26.67	138	0.49
108	9.05	33.78	3.15	185	300	7.32	34.20	1.31	26.76	129	0.56
126	8.83	33.91	2.80	172	400	6.58	34.26	0.60	26.92	115	0.68
152	8.58	34.16	2.42	150	500	6.00	34.32	0.26	27.04	103	0.80
184	8.41	-	2.03	-							
230	8.24	34.20	1.53	144							
301	7.32	34.20	1.31	129							
391	6.61	34.43r	0.63								
523	5.91	34.34	0.21								

90.60 ORCA; July 4, 1958; 0840 GCT; 32°22.5'N, 119°57.5'W; sounding, 485 fm; wind, 310°, force 3; weather, cloudy; sea, rough; wire angle, 24°.

0	15.0	33.45	6.23	316	0	15.0	33.45	6.23	24.80	316	0.00
9	15.0	33.44	6.31	317	10	15.0	33.44	6.31	24.79	317	0.03
27	14.72	33.51	6.28	306	20	15.0	33.44	6.31	24.79	317	0.06
41	14.59	33.47	5.74	306	30	14.67	33.50	6.20	24.90	306	0.09
50	14.44	33.47	5.95	303	50	14.44	33.47	5.95	24.94	303	0.16
59	14.15	33.46	5.96	298	75	13.13	33.46	5.49	25.20	278	0.23
68	14.24	33.55	5.84	293	100	10.45	33.54	4.27	25.76	225	0.29
84	11.13	33.32	4.90	252	150	8.74	34.00	2.71	26.40	164	0.39
96	10.68	33.50	4.33	232	200	8.40	34.09	1.94	26.52	152	0.47
110	9.70	33.63	3.63	206	250	7.92	34.16	1.40	26.65	140	0.54
130	9.10	33.93	3.02	175	300	7.40	34.20	1.16	26.75	130	0.61
155	8.65	34.01	2.61	162	400	6.52	34.24	0.92	26.90	116	0.74
188	8.46	34.07	2.06	155	500	6.14	34.33	0.38	27.03	104	0.85
235	8.05	34.15	1.53	143							
305	7.36	34.20	1.12	129							
396	6.59	34.24	0.96	117							
529	6.03	34.36	0.24	101							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_{T}^{-5} 10^{3} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T}^{-5} 10^{3} cm/g	ΔD dyn. m
ORCA; July 4, 1958; 1546 GCT; 31°57'N, 120°34'W; sounding, 2000+ fm; wind, 300°, force 3; weather, cloudy; sea, rough; wire angle, 17°.											90.70
0	15.74	33.19	5.75	350	0	15.74	33.19	5.75	24.44	350	0.00
10	15.74	-	5.84	-	10	15.74	33.19	5.84	24.44	350	0.04
28	15.60	33.19	5.82	347	20	15.67	33.19	5.83	24.45	349	0.07
42	15.46	33.19	5.86	345	30	15.57	33.19	5.83	24.47	347	0.10
52	14.99	33.33	5.88	324	50	15.08	33.30	5.88	24.66	329	0.17
61	14.24	33.27	5.76	314	75	12.69	33.18	5.70	25.07	290	0.25
70	12.86	33.15	5.85	296	100	11.18	33.48	4.65	25.58	242	0.32
88	12.21	33.30	5.26	273	150	9.48	33.72	3.21	26.06	196	0.43
101	11.12	33.49	4.60	240	200	8.74	33.95	2.29	26.36	167	0.52
115	10.46	33.57	4.23	223	250	8.15	34.10	1.97	26.57	148	0.60
137	9.72	33.65	3.43	205	300	7.68	34.14	1.58	26.67	138	0.68
163	9.26	33.80	3.00	187	400	6.75	34.20	0.86	26.85	121	0.81
200	8.74	33.95	2.29	167	500	6.00	34.28	0.40	27.00	106	0.93
249	8.17	34.10	1.99	148							
326	7.45	34.16	1.41	134							
424	6.50	34.22	0.70	116							
563	5.65	34.32	0.22	99							
ORCA; July 4, 1958; 2331 GCT; 31°38.5'N, 121°20'W; sounding, 2000+ fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 14°.											90.80
0	18.10	33.31	5.76	394	0	18.10	33.31	5.76	23.98	394	0.00
9	17.96	33.26	5.34	394	10	17.95	33.26	5.34	23.98	394	0.04
28	17.78	33.25	5.35	391	20	17.83	33.25	5.33	24.00	392	0.08
44	17.64	33.30	5.52	385	30	17.76	33.25	5.37	24.01	391	0.12
53	16.58	33.51	5.90	345	50	17.56	33.44	5.57	24.44	350	0.19
62	15.58	33.37	5.94	334	75	15.25	33.46	6.05	24.75	321	0.28
72	15.45	33.45	6.06	325	100	12.57	33.44	5.09	25.29	269	0.35
91	13.89	33.47	5.90	292	150	9.58	33.60	3.92	25.94	207	0.47
104	11.96	33.42	5.13	260	200	8.63	33.85	3.03	26.30	173	0.57
119	10.68	33.46	4.73	234	250	7.86	34.02	2.48	26.55	150	0.65
142	9.80	33.56	4.11	213	300	7.28	34.09	1.80	26.68	137	0.72
171	9.05	33.71	3.47	190	400	6.50	34.25	1.06	26.92	114	0.85
207	8.54	33.89	2.93	169	500	5.87	34.33	0.70	27.06	101	0.97
258	7.75	34.04	2.37	147							
338	6.99	34.12	1.38	130							
438	6.20	34.32	0.89	106							
578	5.40	34.33	0.39								
ORCA; July 5, 1958; 0725 GCT; 31°25'N, 122°00'W; sounding, 2200 fm; wind, 320°, force 2; weather, cloudy; sea, moderate; wire angle, 15°.											90.90
0	18.56	33.51	5.49	390	0	18.56	33.51	5.49	24.02	390	0.00
10	18.56	33.54	5.54	388	10	18.56	33.54	5.54	24.04	388	0.04
29	18.40	33.51	5.60	386	20	18.48	33.52	5.58	24.03	389	0.08
43	16.05	33.42	6.14	340	30	18.38	33.51	5.61	24.06	386	0.12
53	15.81	33.46	6.19	332	50	15.92	33.44	6.17	24.59	336	0.19
62	15.70	33.47	6.28	329	75	15.52	33.54	6.29	24.76	320	0.27
71	15.58	33.53	6.29	322	100	12.95	33.44	5.60	25.21	277	0.35
89	14.44	33.45	6.03	304	150	9.66	33.62	4.18	25.95	206	0.47
104	12.42	33.43	5.47	268	200	8.78	33.91	2.80	26.32	171	0.56
117	11.04	33.44	5.04	242	250	7.95	34.06	2.17	26.57	147	0.64
140	9.97	33.56	4.46	215	300	7.35	34.12	1.70	26.70	135	0.72
167	9.28	33.73	3.68	192	400	6.48	34.24	0.95	26.91	116	0.85
204	8.68	33.93	2.71	168	500	5.80	34.32	0.57	27.06	101	0.96
255	7.89	34.07	2.15	146							
332	7.06	34.15	1.47	130							
432	6.20	34.27	0.73	109							
572	5.51	34.34	0.48	96							

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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
93.27	ORCA; July 7, 1958; 0845 GCT; 32°56.5'N, 117°20'W; sounding, 100 fm; wind, direction missing, force 1; weather, overcast; sea, smooth; wire angle, 00°.										
0	21.05	33.70	6.35	439	0	21.05	33.70	6.35	23.50	439	0.00
10	15.45	33.58	7.01	316	10	15.45	33.58	7.01	24.80	316	0.04
30	10.72	33.62	3.66	223	20	12.00	33.61	4.50	25.53	246	0.07
50	10.34	33.67	3.42	213	30	10.72	33.62	3.66	25.78	223	0.09
75	10.04	33.77	2.96	202	50	10.34	33.67	3.42	25.88	213	0.13
100	9.90	33.87	2.78	191	75	10.04	33.77	2.96	26.00	202	0.18
					100	9.90	33.87	2.78	26.11	191	0.24
93.30	ORCA; July 2, 1958; 2329 GCT;[a] 32°47.5'N, 117°30.5'W; sounding, 500 fm; wind, 270°, force 2; weather, cloudy; sea, slight; wire angle, 08°.										
415	7.61	34.33	0.56	124							
424	7.42	34.33	0.39	121							
434	7.28	34.33	0.43	119							
444	7.24	34.34	0.41	117							
454	7.12	34.34	0.44	116							
464	7.04	34.34	0.45	115							
474	7.00	34.34	0.39	114							
483	6.86	34.36u	0.35	-							
493	6.79	34.33	0.37	112							
503	6.61	34.34	0.31	109							
513	6.60	34.34	0.41	109							
523	6.47	34.33	0.40	108							
533	6.39	34.34	0.32	106							
543	6.29	34.34	0.28	104							
553	6.19	34.33	0.28	104							
563	6.11	34.34	0.33	103							
573	6.04	34.34	0.29	102							
93.30	ORCA; July 7, 1958; 0559 GCT; 32°50'N, 117°32.5'W; sounding, 400 fm; wind, 280°, force 1; weather, overcast; sea, slight; wire angle, 00°.										
0	20.78	33.69	5.83	432	0	20.78	33.69	5.83	23.58	432	0.00
10	17.68	33.58	6.49	365	10	17.68	33.58	6.49	24.28	365	0.04
30	11.28	33.53	4.41	240	20	13.20	33.54	4.97	25.25	273	0.07
45	10.56	33.63	3.88	220	30	11.28	33.53	4.41	25.60	240	0.10
55	10.20	33.64	3.78	233	50	10.35	33.63	3.84	25.85	216	0.14
65	10.10	33.69	3.65	208	75	9.99	33.79	3.26	26.04	198	0.20
75	9.99	33.79	3.26	198	100	9.82	33.87	2.95	26.12	190	0.24
95	9.86	33.86	3.02	191	150	9.67	34.03	2.26	26.27	176	0.34
109	9.78	33.90	2.82	187	200	9.48	34.13	2.00	26.38	166	0.42
123	9.78	33.96	2.55	183	250	9.20	34.24	1.50	26.51	153	0.50
147	9.71	34.00	2.31	179	300	8.52	34.28	1.09	26.66	139	0.58
175	9.56	34.09	2.09	170	400	7.56	34.34	0.67	26.84	122	0.72
213	9.42	34.16	1.85	162	500	6.82	34.35	0.46	26.95	111	0.84
265	9.03	34.26	1.29	149	600	(5.80)	(34.33)		(27.07)	(100)	(0.95)
346	7.86	34.31	0.90	128							
447	7.30	34.35	0.50	118							
589	5.92	34.33	0.45	101							

a) Test cast.

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

PAOLINA-T; July 4, 1958; 0722, 0809 GCT;[a] 32°37.5'N, 117°34'W; sounding, 650 fm; wind, 240°, force 1; weather, cloudy; sea, slight; wire angle, 00°, 05°. 93.31

436	7.06	34.39	0.30	111							
446	6.85	34.39	0.28	108							
455	6.76	34.36	0.27	109							
466	6.70	34.37	0.25	108							
476	6.61	34.35	0.22	109							
486	6.51	34.61r	0.22	-							
496	6.54	34.38	0.17	105							
506	6.50	34.41	0.20	103							
515	6.43	34.39	0.15	103							
526	6.34	34.40	0.22	101							
536	6.18	34.40	0.16	99							
548	6.12	34.38	0.16	100							
558	6.05	34.34	0.14	102							
568	5.98	34.36	0.16	100							
578	5.90	34.38	0.13	98							
588	5.86	34.38	0.16	97							
597	5.77	34.38	0.15	96							

ORCA; July 6, 1958; 2326, 2343 GCT; 32°29.5'N, 118°10.5'W; sounding, 930 fm; wind, 300°, force 3; weather, partly cloudy; sea, moderate; wire angle, 15°, 16°. 93.40

0	17.88	33.64	5.53	365	0	17.88	33.64	5.53	24.28	365	0.00
10	17.14	33.56	5.63	354	10	17.14	33.56	5.63	24.40	354	0.04
					20	14.77	33.51	5.03	24.89	307	0.07
28	12.40	33.47	4.67	264	30	12.30	33.48	4.64	25.37	261	0.10
42	10.76	33.57	3.94	228	50	10.30	33.60	3.75	25.83	218	0.15
52	10.20	33.61	3.71	215	75	9.84	33.75	3.39	26.03	199	0.20
63	10.02	33.66	3.61	209	100	9.19	33.88	2.85	26.23	180	0.25
71	9.94	33.73	3.44	202	150	8.62	34.03	2.36	26.45	159	0.33
91	9.36	33.81	3.20	187	200	8.12	34.16	1.95	26.62	143	0.41
104	9.17	33.89	2.74	178	250	8.05	34.29	1.26	26.72	133	0.48
118	9.12	33.96	2.50	173	300	7.39	34.32	0.89	26.85	121	0.54
141	8.70	34.01	2.46	162	400	6.61	34.35	0.54	26.98	108	0.66
168	8.40	34.09	2.06	152							
205	8.08	34.16	1.93	143							
221p	7.96	34.19	1.66	138							
254	8.06	34.29	1.11	133							
309p	7.28	34.32	0.86	120							
429p	6.40	34.36	0.44	105							

ORCA; July 6, 1958; 1630 GCT; 32°01.5'N, 118°44'W; sounding, 700 fm; wind, 300°, force 2; weather, cloudy; sea, moderate; wire angle, 07°. 93.50

0	16.30	33.60	-	333	0	16.30	33.60		24.62	333	0.00
10	16.30	33.55	6.17	336	10	16.30	33.55	6.17	24.59	336	0.03
30	15.32	33.53	5.99	316	20	16.18	33.54	6.15	24.61	334	0.07
44	13.34	33.42	5.64	285	30	15.32	33.53	5.99	24.80	316	0.10
54	12.46	33.41	5.39	269	50	12.79	33.41	5.48	25.23	275	0.16
64	11.94	33.46	5.22	256	75	10.37	33.49	4.28	25.74	226	0.22
74	10.40	33.49	4.70	227	100	9.38	33.63	4.21	26.02	200	0.28
85p	9.84	33.58	4.38	212	150	8.74	34.02	2.33	26.42	162	0.37
97p	9.44	33.60	4.30	204	200	8.20	34.16	1.99	26.61	144	0.44
116p	9.10	33.80	3.45	184	250	7.66	34.19	2.00	26.71	134	0.52
140p	8.84	33.94	2.70	170	300	7.41	34.26	1.07	26.81	125	0.58
172p	8.48	34.13	1.92	150	400	6.71	34.32	0.64	26.94	112	0.70
216p	7.76	34.16	2.15	138	500	6.05	34.33	0.41	27.04	103	0.82
286p	7.52	34.25	1.20	128							
375p	6.83	34.31	0.69	114							
501p	6.04	34.33	0.40	103							

a) Test cast.

SIO

CCOFI 5807

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_{T} 10^{-5} cm^3/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T} 10^{-5} cm^3/g	ΔD dyn. m
93.60	ORCA; July 6, 1958; 0944, 1007 GCT; 31°43.5'N, 119°32'W; sounding, 1220 fm; wind, 290°, force 2; weather, cloudy; sea, moderate; wire angle, 23°, 23°.										
0	15.82	33.40	6.30	337	0	15.82	33.40	6.30	24.58	337	0.00
9	15.74	33.39	6.27	335	10	15.73	33.39	6.27	24.60	335	0.03
					20	15.44	33.45	6.27	24.70	325	0.07
27	15.41	33.46	6.27	324	30	15.39	33.46	6.26	24.72	323	0.10
41	15.25	33.55	6.15	314	50	14.04	33.39	6.06	24.96	301	0.16
50	14.04	33.39	6.06	301	75	11.52	33.45	5.14	25.49	250	0.23
58	13.51	33.46	5.88	285	100	9.90	33.62	4.12	25.92	210	0.29
68	12.64	33.39	5.64	274	150	8.84	33.94	2.85	26.34	170	0.38
86	10.60	33.49	4.77	231	200	8.42	34.07	2.30	26.50	154	0.47
99	9.97	33.60	4.20	212	250	7.88	34.16	1.77	26.66	140	0.54
111	9.58	33.84	3.49	189	300	7.28	34.20	1.34	26.77	129	0.61
130	9.15	33.89	3.13	178	400	6.62	34.25	0.86	26.90	116	0.74
158	8.78	33.96	2.76	167	500	5.92	34.32	0.37	27.05	102	0.85
188	8.54	34.05	2.43	157							
233	8.12	34.14	1.92	144							
305	7.24	34.20	1.30	128							
396	6.66	34.25	0.90	117							
528	5.69	34.34	0.22	98							
93.70	ORCA; July 6, 1958; 0243, 0302 GCT; 31°27.5'N, 120°14.5'W; sounding, 2000+ fm; wind, 330°, force 4; weather, cloudy; sea, moderate; wire angle, 23°, 23°.										
0	17.76	33.20	5.88	394	0	17.76	33.20	5.88	23.98	394	0.00
9	17.74	33.22	5.94	392	10	17.73	33.22	5.94	24.00	392	0.04
					20	17.38	33.20	5.95	24.06	386	0.08
18	17.42	33.20	5.94	387	30	17.12	33.22	5.98	24.13	379	0.12
32	17.08	33.22	5.99	378	50	16.40	33.56	6.26	24.34	360	0.19
40	16.86	33.22	6.11	372	75	14.70	33.39	6.33	24.82	314	0.27
49	16.46	33.25	6.23	362	100	12.35	33.46	5.44	25.35	264	0.35
57	15.86	33.30	6.34	345	150	9.50	33.64	4.10	26.00	202	0.46
74	14.71	33.39	6.33	314	200	8.48	33.88	3.14	26.35	168	0.56
86	14.00	33.35	6.28	303	250	7.79	34.02	2.32	26.56	148	0.64
98	12.60	33.46	5.54	268	300	7.10	34.10	1.73	26.70	135	0.71
116	10.92	33.50	4.73	235	400	6.58	34.19	1.27	26.86	120	0.85
139	9.87	33.57a)	4.31	214	500	5.96	34.28	0.60	27.01	106	0.96
170	8.94	33.75	3.65	185							
215	8.21	33.96	2.75	159							
284	7.38	34.07	1.90	139							
375	6.72	34.17	1.42	123							
507	5.88	34.28	0.54	105							
93.80	ORCA; July 5, 1958; 2007 GCT; 31°14'N, 120°56'W; sounding, 2000+ fm; wind, 330°, force 2; weather, cloudy; sea, moderate; wire angle, 11°.										
0	18.34	33.44	5.49	390	0	18.34	33.44	5.49	24.02	390	0.00
10	18.32	33.39	5.32	393	10	18.32	33.39	5.32	23.99	393	0.04
29	18.26	33.40	5.32	391	20	18.30	33.39	5.32	23.99	393	0.08
44	17.05	33.39	5.70	364	30	18.25	33.40	5.32	24.01	391	0.12
53	16.04	33.42	5.79	340	50	16.37	33.41	5.77	24.46	348	0.19
64	15.40	33.33	5.83	333	75	15.28	33.38	5.71	24.68	327	0.28
72	15.28	33.37	5.72	328	100	14.80	33.50	5.67	24.88	308	0.36
91	15.30	33.51	5.69	318	150	9.95	33.50	4.63	25.81	219	0.49
105	13.56	33.46	5.66	286	200	8.64	33.88	3.02	26.34	169	0.59
120	12.54	33.52	5.50	262	250	7.88	34.02	2.36	26.55	150	0.67
143	10.20	33.49	4.87	224	300	7.26	34.08	1.80	26.68	137	0.74
171	9.27	33.62	3.72	200	400	6.45	34.17	1.20	26.86	120	0.88
208	8.44	33.88	2.82	169	500	5.90	34.26	0.44	27.01	106	1.00
261	7.73	34.05	2.22	146	600	(5.28)	(34.34)		(27.14)	(93)	(1.10)
340	6.83	34.11	1.42	129							
441	6.22	34.21	0.60	114							
584	5.40	34.33	0.29	95							

a) Salinity bottle number was not recorded on the data sheet. Since standard handling and titrating procedures were used, this salinity value is assumed to be listed correctly.

