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U.S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

**SURFACE WATER  
TEMPERATURE AND SALINITY  
ATLANTIC COAST  
NORTH AND SOUTH AMERICA**

C&GS PUBLICATION 31-1  
FIRST EDITION (1960)

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Coast and Geodetic Survey Publications on Sea Water Temperatures,  
Salinities, and Densities

- C&GS Publication 31-1, Surface Water Temperature and Salinity, Atlantic Coast, North and South America (First Edition) 1960.
- C&GS Special Publication No. 278, Surface Water Temperatures, Atlantic Coast, North and South America (1955). Superseded by C&GS Publication 31-1.
- C&GS Publication 31-2, Density of Sea Water, Atlantic Coast, North and South America (1957). Superseded by C&GS Publication 31-1.
- C&GS Special Publication No. 280, Surface Water Temperatures, Pacific Coast, North and South America and Pacific Ocean Islands (Fifth Edition) 1956. 45 cents.
- C&GS Publication 31-4, Density of Sea Water, Pacific Coast, North and South America and Pacific Ocean Islands (Fifth Edition) 1958. 45 cents.
- C&GS Special Publication No. 298, Sea Water Temperature and Density Reduction Tables, 1953. 20 cents.

U.S. DEPARTMENT OF COMMERCE

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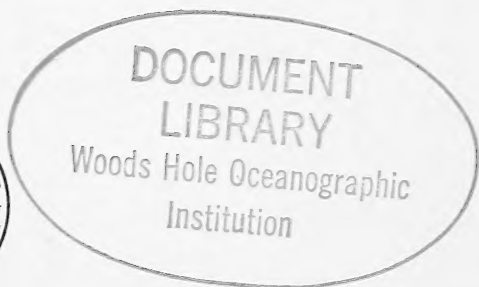
COAST AND GEODETIC SURVEY

H. ARNOLD KARO, Director

C&GS PUBLICATION 31-1

FIRST EDITION

**SURFACE WATER  
TEMPERATURE AND SALINITY  
ATLANTIC COAST  
NORTH AND SOUTH AMERICA**



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## Introduction

The summaries of sea water temperatures and salinities presented in this publication are based on observations made in Atlantic harbor and coastal waters through the year 1958. The sea water temperatures and salinities 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 places in Venezuela were furnished by the Ministerio de Obras Publicas, Estados Unidos de Venezuela. For places in other countries, the Coast and Geodetic Survey derived the data from observations made by organizations in the particular country. In Latin America, the observations were obtained through the cooperation of the Inter American Geodetic Survey.

Table 1 presents monthly means and annual means and extremes of the surface water temperatures and salinities for each year of observation after 1953. Earlier observations are combined in five-year groups. For each station at which the series of observations covered two or more years, there are given the following monthly values for the series: the mean of the monthly means, the maximum observed, the mean of the monthly maxima, the mean of the monthly minima and the minimum observed.

When an asterisk appears in either extreme temperature column in Table 1, it indicates that the extreme may have been exceeded if observations had been available for all months in which the maximum or minimum normally occurs. If observations are not available for any month in which the yearly maximum or minimum may have occurred, the extreme has been omitted. For salinities, 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.

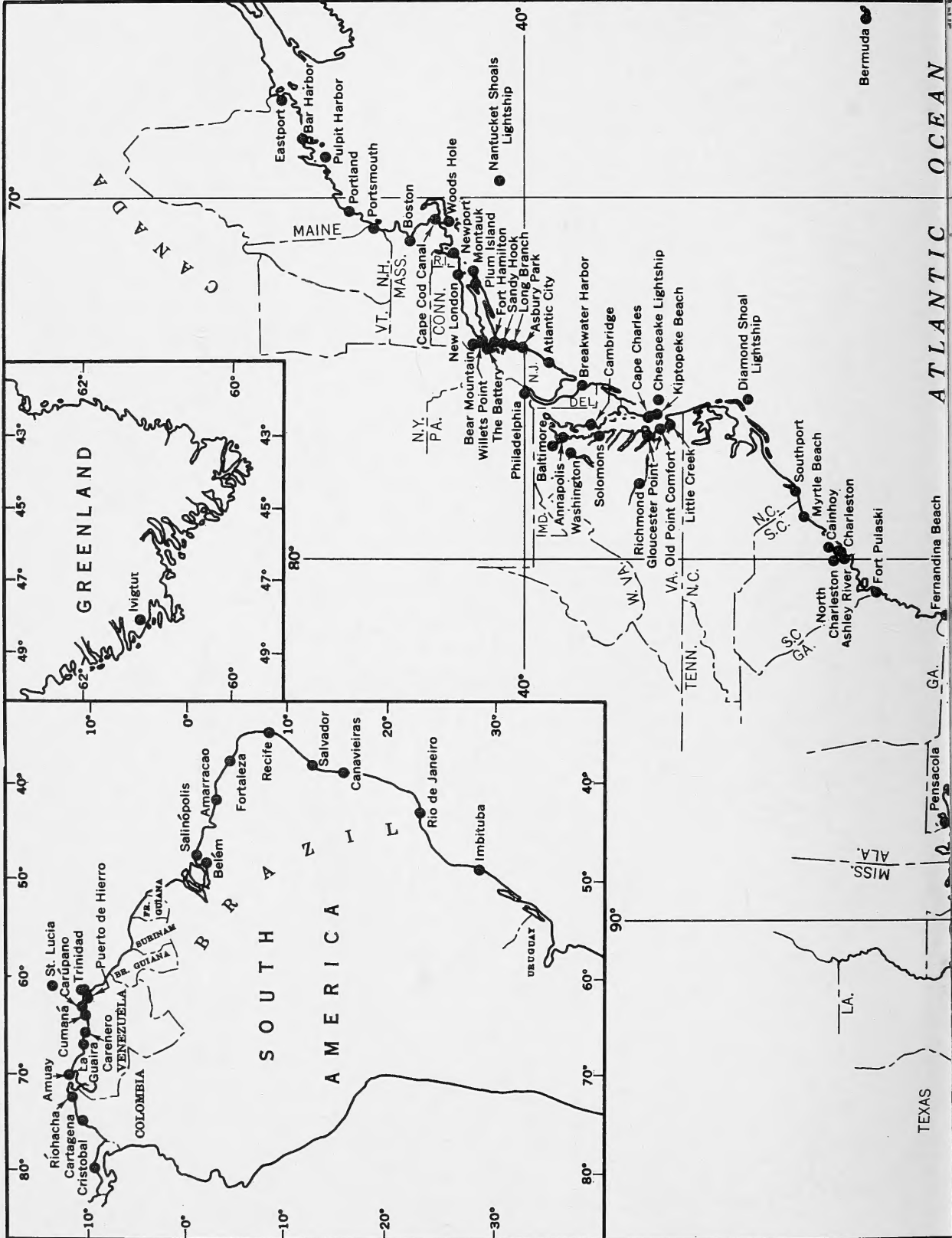
The temperature data given in degrees Fahrenheit are based on the thermometer readings made in a sample of water drawn by bucket from a foot or two below the surface. They can be converted to degrees centigrade by means of Table 3. The salinity of sea water, denoted by the symbol 0/00, is defined as 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 on the density of water as obtained by using a hydrometer. The salinity data in this publication were computed from hydrometer readings corrected to a standard temperature of 59° F.

The observations are usually made once each weekday at whatever time the observer attends the gage. At some stations situated within or near the entrance of an estuary, the temperature or salinity varies with the stage of tide or with the direction of the tidal current. 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. For days when ice at some stations prevented the drawing of samples of sea water, the temperature of the normal freezing point of the sea water at the station has been used to permit the computing of monthly means.

