DENSITY OF SEA WATER

AT TIDE STATIONS

ATLANTIC COAST

NORTH AND SOUTH AMERICA

SPECIAL PUBLICATION NO. 279
(FORMERLY NO. DW-1)
REVISED (1953) EDITION

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
WASHINGTON

U. S. DEPARTMENT OF COMMERCE
SINCLAIR WEEKS, Secretary
COAST AND GEODETIC SURVEY
ROBERT F. A. STUDDS, Director

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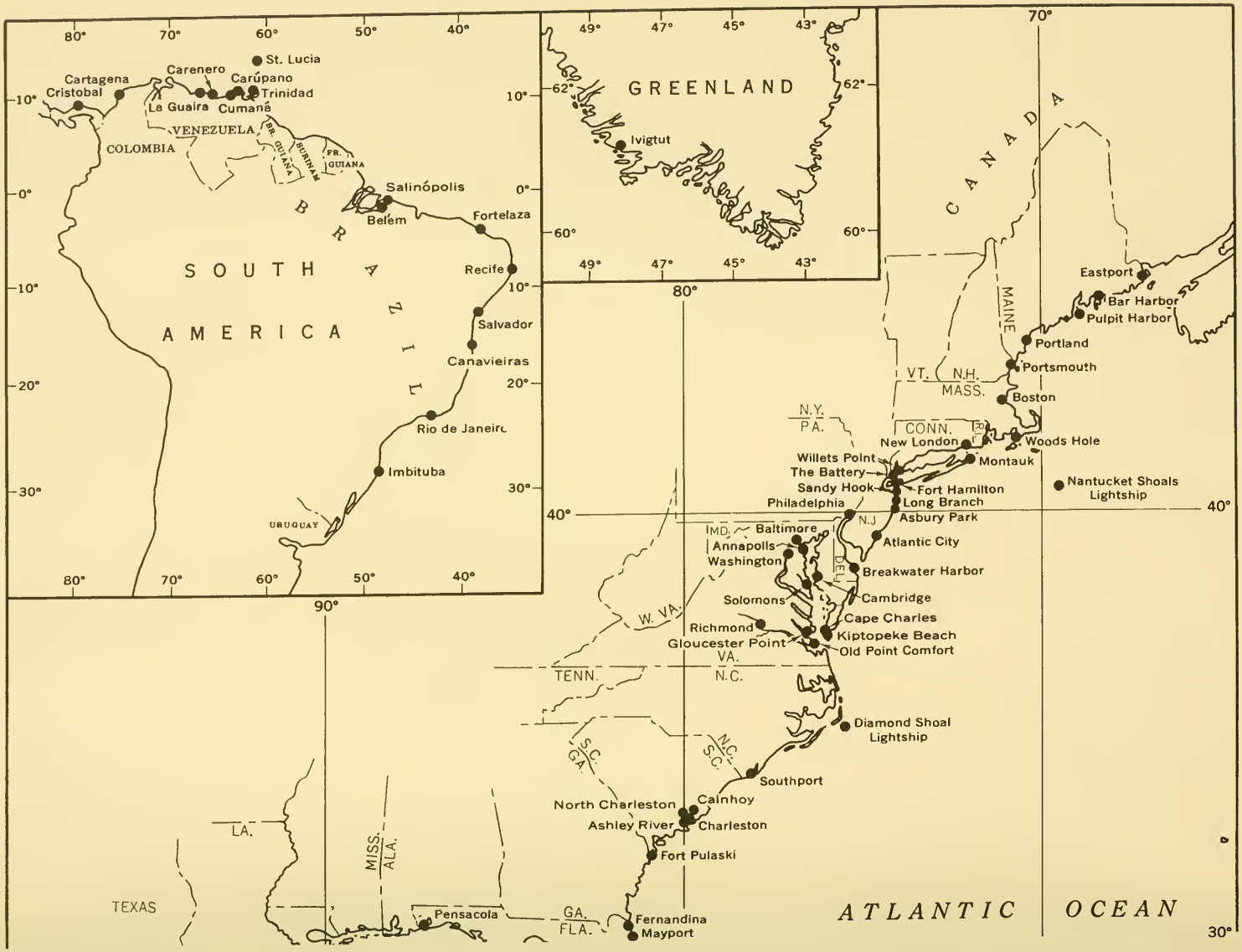
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INTRODUCTION

The summaries of sea water densities presented in this publication are based on observations made in Atlantic harbor and coastal waters through the year 1952. The densities were observed primarily at tide stations which, in the United States, were maintained by the Coast and Geodetic Survey, often with the cooperation of other organizations. Final results for Venezuela were supplied by the Ministerio de Obras Publicas, Estados Unidos de Venezuela. For other countries the Coast and Geodetic Survey derived the data from observations made by organizations in the countries concerned. In Latin America the observations were obtained through the cooperation of the Inter American Geodetic Survey.

Table 1 presents monthly means and annual mean and extremes for each year of observations. Maximum and minimum densities are shown for each year in which observations were made, whether or not the observations covered the whole year. In all cases the yearly extremes are from the months of the year for which means are given. If they are from an incomplete year, they are followed by an asterisk.

For each station at which the series of observations covered two or more years, there are given also the following monthly values for the series: the mean of the monthly means together with their corresponding salinities, the maximum density observed, the mean of the monthly maxima, the mean of the monthly minima, and minimum observed.

Following the table of densities are graphs showing the seasonal variation in salinity at stations for which the observations covered five years or more.

The observations are made by drawing a sample of water from near the surface and observing its density by means of a hydrometer. They are usually made once each weekday at whatever time the observer attends the tide gage. It may be assumed that in the course of a month or a year the distribution of observations is fairly uniform over all phases of the tide. At some stations situated within or near the entrance of an estuary, the density varies with the stage of the tide or with the direction of the tidal current.

The densities in Table 1 are given with respect to the density of pure water at a temperature of 4°C (39.2°F) as unity. The actual density of the water may vary from a little less than unity for fresh water at a temperature other than 4°C to approximately 1.0310 for the heaviest sea water. Since the density of sea water, as observed, depends not only upon the amount of soluble matter contained in a unit volume but also upon the temperature of the water at the time the reading was made, it is necessary to reduce the observed densities to some standard temperature in order that they may be comparable. In this publication the observed densities have been reduced to a standard temperature of 15°C (59°F). The density of pure water free from air at a temperature of 15°C is 0.9991.

The salinity of sea water is defined as the number of grams of salts contained in 1000 grams of sea water. Salinity can be determined by several different methods, one of the simplest being based upon the density of the water as obtained from the use of the hydrometer. Table 2 gives the salinity corresponding to different values of density at the standard temperature of 59°F. (15°C.) to which all densities in this publication are referred.

For some practical uses of density data, it is more important to know the density at the temperature apt to be encountered than at the standard temperature. The graph, Sea Water Density at Various Temperatures, provides for converting density at 59°F (15°C) to density at other temperatures.

The following publications complete this series:

Special Pub. 278. Surface Water Temperatures, Atlantic Coast, North and South America.

Special Pub. 280. Surface Water Temperatures, Pacific Coast, North and South America and Pacific Ocean Islands.

Special Pub. 281. Density of Sea Water, Pacific Ocean.

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Table 1. Density of Sea Water

Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
							IVIGTUT, GREENLAND								
1945	---	---	---	---	---	---	1.0160	1.0137	1.0178	1.0200	1.0240	1.0242	---	1.0247*	1.0076*
1946	1.0245	1.0247	1.0248	1.0250	1.0223	1.0211	181	170	204	231	240	247	1.0225	258	157
1947	256	258	249	251	242	224	204	174	208	226	241	246	232	274	131
1948	249	250	248	246	237	204	178	145	197	227	241	249	223	262	127
1949	247	252	249	255	252	217	184	196	185	222	243	246	229	260	156
1950	249	256	---	---	231	210	185	153	193	227	246	247	---	263*	122*
1951	245	248	251	246	220	187	162	143	158	222	241	244	214	256	101
1952	248	242	247	246	228	182	155	151	150	---	---	223	---	252*	116*
Mean Density	1.0248	1.0250	1.0249	1.0249	1.0233	1.0205	1.0176	1.0159	1.0184	1.0222	1.0242	1.0243	1.0222		
Salinity	33.5	33.7	33.6	33.6	31.5	27.8	24.1	21.8	25.1	30.1	32.7	32.8	30.1		
Max.	1.0274	1.0264	1.0260	1.0260	1.0262	1.0242	1.0224	1.0213	1.0241	1.0243	1.0258	1.0263		1.0274	
Mean Max.	1.0256	1.0257	1.0256	1.0254	1.0252	1.0230	1.0202	1.0185	1.0213	1.0240	1.0250	1.0252			
Mean Min.	1.0238	1.0226	1.0221	1.0242	1.0199	1.0177	1.0148	1.0128	1.0146	1.0191	1.0227	1.0231			
Min.	1.0219	1.0173	1.0156	1.0235	1.0145	1.0142	1.0096	1.0076	1.0106	1.0132	1.0205	1.0213			1.0076
							EASTPORT, ME.								
1930	1.0236	1.0235	1.0230	1.0230	1.0230	1.0232	1.0236	1.0240	1.0239	1.0239	1.0236	1.0237	1.0235	1.0244	1.0215
1931	237	236	233	227	225	227	230	233	235	236	238	240	233	244	220
1932	239	236	235	---	---	234	236	237	239	237	234	236	---	245*	229*
1933	236	236	235	229	228	230	234	235	---	237	236	236	---	241*	219*
1934	236	234	234	228	228	230	234	236	237	237	238	237	234	242	218
1935	236	234	233	230	228	230	233	236	238	239	239	232	234	243	215
1936	232	234	230	228	223	231	234	235	238	238	238	235	233	244	213
1937	234	233	234	232	228	229	234	235	237	239	239	237	234	243	222
1938	236	234	233	228	227	230	232	234	233	236	235	234	233	240	216
1939	235	235	233	231	228	230	232	235	236	237	238	236	234	241	223

*Observations for the year are incomplete; extremes are for the months shown.

Table 1. Density of Sea Water - *Continued*

Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
							EASTPORT, ME. —Continued								
1940	1.0236	1.0236	1.0234	1.0224	1.0227	1.0228	1.0230	1.0234	1.0233	1.0237	1.0238	1.0237	1.0233	1.0242	1.0218
1941	235	235	235	230	229	231	233	238	237	239	238	240	235	244	223
1942	238	236	234	230	230	230	232	237	239	240	239	239	235	244	222
1943	242	239	242	239	237	239	242	241	242	240	234	238	240	246	226
1944	240	240	239	236	237	239	243	246	247	247	243	238	241	251	230
1945	237	240	239	238	234	239	245	246	249	248	241	237	241	255	228
1946	238	236	234	233	233	236	240	245	249	251	249	245	241	253	227
1947	243	239	238	236	233	232	240	241	244	247	247	244	240	249	214
1948	242	241	240	234	231	231	234	237	240	239	237	236	237	245	226
1949	233	235	235	232	233	237	244	247	248	246	244	241	240	250	221
1950	241	239	239	235	235	237	239	242	242	243	241	233	239	246	217
1951	238	237	236	230	235	235	239	242	242	243	240	240	238	249	217
1952	236	233	234	231	232	234	239	241	242	242	242	240	237	245	215
Mean Density	1.0237	1.0236	1.0235	1.0231	1.0230	1.0233	1.0236	1.0239	1.0240	1.0241	1.0239	1.0238	1.0236		
Salinity	32.0	31.9	31.8	31.2	31.1	31.5	31.9	32.3	32.4	32.5	32.3	32.1	31.9		
Max.	1.0246	1.0244	1.0246	1.0242	1.0241	1.0244	1.0249	1.0250	1.0255	1.0252	1.0253	1.0248		1.0255	
Mean Max.	1.0241	1.0239	1.0238	1.0236	1.0235	1.0236	1.0239	1.0242	1.0243	1.0244	1.0243	1.0241			
Mean Min.	1.0233	1.0233	1.0231	1.0224	1.0225	1.0228	1.0233	1.0235	1.0237	1.0237	1.0235	1.0233			
Min.	1.0213	1.0227	1.0218	1.0215	1.0215	1.0214	1.0226	1.0230	1.0230	1.0232	1.0226	1.0217			1.0213
							BAR HARBOR, ME.								
1947	---	---	---	---	---	---	---	---	1.0239	1.0242	---	1.0243	---	1.0246*	1.0236*
1948	1.0242	1.0241	1.0238	1.0234	1.0229	1.0228	1.0230	1.0232	237	238	1.0238	238	1.0235	245	220
1949	234	235	233	232	234	235	236	239	242	244	242	241	237	247	220
1950	239	241	238	234	237	238	238	239	240	244	244	234	239	250	224
1951	235	236	232	235	234	234	237	238	238	241	236	238	236	246	216
1952	235	233	231	230	230	229	233	234	237	239	239	236	234	246	214

Mean Density	1.0237	1.0237	1.0234	1.0233	1.0233	1.0233	1.0235	1.0236	1.0239	1.0241	1.0240	1.0238	1.0236		
Salinity	32.0	32.0	31.8	31.5	31.5	31.5	31.8	31.9	32.3	32.5	32.4	32.1	31.9		
Max.	1.0245	1.0248	1.0245	1.0242	1.0246	1.0239	1.0242	1.0242	1.0247	1.0248	1.0250	1.0246		1.0250	
Mean Max.	1.0242	1.0243	1.0241	1.0238	1.0239	1.0236	1.0240	1.0240	1.0244	1.0244	1.0245	1.0243			
Mean Min.	1.0228	1.0229	1.0226	1.0225	1.0224	1.0229	1.0227	1.0232	1.0233	1.0236	1.0232	1.0231			
Min.	1.0220	1.0225	1.0220	1.0214	1.0216	1.0220	1.0216	1.0230	1.0230	1.0231	1.0225	1.0224			1.0214
PULPIT HARBOR, PENOBSCOT BAY, ME.															
1945	---	---	---	---	---	---	---	1.0224	1.0229	1.0228	1.0231	1.0227	---	1.0234*	1.0218*
1946	1.0223	1.0216	---	1.0208	1.0203	1.0218	1.0225	231	232	232	233	232	---	240*	189*
PORTLAND, ME.															
1922	1.0236	1.0230	1.0212	1.0212	1.0206	---	1.0204	1.0219	1.0220	1.0220	1.0224	1.0225	---	1.0244*	1.0137*
1923	223	224	216	206	197	1.0215	222	223	224	229	227	222	1.0219	239	134
1924	225	225	223	214	205	223	230	230	222	228	230	223	223	236	157
1925	228	218	218	199	217	224	223	226	224	229	226	223	221	246	114
1926	224	225	227	214	220	224	225	224	225	228	223	221	223	235	202
1927	218	214	212	214	215	218	221	221	218	219	216	209	216	232	192
1928	210	209	212	207	---	---	---	---	---	---	---	213	---	230*	197*
1929	211	214	230	224	---	---	234	236	237	226	215	217	---	253*	181*
1930	215	---	213	219	222	230	234	234	231	226	228	215	---	254*	204*
1931	222	220	211	212	226	220	232	230	230	225	222	227	223	248	155
1932	219	227	225	220	226	236	240	235	232	222	221	218	227	250	178
1933	222	224	224	222	222	231	241	233	229	216	224	223	226	248	146
1934	---	---	217	190	219	212	231	222	232	---	---	---	---	237*	116*
1935	---	---	204	208	---	---	227	218	226	232	223	213	---	252*	169*
1936	219	216	163	175	228	227	223	224	224	226	---	216	---	238*	100*
1937	219	213	220	198	166	195	222	226	230	228	220	220	213	238	104
1938	225	214	215	204	208	215	219	222	223	222	225	215	217	236	167
1939	225	225	216	188	194	218	219	218	226	228	228	229	218	241	126

*Observations for the year are incomplete; extremes are for the months shown.

Table 1. Density of Sea Water - *Continued*

Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
PORTLAND, ME. —Continued															
1940	1.0229	1.0227	1.0221	1.0186	1.0196	1.0200	1.0222	1.0227	1.0228	1.0228	1.0224	1.0224	1.0218	1.0242	1.0127
1941	224	220	223	220	223	231	235	235	235	238	237	234	230	245	189
1942	232	231	211	213	212	210	221	223	223	227	223	227	221	242	126
1943	226	227	215	220	201	217	223	224	222	218	211	224	219	235	171
1944	225	223	214	203	208	222	225	230	224	227	218	216	220	238	158
1945	221	220	194	207	182	188	216	222	221	222	210	215	210	239	129
Mean Density	1.0223	1.0221	1.0214	1.0207	1.0209	1.0218	1.0226	1.0226	1.0226	1.0226	1.0223	1.0220	1.0220		
Salinity	30.2	29.9	29.0	28.1	28.4	29.5	30.6	30.6	30.6	30.6	30.2	29.8	29.8		
Max.	1.0244	1.0246	1.0236	1.0237	1.0245	1.0246	1.Q252	1.0254	1.0246	1.0244	1.0239	1.0242		1.0254	
Mean Max.	1.0232	1.0231	1.0228	1.0225	1.0226	1.0231	1.0237	1.0236	1.0236	1.0235	1.0232	1.0231			
Mean Min.	1.0209	1.0205	1.0187	1.0176	1.0175	1.0191	1.0203	1.0209	1.0210	1.0209	1.0206	1.0206			
Min.	1.0194	1.0175	1.0100	1.0114	1.0104	1.0126	1.0126	1.0182	1.0166	1.0146	1.0169	1.0172			1.0100
PORTSMOUTH, N.H.															
1944	1.0233	1.0230	1.0209	1.0178	1.0204	1.0221	1.0217	1.0238	1.0227	1.0231	1.0226	1.0199	1.0218	1.0241	1.0136
1945	211	220	176	196	176	196	210	224	228	229	222	202	208	238	102
1946	210	215	184	194	197	---	224	212	217	219	228	229	---	236*	125*
1947	228	208	193	191	190	198	211	218	228	236	232	235	214	241	156
1948	248	247	199	198	188	183	212	224	228	230	226	221	217	253	098
1949	202	203	192	191	208	224	231	234	235	238	234	231	219	241	153
1950	221	218	212	180	210	228	236	237	230	234	225	196	219	242	117
1951	210	184	182	168	201	208	223	221	223	225	180	198	202	236	091
1952	188	184	188	157	176	191	220	224	229	231	233	207	202	236	070

Mean Density	1.0217	1.0212	1.0193	1.0184	1.0194	1.0206	1.0220	1.0226	1.0227	1.0230	1.0223	1.0213	1.0212		
Salinity	29.4	28.8	26.3	25.1	26.4	28.0	29.8	30.6	30.7	31.1	30.2	28.9	28.8		
Max.	1.0251	1.0253	1.0239	1.0228	1.0231	1.0238	1.0240	1.0242	1.0238	1.0241	1.0241	1.0241		1.0253	
Mean Max.	1.0234	1.0234	1.0228	1.0220	1.0221	1.0227	1.0232	1.0233	1.0234	1.0236	1.0234	1.0234			
Mean Min.	1.0193	1.0179	1.0138	1.0133	1.0160	1.0174	1.0205	1.0213	1.0218	1.0223	1.0202	1.0187			
Min.	1.0141	1.0124	1.0098	1.0070	1.0114	1.0126	1.0180	1.0192	1.0203	1.0206	1.0137	1.0147			1.0070
BOSTON, MASS.															
1922	1.0228	1.0227	1.0206	1.0206	1.0204	1.0199	1.0194	1.0220	1.0214	1.0225	1.0228	1.0230	1.0215	1.0236	1.0128
1923	211	219	204	197	204	219	224	227	230	229	225	209	216	234	140
1924	213	220	211	197	201	218	224	223	212	223	227	229	216	234	160
1925	229	214	208	207	220	225	230	229	228	231	227	217	222	237	167
1926	225	224	209	210	215	226	230	226	231	232	227	226	223	238	165
1927	222	216	206	217	220	234	227	216	208	215	219	206	217	232	166
1928	217	215	219	220	201	206	215	225	221	226	226	226	216	234	167
1929	222	221	209	194	210	222	228	232	231	231	230	226	221	235	143
1930	221	223	223	218	223	228	229	228	233	230	226	227	226	238	202
1931	224	216	187	203	207	186	211	219	222	229	229	227	213	232	117
1932	217	220	214	205	220	228	233	230	225	209	196	220	218	236	140
1933	202	222	185	170	208	223	224	226	210	211	222	221	210	230	141
1934	205	227	194	187	212	217	227	227	221	220	222	223	215	233	159
1935	209	216	201	182	209	206	220	227	224	231	225	224	215	234	131
1936	220	221	171	185	215	224	226	228	219	223	228	200	213	233	129
1937	205	215	215	201	199	205	218	226	221	227	219	203	213	233	152
1938	212	201	213	208	205	210	192	189	203	198	214	196	203	233	132
1939	215	210	192	166	192	219	229	230	229	229	222	228	213	235	102
1940	223	228	199	169	191	202	220	228	229	229	224	221	214	238	101
1941	215	216	225	213	219	223	232	231	234	234	233	231	226	243	175
1942	224	219	172	200	214	216	222	222	229	227	223	216	215	235	098
1943	203	216	191	217	192	216	229	230	230	226	226	229	217	257	118
1944	229	228	217	197	206	225	---	232	222	224	219	210	---	237*	160*

*Observations for the year are incomplete; extremes are for the months shown.