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

ORCA; July 5, 1958; 0507 GCT; 30°51.5'N, 121°38'W; sounding, 2000+ fm; wind, 320°, force 3; weather, cloudy; sea, rough; wire angle, 06°. 93.90

0	18.72	33.46	5.59	398	0	18.72	33.46	5.59	23.94	398	0.00
10	18.76	33.42	5.47	402	10	18.76	33.42	5.47	23.90	402	0.04
30	18.70	33.45	5.46	398	20	18.74	33.43	5.46	23.90	401	0.08
44	18.18	33.46	5.42	385	30	18.70	33.45	5.46	23.93	398	0.12
55	15.64	33.31	6.07	340	50	15.85	33.31	6.02	24.50	344	0.19
64	15.32	33.30	5.97	333	75	15.02	33.30	5.98	24.68	327	0.28
74	15.04	33.30	5.98	328	100	13.81	33.42	5.70	25.04	293	0.36
92	14.24	33.31	5.96	300	150	10.02	33.56	4.20	25.85	216	0.49
107	13.46	33.50	5.51	282	200	8.63	33.94	2.83	26.36	167	0.59
121	12.77	33.46	5.51	271	250	7.83	34.06	2.13	26.58	147	0.67
144	10.32	33.49	4.42	226	300	7.25	34.11	1.60	26.70	135	0.74
172	9.20	33.77	3.41	188	400	6.35	34.08	0.98	26.99	117	0.87
210	8.41	33.98	2.59	160	500	5.84	34.26	0.76	27.01	106	0.99
263	7.66	34.08	2.01	143	600	(5.46)	(34.34)		(27.12)	(95)	(1.10)
344	6.80	34.14	1.17	126							
445	6.03	34.22	0.86	111							
588	5.50	34.33	0.30	96							

STRANGER; June 30, 1958; 2200, 2235 GCT;[a] 32°39'N, 117°30.5'W; sounding, 650 fm; wind, 270°, force 3; weather, partly cloudy; sea, rough; wire angle, 10°, 15°. 94.31

405	7.63	34.39[b]	0.58
413	7.52	34.38	0.41
424	7.46	34.46	0.46
432	7.40	34.42	0.52
442	7.21	34.35	0.41
451	7.16	34.36	0.42
459	7.07	34.40	0.44
469	6.94	34.38	0.41
478	6.86	34.35	0.41
487	6.82	34.36	0.42
495	6.77	34.36	0.40
505	6.69	34.38	0.41
514	6.59	34.37	0.39
523	6.50	34.37	0.28
532	6.46	34.34	0.28
541	6.38	34.41	0.33
551	6.27	34.36	0.31

ORCA; July 8, 1958; 0700 GCT; 32°15.5'N, 117°09'W; sounding, 39 fm; wind, 330°, force 2; weather, overcast; sea, smooth; wire angle, 05°. 97.30

0	18.52	33.58	5.97	384	0	18.52	33.58	5.97	24.08	384	0.00
10	16.69	33.61	6.10	340	10	16.69	33.61	6.10	24.54	340	0.04
29	11.22	33.48	4.32	242	20	12.50	33.51	4.69	25.36	263	0.07
49	10.30	33.58	3.60	219	30	11.15	33.48	4.30	25.59	241	0.09

a) Test cast.
b) Owing to mechanical difficulties, the salinity values on this cast varied excessively.

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

97.32 ORCA; July 8, 1958; 0840 GCT; 32°11.5'N, 117°16'W; sounding, 600+ fm; wind, 320°, force 2; weather, overcast; sea, slight; wire angle, 17°.

0	19.69	33.60	5.90	412	0	19.69	33.60	5.90	23.79	412	0.00
10	19.44	33.60	5.90	405	10	19.44	33.60	5.90	23.86	405	0.04
28	14.00	33.48	5.98	293	20	16.26	33.53	5.94	24.58	437	0.08
44	12.38	33.44	5.15	266	30	13.85	33.48	5.95	25.06	291	0.11
52	11.50	33.44	4.71	250	50	11.66	33.44	4.78	25.46	253	0.16
61	11.16	33.44	4.50	244	75	10.35	33.54	4.07	25.77	223	0.22
70	10.61	33.51	4.18	230	100	9.42	33.70	3.44	26.06	196	0.28
88	9.78	33.60	3.86	210	150	8.98	33.91	2.84	26.29	174	0.37
102	9.40	33.72	3.40	194	200	8.82	34.11	2.11	26.47	157	0.45
115	9.30	-	3.37	-	250	8.41	34.18	1.60	26.59	146	0.53
136	9.08	33.85	3.05	180	300	7.93	34.23	1.18	26.70	134	0.60
164	8.88	33.98	2.65	168	400	7.43	34.30	0.68	26.83	123	0.74
200	8.82	34.11	2.11	157	500	6.72	34.37	0.45	26.98	108	0.86
250	8.41	34.18	1.60	146							
329	7.68	34.25	1.01	130							
427	7.30	34.33	0.58	119							
568	6.14	34.40	0.38	99							

97.40 ORCA; July 8, 1958; 1422 GCT; 31°56'N, 117°50'W; sounding, 300 fm; wind, 320°, force 3; weather, cloudy; sea, slight; wire angle, 02°.

0	17.08	33.54	5.12	354	0	17.08	33.54	5.12	24.39	354	0.00
10	16.95	33.53	5.34	351	10	16.95	33.53	5.34	24.43	351	0.04
30	16.45	33.56	5.27	339	20	16.80	33.54	5.34	24.46	348	0.07
39	14.11	33.34	5.81	306	30	16.45	33.56	5.27	24.56	339	0.10
49	13.11	33.40	4.67	282	50	13.01	33.40	4.64	25.18	280	0.17
59	12.08	33.42	4.53	262	75	10.97	33.51	4.21	25.64	236	0.23
69	11.52	33.49	4.26	246	100	9.43	33.61	3.73	25.98	203	0.29
82	10.32	33.53	4.19	223	150	8.80	33.90	3.00	26.31	172	0.38
96	9.52	33.59	3.68	206	200	8.35	34.04	2.84	26.49	155	0.46
112	9.21	33.68	3.92	195	250	8.04	34.19	2.48	26.66	140	0.54
134	8.91	33.80	3.20	181	300	7.52	34.21	1.35	26.74	131	0.61
162	8.72	33.97	2.71	166	400	6.64	34.28	0.96	26.92	114	0.74
195	8.38	34.04	2.88	156	500	(5.95)	(34.34)	(0.76)	(27.06)	(102)	(0.85)
242	8.11	34.19	2.52	140							
291	7.60	34.20	1.43	133							
392	6.68	34.28	0.97	115							
491	6.00	34.33	0.77	103							

97.50 ORCA; July 8, 1958; 2131, 2156 GCT; 31°36'N, 118°30.5'W; sounding, 1300 fm; wind, 320°, force 3; weather, overcast; sea, moderate; wire angle, 25°, 32°.

0	17.44	33.55	5.91	362	0	17.44	33.55	5.91	24.31	362	0.00
8	17.40	33.54	5.86	361	10	17.40	33.54	5.86	24.32	361	0.04
28	16.60	33.55	6.23	343	20	17.40	33.54	5.86	24.32	361	0.07
41	14.80	33.46	6.80	311	30	16.56	33.55	6.24	24.53	342	0.11
50	13.22	33.45	6.12	281	50	13.22	33.45	6.12	25.17	281	0.17
59	12.28	33.48	5.08	261	75	10.85	33.52	4.61	25.67	233	0.23
67	11.42	33.49	4.91	245	100	9.62	33.72	3.88	26.02	198	0.29
82	10.40	33.55	4.35	223	150	8.91	33.98	2.91	26.36	168	0.38
94	9.83	33.73	4.10	201	200	8.14	34.08	2.40	26.55	150	0.46
106	9.46	33.71	3.58	196	250	7.65	34.14	1.84	26.67	138	0.53
127	9.12	33.93	2.89	175	300	7.16	34.23	1.35	26.81	125	0.60
151	8.88	33.98	2.92	168	400	6.48	34.27	0.72	26.94	113	0.72
184	8.26	34.05	2.64	153	500	6.06	34.32	0.57	27.03	104	0.84
230	7.86	34.11	2.04	143							
298p	7.18	34.23	1.37	125							
396p	6.50	34.27	0.73	113							
536p	5.90	34.34	0.50	100							

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2' ml/L	δT_{-5} 10^{-5} cm^3/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δT_{-5} 10^{-5} cm^3/g	ΔD dyn. m

97.60 ORCA; July 9, 1958; 1214 GCT; 31°14'N, 119°08.5'W; sounding, 1900 fm; wind, 310°, force 4; weather, overcast; sea, rough; wire angle, 14°.

0	17.02	33.30	5.59	370	0	17.02	33.30	5.59	24.23	370	0.00
8	17.02	33.30	5.62	370	10	17.02	33.30	5.62	24.23	370	0.04
27	15.68	33.26	5.82	344	20	17.02	33.30	5.62	24.23	370	0.07
40	14.68	33.25	5.94	324	30	15.41	33.26	5.86	24.56	338	0.11
49	14.02	33.24	5.81	312	50	14.00	33.25	5.79	24.86	310	0.17
58	13.71	33.44	5.43	290	75	11.65	33.46	4.54	25.47	252	0.24
66	12.74	33.44	5.04	272	100	10.56	33.57	3.96	25.76	225	0.31
83	11.32	33.51	4.39	242	150	9.28	33.88	2.78	26.21	181	0.41
96	10.75	33.55	4.09	229	200	8.59	34.02	2.18	26.44	160	0.50
108	10.13	33.62	3.68	214	250	8.00	34.11	1.80	26.60	145	0.57
129	9.83	33.68	3.65	205	300	7.12	34.20	1.36	26.80	126	0.64
152	9.23	33.89	2.74	180	400	6.60	34.24	0.68	26.90	117	0.77
184	8.78	33.99	2.36	165	500	5.88	34.28	0.51	27.02	104	0.88
228	8.31	34.07	1.96	152							
298	7.18	34.20	1.40	127							
388	6.68	34.23	0.71	118							
519	5.74	34.29	0.48	102							

97.70 ORCA; July 9, 1958; 0450 GCT; 30°47.5'N, 119°47.5'W; sounding, 1900 fm; wind, 300°, force 4; weather, partly cloudy; sea, rough; wire angle, 28°

0	17.39	33.32	5.63	377	0	17.39	33.32	5.63	24.15	377	0.00
10	17.40	33.31	5.61	378	10	17.40	33.31	5.61	24.14	378	0.04
29	17.24	33.33	5.59	373	20	17.35	33.31	5.60	24.16	377	0.08
43	16.60	33.33	5.73	359	30	17.24	33.33	5.59	24.20	373	0.11
54	16.40	33.33	5.86	354	50	16.38	33.33	5.74	24.36	357	0.19
62	15.92	33.37	5.81	341	75	14.75	33.44	5.77	24.86	310	0.27
71	15.44	33.46	5.80	324	100	12.35	33.45	5.27	25.34	265	0.34
89	13.46	33.42	5.58	287	150	9.50	33.76	3.53	26.09	193	0.46
103	11.95	33.46	5.12	256	200	8.60	33.94	2.72	26.38	166	0.55
116	11.04	33.47	4.73	240	250	7.99	33.97	2.46	26.49	155	0.63
140	9.80	33.71	3.78	202	300	7.32	34.01	1.92	26.62	143	0.71
167	9.14	33.83	3.19	182	400	6.42	34.13	1.10	26.84	122	0.85
203	8.58	33.95	2.70	165	500	5.81	34.22	0.73	26.99	108	0.97
253	7.92	33.97	2.42	154							
335	6.92	34.05	-	135							
433	6.24	34.16	0.96	118							
572	5.37	34.29	0.48	98							

97.80 ORCA; July 9, 1958; 1945 GCT; 30°21'N, 120°32'W; sounding, 2000 fm; wind, 340°, force 4; weather, cloudy; sea, rough; wire angle, 15°

0	19.24	33.61	5.39	400	0	19.24	33.61	5.39	23.92	400	0.00
10	19.21	33.56	5.38	402	10	19.21	33.56	5.38	23.89	402	0.04
30	19.12	33.60	5.47	397	20	19.18	33.57	5.40	23.90	401	0.08
44	16.30	33.37	5.90	349	30	19.12	33.60	5.47	23.95	397	0.12
53	15.96	33.37	5.87	342	50	16.05	33.37	5.88	24.50	344	0.19
62	15.78	33.44u	5.96	-	75	15.46	33.37	5.70	24.63	332	0.28
70	15.58	33.36	5.69	334	100	14.90	33.44	5.79	24.81	315	0.36
89	15.31	33.40	5.75	326	150	9.78	33.50	4.68	25.84	217	0.49
102	14.73	33.44	5.81	311	200	8.76	33.78	3.33	26.21	180	0.59
115	12.55	33.40	5.46	272	250	8.01	33.98	2.46	26.49	155	0.68
138	10.42	33.44	4.85	232	300	7.32	34.05	1.91	26.65	140	0.76
165	9.38	33.57	4.58	205	400	6.27	34.17	1.10	26.88	118	0.89
201	8.76	33.78	3.33	180	500	5.64	34.25	0.67	27.03	104	1.01
251	8.01	33.98	2.46	155							
329	6.96	34.09	1.65	132							
429	6.01	34.20	0.89	112							
569	5.26	34.29	0.46	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
100.70	ORCA; July 10, 1958; 2204, 2232 GCT; 30°20.5'N, 119°26'W; sounding, 2000+ fm; wind, 310°, force 3; weather, partly cloudy; sea, moderate; wire angle, 15°, 23°.										
0	19.49	33.73	5.42	397	0	19.49	33.73	5.42	23.95	397	0.00
9	19.36	33.75	5.40	392	10	19.34	33.75	5.39	24.00	392	0.04
29	19.21	33.71	5.32	392	20	19.26	33.72	5.34	24.00	392	0.08
43	17.49	33.77	5.52	347	30	19.22	33.71	5.32	24.01	391	0.12
54	17.44	33.84	5.70	341	50	17.47	33.82	5.68	24.52	342	0.19
63	17.06	33.77	5.68	337	75	16.07	33.57	5.65	24.65	330	0.28
72	16.20	33.58	5.64	332	100	15.08	33.55	5.75	24.85	311	0.36
90	15.58	33.54	5.76	321	150	10.61	33.53	4.99	25.72	228	0.49
104	14.86	33.55	5.75	306	200	9.00	33.73	3.63	26.14	188	0.60
117	13.25	33.50	5.59	278	250	8.19	33.94	2.73	26.44	160	0.69
139	11.26	33.52	5.15	240	300	7.43	34.04	2.11	26.62	143	0.76
167	9.82	33.55	4.60	214	400	6.58	34.12	1.11	26.81	125	0.90
203	8.98	33.74	3.60	186	500	5.92	34.20	0.66	26.96	111	1.03
252	8.12	33.95	2.66	159							
333	7.08	34.07	1.84	136							
434	6.30	34.15	0.84	120							
574	5.47	34.28	0.43	100							
100.80	ORCA; July 10, 1958; 1437 GCT; 30°00'N, 120°08'W; sounding, 1900 fm; wind, 330°, force 4; weather, cloudy; sea, rough; wire angle, 15°.										
0	19.35	33.51	5.38	409	0	19.35	33.51	5.38	23.82	409	0.00
10	19.34	33.48	5.50	411	10	19.34	33.48	5.50	23.80	411	0.04
29	18.16	33.82	5.73	359	20	19.34	33.49	5.50	23.81	400	0.08
44	17.48	33.85	5.81	341	30	18.08	33.83	5.74	24.37	356	0.12
54	17.31	33.84	5.76	337	50	17.39	33.84	5.78	24.55	339	0.19
64	17.18	33.84	5.78	334	75	16.62	33.81	5.63	24.72	324	0.27
73	16.76	33.82	5.61	327	100	15.20	33.70	5.80	24.95	301	0.35
93	15.78	33.77	5.79	308	150	10.48	33.50	5.10	25.72	228	0.48
107	14.40	33.61	5.75	292	200	8.70	33.81	3.45	26.25	178	0.59
122	12.25	33.48	5.44	260	250	7.94	33.96	2.78	26.48	156	0.67
146	10.70	33.49	5.19	233	300	7.23	34.04	2.12	26.65	140	0.75
174	9.33	33.60	4.27	202	400	6.30	34.12	1.18	26.84	122	0.89
211	8.52	33.87	3.19	170	500	5.74	34.18	0.71	26.96	110	1.01
263	7.79	33.98	2.66	152	600	(5.19)	(34.32)		(27.14)	(94)	(1.12)
342	6.74	34.09	1.65	129							
443	6.01	34.14	0.89	117							
584	5.26	34.29	0.42	97							
100.90	ORCA; July 10, 1958; 0751 GCT; 29°42.5'N, 120°48'W; sounding, 2000+ fm; wind, 340°, force 3; weather, cloudy; sea, rough; wire angle, 15°.										
0	19.70	33.59	5.25	412	0	19.70	33.59	5.25	23.79	412	0.00
10	19.70	33.57	5.27	414	10	19.70	33.57	5.27	23.77	414	0.04
28	19.74	33.64	5.19	410	20	19.72	33.62	5.22	23.80	411	0.08
43	19.67	33.81	5.24	395	30	19.74	33.65	5.19	23.82	409	0.12
52	18.40	33.84	5.60	363	50	18.95	33.83	5.45	24.15	377	0.20
63	17.65	33.85	5.58	345	75	17.62	33.91	5.48	24.54	340	0.29
72	17.63	33.89	5.50	342	100	17.26	34.03	5.46	24.73	323	0.38
90	17.61	34.05	5.40	329	150	11.78	33.60	5.05	25.57	242	0.52
104	16.91	34.00	5.55	317	200	9.34	33.76	3.96	26.11	191	0.63
118	14.62	33.82	5.44	281	250	8.47	33.92	3.10	26.38	165	0.72
139	12.84	33.68	5.20	256	300	7.72	34.01	2.38	26.56	148	0.80
166	10.36	33.54	4.89	223	400	6.68	34.12	1.46	26.82	124	0.94
202	9.27	33.78	3.92	188	500	5.80	34.24	0.77	27.00	106	1.07
252	8.41	33.93	3.04	164							
329	7.33	34.05	2.02	140							
428	6.22	34.14	0.98	120							
566	5.43	34.36	0.46	94							