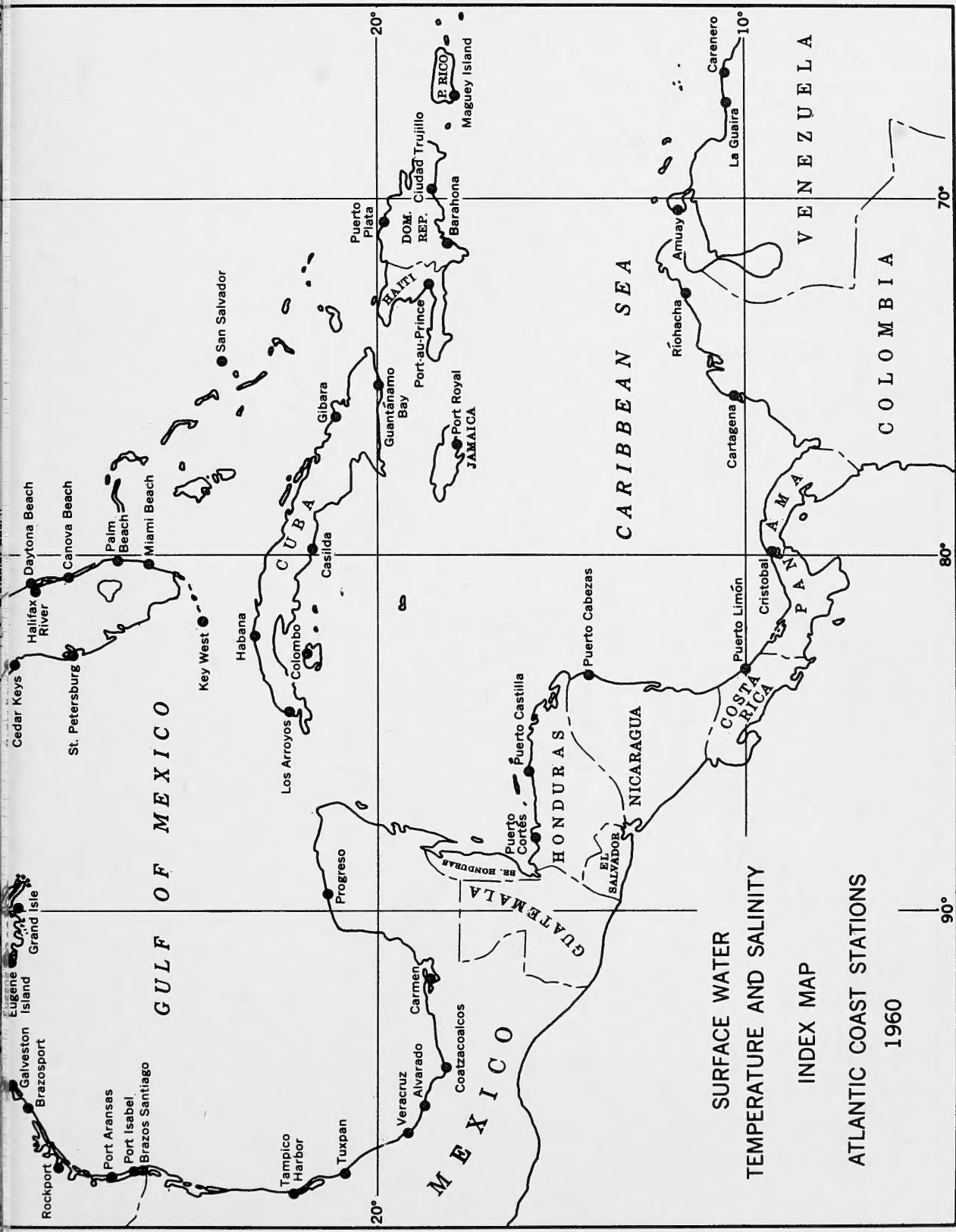
The monthly temperature summaries given in Table 2 are from records of recording thermometers. The thermometer bulb at each station was at a fixed position just below lowest observed low water, so that during a day it was covered by varying amounts of tidal water. The instrument record is in the form of a continuous trace; the mean values are from hourly readings. When it could be done with reasonable certainty, warmest and coldest values are shown for months for which the record was only partially complete.

The mean temperature and salinity curves are derived from the monthly means of Table 1 and show graphically the seasonal variations for many places. The unusual shape of the temperature curve for Daytona Beach and Canova Beach reflects the upwelling that occurs along this section of the coast during the summer months.

This publication supersedes C&GS Special Publication No. 278, Surface Water Temperatures, Atlantic Coast, North and South America, 1955, and C&GS Publication 31-2, Density of Sea Water, Atlantic Coast, North and South America, 1957.







SURFACE WATER  
 TEMPERATURE AND SALINITY  
 INDEX MAP  
 ATLANTIC COAST STATIONS  
 1960

## List of Stations

Station	Lat.		Long.		Page
	°	'	°	'	
Alvarado, Mexico-----	18	46N.	95	46W.	42
Amarracao, Brazil-----	2	53S.	41	40W.	60
Amuay, Venezuela-----	11	45N.	70	13W.	56, 75
Annapolis, Md.-----	38	59N.	76	29W.	24, 73
Asbury Park, N. J.-----	40	13N.	74	00W.	16
Ashley River, Charleston, S. C.-----	32	50N.	79	58W.	28
Atlantic City, N. J.-----	39	21N.	74	25W.	16, 68, 72
Baltimore, Md.-----	39	16N.	76	35W.	24 73
Barahona, Dominican Republic-----	18	12N.	71	05W.	52
Bar Harbor, Me.-----	44	23N.	68	12W.	6, 66, 72
Battery, The, New York, N. Y.-----	40	42N.	74	01W.	14, 67, 72
Bear Mountain, Hudson River, N. Y.-----	41	19N.	73	59W.	14
Belém, Brazil-----	1	27S.	48	30W.	58, 75
Bermuda (Ferry Reach, St. Georges Island)-----	32	22N.	64	42W.	46, 74
Boston, Mass.-----	42	21N.	71	03W.	8, 66, 72
Brazosport, Freeport Harbor, Tex.-----	28	57N.	95	19W.	38
Brazos Santiago, Texas-----	26	04N.	97	09W.	40
Breakwater Harbor, Del.-----	38	47N.	75	06W.	18, 72
Cainho, Wando River, S. C.-----	32	55N.	79	50W.	28
Cambridge, Md.-----	38	34N.	76	04W.	24
Canavieiras, Brazil-----	15	41S.	38	59W.	62, 75
Canova Beach, Fla.-----	28	08N.	80	35W.	32, 70, 73
Cape Charles (town), Va.-----	37	16N.	76	01W.	20
Cape Cod Canal (east entrance), Mass.-----	41	46N.	70	30W.	10
Cape Cod Canal (west entrance), Mass.-----	41	44N.	70	37W.	10
Carenero, Venezuela-----	10	32N.	66	07W.	56
Carmen, Mexico-----	18	38N.	91	50W.	42
Cartagena, Colombia-----	10	24N.	75	33W.	54, 75
Carúpano, Venezuela-----	10	40N.	63	15W.	58
Casilda, Cuba-----	21	45N.	79	59W.	48
Cedar Keys, Fla.-----	29	08N.	83	02W.	34, 74
Charleston (Customhouse Wharf), S. C.-----	32	47N.	79	55W.	28, 73
Charleston (Ashley River), S. C.-----	32	50N.	79	58W.	28
Chesapeake Lightship-----	36	59N.	75	42W.	18
Ciudad Trujillo, Dominican Republic-----	18	28N.	69	53W.	52
Coatzacoalcos (Puerto Mexico), Mexico-----	18	09N.	94	25W.	42, 74
Colombo, Isla de Pinos, Cuba-----	21	54N.	82	46W.	50
Cristobal, Canal Zone-----	9	21N.	79	55W.	46, 74
Cumaná, Venezuela-----	10	28N.	64	11W.	58, 75
Daytona Beach (Halifax River), Fla.-----	29	13N.	81	01W.	32
Daytona Beach (ocean), Fla.-----	29	14N.	81	00W.	32, 70, 73
Diamond Shoal Lightship-----	35	05N.	75	20W.	26, 73
Eastport, Me.-----	44	54N.	66	59W.	6, 72
Eugene Island, La.-----	29	22N.	91	23W.	36, 74
Fernandina Beach, Fla.-----	30	40N.	81	28W.	30, 73
Flagler Beach, Fla.-----	29	29N.	81	08W.	32
Fortaleza (Mucuripe), Brazil-----	3	43S.	38	29W.	60, 75
Fort Hamilton, New York, N. Y.-----	40	37N.	74	02W.	14
Fort Pulaski, Savannah River, Ga.-----	32	02N.	80	54W.	28, 73
Galveston (Galveston Channel), Tex.-----	29	19N.	94	48W.	38, 74
Galveston (Gulf Coast), Tex.-----	29	17N.	94	47W.	38
Gibara, Cuba-----	21	07N.	76	07W.	48, 74
Gloucester Point, Va.-----	37	15N.	76	30W.	22
Grand Isle, 8 miles SE. of, La.-----	29	10N.	89	55W.	36, 74
Guantanamo Bay, Cuba-----	19	54N.	75	09W.	48, 74
Habana, Cuba-----	23	09N.	82	20W.	48, 74
Halifax River, Daytona Beach, Fla.-----	29	13N.	81	01W.	32
Imbituba, Brazil-----	28	17S.	48	40W.	64, 75
Ivigut, Greenland-----	61	12N.	48	11W.	6, 72
Jacksonville, Fla.-----	30	21N.	81	37W.	30