Table 1. Density of Sea Water - *Continued*

Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
							BOSTON, MASS. —Continued								
1945	1.0220	1.0217	1.0176	1.0213	1.0192	1.0198	1.0210	1.0219	1.0226	1.0230	1.0215	1.0177	1.0208	1.0237	1.0112
1946	188	206	181	211	204	192	226	199	205	224	229	228	208	233	123
1947	212	224	212	211	196	217	220	219	218	233	219	228	217	238	149
1948	229	223	171	187	191	175	202	221	227	219	217	221	207	239	117
1949	213	212	212	195	209	226	231	231	215	228	223	230	219	236	140
1950	226	221	206	210	209	230	231	233	231	232	222	219	222	239	139
1951	214	180	171	175	196	191	224	221	225	218	189	204	201	231	091
1952	195	184	171	173	188	200	226	214	227	228	227	223	205	234	062
Mean Density	1.0216	1.0216	1.0199	1.0198	1.0206	1.0213	1.0222	1.0223	1.0223	1.0225	1.0222	1.0219	1.0215		
Salinity	29.3	29.3	27.1	26.9	28.0	28.9	30.1	30.2	30.2	30.4	30.1	29.7	29.1		
Max.	1.0238	1.0239	1.0235	1.0257	1.0230	1.0237	1.0243	1.0239	1.0238	1.0246	1.0236	1.0237		1.0257	
Mean Max.	1.0228	1.0229	1.0224	1.0221	1.0223	1.0226	1.0231	1.0231	1.0231	1.0233	1.0231	1.0228			
Mean Min.	1.0187	1.0188	1.0155	1.0158	1.0172	1.0182	1.0203	1.0204	1.0204	1.0208	1.0200	1.0197			
Min.	1.0118	1.0062	1.0091	1.0084	1.0100	1.0101	1.0118	1.0136	1.0131	1.0140	1.0116	1.0130			1.0062
							WOODS HOLE, MASS.								
1944	---	---	1.0237	1.0236	1.0238	1.0240	1.0240	1.0240	1.0241	1.0240	1.0238	1.0237	---	1.0254*	1.0223*
1945	1.0237	1.0240	237	239	238	241	239	237	240	239	238	233	1.0238	282	230
1946	231	232	236	234	235	235	238	237	241	240	241	242	237	248	227
1947	241	239	239	239	240	243	244	241	242	244	240	240	241	258	234
1948	238	234	237	238	240	238	237	237	237	235	234	232	236	249	125
1949	233	232	---	230	235	240	241	241	245	244	243	241	---	256*	217*
1950	240	239	238	238	240	241	242	243	243	244	242	239	241	247	233
1951	238	237	235	236	239	239	240	239	240	240	238	237	238	242	234
1952	236	235	233	236	239	238	239	234	239	239	239	238	237	244	181

Mean Density	1.0237	1.0236	1.0236	1.0236	1.0238	1.0239	1.0240	1.0239	1.0241	1.0241	1.0239	1.0238	1.0238		
Salinity	32.0	31.9	31.9	31.9	32.1	32.3	32.4	32.3	32.5	32.5	32.3	32.1	32.1		
Max.	1.0254	1.0282	1.0245	1.0264	1.0255	1.0253	1.0258	1.0247	1.0248	1.0249	1.0256	1.0254		1.0282	
Mean Max.	1.0241	1.0244	1.0241	1.0242	1.0243	1.0244	1.0246	1.0243	1.0245	1.0244	1.0244,	1.0243			
Mean Min.	1.0234	1.0219	1.0232	1.0231	1.0234	1.0236	1.0236	1.0229	1.0236	1.0237	1.0236	1.0234			
Min.	1.0229	1.0125	1.0223	1.0217	1.0225	1.0232	1.0228	1.0181	1.0225	1.0232	1.0231	1.0229			1.0125
NANTUCKET SHOALS LIGHTSHIP															
1923	---	---	---	---	---	---	---	---	---	---	1.0242	1.0240	---	1.0245*	1.0237*
1924	1.0240	1.0243	1.0244	1.0245	1.0247	1.0242	1.0242	1.0251	1.0252	1.0244	237	241	1.0244	269	232
1925	241	243	244	244	247	245	243	---	---	---	---	---	---	252*	238*
NEW LONDON, CONN.															
1947	---	---	---	---	---	---	---	1.0193	1.0189	1.0211	1.0149	1.0164	---	1.0224*	1.0078*
1948	1.0170	1.0099	1.0071	1.0075	1.0073	1.0075	1.0118	174	208	210	176	177	1.0136	238	002
1949	103	095	105	094	108	160	203	213	212	218	211	183	159	232	036
1950	155	149	111	096	095	117	178	191	203	209	179	134	151	230	043
1951	107	---	---	---	---	142	173	184	200	207	113	105	---	227*	048*
1952	112	111	097	107	115	133	184	158	198	203	197	148	147	223	041
Mean Density	1.0129	1.0114	1.0096	1.0093	1.0098	1.0125	1.0171	1.0186	1.0202	1.0210	1.0171	1.0152	1.0146		
Salinity	17.9	16.0	13.6	13.2	13.9	17.4	23.4	25.4	27.5	28.5	23.4	20.9	20.1		
Max.	1.0203	1.0204	1.0182	1.0162	1.0167	1.0197	1.0216	1.0228	1.0230	1.0238	1.0224	1.0216		1.0238	
Mean Max.	1.0173	1.0171	1.0161	1.0144	1.0148	1.0173	1.0197	1.0219	1.0220	1.0228	1.0216	1.0194			
Mean Min.	1.0082	1.0062	1.0030	1.0053	1.0062	1.0068	1.0138	1.0139	1.0171	1.0185	1.0109	1.0106			
Min.	1.0043	1.0048	1.0002	1.0038	1.0043	1.0047	1.0066	1.0083	1.0118	1.0171	1.0052	1.0062			1.0002
MONTAUK, FORT POND BAY, L.I., N.Y.															
1947	---	---	---	---	---	---	---	---	1.0231	1.0233	1.0230	1.0228	---	1.0238*	1.0224*
1948	1.0240	1.0229	1.0223	1.0219	1.0223	1.0220	1.0222	---	231	233	233	228	---	245*	203*
1949	221	220	217	215	219	222	225	1.0230	231	234	233	234	1.0225	236	202

*Observations for the year are incomplete; extremes are for the months shown.

Table 1. Density of Sea Water - *Continued*
Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
							MONTAUK, FORT POND BAY, L.I., N.Y. —Continued								
1950	1.0231	1.0229	1.0228	1.0223	1.0225	1.0227	1.0230	1.0231	1.0234	1.0235	1.0233	1.0227	1.0229	1.0239	1.0218
1951	225	224	222	214	218	224	225	226	229	231	224	224	224	234	198
1952	222	220	221	213	213	215	220	223	---	---	233	229	---	237*	202*
Mean Density	1.0228	1.0224	1.0222	1.0217	1.0220	1.0222	1.0224	1.0228	1.0231	1.0233	1.0231	1.0228	1.0226		
Salinity	30.8	30.3	30.1	29.4	29.8	30.1	30.3	30.8	31.2	31.5	31.2	30.8	30.6		
Max.	1.0245	1.0232	1.0231	1.0232	1.0233	1.0231	1.0235	1.0235	1.0238	1.0240	1.0241	1.0236		1.0245	
Mean Max.	1.0232	1.0228	1.0226	1.0225	1.0226	1.0226	1.0229	1.0231	1.0235	1.0237	1.0236	1.0232			
Mean Min.	1.0220	1.0220	1.0218	1.0207	1.0214	1.0217	1.0217	1.0223	1.0226	1.0229	1.0226	1.0223			
Min.	1.0210	1.0212	1.0212	1.0198	1.0202	1.0212	1.0202	1.0219	1.0225	1.0227	1.0219	1.0218			1.0198
							NEW YORK (Willets Point), EAST RIVER, N.Y.								
1932	1.0189	1.0186	1.0192	1.0184	1.0184	1.0193	1.0191	1.0202	1.0203	1.0196	1.0188	1.0192	1.0192	1.0215	1.0169
1933	192	193	190	174	173	180	185	190	184	184	184	189	185	198	160
1934	186	---	---	173	177	182	187	192	187	185	187	190	---	201*	161*
1935	192	176	176	185	186	193	196	204	195	188	188	188	189	214	164
1936	192	---	183	182	---	186	187	193	196	193	190	190	---	204*	151*
1937	180	175	176	174	171	176	178	185	180	182	178	178	178	192	158
1938	178	174	176	174	178	181	180	185	---	177	174	163	---	191*	149*
1939	168	167	163	157	163	171	183	190	191	191	189	191	177	200	148
1940	194	195	186	170	171	167	178	184	184	185	186	187	182	204	158
1941	184	183	188	184	186	190	191	201	201	203	200	203	193	209	162
1942	200	200	191	185	188	186	186	184	187	182	181	179	187	208	153
1943	179	181	171	173	166	171	183	190	190	191	188	193	181	200	156
1944	194	195	186	177	179	185	187	194	---	---	197	189	---	210*	165*
1945	192	192	179	182	163	177	178	176	183	182	182	176	180	200	158
1946	174	178	172	173	179	170	184	185	184	186	197	184	180	200	160

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1947	183	183	181	175	175	176	184	187	188	191	189	---	---	200*	162*
1948	---	192	181	173	172	171	180	188	193	193	195	190	---	198*	159*
1949	173	177	179	176	179	182	191	194	195	196	196	197	186	203	158
1950	197	193	191	190	184	189	190	192	194	194	195	187	191	201	180
1951	187	188	185	168	177	177	182	---	---	192	186	181	---	198*	159*
1952	178	174	177	166	166	---	178	---	185	189	192	187	---	196*	158*
Mean Density	1.0186	1.0184	1.0181	1.0176	1.0176	1.0180	1.0185	1.0190	1.0190	1.0189	1.0189	1.0187	1.0184		
Salinity	25.4	25.1	24.7	24.1	24.1	24.6	25.2	25.9	25.9	25.8	25.8	25.5	25.1		
Max.	1.0208	1.0206	1.0204	1.0201	1.0200	1.0210	1.0207	1.0214	1.0215	1.0206	1.0207	1.0209		1.0215	
Mean Max.	1.0192	1.0189	1.0190	1.0184	1.0183	1.0188	1.0192	1.0197	1.0196	1.0194	1.0195	1.0192			
Mean Min.	1.0178	1.0176	1.0171	1.0167	1.0169	1.0173	1.0176	1.0184	1.0183	1.0183	1.0181	1.0179			
Min.	1.0157	1.0158	1.0151	1.0148	1.0156	1.0156	1.0164	1.0164	1.0158	1.0171	1.0161	1.0149			1.0148
NEW YORK (The Battery), N.Y.															
1927	1.0160	1.0143	1.0106	1.0137	1.0132	---	---	1.0171	1.0168	1.0153	1.0113	1.0113	---	1.0195*	1.0056*
1928	139	142	140	128	143	1.0145	1.0133	144	154	179	181	175	1.0150	196	103
1929	163	167	127	108	124	161	170	182	186	178	172	166	159	196	076
1930	148	159	128	142	165	162	180	185	186	187	181	182	167	198	103
1931	179	181	167	131	140	151	158	171	177	175	168	156	163	195	102
1932	139	144	158	122	145	172	177	179	184	162	133	153	156	201	056
1933	160	150	140	105	146	171	175	175	158	172	171	169	158	201	065
1934	158	173	149	120	152	170	183	191	181	175	175	157	165	203	074
1935	159	165	142	155	159	181	159	177	186	191	171	156	167	203	101
1936	159	180	106	110	154	176	188	199	191	186	160	160	163	204	024
1937	133	142	153	134	138	162	167	176	169	173	152	153	154	192	080
1938	156	128	141	131	157	165	152	155	138	144	152	113	144	182	035
1939	148	138	112	088	134	163	179	181	182	180	165	169	153	197	063
1940	174	180	162	084	123	130	157	171	166	174	155	144	152	196	052
1941	144	141	148	122	160	177	183	190	194	192	177	170	166	220	094
1942	158	164	128	124	154	151	153	163	166	146	132	141	148	193	062
1943	141	141	098	120	086	130	165	170	177	179	147	154	142	206	046
1944	173	173	137	101	125	152	166	180	178	177	171	153	157	206	063

*Observations for the year are incomplete; extremes are for the months shown.

Table 1. Density of Sea Water - *Continued*

Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
							NEW YORK (The Battery), N.Y.—Continued								
1945	1.0158	1.0164	1.0098	1.0122	1.0090	1.0126	1.0135	1.0134	1.0148	1.0126	1.0126	1.0123	1.0129	1.0187	1.0043
1946	126	150	111	141	138	121	169	169	170	166	167	168	150	199	068
1947	161	143	136	109	099	115	152	164	175	182	159	165	147	193	035
1948	179	176	112	116	126	139	156	168	177	183	179	165	156	199	052
1949	110	133	137	138	147	166	180	181	183	184	177	162	158	199	035
1950	143	147	136	118	143	152	173	179	169	178	164	133	153	198	048
1951	141	126	123	091	144	158	152	161	162	166	135	137	141	194	041
1952	127	134	129	088	118	130	158	169	165	178	179	147	144	207	053
Mean Density	1.0151	1.0153	1.0132	1.0119	1.0136	1.0153	1.0165	1.0172	1.0173	1.0173	1.0160	1.0153	1.0153		
Salinity	20.8	21.0	18.3	16.6	18.8	21.0	22.6	23.5	23.7	23.7	22.0	21.0	21.0		
Max.	1.0197	1.0197	1.0195	1.0179	1.0187	1.0201	1.0199	1.0203	1.0220	1.0206	1.0207	1.0199		1.0220	
Mean Max.	1.0177	1.0177	1.0168	1.0152	1.0164	1.0175	1.0183	1.0188	1.0191	1.0191	1.0184	1.0180			
Mean Min.	1.0119	1.0116	1.0086	1.0082	1.0101	1.0126	1.0141	1.0153	1.0150	1.0148	1.0128	1.0113			
Min.	1.0035	1.0072	1.0024	1.0041	1.0035	1.0059	1.0079	1.0095	1.0037	1.0085	1.0069	1.0035			1.0024
							NEW YORK (Fort Hamilton), N.Y.								
1911	1.0183	1.0189	1.0175	1.0129	1.0166	1.0181	1.0197	1.0207	1.0194	1.0168	1.0159	1.0158	1.0176	1.0224	1.0084
1912	184	190	150	099	135	172	201	211	206	197	164	157	172	223	008
1913	132	173	132	128	169	178	200	209	207	198	167	175	172	226	017
1914	187	172	164	096	139	184	191	202	203	209	210	198	180	226	048
1915	165	158	161	167	182	199	174	164	175	181	184	160	172	213	075
1916	130	146	157	110	140	153	166	180	188	193	185	156	159	214	058
1917	168	179	138	123	148	144	166	190	191	158	162	179	162	222	044
1918	---	---	123	118	147	170	184	221	201	152	167	164	---	242*	088*
1919	160	174	140	124	144	171	177	175	169	166	144	151	158	215	083
1920	176	187	138	104	141	163	174	175	177	169	167	---	---	218*	060*

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1927	182	176	142	164	161	174	190	184	163	166	120	126	162	216	054
1928	156	160	155	134	148	149	151	164	167	193	193	187	163	209	078
Mean															
Density	1.0166	1.0173	1.0148	1.0125	1.0152	1.0170	1.0181	1.0190	1.0187	1.0179	1.0168	1.0165	1.0167		
Salinity	22.7	23.7	20.4	17.4	20.9	23.3	24.7	25.9	25.5	24.4	23.0	22.6	22.9		
Max.	1.0224	1.0223	1.0213	1.0206	1.0208	1.0211	1.0218	1.0242	1.0231	1.0226	1.0226	1.0222		1.0242	
Mean Max.	1.0198	1.0208	1.0196	1.0170	1.0184	1.0190	1.0201	1.0206	1.0210	1.0205	1.0199	1.0197			
Mean Min.	1.0125	1.0131	1.0086	1.0076	1.0113	1.0142	1.0156	1.0164	1.0157	1.0144	1.0132	1.0113			
Min.	1.0087	1.0085	1.0017	1.0008	1.0089	1.0106	1.0117	1.0116	1.0091	1.0102	1.0054	1.0072			1.0008
							SANDY HOOK, N.J.								
1887	---	---	---	1.0125	1.0149	1.0179	1.0181	1.0171	1.0183	1.0194	1.0193	1.0187	---	1.0217*	1.0088*
1888	1.0153	1.0161	1.0147	120	151	176	194	198	180	175	166	157	1.0165	209	081
1889	144	170	172	162	168	174	176	161	183	177	149	146	165	214	102
1890	164	173	152	154	160	166	187	199	181	170	167	182	171	220	116
1891	157	143	140	141	182	194	202	200	191	199	202	188	178	216	104
1892	150	189	178	164	184	177	193	201	194	199	188	171	182	227	116
1893	175	155	150	150	137	181	---	---	---	---	---	---	---	205*	072*
--															
1944	---	---	---	---	---	---	192	204	197	199	190	176	---	244*	147*
1945	173	182	133	162	141	163	164	157	172	161	165	151	160	209	093
1946	148	180	144	172	178	146	177	181	187	184	190	202	174	230	112
1947	196	169	167	149	142	149	174	182	187	---	159	184	---	210*	111*
1948	184	184	149	150	154	151	169	182	191	198	197	181	174	205	112
1949	130	145	149	159	166	183	194	199	195	194	192	184	174	203	093
1950	167	164	164	151	172	180	187	191	191	193	190	156	176	205	125
1951	168	141	151	128	164	176	182	177	187	185	158	161	165	202	090
1952	152	151	158	130	135	142	182	184	178	189	195	168	164	207	071

*Observations for the year are incomplete; extremes are for the months shown.

Table 1. Density of Sea Water - *Continued*

Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
							SANDY HOOK, N.J. —Continued								
Mean Density	1.0162	1.0165	1.0154	1.0148	1.0159	1.0169	1.0184	1.0186	1.0186	1.0187	1.0180	1.0173	1.0171		
Salinity	22.2	22.6	21.2	20.4	21.8	23.1	25.1	25.4	25.4	25.5	24.6	23.7	23.4		
Max.	1.0210	1.0216	1.0209	1.0207	1.0206	1.0216	1.0227	1.0211	1.0231	1.0244	1.0215	1.0230		1.0244	
Mean Max.	1.0188	1.0189	1.0188	1.0177	1.0183	1.0191	1.0199	1.0199	1.0203	1.0204	1.0198	1.0196			
Mean Min.	1.0134	1.0132	1.0120	1.0117	1.0127	1.0146	1.0164	1.0171	1.0166	1.0169	1.0157	1.0148			
Min.	1.0093	1.0072	1.0090	1.0081	1.0071	1.0096	1.0129	1.0127	1.0134	1.0128	1.0102	1.0104			1.0071
							LONG BRANCH, N.J.								
1948	---	---	---	---	1.0206	1.0198	1.0213	1.0217	1.0223	1.0224	---	---	---	1.0236*	1.0150*
1949	---	---	1.0223	1.0231	232	234	240	233	236	230	1.0233	1.0232	---	262*	205*
1950	1.0237	1.0232	229	236	243	254	260	261	257	242	247	231	1.0244	282	210
1951	234	234	230	240	240	244	247	239	254	247	231	232	239	269	207
1952	229	230	233	240	238	259	242	239	248	231	233	231	238	277	213
Mean Density	1.0233	1.0232	1.0229	1.0237	1.0232	1.0238	1.0240	1.0238	1.0244	1.0235	1.0236	1.0232	1.0236		
Salinity	31.5	31.4	31.0	32.0	31.4	32.1	32.4	32.1	32.9	31.8	31.9	31.4	31.9		
Max.	1.0253	1.0256	1.0258	1.0263	1.0259	1.0277	1.0278	1.0282	1.0275	1.0262	1.0258	1.0250		1.0282	
Mean Max.	1.0251	1.0251	1.0248	1.0257	1.0252	1.0257	1.0262	1.0255	1.0257	1.0248	1.0247	1.0246			
Mean Min.	1.0219	1.0220	1.0209	1.0214	1.0206	1.0217	1.0217	1.0219	1.0223	1.0215	1.0224	1.0217			
Min.	1.0217	1.0217	1.0205	1.0208	1.0150	1.0156	1.0181	1.0201	1.0201	1.0212	1.0221	1.0215			1.0150
							ASBURY PARK, N.J.								
1945	---	---	---	---	---	---	---	---	---	---	---	1.0214	---	1.0228*	1.0194*
1946	1.0220	---	---	---	---	1.0216	1.0219	1.0215	1.0220	1.0224	1.0230	235	---	246*	193*
1947	231	1.0231	1.0233	1.0216	1.0222	211	223	---	---	---	---	---	---	244*	147*

ATLANTIC CITY, N.J.

1912	1.0232	1.0239	1.0231	1.0233	1.0234	1.0240	1.0239	1.0239	1.0238	1.0237	1.0237	1.0237	1.0236	1.0247	1.0211
1913	232	238	238	231	225	231	242	238	239	235	233	236	235	245	202
1914	240	238	237	234	221	234	232	232	236	237	237	237	235	247	210
1915	236	227	230	234	235	233	237	235	232	233	236	235	234	244	212
1916	232	232	230	---	232	229	230	230	233	236	233	229	---	239*	219*
1917	231	231	228	224	225	231	231	230	230	231	228	229	229	239	212
1918	---	233	226	224	230	229	231	231	233	231	233	230	---	240*	210*
1919	228	230	225	226	225	229	232	230	230	228	226	227	228	240	212
1920	231	229	226	228	223	219	230	229	229	235	233	228	228	239	214
--															
1923	231	229	229	228	235	237	233	232	232	230	228	227	231	242	210
1924	225	226	227	226	222	225	230	231	229	227	230	229	227	238	199
1925	234	233	230	224	235	243	241	236	239	236	232	234	235	247	205
1926	237	237	237	236	236	242	240	237	236	241	242	235	238	247	217
1927	237	237	232	231	242	239	238	238	231	229	226	222	234	250	209
1928	227	229	231	236	227	238	241	233	226	237	244	251	235	251	208
1929	238	238	238	230	236	240	242	242	241	238	236	235	238	250	210
1930	232	233	233	237	243	243	245	242	244	244	241	240	240	257	223
1931	238	239	236	235	239	236	232	229	234	238	239	238	236	247	207
1932	234	232	229	231	232	243	248	245	244	242	235	232	237	256	213
1933	232	241	245	237	241	244	242	236	236	237	236	234	238	260	210
1934	227	232	228	223	231	235	235	230	227	232	234	236	231	248	212
1935	232	231	232	226	235	234	235	236	223	231	228	234	231	243	206
1936	231	230	230	228	239	237	234	235	234	233	235	227	233	249	205
1937	223	222	229	227	235	235	228	233	231	232	232	230	230	247	207
1938	230	231	234	235	237	235	235	236	232	222	234	228	232	244	204
1939	230	229	230	231	224	237	239	229	230	237	237	240	233	246	204
1940	237	237	235	225	227	229	231	237	234	237	234	232	233	244	202
1941	231	235	237	236	242	241	243	242	247	247	246	242	241	253	221
1942	240	238	239	237	240	239	237	232	232	230	234	229	236	254	220
1943	228	230	229	230	233	236	239	243	239	241	240	244	236	251	211
1944	246	246	238	228	237	237	243	239	238	232	229	228	237	256	207

*Observations for the year are incomplete; extremes are for the months shown.