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

ORCA; July 13, 1958; 1950 GCT; 31°05'N, 116°25'W; sounding, 30 fm; wind, calm; weather, cloudy; sea, smooth; wire angle, 00°. 103.30

0	15.64	33.58	6.04	320	0	15.64	33.58	6.04	24.76	320	0.00
10	13.16	33.55	5.61	272	10	13.16	33.55	5.61	25.26	272	0.03
30	11.36	-	-	-	20	11.98					
40	10.99	-	-	-	30	11.36					

ORCA; July 13, 1958; 2306 GCT; 30°55.5'N, 116°45.5'W; sounding, 600 fm; wind, 300°, force 1; weather, cloudy; sea, moderate; wire angle, 22°. 103.35

0	19.56	33.60	5.35	408	0	19.56	33.60	5.35	23.83	408	0.00
10	17.94	33.55	5.39	373	10	17.94	33.55	5.39	24.20	373	0.04
28	14.30	33.52	5.65	297	20	15.00	33.53	5.60	24.86	310	0.07
37	13.29	33.48	4.94	280	30	14.18	33.52	5.63	25.02	294	0.10
46	12.76	33.47	4.99	270	50	12.43	33.48	4.82	25.35	264	0.16
55	12.05	33.51	4.55	254	75	11.20	33.52	4.38	25.62	238	0.22
64	11.73	33.62	4.61	241	100	9.79	33.66	3.58	25.97	205	0.28
76	11.14	33.52	4.35	238	150	9.00	33.89	3.02	26.27	176	0.37
89	10.16	33.58	4.12	217	200	8.52	34.04	2.33	26.47	157	0.46
101	9.78	33.66	3.57	205	250	8.10	34.15	1.72	26.62	143	0.53
121	9.29	33.78	3.35	189	300	7.80	34.23	1.25	26.72	133	0.60
145	9.06	33.86	3.12	179	400	7.12	34.32	0.67	26.90	116	0.74
174	8.72	33.98	2.65	165	500	(6.22)	(34.39)	(0.51)	(27.06)	(101)	(0.85)
215	8.40	34.07	2.19	154							
283	7.88	34.21	1.39	136							
369	7.38	34.30	0.76	122							
487	6.35	34.28	0.53	103							

ORCA; July 14, 1958; 0216 GCT; 30°45'N, 117°05.5'W; sounding, 1040 fm; wind, 300°, force 2; weather, cloudy; sea, slight; wire angle, 06°. 103.40

0	18.50	33.43	5.52	395	0	18.50	33.43	5.52	23.97	395	0.00
10	18.16	33.39	5.57	390	10	18.16	33.39	5.57	24.02	390	0.04
30	17.68	33.47	5.58	373	20	17.93	33.44	5.57	24.12	380	0.08
40	17.30	33.41	5.67	369	30	17.68	33.47	5.58	24.20	373	0.12
49	15.91	33.34	5.91	343	50	15.78	33.34	5.92	24.54	340	0.19
60	14.82	33.35	5.97	320	75	13.12	33.43	5.60	25.17	281	0.26
68	13.95	33.42	5.78	297	100	10.78	33.45	4.73	25.63	237	0.33
83	12.24	33.44	5.42	263	150	9.19	33.82	3.33	26.19	184	0.44
97	10.84	33.44	4.85	239	200	8.30	33.89	2.85	26.38	166	0.53
112	10.45	33.51	4.21	227	250	7.60	34.05	1.92	26.61	144	0.60
135	9.68	33.70	3.61	200	300	7.11	34.13	1.57	26.74	132	0.68
163	8.80	33.89	3.10	173	400	6.60	34.22	0.97	26.89	117	0.81
196	8.35	33.89	2.89	166	500	6.00	34.32	0.63	27.03	104	0.92
243	7.68	34.04	2.03	146							
319	6.98	34.16	1.46	127							
416	6.50	34.25	0.84	115							
544	5.75	34.34	0.56	99							

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
103.50	ORCA; July 14, 1958; 0802 GCT; 30°24'N, 117°43'W; sounding, 1450 fm; wind, calm; weather, cloudy; sea, smooth; wire angle, 09°.										
0	18.98	33.53	5.61	399	0	18.98	33.53	5.61	23.93	399	0.00
10	18.95	33.55	5.40	397	10	18.95	33.55	5.40	23.95	397	0.04
29	18.78	33.56	5.50	392	20	18.82	33.56	5.45	23.99	393	0.08
39	18.89	33.66	5.50	388	30	18.78	33.56	5.50	24.00	392	0.12
49	17.90	33.64	5.75	366	50	17.78	33.64	5.78	24.30	363	0.19
58	17.02	33.61	5.93	348	75	16.39	33.58	5.91	24.59	336	0.28
68	16.66	33.61	5.90	340	100	15.35	33.58	5.89	24.82	314	0.36
83	16.09	33.55	5.94	332	150	10.46	33.54	4.81	25.76	225	0.50
97	15.53	33.58	5.89	317	200	8.66	33.89	3.28	26.32	171	0.60
112	13.60	33.55	5.87	280	250	8.30	34.06	2.49	26.51	153	0.68
135	10.82	33.46	4.99	237	300	8.08	34.19	1.57	26.65	140	0.76
163	9.38	33.61	4.07	202	400	7.00	34.23	0.91	26.83	123	0.89
196	8.70	33.87	3.35	173	500	6.28	34.28	0.66	26.97	110	1.02
242	8.33	34.04	2.51	155							
317	8.00	34.22	1.31	137							
414	6.84	34.23	0.87	120							
539	6.02	34.31	0.57	104							
103.60	ORCA; July 14, 1958; 1546 GCT; 29°57'N, 118°23.5'W; sounding, 1800 fm; wind, 300°, force 1; weather, cloudy; sea, slight; wire angle, 06°.										
0	19.16	33.55	5.23	402	0	19.16	33.55	5.23	23.90	402	0.00
10	19.12	33.60	5.38	397	10	19.12	33.60	5.38	23.95	397	0.04
30	18.99	33.66	5.39	390	20	19.03	33.65	5.39	24.00	392	0.08
40	18.92	33.63	5.30	390	30	18.99	33.66	5.39	24.02	390	0.12
49	18.82	33.59	5.31	391	50	18.81	33.59	5.32	24.02	390	0.20
59	18.28	33.66	5.51	373	75	15.60	33.53	5.80	24.73	323	0.29
68	16.44	33.56	5.72	339	100	13.08	33.49	5.02	25.23	275	0.36
82	14.86	33.51	5.82	309	150	10.28	33.83	3.00	26.02	200	0.48
97	13.34	33.48	5.18	280	200	10.04	34.21	1.69	26.36	168	0.57
111	12.01	33.58	4.42	249	250	9.13	34.25	1.56	26.54	151	0.66
134	11.05	33.73	3.39	221	300	8.41	34.23	1.50	26.64	141	0.73
162	10.39	33.94	2.63	194	400	7.20	34.24	0.84	26.82	124	0.87
196	10.14	34.21	1.73	170	500	6.45	34.30	0.61	26.96	111	0.99
243	9.20	34.25	1.58	152							
319	8.12	34.23	1.46	138							
416	7.02	34.24	0.77	122							
543	6.17	34.34	0.55	104							
103.70	ORCA; July 14, 1958; 2202 GCT; 29°39.5'N, 119°04'W; sounding, 1800 fm; wind, 320°, force 2; weather, cloudy; sea, moderate; wire angle, 12°.										
0	19.48	33.57	5.14	408	0	19.48	33.57	5.14	23.82	408	0.00
10	19.28	33.62	5.32	400	10	19.28	33.62	5.32	23.92	400	0.04
29	18.88	33.55	5.33	395	20	19.06	33.59	5.33	23.94	398	0.08
58	17.72	33.57	5.49	366	30	18.86	33.55	5.33	23.97	395	0.12
67	16.50	33.53	5.76	342	50	18.50	33.56	5.37	24.06	386	0.20
77	16.04	33.53	5.72	332	75	16.15	33.53	5.73	24.61	334	0.29
91	14.27	33.48	4.72	299	100	13.19	33.48	4.78	25.22	276	0.37
105	12.74	33.51	4.80	267	150	10.63	33.74	3.25	25.87	214	0.49
119	11.62	33.52	4.32	246	200	9.60	34.02	2.47	26.28	175	0.59
137	11.00	33.62	3.87	228	250	9.37	34.24	1.50	26.48	156	0.67
155	10.56	33.79	3.12	208	300	8.66	34.27	1.11	26.62	143	0.75
182	10.06	34.00	2.43	185	400	7.25	34.26	0.77	26.82	124	0.89
204	9.50	34.03	2.47	173	500	6.34	34.28	0.48	26.97	110	1.01
255	9.33	34.25	1.25	154							
333	8.18	34.27	1.03	136							
437	6.84	34.26	0.65	118							
572	5.78	34.31	0.33	101							

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
ORCA; July 15, 1958; 0425 GCT; 29°25.5'N, 119°46.0'W; sounding, 1900+ fm; wind, 310°, force 4; weather, cloudy; sea, moderate; wire angle, 10°.											103.80
0	19.98	33.72	5.02	409	0	19.98	33.72	5.02	23.81	410	0.00
10	19.96	33.74	5.25	408	10	19.96	33.74	5.25	23.83	408	0.04
30	19.88	33.72	5.11	407	20	19.92	33.73	5.15	23.84	408	0.08
44	18.26	33.76	5.56	365	30	19.88	33.72	5.11	23.84	407	0.12
54	17.67	33.77	5.67	351	50	17.92	33.77	5.62	24.37	356	0.20
63	17.13	33.72	5.64	343	75	16.88	33.70	5.61	24.57	338	0.29
73	16.91	33.70	5.61	339	100	15.80	33.69	5.60	24.80	316	0.37
91	16.47	33.71	5.60	328	150	11.80	33.50	5.02	25.48	251	0.51
105	15.42	33.68	5.61	308	200	9.12	33.71	3.89	26.11	191	0.62
119	14.16	33.59	5.60	288	250	8.20	33.93	2.80	26.43	161	0.72
143	12.44	33.51	5.18	262	300	7.48	34.00	2.11	26.58	146	0.80
171	10.12	33.48	4.63	224	400	6.52	34.12	1.09	26.82	124	0.94
209	8.86	33.78	3.62	182	500	5.88	34.26	0.60	27.00	106	1.06
261	8.02	33.96	2.60	157	600	(5.29)	(34.34)		(27.14)	(93)	(1.16)
342	6.98	34.04	1.64	136							
443	6.21	34.20	0.74	114							
586	5.38	34.33	0.42	95							
ORCA; July 15, 1958; 1116 GCT; 29°04'N, 120°31'W; sounding, 2000 fm; wind, 340°, force 3; weather, partly cloudy; sea, moderate; wire angle, 10°.											103.90
0	20.00	33.61	5.30	418	0	20.00	33.61	5.30	23.72	418	0.00
10	19.98	33.64	5.31	416	10	19.98	33.64	5.31	23.75	416	0.04
29	19.58	33.70	5.42	402	20	19.77	33.68	5.37	23.83	408	0.08
44	17.86	33.75	5.88	356	30	19.56	33.70	5.44	23.91	401	0.12
54	17.46	33.73	5.74	349	50	17.58	33.74	5.76	24.42	352	0.20
63	17.29	33.75	5.81	344	75	17.14	33.76	5.80	24.55	339	0.29
74	17.16	33.76	5.80	340	100	16.00	33.63	5.84	24.72	324	0.37
93	16.26	33.61	5.85	331	150	12.50	33.59	5.27	25.40	258	0.52
107	15.91	33.64	5.84	321	200	9.69	33.60	4.39	25.93	208	0.64
123	15.30	33.63	5.70	309	250	8.50	33.89	3.13	26.34	169	0.74
147	12.87	33.60	5.35	263	300	7.90	34.05	2.30	26.57	148	0.82
175	10.62	33.51	4.85	230	400	6.85	34.18	1.20	26.82	124	0.96
213	9.34	33.64	4.10	200	500	5.99	34.24	0.70	26.98	109	1.08
265	8.25	33.96	2.82	160	600	(5.43)	(34.31)		(27.10)	(97)	(1.19)
345	7.50	34.14	1.77	136							
447	6.36	34.20	0.90	116							
587	5.52	34.30	0.47	99							
ORCA; July 18, 1958; 1335 GCT; 30°25'N, 116°12'W; sounding, 100+ fm; wind, 300°, force 3; weather, cloudy; sea, moderate; wire angle, 10°.											107.32
0	16.28	33.52	6.34	338	0	16.28	33.52	6.34	24.57	338	0.00
10	15.94	33.51	6.38	331	10	15.94	33.51	6.38	24.64	331	0.03
30	13.00	33.62	5.30	264	20	13.90	33.57	5.78	25.13	284	0.06
49	11.30	33.58a)	4.29	236	30	13.00	33.62	5.30	25.35	264	0.09
75	10.66	33.76	3.68	212	50	11.25	33.58	4.25	25.65	235	0.14
99	10.62	33.96	2.73	197	75	10.66	33.76	3.68	25.89	212	0.20
123	10.52	34.02	2.07	190	100	10.62	33.97	2.70	26.06	196	0.25
151	10.46	-	-	-	150	10.46					

a) Salinity bottle number was not recorded on the data sheet. Since standard handling and titrating procedures were used, this salinity value is assumed to be in the order listed.

SIO

CCOFI 5807

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
107.35	ORCA; July 18, 1958; 1115 GCT; 30°20'N, 116°23'W; sounding, 1000 fm; wind, 300°, force 3; weather, cloudy; sea, slight; wire angle, 27°.										
0	18.34	33.55	5.87	382	0	18.34	33.55	5.87	24.10	382	0.00
8	18.24	33.54	5.90	381	10	18.22	33.54	5.91	24.12	380	0.04
27	17.28	33.48	6.27	363	20	18.00	33.53	5.99	24.16	377	0.08
36	16.99	33.46	6.17	358	30	17.18	33.47	6.21	24.32	361	0.11
44	16.14	33.42	6.45	342	50	15.50	33.42	6.48	24.66	328	0.18
53	15.20	33.42	6.50	322	75	12.42	33.49	5.40	25.35	264	0.26
62	14.31	33.45	6.66	302	100	10.46	33.49	4.84	25.71	229	0.32
74	12.58	33.49	5.47	265	150	9.22	33.77	3.59	26.14	188	0.42
87	11.58	33.48	5.02	248	200	8.65	33.96	2.62	26.38	166	0.51
100	10.46	33.49	4.84	229	250	8.84	34.16	1.83	26.51	154	0.60
119	9.90	33.58	4.34	213	300	8.30	34.22	1.56	26.64	142	0.67
141	9.48	33.74	3.78	194	400	6.83	34.23	1.12	26.85	121	0.81
168	8.80	33.84	3.40	177	500	(6.40)	(34.34)	(0.46)	(27.00	(106)	(0.93)
209	8.98	-	2.04	-							
276	8.72	34.22	1.65	148							
365	7.13	34.19	1.40	127							
490	6.44	34.33	0.57	108							
107.40	ORCA; July 18, 1958; 0726 GCT; 30°10'N, 116°43'W; sounding, 1500 fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 15°.										
0	18.46	33.48	5.50	390	0	18.46	33.48	5.50	24.02	390	0.00
10	18.44	33.49	5.57	390	10	18.44	33.49	5.57	24.02	390	0.04
34	16.53	33.46	6.02	348	20	18.43	33.49	5.58	24.03	389	0.08
43	15.60	33.48	6.16	326	30	17.30	33.47	5.88	24.29	364	0.12
58	14.77	33.40	6.12	315	50	15.10	33.44	6.17	24.76	319	0.18
67	14.62	33.44	6.01	309	75	14.40	33.46	5.90	24.94	303	0.26
76	14.32	33.46	5.86	301	100	12.05	33.48	5.35	25.41	258	0.33
94	12.55	33.47	5.43	266	150	9.53	33.60	4.12	25.96	206	0.45
113	11.20	33.57a)	5.17	-	200	8.46	33.86	3.15	26.33	170	0.54
126	10.40	33.51	4.95	226	250	8.00	34.02	2.50	26.52	152	0.63
149	9.58	33.60	4.16	206	300	7.66	34.11	1.71	26.64	141	0.70
186	8.73	33.79	3.36	179	400	6.95	34.24	0.95	26.86	120	0.84
223	8.18	33.96	2.80	158	500	6.35	34.34	0.40	27.02	105	0.96
279	7.84	34.08	1.96	145	600	5.68	34.35	0.30	27.10	97	1.06
363	7.18	34.19	1.20	128							
473	6.50	34.34	0.45	108							
620	5.58	34.35	0.30	96							
107.50	ORCA; July 18, 1958; 0044 GCT; 29°49.5'N, 117°20.5'W; sounding, 1450 fm; wind, 310°, force 5; weather, cloudy; sea, rough; wire angle, 25°.										
0	19.30	33.63	5.56	400	0	19.30	33.63	5.56	23.92	400	0.00
9	19.29	33.65	5.49	398	10	19.29	33.65	5.49	23.94	398	0.04
32	19.26	33.63	5.50	398	20	19.29	33.64	5.49	23.94	398	0.08
42	18.36	33.57	5.69	381	30	19.27	33.63	5.50	23.94	398	0.12
55	16.37	33.45	5.65	345	50	17.00	33.48	5.66	24.38	356	0.19
64	16.02	33.42	5.87	340	75	15.62	33.44	5.95	24.66	329	0.28
74	15.64	33.44	5.95	330	100	13.25	33.51	5.57	25.22	276	0.36
91	14.33	33.56	5.82	294	150	10.13	33.67	4.32	25.91	210	0.48
110	12.11	33.48	5.29	258	200	9.66	34.00	2.62	26.25	178	0.58
123	11.26	33.57	4.98	236	250	9.12	34.18	1.82	26.48	156	0.66
144	10.28	33.66	4.42	213	300	8.23	34.22	1.49	26.64	140	0.74
180	9.46	33.76	3.74	193	400	7.42	34.30	0.73	26.84	122	0.88
215	9.84	34.13	2.13	171	500	6.82	34.40	0.32	26.98	108	1.00
268	8.72	34.19	1.71	150	600	(6.14)	(34.42)	(0.27)	(27.10)	(97)	(1.11)
350	7.67	34.26	1.07	129							
454	7.14	34.38	0.36	114							
597	6.18	34.42	0.27	98							

a) Loose bottle cap; value does not fall 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

107.60

ORCA; July 16, 1958; 1821 GCT; 29°33.5'N, 118°01'W; sounding, 1900+ fm; wind, 330°, force 5; weather, cloudy; sea, rough; wire angle, 25°.