Station	Lat.		Long.		Page
	°	'	°	'	
Key West, Fla.-----	24	33N.	81	48W.	34, 73
Kiptopeke Beach, Va.-----	37	10N.	75	59W.	20, 73
La Guaira, Venezuela-----	10	36N.	66	56W.	56, 75
Little Creek, Va.-----	36	55N.	76	11W.	20
Long Branch, N. J.-----	40	18N.	73	59W.	16, 72
Los Arroyos, Cuba-----	22	21N.	84	23W.	46
Maguey Island, Puerto Rico-----	17	58N.	67	03W.	52
Mayport, Fla.-----	30	24N.	81	26W.	30, 73
Miami Beach, Fla.-----	25	46N.	80	08W.	32, 71, 73
Monrovia, Liberia-----	6	20N.	10	48W.	64
Montauk, Fort Pond Bay, L. I., N. Y.-----	41	03N.	71	58W.	12, 72
Myrtle Beach, S. C.-----	33	41N.	78	53W.	26
Nantucket Shoals Lightship-----	40	37N.	69	37W.	12
New London, Conn.-----	41	22N.	72	06W.	12, 72
Newport, R. I.-----	41	30N.	71	20W.	10
New York (Fort Hamilton), N. Y.-----	40	37N.	74	02W.	14
New York (The Battery), N. Y.-----	40	42N.	74	01W.	14, 67, 72
New York (Willets Point), N. Y.-----	40	48N.	73	47W.	12, 72
North Charleston Terminals, Cooper River, S. C.-----	32	54N.	79	58W.	28
Old Point Comfort, Va.-----	37	00N.	76	18W.	20, 73
Palm Beach, Fla.-----	26	43N.	80	02W.	32
Pensacola, Fla.-----	30	24N.	87	13W.	36, 74
Philadelphia, Pa.-----	39	57N.	75	08W.	18, 72
Plum Island, L. I., N. Y.-----	41	10N.	72	12W.	12
Port Aransas, Tex.-----	27	49N.	97	03W.	40
Port-au-Prince, Haiti-----	18	33N.	72	21W.	50, 74
Port Isabel, Tex.-----	26	04N.	97	13W.	40, 74
Portland, Me.-----	43	40N.	70	15W.	6, 72
Port Royal, Jamaica-----	17	56N.	76	51W.	50
Portsmouth, N. H.-----	43	05N.	70	45W.	8, 72
Progreso, Mexico-----	21	17N.	89	40W.	42, 74
Puerto Cabezas, Nicaragua-----	14	01N.	83	23W.	44
Puerto Castilla, Honduras-----	16	00N.	86	02W.	44
Puerto Cortés, Honduras-----	15	50N.	87	57W.	44, 74
Puerto de Hierro, Venezuela-----	10	37N.	62	05W.	58
Puerto Limón, Costa Rica-----	10	00N.	83	02W.	46
Puerto Mexico (Coatzacoalcos), Mexico-----	18	09N.	94	25W.	42, 74
Puerto Plata, Dominican Republic-----	19	49N.	70	42W.	52, 75
Pulpit Harbor, Me.-----	44	09N.	68	53W.	6
Recife, Brazil-----	8	03S.	34	52W.	60, 75
Richmond, Va.-----	37	32N.	77	25W.	22, 73
Rio de Janeiro (Fortaleza de Santa Cruz), Brazil-----	22	56S.	43	08W.	62, 75
Riohacha, Colombia-----	11	34N.	72	55W.	54
Rockport, Tex.-----	28	01N.	97	03W.	40
St. Lucia (Castries), B. W. I.-----	14	01N.	61	00W.	52
St. Lucia (Vieux Fort), B. W. I.-----	13	44N.	60	58W.	54
St. Petersburg, Fla.-----	27	46N.	82	38W.	34, 74
Salinópolis, Brazil-----	0	37S.	47	23W.	60
Salvador, Brazil-----	12	58S.	38	31W.	62, 75
Sandy Hook, N. J.-----	40	28N.	74	01W.	14, 72
San Salvador, Bahamas, B. W. I.-----	24	03N.	74	33W.	46
Solomons, Md.-----	38	19N.	76	27W.	22, 73
Southport, N. C.-----	33	55N.	78	01W.	26, 73
Tampico Harbor, Mexico-----	22	15N.	97	51W.	40
Trinidad (Carenage Bay), B. W. I.-----	10	41N.	61	36W.	54, 75
Tuxpan, Mexico-----	20	58N.	97	23W.	40
Veracruz, Mexico-----	19	11N.	96	07W.	42
Washington, D. C.-----	38	52N.	77	01W.	22, 69, 73
Willets Point, New York, N. Y.-----	40	48N.	73	47W.	12, 72
Woods Hole, Mass.-----	41	31N.	70	40W.	10, 72