Table 1. Density of Sea Water - *Continued*

Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
ATLANTIC CITY, N.J. —Continued															
1945	1.0229	1.0236	1.0228	1.0236	1.0239	1.0237	1.0232	1.0224	1.0230	1.0230	1.0230	1.0220	1.0231	1.0242	1.0206
1946	221	224	220	227	233	229	228	231	231	231	238	237	229	245	205
1947	235	235	237	235	236	235	239	233	234	242	240	234	236	248	221
1948	237	236	229	231	227	221	235	226	232	230	233	231	231	245	197
1949	224	226	223	230	234	237	238	240	241	237	233	231	233	247	199
1950	238	233	234	237	231	243	244	242	238	239	239	234	238	251	216
1951	235	225	228	229	236	228	234	236	237	236	230	234	232	243	202
1952	228	235	228	231	224	230	235	226	230	235	235	234	231	245	201
Mean Density	1.0232	1.0233	1.0231	1.0231	1.0233	1.0235	1.0236	1.0234	1.0234	1.0235	1.0235	1.0233	1.0234		
Salinity	31.4	31.5	31.2	31.2	31.5	31.8	31.9	31.6	31.6	31.8	31.8	31.5	31.6		
Max.	1.0256	1.0253	1.0249	1.0254	1.0257	1.0260	1.0257	1.0253	1.0253	1.0252	1.0253	1.0249		1.0260	
Mean Max.	1.0239	1.0240	1.0239	1.0240	1.0242	1.0242	1.0243	1.0241	1.0240	1.0241	1.0240	1.0239			
Mean Min.	1.0224	1.0224	1.0221	1.0217	1.0221	1.0225	1.0228	1.0226	1.0226	1.0227	1.0227	1.0224			
Min.	1.0199	1.0202	1.0205	1.0201	1.0199	1.0197	1.0211	1.0210	1.0207	1.0204	1.0206	1.0206			1.0197
BREAKWATER HARBOR, DEL.															
1921	---	---	---	---	---	---	1.0222	1.0225	1.0228	1.0231	1.0225	1.0214	---	1.0235*	1.0203*
1922	1.0203	1.0209	---	1.0205	1.0209	1.0208	214	220	218	219	220	214	---	241*	187*
1923	216	209	1.0206	198	---	---	---	---	---	---	---	---	---	226*	166*
--															
1947	---	---	---	---	208	215	219	219	219	220	217	215	---	239*	168*
1948	207	218	211	200	202	200	211	212	214	206	219	211	1.0209	233	154
1949	194	184	190	208	205	210	220	223	224	227	219	220	210	234	159
1950	218	208	220	---	---	---	---	---	---	---	---	---	---	229*	180*
--															
1952	---	---	---	---	---	196	214	220	219	215	219	201	---	231*	145*

Mean Density	1.0208	1.0206	1.0207	1.0203	1.0206	1.0206	1.0217	1.0220	1.0220	1.0220	1.0220	1.0212	1.0212		
Salinity	28.2	28.0	28.1	27.6	28.0	28.0	29.4	29.8	29.8	29.8	29.8	28.8	28.8		
Max.	1.0229	1.0233	1.0232	1.0241	1.0222	1.0230	1.0231	1.0234	1.0232	1.0239	1.0238	1.0230		1.0241	
Mean Max.	1.0223	1.0220	1.0218	1.0225	1.0218	1.0219	1.0227	1.0229	1.0228	1.0229	1.0229	1.0224			
Mean Min.	1.0190	1.0188	1.0172	1.0176	1.0192	1.0177	1.0202	1.0210	1.0206	1.0201	1.0202	1.0196			
Min.	1.0159	1.0160	1.0158	1.0154	1.0184	1.0145	1.0187	1.0200	1.0186	1.0168	1.0182	1.0185			1.0145
PHILADELPHIA, PA.															
1923	0.9995	0.9995	0.9996	0.9996	0.9996	1.0001	0.9999	1.0000	0.9999	0.9997	0.9995	0.9995	0.9997	1.0012	0.9990
1924	0.9996	0.9996	0.9994	0.9996	0.9999	---	0.9994	0.9997	0.9995	0.9992	0.9991	0.9990	---	1.0002*	0.9988*
1925	0.9991	0.9992	0.9992	0.9994	0.9996	0.9996	0.9996	0.9997	0.9996	0.9994	0.9992	0.9991	0.9994	1.0005	0.9989
1926	0.9992	0.9992	0.9991	0.9991	0.9995	0.9995	0.9997	0.9996	0.9995	0.9993	0.9992	0.9992	0.9993	1.0000	0.9990
1927	0.9992	0.9992	0.9991	0.9992	0.9994	0.9997	0.9999	0.9996	0.9997	0.9995	0.9992	0.9992	0.9994	1.0004	0.9990
1928	0.9993	0.9994	0.9992	0.9996	0.9999	1.0000	0.9999	1.0001	0.9999	0.9999	0.9997	0.9996	0.9997	1.0009	0.9989
1929	0.9995	0.9996	0.9998	0.9997	0.9998	0.9999	1.0000	1.0001	1.0000	1.0001	1.0000	0.9997	0.9999	1.0007	0.9991
1930	0.9997	0.9996	0.9998	0.9999	1.0002	1.0003	1.0003	0.9999	0.9999	0.9998	0.9998	0.9997	0.9999	1.0009	0.9992
1931	0.9996	0.9997	0.9996	0.9999	1.0001	1.0001	1.0002	1.0002	1.0003	1.0001	1.0000	0.9999	1.0000	1.0011	0.9993
1932	0.9999	0.9999	0.9999	0.9999	0.9999	1.0000	0.9999	0.9999	1.0001	1.0002	1.0000	0.9997	0.9999	1.0007	0.9992
1933	0.9998	0.9998	0.9999	0.9996	1.0000	1.0000	1.0003	1.0002	1.0003	1.0001	1.0001	0.9999	1.0000	1.0008	0.9991
1934	0.9999	0.9996	0.9998	1.0000	1.0001	1.0002	1.0001	1.0001	1.0000	1.0000	0.9998	0.9997	0.9999	1.0007	0.9985
1935	0.9998	0.9996	0.9999	1.0000	1.0002	1.0003	1.0001	1.0000	1.0000	1.0002	0.9998	0.9995	1.0000	1.0008	0.9992
1936	0.9995	0.9996	0.9995	0.9997	0.9999	0.9997	0.9998	0.9999	0.9999	0.9995	0.9994	0.9994	0.9997	1.0011	0.9989
1937	0.9994	0.9995	0.9995	0.9994	0.9996	1.0000	1.0000	0.9996	1.0000	0.9997	0.9995	0.9995	0.9996	1.0006	0.9989
1938	0.9996	0.9995	0.9996	0.9998	1.0003	1.0000	1.0000	1.0001	1.0000	0.9998	0.9998	0.9993	0.9998	1.0008	0.9992
1939	0.9993	0.9993	0.9992	0.9993	0.9995	0.9995	0.9997	0.9996	0.9997	0.9994	0.9993	0.9993	0.9995	1.0001	0.9988
1940	0.9992	0.9993	0.9993	0.9992	0.9995	0.9996	0.9996	0.9996	0.9994	0.9993	0.9996	0.9993	0.9994	1.0005	0.9987
1941	0.9993	0.9993	0.9993	0.9994	0.9996	0.9996	0.9996	0.9998	0.9998	0.9997	0.9994	0.9995	0.9995	1.0002	0.9987
1942	0.9993	0.9993	0.9994	0.9994	0.9997	0.9997	1.0000	0.9997	0.9998	0.9998	0.9996	0.9995	0.9996	1.0007	0.9989
1943	0.9994	0.9994	0.9994	0.9995	0.9998	0.9999	0.9997	0.9998	0.9997	0.9996	0.9994	0.9994	0.9996	1.0005	0.9991
1944	0.9992	0.9992	0.9990	0.9991	0.9998	0.9998	0.9997	0.9996	0.9995	0.9993	0.9994	0.9993	0.9994	1.0002	0.9988

*Observations for the year are incomplete; extremes are for the months shown.

Table 1. Density of Sea Water - *Continued*
Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
PHILADELPHIA, PA. —Continued															
1945	0.9991	0.9991	0.9991	0.9995	0.9994	0.9995	0.9995	0.9996	0.9995	0.9993	0.9992	0.9992	0.9993	1.0003	0.9987
1946	0.9992	0.9994	0.9994	0.9996	0.9997	0.9999	0.9998	0.9999	0.9997	0.9995	0.9996	0.9996	0.9996	1.0007	0.9991
Mean Density	0.9994	0.9994	0.9995	0.9996	0.9998	0.9999	0.9999	0.9998	0.9998	0.9997	0.9996	0.9995	0.9997		
Salinity	0.3	0.3	0.4	0.6	0.8	0.9	0.9	0.8	0.8	0.7	0.6	0.4	0.7		
Max.	1.0002	1.0002	1.0002	1.0005	1.0008	1.0012	1.0009	1.0011	1.0011	1.0009	1.0005	1.0004		1.0012	
Mean Max.	0.9997	0.9997	0.9997	0.9999	1.0002	1.0004	1.0003	1.0004	1.0003	1.0002	0.9999	0.9997			
Mean Min.	0.9992	0.9992	0.9992	0.9993	0.9993	0.9994	0.9994	0.9993	0.9994	0.9992	0.9992	0.9992			
Min.	0.9989	0.9985	0.9989	0.9988	0.9989	0.9990	0.9988	0.9990	0.9989	0.9987	0.9987	0.9989			0.9985
KIPTOPEKE BEACH, VA.															
1951	---	---	---	---	---	---	---	---	1.0196	1.0211	1.0199	1.0197	---	1.0234*	1.0156*
1952	1.0194	1.0182	1.0176	1.0162	1.0152	1.0167	1.0180	1.0191	199	195	196	193	1.0182	240	095
CAPE CHARLES (town), VA.															
1947	---	---	---	---	---	---	1.0171	1.0175	1.0178	1.0179	1.0177	1.0171	---	1.0208*	1.0154*
1948	1.0166	1.0169	1.0167	1.0158	1.0145	1.0150	168	167	174	167	177	159	1.0164	196	115
1949	148	141	143	145	153	164	171	171	179	188	182	182	164	199	124
1950	179	174	163	155	157	168	175	182	182	175	171	153	170	200	137
1951	146	148	144	142	147	154	168	172	179	186	173	175	161	209	118
1952	162	148	141	140	130	147	162	174	176	168	---	---	---	196*	101*
Mean Density	1.0160	1.0156	1.0152	1.0148	1.0146	1.0157	1.0169	1.0174	1.0178	1.0177	1.0176	1.0168	1.0163		
Salinity	22.0	21.4	20.9	20.4	20.1	21.6	23.1	23.8	24.3	24.2	24.1	23.0	22.4		
Max.	1.0188	1.0196	1.0191	1.0175	1.0183	1.0198	1.0199	1.0195	1.0200	1.0209	1.0208	1.0204		1.0209	
Mean Max.	1.0172	1.0175	1.0180	1.0164	1.0169	1.0175	1.0190	1.0189	1.0193	1.0192	1.0197	1.0183			
Mean Min.	1.0149	1.0138	1.0134	1.0130	1.0122	1.0135	1.0146	1.0154	1.0160	1.0163	1.0160	1.0156			
Min.	1.0133	1.0124	1.0124	1.0109	1.0101	1.0124	1.0136	1.0150	1.0150	1.0154	1.0152	1.0137			1.0101

OLD POINT COMFORT, VA.

1943	---	---	---	---	---	---	---	---	---	1.0167	1.0166	1.0170	---	1.0186*	1.0149*
1944	1.0158	1.0157	1.0117	1.0125	1.0144	1.0145	1.0164	1.0182	1.0169	153	167	157	1.0153	192	068
1945	144	148	134	150	144	144	138	130	141	136	153	---	---	169*	106*
--															
1948	---	121	119	107	120	129	155	149	154	147	146	102	---	174*	029*
1949	105	097	113	113	111	136	142	146	143	159	140	151	130	180	074
1950	150	134	135	138	129	131	154	162	154	147	162	144	145	175	104
1951	144	134	119	105	118	120	143	152	158	164	158	157	139	188	086
1952	127	108	103	112	107	130	149	167	161	157	160	141	135	178	058
Mean Density	1.0138	1.0128	1.0120	1.0121	1.0125	1.0134	1.0149	1.0155	1.0154	1.0154	1.0156	1.0146	1.0140		
Salinity	19.1	17.8	16.7	16.9	17.4	18.6	20.5	21.3	21.2	21.2	21.4	20.1	19.3		
Max.	1.0175	1.0188	1.0160	1.0166	1.0156	1.0163	1.0189	1.0192	1.0186	1.0180	1.0180	1.0186		1.0192	
Mean Max.	1.0158	1.0155	1.0142	1.0141	1.0140	1.0153	1.0165	1.0169	1.0171	1.0169	1.0168	1.0166			
Mean Min.	1.0118	1.0096	1.0101	1.0089	1.0101	1.0108	1.0132	1.0140	1.0131	1.0138	1.0139	1.0116			
Min.	1.0086	1.0058	1.0086	1.0043	1.0066	1.0092	1.0111	1.0106	1.0110	1.0116	1.0119	1.0029			1.0029

RICHMOND, VA.

1947	---	---	0.9990	0.9991	0.9993	0.9994	0.9992	0.9994	0.9994	0.9994	0.9990	0.9992	---	0.9999*	0.9985*
1948	0.9991	0.9990	0.9990	0.9991	0.9993	0.9995	0.9995	0.9994	0.9992	0.9990	0.9991	0.9990	0.9992	1.0001	0.9986
1949	0.9990	0.9989	0.9993	0.9993	0.9993	0.9995	0.9997	0.9995	0.9993	0.9993	0.9992	0.9993	0.9993	1.0003	0.9986
1950	0.9992	0.9990	0.9990	0.9994	0.9997	0.9997	0.9998	0.9997	0.9996	0.9995	0.9994	0.9995	0.9995	1.0006	0.9988
1951	0.9995	0.9992	0.9995	0.9997	0.9999	1.0000	1.0001	0.9999	0.9999	0.9995	0.9993	0.9995	0.9997	1.0003	0.9988
1952	0.9994	0.9993	0.9991	0.9994	0.9998	0.9995	0.9997	0.9999	0.9995	0.9992	0.9991	0.9991	0.9994	1.0006	0.9983
Mean Density	0.9992	0.9991	0.9992	0.9993	0.9996	0.9996	0.9997	0.9996	0.9995	0.9993	0.9992	0.9993	0.9994		
Salinity	0.0	0.0	0.0	0.2	0.6	0.6	0.7	0.6	0.4	0.2	0.0	0.2	0.3		
Max.	0.9998	0.9996	1.0003	1.0001	1.0004	1.0006	1.0005	1.0006	1.0006	0.9999	1.0000	0.9999		1.0006	
Mean Max.	0.9996	0.9994	0.9996	0.9998	1.0000	1.0001	1.0001	1.0001	1.0001	0.9998	0.9996	0.9997			
Mean Min.	0.9989	0.9988	0.9989	0.9989	0.9992	0.9992	0.9992	0.9991	0.9990	0.9988	0.9986	0.9989			
Min.	0.9986	0.9986	0.9988	0.9988	0.9989	0.9986	0.9989	0.9989	0.9989	0.9983	0.9985	0.9986			0.9983

*Observations for the year are incomplete; extremes are for the months shown.

Table 1. Density of Sea Water - *Continued*

Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
							GLOUCESTER POINT, VA.								
1950	---	---	---	---	---	1.0133	1.0151	1.0155	1.0152	1.0145	1.0164	1.0148	---	1.0193*	1.0115*
1951	1.0143	1.0134	1.0124	1.0119	1.0120	131	147	152	156	163	159	157	1.0142	170	110
1952	142	124	121	114	108	126	134	160	156	155	155	142	136	201	074
Mean Density	1.0142	1.0129	1.0122	1.0116	1.0114	1.0130	1.0144	1.0156	1.0155	1.0154	1.0159	1.0149	1.0139		
Salinity	19.6	17.9	17.0	16.2	16.0	18.0	19.9	21.4	21.3	21.2	21.8	20.5	19.2		
Max.	1.0158	1.0143	1.0141	1.0133	1.0137	1.0155	1.0162	1.0186	1.0201	1.0170	1.0193	1.0170		1.0201	
Mean Max.	1.0157	1.0140	1.0136	1.0128	1.0133	1.0149	1.0159	1.0169	1.0175	1.0163	1.0176	1.0163			
Mean Min.	1.0122	1.0116	1.0106	1.0098	1.0092	1.0113	1.0129	1.0149	1.0145	1.0145	1.0140	1.0126			
Min.	1.0114	1.0111	1.0100	1.0087	1.0074	1.0104	1.0118	1.0148	1.0142	1.0132	1.0123	1.0121			1.0074
							WASHINGTON, D.C.								
1944	0.9994	0.9994	0.9994	0.9993	0.9997	0.9996	0.9997	0.9997	0.9997	0.9996	0.9995	0.9995	0.9995	1.0007	0.9988
1945	0.9993	0.9994	0.9994	0.9996	0.9994	0.9995	0.9993	0.9994	0.9994	0.9992	0.9991	0.9989	0.9993	1.0006	0.9986
1946	0.9987	0.9988	0.9988	0.9989	0.9991	0.9994	0.9994	0.9994	0.9993	0.9992	0.9991	0.9990	0.9991	1.0000	0.9985
1947	0.9988	0.9987	0.9988	0.9992	0.9995	0.9996	0.9996	0.9997	0.9995	0.9994	0.9992	0.9990	0.9992	1.0005	0.9985
1948	0.9990	0.9990	0.9994	---	---	---	0.9998	0.9997	0.9997	0.9993	0.9992	0.9992	---	1.0007*	0.9988*
1949	0.9992	0.9992	0.9993	0.9993	0.9996	0.9999	0.9998	0.9998	0.9995	0.9995	0.9993	0.9993	0.9995	1.0010	0.9989
1950	0.9992	0.9992	0.9992	0.9993	0.9999	0.9998	0.9999	0.9999	0.9997	0.9996	0.9995	0.9995	0.9996	1.0007	0.9990
1951	0.9994	0.9995	0.9996	0.9996	0.9998	0.9997	0.9999	0.9998	0.9997	0.9996	0.9996	0.9995	0.9996	1.0006	0.9992
1952	0.9995	0.9995	0.9996	0.9997	0.9997	0.9998	0.9998	0.9997	0.9996	0.9996	0.9997	0.9994	0.9996	1.0007	0.9992
Mean Density	0.9992	0.9992	0.9993	0.9994	0.9996	0.9997	0.9997	0.9997	0.9996	0.9994	0.9994	0.9993	0.9995		
Salinity	0.0	0.0	0.2	0.3	0.6	0.7	0.7	0.7	0.6	0.3	0.3	0.2	0.4		
Max.	0.9998	0.9998	1.0005	1.0002	1.0008	1.0010	1.0005	1.0007	1.0007	1.0005	0.9999	0.9999		1.0010	
Mean Max.	0.9995	0.9995	0.9998	0.9997	1.0003	1.0003	1.0001	1.0003	1.0000	0.9998	0.9997	0.9996			
Mean Min.	0.9989	0.9989	0.9990	0.9990	0.9992	0.9992	0.9993	0.9993	0.9991	0.9992	0.9991	0.9990			
Min.	0.9985	0.9985	0.9986	0.9987	0.9989	0.9990	0.9990	0.9990	0.9985	0.9989	0.9987	0.9986			0.9985

SOLOMONS, MD.

1938	1.0093	1.0094	1.0084	1.0074	1.0082	1.0089	1.0099	1.0097	1.0103	1.0108	1.0122	1.0108	1.0096	1.0127	1.0064
1939	107	101	063	---	059	078	088	101	108	117	123	---	---	131*	041*
1940	124	127	---	066	062	071	087	098	108	116	120	109	---	139*	042*
1941	099	108	108	086	093	106	107	112	124	136	136	140	113	148	065
1942	137	132	117	088	092	079	096	105	106	113	105	093	105	145	068
1943	077	078	069	067	061	054	077	094	107	128	123	116	088	135	033
1944	118	126	114	085	069	083	099	100	109	120	132	130	107	136	047
1945	120	122	083	067	076	065	071	066	084	083	090	073	083	129	045
1946	070	082	074	079	086	056	064	079	097	110	116	119	086	123	040
1947	118	106	105	091	079	063	075	078	093	102	118	120	096	126	044
1948	117	114	100	069	066	070	082	081	093	112	122	104	094	127	039
1949	075	069	066	067	070	080	085	095	111	124	128	131	092	137	046
1950	113	096	107	074	076	086	088	098	102	108	118	081	096	128	050
1951	079	069	082	074	063	080	087	090	107	114	122	117	090	126	049
1952	097	075	074	056	064	062	077	089	090	106	114	095	083	119	037
Mean Density	1.0103	1.0100	1.0089	1.0074	1.0073	1.0075	1.0085	1.0092	1.0103	1.0113	1.0119	1.0110	1.0095		
Salinity	14.5	14.1	12.7	10.7	10.6	10.8	12.2	13.1	14.5	15.8	16.6	15.4	13.5		
Max.	1.0145	1.0139	1.0130	1.0121	1.0111	1.0117	1.0117	1.0125	1.0133	1.0143	1.0142	1.0148		1.0148	
Mean Max.	1.0113	1.0109	1.0102	1.0092	1.0085	1.0088	1.0094	1.0102	1.0111	1.0121	1.0126	1.0120			
Mean Min.	1.0091	1.0088	1.0071	1.0058	1.0057	1.0061	1.0077	1.0082	1.0094	1.0105	1.0111	1.0098			
Min.	1.0046	1.0054	1.0043	1.0037	1.0039	1.0033	1.0054	1.0055	1.0076	1.0080	1.0086	1.0060			1.0033

CAMBRIDGE, MD.

1945	---	---	---	---	---	---	---	1.0039	1.0054	1.0058	1.0057	1.0043	---	1.0066*	1.0025*
1946	1.0039	1.0048	1.0052	1.0053	1.0054	1.0053	1.0041	048	067	079	085	086	1.0059	092	029
1947	082	078	076	075	067	060	057	057	066	080	094	093	074	102	041
1948	060	063	076	062	050	046	051	045	065	082	082	063	062	095	006
1949	049	042	043	044	050	058	062	068	083	092	095	096	065	104	033

*Observations for the year are incomplete; extremes are for the months shown.

Table 1. Density of Sea Water - *Continued*

Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
CAMBRIDGE, MD. —Continued															
1950	1.0097	1.0090	1.0083	1.0073	1.0063	1.0064	1.0064	1.0071	1.0079	1.0088	1.0095	1.0080	1.0079	1.0105	1.0057
1951	070	060	060	058	057	064	069	072	079	084	086	075	070	103	043
1952	064	045	048	042	041	046	059	056	066	078	081	073	058	087	023
Mean Density	1.0066	1.0061	1.0063	1.0058	1.0055	1.0056	1.0058	1.0057	1.0070	1.0080	1.0084	1.0076	1.0065		
Salinity	9.7	9.0	9.3	8.6	8.2	8.4	8.6	8.5	10.2	11.5	12.0	11.0	9.6		
Max.	1.0105	1.0093	1.0093	1.0084	1.0079	1.0075	1.0076	1.0081	1.0091	1.0103	1.0102	1.0104		1.0105	
Mean Max.	1.0080	1.0072	1.0072	1.0067	1.0063	1.0063	1.0064	1.0065	1.0078	1.0090	1.0091	1.0088			
Mean Min.	1.0046	1.0047	1.0052	1.0046	1.0044	1.0047	1.0049	1.0048	1.0058	1.0070	1.0067	1.0062			
Min.	1.0006	1.0018	1.0037	1.0023	1.0027	1.0039	1.0033	1.0025	1.0041	1.0052	1.0050	1.0029			1.0006
ANNAPOLIS, MD.															
1947	1.0079	1.0064	1.0080	1.0037	1.0037	1.0025	1.0040	1.0043	1.0057	1.0076	1.0092	1.0093	1.0060	1.0101	1.0011
1948	094	092	055	029	035	044	053	054	066	092	098	081	066	106	010
1949	032	043	053	050	042	050	061	067	086	099	111	103	066	118	008
1950	064	071	074	044	051	049	055	068	078	093	097	047	066	111	026
1951	051	037	048	036	040	060	058	063	079	090	102	089	063	107	019
1952	067	047	056	033	042	042	057	059	062	089	098	074	060	107	021
Mean Density	1.0064	1.0059	1.0061	1.0038	1.0041	1.0045	1.0054	1.0059	1.0071	1.0090	1.0100	1.0081	1.0064		
Salinity	9.4	8.8	9.0	6.0	6.4	6.9	8.1	8.8	10.3	12.8	14.1	11.6	9.4		
Max.	1.0096	1.0106	1.0089	1.0063	1.0058	1.0065	1.0077	1.0083	1.0095	1.0107	1.0118	1.0114		1.0118	
Mean Max.	1.0080	1.0074	1.0075	1.0052	1.0052	1.0056	1.0061	1.0069	1.0082	1.0101	1.0108	1.0092			
Mean Min.	1.0042	1.0036	1.0038	1.0022	1.0029	1.0034	1.0048	1.0051	1.0059	1.0080	1.0083	1.0064			
Min.	1.0008	1.0019	1.0010	1.0011	1.0016	1.0021	1.0028	1.0036	1.0044	1.0066	1.0063	1.0035			1.0008

BALTIMORE, MD.