0	19.97	33.71	5.61	410	0	19.97	33.71	5.61	23.81	410	0.00
9	19.96	-	5.46	-	10	19.96	33.70	5.46	23.81	410	0.04
32	19.90	33.68	5.59	410	20	19.95	33.69	5.52	23.81	410	0.08
40	19.76	33.65	5.57	409	30	19.92	33.68	5.57	23.81	410	0.12
54	18.31	33.60	5.88	378	50	18.95	33.62	5.71	24.00	392	0.20
62	17.26	33.57	6.40	356	75	15.74	33.57	6.01	24.73	323	0.29
71	16.20	33.58	6.13	332	100	12.87	33.51	5.33	25.28	270	0.37
89	14.38	33.84a)	5.71	-	150	10.18	33.67	4.15	25.91	210	0.49
107	12.00	33.49	5.10	255	200	9.39	33.92	2.96	26.24	179	0.59
120	11.18	33.51	4.75	239	250	8.69	34.08	2.13	26.46	158	0.67
142	10.38	33.61	4.40	218	300	7.90	34.15	1.64	26.64	140	0.75
178	9.70	33.85	3.27	190	400	(6.75)		(1.08)			
214	9.04	33.98	2.74	170							
269	8.46	34.14	1.85	150							
352	6.94	34.16	1.30	127							
395p	6.78	-	1.10	-							

107.70

ORCA; July 16, 1958; 0918 GCT; 29°10'N, 118°44'W; sounding, 2000+ fm; wind, 330°, force 5; weather, partly cloudy; sea, rough; wire angle, 35°.

0	19.89	33.84	5.31	399	0	19.89	33.84	5.31	23.93	399	0.00
8	19.88	33.73	5.43	407	10	19.87	33.73	5.43	23.84	407	0.04
24	19.70	33.73	5.35	402	20	19.77	33.73	5.37	23.88	404	0.08
37	19.16	33.69	5.43	392	30	19.53	33.72	5.37	23.93	399	0.12
45	17.88	33.66	5.63	364	50	17.49	33.65	5.78	24.38	355	0.20
53	17.28	33.64	5.83	352	75	14.40	33.58	5.35	25.03	294	0.28
62	16.23	33.57	5.84	333	100	12.03	33.67	4.05	25.58	242	0.35
78	14.06	33.58	5.30	288	150	10.09	33.92	2.70	26.11	191	0.45
90	12.80	33.52	5.21	267	200	10.13	34.28	1.35	26.39	165	0.54
101	11.96	33.69	3.89	240	250	8.87	34.27	1.66	26.58	146	0.62
119	11.29	33.86	3.02	216	300	7.95	34.22	1.59	26.70	136	0.70
138	10.66	33.89	2.73	202	400	7.04	34.27	0.94	26.86	120	0.83
164	9.76	33.95	2.65	183							
202	10.12	34.29	1.30	164							
264	8.30	34.23	1.85	140							
343	7.57	34.22	1.31	130							
465	6.42	34.47b)	0.59	98							

107.80

ORCA; July 16, 1958; 0215 GCT; 28°51'N, 119°19'W; sounding, 2000+ fm; wind, 340°, force 5; weather, cloudy; sea, rough; wire angle, 23°.

0	19.68	33.63	5.42	409	0	19.68	33.63	5.42	23.82	409	0.00
9	19.66	33.62	5.43	409	10	19.63	33.62	5.44	23.82	409	0.04
28	19.36	33.70	5.36	396	20	19.47	33.67	5.37	23.90	401	0.08
42	19.22	33.70	5.36	392	30	19.34	33.70	5.36	23.96	396	0.12
51	19.16	33.72	5.41	390	50	19.17	33.72	5.40	24.02	390	0.20
60	18.17	33.66	5.59	370	75	16.73	33.56	5.74	24.49	345	0.29
69	17.20	33.58	5.75	354	100	14.70	33.55	5.48	24.94	302	0.38
85	15.94	33.52	5.73	330	150	10.57	33.74	3.49	25.90	212	0.50
96	15.06	33.55	5.56	310	200	9.85	34.04	2.16	26.24	179	0.60
109	13.72	33.55	5.32	282	250	8.88	34.16	2.00	26.50	154	0.69
127	11.42	33.61	4.19	236	300	8.10	34.21	1.45	26.66	139	0.76
151	10.50	33.75	3.48	210	400	7.62	34.35	0.56	26.84	122	0.90
183	9.54	33.86	2.26	186	500	6.39	34.32	0.42	26.98	108	1.02
229	9.23	34.14	2.13	161							
298	8.10	34.21	1.47	139							
389	7.75	34.35	0.59	124							
518	6.12	34.31	0.39	105							

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

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5807

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
107.90	ORCA; July 15, 1958; 1716, 1755 GCT; 28°26'N, 120°08'W; sounding, 2000 fm; wind, 320°, force 2; weather, cloudy; sea, moderate; wire angle, 15°, 20°.										
0	20.16	33.68	5.17	417	0	20.16	33.68	5.17	23.74	417	0.00
10	19.96	33.66	5.27	414	10	19.96	33.66	5.27	23.77	414	0.04
28	19.68	33.71	5.22	403	20	19.80	33.69	5.22	23.84	407	0.08
43	17.96	33.71	5.82	362	30	19.54	33.71	5.27	23.93	399	0.12
52	17.48	33.78	5.65	346	50	17.50	33.78	5.66	24.47	347	0.20
62	17.34	33.78	5.61	343	75	17.07	33.79	5.43	24.58	337	0.28
71	17.12	33.78	5.46	338	100	16.66	33.82	5.52	24.70	325	0.37
89	16.99	33.82	5.37	332	150	10.98	33.48	4.78	25.62	238	0.51
102	16.60	33.82	5.57	323	200	9.64	33.89	3.10	26.17	186	0.61
116	14.22	33.58	5.51	290	250	8.80	34.09	2.41	26.46	158	0.70
138	11.48	33.47	4.95	247	300	8.31	34.19	1.87	26.61	144	0.78
					400	7.98	34.33	0.95	26.78	128	0.92
164	10.52	33.51	4.49	228	500	7.00	34.32	0.55	26.90	116	1.05
199	9.64	33.89	3.10	186							
249	8.80	34.09	2.41	158							
326	8.14	34.22	1.64	139							
423	7.94	34.36a)	0.83	125							
562	6.14	34.27a)	0.34	108							
110.33	ORCA; July 18, 1958; 1812 GCT; 29°50'N, 115°52'W; sounding, 50+ fm; wind, 300°, force 2; weather, overcast; sea, moderate; wire angle, 05°.										
0	13.66	33.58	6.50	280	0	13.66	33.58	6.50	25.18	280	0.00
10	12.97	33.58	5.95	266	10	12.97	33.58	5.95	25.32	266	0.03
30	11.46	33.64	4.44	235	20	12.12	33.61	5.04	25.51	248	0.05
50	10.92	33.71	3.56	220	30	11.46	33.64	4.44	25.65	235	0.08
75	10.64	33.84	2.33	206	50	10.92	33.71	3.56	25.80	220	0.12
					75	10.64	33.84	2.33	25.96	206	0.18
110.35	ORCA; July 18, 1958; 1946 GCT; 29°47'N, 116°00'W; sounding, 800 fm; wind, 300°, force 2; weather, partly cloudy; sea, moderate; wire angle, 06°.										
0	15.23	33.57	6.50	312	0	15.23	33.57	6.50	24.84	312	0.00
11	14.00	33.58	6.51	286	10	14.10	33.58	6.50	25.10	288	0.03
31	12.84	33.57	5.45	264	20	12.90	33.53	5.77	25.29	269	0.06
41	11.84	33.48	4.85	253	30	12.86	33.57	5.47	25.34	264	0.08
50	11.62	33.61	4.35	240	50	11.62	33.61	4.35	25.60	240	0.13
60	11.30	33.68	3.95	229	75	10.86	33.72	3.59	25.81	219	0.19
70	11.05	33.64u	3.71	-	100	10.42	33.78	3.18	25.95	206	0.25
84	10.58	33.73	3.40	213	150	9.64	34.00	2.50	26.25	178	0.34
99	10.42	33.78	3.18	206	200	9.38	34.21	1.74	26.46	158	0.43
114	10.16	33.86	2.95	196	250	8.94	34.27	1.24	26.58	147	0.51
137	9.82	33.96	2.60	184	300	8.73	34.33	0.93	26.66	139	0.58
166	9.40	34.04	2.34	171	400	7.92	34.34	0.66	26.80	126	0.72
199	9.38	34.21	1.74	158	500	6.72	34.32	0.50	26.95	112	0.84
247	8.98	34.27	1.29	147							
323	8.60	34.36	0.78	135							
419	7.68	34.34	0.63	124							
548	6.04	34.31	0.42	104							

a) Salinity samples at 423 and 562 meters appear to have been reversed; they are assumed to be in the order listed.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T}^{-5}{}_{3}$ 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

ORCA; July 18, 1958; 2310 GCT; 29°35'N, 116°19'W; sounding, 1174 fm; wind, 300°, force 4; weather, partly cloudy; sea, moderate; wire angle, 24°. 110.40

0	19.18	33.54	5.51	403	0	19.18	33.54	5.51	23.89	403	0.00
9	18.98	33.57	5.57	396	10	18.96	33.57	5.57	23.96	396	0.04
28	18.66	33.51	5.55	393	20	18.78	33.54	5.55	23.98	394	0.08
40	16.19	33.45	6.08	341	30	18.35	33.50	5.61	24.06	386	0.12
49	15.82	33.44	6.13	334	50	15.80	33.44	6.12	24.62	333	0.19
58	15.51	33.47	6.06	325	75	13.97	33.47	5.68	25.04	294	0.27
67	14.86	33.49	5.90	310	100	11.40	33.49	4.68	25.55	244	0.34
83	12.80	33.44	5.42	273	150	10.54	33.77	4.48	26.09	193	0.45
96	11.59	33.48	4.79	248	200	8.76	34.03	2.80	26.42	162	0.54
108	11.14	33.51	4.57	238	250	9.36	34.36	1.19	26.58	146	0.62
127	9.87	33.57	4.57	213	300	8.92	34.40	1.02	26.68	137	0.69
151	9.50	33.77	3.44	192	400	7.55	34.34	0.48	26.84	122	0.82
182	8.76	33.89	3.00	172	500	6.67	34.36	0.43	26.98	109	0.94
228	9.50	34.33	1.32	151							
299	8.92	34.40	1.02	137							
388	7.68	34.34	0.49	123							
522	6.46	34.36	0.42	106							

ORCA; July 19, 1958; 0600 GCT; 29°12'N, 116°58'W; sounding, 1900 fm; wind, 310°, force 3; weather, cloudy; sea, moderate; wire angle, 05°. 110.50

0	19.16	33.58	5.67	400	0	19.16	33.58	5.67	23.92	400	0.00
10	19.14	33.58	5.59	400	10	19.14	33.58	5.59	23.92	400	0.04
30	19.06	33.64	5.67	393	20	19.10	33.61	5.62	23.96	396	0.08
45	19.06	33.62	5.74	395	30	19.06	33.64	5.67	23.98	393	0.12
55	16.84	33.54	6.32	349	50	19.02	33.62	5.76	23.98	394	0.20
65	16.23	33.52	6.05	337	75	15.52	33.48	6.23	24.71	325	0.29
75	15.52	33.48	6.23	325	100	13.13	33.53	5.43	25.25	273	0.36
95	13.52	33.55	5.64	279	150	10.73	33.86	3.10	25.96	205	0.48
109	12.43	33.50	5.11	262	200	10.08	34.14	1.99	26.28	175	0.58
124	11.40	33.62	4.41	235	250	9.39	34.22	1.71	26.46	158	0.67
148	10.72	33.86	3.05	206	300	8.98	34.23	1.19	26.54	150	0.75
176	10.55	34.12	2.15	184	400	8.07	34.23	0.51	26.68	138	0.90
214	9.82	34.14	1.91	170	500	7.12	34.23	0.37	26.82	124	1.03
265	9.22	34.23	1.59	154	600	(6.10)	(34.22)		(26.94)	(112)	(1.16)
344	8.61	34.22	0.75	146							
444	7.62	34.23	0.40	131							
584	6.24	34.22	0.32	114							

ORCA; July 19, 1958; 1247 GCT; 28°47.5'N, 117°41'W; sounding, 1900 fm; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, 10°. 110.60

0	19.41	33.58	5.42	406	0	19.41	33.58	5.42	23.86	406	0.00
10	19.40	33.58	5.49	406	10	19.40	33.58	5.49	23.86	406	0.04
29	19.34	33.57	5.54	405	20	19.38	33.58	5.51	23.86	405	0.08
44	17.88	33.53	5.88	373	30	19.33	33.57	5.56	23.87	404	0.12
54	17.20	33.50	5.98	360	50	17.45	33.51	5.93	24.28	365	0.20
64	16.29	33.51	6.00	338	75	15.60	33.50	5.94	24.70	326	0.28
74	15.64	33.48	5.96	327	100	13.10	33.52	5.69	25.24	274	0.36
93	13.97	33.55	5.83	288	150	10.23	33.79	3.03	25.98	204	0.48
107	12.20	33.48	5.49	260	200	9.85	34.00	2.56	26.21	182	0.58
122	11.04	33.52	4.60	236	250	8.70	34.18	1.70	26.54	150	0.66
145	10.38	33.75	3.30	208	300	8.23	34.23	1.29	26.66	139	0.74
172	9.98	33.94	2.57	187	400	6.92	34.25	0.78	26.86	120	0.88
210	8.82	33.98	2.55	167	500	6.19	34.30	0.50	27.00	107	0.99
262	8.61	34.20	1.62	147	600	(5.80)	(34.38)		(27.11)	(96)	(1.10)
341	7.77	34.25	1.06	131							
443	6.48	34.25	0.68	114							
585	5.88	34.36	0.28	99							

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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
110.70	ORCA; July 19, 1958; 2029 GCT; 28°32'N, 118°17.5'W; sounding, 1700 fm; wind, 340°, force 3; weather, cloudy; sea, moderate; wire angle, 03°.										
0	20.80	33.75	5.07	428	0	20.80	33.75	5.07	23.62	428	0.00
10	20.44	33.86	5.12	411	10	20.44	33.86	5.12	23.80	411	0.04
30	19.10	33.68	5.47	391	20	20.21	33.83	5.18	23.84	408	0.08
45	16.62	-	5.70	-	30	19.10	33.68	5.47	24.01	391	0.12
55	15.62	33.58	5.78	320	50	16.06	33.59	5.73	24.67	328	0.19
65	14.58	33.57	5.66	298	75	13.47	33.55	4.98	25.20	278	0.27
75	13.47	33.55	4.98	278	100	11.60	33.64	3.90	25.64	236	0.34
95	11.98	33.62	4.01	245	150	9.62	33.83	3.05	26.12	190	0.44
109	11.02	33.68	3.71	224	200	8.92	34.01	2.24	26.38	166	0.53
124	10.46	33.74	3.32	210	250	8.30	34.12	1.75	26.56	149	0.62
147	9.68	33.82	3.10	192	300	7.78	34.17	1.39	26.68	137	0.69
175	9.20	33.90	2.71	178	400	6.85	34.27	0.62	26.88	118	0.82
213	8.79	34.06	2.03	160	500	6.18	34.33	0.36	27.03	104	0.94
267	8.06	34.14	1.62	144	600	(6.40)	(34.36)	(0.22)	(27.15)	(93)	(1.04)
347	7.32	34.22	0.96	128							
449	6.54	34.31	0.44	110							
593	5.45	34.36	0.22	94							
110.80	ORCA; July 20, 1958; 0130 GCT; 28°17'N, 118°56'W; sounding, 2000+ fm; wind, 340°, force 3; weather, partly cloudy; sea, moderate; wire angle, 13°.										
0	20.30	33.74	5.18	416	0	20.30	33.74	5.18	23.74	416	0.00
10	20.06	33.73	5.23	412	10	20.06	33.73	5.23	23.79	412	0.04
29	19.86	33.73	5.25	406	20	19.97	33.73	5.24	23.82	409	0.08
43	19.58	33.69	5.26	402	30	19.84	33.73	5.25	23.86	406	0.12
54	19.46	33.73	5.25	397	50	19.48	33.73	5.25	23.94	398	0.20
62	19.44	33.70	5.31	398	75	18.38	33.67	5.48	24.18	374	0.30
72	19.02	33.69	5.42	389	100	14.38	33.60	5.14	25.05	292	0.38
90	15.48	33.59	5.48	316	150	10.38	33.84	2.57	26.01	201	0.50
104	13.72	33.61	4.84	278	200	9.49	33.88	1.92	26.18	184	0.60
117	11.84	33.71	3.54	236	250	8.99	34.10	1.33	26.44	160	0.69
140	10.58	33.80	2.79	207	300	8.17	34.17	1.23	26.62	143	0.77
167	10.02	33.91a)	2.00	190	400	6.99	34.25	0.88	26.85	121	0.91
203	9.54	33.89a)	1.66	184	500	6.10	34.28	0.57	26.99	108	1.03
252	8.97	34.11	3.16r	159							
332	7.68	34.20a)	1.17	134							
430	6.76	34.26a)	0.78	117							
569	5.42	34.29a)	0.38	99							
113.30	BLACK DOUGLAS; July 21, 1958; 2152 GCT; 29°22.5'N, 115°17.5'W; sounding, 30 fm; wind, 290°, force 4; weather, clear; sea, rough; wire angle, 01°										
0	16.08	33.59	7.54b)	328	0	16.08	33.59	7.54	24.66	329	0.00
9	14.16	33.58	6.75	289	10	13.98	33.58	6.66	25.12	285	0.03
28	11.52	33.60	4.70	238	20	12.30	33.59	5.39	25.46	253	0.06
37	11.06	33.68	4.03	225	30	11.39	33.61	4.53	25.64	236	0.08

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

b) All oxygen values appear to be 20 per cent high.