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>IVIGTUT,</b>														
1945-1948	32.4	33.7	32.3	34.0	32.0	33.5	33.7	33.6	39.9	31.6	46.9	28.9	46.8	24.7
1949-1952	31.2	33.3	31.8	33.7	32.5	33.6	33.2	33.6	39.4	31.5	45.8	27.1	46.0	23.5
Mean	31.7	33.5	32.0	33.7	32.3	33.6	33.4	33.6	39.6	31.5	46.3	27.8	46.4	24.1
Maximum	35	36.8	35	35.5	38	35.0	37	35.0	48	35.3	53	32.7	52	30.3
Mean Max.	34.2	34.5	33.9	34.6	34.2	34.5	36.0	34.2	45.3	34.0	50.4	31.1	49.4	27.5
Mean Min.	29.9	32.1	30.0	30.6	29.9	29.9	31.6	32.7	34.9	27.1	42.4	24.2	42.8	20.4
Minimum	29	29.7	29	23.7	29	21.4	30	31.8	33	20.0	39	19.6	41	13.6
<b>EASTPORT,</b>														
1930-1933	38.3	32.0	35.3	31.9	35.2	31.5	37.6	31.0	40.7	30.8	44.8	31.2	49.3	31.6
1934-1938	36.5	31.8	33.5	31.6	34.1	31.5	36.7	31.0	40.5	30.7	44.7	31.1	48.8	31.5
1939-1943	36.4	32.0	33.5	31.9	33.1	31.9	35.6	31.2	39.2	31.1	43.4	31.4	47.5	31.6
1944-1948	37.6	32.4	34.6	32.3	34.8	32.1	36.9	31.8	40.0	31.6	44.0	31.8	48.4	32.4
1949-1953	40.7	32.0	37.6	31.9	37.0	31.9	39.1	31.4	42.2	31.6	46.2	31.9	50.2	32.4
1954	41.5	31.9	37.5	31.8	37.7	31.4	39.5	31.0	42.7	31.4	46.2	32.0	49.5	32.3
1955	40.9	32.7	37.0	32.7	36.8	32.1	38.8	31.9	42.0	31.8	45.4	32.0	49.3	32.1
1956	36.8	33.3	35.8	32.9	34.7	32.4	36.6	32.3	38.9	32.1	43.0	32.1	47.3	32.5
1957	37.7	33.1	35.0	32.8	35.1	32.4	37.1	32.3	42.3	32.1	44.8	32.0	48.8	32.1
1958	40.9	31.9	38.5	31.8	39.8	31.9	39.9	32.0	41.6	32.1	42.4	32.1	48.1	32.4
Mean	38.2	32.1	35.2	32.0	35.2	31.9	37.4	31.4	40.7	31.4	44.6	31.6	48.8	32.0
Maximum	45	33.5	40	33.5	41	33.2	42	32.7	46	33.1	50	32.9	55	33.6
Mean Max.	40.6	32.7	36.7	32.4	36.4	32.3	39.2	31.9	42.8	31.9	47.1	32.0	51.4	32.4
Mean Min.	35.6	31.6	33.9	31.5	33.9	31.2	35.9	30.4	38.7	30.6	42.2	31.0	46.2	31.5
Minimum	30	28.9	28	28.9	30	29.1	33	28.9	36	29.1	40	29.0	44	30.6
<b>BAR HARBOR,</b>														
1947-1948	32.2	32.7	30.2	32.5	32.9	32.1	38.8	31.6	43.9	31.0	50.2	30.8	54.5	31.1
1949-1953	35.1	31.8	32.8	31.8	35.4	31.5	40.6	31.2	46.5	31.5	52.7	31.5	57.8	31.8
1954	33.6	31.4	33.4	31.1	36.2	30.8	39.9	30.6	46.0	30.4	51.5	31.0	55.7	31.2
1955	33.8	31.4	32.6	31.6	35.0	31.1	39.8	30.8	46.4	31.0	52.1	31.0	57.9	31.2
1956	33.7	31.5	33.2	31.9	34.3	31.5	37.9	30.6	42.7	31.0	49.4	31.1	53.9	31.2
1957	32.3	31.9	33.0	32.3	36.1	31.8	40.5	31.8	46.1	31.8	53.4	31.8	56.8	31.8
1958	37.5	31.4	33.1	31.1	36.6	31.1	40.6	30.7	45.4	30.4	49.5	30.8	54.8	31.1
Mean	34.4	31.8	32.7	31.8	35.3	31.5	40.0	31.1	45.7	31.1	51.8	31.2	56.6	31.5
Maximum	43	33.1	39	33.5	42	33.1	48	32.7	52	33.2	59	32.3	64	32.7
Mean Max.	39.8	32.5	36.6	32.5	38.9	32.1	44.2	31.9	50.3	31.9	55.9	31.8	60.6	32.1
Mean Min.	29.8	30.2	29.3	30.6	31.4	30.3	35.5	29.7	41.8	29.9	48.1	30.6	52.9	30.7
Minimum	29	27.5	28	28.1	28	28.8	32	28.4	39	28.2	46	28.6	50	29.3
<b>PULPIT HARBOR,</b>														
1945-1946	33.6	30.2	29.8	29.3	--	--	40.5	28.2	46.9	27.6	53.2	29.5	59.9	30.4
<b>PORTLAND,</b>														
1922-1923	31.5	31.1	31.5	30.7	33.4	29.0	38.6	28.4	46.9	27.5	52.7	29.1	57.6	28.9
1924-1928	33.5	29.9	32.2	29.5	34.5	29.5	39.7	28.5	46.2	29.0	52.5	30.1	58.1	30.4
1929-1933	34.0	29.5	32.7	29.9	35.3	29.9	40.7	29.7	49.6	30.3	57.0	31.0	60.3	31.9

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

Temperatures and Salinities

Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>GREENLAND</b>															
45.2	21.4	40.8	26.8	36.6	29.9	34.4	32.4	33.4	33.2	37.9	30.3	54	36.8	29	11.0
44.4	22.1	42.0	23.5	35.9	30.3	33.6	32.8	32.6	32.4	37.4	29.8	52	35.4	29	14.2
44.8	21.8	41.4	25.1	36.3	30.1	34.0	32.7	33.0	32.8	37.6	30.0				
54	28.9	48	32.5	41	32.8	39	34.8	36	35.4			54	36.8		
48.4	25.2	45.6	28.9	39.1	32.4	36.2	33.7	35.2	34.0						
41.7	17.8	38.4	20.1	33.5	26.0	31.8	30.7	30.6	31.2						
40	11.0	37	14.9	32	18.3	30	27.8	29	28.9					29	11.0
<b>MAINE</b>															
52.1	31.9	52.6	32.1	51.3	32.0	47.5	31.9	42.2	32.0	43.9	31.7	57	33.1	32	29.1
51.8	31.8	52.0	32.0	50.8	32.1	47.6	32.1	42.4	31.8	43.3	31.6	55	32.9	28	28.9
50.1	32.0	50.9	32.0	49.4	32.3	46.2	32.0	41.0	32.1	42.2	31.8	54	33.2	30	29.5
51.6	32.8	52.6	33.2	51.4	33.2	48.1	32.8	43.3	32.4	43.6	32.4	56	34.4	30	29.0
53.0	32.8	53.7	32.8	52.3	32.9	48.9	32.7	45.2	32.1	45.5	32.2	56	33.7	34	29.1
51.7	32.5	53.1	32.7	52.0	32.7	48.9	32.8	44.5	32.4	45.4	32.1	54	33.2	36	28.9
52.3	32.4	52.3	32.8	51.5	33.3	48.1	33.3	40.9	33.3	44.6	32.5	53	33.8	35	30.8
50.5	32.9	50.9	32.9	50.3	33.1	48.0	33.1	43.4	32.7	43.0	32.7	52	34.1	34	31.1
51.1	32.1	52.7	32.7	51.3	32.9	—	—	44.5	32.0	—	—	53	33.6*	34	31.5*
51.6	32.8	51.3	32.7	50.5	32.4	48.6	32.0	41.8	31.9	44.6	32.2	53	33.5	37	31.4
51.7	32.3	52.3	32.5	51.0	32.5	47.8	32.4	42.9	32.1	43.8	32.0				
57	33.7	56	34.4	55	34.0	52	34.1	49	33.7			57	34.4		
53.3	32.8	53.5	32.9	52.2	33.1	49.7	32.9	45.6	32.7						
50.0	31.9	51.3	32.0	49.5	32.1	45.2	31.9	39.6	31.6						
48	31.1	49	31.1	46	31.4	41	30.6	35	29.4					28	28.9
<b>MAINE</b>															
56.3	31.4	55.2	32.1	51.6	32.4	47.3	32.1	39.2	32.4	44.4	31.8	63	33.2	29	29.8
58.2	32.0	56.1	32.1	52.3	32.5	47.0	32.3	40.7	31.9	46.3	31.8	64	33.7	28	28.5
56.8	31.4	55.1	31.5	52.3	31.9	46.8	31.8	39.8	31.1	45.6	31.2	60	33.2	29	28.1
59.2	31.4	54.6	31.9	51.7	32.3	46.6	31.9	36.3	32.4	45.5	31.5	64	33.2	29	28.4
55.4	31.4	53.3	31.5	50.6	31.9	47.2	32.0	39.0	31.6	44.2	31.4	59	33.1	30	28.8
57.4	31.8	55.4	32.0	52.1	32.8	49.5	32.7	42.8	32.7	46.3	32.1	62	33.5	29	31.1
57.1	31.5	55.2	31.8	50.5	31.8	45.8	31.8	35.1	31.4	45.1	31.2	59	33.1	30	27.5
57.6	31.8	55.4	32.0	51.8	32.4	47.1	32.1	39.6	32.0	45.7	31.7				
64	32.9	63	33.3	58	33.5	54	33.7	52	33.2			64	33.7		
61.0	32.3	58.6	32.7	55.1	32.8	51.4	32.8	46.0	32.5						
54.6	31.0	51.9	31.2	48.2	31.6	41.8	31.0	33.1	31.1						
51	29.8	49	29.3	46	29.5	37	29.1	29	29.9					28	27.5
<b>PENOBSCOT BAY, MAINE</b>															
61.8	30.8	58.9	31.1	53.4	31.1	48.0	31.4	39.6	31.1	—	—	70	32.4	29	25.8
<b>MAINE</b>															
58.2	29.9	57.2	30.1	51.6	30.3	44.0	30.6	38.0	30.3	45.1	29.7	63	32.9	—	18.6
59.0	30.4	57.4	30.1	51.9	30.6	45.0	30.3	37.4	29.5	45.6	29.8	62	33.2	—	16.0
60.9	31.6	59.0	31.4	53.1	30.2	45.1	30.1	37.2	29.8	47.1	30.4	64	34.2	—	20.1