1914	1.0076	1.0053	1.0062	1.0024	1.0026	1.0042	1.0051	1.0058	1.0066	1.0089	1.0099	1.0100	1.0062	1.0109	1.0013
1915	065	050	074	074	061	052	047	041	048	058	067	076	060	108	021
1916	050	050	059	031	026	025	019	023	051	057	066	071	044	077	014
1917	062	061	047	031	045	039	024	032	047	070	063	077	050	083	020
1918	059	056	026	032	030	023	038	047	059	062	062	067	047	079	012
1919	062	080	060	046	031	018	028	035	049	055	058	047	047	090	013
1920	063	067	041	014	022	036	045	036	059	064	063	053	047	079	011
1921	050	058	035	026	031	040	047	049	063	073	073	064	051	080	017
1922	061	069	046	030	028	025	021	042	050	060	072	082	049	087	019
1923	080	074	050	028	036	033	053	057	057	079	087	074	059	089	019
1924	042	048	---	015	014	009	010	026	043	040	062	062	---	067*	007*
1925	069	043	031	050	056	050	051	058	071	077	072	081	059	096	014
1926	083	068	053	045	048	059	064	065	061	060	043	035	057	094	026
1927	063	044	042	034	036	027	043	047	071	064	045	034	046	081	016
1928	043	043	050	032	024	027	014	020	038	049	059	065	039	071	009
1929	070	080	044	023	012	022	037	050	062	065	063	061	049	088	008
1930	050	062	046	039	049	066	058	065	083	106	125	124	073	132	028
1931	123	122	125	067	051	041	054	062	083	086	094	091	083	132	022
1932	078	061	075	043	037	036	056	065	076	081	068	070	062	090	025
1933	070	070	060	030	023	042	051	053	047	059	071	068	053	080	015
1934	063	078	062	040	039	044	048	053	058	070	069	065	057	084	026
1935	062	064	043	042	045	049	042	044	061	070	072	073	056	089	024
1936	066	051	023	013	017	035	051	063	068	077	082	079	052	089	006
1937	050	058	063	053	026	028	048	049	064	079	057	059	053	091	016
1938	059	052	050	042	048	050	052	055	070	083	084	078	060	093	028
1939	077	053	033	030	035	042	052	062	081	083	089	100	061	105	016
1940	102	100	092	031	029	037	053	064	079	081	080	067	068	115	015
1941	078	085	080	045	070	069	059	081	085	093	100	106	079	111	028
1942	096	102	073	051	049	040	058	057	069	070	058	052	064	126	024
1943	035	046	033	040	019	019	030	050	082	101	078	086	052	107	012
1944	086	094	071	053	024	043	043	053	078	097	104	097	070	118	017

*Observations for the year are incomplete: extremes are for the months shown.

Table 1. Density of Sea Water - *Continued*
Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
							BALTIMORE, MD.—Continued								
1945	1.0078	1.0095	1.0033	1.0023	1.0031	1.0028	1.0029	1.0030	1.0046	1.0040	1.0044	1.0043	1.0043	1.0105	1.0014
1946	040	049	029	041	047	025	028	039	048	072	078	074	048	093	018
1947	068	053	072	042	038	023	028	027	040	068	073	081	051	093	011
1948	085	081	061	022	032	037	045	046	072	086	081	070	060	095	014
1949	034	039	045	042	032	044	048	061	079	088	095	080	057	102	004
1950	050	063	062	037	035	029	040	061	061	075	073	037	052	083	019
1951	033	033	---	---	---	---	039	048	064	075	083	---	---	089*	015*
1952	052	038	045	024	033	030	036	047	053	078	074	066	048	096	010
Mean Density	1.0065	1.0064	1.0054	1.0036	1.0035	1.0036	1.0042	1.0049	1.0063	1.0073	1.0074	1.0071	1.0055		
Salinity	9.6	9.4	8.1	5.8	5.6	5.8	6.6	7.5	9.3	10.6	10.7	10.3	8.2		
Max.	1.0126	1.0130	1.0132	1.0114	1.0086	1.0082	1.0069	1.0090	1.0104	1.0128	1.0132	1.0127		1.0132	
Mean Max.	1.0077	1.0078	1.0072	1.0051	1.0045	1.0046	1.0049	1.0059	1.0073	1.0081	1.0083	1.0082			
Mean Min.	1.0051	1.0049	1.0036	1.0024	1.0026	1.0027	1.0035	1.0040	1.0051	1.0062	1.0064	1.0059			
Min.	1.0019	1.0014	1.0007	1.0006	1.0008	1.0007	1.0007	1.0014	1.0023	1.0027	1.0026	1.0004			1.0004
							DIAMOND SHOAL LIGHTSHIP								
1923	---	---	---	---	1.0272	1.0274	1.0261	1.0247	1.0239	---	---	1.0255	---	1.0285*	1.0221*
1924	---	---	1.0236	1.0242	239	244	256	267	260	1.0249	1.0247	267	---	293*	199*
1925	1.0254	1.0264	268	260	266	277	276	275	274	269	266	272	1.0268	286	229
1926	267	258	260	262	273	275	272	271	262	270	266	245	265	294	224
1927	259	259	249	253	272	253	255	265	252	253	254	255	257	291	213
1928	270	268	268	271	---	---	---	---	---	---	---	---	---	281*	227*
Mean Density	1.0262	1.0262	1.0256	1.0258	1.0264	1.0265	1.0264	1.0265	1.0257	1.0260	1.0258	1.0259	1.0261		
Salinity	35.3	35.3	34.5	34.8	35.5	35.7	35.5	35.7	34.6	35.0	34.8	34.9	35.1		
Max.	1.0284	1.0283	1.0280	1.0281	1.0294	1.0290	1.0284	1.0293	1.0287	1.0285	1.0288	1.0286		1.0294	
Mean Max.	1.0280	1.0278	1.0276	1.0279	1.0284	1.0282	1.0281	1.0284	1.0278	1.0281	1.0283	1.0276			
Mean Min.	1.0232	1.0234	1.0227	1.0225	1.0240	1.0237	1.0237	1.0238	1.0235	1.0230	1.0237	1.0240			
Min.	1.0224	1.0222	1.0215	1.0207	1.0222	1.0200	1.0204	1.0221	1.0222	1.0199	1.0217	1.0231			1.0199

SOUTHPORT, N.C.

1946	---	---	1.0141	1.0145	1.0114	1.0146	1.0093	1.0114	1.0145	1.0146	1.0164	1.0173	---	1.0240*	1.0020*
1947	1.0113	1.0169	125	098	177	204	168	180	138	147	119	140	1.0148	260	018
1948	132	064	091	121	171	159	197	200	224	194	155	103	151	260	000
1949	135	126	136	151	126	161	138	165	132	193	165	183	151	249	016
1950	163	170	153	190	161	182	100	168	188	203	204	187	172	268	0.9991
1951	193	195	172	145	191	219	200	184	223	234	208	188	196	256	1.0009
1952	183	133	089	137	159	199	219	202	171	206	206	177	173	256	015
Mean Density	1.0153	1.0143	1.0130	1.0141	1.0157	1.0181	1.0159	1.0173	1.0174	1.0189	1.0174	1.0164	1.0162		
Salinity	21.0	19.7	18.0	19.5	21.6	24.7	21.8	23.7	23.8	25.8	23.8	22.5	22.2		
Max.	1.0249	1.0255	1.0256	1.0238	1.0251	1.0252	1.0252	1.0265	1.0260	1.0268	1.0256	1.0255		1.0268	
Mean Max.	1.0240	1.0230	1.0237	1.0225	1.0230	1.0237	1.0225	1.0246	1.0248	1.0250	1.0249	1.0243			
Mean Min.	1.0067	1.0057	1.0051	1.0045	1.0075	1.0109	1.0081	1.0076	1.0100	1.0083	1.0089	1.0084			
Min.	1.0016	1.0000	1.0015	1.0009	1.0026	1.0025	1.0001	1.0021	1.0021	0.9991	1.0030	1.0009			0.9991

CHARLESTON (Customhouse Wharf), S.C. †

1922	1.0239	1.0227	1.0203	1.0208	1.0219	1.0211	---	---	1.0217	1.0222	1.0224	1.0220	---	1.0244*	1.0185*
1923	203	208	207	197	209	206	1.0219	1.0214	200	220	237	226	1.0212	249	184
1924	206	201	199	171	198	220	220	208	207	134	198	210	196	240	023
1925	184	158	195	212	233	237	233	243	250	252	244	238	223	258	130
1926	214	179	174	187	216	224	228	234	241	249	247	246	220	255	147
1927	245	244	240	240	249	248	239	198	217	234	240	244	236	257	181
1928	240	232	182	198	197	222	214	210	169	162	215	227	205	248	070
1929	219	191	170	196	210	210	215	224	222	211	217	211	208	240	143

*Observations for the year are incomplete; extremes are for the months shown.

†A distinct change in the density of the water in Charleston Harbor took place when the hydro-electric plant near Moncks Corner, S. C. began diverting large quantities of water from the Santee River into the Cooper River. The plant began operation in January 1942 but did not reach average production before March 1942. Since lighter densities have persisted under the changed conditions, the observations have been separated at the end of February 1942 and are presented as two series.

Table 1. Density of Sea Water - *Continued*

Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
	CHARLESTON (Customhouse Wharf), S.C. † - Continued														
1930	1.0202	1.0199	1.0209	1.0195	1.0218	1.0229	1.0230	1.0245	1.0246	1.0244	1.0241	1.0238	1.0225	1.0262	1.0166
1931	227	228	226	213	228	242	241	249	247	248	253	254	238	269	196
1932	250	243	240	246	243	222	221	240	229	217	206	219	231	255	130
1933	216	188	191	216	229	240	233	233	187	222	227	236	218	248	122
1934	240	235	239	242	243	241	251	253	248	237	241	236	242	259	220
1935	235	234	239	245	245	246	225	214	175	211	228	235	228	254	137
1936	223	201	191	184	195	229	237	238	239	225	217	223	217	251	161
1937	218	187	192	199	200	220	228	226	211	224	230	230	214	243	182
1938	222	230	234	238	239	236	241	240	244	238	239	243	237	257	215
1939	243	237	185	214	228	222	226	228	235	244	245	245	229	253	154
1940	244	227	215	222	234	241	242	218	216	234	245	241	232	256	160
1941	238	242	236	224	243	240	168	194	214	235	240	225	225	255	088
1942	200	205	---	---	---	---	---	---	---	---	---	---	---	264*	157*
Mean Density	1.0224	1.0214	1.0208	1.0212	1.0224	1.0229	1.0226	1.0227	1.0221	1.0223	1.0232	1.0232	1.0223		
Salinity	30.3	29.0	28.2	28.8	30.3	31.0	30.6	30.7	29.9	30.2	31.4	31.4	30.2		
Max.	1.0264	1.0251	1.0249	1.0252	1.0256	1.0255	1.0259	1.0260	1.0264	1.0269	1.0256	1.0260		1.0269	
Mean Max.	1.0240	1.0232	1.0225	1.0228	1.0238	1.0241	1.0243	1.0245	1.0241	1.0241	1.0242	1.0244			
Mean Min.	1.0210	1.0194	1.0190	1.0197	1.0207	1.0213	1.0204	1.0202	1.0189	1.0203	1.0218	1.0218			
Min.	1.0150	1.0130	1.0143	1.0146	1.0161	1.0159	1.0088	1.0160	1.0070	1.0023	1.0180	1.0173			1.0023
	CHARLESTON (Customhouse Wharf), S.C. - Second Series †														
1942	---	---	1.0144	1.0139	1.0142	1.0108	1.0160	1.0175	1.0164	1.0166	1.0146	1.0135	---	1.0240*	1.0035*
1943	1.0121	1.0109	101	098	099	117	112	121	137	154	138	155	1.0121	246	050
1944	147	117	084	085	086	110	114	116	135	132	153	132	118	216	034
1945	128	125	118	125	127	133	113	126	100	093	123	128	120	206	024
1946	107	094	112	089	074	103	137	112	133	131	115	130	111	227	030
1947	132	102	101	102	105	129	109	123	136	154	139	106	120	228	049
1948	092	086	061	070	089	103	114	125	144	137	127	091	103	228	025
1949	078	083	085	085	076	102	106	113	079	108	101	112	094	214	032

1950	113	125	124	111	109	111	116	150	128	152	151	133	127	229	038
1951	122	119	117	126	121	115	119	130	142	183	188	168	138	247	061
1952	162	141	078	079	111	111	125	151	134	123	141	129	124	237	039
	1.0120	1.0110	1.0102	1.0101	1.0104	1.0113	1.0120	1.0131	1.0130	1.0139	1.0138	1.0129	1.0120		
	16.7	15.4	14.4	14.2	14.6	15.8	16.7	18.2	18.0	19.2	19.1	17.9	16.7		
	1.0215	1.0237	1.0194	1.0198	1.0205	1.0228	1.0224	1.0240	1.0246	1.0240	1.0241	1.0247		1.0247	
	1.0176	1.0172	1.0151	1.0157	1.0156	1.0184	1.0189	1.0203	1.0205	1.0218	1.0206	1.0189			
	1.0066	1.0064	1.0063	1.0059	1.0068	1.0065	1.0065	1.0073	1.0070	1.0075	1.0076	1.0076			
	1.0034	1.0041	1.0025	1.0029	1.0030	1.0052	1.0034	1.0035	1.0024	1.0034	1.0047	1.0038			1.0024
CAINHOY, WANDO RIVER, S.C.															
1951	---	---	---	---	1.0104	1.0105	1.0097	1.0091	1.0109	1.0127	1.0138	1.0129	---	1.0148*	1.0084*
1952	1.0124	1.0105	1.0084	1.0064	078	---	---	---	---	---	---	---	---	135*	054*
NORTH CHARLESTON TERMINALS, COOPER RIVER, S.C.															
1951	---	---	---	---	---	1.0007	1.0015	1.0019	1.0028	1.0050	1.0057	1.0040	---	1.0137*	0.9992*
1952	1.0026	1.0017	1.0001	0.9998	1.0010	---	---	---	---	---	---	---	---	076*	0.9986*
CHARLESTON (Virginia - Carolina Chemical Co. Wharf), ASHLEY R., S.C.															
1951	---	---	---	---	1.0129	1.0134	1.0131	1.0127	1.0139	1.0163	1.0172	1.0156	---	1.0188*	1.0028*
1952	1.0150	1.0112	1.0085	1.0089	124	---	---	---	---	---	---	---	---	167*	038*
FORT PULASKI, SAVANNAH RIVER, GA.															
1940	1.0114	1.0099	1.0083	1.0108	1.0122	1.0139	1.0139	1.0115	1.0101	1.0142	1.0140	1.0120	1.0118	1.0231	1.0013
1941	092	116	106	115	148	160	084	148	161	168	159	137	133	237	015
1942	087	091	049	074	123	114	154	146	139	157	168	139	120	234	001
1943	---	---	067	087	114	---	---	---	---	156	148	147	---	224*	027*
1944	094	118	052	029	062	119	142	124	144	152	160	160	113	211	0.9998
1945	156	101	094	113	097	154	159	132	116	123	134	107	124	227	0.9997
1946	046	067	062	054	066	098	126	139	135	114	114	140	097	224	1.0016
1947	094	082	063	052	106	110	124	145	157	130	072	074	101	221	009
1948	082	042	045	039	093	098	125	150	131	141	135	052	094	225	004
1949	073	066	068	070	063	095	101	116	105	104	102	116	090	232	025

†See footnote (†) on page 31.

*Observations for the year are incomplete; extremes are for the months shown.

Table 1. Density of Sea Water - *Continued*
Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
	FORT PULASKI, SAVANNAH RIVER, GA. - Continued														
1950	1.0115	1.0100	1.0101	1.0117	1.0134	1.0116	1.0163	1.0159	1.0104	1.0137	1.0120	1.0140	1.0126	1.0232	1.0045
1951	126	113	111	097	113	144	162	161	173	170	165	138	139	229	043
1952	114	115	058	044	110	141	173	178	182	163	163	148	132	234	010
Mean Density	1.0099	1.0092	1.0074	1.0077	1.0104	1.0124	1.0138	1.0143	1.0137	1.0143	1.0137	1.0124	1.0116		
Salinity	14.0	13.1	10.7	11.1	14.6	17.3	19.1	19.7	19.0	19.7	19.0	17.3	16.2		
Max.	1.0219	1.0207	1.0221	1.0208	1.0237	1.0220	1.0231	1.0234	1.0227	1.0229	1.0230	1.0218		1.0237	
Mean Max.	1.0184	1.0164	1.0149	1.0142	1.0170	1.0199	1.0214	1.0219	1.0206	1.0207	1.0198	1.0185			
Mean Min.	1.0047	1.0039	1.0030	1.0029	1.0047	1.0061	1.0074	1.0075	1.0073	1.0086	1.0076	1.0070			
Min.	1.0009	0.9997	0.9998	1.0000	1.0012	1.0030	1.0024	1.0025	1.0032	1.0025	1.0025	1.0004			0.9997
	FERNANDINA, FLA.														
1944	---	---	---	---	---	1.0219	1.0204	1.0197	1.0188	1.0185	1.0195	1.0216	---	1.0246*	1.0097*
1945	1.0203	1.0209	1.0226	1.0243	1.0246	256	215	203	186	194	210	216	1.0217	275	134
1946	192	195	213	218	223	228	223	206	196	189	206	221	209	264	155
1947	226	215	194	185	214	227	222	---	218	148	146	153	---	261*	104*
1948	169	171	156	134	215	239	242	218	212	189	230	218	199	272	082
1949	199	177	193	211	216	227	236	239	193	190	216	225	210	268	147
1950	228	233	222	233	249	259	241	239	176	178	195	225	223	272	069
1951	220	220	227	247	242	254	261	260	258	221	214	223	257	276	176
1952	221	---	---	205	230	231	245	242	225	223	234	238	---	266*	063*
Mean Density	1.0207	1.0203	1.0204	1.0210	1.0229	1.0238	1.0232	1.0226	1.0206	1.0191	1.0205	1.0215	1.0214		
Salinity	28.1	27.6	27.7	28.5	31.0	32.1	31.4	30.6	28.0	26.0	27.8	29.1	29.0		
Max.	1.0254	1.0244	1.0253	1.0272	1.0270	1.0275	1.0274	1.0273	1.0276	1.0253	1.0262	1.0250		1.0276	
Mean Max.	1.0233	1.0228	1.0234	1.0241	1.0254	1.0261	1.0262	1.0263	1.0253	1.0237	1.0238	1.0239			
Mean Min.	1.0182	1.0180	1.0171	1.0182	1.0197	1.0213	1.0195	1.0167	1.0155	1.0144	1.0171	1.0191			
Min.	1.0141	1.0147	1.0097	1.0082	1.0162	1.0173	1.0134	1.0063	1.0069	1.0097	1.0104	1.0112			1.0063

MAYPORT, FLA.

1945	1.0154	1.0166	1.0185	1.0221	1.0215	1.0236	1.0116	1.0096	1.0089	1.0120	1.0128	1.0150	1.0156	1.0284	1.0020
1946	145	158	184	186	183	176	162	114	092	138	152	164	155	267	0.9999
1947	182	169	139	138	169	198	118	140	150	103	110	135	146	258	0.9998
1948	137	107	100	---	184	199	188	136	160	107	---	132	---	266*	1.0001*
1949	151	154	169	190	206	214	209	189	143	115	102	165	167	269	009
1950	141	187	183	217	241	232	206	243	175	129	109	148	184	270	014
1951	145	164	187	219	247	233	223	221	221	159	144	150	193	274	036
1952	156	160	133	154	200	207	221	227	212	143	114	161	174	267	060
Mean Density	1.0151	1.0158	1.0160	1.0189	1.0206	1.0212	1.0180	1.0171	1.0155	1.0127	1.0123	1.0151	1.0165		
Salinity	20.8	21.7	22.0	25.8	28.0	28.8	24.6	23.4	21.3	17.7	17.1	20.8	22.6		
Max.	1.0241	1.0246	1.0254	1.0284	1.0271	1.0274	1.0274	1.0269	1.0265	1.0256	1.0246	1.0252		1.0284	
Mean Max.	1.0231	1.0231	1.0235	1.0254	1.0258	1.0260	1.0256	1.0247	1.0249	1.0236	1.0226	1.0226			
Mean Min.	1.0056	1.0068	1.0070	1.0102	1.0126	1.0130	1.0102	1.0099	1.0062	1.0031	1.0039	1.0065			
Min.	1.0023	1.0020	1.0001	1.0053	1.0088	1.0062	1.0043	1.0029	0.9999	0.9998	1.0004	1.0020			0.9998

DAYTONA BEACH (ocean), FLA.

1925	---	---	---	---	1.0257	1.0262	1.0270	---	1.0267	1.0269	---	---	---	1.0274*	1.0250*
1926	---	1.0271	1.0278	1.0257	272	275	---	---	---	---	---	---	---	288*	252*
1927	---	---	---	---	---	---	271	1.0267	---	262	1.0258	1.0265	---	276*	250*
1928	1.0266	271	266	273	268	271	271	268	269	226	230	---	---	278*	184*
1929	---	---	---	---	---	266	265	---	---	241	251	247	---	279*	191*
1930	236	231	---	256	268	268	270	265	268	259	---	254	---	280*	220*
1931	253	251	---	---	262	266	268	265	262	261	264	265	---	274*	244*
1932	267	263	263	270	---	---	---	---	---	---	---	---	---	279*	257*
--															
1939	---	---	---	---	---	---	---	272	267	254	255	258	---	278*	240*
1940	257	267	269	270	271	270	269	269	265	255	259	252	1.0264	277	244
1941	252	252	253	263	270	270	267	266	258	262	257	251	260	275	236
1942	248	259	260	257	271	272	271	269	269	265	266	265	264	276	235
1943	270	269	263	271	276	274	275	269	266	260	266	262	268	293	240
1944	257	264	267	262	268	266	263	279	269	258	256	252	263	278	222

*Observations for the year are incomplete; extremes are for the months shown.