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
BLACK DOUGLAS; July 21, 1958; 1909 GCT; 29°15.5'N, 115°37.5'W; sounding, 480 fm; wind, 320°, force 3; weather, overcast; sea, rough; wire angle, 15°.											113.35
8	14.96	33.53	7.45a)	309	0	15.0	(33.53)	(7.45)	(24.86)	(310)	(0.00)
17	14.81	33.48	7.62	310	10	14.90	33.52	7.50	24.87	309	0.03
35	14.29	33.49	7.08	298	20	14.77	33.48	7.61	24.87	309	0.06
48	13.37	33.48	6.54	281	30	14.55	33.49	7.37	24.94	303	0.09
57	12.48	33.56	5.73	259	50	13.25	33.48	6.45	25.18	279	0.15
66	11.54	33.60	5.03	238	75	11.14	33.62	4.59	25.70	230	0.21
75	11.14	33.62	4.59	230	100	10.75	33.84	3.60	25.93	208	0.27
93	10.96	33.76	3.90	217	150	10.65	34.21	2.13	26.24	179	0.37
105	10.58	33.90	3.25	200	200	10.23	34.23	1.56	26.33	170	0.45
118	10.60	34.02	2.66	192	250	9.90	34.33	1.52	26.47	157	0.54
140	10.78	34.20	-	182	300	9.27	34.33	1.15	26.57	148	0.62
165	10.42	34.22	2.03	174	400	8.35	34.35	0.84	26.74	132	0.76
199	10.24	34.23	1.57	170	500	6.98	34.38	0.53	26.95	111	0.89
247	9.92	34.33	1.54	157							
322	9.01	34.33	1.05	144							
416	8.18	34.36	0.80	129							
552	6.15	34.38	0.40	100							
BLACK DOUGLAS; July 21, 1958; 1511 GCT; 29°02'N, 115°59.5'W; sounding, 975 fm; wind, 320°, force 4; weather, overcast; sea, rough; wire angle, 13°.											113.40
10	18.43	33.62	6.78a)	380	0	18.5	(33.62)	(6.78)	(24.11)	(381)	(0.00)
19	18.08	33.58	6.93	374	10	18.43	33.62	6.78	24.12	380	0.04
37	14.60	33.54	7.27	301	20	18.03	33.58	6.93	24.19	374	0.08
51	12.92	33.50	6.46	271	30	16.00	33.55	7.19	24.66	329	0.11
59	11.90	33.55b)	5.49	249	50	13.07	33.50	6.59	25.24	274	0.17
68	11.68	33.58	5.16	243	75	11.48	33.59	5.03	25.61	239	0.24
76	11.45	33.59	5.00	238	100	10.95	33.82	3.57	25.89	212	0.29
93	11.06	33.70	4.09	223							
104	10.88	33.87	3.33	208							
250c)	9.44	33.47	0.56								
330	8.18	34.39	0.71								
448	7.31	34.38	0.39								
BLACK DOUGLAS; July 21, 1958; 0732 GCT; 28°40'N, 116°37.5'W; sounding, 1700 fm; wind, 320°, force 4; weather, partly cloudy; sea, rough; wire angle, 36°.											113.50
6	18.81	33.53	6.60a)	395	0	18.8	(33.53)	(6.60)	(23.97)	(395)	(0.00)
13	18.82	33.49	6.50	398	10	18.81	33.53	6.55	23.96	396	0.04
28	18.80	32.51	6.50	396	20	18.81	33.50	6.50	23.94	398	0.08
40	17.28	33.49	6.85	362	30	18.78	33.51	6.50	23.96	396	0.12
46	16.04	33.44	7.08	338	50	15.90	33.45	7.08	24.60	335	0.19
54	15.76	33.46	7.10	330	75	14.25	33.44	7.27	24.96	301	0.27
62	15.26	33.42	7.19	323	100	12.27	33.61	5.73	25.47	252	0.34
76	14.22	33.44	7.27	301	150	10.16	33.93	3.42	26.11	191	0.45
86	12.97	33.53	6.47	270	200	8.98	34.09	3.00	26.43	161	0.54
97	12.58	33.60	6.03	257	250	9.18	34.36	1.52	26.61	144	0.62
111	11.12	33.64	4.82	228	300	8.85	34.41	0.95	26.71	135	0.69
127	10.52	33.78	3.90	208	400	7.32	34.32	0.93	26.83	123	0.83
150	10.16	33.93	3.42	191							
180	8.80	33.92	3.69	170							
233	9.20	34.30	1.57	149							
305	8.80	34.41	0.94	134							
414	7.07	34.28	0.93	120							

a) All oxygen values appear to be 20 per cent high.
b) Loose bottle cap; value falls on property curve.
c) Pretrip; depth too uncertain for interpolation.

S10

CCOFI 5807

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_{T} 10^{-5} cm^3/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T} 10^{-5} cm^3/g	ΔD dyn. m
113.60	BLACK DOUGLAS; July 21, 1958; 0040 GCT; 28°22'N, 112°16.5'W; sounding, 2000 fm; wind, 340°, force 4; weather, partly cloudy; sea, rough; wire angle, 15°.										
8	19.40	33.52	6.51a)	410	0	19.4	(33.52)	(6.51)	(23.81)	(410)	(0.00)
17	19.23	33.49	6.57	408	10	19.38	33.52	6.52	23.81	410	0.04
36	18.88	33.48	6.51	401	20	19.18	33.49	6.56	23.84	407	0.08
62	16.37	33.55	7.14	337	30	19.00	33.48	6.53	23.88	403	0.12
71	16.04	33.53	7.00	332	50	18.07	33.50	6.70	24.14	379	0.20
80	15.80	33.49	7.05	330	75	15.93	33.51	7.02	24.64	331	0.29
93	14.58	33.49	7.04	304	100	13.80	33.53	6.83	25.12	286	0.37
106	13.04	33.57	6.57	268	150	9.98	33.51	5.41	25.81	219	0.49
119	11.58	33.48	6.27	248	200	9.69	33.96	3.07	26.22	181	0.59
136	10.36	33.49	5.74	226	250	10.00	34.37	1.28	26.48	156	0.68
152	9.94	33.51	5.39	218	300	9.18	34.40	1.08	26.64	141	0.76
177	10.00	33.88	3.43	192	400	8.15	34.41	0.51	26.82	124	0.90
198b)	9.66	33.96	3.14	181	500	7.12	34.45	0.37	26.99	108	1.02
244	10.05	34.36	1.31	158							
318	8.91	34.40	1.00	137							
412	8.09	34.41	0.47	124							
544	6.60	34.47	0.34	99							
113.70	BLACK DOUGLAS; July 20, 1958; 1817 GCT; 28°03'N, 117°55'W; sounding, 1500 fm; wind, 350°, force 3; weather, cloudy; sea, rough; wire angle, 12°.										
10	20.03	33.69	6.25a)	413	0	20.1	(33.69)	(6.25)	(23.76)	(415)	(0.00)
19	19.95	33.69	6.04	411	10	20.03	33.69	6.25	23.78	413	0.04
37	19.70	33.68	6.50	406	20	19.95	33.69	6.05	23.80	411	0.08
51	19.30	33.64	6.58	399	30	19.80	33.69	6.30	23.83	408	0.12
60	18.32	33.63	6.20	376	50	19.32	33.64	6.58	23.93	399	0.20
69	17.20	33.54	6.90	356	75	16.98	33.58	6.76	24.45	349	0.30
78	16.89	33.59	6.71	346	100	15.80	33.58	6.70	24.72	323	0.38
96	16.14	33.58	-	330	150	10.62	33.54	4.82	25.72	228	0.52
109	14.96	33.57	6.71	306	200	9.35	33.92	3.19	26.24	178	0.62
123	13.35	33.60	6.41	272	250	8.35	34.04	2.56	26.49	155	0.71
144	11.18	33.53	4.67	237	300	7.91	34.20	1.62	26.68	137	0.79
168	9.68	33.57	5.07	210	400	7.10	34.28	0.75	26.86	120	0.92
202	9.30	33.93	3.12	178	500	6.25	34.32	0.41	27.00	106	1.04
249	8.37	34.04	2.58	155							
322	7.79	34.23	1.32	133							
415	6.94	34.29	0.69	117							
547	5.92	34.34	0.34	100							
113.80	BLACK DOUGLAS; July 20, 1958; 1158 GCT; 27°41'N, 118°36'W; sounding, 2000 fm; wind, 020°, force 2; weather, partly cloudy; sea, moderate; wire angle, 16°.										
10	20.05	33.73	6.47a)	411	0	20.0	(33.73)	(6.47)	(23.80)	(411)	(0.00)
18	20.07	33.70	6.60	413	10	20.05	33.73	6.47	23.80	411	0.04
36	19.95	33.66	6.65	413	20	20.07	33.70	6.60	23.77	414	0.08
50	18.58	33.59	6.76	385	30	20.03	33.67	6.63	23.77	414	0.12
59	17.63	33.58	6.98	364	50	18.58	33.59	6.76	24.07	385	0.20
68	17.24	33.56	7.19	356	75	17.05	33.64	6.99	24.48	346	0.29
76	17.04	33.64	6.98	346	100	16.52	33.66	6.80	24.62	333	0.38
94	16.66	33.66	6.78	336	150	10.66	33.61	4.77	25.78	223	0.52
108	15.88	33.63	6.97	322	200	9.88	33.93	3.23	26.16	187	0.62
116	13.92	33.55	6.73	287	250	9.68	34.20	2.01	26.40	164	0.71
142	11.09	33.57	5.09	233	300	9.27	34.30	1.42	26.54	150	0.80
168	10.18	33.70	4.28	208	400	7.88	34.31	0.87	26.77	129	0.94
203	9.88	33.93	3.23	187	500	6.65	34.32	0.62	26.96	111	1.07
252	9.66	34.20	1.96	164							
327	9.00	34.33	1.16	143							
427	7.56	34.30	0.82	125							
558	6.04	34.34	0.44	102							

a) All oxygen values appear to be 20 per cent high.

b) The bathythermograph trace seems to indicate considerable mixing at various levels. Since these features may be transient, they have not been incorporated in the property curves used for determining the interpolated values.

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; July 18, 1958; 1130 GCT; 28°56'N, 114°41'W; sounding, 40 fm; wind, 320°, force 2; weather, overcast; sea, moderate; wire angle, 01°.											117.26
0	17.34	33.59	7.25a)	356	0	17.34	33.59	7.25	24.38	356	0.00
9	17.34	33.64	7.34	352	10	17.35	33.64	7.34	24.42	352	0.04
28	14.08	33.56	6.96	289	20	15.72	33.60	7.15	24.76	320	0.07
46	11.77	33.65		239	30	13.85	33.56		25.12	285	0.10
BLACK DOUGLAS; July 18, 1958; 1348 GCT; 28°48'N, 114°56.5'W; sounding, 55 fm; wind, 280°, force 2; weather, fog; sea, moderate; wire angle, 10°.											117.30
4	17.13	33.56	7.24a)	354	0	17.1	(33.56)	(7.24)	(24.40)	(354)	(0.00)
13	17.14	33.60	7.19	351	10	17.15	33.59	7.19	24.42	352	0.04
31	13.63	33.52	6.40	283	20	16.99	33.60	7.09	24.47	347	0.07
49	12.47	33.60	5.20	256	30	13.75	33.52	6.43	25.12	286	0.10
72	11.61	33.89	3.26	219	50	12.45	33.60	5.16	25.44	255	0.16
					75	(11.60)	(33.89)	(3.25)	(25.82)	(219)	(0.22)
BLACK DOUGLAS; July 18, 1958; 1653 GCT; 28°38'N, 115°16'W; sounding, 100 fm; wind, 320°, force 4; weather, cloudy; sea, moderate; wire angle, 30°.											117.35
8	16.60	33.53	7.25a)	344	0	16.6	(33.53)	(7.25)	(24.50)	(344)	(0.00)
16	16.54	33.58	7.27	339	10	16.60	33.54	7.25	24.51	343	0.03
32	16.09	33.56	7.23	330	20	16.44	33.58	7.26	24.58	337	0.07
48	15.04	33.58	6.81	308	30	16.13	33.56	7.25	24.63	332	0.10
68	12.66	33.57	5.33	261	50	14.65	33.58	6.53	24.98	299	0.16
108	10.94	33.87	3.26	208	75	12.03	33.58	5.01	25.50	249	0.23
132	10.96	34.19	1.95	185	100	10.85	33.72	4.30	25.82	218	0.29
BLACK DOUGLAS; July 19, 1958; 0515 GCT; 28°28'N, 115°35.5'W; sounding, 400 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 16°.											117.40
0	19.98	33.75	6.92a)	407	0	19.98	33.75	6.92	23.83	408	0.00
9	19.99	33.77	7.19	406	10	19.99	33.77	7.19	23.85	406	0.04
27	16.32	33.68	7.34	327	20	19.95	33.77	7.20	23.86	405	0.08
41	13.40	33.62	5.58	271	30	16.05	33.68	7.25	24.74	322	0.12
50	12.18	33.60	5.11	250	50	12.18	33.60	5.11	25.49	250	0.17
59	11.72	33.62	4.92	240	75	10.97	33.70	4.36	25.80	221	0.23
67	11.12	33.65	4.74	228	100	11.70	34.24	1.70	26.08	194	0.29
85	10.87	33.83	3.60	210	150	11.70	34.33	1.06	26.14	188	0.38
98	11.64	34.22	1.71	195	200	11.38	34.43	0.85	26.28	175	0.48
111	11.82	34.29	1.68	193	250	11.02	34.51	0.80	26.41	163	0.56
132	11.81	34.33	1.17	190	300	10.55	34.44	0.78	26.45	159	0.64
158	11.64	34.33	1.03	187	400	8.32	34.39	0.52	26.77	128	0.79
192	11.42	34.41	0.88	177	500	7.18	34.38	0.43	26.94	113	0.92
240	11.12	34.51	0.83	164							
314	10.38	34.43	0.75	157							
407	8.18	34.39	0.52	126							
540	6.81	34.38	0.42	109							

a) All oxygen values appear to be 20 per cent high.