Table 1.- Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>PORTLAND,</b>														
1934-1938	33.4	29.9	32.3	29.0	34.7	27.7	40.7	26.5	47.6	27.8	55.2	28.8	60.2	30.3
1939-1943	31.8	30.7	31.0	30.6	33.2	29.4	39.0	27.8	47.1	27.8	54.3	29.1	59.1	30.3
1944-1945	31.8	30.2	30.4	30.1	34.7	27.7	40.1	27.8	47.4	26.5	55.2	27.8	60.2	29.8
---														
1956	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1957	33.4	30.6	34.7	30.8	37.2	29.7	42.0	30.1	49.5	31.0	57.5	30.7	59.9	31.2
1958	36.1	28.2	34.4	29.4	37.4	28.1	42.3	26.4	48.4	26.7	52.6	28.9	58.0	29.5
Mean	33.0	30.1	32.0	29.9	34.6	29.0	40.1	28.1	47.6	28.4	54.7	29.5	59.3	30.6
Maximum	42	32.9	38	33.2	42	31.9	50	32.0	55	33.1	64	33.2	66	34.0
Mean Max.	36.1	31.4	34.0	31.4	37.8	30.8	44.1	30.3	52.0	30.6	59.0	31.2	62.1	32.0
Mean Min.	--	27.7	--	27.8	32.6	25.5	36.7	23.9	43.8	24.1	51.0	26.1	56.3	27.6
Minimum	28	12.8	28	23.9	30	14.1	32	16.0	40	14.6	47	17.5	53	17.5
<b>PORTSMOUTH,</b>														
1944-1948	34.1	30.6	32.9	30.3	36.1	26.1	41.7	26.0	48.0	26.0	54.0	27.2	59.1	29.1
1949-1953	37.4	27.7	35.5	26.5	36.8	25.5	43.2	23.0	49.4	27.1	55.5	28.9	60.4	30.7
---														
1954	36.0	29.8	34.8	28.5	38.0	25.2	43.5	24.6	49.7	19.3	56.0	26.5	58.8	29.5
1955	36.5	27.8	34.6	28.5	36.5	26.0	43.1	26.0	48.7	26.7	56.3	28.5	60.6	30.4
1956	36.5	25.9	35.6	29.0	35.3	28.5	39.6	22.2	46.0	25.8	55.7	27.8	58.7	30.4
1957	34.5	28.6	36.4	29.0	38.1	27.1	42.6	27.7	51.6	29.9	57.0	31.4	58.6	32.0
1958	37.3	27.2	35.3	26.4	38.4	25.4	43.5	22.5	49.7	24.2	53.0	29.0	57.6	30.6
Mean	35.9	28.8	34.6	28.4	36.7	26.0	42.4	24.6	48.8	26.0	55.0	28.2	59.5	30.2
Maximum	42	33.8	40	34.1	43	32.3	50	30.8	56	31.5	64	32.1	66	32.4
Mean Max.	39.1	31.8	36.8	31.5	39.9	30.7	46.3	29.5	53.5	29.8	60.7	30.8	64.7	31.4
Mean Min.	33.1	24.6	32.2	23.9	33.9	19.3	39.1	17.8	44.5	20.8	49.7	24.4	53.1	28.5
Minimum	29	15.8	30	17.3	30	10.5	36	9.7	40	9.9	46	17.5	50	24.6
<b>BOSTON,</b>														
1922-1923	31.4	29.8	31.4	30.2	35.2	27.8	42.4	27.5	52.7	27.7	60.2	28.4	62.7	28.4
1924-1928	33.4	29.9	32.6	29.5	36.4	28.6	42.9	28.5	50.3	28.6	57.9	30.1	63.1	30.4
1929-1933	36.5	29.4	34.2	29.8	37.2	27.7	43.9	26.9	51.9	29.0	60.2	29.4	63.2	30.4
1934-1938	34.3	28.5	32.6	29.3	36.3	27.1	43.4	26.3	51.1	28.2	59.7	28.8	65.0	29.4
---														
1939-1943	33.1	29.3	32.5	29.5	36.1	26.7	43.7	26.3	53.3	27.5	60.9	29.1	63.9	30.6
1944-1948	34.5	29.3	33.8	29.8	40.1	26.0	46.5	27.7	54.2	26.9	60.8	27.3	65.9	29.0
1949-1953	38.4	28.8	36.7	27.2	39.4	25.5	47.1	24.7	55.1	26.0	62.1	28.6	67.1	30.7
---														
1954	35.9	29.0	36.6	28.1	41.0	27.1	47.9	25.6	53.8	19.5	60.8	25.8	64.2	29.0
1955	35.9	27.7	35.0	27.7	39.5	26.9	46.8	25.2	56.0	26.3	61.6	27.7	68.7	29.0
1956	35.1	24.2	36.6	25.8	36.6	24.3	44.1	20.3	50.9	25.6	60.5	27.2	63.5	29.4
1957	33.3	28.0	36.4	27.6	40.1	25.4	47.9	24.1	55.5	28.9	63.8	30.3	66.6	31.5
1958	38.0	24.2	35.0	26.1	40.5	21.3	48.5	19.6	54.2	22.2	58.5	28.9	64.3	29.4
Mean	34.9	28.9	33.9	28.9	37.7	26.7	44.8	26.3	52.8	27.3	60.4	28.8	64.7	29.9
Maximum	45	32.1	43	32.3	48	31.8	58	34.6	63	31.1	70	32.0	72	32.8
Mean Max.	38.2	30.8	36.6	30.8	41.8	30.2	49.6	29.8	58.0	29.9	65.2	30.6	68.4	31.2
Mean Min.	31.8	24.4	31.3	24.7	33.8	20.6	40.6	20.6	48.0	22.5	55.9	24.4	61.1	27.3
Minimum	28	12.6	28	9.2	29	12.7	32	12.0	44	9.9	50	14.2	57	16.5