Table 1. Density of Sea Water - *Continued*
Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
DAYTONA BEACH (ocean), FLA. - Continued															
1945	1.0256	1.0263	1.0270	1.0270	1.0272	1.0273	1.0269	1.0270	1.0264	1.0246	1.0247	1.0248	1.0262	1.0261	1.0226
1946	251	246	---	263	270	274	272	270	260	249	246	244	---	283*	228*
1947	254	251	258	263	266	267	267	267	261	244	---	225	---	278*	212*
1948	240	226	241	256	267	272	272	266	261	242	261	261	255	280	213
1949	258	244	244	247	250	256	265	267	263	243	256	250	254	291	226
1950	257	266	265	268	271	271	266	266	264	---	---	---	---	275*	234*
Mean Density	1.0255	1.0256	1.0261	1.0263	1.0267	1.0269	1.0269	1.0268	1.0265	1.0253	1.0255	1.0253	1.0261		
Salinity	34.4	34.5	35.1	35.4	35.9	36.2	36.2	36.0	35.7	34.1	34.4	34.1	35.1		
Max.	1.0274	1.0278	1.0288	1.0286	1.0285	1.0285	1.0293	1.0278	1.0291	1.0289	1.0275	1.0273		1.0293	
Mean Max.	1.0263	1.0263	1.0269	1.0272	1.0274	1.0276	1.0275	1.0273	1.0273	1.0266	1.0264	1.0261			
Mean Min.	1.0245	1.0248	1.0251	1.0253	1.0256	1.0262	1.0261	1.0260	1.0250	1.0236	1.0246	1.0244			
Min.	1.0215	1.0213	1.0216	1.0230	1.0241	1.0238	1.0241	1.0247	1.0234	1.0184	1.0213	1.0212			1.0184
DAYTONA BEACH (Halifax River), FLA.															
1946	---	---	1.0096	1.0155	1.0190	1.0200	1.0161	1.0061	1.0040	1.0082	1.0125	1.0165	---	1.0213*	1.0015*
1947	1.0179	1.0178	104	041	082	101	015	---	094	069	085	136	---	186*	0.9999*
1948	153	---	---	---	---	---	---	---	---	---	---	---	---	172*	1.0097*
CANOVA BEACH, FLA.															
1951	---	---	---	---	---	1.0271	1.0269	1.0269	1.0269	1.0274	1.0263	1.0265	---	1.0304*	1.0246*
1952	1.0265	1.0266	1.0267	1.0269	1.0270	271	271	270	269	258	261	267	1.0267	284	244
PALM BEACH, FLA.															
1946	---	---	1.0274	1.0274	1.0275	1.0272	1.0273	1.0273	1.0269	1.0269	1.0271	1.0271	---	1.0286*	1.0258*

MIAMI BEACH, FLA.

1940	1.0267	1.0269	1.0268	1.0270	1.0270	1.0267	1.0269	1.0269	1.0253	1.0259	1.0260	1.0263	1.0265	1.0274	1.0229
1941	263	---	---	264	267	271	266	269	261	---	265	262	---	275*	255*
1942	266	270	272	269	267	269	271	279	274	276	278	---	---	287*	255*
1943	270	268	271	272	272	271	272	265	256	257	260	275	267	280	252
1944	261	263	---	270	267	272	271	266	266	259	259	264	---	278*	250*
1945	266	267	270	274	276	274	268	265	257	257	256	262	266	283	244
1946	262	266	270	274	277	278	269	274	266	260	263	259	268	303	252
1947	262	265	265	264	262	262	256	256	255	241	259	257	259	273	221
1948	262	261	265	265	266	268	272	271	---	---	249	261	---	275*	217*
1949	257	266	265	269	267	267	266	264	257	247	260	257	262	272	234
1950	252	264	269	269	274	274	---	262	266	---	---	---	---	278*	234*
1951	265	---	268	268	272	272	270	259	257	256	262	---	---	278*	243*
Mean Density	1.0263	1.0266	1.0268	1.0269	1.0270	1.0270	1.0268	1.0267	1.0261	1.0257	1.0261	1.0262	1.0265		
Salinity	35.4	35.8	36.0	36.2	36.3	36.3	36.0	35.9	35.1	34.6	35.1	35.3	35.7		
Max.	1.0283	1.0282	1.0283	1.0285	1.0290	1.0303	1.0288	1.0288	1.0283	1.0281	1.0286	1.0269		1.0303	
Mean Max.	1.0271	1.0272	1.0274	1.0275	1.0276	1.0278	1.0276	1.0273	1.0269	1.0267	1.0269	1.0267			
Mean Min.	1.0255	1.0261	1.0260	1.0263	1.0263	1.0262	1.0261	1.0259	1.0251	1.0247	1.0250	1.0252			
Min.	1.0234	1.0254	1.0238	1.0257	1.0255	1.0255	1.0247	1.0243	1.0229	1.0221	1.0217	1.0242			1.0217

KEY WEST, FLA.

1926	1.0272	1.0270	1.0274	1.0275	1.0272	1.0268	1.0268	1.0261	1.0264	1.0264	1.0261	1.0261	1.0268	1.0279	1.0233
1927	270	271	274	276	278	276	275	273	265	260	270	275	272	284	235
1928	275	273	268	272	271	275	266	261	256	255	265	264	267	280	237
1929	261	268	271	274	277	272	269	274	270	258	265	258	268	283	242
1930	258	257	266	266	271	253	262	265	266	267	270	264	264	279	238
1931	257	259	259	264	264	269	267	269	263	260	264	266	263	274	246
1932	248	266	271	274	274	269	275	272	270	266	272	270	269	282	206
1933	270	271	273	272	273	271	277	275	275	254	255	255	268	285	214
1934	262	268	269	273	272	272	273	272	269	268	272	272	270	282	256

*Observations for the year are incomplete; extremes are for the months shown.

Table 1. Density of Sea Water - *Continued*
Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
							KEY WEST, FLA.- Continued								
1935	1.0270	1.0271	1.0275	1.0274	1.0282	1.0284	1.0277	1.0278	1.0264	1.0263	1.0266	1.0266	1.0272	1.0289	1.0253
1936	265	261	258	268	275	264	268	267	268	270	275	268	267	279	246
1937	271	270	270	272	269	278	274	272	269	267	278	274	272	289	247
1938	270	276	275	277	277	274	274	276	273	278	275	274	275	285	263
1939	272	274	277	274	278	272	277	274	269	261	275	273	273	289	242
1940	267	268	270	269	278	280	280	276	264	270	---	---	---	286*	253*
--															
1946	---	---	275	277	275	269	270	274	272	272	273	276	---	286*	233*
1947	277	272	274	278	277	274	269	271	274	261	270	270	272	287	254
1948	268	261	268	270	272	280	278	279	269	263	270	269	271	286	255
1949	272	273	277	277	281	277	273	271	266	263	269	271	272	285	251
1950	270	271	272	270	275	277	273	270	269	263	272	273	271	281	257
1951	273	267	268	268	271	270	271	267	269	266	270	271	269	280	249
1952	270	264	271	277	273	270	267	270	271	268	269	271	270	283	243
Mean Density	1.0268	1.0268	1.0271	1.0273	1.0274	1.0272	1.0272	1.0271	1.0268	1.0264	1.0269	1.0269	1.0270		
Salinity	36.0	36.0	36.4	36.7	36.8	36.6	36.6	36.4	36.0	35.5	36.2	36.2	36.3		
Max.	1.0279	1.0280	1.0285	1.0287	1.0286	1.0289	1.0289	1.0284	1.0280	1.0284	1.0289	1.0286		1.0289	
Mean Max.	1.0272	1.0273	1.0276	1.0278	1.0280	1.0280	1.0278	1.0277	1.0274	1.0272	1.0275	1.0274			
Mean Min.	1.0260	1.0262	1.0266	1.0266	1.0266	1.0264	1.0263	1.0263	1.0260	1.0252	1.0263	1.0262			
Min.	1.0206	1.0245	1.0246	1.0248	1.0247	1.0238	1.0233	1.0233	1.0250	1.0214	1.0246	1.0242			1.0206
							ST. PETERSBURG, FLA.								
1947	1.0218	1.0216	1.0209	1.0197	1.0204	1.0208	1.0187	1.0155	1.0141	---	---	---	---	1.0227*	1.0129*
1948	176	158	172	179	194	207	205	177	167	1.0165	1.0184	1.0187	1.0181	214	145
1949	194	197	207	215	222	228	233	204	145	143	167	176	194	243	125

1950	186	199	204	210	218	223	218	201	168	173	185	191	198	234	150
1951	186	189	196	200	205	222	221	211	203	191	201	205	202	225	177
1952	209	211	209	200	208	218	---	---	---	---	---	199	---	222*	194*
Mean Density	1.0195	1.0195	1.0200	1.0200	1.0208	1.0218	1.0213	1.0190	1.0165	1.0168	1.0184	1.0192	1.0194		
Salinity	26.5	26.5	27.2	27.2	28.2	29.5	28.9	25.9	22.6	23.0	25.1	26.1	26.4		
Max.	1.0227	1.0220	1.0217	1.0219	1.0229	1.0243	1.0243	1.0229	1.0213	1.0197	1.0206	1.0210		1.0243	
Mean Max.	1.0202	1.0200	1.0207	1.0205	1.0216	1.0226	1.0222	1.0207	1.0180	1.0181	1.0192	1.0197			
Mean Min.	1.0185	1.0188	1.0192	1.0194	1.0201	1.0198	1.0202	1.0169	1.0152	1.0156	1.0176	1.0186			
Min.	1.0156	1.0146	1.0159	1.0166	1.0188	1.0140	1.0170	1.0134	1.0129	1.0125	1.0155	1.0173			1.0125
CEDAR KEYS, FLA.															
1922	1.0204	1.0214	1.0208	1.0213	1.0211	1.0206	1.0198	1.0192	1.0191	1.0206	1.0201	1.0207	1.0203	1.0234	1.0155
1923	208	203	208	212	186	212	192	175	195	184	200	218	199	233	137
1924	207	188	160	160	171	172	177	189	205	196	206	215	187	231	102
1925	214	184	166	179	196	211	202	193	219	211	207	198	198	231	097
1926	201	160	152	151	166	188	---	---	---	---	---	---	---	217*	095*
--															
1944	---	---	---	---	212	204	200	209	213	180	193	181	---	233*	109*
1945	194	192	207	224	200	197	214	199	181	190	205	186	199	237	138
1946	181	184	177	153	189	201	198	178	198	196	220	215	191	230	106
1947	223	186	180	184	180	209	199	193	186	181	181	175	190	235	119
1948	162	188	134	150	158	171	199	170	184	192	200	204	176	220	092
1949	167	186	175	168	187	203	205	169	156	170	185	200	181	226	099
1950	200	209	208	182	219	222	193	190	144	172	183	190	193	251	066
1951	202	205	207	170	185	190	201	199	188	196	191	181	193	235	102
Mean Density	1.0197	1.0192	1.0182	1.0179	1.0189	1.0199	1.0198	1.0188	1.0188	1.0190	1.0198	1.0198	1.0192		
Salinity	26.8	26.1	24.8	24.4	25.8	27.1	26.9	25.6	25.6	25.9	26.9	26.9	26.1		
Max.	1.0237	1.0229	1.0235	1.0236	1.0242	1.0251	1.0231	1.0225	1.0231	1.0225	1.0230	1.0233		1.0251	
Mean Max.	1.0216	1.0215	1.0208	1.0208	1.0215	1.0218	1.0217	1.0210	1.0213	1.0214	1.0218	1.0215			
Mean Min.	1.0171	1.0153	1.0144	1.0144	1.0152	1.0176	1.0175	1.0160	1.0157	1.0154	1.0173	1.0178			
Min.	1.0119	1.0095	1.0092	1.0102	1.0111	1.0139	1.0155	1.0120	1.0066	1.0109	1.0128	1.0150			1.0066

*Observations for the year are incomplete; extremes are for the months shown.

Table 1. Density of Sea Water - *Continued*
Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
							PENSACOLA, FLA.								
1924	1.0113	1.0061	1.0095	1.0098	1.0104	1.0088	1.0099	1.0122	1.0169	1.0180	1.0196	1.0177	1.0125	1.0227	1.0010
1925	078	049	111	154	175	181	175	193	206	203	180	174	157	223	001
1926	110	081	084	037	097	120	141	107	056	063	130	129	096	202	010
1927	143	108	066	086	147	136	125	110	162	163	178	154	131	218	017
1928	125	140	098	077	052	040	047	097	136	143	176	165	105	215	010
1929	126	130	026	084	094	117	090	110	134	107	107	075	100	189	000
1930	112	079	103	112	150	176	181	161	163	153	117	127	136	215	017
1931	117	131	127	107	135	166	164	141	156	186	138	170	151	228	010
1932	111	131	137	145	142	141	154	149	159	167	171	146	146	216	027
1933	107	103	083	029	057	151	111	091	153	131	201	188	122	229	011
1934	194	189	130	140	150	140	155	121	152	096	151	153	148	237	029
1935	155	154	075	013	070	102	131	102	124	176	191	174	126	229	007
1936	047	065	090	083	107	132	124	072	126	135	127	115	102	215	004
1937	109	108	090	050	035	067	105	102	092	120	107	099	090	158	013
1938	104	105	086	045	087	112	110	075	139	105	142	182	108	239	014
1939	---	---	060	095	---	082	095	066	068	108	175	175	---	212*	018*
1940	182	113	070	102	109	106	039	093	154	176	176	157	123	220	009
1941	121	154	125	085	174	181	119	111	159	174	186	156	146	217	019
1942	106	132	061	055	093	109	070	082	123	145	181	172	111	217	003
1943	150	150	072	059	118	123	118	124	160	191	163	179	134	216	002
1944	131	119	073	014	032	102	144	092	059	134	176	128	099	230	0.9997
1945	134	108	105	106	088	122	144	105	147	171	175	172	132	211	1.0047
1946	080	090	070	042	057	054	066	031	104	127	160	156	086	196	0.9997
1947	096	123	063	022	062	056	114	150	140	171	150	102	104	217	0.9997
1948	132	099	038	049	125	138	142	116	148	171	144	048	112	206	0.9996
1949	074	089	091	080	081	102	076	084	142	179	182	168	112	214	1.0018

1950	162	167	140	087	098	148	148	125	---	---	---	---	---	214*	037*
1951	---	---	144	081	130	144	137	167	166	187	173	184	---	229*	027*
1952	159	144	109	068	100	132	171	174	182	210	219	199	156	245	012
Mean Density	1.0121	1.0116	1.0090	1.0076	1.0102	1.0120	1.0121	1.0113	1.0139	1.0155	1.0165	1.0151	1.0122		
Salinity	16.9	16.2	12.8	11.0	14.4	16.7	16.9	15.8	19.2	21.3	22.6	20.8	17.0		
Max.	1.0220	1.0231	1.0237	1.0216	1.0222	1.0214	1.0215	1.0219	1.0225	1.0230	1.0245	1.0239		1.0245	
Mean Max.	1.0181	1.0169	1.0158	1.0135	1.0161	1.0171	1.0171	1.0169	1.0179	1.0197	1.0205	1.0199			
Mean Min.	1.0052	1.0063	1.0034	1.0036	1.0056	1.0074	1.0071	1.0068	1.0097	1.0113	1.0124	1.0091			
Min.	1.0001	1.0006	0.9997	0.9997	1.0002	1.0013	1.0021	0.9997	1.0014	1.0027	1.0032	0.9996			0.9996
GRAND ISLE (Drilling Platform 8 miles SE. of), LA.															
1949	---	---	---	---	1.0170	1.0178	1.0185	1.0204	1.0203	1.0208	1.0232	1.0238	---	1.0255*	1.0121*
1950	1.0164	1.0119	---	---	---	---	---	158	199	190	239	221	---	256*	0.9984*
1951	196	175	1.0151	1.0187	163	191	156	187	200	219	241	214	1.0190	269	1.0010
1952	180	207	199	194	---	---	204	229	228	247	259	257	---	273*	1.0107*
Mean Density	1.0180	1.0167	1.0175	1.0190	1.0166	1.0184	1.0182	1.0194	1.0208	1.0216	1.0243	1.0232	1.0195		
Salinity	24.6	22.9	23.9	25.9	22.7	25.1	24.8	26.4	28.2	29.3	32.8	31.4	26.5		
Max.	1.0257	1.0270	1.0269	1.0260	1.0246	1.0227	1.0245	1.0257	1.0254	1.0266	1.0273	1.0270		1.0273	
Mean Max.	1.0241	1.0243	1.0250	1.0253	1.0233	1.0222	1.0219	1.0234	1.0229	1.0245	1.0260	1.0257			
Mean Min.	1.0104	1.0034	1.0083	1.0112	1.0109	1.0146	1.0112	1.0151	1.0184	1.0189	1.0199	1.0165			
Min.	1.0081	0.9984	1.0012	1.0099	1.0097	1.0133	1.0021	1.0113	1.0170	1.0135	1.0156	1.0121			0.9984
EUGENE ISLAND, LA.															
1944	---	---	---	1.0040	1.0001	0.9998	1.0010	1.0055	1.0079	1.0062	1.0073	1.0034	---	1.0221*	0.9991*
1945	1.0008	1.0022	1.0002	0.9997	0.9997	1.0003	0.9997	1.0012	1.0045	1.0026	1.0043	1.0018	1.0014	1.0209	0.9989
1946	1.0039	0.9998	0.9998	1.0001	1.0007	1.0001	1.0004	1.0027	1.0085	1.0054	1.0064	1.0018	1.0025	1.0221	0.9992
1947	1.0001	1.0000	1.0026	1.0018	1.0000	1.0006	1.0005	1.0041	1.0033	1.0061	1.0052	1.0041	1.0024	1.0220	0.9986
1948	1.0013	1.0006	1.0009	1.0016	1.0003	1.0019	1.0013	1.0034	1.0064	1.0072	1.0071	1.0007	1.0027	1.0207	0.9987
1949	1.0003	0.9997	1.0002	0.9998	1.0014	1.0011	1.0009	1.0006	1.0072	1.0078	1.0019	1.0076	1.0024	1.0216	0.9988

*Observations for the year are incomplete; extremes are for the months shown.

Table 1. Density of Sea Water - *Continued*
Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
							EUGENE ISLAND, LA. - Continued								
1950	1.0033	1.0007	0.9999	0.9996	0.9999	0.9999	1.0002	1.0008	1.0007	1.0025	1.0030	1.0009	1.0010	1.0207	0.9973
1951	1.0002	0.9996	1.0002	0.9996	0.9998	1.0001	1.0001	1.0015	1.0021	1.0042	1.0015	1.0017	1.0009	1.0159	0.9986
1952	1.0011	1.0004	1.0006	1.0000	1.0002	1.0006	1.0026	1.0031	1.0062	1.0064	----	1.0047	---	1.0185*	0.9977*
Mean Density	1.0014	1.0004	1.0006	1.0007	1.0002	1.0005	1.0007	1.0025	1.0052	1.0054	1.0046	1.0030	1.0021		
Salinity	2.9	1.6	1.9	2.0	1.3	1.7	2.0	4.3	7.9	8.1	7.1	5.0	3.3		
Max.	1.0221	1.0202	1.0188	1.0220	1.0139	1.0138	1.0186	1.0221	1.0220	1.0216	1.0211	1.0208		1.0221	
Mean Max.	1.0108	1.0072	1.0089	1.0074	1.0053	1.0059	1.0072	1.0122	1.0151	1.0167	1.0173	1.0143			
Mean Min.	0.9993	0.9989	0.9992	0.9992	0.9993	0.9996	0.9995	0.9998	0.9996	1.0000	0.9996	0.9992			
Min.	0.9990	0.9973	0.9985	0.9986	0.9989	0.9992	0.9992	0.9991	0.9985	0.9986	0.9990	0.9977			0.9973
							GALVESTON, TEX.								
1922	1.0196	1.0171	1.0171	---	---	1.0074	1.0177	1.0226	1.0204	1.0192	1.0192	1.0197	---	1.0259*	1.0020*
1923	207	146	154	1.0063	1.0138	134	143	224	191	175	171	124	1.0156	249	018
1924	090	146	110	121	126	095	186	229	221	192	185	193	158	250	022
1925	200	218	204	199	203	191	228	256	244	---	130	169	---	270*	059*
1926	148	151	123	064	066	137	172	209	---	182	169	161	---	231*	020*
1927	162	117	---	193	115	---	158	201	195	147	178	153	---	245*	041*
1928	155	151	156	159	171	182	192	208	171	168	178	163	171	250	097
1929	141	125	129	110	118	085	121	191	170	---	---	---	---	239*	036*
1930	---	---	162	202	154	130	230	243	234	187	---	155	---	256*	040*
1931	141	136	174	180	188	227	230	235	237	213	211	193	197	282	051
1932	125	065	099	171	149	175	222	234	212	197	206	213	172	299	011
1933	181	167	143	165	153	156	196	176	188	177	194	210	176	242	061
1934	177	127	132	096	163	208	226	241	222	218	212	187	184	263	028

1935	179	148	---	184	084	079	140	206	189	166	164	131	---	248*	022*
1936	171	175	185	200	168	152	179	229	202	191	184	201	186	278	087
1937	163	149	135	151	193	205	230	244	221	208	209	193	192	256	011
1938	151	152	150	134	104	167	220	225	185	212	210	209	177	251	031
1939	196	186	202	182	176	179	189	234	248	228	216	216	204	256	069
1940	200	217	219	210	202	187	190	219	205	208	178	048	190	246	015
1941	101	119	122	146	125	099	124	206	205	133	114	154	137	259	038
1942	159	182	191	150	078	119	119	195	152	169	179	181	156	231	021
1943	162	191	192	179	192	169	---	---	---	---	181	173	---	264*	052*
1944	155	135	149	168	111	116	210	247	216	191	200	163	172	265	034
1945	114	127	114	068	123	152	156	182	126	128	166	152	134	245	020
1946	132	132	102	155	120	075	149	231	182	160	081	113	136	260	020
1947	118	142	157	151	154	148	188	176	181	203	199	171	166	244	045
1948	172	167	134	145	141	196	215	244	191	200	213	210	186	269	077
1949	191	170	111	128	132	170	188	191	208	116	155	146	159	246	055
1950	118	104	113	140	119	110	175	202	163	156	187	201	149	238	031
1951	198	185	196	203	188	225	225	242	209	183	197	200	204	266	144
1952	195	196	192	152	180	183	176	220	212	202	206	202	193	265	099
Mean Density	1.0160	1.0153	1.0152	1.0152	1.0144	1.0151	1.0185	1.0219	1.0199	1.0182	1.0182	1.0173	1.0171		
Salinity	22.0	21.0	20.9	20.9	19.9	20.8	25.2	29.7	27.1	24.8	24.8	23.7	23.4		
Max.	1.0244	1.0235	1.0282	1.0248	1.0264	1.0253	1.0260	1.0299	1.0295	1.0253	1.0247	1.0238		1.0299	
Mean Max.	1.0211	1.0201	1.0209	1.0202	1.0200	1.0209	1.0229	1.0252	1.0233	1.0211	1.0216	1.0212			
Mean Min.	1.0099	1.0094	1.0085	1.0086	1.0083	1.0096	1.0134	1.0174	1.0162	1.0147	1.0135	1.0129			
Min.	1.0022	1.0015	1.0011	1.0011	1.0021	1.0020	1.0038	1.0094	1.0058	1.0060	1.0020	1.0015			1.0011

ROCKPORT, TEX.