SIO

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T,S}$ 10^{-5} cm^3/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T,S}$ 10^{-5} cm^3/g	ΔD dyn. m
117.50	BLACK DOUGLAS; July 19, 1958; 1148, 1202 GCT; 28°08'N, 116°15'W; sounding, 2100 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 16°, 16°.										
10	18.24	33.58	6.97a)	378	0	18.2	(33.58)	(6.97)	(24.14)	(378)	(0.00)
19	18.27	33.59	6.78	378	10	18.24	33.58	6.97	24.14	378	0.04
					20	18.26	33.59	6.78	24.15	377	0.08
37	16.06	33.53	7.40	332	30	16.88	33.55	7.17	24.45	349	0.11
50	14.75	33.49	7.27	308	50	14.75	33.49	7.27	24.88	308	0.18
59	13.79	33.46	6.86	291	75	12.01	33.59	5.24	25.51	248	0.25
68	12.95	33.55	5.73	268	100	10.02	33.61	4.90	25.88	213	0.31
77	11.70	33.60	5.07	242	150	10.10	34.15	2.47	26.28	174	0.41
94	10.70	33.68	4.37	218	200	9.55	34.31	1.46	26.51	154	0.49
106	9.66	33.58	5.16	209	250	8.60	34.26	1.60	26.62	143	0.56
119	9.30	33.68	4.36	196	300	8.27	34.33	1.05	26.74	132	0.64
139	9.98	34.04	2.87	180	400	7.60	34.40	0.45	26.88	118	0.77
164	10.24	34.31	1.80	164	500	6.50	34.39	0.39	27.03	104	0.88
197	9.74	34.33	1.40	154							
243	8.66	34.25	1.66	144							
315	8.20	34.34	0.92	131							
407	7.54	34.40	0.43	117							
537	6.00	34.38	0.39	99							
117.60	BLACK DOUGLAS; July 19, 1958; 1737 GCT; 27°47.5'N, 116°54'W; sounding, 2200 fm; wind, 360°, force 4; weather, partly cloudy; sea, moderate; wire angle, 19°.										
4	18.80	33.60	6.66a)	390	0	18.8	(33.60)	(6.66)	(24.02)	(390)	(0.00)
12	18.78	33.58	6.75	390	10	18.80	33.59	6.72	24.02	390	0.04
30	17.42	33.54	7.24	362	20	18.55	33.57	6.87	24.06	386	0.08
43	16.13	33.49	7.20	336	30	17.42	33.54	7.24	24.32	362	0.12
52	15.88	33.52	7.58	329	50	15.97	33.50	7.46	24.63	332	0.18
60	15.19	33.51	7.35	315	75	14.27	33.51	7.13	25.00	296	0.26
69	14.58	33.52	7.20	302	100	11.62	33.48	5.99	25.50	249	0.33
86	12.90	33.48	6.85	272	150	11.01	34.05	2.43	26.06	196	0.44
100	11.62	33.48	5.99	249	200	10.98	34.47	0.93	26.38	165	0.54
112	10.36	33.48	5.78	228	250	10.02	34.46	0.80	26.55	150	0.62
132	10.72	33.89	3.49	203	300	9.45	34.42	0.59	26.62	143	0.69
156	11.06	34.17	2.15	195	400	8.22	34.46	0.50	26.84	122	0.83
188	11.06	34.43	1.13	169	500	7.01	34.41	0.32	26.97	110	0.95
233	10.24	34.47	0.88	152							
303	9.40	34.42	0.58	143							
391	8.35	34.46	0.51	124							
517	6.90	34.40	0.30	109							
117.70	BLACK DOUGLAS; July 19, 1958; 2344 GCT; 27°27.5'N, 117°32.5'W; sounding, 2000 fm; wind, 030°, force 3; weather, partly cloudy; sea, moderate; wire angle, 12°.										
8	20.88	33.75	6.29a)	430	0	20.9	(33.75)	(6.29)	(23.60)	(430)	(0.00)
17	20.70	33.76	6.41	425	10	20.87	33.75	6.30	23.60	430	0.04
35	19.66	33.67	6.51	405	20	20.64	33.76	6.43	23.67	424	0.08
48	17.58	33.52	6.81	367	30	19.77	33.68	6.50	23.84	407	0.13
57	16.91	33.49	6.94	354	50	17.39	33.51	6.84	24.30	363	0.20
66	16.56	33.51	6.97	344	75	16.20	33.46	7.02	24.54	340	0.29
75	16.20	33.46	7.02	340	100	15.40	33.49	6.92	24.75	321	0.38
94	15.61	33.45	6.92	328	150	11.39	33.58	5.24	25.62	238	0.52
107	15.11	33.58	6.92	309	200	9.68	33.90	3.82	26.17	186	0.63
120	14.38	33.61	6.63	291	250	8.77	34.08	2.76	26.46	158	0.72
143	11.84	33.57	5.41	246	300	8.27	34.23	1.70	26.65	140	0.79
169	10.58	33.69	4.88	215	400	7.38	34.25	0.84	26.80	125	0.93
203	9.62	33.92	3.74	183	500	6.45	34.30	0.48	26.96	110	1.06
252	8.76	34.08	2.74	158							
327	8.06	34.27	1.32	134							
421	7.15	34.25	0.75	123							
553	6.08	34.33	0.36	103							

a) All oxygen values appear to be 20 per cent high.

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
BLACK DOUGLAS; July 20, 1958; 0608 GCT; 27°07.5'N, 118°11'W; sounding, 2100 fm; wind, 020°, force 4; weather, partly cloudy; sea, moderate; wire angle, 01°.											117.80
8	21.06	33.95	6.05a)	420	0	21.1	(33.95)	(6.05)	(23.68)	(422)	(0.00)
17	21.10	33.99	6.22	419	10	21.07	33.96	6.09	23.70	420	0.04
36	20.89	34.21	6.35	398	20	21.10	34.00	6.22	23.72	418	0.08
50	19.94	34.11	6.39	380	30	21.02	34.10	6.30	23.82	409	0.12
59	19.18	34.04	6.53	367	50	19.94	34.11	6.39	24.12	380	0.20
68	18.69	33.96	6.69	361	75	18.43	33.91	6.69	24.34	359	0.30
77	18.36	33.89	6.69	358	100	17.30	33.82	6.76	24.56	339	0.39
96	17.51	33.82	6.81	343	150	12.17	33.59	5.61	25.48	250	0.53
110	16.78	33.82	6.60	328	200	9.80	33.78	4.23	26.06	196	0.65
123	14.46	33.65	6.22	290	250	9.15	34.10	2.72	26.42	163	0.74
145	12.48	33.59	5.69	257	300	8.34	34.19	2.09	26.61	144	0.82
171	10.71	33.60	5.18	224	400	7.15	34.28	1.08	26.85	121	0.96
206	9.63	33.84	3.93	190	500	6.45	34.34	0.53	27.00	107	1.08
255	9.08	34.12	2.63	160							
330	7.88	34.22	1.72	135							
426	6.96	34.29	0.87	118							
560	6.10	34.37	0.38	100							
BLACK DOUGLAS; July 18, 1958; 1956 GCT; 28°18.5'N, 115°24'W; sounding, 140 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 07°.											118.39
4	20.05	33.69	7.16a)	414	0	20.1	(33.69)	(7.16)	(23.77)	(414)	(0.00)
13	19.63	33.75	7.08	399	10	19.99	33.70	7.13	23.80	412	0.04
32	14.29	33.58	6.94	292	20	18.30	33.69	7.00	24.22	371	0.08
50	13.40	33.60	5.98	272	30	14.50	33.58	6.94	25.01	296	0.11
73	11.48	33.69	4.58	231	50	13.40	33.60	5.98	25.25	273	0.17
96	11.66	34.00	2.66	211	75	11.50	33.71	4.50	25.70	230	0.23
119	11.60	34.15	1.80	199	100	11.65	34.02	2.56	25.91	210	0.29
156	11.39	34.32	1.36	183	150	11.43	34.31	1.41	26.18	184	0.39
192	10.88	34.25	0.82	180							
BLACK DOUGLAS; July 18, 1958; 0058 GCT; 28°19'N, 114°53'W; sounding, 60 fm; wind, 340°, force 5; weather, partly cloudy; sea, rough; wire angle, 10°.											119.33
0	19.78	33.70	6.50a)	406	0	19.78	33.70	6.50	23.85	406	0.00
9	19.80	33.69	6.48	408	10	19.80	33.69	6.48	23.84	407	0.04
28	19.53	33.66	6.28	403	20	19.74	33.68	6.43	23.85	406	0.08
45	17.65	33.64	6.26	360	30	19.40	33.66	6.27	23.91	400	0.12
68	16.07	33.62	6.16	326	50	17.26	33.64	6.25	24.42	351	0.20
91	11.90	33.60	4.55	245	75	15.40	33.62	5.97	24.84	312	0.28
BLACK DOUGLAS; July 18, 1958; 0710 GCT; 28°23'N, 114°14.5'W; sounding, 30 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 01°.											120.25
0	18.96	33.66	6.73a)	389	0	18.96	33.66	6.73	24.03	389	0.00
9	18.94	33.67	6.87	388	10	18.90	33.67	6.88	24.05	387	0.04
28	14.50	33.57	7.23	297	20	16.69	33.62	7.07	24.54	340	0.08
BLACK DOUGLAS; July 18, 1958; 0320 GCT; 28°13'N, 114°34'W; sounding, 50 fm; wind, 320°, force 3; weather, partly cloudy; sea, moderate; wire angle, 08°.											120.30
0	19.08	33.64	6.63a)	394	0	19.08	33.64	6.63	23.92	394	0.00
9	19.06	33.68	6.73	390	10	19.05	33.68	6.74	24.02	390	0.04
28	17.44	33.60	-	358	20	18.84	33.67	6.78	24.06	386	0.08
46	15.24	33.55	7.02	314	30	17.15	33.59	6.93	24.42	352	0.11
69	12.73	33.62	5.16	258	50	14.78	33.55	6.83	24.92	304	0.18

a) All oxygen values appear to be 20 per cent high.

S10

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OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_{T}^{-5} 10^{-5} cm^3/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_{T}^{-5} 10^{-5} cm^3/g	ΔD dyn. m
120.35	BLACK DOUGLAS; July 17, 1958; 2210 GCT; 28°03'N, 114°54'W; sounding, 47 fm; wind, 350°, force 4; weather, partly cloudy; sea, moderate; wire angle, 04°.										
6	19.14	33.66	7.02a)	394	0	19.1	(33.66)	(7.02)	(23.98)	(394)	(0.00)
15	18.84	33.63	7.06	388	10	19.03	33.65	7.04	24.00	392	0.04
34	16.34	33.62	7.39	332	20	18.72	33.63	7.08	24.06	386	0.08
52	13.34	33.58	5.50	273	30	18.00	33.62	7.19	24.23	370	0.12
75	11.08	33.71	3.09	223	50	13.46	33.58	5.62	25.22	276	0.18
					75	11.08	33.71	3.09	25.78	223	0.24
120.45	BLACK DOUGLAS; July 17, 1958; 1615 GCT; 27°44'N, 115°33.5'W; sounding, 1050 fm; wind, 360°, force 4; weather, cloudy; sea, rough; wire angle, 17°.										
8	20.86	33.78	6.11a)	428	0	20.9	(33.78)	(6.11)	(23.62)	(428)	(0.00)
17	20.89	33.79	6.35	428	10	20.86	33.78	6.16	23.62	428	0.04
35	18.30	33.56	7.03	381	20	20.85	33.79	6.38	23.63	427	0.08
48	15.32	33.51	7.17	318	30	19.71	33.68	6.71	23.84	407	0.13
56	14.22	33.46	7.19	299	50	15.12	33.50	7.19	24.84	312	0.20
65	13.24	33.51	6.86	276	75	12.21	33.51	5.95	25.42	257	0.27
74	12.25	33.51	6.01	258	100	11.25	33.68	4.37	25.72	228	0.33
92	11.42	33.70	4.70	236	150	9.97	34.02	2.75	26.21	182	0.44
105	11.14	33.75	4.21	220	200	9.94	34.29	1.64	26.44	160	0.52
118	10.50	33.84	3.84	204	250	9.45	34.40	1.14	26.60	145	0.60
140	10.09	33.97	3.21	187	300	8.93	34.40	0.81	26.68	137	0.67
166	10.44	34.24	1.77	173	400	7.97	34.42	0.46	26.84	122	0.81
201	9.94	34.30	1.64	160	500	6.91	34.42	0.40	27.00	107	0.93
249	9.46	34.40	1.15	145							
324	8.78	34.40	0.74	135							
418	7.72	34.42	0.44	118							
551	6.48	34.42	0.40	102							
120.50	BLACK DOUGLAS; July 17, 1958; 1311 GCT; 27°33.5'N, 115°53'W; sounding, 2100 fm; wind, 340°, force 4; weather, cloudy; sea, moderate; wire angle, 20°.										
6	20.44	33.75		420	0	20.5	(33.75)		(23.71)	(420)	(0.00)
15	20.48	33.78		418	10	20.46	33.77		23.72	419	0.04
32	18.43	33.62		380	20	20.47	33.78		23.73	417	0.08
45	17.30	33.61		354	30	18.66	33.64		24.08	384	0.12
54	15.96	33.57		327	50	16.36	33.59		24.61	334	0.20
63	14.84	33.53		307	75	13.34	33.66		25.30	268	0.27
71	13.82	33.64		278	100	11.82	33.89		25.78	223	0.33
88	12.02	33.69		241	150	10.46	34.20		26.27	176	0.44
101	11.82	33.89		222	200	9.19	34.23		26.50	154	0.52
114	11.13	33.89		210	250	9.50	34.44		26.65	140	0.59
136	10.96	34.14		189	300	8.79	34.41		26.71	134	0.66
161	10.90	34.33		174	400	7.72	34.36		26.83	123	0.80
195	9.33	34.22		156	500	6.85	34.38		26.98	109	0.92
243	9.58	34.44		144							
316	8.53	34.40		131							
408	7.61	34.36		121							
536	6.51	34.40		103							

a) All oxygen values appear to be 20 per cent high.

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{-5}T_3$ 10^{-5} cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{-5}T_3$ 10^{-5} cm/g	ΔD dyn. m
BLACK DOUGLAS; July 17, 1958; 0635 GCT; 27°13'N, 116°31.5'W; sounding, 2000 fm; wind, 340°, force 5; weather, partly cloudy; sea, rough; wire angle, 05°.											120.60
8	19.68	33.60	6.70a)	411	0	19.7	(33.60)	(6.70)	(23.80)	(411)	(0.00)
17	19.69	33.63	6.42	409	10	19.68	33.60	6.65	23.80	411	0.04
36	18.53	33.58	6.82	384	20	19.66	33.63	6.43	23.83	408	0.08
50	17.50	33.55	7.04	363	30	19.01	33.61	6.66	23.98	394	0.12
59	16.30	33.51	7.04	339	50	17.50	33.55	7.04	24.30	363	0.20
68	15.84	33.48	7.13	331	75	15.54	33.48	7.24	24.70	325	0.28
77	15.44	33.48	7.25	323	100	12.87	33.53	6.23	25.30	268	0.36
95	13.56	33.52	6.54	281	150	10.01	33.80	4.15	26.04	198	0.48
109	12.08	33.53	5.84	254	200	10.05	34.18	2.43	26.32	171	0.57
123	11.34	33.66	4.93	231	250	9.28	34.28	1.58	26.52	152	0.65
145	10.23	33.77	4.28	204	300	8.88	34.37	1.17	26.67	138	0.73
171	10.70	34.11	2.56	187	400	7.47	34.37	0.81	26.87	119	0.86
207	9.63	34.13	2.44	168	500	6.55	34.38	0.48	27.02	105	0.98
255	9.24	34.29	1.48	150							
330	8.53	34.61r	1.00	-							
425	7.08	34.35	0.72	115							
558	6.32	34.40	0.35	101							
BLACK DOUGLAS; July 16, 1958; 2325 GCT; 26°52.5'N, 117°12'W; sounding, 2000 fm; wind, 350°, force 4; weather, cloudy; sea, rough; wire angle, 16°.											120.70
12	21.40	33.78	6.33a)	442	0	21.4	(33.78)	(6.33)	(23.48)	(442)	(0.00)
21	21.38	33.80	6.29	440	10	21.4	(33.78)	(6.33)	(23.48)	(442)	(0.04)
39	20.39	33.77	6.44	416	20	21.39	33.80	6.29	23.50	440	(0.09)
52	19.21	33.68	6.77	394	30	20.66	33.78	6.37	23.68	422	(0.13)
60	19.38	34.07	6.90	372	50	19.26	33.68	6.73	23.97	395	(0.21)
69	18.96	34.06	6.82	360	75	18.32	33.92	6.90	24.40	354	(0.31)
77	18.12	33.89	6.92	352	100	16.67	33.87	6.74	24.75	321	(0.39)
94	17.20	33.89	6.76	331	150	11.12	33.62	5.38	25.70	230	(0.53)
107	15.93	33.84	6.70	307	200	9.58	33.91	3.85	26.19	184	(0.64)
120	14.49	33.72	6.35	286	250	8.68	34.11	2.85	26.49	155	(0.73)
141	11.81	33.58	5.74	245	300	8.27	34.24	2.18	26.66	139	(0.80)
167	10.30	33.71	4.66	210	400	7.47	34.36	0.71	26.87	119	(0.94)
202	9.54	33.91	3.81	183	500	6.58	34.38	0.36	27.01	106	(1.06)
250	8.68	34.11	2.85	155							
325	8.04	34.30	1.40	132							
416	7.37	34.36	0.63	118							
550	6.08	34.38	0.27	100							
BLACK DOUGLAS; July 16, 1958; 1642 GCT; 26°32.5'N, 117°48.5'W; sounding, 2000+ fm; wind, 360°, force 4; weather, cloudy; sea, rough; wire angle, 15°.											120.80
8	21.48	33.82	6.07a)	441	0	21.5	(33.82)	(6.07)	(23.49)	(441)	(0.00)
17	21.50	33.80	6.42	443	10	21.49	33.80	6.10	23.48	442	0.04
35	20.42	33.81	6.60	414	20	21.37	33.80	6.46	23.50	439	0.09
49	18.20	33.70	7.34	368	30	20.58	33.81	6.56	23.72	418	0.13
57	17.54	33.64	7.06	357	50	18.07	33.69	7.31	24.27	366	0.21
66	17.32	33.66	7.08	350	75	17.19	33.72	6.94	24.50	344	0.30
75	17.19	33.72	6.94	344	100	16.07	33.65	6.93	24.72	324	0.38
93	16.50	33.71	6.86	329	150	11.20	33.56	5.62	25.64	236	0.52
105	15.49	33.58	7.02	317	200	9.48	33.93	3.66	26.22	181	0.63
117	13.53	33.57	6.64	277	250	9.35	34.20	2.22	26.46	158	0.71
139	11.82	33.54	5.93	248	300	8.79	34.35	1.22	26.66	139	0.79
165	10.51	33.60	5.15	221	400	7.88	34.41	0.50	26.85	121	0.93
200	9.48	33.93	3.66	181	500	6.89	34.42	0.35	27.00	107	1.05
249	9.36	34.20	2.24	158							
323	8.58	34.38	0.90	133							
416	7.72	34.41	0.47	119							
548	6.27	34.42	0.30	99							

a) All oxygen values appear to be 20 per cent high.