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

# Temperatures and Salinities

## Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>MAINE-continued</b>															
61.1	30.1	57.8	30.7	52.2	30.7	46.2	30.2	36.9	29.3	46.5	29.2	66	34.0	--	14.1
59.8	30.4	56.8	30.7	50.8	30.8	43.5	30.4	35.8	30.8	45.2	29.9	67	33.1	--	17.5
61.2	30.6	58.6	30.1	50.8	30.3	43.4	29.0	35.2	29.3	45.8	29.1	66	32.3	28	17.9
--	--	--	--	51.3	30.3	47.1	30.6	39.4	30.1	--	--	--	31.6*	36*	27.2*
60.8	31.4	58.2	31.6	52.6	31.5	47.6	31.2	40.7	31.1	47.8	30.9	65	32.9	30	27.6
59.5	30.4	57.0	30.6	51.6	30.4	46.2	30.2	36.6	30.7	46.7	29.1	64	32.0	31	12.8
60.2	30.6	57.8	30.7	51.8	30.6	44.9	30.2	37.0	29.9	46.1	29.8				
67	34.2	65	33.2	59	32.9	52	32.3	45	32.7			67	34.2		
62.6	31.9	61.0	31.9	55.9	31.8	48.8	31.4	41.3	31.2						
58.0	28.5	54.6	28.6	47.5	28.4	40.2	28.1	33.5	28.0						
54	24.8	50	22.7	42	20.1	36	23.1	30	23.5					28	12.8
<b>N.H.</b>															
61.7	30.2	59.4	30.6	52.4	31.0	46.9	30.7	39.2	29.4	47.1	28.9	68	34.1	29	13.9
61.8	31.0	58.0	31.1	52.7	31.4	46.9	29.8	41.5	28.1	48.3	28.4	68	32.7	30	9.7
58.3	30.4	57.5	24.7	53.4	28.4	47.4	26.5	41.3	26.3	47.9	26.7	66	31.8	32	9.9
64.6	30.6	55.4	31.2	53.0	30.6	46.7	26.1	38.6	30.1	47.9	28.5	68	32.0	32	20.8
60.2	31.2	58.4	31.4	52.2	31.1	47.9	30.7	39.8	28.2	47.2	28.5	64	32.4	34	12.9
60.8	32.0	57.6	32.1	52.3	32.4	48.8	31.9	41.6	29.8	48.3	30.3	65	32.7	32	23.7
57.7	31.2	56.6	31.8	51.8	31.4	47.7	30.7	39.4	30.2	47.3	28.4	63	32.3	32	16.6
61.3	30.7	58.2	30.6	52.6	31.1	47.2	29.9	40.3	28.9	47.7	28.6				
68	32.7	66	32.4	58	32.7	53	32.5	47	32.5			68	34.1		
65.2	31.6	62.5	31.8	55.4	31.9	50.3	31.5	44.0	31.5						
55.9	29.4	53.6	29.0	49.7	30.1	42.9	27.5	35.7	25.2						
52	26.1	51	14.8	46	26.9	40	19.0	33	20.1					29	9.7
<b>MASS.</b>															
63.0	30.3	61.5	30.1	54.8	30.7	46.2	30.6	39.1	29.8	48.4	29.3	70	31.9	29	17.8
65.1	30.3	62.0	29.8	54.3	30.4	46.9	30.4	38.2	29.9	48.6	29.7	71	32.1	29	22.0
64.5	30.7	62.7	30.3	55.9	30.1	47.5	29.9	38.3	30.3	49.8	29.5	70	32.1	30	16.3
64.3	29.7	61.8	29.5	55.1	29.8	47.0	30.1	38.4	28.4	49.1	28.8	73	31.6	29.	17.9
65.9	30.8	63.3	31.1	56.1	31.0	46.8	30.6	37.9	30.4	49.5	29.4	72	34.6	28	13.9
67.5	29.5	65.7	29.8	57.6	30.6	50.1	29.8	40.2	28.9	51.4	28.7	75	32.3	28	15.7
67.5	30.4	64.1	30.4	57.3	30.6	49.6	28.9	42.4	29.1	52.2	28.4	72	32.3	32	9.2
64.0	29.9	61.9	22.6	58.1	28.0	48.8	26.3	40.8	26.5	51.2	26.4	69	31.4	32	9.9
70.7	23.1	61.5	24.3	56.6	24.1	48.6	23.7	36.4	28.6	51.4	26.1	74	31.0	31	4.8
66.0	30.1	62.2	28.5	55.5	28.9	50.6	29.5	42.3	27.1	50.3	26.7	69	30.3	32	12.2
67.4	31.5	63.8	31.8	56.0	30.3	50.4	30.4	42.7	29.5	52.0	29.1	71	32.9	31	15.2
64.9	27.7	61.5	28.0	55.9	27.3	49.8	27.3	38.8	28.4	50.8	25.9	69	31.6	30	12.6
65.8	30.1	63.2	29.8	56.0	30.1	48.1	29.7	39.4	29.3	50.1	28.8				
75	32.9	75	32.3	64	33.2	58	31.9	50	32.0			75	34.6		
69.5	31.2	67.2	31.1	60.8	31.4	52.5	31.0	44.0	30.8						
62.4	26.9	59.2	26.8	51.3	27.1	43.4	26.4	34.8	25.9						
56	4.8	55	14.8	46	12.9	37	16.2	30	12.2					28	4.8

Table 1.- Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
	CAPE COD CANAL													
1955	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1956	34.3	31.4	35.0	31.2	35.3	31.2	40.1	31.1	46.9	31.0	55.0	31.0	56.9	31.0
1957	34.0	31.2	34.3	31.2	37.1	31.4	42.0	31.5	50.6	31.6	57.8	31.9	60.9	32.0
1958	37.5	31.8	33.3	31.4	36.6	31.2	41.9	31.0	48.9	30.3	53.1	30.7	56.4	31.2
Mean	35.3	31.5	34.2	31.3	36.3	31.3	41.3	31.2	48.8	31.0	55.3	31.2	58.1	31.4
Maximum	43	32.1	38	31.8	40	32.0	49	32.1	59	32.4	66	32.7	70	32.4
Mean Max.	39.0	31.9	37.3	31.8	38.3	31.9	47.3	31.9	55.7	31.6	61.7	32.0	67.0	32.0
Mean Min.	32.3	30.7	31.7	30.6	34.3	30.7	38.0	30.4	44.3	30.2	47.3	30.6	49.3	30.7
Minimum	30	30.3	29	30.2	34	30.4	36	30.2	43	29.7	46	30.1	48	29.8
	CAPE COD CANAL													
1955	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1956	34.2	31.5	35.1	31.1	35.8	31.2	41.9	30.8	48.9	30.8	58.8	31.1	62.6	31.1
1957	33.7	31.2	34.3	31.2	37.8	31.4	44.5	31.0	52.0	31.6	63.5	32.3	66.5	32.5
1958	37.3	31.5	34.0	31.4	37.0	31.2	44.1	30.7	50.3	30.2	57.5	30.3	62.0	31.1
Mean	35.1	31.4	34.5	31.2	36.9	31.3	43.5	30.8	50.4	30.9	59.9	31.2	63.7	31.6
Maximum	42	32.5	38	32.0	42	32.0	52	31.9	58	32.3	74	34.2	74	35.5
Mean Max.	40.0	32.3	37.3	31.9	39.7	31.9	50.0	31.8	56.0	31.8	68.3	32.4	71.0	33.2
Mean Min.	31.3	30.6	31.7	30.6	34.0	30.4	39.0	29.8	45.3	30.1	49.7	30.3	50.7	31.0
Minimum	30	30.6	30	30.3	33	29.9	38	29.5	44	29.3	49	29.7	49	30.1
	WOODS HOLE,													
1944-1948	33.0	32.0	31.7	31.9	36.8	32.0	44.7	32.0	54.0	32.1	61.8	32.3	70.1	32.4
1949-1953	37.7	31.9	35.9	31.8	36.9	31.6	45.6	31.6	53.9	31.9	63.8	32.1	70.8	32.3
1954	35.8	31.0	34.4	31.5	38.5	31.6	45.4	31.9	52.6	31.6	63.5	31.8	69.8	31.9
1955	35.5	31.0	32.4	31.2	37.3	31.2	43.3	31.6	53.1	31.6	62.2	31.8	71.9	32.1
1956	32.4	31.0	33.8	31.0	35.3	31.0	41.6	31.0	49.8	31.4	60.9	31.8	68.0	31.6
1957	33.3	31.2	34.3	31.2	38.2	31.2	44.8	31.5	55.2	32.0	65.7	32.4	71.9	32.3
1958	36.8	31.0	31.7	31.0	35.9	31.1	44.3	30.8	52.0	30.6	60.0	30.6	67.5	30.8
Mean	35.3	31.6	33.8	31.6	36.9	31.6	44.7	31.6	53.5	31.9	62.7	32.0	70.2	32.1
Maximum	45	34.2	39	32.7	45	33.1	53	35.5	61	34.4	73	34.1	76	34.8
Mean Max.	38.8	32.1	36.3	32.0	40.8	32.1	49.0	32.3	58.1	32.3	68.5	32.5	73.3	32.8
Mean Min.	32.9	31.2	31.3	30.2	33.7	31.2	40.6	31.1	48.7	31.4	57.7	31.6	66.6	31.6
Minimum	28	30.6	27	17.4	30	30.2	37	29.4	45	30.1	55	30.3	64	30.3
	NEWPORT,													
1955	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1956	36.6	30.8	35.9	29.7	37.2	29.7	42.6	29.3	49.4	29.8	61.1	30.7	66.7	31.1
1957	35.7	31.0	36.8	30.8	39.4	30.8	45.5	30.1	54.0	31.2	64.1	32.0	68.1	32.4
1958	38.9	30.4	34.5	30.8	38.3	30.3	44.2	29.5	53.1	29.0	59.3	30.1	66.3	31.1
Mean	37.1	30.7	35.7	30.4	38.3	30.3	44.1	29.6	52.2	30.0	61.5	30.9	67.0	31.5
Maximum	43	31.8	41	32.1	43	31.4	52	31.2	58	32.0	70	32.4	72	33.8
Mean Max.	41.3	31.5	39.0	31.5	40.7	31.0	49.3	31.0	56.0	31.0	66.0	31.6	70.0	32.5
Mean Min.	33.0	29.0	32.0	29.5	35.3	29.0	39.0	27.8	47.0	28.9	56.7	29.8	63.7	30.6
Minimum	30	28.0	29	28.4	34	28.1	38	27.5	45	28.0	56	27.6	62	29.8