1948	---	1.0159	1.0161	1.0187	1.0193	1.0230	1.0259	1.0283	1.0217	1.0210	1.0221	1.0224	---	1.0305*	1.0107*
1949	1.0225	210	194	182	150	184	196	210	226	175	178	164	1.0191	252	129
1950	158	168	170	182	192	209	---	288	260	251	261	---	---	301*	144*
1951	252	242	242	250	254	---	292	299	269	238	232	223	---	315*	214*
1952	224	231	228	236	247	258	264	279	243	185	187	182	230	298	171

*Observations for the year are incomplete; extremes are for the months shown.

Table 1. Density of Sea Water - *Continued*
Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
ROCKPORT, TEX. - Continued															
Mean Density	1.0215	1.0202	1.0199	1.0207	1.0207	1.0220	1.0253	1.0272	1.0243	1.0212	1.0216	1.0198	1.0220		
Salinity	29.1	27.5	27.1	28.1	28.1	29.8	34.1	36.6	32.8	28.8	29.3	26.9	29.8		
Max.	1.0265	1.0271	1.0251	1.0265	1.0276	1.0272	1.0303	1.0312	1.0315	1.0271	1.0272	1.0242		1.0315	
Mean Max.	1.0228	1.0226	1.0216	1.0229	1.0226	1.0251	1.0274	1.0293	1.0287	1.0233	1.0236	1.0214			
Mean Min.	1.0204	1.0191	1.0182	1.0191	1.0193	1.0193	1.0221	1.0255	1.0192	1.0197	1.0202	1.0182			
Min.	1.0144	1.0138	1.0145	1.0147	1.0139	1.0143	1.0138	1.0186	1.0107	1.0153	1.0165	1.0129			1.0107
PORT ISABEL, TEX.															
1944	---	---	---	1.0254	1.0246	1.0247	1.0276	1.0266	1.0119	1.0215	1.0248	1.0252	---	1.0290*	1.0040*
1945	1.0244	1.0230	1.0245	248	240	271	284	284	274	216	267	273	1.0256	300	092
1946	243	239	233	257	247	239	278	284	272	216	238	234	248	297	176
1947	234	236	237	245	247	256	282	248	263	253	270	244	251	293	195
1948	252	235	233	---	---	272	274	283	273	---	---	---	---	301*	195*
1949	---	---	---	229	241	266	268	272	252	229	248	254	---	279*	137*
1950	242	241	233	246	267	220	275	279	271	244	275	272	255	310	145
1951	267	258	250	264	262	262	281	279	260	254	264	261	264	291	184
1952	254	263	262	266	276	280	282	283	275	267	277	266	271	295	238
Mean Density	1.0248	1.0243	1.0242	1.0251	1.0253	1.0257	1.0278	1.0275	1.0251	1.0237	1.0261	1.0257	1.0254		
Salinity	33.5	32.8	32.7	33.8	34.1	34.6	37.3	37.0	33.8	32.0	35.1	34.6	34.2		
Max.	1.0278	1.0274	1.0271	1.0275	1.0286	1.0289	1.0293	1.0301	1.0299	1.0286	1.0310	1.0300		1.0310	
Mean Max.	1.0262	1.0255	1.0254	1.0265	1.0270	1.0277	1.0287	1.0288	1.0287	1.0268	1.0280	1.0273			
Mean Min.	1.0231	1.0216	1.0230	1.0234	1.0226	1.0220	1.0264	1.0234	1.0200	1.0190	1.0245	1.0243			
Min.	1.0210	1.0146	1.0216	1.0196	1.0179	1.0145	1.0243	1.0089	1.0040	1.0092	1.0221	1.0223			1.0040

COATZACOALCOS (Puerto Mexico), MEXICO

1946	---	---	---	---	---	---	---	1.0017	1.0011	1.0008	1.0007	1.0004	---	1.0033*	0.9995*
1947	1.0009	1.0018	1.0039	1.0070	1.0065	1.0070	1.0018	006	0.9996	0.9998	012	011	1.0026	252	0.9989
1948	009	013	037	092	119	099	001	025	1.0027	0.9998	006	013	037	264	0.9991
1949	014	037	052	135	163	150	094	081	009	1.0004	014	048	067	273	0.9992
1950	006	028	048	070	143	074	005	000	003	0.9998	014	029	035	269	0.9993
1951	035	028	100	104	142	110	012	006	0.9996	0.9996	0.9999	009	045	268	0.9991
1952	020	060	099	094	067	004	0.9995	0.9994	0.9994	0.9995	1.0005	014	028	263	0.9989
Mean Density	1.0016	1.0031	1.0062	1.0094	1.0116	1.0084	1.0021	1.0018	1.0005	1.0000	1.0008	1.0018	1.0039		
Salinity	3.2	5.1	9.2	13.3	16.2	12.0	3.8	3.4	1.7	1.1	2.1	3.4	6.2		
Max.	1.0109	1.0168	1.0237	1.0273	1.0265	1.0268	1.0200	1.0174	1.0055	1.0029	1.0076	1.0194		1.0273	
Mean Max.	1.0064	1.0087	1.0170	1.0257	1.0229	1.0213	1.0066	1.0049	1.0018	1.0009	1.0035	1.0072			
Mean Min.	0.9996	1.0007	1.0021	1.0034	1.0054	1.0024	1.0002	1.0000	0.9997	0.9992	0.9995	0.9996			
Min.	0.9991	1.0000	1.0006	1.0014	1.0015	0.9994	0.9991	0.9990	0.9989	0.9989	0.9992	0.9992			0.9989

PROGRESO, MEXICO

1946	---	---	---	---	---	---	---	1.0280	1.0277	1.0277	1.0276	1.0271	---	1.0288*	1.0268*
1947	1.0272	1.0275	1.0283	1.0289	1.0286	1.0285	1.0283	275	273	270	274	272	1.0278	294	260
1948	270	275	279	282	282	276	274	273	274	274	270	270	275	288	264
1949	269	268	266	282	284	279	279	281	276	270	270	272	275	289	261
1950	277	277	279	---	278	275	276	279	275	279	283	---	---	290*	267*
1951	---	---	281	280	278	278	274	269	267	270	272	271	---	285*	265*
1952	281	279	282	285	282	271	269	268	268	261	262	268	273	290	248
Mean Density	1.0274	1.0275	1.0278	1.0284	1.0282	1.0277	1.0276	1.0275	1.0273	1.0272	1.0272	1.0271	1.0276		
Salinity	36.8	37.0	37.3	38.1	37.9	37.2	37.1	37.0	36.7	36.6	36.6	36.4	37.1		
Max.	1.0286	1.0283	1.0291	1.0293	1.0294	1.0289	1.0287	1.0288	1.0280	1.0286	1.0290	1.0280		1.0294	
Mean Max.	1.0278	1.0279	1.0283	1.0288	1.0286	1.0282	1.0280	1.0279	1.0277	1.0276	1.0279	1.0277			
Mean Min.	1.0269	1.0270	1.0274	1.0278	1.0277	1.0273	1.0272	1.0271	1.0268	1.0266	1.0266	1.0263			
Min.	1.0264	1.0263	1.0263	1.0273	1.0271	1.0267	1.0266	1.0266	1.0265	1.0252	1.0248	1.0251			1.0248

*Observations for the year are incomplete; extremes are for the months shown.

Table 1. Density of Sea Water - *Continued*
Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
PUERTO CORTÉS, HONDURAS															
1949	---	---	---	---	---	---	---	---	---	1.0222	1.0219	1.0228	---	1.0264*	1.0142*
1950	1.0236	1.0235	1.0254	1.0257	1.0264	1.0240	1.0220	1.0196	1.0204	174	194	209	1.0224	271	134
1951	249	253	257	258	---	---	---	---	---	---	---	---	---	272*	216*
1952	---	---	---	253	248	235	204	192	181	135	185	178	---	264*	050*
Mean Density	1.0242	1.0244	1.0256	1.0256	1.0256	1.0238	1.0212	1.0194	1.0192	1.0177	1.0199	1.0205	1.0223		
Salinity	32.7	32.9	34.5	34.5	34.5	32.1	28.8	26.4	26.1	24.2	27.1	27.8	30.2		
Max.	1.0269	1.0272	1.0270	1.0271	1.0270	1.0267	1.0262	1.0264	1.0235	1.0253	1.0264	1.0261		1.0272	
Mean Max.	1.0267	1.0266	1.0267	1.0267	1.0267	1.0264	1.0260	1.0254	1.0232	1.0230	1.0245	1.0251			
Mean Min.	1.0195	1.0212	1.0240	1.0225	1.0240	1.0142	1.0119	1.0138	1.0140	1.0115	1.0124	1.0128			
Min.	1.0172	1.0200	1.0236	1.0216	1.0227	1.0128	1.0104	1.0138	1.0139	1.0050	1.0092	1.0066			1.0050
PUERTO CABEZAS, NICARAGUA															
1949	---	---	---	---	---	---	---	---	---	1.0256	1.0244	1.0246	---	1.0266*	1.0224*
1950	---	1.0249	---	1.0262	1.0261	---	---	---	1.0251	249	229	238	---	269*	222*
1951	1.0243	244	1.0256	263	264	---	---	---	246	248	---	---	---	270*	225*
1952	---	---	---	266	265	---	---	1.0214	250	243	---	---	---	275*	174*
PUERTO LIMÓN, COSTA RICA															
1948	---	---	---	---	---	---	---	---	---	1.0258	1.0239	1.0253	---	1.0275*	1.0220*
1949	1.0249	1.0264	1.0266	1.0264	1.0250	1.0246	1.0253	1.0256	1.0259	261	221	201	1.0249	275	112
1950	253	237	255	259	205	244	220	236	258	255	229	208	238	271	088
1951	225	240	245	262	257	250	---	255	---	---	---	---	---	273*	136*
1952	---	---	---	---	---	267	---	262	261	249	245	215	---	273*	125*

Mean Density	1.0242	1.0247	1.0255	1.0262	1.0237	1.0252	1.0236	1.0252	1.0259	1.0256	1.0234	1.0219	1.0246		
Salinity	32.7	33.3	34.4	35.3	32.0	34.0	31.9	34.0	34.9	34.5	31.6	29.7	33.2		
Max.	1.0270	1.0272	1.0274	1.0274	1.0274	1.0273	1.0268	1.0273	1.0275	1.0271	1.0273	1.0275		1.0275	
Mean Max.	1.0262	1.0267	1.0268	1.0272	1.0272	1.0267	1.0262	1.0266	1.0272	1.0270	1.0263	1.0260			
Mean Min.	1.0158	1.0172	1.0207	1.0215	1.0172	1.0216	1.0172	1.0209	1.0249	1.0195	1.0150	1.0146			
Min.	1.0122	1.0102	1.0156	1.0204	1.0090	1.0181	1.0123	1.0128	1.0247	1.0130	1.0112	1.0088			1.0088

CRISTOBAL, CANAL ZONE

1949	---	---	---	---	---	---	---	1.0206	1.0216	1.0223	1.0190	1.0187	---	1.0245*	1.0131*
1950	1.0212	1.0204	1.0203	1.0207	1.0211	1.0226	1.0200	201	---	237	192	---	---	246*	153*
1951	---	212	209	212	212	214	---	204	---	---	208	202	---	234*	167*
1952	214	223	224	217	---	230	216	210	230	234	210	200	---	253*	173*
Mean Density	1.0213	1.0213	1.0212	1.0212	1.0212	1.0223	1.0208	1.0205	1.0223	1.0231	1.0200	1.0196	1.0212		
Salinity	28.9	28.9	28.8	28.8	28.8	30.2	28.2	27.8	30.2	31.2	27.2	26.7	28.6		
Max.	1.0229	1.0233	1.0240	1.0238	1.0231	1.0248	1.0236	1.0241	1.0253	1.0251	1.0237	1.0229		1.0253	
Mean Max.	1.0229	1.0222	1.0226	1.0226	1.0228	1.0241	1.0224	1.0230	1.0249	1.0245	1.0232	1.0222			
Mean Min.	1.0196	1.0200	1.0191	1.0189	1.0184	1.0200	1.0178	1.0177	1.0195	1.0200	1.0158	1.0158			
Min.	1.0195	1.0191	1.0174	1.0180	1.0179	1.0196	1.0172	1.0159	1.0186	1.0180	1.0131	1.0135			1.0131

HABANA, CUBA

1947	---	---	1.0254	1.0255	1.0257	1.0255	1.0252	1.0260	1.0243	1.0233	1.0252	1.0254	---	1.0269*	1.0185*
1948	1.0250	1.0258	260	255	254	261	261	258	262	272	255	257	1.0259	303	225
1949	260	263	262	258	264	252	255	256	258	253	257	258	258	279	190
1950	264	260	261	260	258	262	261	250	242	229	249	256	254	272	137
1951	255	256	260	250	261	263	242	246	254	245	261	260	254	283	156
1952	267	260	265	268	250	262	264	256	257	226	252	253	257	284	154

*Observations for the year are incomplete; extremes are for the months shown.

Table 1. Density of Sea Water - *Continued*
Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
HABANA, CUBA - Continued															
Mean Density	1.0259	1.0259	1.0260	1.0258	1.0257	1.0259	1.0256	1.0254	1.0253	1.0243	1.0254	1.0256	1.0256		
Salinity	34.9	34.9	35.0	34.8	34.6	34.9	34.5	34.2	34.1	32.8	34.2	34.5	34.5		
Max.	1.0278	1.0278	1.0279	1.0284	1.0276	1.0281	1.0283	1.0277	1.0287	1.0303	1.0281	1.0272		1.0303	
Mean Max.	1.0273	1.0272	1.0273	1.0270	1.0271	1.0272	1.0273	1.0270	1.0270	1.0269	1.0269	1.0270			
Mean Min.	1.0238	1.0236	1.0240	1.0227	1.0219	1.0240	1.0223	1.0214	1.0210	1.0187	1.0222	1.0233			
Min.	1.0212	1.0226	1.0228	1.0175	1.0154	1.0226	1.0168	1.0163	1.0137	1.0140	1.0151	1.0187			1.0137
GIBARA, CUBA															
1949	---	---	---	1.0275	---	---	---	---	---	---	1.0229	1.0235	---	1.0282*	1.0037*
1950	1.0236	1.0251	---	---	---	1.0260	1.0264	1.0262	1.0243	1.0236	202	248	---	273*	0.9993*
1951	259	259	1.0262	---	---	---	---	---	---	---	251	231	254	---	273*	1.0154*
1952	260	---	---	---	---	---	249	266	261	245	234	250	---	293*	011*
GUANTÁNAMO BAY, CUBA															
1947	---	---	---	---	1.0270	1.0268	1.0269	1.0273	1.0260	1.0262	1.0271	1.0270	---	1.0280*	1.0203*
1948	1.0271	1.0272	1.0274	1.0277	270	219	271	274	266	260	265	266	1.0265	282	112
1949	270	269	274	274	275	272	274	277	274	255	268	266	271	283	205
1950	269	273	275	276	278	279	277	277	269	258	250	264	270	285	233
1951	269	273	276	281	273	274	278	277	277	274	275	274	275	291	252
1952	276	280	281	280	276	271	275	278	274	278	276	277	277	291	245
Mean Density	1.0271	1.0273	1.0276	1.0278	1.0274	1.0264	1.0274	1.0276	1.0270	1.0264	1.0268	1.0270	1.0272		
Salinity	36.4	36.7	37.1	37.3	36.8	35.5	36.8	37.1	36.3	35.5	36.0	36.3	36.6		
Max.	1.0282	1.0284	1.0286	1.0291	1.0291	1.0283	1.0283	1.0285	1.0288	1.0285	1.0282	1.0280		1.0291	
Mean Max.	1.0277	1.0279	1.0280	1.0284	1.0283	1.0276	1.0279	1.0282	1.0280	1.0276	1.0276	1.0276			
Mean Min.	1.0265	1.0269	1.0271	1.0266	1.0261	1.0242	1.0266	1.0270	1.0252	1.0244	1.0258	1.0263			
Min.	1.0261	1.0264	1.0268	1.0245	1.0241	1.0112	1.0261	1.0268	1.0203	1.0205	1.0236	1.0258			1.0112

CASILDA, CUBA

1949	---	---	---	---	1.0283	---	1.0272	1.0273	1.0259	1.0268	1.0280	1.0286	---	1.0290*	1.0242*
1950	1.0284	1.0284	1.0285	1.0285	291	1.0293	290	291	---	---	263	279	---	301*	243*
1951	282	285	286	287	288	290	284	287	282	216	---	---	---	299*	107*
1952	---	---	---	---	281	278	268	266	265	259	265	279	---	287*	173*
	1.0283	1.0284	1.0286	1.0286	1.0286	1.0287	1.0278	1.0279	1.0269	1.0248	1.0269	1.0281	1.0276		
	38.0	38.1	38.4	38.4	38.4	38.5	37.3	37.5	36.2	33.5	36.2	37.7	37.3		
	1.0288	1.0299	1.0292	1.0294	1.0298	1.0301	1.0296	1.0295	1.0288	1.0295	1.0290	1.0289		1.0301	
	1.0288	1.0294	1.0292	1.0292	1.0292	1.0294	1.0287	1.0285	1.0276	1.0283	1.0278	1.0287			
	1.0272	1.0280	1.0282	1.0276	1.0279	1.0275	1.0272	1.0268	1.0257	1.0179	1.0256	1.0275			
	1.0264	1.0277	1.0282	1.0275	1.0275	1.0258	1.0260	1.0246	1.0242	1.0107	1.0243	1.0272			1.0107

PORT-AU-PRINCE, HAITI

1949	---	---	---	---	1.0270	1.0271	1.0270	---	1.0269	1.0268	1.0264	1.0264	---	1.0274*	1.0261*
1950	1.0266	1.0268	1.0269	---	271	272	271	1.0270	270	270	265	265	---	275*	257*
1951	267	269	269	1.0269	268	270	271	268	269	268	266	268	1.0268	275	262
1952	269	271	270	269	268	271	271	270	268	270	269	270	270	276	237
	1.0267	1.0269	1.0269	1.0269	1.0269	1.0271	1.0271	1.0269	1.0269	1.0269	1.0266	1.0267	1.0269		
	35.9	36.2	36.2	36.2	36.2	36.4	36.4	36.2	36.2	36.2	35.8	35.9	36.2		
	1.0272	1.0274	1.0276	1.0274	1.0273	1.0275	1.0276	1.0274	1.0274	1.0273	1.0272	1.0273		1.0276	
	1.0270	1.0272	1.0272	1.0274	1.0272	1.0274	1.0274	1.0272	1.0273	1.0272	1.0270	1.0269			
	1.0266	1.0267	1.0267	1.0267	1.0266	1.0267	1.0268	1.0266	1.0258	1.0264	1.0262	1.0265			
	1.0265	1.0265	1.0266	1.0267	1.0264	1.0265	1.0266	1.0265	1.0237	1.0262	1.0257	1.0262			1.0237

CIUDAD TRUJILLO, DOMINICAN REBUBLIC

1949	---	---	---	1.0258	1.0240	1.0249	1.0241	1.0233	1.0203	1.0213	1.0237	1.0253	---	1.0268*	1.0080*
1950	1.0256	1.0246	1.0253	247	239	242	247	243	237	227	245	252	1.0244	273	125
1951	256	220	209	197	090	099	087	126	118	140	149	135	152	266	021
1952	201	208	215	151	135	142	086	143	119	118	176	210	159	247	020

*Observations for the year are incomplete; extremes are for the months shown.

Table 1. Density of Sea Water - *Continued*
Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
CIUDAD TRUJILLO, DOMINICAN REPUBLIC - Continued															
Mean Density	1.0238	1.0225	1.0226	1.0213	1.0176	1.0183	1.0165	1.0186	1.0169	1.0174	1.0202	1.0212	1.0197		
Salinity	32.1	30.4	30.6	28.9	24.1	25.0	22.6	25.4	23.1	23.8	27.5	28.8	26.8		
Max.	1.0266	1.0264	1.0266	1.0266	1.0268	1.0266	1.0269	1.0273	1.0257	1.0257	1.0270	1.0262		1.0273	
Mean Max.	1.0255	1.0258	1.0254	1.0252	1.0248	1.0230	1.0220	1.0244	1.0225	1.0229	1.0249	1.0245			
Mean Min.	1.0212	1.0154	1.0182	1.0156	1.0109	1.0113	1.0100	1.0102	1.0087	1.0077	1.0111	1.0153			
Min.	1.0130	1.0134	1.0161	1.0038	1.0021	1.0030	1.0025	1.0035	1.0020	1.0030	1.0054	1.0034			1.0020
PUERTO PLATA, DOMINICAN REPUBLIC															
1949	---	---	---	---	1.0271	1.0271	1.0272	1.0273	1.0270	1.0270	1.0270	1.0266	---	1.0280*	1.0252*
1950	1.0260	1.0250	1.0261	1.0266	267	267	268	269	269	269	266	253	1.0264	274	222
1951	260	263	268	266	260	266	268	269	270	271	265	260	266	274	219
1952	262	---	---	---	---	268	269	270	269	270	267	262	---	273*	234*
Mean Density	1.0261	1.0256	1.0264	1.0266	1.0266	1.0268	1.0269	1.0270	1.0270	1.0270	1.0267	1.0260	1.0266		
Salinity	35.1	34.5	35.5	35.8	35.8	36.0	36.2	36.3	36.3	36.3	35.9	35.0	35.8		
Max.	1.0269	1.0268	1.0271	1.0273	1.0274	1.0280	1.0276	1.0276	1.0280	1.0274	1.0274	1.0272		1.0280	
Mean Max.	1.0269	1.0266	1.0269	1.0271	1.0271	1.0273	1.0273	1.0273	1.0275	1.0273	1.0272	1.0269			
Mean Min.	1.0241	1.0244	1.0258	1.0256	1.0248	1.0260	1.0265	1.0264	1.0265	1.0266	1.0246	1.0240			
Min.	1.0229	1.0232	1.0255	1.0254	1.0233	1.0252	1.0262	1.0259	1.0263	1.0263	1.0219	1.0222			1.0219
ST. LUCIA (Vieux Fort), B.W.I.															
1950	1.0265	1.0264	1.0261	1.0264	1.0265	1.0259	1.0251	1.0247	1.0247	1.0258	1.0260	1.0262	1.0259	1.0270	1.0231
1951	267	269	266	269	271	266	268	261	259	265	267	267	266	281	245
1952	275	269	269	273	266	263	256	261	249	256	262	264	264	288	173

Mean Density	1.0269	1.0267	1.0265	1.0269	1.0267	1.0263	1.0258	1.0256	1.0252	1.0260	1.0263	1.0264	1.0263		
Salinity	36.2	35.9	35.7	36.2	35.9	35.4	34.8	34.5	34.0	35.0	35.4	35.5	35.4		
Max.	1.0288	1.0279	1.0281	1.0279	1.0277	1.0274	1.0281	1.0272	1.0264	1.0274	1.0272	1.0278		1.0288	
Mean Max.	1.0276	1.0272	1.0272	1.0273	1.0274	1.0271	1.0267	1.0264	1.0261	1.0269	1.0270	1.0275			
Mean Min.	1.0264	1.0261	1.0256	1.0262	1.0261	1.0252	1.0248	1.0244	1.0221	1.0239	1.0252	1.0257			
Min.	1.0261	1.0260	1.0252	1.0256	1.0255	1.0246	1.0241	1.0231	1.0173	1.0207	1.0241	1.0256			1.0173
TRINIDAD (Carenage Bay), B.W.I.															
1949	---	---	---	---	---	---	1.0187	1.0139	1.0156	1.0169	1.0187	1.0188	---	1.0231*	---
1950	1.0217	1.0204	1.0232	1.0253	1.0254	1.0208	166	131	161	168	203	---	---	278*	---
1951	233	219	230	---	---	210	169	146	130	161	183	206	---	247*	---
1952	223	240	250	257	252	224	197	153	164	190	---	---	---	262*	1.0089*
Mean Density	1.0224	1.0221	1.0237	1.0255	1.0253	1.0214	1.0180	1.0142	1.0153	1.0172	1.0191	1.0197	1.0203		
Salinity	30.3	29.9	32.0	34.4	34.1	29.0	24.6	19.6	21.0	23.5	26.0	26.8	27.6		
Max.	1.0247	1.0248	1.0254	1.0278	1.0264	1.0246	1.0217	1.0185	1.0200	1.0214	1.0220	1.0231		1.0278	
Mean Max.	1.0238	1.0234	1.0245	1.0270	1.0262	1.0239	1.0199	1.0172	1.0187	1.0201	1.0210	1.0224			
Mean Min.	1.0208	1.0211	1.0224	1.0244	1.0234	1.0192	1.0162	1.0102	1.0119	1.0142	1.0171	1.0176			
Min.	1.0196	1.0196	1.0213	1.0240	1.0229	1.0180	1.0151	1.0089	1.0098	1.0132	1.0155	1.0161			1.0089
CARTAGENA, COLOMBIA															
1948	---	---	---	---	---	---	---	---	---	1.0236	1.0228	1.0255	---	1.0268*	1.0217*
1949	1.0267	1.0270	1.0272	1.0274	1.0269	1.0255	1.0250	1.0253	1.0236	221	232	261	1.0255	278	203
1950	264	270	---	---	---	235	234	247	220	208	213	227	---	274*	200*
1951	---	---	---	265	240	235	---	---	---	---	---	253	---	271*	196*
1952	256	263	266	270	249	218	226	214	210	209	233	241	238	277	171
Mean Density	1.0262	1.0268	1.0269	1.0270	1.0253	1.0236	1.0237	1.0238	1.0222	1.0218	1.0226	1.0247	1.0246		
Salinity	35.3	36.0	36.2	36.3	34.1	31.9	32.0	32.1	30.1	29.5	30.6	33.3	33.2		
Max.	1.0272	1.0274	1.0275	1.0277	1.0278	1.0266	1.0261	1.0268	1.0258	1.0246	1.0259	1.0276		1.0278	
Mean Max.	1.0271	1.0272	1.0273	1.0275	1.0274	1.0252	1.0254	1.0255	1.0240	1.0233	1.0243	1.0265			
Mean Min.	1.0253	1.0261	1.0266	1.0261	1.0230	1.0216	1.0223	1.0208	1.0200	1.0208	1.0213	1.0225			
Min.	1.0238	1.0252	1.0262	1.0255	1.0214	1.0196	1.0205	1.0182	1.0171	1.0198	1.0204	1.0204			1.0171

*Observations for the year are incomplete; extremes are for the months shown.