S10

CCOFI 5807

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta_{T_3}^{-5}$ 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta_{T_3}^{-5}$ 10 cm/g	ΔD dyn. m
120.90	BLACK DOUGLAS; July 16, 1958; 1008 GCT; 26°13'N, 118°27.5'W; sounding, 2100 fm; wind, 330°, force 3; weather, cloudy; sea, moderate; wire angle, 10°.										
8	21.49	33.76	6.33a)	445	0	21.5	(33.77)	(6.29)	(23.44)	(445)	(0.00)
17	21.55	33.75	6.35	446	10	21.49	33.76	6.33	23.44	446	0.04
35	19.67	33.80	6.67	396	20	21.44	33.75	6.37	23.45	444	0.09
49	19.71	34.05	6.56	379	30	19.95	33.78	6.65	23.87	404	0.13
57	19.16	34.04	6.59	366	50	19.68	34.05	6.55	24.14	378	0.21
66	18.61	33.97	6.77	359	75	18.00	33.94	6.76	24.48	346	0.30
75	18.00	33.94	6.76	346	100	17.27	33.93	6.50	24.65	330	0.39
93	17.52	33.93	6.56	335	150	11.82	33.62	5.50	25.58	242	0.53
106	16.93	33.93	6.41	322	200	9.59	33.86	2.92	26.15	187	0.64
120	14.90	33.79	5.96	289	250	8.92	34.15	2.59	26.48	156	0.73
141	12.42	33.64	5.75	252	300	8.65	34.32	1.80	26.67	138	0.80
168	10.78	33.64	4.50	223	400	7.76	34.34	0.70	26.82	125	0.94
203	9.50	33.89	2.83	184	500	6.71	34.35	0.52	26.97	110	1.06
252	8.87	34.16	2.58	154							
328	8.52	34.34	1.10	135							
422	7.49	34.34	0.63	121							
553	6.20	34.35	0.47	104							
123.37	BLACK DOUGLAS; July 15, 1958; 0224 GCT; 27°24'N, 114°39.5'W; sounding, 40 fm; wind, 310°, force 4; weather, clear; sea, slight; wire angle, 11°.										
4	18.20	33.80	8.24a)	361	0	18.2	(33.80)	(8.24)	(24.32)	(361)	(0.00)
13	17.68	33.78	8.35	350	10	18.18	33.80	8.25	24.33	360	0.04
31	14.96	34.11	2.97	266	20	15.79	34.01	4.63	25.06	291	0.07
49	14.30	34.13	2.16	252	30	15.02	34.10	3.12	25.29	269	0.10
58	13.72	34.16	1.65	238	50	14.25	34.13	2.09	25.48	251	0.15
123.42	BLACK DOUGLAS; July 15, 1958; 0618 GCT; 27°14'N, 114°59.5'W; sounding, 640 fm; wind, 300°, force 4; weather, missing; sea, moderate; wire angle, 33°.										
4	20.76	33.77	6.66a)	425	0	20.7	(33.77)	(6.66)	(23.66)	(425)	(0.00)
12	20.77	33.78	6.72	425	10	20.77	33.78	6.69	23.65	426	0.04
33	18.68	33.65	6.99	384	20	20.75	33.78	6.76	23.66	425	0.08
43	16.82	33.55	7.23	348	30	19.27	33.69	6.90	23.97	395	0.12
55	15.35	33.55	7.27	316	50	15.88	33.55	7.28	24.68	327	0.20
64	14.74	33.66	6.31	295	75	14.47	34.04	3.33	25.37	262	0.27
72	14.70	34.05	3.36	266	100	11.77	33.90	3.63	25.80	220	0.33
89	12.51	33.90	3.46	234	150	11.77	34.35	1.32	26.15	188	0.44
105	11.46	33.91	3.70	215	200	11.58	34.54	0.89	26.34	170	0.53
118	12.56	34.36	1.13	201	250	10.75	34.56	0.63	26.50	154	0.61
140	11.81	34.27	1.40	194	300	10.03	34.58	0.52	26.64	140	0.69
174	11.68	34.50	-	175	400	8.19	34.45	0.47	26.84	122	0.82
207	11.49	34.55	0.77	168	500	7.00	34.41	0.47	26.98	109	0.94
258	10.69	34.60	0.63	151							
345	9.22	34.55	0.39	131							
425	7.79	34.42	0.49	119							
567	6.43	34.41	0.38	102							

a) All oxygen values appear to be 20 per cent high.

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

BLACK DOUGLAS; July 15, 1958; 1119 GCT; 26°57.5'N, 115°30'W; sounding, 2000 fm; wind, 320°, force 3; weather, clear; sea, moderate; wire angle, 11°. 123.50

8	21.56	33.80	6.41a)	444	0	21.6	(33.80)	(6.41)	(23.44)	(445)	(0.00)
17	20.46	33.78	6.57	418	10	21.50	33.80	6.43	23.47	442	0.04
36	19.04	33.72	6.81	387	20	20.33	33.78	6.60	23.77	414	0.09
49	15.88	33.70	7.22	316	30	19.75	33.75	6.69	23.89	402	0.13
57	15.08	33.63	6.52	305	50	15.70	33.68	7.17	24.83	313	0.20
66	13.92	33.71	5.07	275	75	12.78	33.69	4.56	25.45	254	0.27
75	12.78	33.69	4.56	254	100	11.63	33.86	3.18	25.80	221	0.33
92	11.92	33.78	3.57	232	150	10.72	34.20	2.01	26.23	180	0.43
105	11.51	33.91	3.03	215	200	9.69	34.29	1.49	26.46	158	0.52
118	11.20	33.99	2.69	204	250	9.80	34.51	0.68	26.63	142	0.60
140	10.92	34.15	2.09	187	300	8.90	34.46	0.72	26.73	132	0.67
166	10.40	34.25	1.93	171	400	7.22	34.35	0.71	26.90	117	0.80
201	9.68	34.29	1.49	158	500	6.35	34.35	0.55	27.02	105	0.91
250	9.80	34.51	0.68	142							
325	8.48	34.43	0.76	128							
419	6.99	34.34	0.70	114							
552	6.04	34.36	0.46	101							

BLACK DOUGLAS; July 15, 1958; 1715 GCT; 26°36.5'N, 116°08'W; sounding, 2000+ fm; wind, 340°, force 4; weather, cloudy; sea, moderate; wire angle, 21°. 123.60

6	21.07	33.66	6.52a)	442	0	21.1	(33.66)	(6.52)	(23.46)	(443)	(0.00)
14	20.66	33.68	6.56	430	10	20.92	33.67	6.54	23.53	437	0.04
31	19.60	33.71	6.64	401	20	20.22	33.69	6.60	23.72	419	0.09
44	17.41	33.53	7.21	362	30	19.61	33.71	6.64	23.90	402	0.13
52	17.05	33.54	7.10	354	50	17.14	33.54	7.11	24.39	355	0.20
61	16.80	33.57	7.10	346	75	16.55	33.60	7.00	24.57	338	0.29
70	16.60	33.58	7.10	340	100	14.64	33.64	6.90	25.02	295	0.37
87	16.53	33.81	6.94	322	150	10.96	33.96	3.45	26.00	202	0.50
100	14.64	33.64	6.90	295	200	10.47	34.26	1.96	26.31	172	0.59
112	12.52	33.52	6.54	262	250	10.25	34.44	1.00	26.49	155	0.67
132	10.94	33.55	5.35	232	300	9.97	34.54	0.42	26.62	143	0.75
154	10.96	34.03	2.94	197	400	8.20	34.48	0.33	26.86	120	0.89
184	10.58	34.22	2.17	176	500	6.90	34.42	0.32	27.00	107	1.01
227	10.37	34.38	1.49	161							
295	10.02	34.54	0.45	144							
381	8.45	34.49	0.35	123							
505	6.85	34.42	0.32	107							

BLACK DOUGLAS; July 15, 1958; 2244 GCT; 26°18.5'N, 116°47'W; sounding, 2100 fm; wind, 320°, force 3; weather, overcast; sea, moderate; wire angle, 18°. 123.70

10	21.90	33.79	6.43a)	454	0	21.9	(33.79)	(6.43)	(23.35)	(454)	(0.00)
19	21.46	33.81	6.29	441	10	21.90	33.79	6.43	23.35	454	0.04
41	20.19	33.75	6.33	413	20	21.41	33.81	6.28	23.50	440	0.09
67	18.68	33.92	6.82	364	30	20.32	33.76	6.30	23.74	416	0.13
76	17.61	33.75	6.98	351	50	20.00	33.76	6.37	23.84	407	0.22
89	17.05	33.73	6.92	340	75	17.65	33.75	6.97	24.42	352	0.31
97	16.21	33.62	7.08	329	100	16.02	33.62	7.07	24.70	325	0.40
115	15.02	33.62	6.92	304	150	11.45	33.52	5.77	25.56	244	0.54
127	13.64	33.55	6.63	282	200	10.17	34.02	3.15	26.18	184	0.65
144	11.77	33.49	6.14	250	250	9.12	34.18	2.59	26.47	157	0.74
165	10.92	33.68	4.62	222	300	8.48	34.24	1.77	26.62	142	0.82
190	10.44	33.93	3.32	196	400	7.70	34.36	0.68	26.84	122	0.96
215	9.81	34.12	2.99	172	500	6.95	34.40	0.37	26.98	108	1.08
266	8.91	34.19	2.40	152							
345	8.07	34.29	1.20	132							
444	7.44	34.40	0.47	116							
577	6.12	34.38	0.28	100							

a) All oxygen values appear to be 20 per cent high.

SIO

CCOFI 5807

OBSERVED					INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	$\delta^{-5}T_3$ 10 cm/g	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	$\delta^{-5}T_3$ 10 cm/g	ΔD dyn. m
130.50	BLACK DOUGLAS; July 13, 1958; 1605 GCT; 25°47.5'N, 114°44'W; sounding, 2000+ fm; wind, 320°, force 2; weather, overcast; sea, slight; wire angle, 17°.										
6	22.48	33.73	6.32a)	474	0	22.5	(33.73)	(6.32)	(23.13)	(474)	(0.00)
15	20.24	33.72	6.49	416	10	21.50	33.73	6.40	23.41	448	0.05
33	18.83	33.66	6.93	386	20	19.85	33.71	6.60	23.84	407	0.09
41	17.78	33.61	6.98	365	30	19.15	33.67	6.83	24.00	392	0.13
51	17.00	33.66	6.99	344	50	17.06	33.66	6.99	24.50	345	0.20
60	16.36	33.57	7.02	336	75	15.23	33.66	6.81	24.91	305	0.28
69	15.88	33.62	6.91	322	100	12.38	33.69	4.77	25.51	248	0.36
82	14.30	33.68	6.69	284	150	11.72	34.30	1.57	26.11	191	0.46
94	12.88	33.59b)	4.92	256	200	11.00	34.45	0.93	26.37	167	0.56
105	12.13	33.69	4.67	242	250	9.65	34.39	0.79	26.55	150	0.64
125	12.22	34.14	2.34	212	300	8.63	34.35	1.07	26.68	137	0.71
149	11.76	34.29	1.63	192	400	7.82	34.41	0.48	26.86	120	0.84
178	11.30	34 45	1.07	172	500	(6.80)	(34.42)	(0.22)	(27.01)	(106)	(0.96)
219	10.16	34.38	0.71	158							
286	8.78	34.34	1.10c)	139							
371	8.09	34.40	0.57	125							
486	6.96	34.42	0.26	108							
130.60	BLACK DOUGLAS; July 13, 1958; 2217 GCT; 25°23'N, 115°25'W; sounding, 2100 fm; wind, 320°, force 2; weather, overcast; sea, slight; wire angle, 08°.										
8	23.60	34.02	6.15a)	484	0	23.7	(34.02)	(6.16)	(23.01)	(486)	(0.00)
17	21.49	34.11	6.34	420	10	23.40	34.03	6.18	23.10	478	0.05
36	21.17	34.12	6.25	411	20	21.45	34.11	6.32	23.72	419	0.09
63	19.10	34.07	6.80	363	30	21.29	34.12	6.26	23.76	414	0.13
72	18.66	34.10	6.52	350	50	20.17	34.09	6.51	24.05	387	0.21
81	17.77	34.03	6.68	334	75	18.42	34.08	6.55	24.49	345	0.31
94	16.52	33.96	6.19	311	100	15.62	33.89	5.89	25.00	297	0.39
108	14.30	33.78	5.50	277	150	11.67	34.03	2.80	25.92	209	0.52
120	12.98	33.78	4.57	252	200	11.05	34.41	1.05	26.32	171	0.61
137	12.07	33.88	3.60	228	250	10.42	34.51	0.63	26.52	153	0.70
154	11.56	34.10	2.49	202	300	9.74	34.50	0.42	26.60	142	0.77
180	11.24	34.33	1.52	180	400	8.66	34.46	0.45	26.77	128	0.91
202	11.03	34.42	1.03	170	500	7.50	34.42	0.38	26.92	115	1.04
248	10.46	34.51	0.65	154							
322	9.48	34.49	0.39	139							
419	8.42	34.45	0.46	126							
546	6.94	34.41	0.30	108							
133.25	BLACK DOUGLAS; July 12, 1958; 1446 GCT; 26°04.5'N, 112°48'W; sounding, 45 fm; wind, calm; weather, partly cloudy; sea, slight; wire angle, 01°.										
2	23.16	33.98	6.35a)	474	0	23.16	(33.98)	(6.35)	(23.10)	(478)	(0.00)
11	20.28	33.98	6.92	398	10	20.60	33.98	6.89	23.85	406	0.04
30	14.68	34.00	4.46	270	20	16.50	33.99	5.37	24.88	308	0.08
48	14.10	34.14	2.69	247	30	14.68	34.00	4.46	25.28	270	0.11
71	13.74	34.41	0.94	220	50	14.06	34.15	2.31	25.54	246	0.16
					75	(13.70)	(34.44)	(0.83)	(25.83)	(218)	(0.22)

a) All oxygen values appear to be 20 per cent high.

b) Salinity bottle number was not recorded on the data sheet. Since standard handling and titrating procedures were used, this salinity value is assumed to be listed correctly.

c) Alternate value, 1.68 ml/L, not used in interpolation.

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
BLACK DOUGLAS; July 12, 1958; 1139 GCT; 25°54.5'N, 113°07.5'W; sounding, 105 fm; wind, 090°, force 1; weather, partly cloudy; sea, slight; wire angle, 00°.											133.30
4	20.68	33.87	6.77a)	417	0	22.0	(33.87)	(6.77)	(23.38)	(451)	(0.00)
13	18.84	33.89	6.92	370	10	19.50	33.89	6.89	24.06	386	0.04
32	15.41	33.78	6.11	300	20	17.29	33.84	6.63	24.58	337	0.08
50	14.45	33.77	5.33	281	30	15.55	33.78	6.17	24.94	303	0.11
73	13.68	34.02	3.16	248	50	14.45	33.77	5.33	25.16	281	0.17
96	13.21	34.15	2.22	229	75	13.63	34.03	3.05	25.53	246	0.23
118	12.93	34.49	1.16	199	100	13.26	34.31	1.82	25.82	219	0.29
145	12.61	34.55	0.55	188	150	(12.57)	(34.56)	(0.50)	(26.16)	(187)	(0.40)
BLACK DOUGLAS; July 12, 1958; 0435 GCT; 25°34.5'N, 113°45.5'W; sounding, 1150 fm; wind, 090°, force 2; weather, missing; sea, moderate; wire angle, 02°.											133.40
117p	11.74	34.17	2.36a)	200							
138p	11.40	34.33	1.97	183							
164p	10.98	34.36	1.26	173							
202p	10.40	34.43	1.12	158							
264p	9.88	34.51	0.39	144							
346p	8.64	34.43	0.28	130							
462p	7.60	34.42	0.30	116							
BLACK DOUGLAS; July 11, 1958; 2101 GCT; 25°08'N, 114°22'W; sounding, 2000 fm; wind, 090°, force 2; weather, fog; sea, moderate; wire angle, 07°.											133.50
6	21.57	33.82	5.62a)	443	0	23.5	(33.82)	(5.62)	(22.91)	(496)	(0.00)
14	19.82	33.68	5.76	408	10	20.46	33.73	5.72	23.69	421	0.04
33	18.24	33.65	5.73	373	20	19.20	33.66	5.78	23.98	394	0.09
42	17.59	33.73	6.22	352	30	18.45	33.65	5.73	24.15	378	0.12
51	16.98	33.68	6.02	342	50	17.03	33.68	6.03	24.52	342	0.20
60	16.22	33.62	6.17	330	75	14.75	33.56	5.82	24.94	303	0.28
68	15.40	33.57	6.10	316	100	11.95	33.66	4.49	25.58	241	0.35
80	14.14	33.56	-	290	150	10.60	33.93	2.80	26.04	198	0.46
91	12.58	33.59	4.89	258	200	10.32	34.28	1.40	26.36	168	0.55
105	11.72	33.69	4.28	235	250	9.86	34.38	1.00	26.51	153	0.64
126	11.24	33.73	3.66	224	300	9.38	34.44	0.52	26.64	141	0.71
150	10.60	33.93	2.80	198	400	7.82	34.37	0.43	26.83	124	0.85
180	10.42	34.20	1.56	176	500	(6.80)	(34.36)	(0.22)	(26.97)	(110)	(0.97)
223	10.06	34.34	1.20	160							
293	9.46	34.44	0.52	142							
379	8.06	34.37	0.48	127							
496	6.86	34.36	0.22	111							
BLACK DOUGLAS; July 11, 1958; 1452 GCT; 24°54.5'N, 115°01.5'W; sounding, 2100 fm; wind, 140°, force 1; weather, fog; sea, moderate; wire angle, 05°.											133.60
6	22.42	33.89	5.45a)	461	0	22.5	(33.89)	(5.45)	(23.26)	(463)	(0.00)
15	21.54	33.86	5.58	439	10	22.00	33.88	5.53	23.38	451	0.04
33	20.79	33.92	5.62	416	20	21.30	33.88	5.60	23.58	432	0.09
42	19.67	33.86	5.76	392	30	20.94	33.91	5.62	23.70	420	0.13
51	19.50	33.89	5.76	386	50	19.51	33.89	5.76	24.06	386	0.21
60	18.91	33.86	5.85	374	75	17.25	33.69	6.15	24.47	348	0.30
70	17.74	33.70	6.11	358	100	15.05	33.71	5.76	24.98	298	0.39
83	16.59	33.68	6.13	333	150	11.80	34.08	2.35	25.93	208	0.52
96	15.66	33.75	5.91	308	200	11.05	34.37	1.14	26.29	174	0.61
109	13.50	33.58	5.34	276	250	10.42	34.48	0.57	26.50	154	0.70
131	12.50	33.81	3.59	240	300	9.58	34.48	0.47	26.64	141	0.77
158	11.56	34.16	2.03	198	400	8.18	34.47	0.45	26.85	121	0.91
189	11.18	34.32	1.33	179	500	7.19	34.45	0.28	26.98	109	1.03
233	10.68	34.48	0.64	159							
304	9.52	34.48	0.47	140							
394	8.25	34.47	0.44	122							
513	7.04	34.44	0.24	108							

a) All oxygen values appear to be 20 per cent high.