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



# Temperatures and Salinities

## Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>(east entrance), MASS.</b>															
65.1	30.8	61.0	30.7	53.9	31.2	47.7	30.8	37.4	31.0	--	--	72*	32.0*	30*	29.9*
62.2	31.1	59.8	31.2	55.7	31.4	50.1	31.5	43.7	31.2	47.9	31.2	74	32.8	32	29.8
62.3	31.9	59.1	31.9	55.9	32.0	50.2	31.8	43.1	31.9	48.9	31.7	70	33.1	30	30.2
59.9	31.1	56.8	31.1	53.9	31.4	48.6	31.6	37.4	31.8	47.0	31.2	69	33.6	29	29.7
62.4	31.2	59.2	31.2	54.8	31.5	49.2	31.4	40.4	31.5	47.9	31.3				
74	33.6	68	33.1	64	32.3	55	32.3	48	32.3			74	33.6		
70.8	32.7	66.5	32.0	59.8	32.1	53.0	31.9	45.5	31.9						
53.2	30.4	53.2	30.7	51.0	30.8	43.0	30.8	34.2	30.6						
47	29.9	49	29.9	49	30.6	39	29.9	30	30.2					29	29.7
<b>(west entrance), MASS.</b>															
70.5	31.2	64.5	31.0	55.5	31.2	47.9	30.7	36.4	31.0	--	--	75*	32.1*	30*	30.1*
66.6	31.2	62.3	31.4	56.3	31.4	50.6	31.6	43.0	31.4	49.7	31.2	72	32.4	30	29.8
67.1	32.1	64.3	32.0	57.0	32.0	50.3	31.8	42.7	31.9	51.1	31.8	74	35.5	30	30.1
63.0	31.4	61.4	30.7	55.1	30.7	48.9	30.8	36.7	31.1	48.9	30.9	73	34.9	30	29.3
66.8	31.5	63.1	31.3	56.0	31.3	49.4	31.2	39.7	31.4	49.9	31.3				
75	34.9	70	32.8	64	32.4	58	32.7	46	32.4			75	35.5		
73.0	32.9	70.0	32.1	61.5	31.9	54.8	32.0	44.5	31.9						
55.5	30.7	54.5	30.6	51.8	30.6	42.8	30.5	34.0	30.4						
51	30.2	52	29.9	50	29.9	39	29.9	30	30.1					30	29.3
<b>MASS.</b>															
71.0	32.1	68.1	32.4	59.7	32.4	50.9	32.1	40.2	32.0	51.8	32.1	76	35.5	27	17.4
71.7	32.1	68.3	32.5	60.4	32.4	51.5	32.3	42.9	32.0	53.3	32.0	77	34.5	31	24.7
69.8	31.8	65.1	31.8	61.5	31.6	51.4	31.5	40.8	31.0	52.4	31.6	74	33.2	33	30.6
73.2	31.6	67.6	31.5	60.4	31.4	50.6	31.0	36.9	31.0	52.0	31.4	76	32.8	30	30.6
70.0	31.6	66.5	31.8	58.6	32.0	51.7	31.8	43.8	31.8	51.0	31.5	72	32.4	30	30.6
71.3	32.1	68.9	32.0	59.7	32.3	52.2	32.0	43.4	31.6	53.2	31.9	74	33.1	30	30.6
70.0	30.8	66.2	30.7	57.6	31.2	50.7	30.8	37.2	30.7	50.8	30.8	73	31.9	28	30.1
71.2	32.0	67.8	32.1	59.9	32.1	51.3	32.0	41.2	31.8	52.4	31.9				
77	33.3	74	33.5	67	33.6	60	34.5	50	34.2			77	35.5		
73.8	32.5	71.1	32.5	64.3	32.7	56.2	32.5	45.9	32.3						
68.9	31.0	63.8	31.6	55.4	31.6	46.2	31.6	36.1	31.4						
66	24.7	60	30.3	51	30.2	42	30.4	30	30.3					27	17.4
<b>R.I.</b>															
72.4	29.3	66.2	30.4	60.9	30.1	50.8	29.3	39.7	30.6	--	--	78*	31.6*	32*	19.6*
68.1	31.5	64.1	31.5	57.5	31.4	51.9	31.5	45.1	31.1	51.4	30.7	72	32.4	32	27.6
67.4	32.5	68.1	32.5	59.6	32.4	52.9	32.1	44.2	31.6	53.0	31.6	73	33.8	30	28.6
69.1	30.8	63.9	31.0	57.6	30.8	51.4	30.7	39.3	30.3	51.3	30.4	70	32.1	29	27.5
69.2	31.0	65.6	31.4	58.9	31.2	51.8	30.9	42.1	30.9	52.0	30.7				
78	33.2	73	33.2	64	32.8	57	32.5	48	32.5			73	33.8		
72.5	32.1	70.5	32.1	62.2	31.9	55.8	31.8	47.2	31.6						
66.2	28.2	60.8	30.4	53.2	29.9	46.2	30.2	35.8	30.1						
65	19.6	57	29.5	49	27.6	43	27.8	29	29.5					29	19.6