Table 1. Density of Sea Water - *Continued*
Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
LA GUAIRA, VENEZUELA															
1949	---	---	---	---	---	---	---	---	1.0276	1.0272	1.0269	1.0269	---	1.0285*	1.0262*
1950	1.0274	1.0276	1.0277	1.0278	1.0273	1.0272	1.0275	1.0275	273	276	272	266	1.0274	289	256
1951	273	273	270	272	272	272	273	270	270	272	268	272	271	293	225
1952	275	271	272	273	273	274	270	274	269	270	268	273	272	287	229
Mean Density	1.0274	1.0273	1.0273	1.0274	1.0273	1.0273	1.0273	1.0273	1.0272	1.0272	1.0269	1.0270	1.0272		
Salinity	36.8	36.7	36.7	36.8	36.7	36.7	36.7	36.7	36.6	36.6	36.2	36.3	36.6		
Max.	1.0281	1.0293	1.0283	1.0289	1.0287	1.0280	1.0281	1.0284	1.0285	1.0287	1.0281	1.0278		1.0293	
Mean Max.	1.0280	1.0284	1.0278	1.0282	1.0282	1.0279	1.0279	1.0279	1.0280	1.0280	1.0278	1.0276			
Mean Min.	1.0267	1.0253	1.0268	1.0266	1.0264	1.0265	1.0264	1.0266	1.0264	1.0262	1.0254	1.0264			
Min.	1.0267	1.0225	1.0264	1.0264	1.0262	1.0265	1.0260	1.0265	1.0261	1.0256	1.0229	1.0256			1.0225
CARENERO, VENEZUELA															
1949	---	---	---	---	---	---	---	---	---	1.0265	1.0258	1.0212	---	1.0279*	1.0123*
1950	1.0200	1.0210	1.0187	1.0248	1.0255	1.0222	1.0214	1.0248	1.0257	262	264	217	1.0232	284	139
1951	---	196	223	266	268	260	254	262	263	264	261	260	---	280*	148*
1952	259	256	266	279	260	271	270	268	271	268	264	262	266	287	249
Mean Density	1.0230	1.0221	1.0225	1.0264	1.0261	1.0251	1.0246	1.0259	1.0264	1.0265	1.0262	1.0238	1.0249		
Salinity	31.1	29.9	30.4	35.5	35.1	33.8	33.2	34.9	35.5	35.7	35.3	32.1	33.6		
Max.	1.0264	1.0275	1.0281	1.0287	1.0274	1.0278	1.0278	1.0280	1.0281	1.0284	1.0276	1.0274		1.0287	
Mean Max.	1.0262	1.0268	1.0266	1.0277	1.0273	1.0272	1.0267	1.0275	1.0272	1.0276	1.0270	1.0263			
Mean Min.	1.0198	1.0187	1.0189	1.0243	1.0248	1.0218	1.0211	1.0244	1.0252	1.0249	1.0247	1.0207			
Min.	1.0148	1.0148	1.0144	1.0219	1.0232	1.0161	1.0139	1.0217	1.0235	1.0233	1.0225	1.0123			1.0123

CUMANÁ, VENEZUELA

1949	---	---	---	---	---	---	---	---	1.0259	1.0261	1.0271	1.0273	---	1.0285*	1.0188*
1950	1.0275	1.0279	1.0275	1.0273	1.0269	1.0269	1.0281	1.0257	269	267	266	275	1.0271	289	169
1951	272	262	274	264	275	268	262	248	253	264	267	264	264	295	152
1952	274	273	271	266	264	272	259	254	249	258	269	274	265	282	176
Mean Density	1.0274	1.0271	1.0273	1.0268	1.0269	1.0270	1.0267	1.0253	1.0258	1.0262	1.0268	1.0272	1.0267		
Salinity	36.8	36.4	36.7	36.0	36.2	36.3	35.9	34.1	34.8	35.3	36.0	36.6	35.9		
Max.	1.0288	1.0289	1.0286	1.0295	1.0284	1.0281	1.0277	1.0291	1.0279	1.0283	1.0284	1.0287		1.0295	
Mean Max.	1.0283	1.0284	1.0283	1.0286	1.0280	1.0277	1.0276	1.0283	1.0276	1.0278	1.0280	1.0283			
Mean Min.	1.0258	1.0240	1.0242	1.0227	1.0253	1.0225	1.0223	1.0166	1.0197	1.0206	1.0214	1.0246			
Min.	1.0246	1.0182	1.0210	1.0174	1.0243	1.0163	1.0194	1.0152	1.0166	1.0176	1.0201	1.0217			1.0152

CARÚPANO, VENEZUELA

1949	---	---	---	---	---	---	---	---	---	1.0271	1.0272	1.0265	---	1.0275*	1.0230*
1950	1.0273	1.0273	1.0272	1.0272	1.0270	1.0267	1.0268	1.0267	1.0268	267	266	267	1.0269	277	255
1951	269	270	269	268	266	265	267	267	269	271	273	273	269	278	237
1952	272	274	276	273	276	273	275	268	272	270	272	274	273	281	260
Mean Density	1.0271	1.0272	1.0272	1.0271	1.0271	1.0268	1.0270	1.0267	1.0270	1.0270	1.0271	1.0270	1.0270		
Salinity	36.4	36.6	36.6	36.4	36.4	36.0	36.3	35.9	36.3	36.3	36.4	36.3	36.3		
Max.	1.0276	1.0277	1.0279	1.0279	1.0281	1.0281	1.0280	1.0272	1.0275	1.0277	1.0278	1.0279		1.0281	
Mean Max.	1.0275	1.0276	1.0276	1.0275	1.0275	1.0274	1.0273	1.0271	1.0273	1.0274	1.0274	1.0275			
Mean Min.	1.0260	1.0269	1.0270	1.0266	1.0265	1.0254	1.0266	1.0263	1.0267	1.0263	1.0268	1.0258			
Min.	1.0255	1.0266	1.0265	1.0264	1.0259	1.0237	1.0264	1.0260	1.0265	1.0254	1.0264	1.0230			1.0230

BELÉM, BRAZIL

1950	1.0002	1.0001	1.0001	---	0.9998	0.9999	0.9999	1.0000	---	1.0002	1.0001	1.0001	---	1.0006*	0.9995*
1951	1.0001	1.0000	0.9999	0.9999	1.0001	1.0003	1.0002	1.0005	1.0003	1.0004	1.0008	1.0004	1.0002	1.0015	0.9996
1952	1.0000	0.9999	0.9999	---	---	1.0000	1.0001	---	---	---	---	---	---	1.0004*	0.9994*

*Observations for the year are incomplete; extremes are for the months shown.

Table 1. Density of Sea Water - *Continued*
Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
							SALINÓPOLIS, BRAZIL								
1949	---	---	---	---	---	---	---	---	---	---	1.0267	1.0272	---	---	---
1950	1.0215	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1951	---	1.0270	1.0210	---	---	1.0207	---	1.0264	1.0275	1.0282	289	286	---	1.0294*	1.0145*
1952	---	---	---	---	---	---	---	230	253	266	273	279	---	292*	207*
							FORTALEZA (Mucuripe), BRAZIL								
1951	---	---	---	---	---	---	---	---	1.0279	1.0283	1.0283	1.0284	---	1.0299*	1.0275*
1952	1.0285	1.0286	1.0287	1.0284	1.0283	1.0284	1.0282	1.0281	281	283	285	287	1.0284	303	266
							RECIFE, BRAZIL								
1949	---	---	---	---	---	---	---	---	---	1.0258	1.0264	1.0242	---	1.0284*	1.0134*
1950	1.0266	1.0272	1.0260	---	---	---	1.0228	1.0220	1.0220	255	266	265	---	280*	144*
1951	269	260	276	1.0269	1.0229	---	197	230	248	256	260	253	---	292*	123*
1952	264	268	238	252	225	1.0244	234	235	252	262	271	273	1.0252	284	132
							SALVADOR, BRAZIL								
1949	---	---	---	---	---	---	---	---	---	1.0265	1.0267	1.0260	---	1.0270*	1.0249*
1950	1.0269	1.0270	1.0269	1.0268	1.0257	1.0257	1.0256	1.0260	1.0263	267	268	---	---	274*	248*
1951	---	277	280	273	264	260	260	266	270	274	276	---	---	288*	246*
1952	279	280	279	278	---	261	266	267	270	278	278	271	---	286*	252*
Mean Density	1.0274	1.0276	1.0276	1.0273	1.0260	1.0259	1.0261	1.0264	1.0268	1.0271	1.0272	1.0266	1.0268		
Salinity	36.8	37.1	37.1	36.7	35.0	34.9	35.1	35.5	36.0	36.4	36.6	35.8	36.0		
Max.	1.0284	1.0286	1.0288	1.0284	1.0276	1.0270	1.0271	1.0273	1.0277	1.0280	1.0282	1.0280		1.0288	
Mean Max.	1.0278	1.0281	1.0281	1.0279	1.0273	1.0267	1.0265	1.0269	1.0273	1.0274	1.0276	1.0274			
Mean Min.	1.0271	1.0272	1.0272	1.0262	1.0252	1.0253	1.0252	1.0260	1.0262	1.0267	1.0268	1.0250			
Min.	1.0266	1.0266	1.0266	1.0252	1.0248	1.0249	1.0246	1.0256	1.0261	1.0259	1.0260	1.0249			1.0246

CANAVIEIRAS, BRAZIL

1952	---	1.0162	1.0105	1.0095	1.0080	1.0097	1.0120	1.0088	1.0108	1.0120	1.0126	1.0035	---	1.0241*	0.9990*

RIO DE JANEIRO (Fortaleza de Santa Cruz), BRAZIL

1949	---	---	---	---	---	---	---	---	---	1.0264	1.0249	1.0243	---	1.0270*	1.0228*
1950	1.0227	1.0181	1.0222	1.0195	1.0226	1.0250	1.0254	1.0256	1.0262	260	253	234	1.0235	269	122
1951	230	235	222	212	218	250	261	260	259	261	261	259	244	270	178
1952	250	229	206	237	245	255	255	259	254	252	239	233	243	266	175
Mean Density	1.0236	1.0215	1.0217	1.0215	1.0230	1.0252	1.0257	1.0258	1.0258	1.0259	1.0250	1.0242	1.0241		
Salinity	31.9	29.1	29.4	29.1	31.1	34.0	34.6	34.8	34.8	34.9	33.7	32.7	32.5		
Max.	1.0265	1.0265	1.0252	1.0253	1.0257	1.0270	1.0270	1.0268	1.0269	1.0270	1.0265	1.0265		1.0270	
Mean Max.	1.0261	1.0246	1.0248	1.0249	1.0255	1.0264	1.0266	1.0266	1.0264	1.0266	1.0262	1.0258			
Mean Min.	1.0184	1.0181	1.0186	1.0195	1.0203	1.0236	1.0242	1.0250	1.0250	1.0248	1.0241	1.0219			
Min.	1.0122	1.0145	1.0175	1.0168	1.0178	1.0228	1.0240	1.0244	1.0247	1.0241	1.0228	1.0191			1.0122

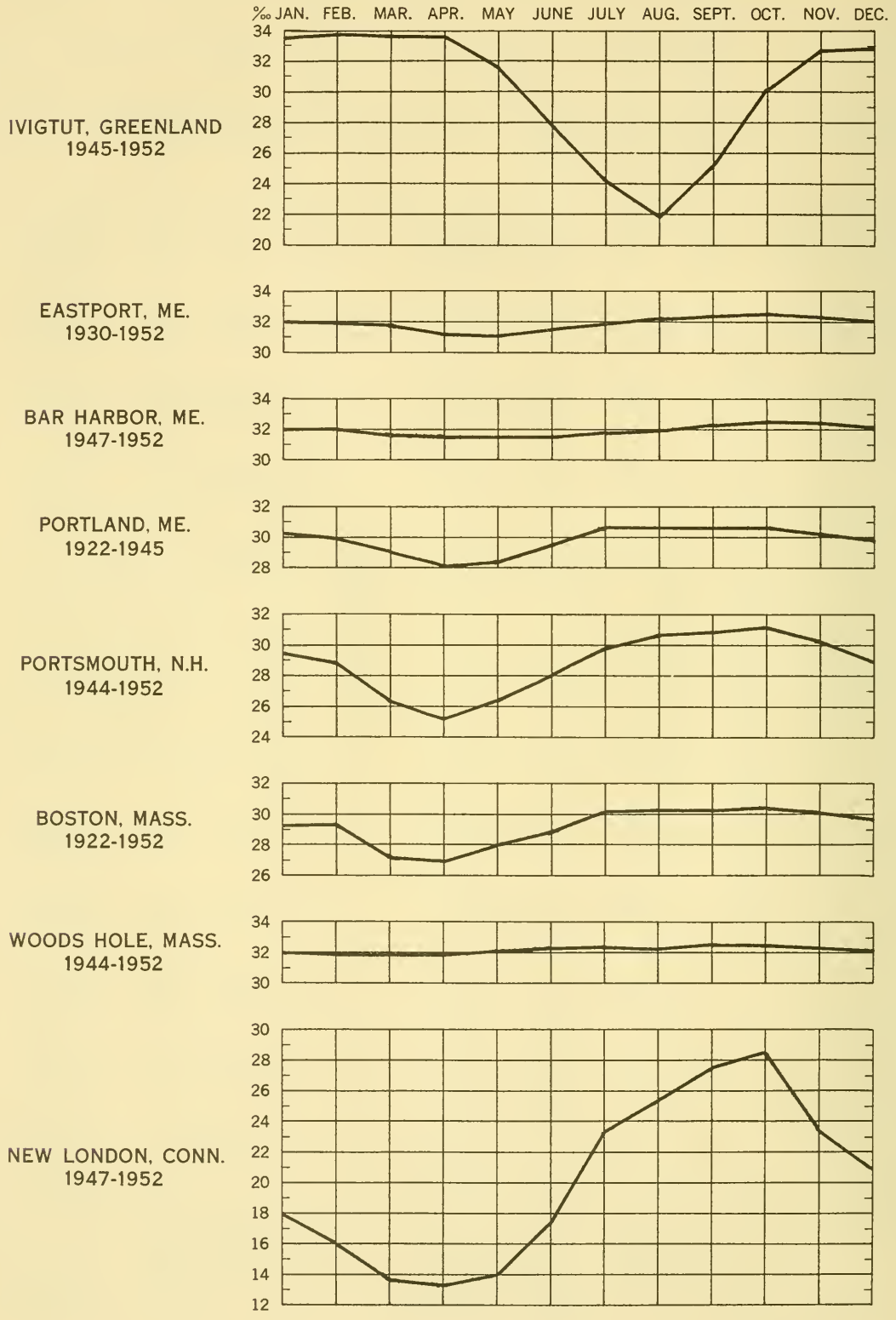
IMBITUBA, BRAZIL

1949	---	---	---	---	---	---	---	---	---	1.0265	1.0265	1.0266	---	1.0270*	1.0259*
1950	1.0262	1.0265	1.0262	1.0267	1.0265	1.0264	1.0260	1.0243	1.0255	259	266	264	1.0261	273	222
1951	262	263	268	251	257	264	258	265	262	248	260	264	260	271	243
1952	263	266	266	266	255	252	244	253	243	243	255	262	256	271	232
Mean Density	1.0262	1.0265	1.0265	1.0261	1.0259	1.0260	1.0254	1.0254	1.0253	1.0254	1.0262	1.0264	1.0259		
Salinity	35.3	35.7	35.7	35.1	34.9	35.0	34.2	34.2	34.1	34.2	35.3	35.5	34.9		
Max.	1.0267	1.0270	1.0270	1.0270	1.0273	1.0271	1.0268	1.0269	1.0267	1.0270	1.0269	1.0269		1.0273	
Mean Max.	1.0267	1.0269	1.0269	1.0266	1.0269	1.0270	1.0263	1.0267	1.0265	1.0266	1.0268	1.0268			
Mean Min.	1.0257	1.0260	1.0256	1.0257	1.0252	1.0251	1.0244	1.0242	1.0244	1.0244	1.0254	1.0259			
Min.	1.0256	1.0258	1.0248	1.0247	1.0247	1.0242	1.0232	1.0222	1.0236	1.0233	1.0242	1.0254			1.0222

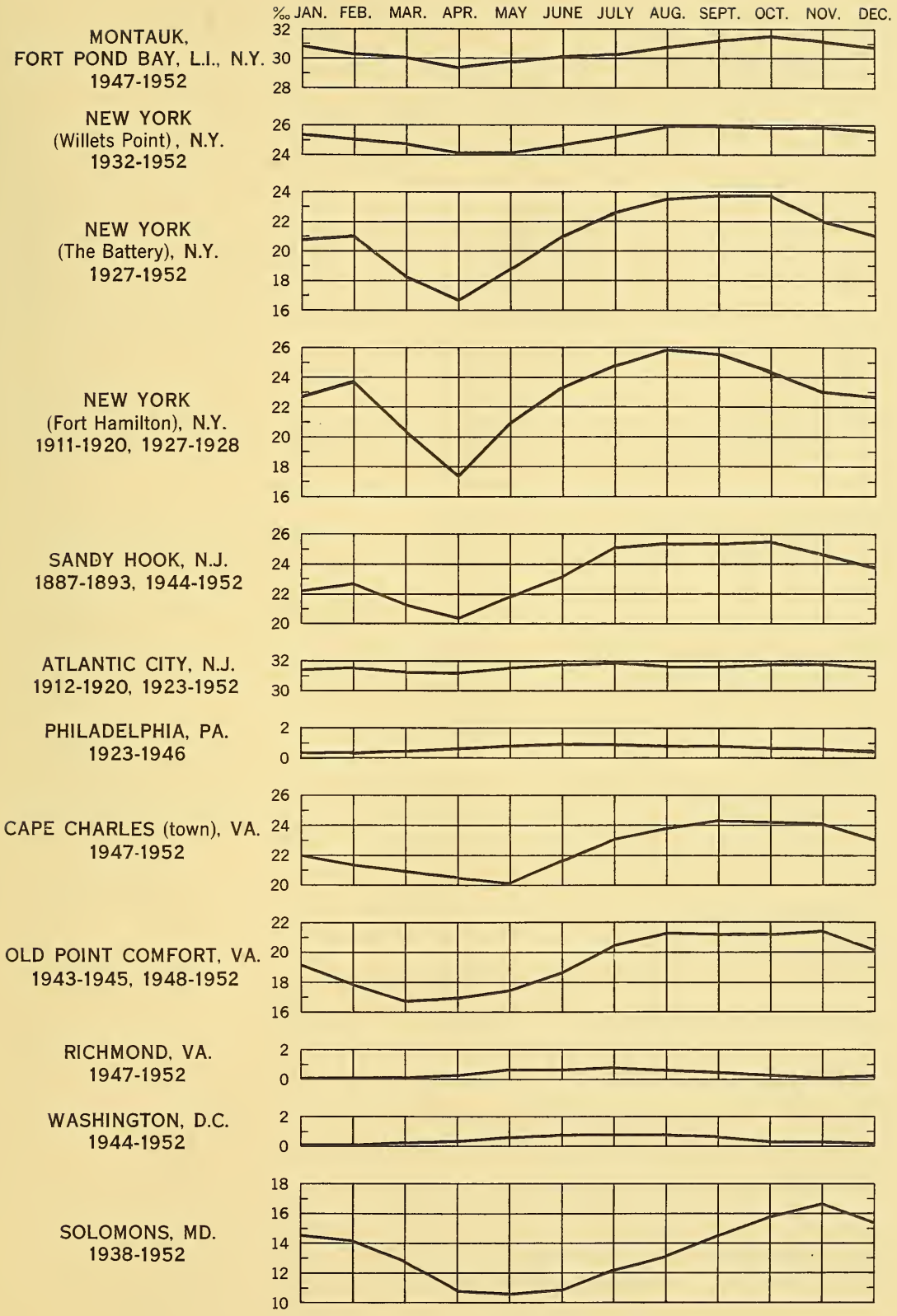
*Observations for the year are incomplete; extremes are for the months shown.