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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
137.23	BLACK DOUGLAS; July 10, 1958; 1114 GCT; 25°33'N, 112°18.5'W; sounding, 42 fm; wind, direction missing, force 1; weather, clear; sea, slight; wire angle, 00°.										
6	23.38	34.13	5.43a)	469	0	23.5	(34.13)	(5.43)	(23.16)	(472)	(0.00)
15	20.88	34.12	5.82	404	10	22.60	34.13	5.59	23.40	448	0.05
34	15.66	34.11	3.20	282	20	19.16	34.12	5.07	24.32	361	0.09
52	15.12	34.29	-	256	30	15.84	34.11	3.43	25.11	286	0.12
61	14.74	34.36	-	244	50	15.25	34.29		25.39	260	0.17
137.30	BLACK DOUGLAS; July 10, 1958; 1455 GCT; 25°20'N, 112°45.5'W; sounding, 170 fm; wind, direction missing, force 1; weather, partly cloudy; sea, slight; wire angle, 02°.										
6	21.81	33.97	5.49a)	438	0	(22.3)	(33.97)	(5.48)	(23.37)	(452)	(0.00)
15	20.72	33.93	5.62	413	10	21.40	33.95	5.55	23.61	429	0.04
34	16.08	33.84	5.38	310	20	19.17	33.90	5.62	24.26	377	0.08
52	14.71	34.04	3.59	267	30	16.51	33.84	5.48	24.76	319	0.12
75	13.59	34.22	1.99	231	50	14.82	34.02	3.73	25.28	270	0.18
98	13.56	34.38	1.01	218	75	13.59	34.22	1.99	25.69	231	0.24
119	13.26	34.56	0.85	200	100	13.57	34.39	1.00	25.83	218	0.30
155	11.98	34.60	0.54	173	150	12.14	34.59	0.61	26.27	176	0.40
191	11.75	34.63	0.32	166	200	11.62	34.62	0.29	26.35	168	0.48
236	11.03	34.60	0.13	156							
137.35	BLACK DOUGLAS; July 10, 1958; 1804 GCT; 25°10'N, 113°04.5'W; sounding, 625 fm; wind, 340°, force 1; weather, partly cloudy; sea, rough; wire angle, 05°.										
6	22.46	33.94	5.71a)	458	0	22.9	(33.94)	(5.71)	(23.18)	(470)	(0.00)
15	21.94	33.88	5.55	448	10	22.24	33.91	5.65	23.34	454	0.05
34	18.34	33.71	6.12	370	20	21.43	33.85	5.58	23.52	438	0.09
43	17.59	33.78	6.12	348	30	19.16	33.73	6.04	24.03	389	0.13
52	16.10	33.86	5.88	309	50	16.50	33.84	5.98	24.76	320	0.20
61	15.52	33.93	4.68	291							
70	15.06	34.05	3.35	274							
138b)	11.16	34.32	1.31								
195b)	10.90	34.47	0.81								
238b)	10.54	34.49	0.21								
321b)	9.58	-	0.30								
431b)	8.34	34.51	0.17								
137.40	BLACK DOUGLAS; July 10, 1958; 2117 GCT; 25°00'N, 113°23.5'W; sounding, 1200 fm; wind, 340°, force 1; weather, partly cloudy; sea, moderate; wire angle, 04°.										
8	23.37	33.86	5.34a)	488	0	24.3	(33.86)	(5.34)	(22.71)	(515)	(0.00)
17	21.25	33.78	5.54	438	10	23.00	33.85	5.36	23.08	480	0.05
36	17.60	33.73	6.17	352	20	20.61	33.77	5.64	23.68	422	0.09
45	16.60	33.58	6.12	340	30	18.40	33.74	6.07	24.23	370	0.13
54	15.63	33.62	6.12	317	50	16.10	33.60	6.14	24.67	328	0.20
63	14.46	33.59	5.28	294	75	13.82	33.71	4.64	25.25	273	0.28
72	14.06	33.72	4.72	277	100	12.11	33.83	3.33	25.68	232	0.34
86	12.58	33.66	4.27	253	150	11.38	34.34	1.15	26.21	182	0.45
100	12.11	33.83	3.33	232	200	10.61	34.48	0.72	26.46	158	0.53
113	11.64	33.95	2.76	215	250	10.15	34.54	0.36	26.58	146	0.61
134	11.40	34.18	1.79	194	300	9.48	34.49	0.27	26.66	139	0.69
161	11.34	34.41	0.81	175	400	7.87	34.44	0.25	26.88	118	0.82
191	10.70	34.46	0.79	161	500	7.07	34.49	0.20	27.03	104	0.94
235	10.34	34.54	0.42	148							
305	9.44	34.49	0.27	138							
395	7.96	34.44	0.25	120							
512	7.00	34.49	0.18	103							

a) All oxygen values appear to be 20 per cent high.
b) Pretrip; depth too uncertain for interpolation.

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

BLACK DOUGLAS; July 11, 1958; 0320 GCT; 24°40'N, 114°01.5'W; sounding, 1700 fm; wind, direction missing, force 1; weather, partly cloudy; sea, moderate; wire angle, 06°. 137.50

6	20.84	33.77	5.75a)	428	0	22.3	(33.77)	(5.75)	(23.22)	(466)	(0.00)
15	20.44	33.77	5.84	418	10	20.64	33.77	5.81	23.68	423	0.04
34	19.30	33.76	5.88	390	20	19.78	33.73	5.88	23.88	404	0.08
43	19.18	33.84	5.79	381	30	19.27	33.70	5.88	24.00	391	0.12
52	18.86	33.87	5.82	372	50	18.99	33.86	5.81	24.17	376	0.20
61	18.43	33.96	5.86	355	75	17.66	34.01	5.94	24.62	334	0.29
70	17.88	34.00	5.99	339	100	13.27	33.68	5.48	25.32	266	0.37
84	17.20	34.01	5.84	323	150	11.28	34.10	3.12	26.05	197	0.48
97	13.78	33.69	5.62	274	200	10.59	34 44	1.80	26.44	160	0.57
109	12.47	33.71	5.03	248	250	10.00	34.49	1.07	26.57	147	0.65
131	11.78	34.00	3.18	213	300	9.19	34.49	0.84	26.71	134	0.73
158	11.10	34.15	3.09	191	400	8.24	34.51	0.26	26.87	119	0.86
189	10.69	34.42	2.04	164	500	7.02	34.44	0.24	27.00	107	0.98
233	10.24	34.48	1.18	152							
305	9.13	34.49	0.80	134							
395	8.28	34.51	0.27	120							
515	6.84	34.43	0.24	106							

BLACK DOUGLAS; July 11, 1958; 0917 GCT; 24°20'N, 114°39.5'W; sounding, 2000 fm; wind, direction missing, force 1; weather, fog; sea, moderate; wire angle, 05°. 137.60

8	21.88	33.82	5.51a)	452	0	22.2	(33.82)	(5.51)	(23.28)	(460)	(0.00)
17	20.42	33.78	5.66	416	10	21.75	33.82	5.52	23.41	448	0.04
36	19.91	33.89	5.78	395	20	20.33	33.79	5.67	23.77	414	0.09
45	18.27	33.72	6.17	368	30	20.05	33.86	5.75	23.90	402	0.13
54	17.82	33.73	6.04	357	50	18.02	33.73	6.11	24.32	362	0.20
63	17.15	33.68	6.06	345	75	15.95	33.64	6.12	24.74	322	0.29
72	16.14	33.64	6.12	326	100	14.66	33.83	4.70	25.17	281	0.37
86	15.38	33.68	5.81	307	150	12.10	34.21	1.82	25.98	204	0.49
99	14.72	33.82	4.75	283	200	11.00	34.45	0.79	26.36	167	0.58
112	14.16	33.94	3.81	263	250	10.29	34.54	0.54	26.56	148	0.66
134	12.82	34.12	2.32	224	300	9.70	34.58	0.40	26.69	136	0.74
160	11.76	34.27	1.54	193	400	8.46	34.53	0.24	26.86	120	0.87
192	11.14	34.42	0.85	172	500	7.42	34.51	0.25	27.00	107	0.99
236	10.48	34.52	0.60	153							
308	9.60	34.58	0.38	134							
398	8.50	34.53	0.24	121							
518	7.24	34.51	0.26	105							

a) All oxygen values appear to be 20 per cent high.

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

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
40.55-S	VII-7	0435	41°14.0'	125°44.0'	1700	340°	4	overcast	very rough	14.48	32.75	10.40	32.97
40.65-S	7	1023	40°53.5'	126°30.0'	1750	330°	4	overcast	very rough	16.24	32.79	12.65	32.79
43.42-S	6	1200	41°04.0'	124°20.5'	80	calm		fog	rough	11.58	33.34	9.61	33.51
43.45-S	6	1002	40°58.5'	124°35.0'	315	010°	4	fog	very rough	11.54	32.74	10.19	33.31
43.55-S	6	0255	40°34.0'	125°26.0'	1600	350°	4	fog	high	12.76	33.10	9.58	33.57
60.52-S	10	0450	37°53.5'	123°02.5'	42	320°	3	fog	moderate	11.66	33.42	9.87	33.69
60.65-S	10	1330	37°27.0'	123°59.0'	1995	340°	5	overcast	very rough	15.92	33.07	11.98	33.19
63.55-S	12	0430	37°14.0'	122°49.5'	120	320°	3	fog	moderate	12.90	32.66	9.50	33.48
63.65-S	11	2240	36°53.0'	123°32.0'	1950	330°	5	overcast	very rough	15.51	32.90	11.21	32.90
67.50-S	12	1050	36°49.0'	122°04.5'	140	320°	3	fog	moderate	11.51	33.62	9.56	33.78
67.65-S	12	1940	36°19.0'	123°08.5'	1900	340°	5	overcast	high	16.34	32.97	-	-
70.85-S	14	0400	34°59.0'	124°10.0'	2370	340°	6	clear	high	16.68	-	14.38	33.13
70.55-P	14	2330	36°03.0'	122°02.0'	710	320°	5	partly cloudy	high	12.60	33.36	10.61	33.51
70.65-P	14	1630	35°42.0'	122°43.0'	1100	290°	6	cloudy	high	16.42	32.99	13.90	33.02
70.75-P	14	0745	35°20.5'	123°32.0'	35	320°	7	cloudy	high	16.08	32.91	13.01	32.94
73.51-P	13	0210	35°35.0'	121°21.5'	206	340°	5	overcast	rough	11.86	33.57	10.11	33.74
73.65-P	13	1130	35°11.0'	122°20.5'	2300	320°	5	overcast	very rough	14.74	33.14	12.84	33.05
73.75-P	13	1845	34°51.5'	123°03.0'	2300	320°	5	cloudy	very rough	14.84	33.04	13.40	33.22
77.50-P	11	1640	35°05.5'	120°53.5'	75	320°	3	fog	rough	12.58	33.48	10.23	33.70

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

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
77.65-P	VII-11	0520	34°32.5'	121°57.0'	2350	320°	6	overcast	very rough	14.27	33.45	11.38	33.51
77.75-P	10	2050	34°11.5'	122°35.5'	2380	320°	6	overcast	very rough	16.60	-	12.64	33.22
77.85-P	10	1440	33°54.0'	123°18.0'	2680	320°	6	overcast	very rough	17.90	33.19	14.68	33.28
80.65-P	9	0745	33°57.5'	121°28.0'	2000	330°	6	overcast	rough	16.82	33.28	12.63	33.27
80.75-P	9	1445	33°35.5'	122°10.0'	2380	320°	6	overcast	very rough	16.96	33.12	13.96	33.18
80.85-P	9	2205	33°15.5'	122°51.5'	2500	320°	5	cloudy	very rough	17.57	33.01	14.41	33.01
83.40-P	8	1010	34°13.5'	119°21.5'	12	310°	2	fog	slight	15.42	33.59	-	-
83.65-P	7	1455	33°24.0'	121°04.0'	1670	320°	3	overcast	rough	16.18	33.24	12.69	33.08
83.75-P	7	0820	33°04.5'	121°46.5'	2400	310°	3	overcast	moderate	17.56	33.10	14.80	33.22
83.85-P	7	0110	32°41.5'	122°25.0'	2480	340°	3	overcast	rough	17.72	33.12	17.46	33.48
87.50-P	5	0830	33°20.0'	119°39.0'	44	230°	3	overcast	moderate	15.63	33.63	9.34	33.89
87.65-P	5	2245	32°41.5'	120°41.5'	2050	280°	3	overcast	moderate	17.86	33.22	16.02	33.15
87.75-P	6	0525	32°20.5'	121°18.5'	2400	300°	3	overcast	rough	17.16	33.22	15.28	33.31
87.85-P	6	1215	31°59.0'	121°56.0'	2400	270°	3	overcast	moderate	18.59	33.48	16.12	33.44
90.65-O	4	1209	32°09.0'	120°15.0'	2000+	310°	3	cloudy	rough	15.11	33.16	13.86	33.48
90.75-O	4	2020	31°43.0'	121°00.0'	2000+	320°	4	cloudy	rough	17.62	33.22	15.72	33.33
90.85-O	5	0300	31°35.0'	121°39.0'	2200	320°	4	cloudy	rough	18.83	33.55	18.11	33.49
93.35-O	7	0227	32°34.5'	117°50.5'	325	140°	3	partly cloudy	moderate	18.38	33.59	12.74	33.49
93.45-O	6	1952	32°14.5'	118°34.0'	-	300°	2	cloudy	moderate	15.64	33.65	9.47	33.80

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

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
93.55-O	VII-6	1315	31°52.0'	119°08.0'	400	300°	2	cloudy	moderate	15.88	33.53	13.96	33.39
93.65-O	6	0618	31°35.0'	119°54.0'	2000+	320°	3	cloudy	moderate	16.31	33.33	15.52	33.31
93.75-O	5	2315	31°20.0'	120°34.0'	2000	340°	3	cloudy	rough	18.67	33.48	15.86	33.35
93.85-O	5	1640	31°01.5'	121°18.5'	2000+	330°	3	cloudy	rough	18.72	33.48	16.55	33.47
97.35-O	8	1108	32°05.5'	117°28.5'	600+	320°	2	cloudy	slight	18.81	33.63	12.80	33.46
97.45-O	8	1725	31°46.5'	118°10.0'	600	320°	3	cloudy	slight	17.87	33.60	14.28	33.42
97.55-O	9	0111	31°26.0'	118°50.0'	1900+	310°	4	cloudy	rough	17.91	33.56	14.43	33.46
97.75-O	9	1550	30°35.5'	120°08.0'	2000	310°	4	cloudy	rough	18.98	33.62	16.26	33.44
97.85-O	9	2245	30°19.0'	120°50.0'	2000+	340°	4	partly cloudy	rough	19.26	33.57	15.96	33.39
100.35-O	13	0900	31°31.0'	117°07.0'	800	300°	1	cloudy	calm	19.28	33.62	15.24	33.45
100.45-O	11	1658	31°14.0'	117°35.0'	900	290°	1	cloudy	slight	18.03	33.58	16.52	33.43
100.55-O	11	1010	30°52.0'	118°19.5'	900	260°	2	overcast	moderate	17.62	33.32	16.98	33.42
100.65-O	11	0200	30°31.0'	119°04.0'	1700	300°	2	cloudy	moderate	19.25	33.69	16.47	33.49
100.75-O	10	1827	30°09.5'	119°48.0'	1900	310°	3	cloudy	moderate	-	33.58	-	33.58
100.85-O	10	1100	29°50.0'	120°28.0'	2000+	320°	4	cloudy	rough	19.36	33.54	17.80	33.82
103.45-O	14	0530	30°38.0'	117°24.0'	900	260°	2	cloudy	slight	18.28	33.48	15.93	33.42
103.55-O	14	1220	30°10.5'	118°03.0'	900	270°	1	cloudy	slight	19.05	33.60	17.34	33.57
103.65-O	14	1904	29°41.0'	118°46.5'	1800	320°	2	cloudy	moderate	19.52	33.67	19.10	33.66
103.75-O	15	0100	29°37.0'	119°24.0'	1800	310°	3	cloudy	moderate	19.61	33.62	17.64	33.64

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

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S	50 Meters T	50 Meters S
103.85-O	VII-15	0744	29°14.5'	120°08.5'	1900+	340°	3	cloudy	moderate	20.28	33.72	17.97	33.75
107.45-O	18	0400	29°58.0'	116°59.5'	1000	320°	5	cloudy	rough	18.50	33.49	16.98	33.62
107.55-O	17	2100	29°41.0'	117°42.0'	1772	320°	5	cloudy	rough	19.48	33.61	18.46	33.53
107.65-O	16	1257	29°18.0'	118°26.0'	700+	340°	4	partly cloudy	rough	20.42	33.71	16.25	33.60
107.75-O	16	0530	29°00.5'	119°00.0'	2000	340°	5	cloudy	rough	20.06	33.72	19.44	33.68
107.85-O	15	2300	28°43.0'	119°37.0'	2000+	340°	2	cloudy	rough	19.86	33.67	17.04	33.59
110.45-O	19	0239	29°24.0'	116°37.0'	400	310°	4	cloudy	moderate	18.92	33.52	16.04	33.48
110.55-O	19	0920	29°00.0'	117°20.0'	1930	320°	3	cloudy	moderate	19.36	33.64	17.27	33.55
110.65-O	19	1745	28°37.5'	118°02.0'	1800	340°	4	cloudy	moderate	20.36	33.78	17.90	33.63
110.75-O	19	2300	28°24.5'	118°36.0'	2000	330°	3	partly cloudy	moderate	20.38	33.78	15.95	33.57
113.45-B	21	1030	28°47.5'	116°17.5'	1500	330°	5	partly cloudy	moderate	19.42	33.62	13.26	33.48
113.55-B	21	0353	28°32.0'	116°57.0'	1800	340°	4	partly cloudy	rough	19.08	33.51	16.52	33.51
113.65-B	20	2045	28°11.0'	117°38.0'	2000	340°	3	partly cloudy	rough	20.42	33.73	19.11	33.64
117.45-B	19	0835	28°18.0'	115°55.0'	1700	320°	3	partly cloudy	moderate	20.77	33.78	13.00	33.62
117.55-B	19	1430	27°57.5'	116°36.5'	2200	340°	4	partly cloudy	moderate	18.85	33.59	15.14	33.49
117.65-B	19	2052	27°37.5'	117°13.0'	2000	340°	3	partly cloudy	moderate	19.19	33.53	17.00	33.53
117.75-B	20	0230	27°17.5'	117°52.0'	2100	360°	3	partly cloudy	rough	21.33	34.13	19.96	34.14
120.40-B	17	1900	27°56.5'	115°14.0'	20	320°	4	partly cloudy	moderate	18.30	33.68	-	-
120.55-B	17	0935	27°23.0'	116°13.0'	2000	340°	5	partly cloudy	rough	20.65	33.75	16.71	33.57

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