Mean Salinity Curves

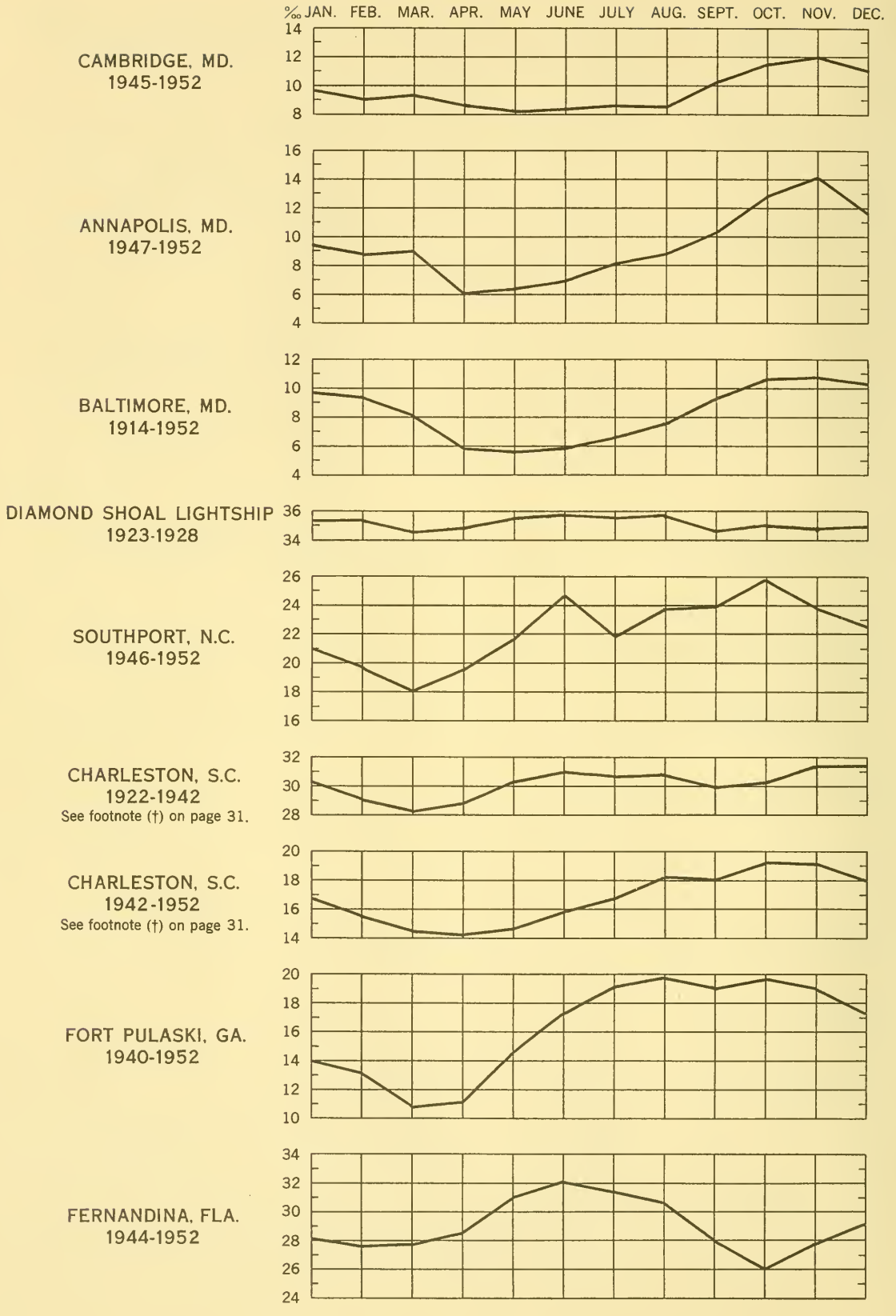
Monthly mean salinities in parts per thousand are presented graphically to show the seasonal variation.



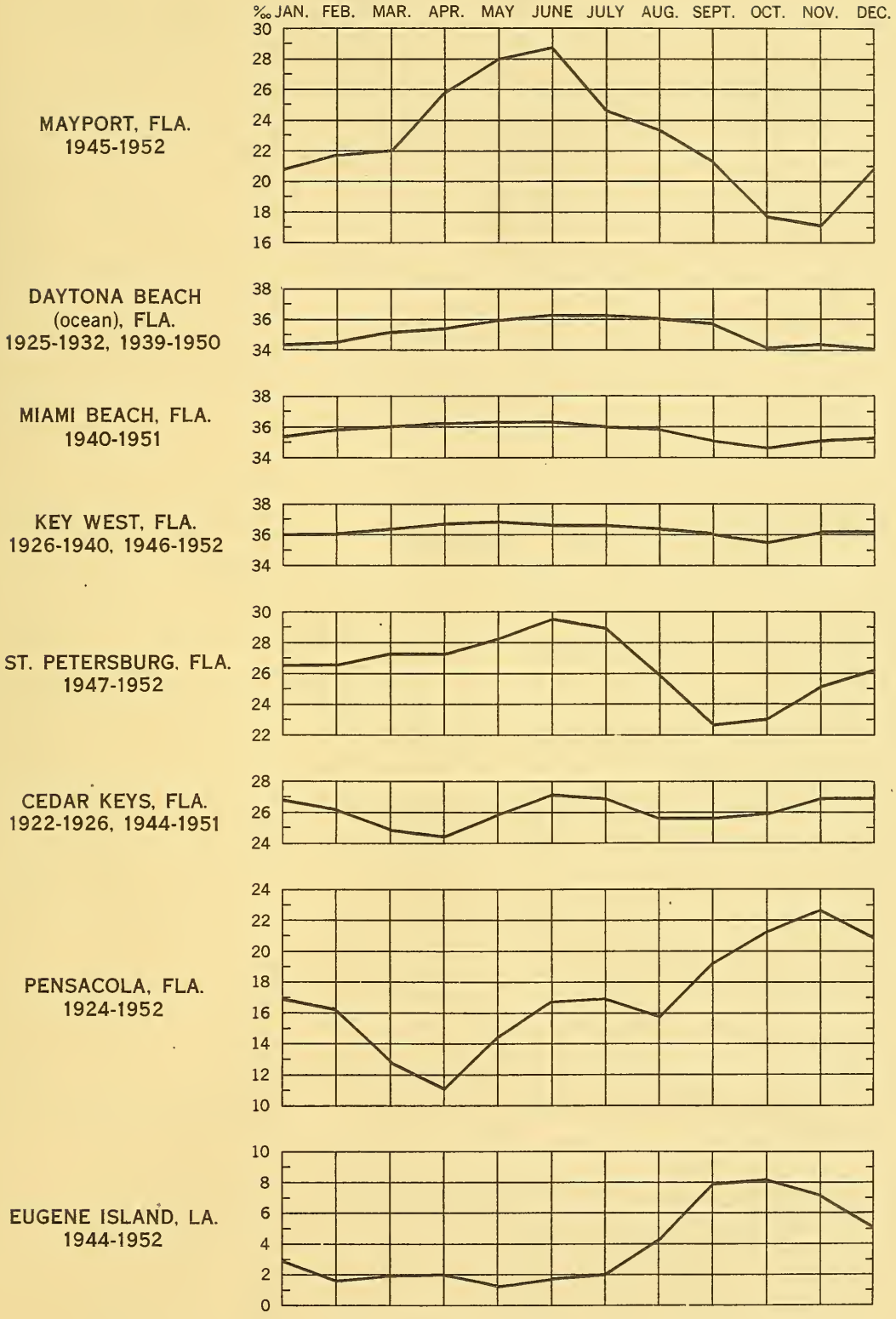
Mean Salinity Curves - *Continued*



Mean Salinity Curves - *Continued*



Mean Salinity Curves - *Continued*



Mean Salinity Curves - *Continued*

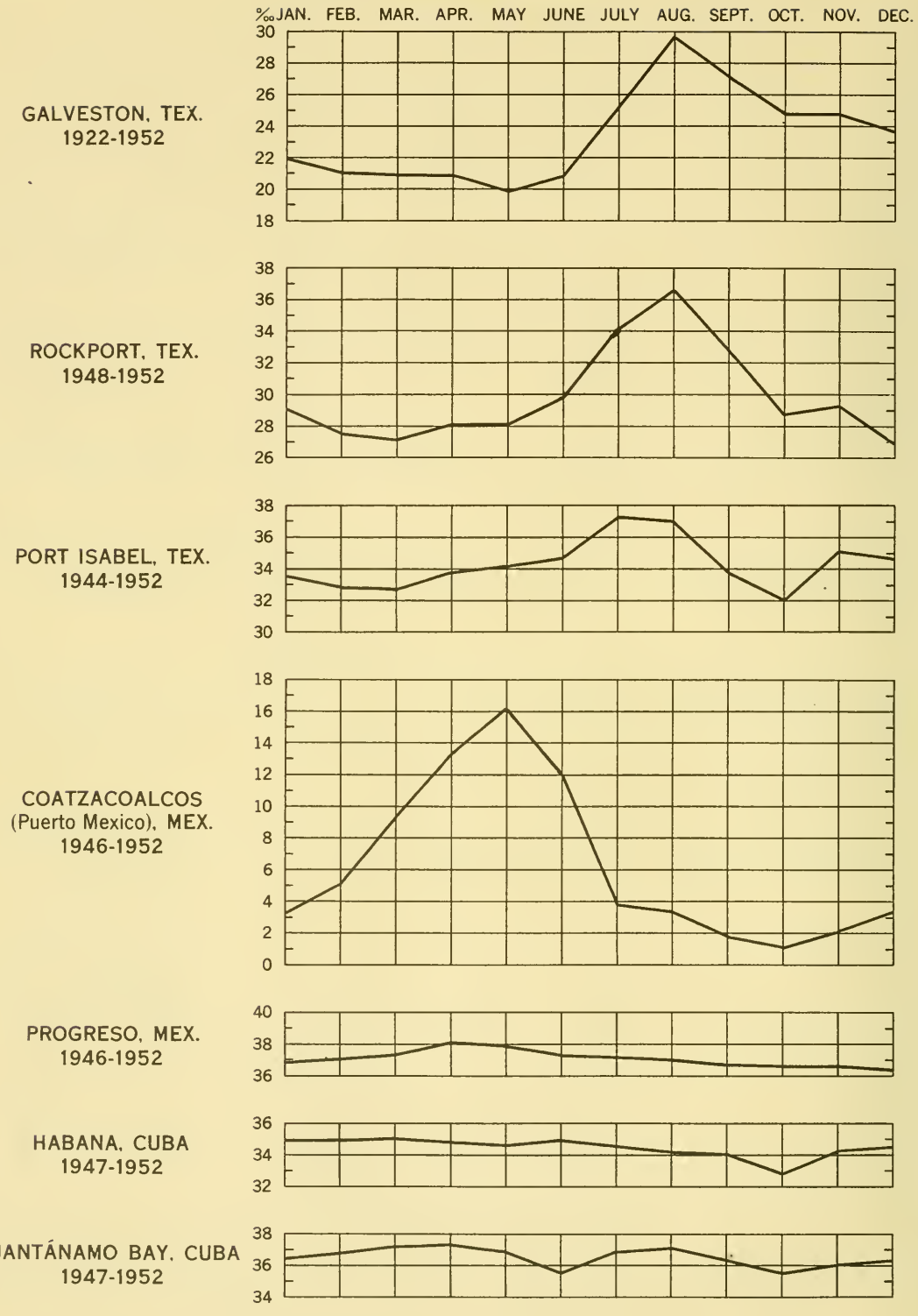


Table 2. Corresponding Densities and Salinities

(Density at 15°C. -- Salinity in parts per 1000)

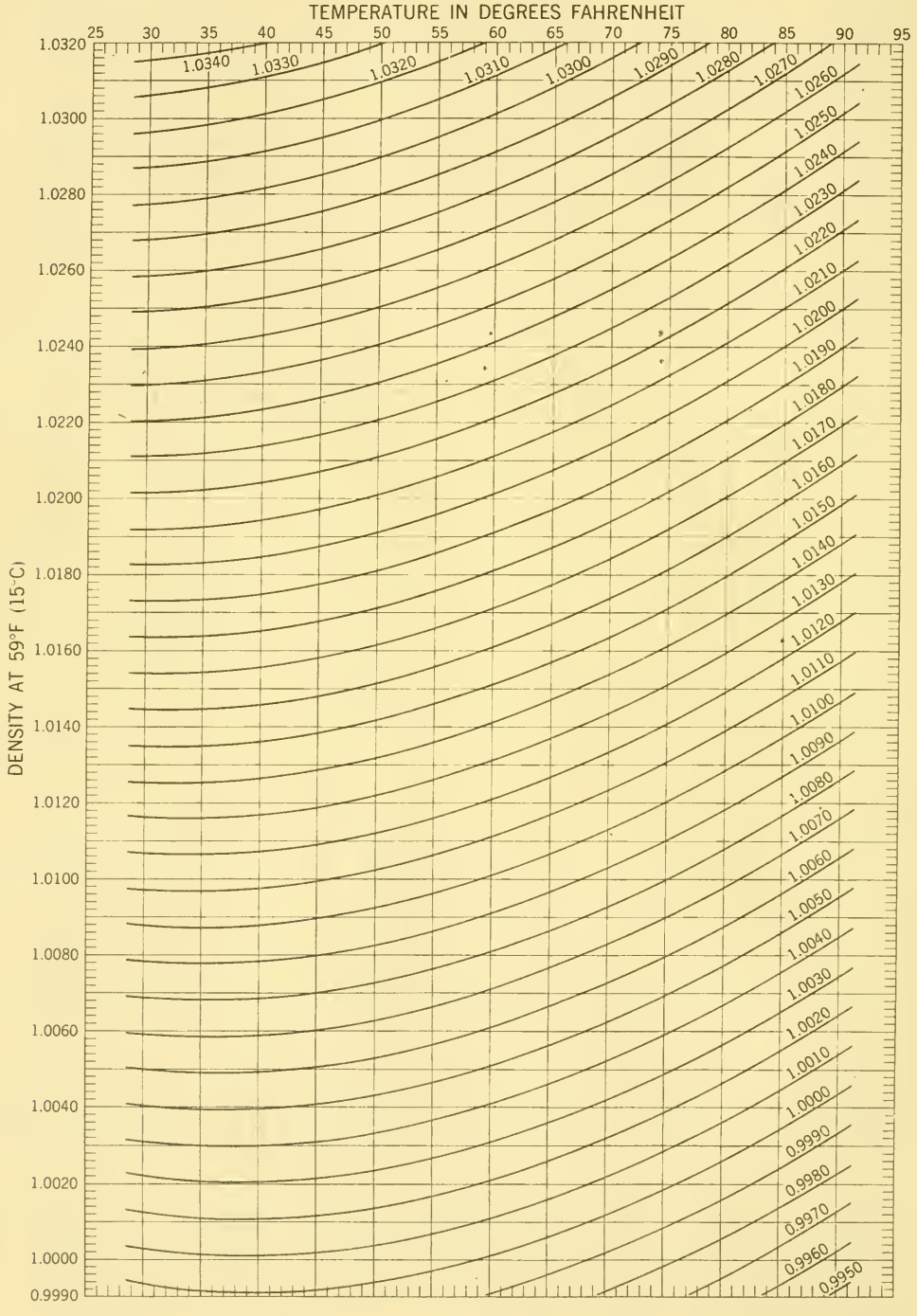
Density	Salinity	Density	Salinity	Density	Salinity	Density	Salinity	Density	Salinity	Density	Salinity
0.9991	0.0	1.0046	7.1	1.0101	14.2	1.0156	21.4	1.0211	28.6	1.0266	35.8
0.9992	0.0	1.0047	7.2	1.0102	14.4	1.0157	21.6	1.0212	28.8	1.0267	35.9
0.9993	0.2	1.0048	7.3	1.0103	14.5	1.0158	21.7	1.0213	28.9	1.0268	36.0
0.9994	0.3	1.0049	7.5	1.0104	14.6	1.0159	21.8	1.0214	29.0	1.0269	36.2
0.9995	0.4	1.0050	7.6	1.0105	14.8	1.0160	22.0	1.0215	29.1	1.0270	36.3
0.9996	0.6	1.0051	7.7	1.0106	14.9	1.0161	22.1	1.0216	29.3	1.0271	36.4
0.9997	0.7	1.0052	7.9	1.0107	15.0	1.0162	22.2	1.0217	29.4	1.0272	36.6
0.9998	0.8	1.0053	8.0	1.0108	15.2	1.0163	22.4	1.0218	29.5	1.0273	36.7
0.9999	0.9	1.0054	8.1	1.0109	15.3	1.0164	22.5	1.0219	29.7	1.0274	36.8
1.0000	1.1	1.0055	8.2	1.0110	15.4	1.0165	22.6	1.0220	29.8	1.0275	37.0
1.0001	1.2	1.0056	8.4	1.0111	15.6	1.0166	22.7	1.0221	29.9	1.0276	37.1
1.0002	1.3	1.0057	8.5	1.0112	15.7	1.0167	22.9	1.0222	30.1	1.0277	37.2
1.0003	1.5	1.0058	8.6	1.0113	15.8	1.0168	23.0	1.0223	30.2	1.0278	37.3
1.0004	1.6	1.0059	8.8	1.0114	16.0	1.0169	23.1	1.0224	30.3	1.0279	37.5
1.0005	1.7	1.0060	8.9	1.0115	16.1	1.0170	23.3	1.0225	30.4	1.0280	37.6
1.0006	1.9	1.0061	9.0	1.0116	16.2	1.0171	23.4	1.0226	30.6	1.0281	37.7
1.0007	2.0	1.0062	9.2	1.0117	16.3	1.0172	23.5	1.0227	30.7	1.0282	37.9
1.0008	2.1	1.0063	9.3	1.0118	16.5	1.0173	23.7	1.0228	30.8	1.0283	38.0
1.0009	2.2	1.0064	9.4	1.0119	16.6	1.0174	23.8	1.0229	31.0	1.0284	38.1
1.0010	2.4	1.0065	9.6	1.0120	16.7	1.0175	23.9	1.0230	31.1	1.0285	38.2
1.0011	2.5	1.0066	9.7	1.0121	16.9	1.0176	24.1	1.0231	31.2	1.0286	38.4
1.0012	2.6	1.0067	9.8	1.0122	17.0	1.0177	24.2	1.0232	31.4	1.0287	38.5
1.0013	2.8	1.0068	9.9	1.0123	17.1	1.0178	24.3	1.0233	31.5	1.0288	38.6
1.0014	2.9	1.0069	10.1	1.0124	17.3	1.0179	24.4	1.0234	31.6	1.0289	38.8
1.0015	3.0	1.0070	10.2	1.0125	17.4	1.0180	24.6	1.0235	31.8	1.0290	38.9
1.0016	3.2	1.0071	10.3	1.0126	17.5	1.0181	24.7	1.0236	31.9	1.0291	39.0
1.0017	3.3	1.0072	10.5	1.0127	17.7	1.0182	24.8	1.0237	32.0	1.0292	39.2
1.0018	3.4	1.0073	10.6	1.0128	17.8	1.0183	25.0	1.0238	32.1	1.0293	39.3
1.0019	3.5	1.0074	10.7	1.0129	17.9	1.0184	25.1	1.0239	32.3	1.0294	39.4
1.0020	3.7	1.0075	10.8	1.0130	18.0	1.0185	25.2	1.0240	32.4	1.0295	39.6
1.0021	3.8	1.0076	11.0	1.0131	18.2	1.0186	25.4	1.0241	32.5	1.0296	39.7
1.0022	3.9	1.0077	11.1	1.0132	18.3	1.0187	25.5	1.0242	32.7	1.0297	39.8
1.0023	4.1	1.0078	11.2	1.0133	18.4	1.0188	25.6	1.0243	32.8	1.0298	39.9
1.0024	4.2	1.0079	11.4	1.0134	18.6	1.0189	25.8	1.0244	32.9	1.0299	40.1
1.0025	4.3	1.0080	11.5	1.0135	18.7	1.0190	25.9	1.0245	33.1	1.0300	40.2
1.0026	4.5	1.0081	11.6	1.0136	18.8	1.0191	26.0	1.0246	33.2	1.0301	40.3
1.0027	4.6	1.0082	11.8	1.0137	19.0	1.0192	26.1	1.0247	33.3	1.0302	40.4
1.0028	4.7	1.0083	11.9	1.0138	19.1	1.0193	26.3	1.0248	33.5	1.0303	40.6
1.0029	4.8	1.0084	12.0	1.0139	19.2	1.0194	26.4	1.0249	33.6	1.0304	40.7
1.0030	5.0	1.0085	12.2	1.0140	19.3	1.0195	26.5	1.0250	33.7	1.0305	40.8
1.0031	5.1	1.0086	12.3	1.0141	19.5	1.0196	26.7	1.0251	33.8	1.0306	41.0
1.0032	5.2	1.0087	12.4	1.0142	19.6	1.0197	26.8	1.0252	34.0	1.0307	41.1
1.0033	5.4	1.0088	12.6	1.0143	19.7	1.0198	26.9	1.0253	34.1	1.0308	41.2
1.0034	5.5	1.0089	12.7	1.0144	19.9	1.0199	27.1	1.0254	34.2	1.0309	41.4
1.0035	5.6	1.0090	12.8	1.0145	20.0	1.0200	27.2	1.0255	34.4	1.0310	41.5
1.0036	5.8	1.0091	12.9	1.0146	20.1	1.0201	27.3	1.0256	34.5	1.0311	41.6
1.0037	5.9	1.0092	13.1	1.0147	20.3	1.0202	27.5	1.0257	34.6	1.0312	41.7
1.0038	6.0	1.0093	13.2	1.0148	20.4	1.0203	27.6	1.0258	34.8	1.0313	41.9
1.0039	6.2	1.0094	13.3	1.0149	20.5	1.0204	27.7	1.0259	34.9	1.0314	42.0
1.0040	6.3	1.0095	13.5	1.0150	20.6	1.0205	27.8	1.0260	35.0	1.0315	42.1
1.0041	6.4	1.0096	13.6	1.0151	20.8	1.0206	28.0	1.0261	35.1	1.0316	42.3
1.0042	6.6	1.0097	13.7	1.0152	20.9	1.0207	28.1	1.0262	35.3	1.0317	42.4
1.0043	6.7	1.0098	13.9	1.0153	21.0	1.0208	28.2	1.0263	35.4	1.0318	42.5
1.0044	6.8	1.0099	14.0	1.0154	21.2	1.0209	28.4	1.0264	35.5	1.0319	42.7
1.0045	6.9	1.0100	14.1	1.0155	21.3	1.0210	28.5	1.0265	35.7	1.0320	42.8

Sea Water Density at Various Temperatures

The purpose of this graph is to provide the density of sea water at any temperature apt to be encountered when the density at the standard temperature of 59°F. (15°C.) is known. It is intended primarily for use with this density publication which gives densities at 59°F. and with Coast and Geodetic Survey Special Publication No. 278 which gives sea water temperatures for the same stations.

To convert a density at 59°F. to density at another temperature, enter the graph horizontally from the left with the known density and downward from the top with the desired temperature; the position of the point of intersection with respect to the curves gives the density at the desired temperature. Interpolate between curves when necessary. For example, by this method, water having a density of 1.0162 at 59°F. is found to have a density of 1.0124 at 85°F.

The densities are referred to the density of fresh water at 4°C. (39.2°F.) as unity.



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