Table 1.- Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>NANTUCKET SHOALS</b>														
1923-1925	41.0	32.4	38.8	32.8	38.6	32.9	41.6	32.9	45.0	33.3	50.8	32.9	55.0	32.7
<b>NEW LONDON,</b>														
1947-1948	34.7	23.3	33.6	14.0	38.8	10.3	48.8	10.8	56.5	10.6	64.7	10.8	73.9	16.5
1949-1953	39.2	16.6	38.2	15.8	41.2	14.0	50.0	12.6	58.1	14.5	67.2	19.9	72.1	25.4
1954	39.2	21.7	39.0	21.7	43.0	16.2	49.5	18.6	54.3	16.2	64.6	23.0	69.2	26.8
1955	38.8	19.9	37.3	18.0	40.5	14.6	47.6	17.5	60.2	16.2	64.9	22.5	74.0	25.2
1956	37.4	20.4	37.4	16.2	37.7	14.4	44.8	9.4	55.5	13.5	68.5	17.1	71.0	20.9
1957	36.0	19.7	38.5	16.9	41.3	16.6	50.4	14.4	59.1	21.2	68.2	25.9	71.0	28.5
1958	37.5	14.8	35.2	15.3	40.3	11.9	49.4	12.3	56.5	10.2	64.4	19.6	70.6	23.4
Mean	38.1	18.4	37.4	16.5	40.7	14.0	49.1	13.3	57.5	14.6	66.5	19.9	71.9	24.3
Maximum	45	28.4	43	27.8	52	24.8	61	24.8	66	24.7	78	29.8	79	30.6
Mean Max.	41.2	24.4	40.5	23.0	45.9	21.2	54.6	19.6	63.5	20.3	72.6	25.2	76.0	27.3
Mean Min.	35.3	11.0	34.2	10.2	36.7	7.6	43.5	8.6	52.0	9.7	60.7	13.2	67.2	20.4
Minimum	31	6.6	31	7.3	33	1.3	41	3.9	49	5.5	58	7.2	64	9.7
<b>PLUM ISLAND,</b>														
1957	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1958	40.0	28.6	34.7	28.8	37.0	28.9	43.0	27.3	50.3	26.3	58.3	28.2	65.0	28.9
<b>MONTAUK, FORT POND</b>														
1947-1948	33.1	32.4	31.7	31.0	36.6	30.2	41.8	29.7	49.5	30.2	59.6	29.8	67.6	30.1
1949-1953	39.9	30.4	37.8	30.1	38.9	29.9	45.4	29.0	52.7	29.4	62.2	29.9	69.2	30.3
1954	36.9	30.7	36.8	30.8	40.1	30.2	46.5	30.1	52.4	29.1	61.7	29.9	69.2	30.1
1955	37.0	29.8	35.1	30.3	38.8	29.7	43.7	29.4	53.3	29.3	61.5	30.4	69.5	30.6
1956	35.2	29.5	35.2	29.5	36.8	29.5	41.7	29.3	48.7	29.0	60.4	29.1	67.5	29.9
1957	34.9	30.4	36.4	30.3	39.2	30.2	44.8	29.7	53.8	29.9	63.9	30.1	68.0	30.6
1958	38.2	29.9	31.2	29.9	37.2	30.1	42.5	29.4	--	--	58.2	29.4	67.2	29.5
Mean	37.7	30.4	36.0	30.2	38.5	29.9	44.4	29.3	52.1	29.4	61.5	29.8	68.6	30.2
Maximum	48	33.1	41	31.4	46	31.2	52	31.4	60	31.5	72	31.4	76	31.8
Mean Max.	41.9	31.0	39.1	30.8	41.9	30.6	49.0	30.2	57.6	30.2	68.0	30.4	72.7	31.0
Mean Min.	33.8	29.8	32.6	29.7	34.9	29.3	40.8	28.2	47.2	28.6	55.4	29.3	64.1	29.5
Minimum	29	28.5	29	28.8	30	28.4	38	26.8	44	27.3	52	28.2	60	27.5
<b>NEW YORK</b>														
1932-1933	39.5	25.9	36.4	25.9	36.0	26.0	43.7	24.4	54.0	24.3	60.9	25.4	66.3	25.6
1934-1938	35.1	25.4	31.9	23.9	35.4	24.3	42.3	24.3	52.3	24.3	61.8	25.1	67.3	25.4
1939-1943	34.7	25.2	32.9	25.2	36.2	24.6	44.2	23.8	54.6	23.9	63.9	24.2	67.9	25.1
1944-1948	34.1	25.4	33.4	25.6	38.4	24.6	45.8	24.1	54.9	23.8	62.7	24.1	68.9	25.0
1949-1953	39.0	25.1	37.1	24.8	39.0	24.8	47.1	23.7	55.0	23.8	63.7	24.6	69.4	25.1
1954	35.0	26.4	35.2	26.0	39.9	25.6	47.0	25.0	55.7	23.5	62.7	24.4	68.7	25.5
1955	36.0	25.0	33.6	25.1	38.4	23.9	45.5	24.3	56.0	24.6	63.4	25.1	70.5	26.1
1956	34.1	24.1	35.0	23.5	36.7	23.3	41.7	22.2	50.8	22.7	60.1	23.9	65.8	24.8
1957	35.1	25.0	36.4	24.8	38.7	26.7	45.5	24.6	55.5	25.1	63.1	25.8	68.3	26.9
1958	37.1	26.4	32.1	25.2	36.4	25.5	44.4	23.0	52.0	22.6	60.6	23.7	66.4	24.7

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

# Temperatures and Salinities

## Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>LIGHTSHIP</b>															
59.6	33.8	58.5	34.0	56.6	32.9	51.0	32.4	46.0	32.4	48.5	33.0	69	36.2	36	31.4
<b>CONN.</b>															
72.1	25.1	69.6	26.9	61.0	28.5	52.4	22.2	43.2	23.3	54.1	18.5	80	32.1	31	1.3
72.6	25.9	69.0	27.8	61.9	28.5	52.5	24.2	43.8	18.7	55.5	20.3	79	31.4	31	3.9
69.5	26.1	66.4	17.3	63.0	22.0	51.1	17.5	41.0	15.6	54.2	20.3	72	28.6	32	6.8
76.1	19.6	69.0	20.9	59.3	11.9	48.7	9.4	39.0	17.7	54.6	17.8	79	29.0	34	4.7
72.1	27.1	68.0	27.2	60.0	26.1	53.4	24.1	43.3	19.7	54.1	19.6	75	29.5	36	5.5
71.2	30.2	70.3	30.2	61.3	30.6	53.6	27.5	43.9	19.6	55.4	23.4	74	31.5	33	8.2
73.5	20.9	68.1	21.6	57.7	19.2	51.3	17.7	37.9	15.0	53.5	16.9	77	27.7	33	5.5
72.5	25.2	68.8	25.9	61.1	25.8	52.1	21.8	42.5	19.0	54.8	19.9				
80	31.2	78	31.5	70	32.1	60	30.3	50	29.3			80	32.1		
75.8	29.3	73.5	29.1	66.1	29.1	57.3	27.1	47.1	25.4						
69.4	19.5	64.2	21.3	56.1	21.0	46.4	14.4	37.5	12.3						
68	4.7	62	7.5	50	5.1	43	6.6	35	6.8					31	1.3
<b>L.I., N.Y.</b>															
68.3	30.8	68.3	31.0	61.4	31.0	53.6	30.6	45.5	29.0	—	—	72*	32.1*	40*	22.6*
68.1	29.3	65.8	29.5	58.3	29.4	52.1	28.5	39.9	28.9	51.0	28.5	72	30.4	28	18.8
<b>BAY, L.I., N.Y.</b>															
70.0	—	68.7	31.2	61.2	31.5	53.2	31.4	44.8	30.8	51.5	—	76	33.1	29	27.6
70.7	30.7	67.8	31.1	61.6	31.5	52.8	31.2	44.4	30.8	53.6	30.4	76	32.3	30	26.8
68.4	30.2	65.5	30.4	62.1	30.3	52.3	30.6	42.0	29.8	52.8	30.2	73	31.4	30	28.4
72.6	30.1	68.3	30.2	62.2	30.2	51.6	28.9	38.0	29.3	52.6	29.8	75	31.4	30	25.6
69.0	30.7	66.3	31.0	59.9	31.1	52.2	30.8	45.3	30.8	51.5	30.1	74	31.9	32	28.1
69.4	31.5	68.2	31.8	—	—	52.9	31.6	44.3	30.8	—	—	73	32.4*	30	29.0*
69.4	30.1	65.6	30.3	58.6	30.2	50.7	30.2	36.9	30.1	—	—	73	30.8*	29	28.4*
70.2	30.6	67.5	31.0	61.1	31.1	52.5	30.8	43.2	30.6	52.8	30.3				
76	32.0	74	32.4	67	32.4	60	32.5	51	31.9			76	33.1		
73.8	31.2	71.7	31.6	65.6	31.6	57.2	31.5	47.9	31.1						
66.8	29.4	63.4	30.2	56.6	30.4	46.8	30.2	36.5	29.8						
63	25.6	61	29.3	53	29.0	43	27.8	30	28.9					29	25.6
<b>(Willels Point), N.Y.</b>															
70.8	26.7	68.6	26.4	60.3	25.9	46.8	25.4	38.8	25.9	51.8	25.6	81	29.1	32	22.0
70.5	26.1	68.1	25.9	60.7	25.2	50.6	25.0	39.1	24.8	51.3	25.0	76	29.0	29	20.5
72.9	25.9	70.3	26.0	61.6	25.9	50.8	25.8	40.8	26.0	52.6	25.1	77	28.4	28	20.4
72.1	25.4	71.6	25.5	62.9	25.6	52.4	26.1	40.8	25.2	53.2	25.0	81	28.5	29	21.7
72.0	25.9	70.9	26.1	63.6	26.3	53.9	26.1	43.8	25.6	54.5	25.2	76	28.5	32	20.9
71.6	26.1	68.8	25.8	64.6	26.1	52.7	25.1	41.2	24.8	53.6	25.4	76	27.2	30	22.6
75.1	25.0	72.1	25.0	64.5	23.7	51.6	22.5	39.1	23.4	53.8	24.4	77	27.2	30	19.9
70.0	25.4	68.6	25.6	60.0	25.8	53.2	25.2	44.4	26.3	51.7	24.4	73	26.8	31	20.4
70.9	27.5	71.2	27.5	62.9	27.2	52.7	27.3	44.2	26.7	53.7	26.3	76	28.8	32	23.3
70.6	25.5	68.5	26.1	59.4	25.4	52.1	26.3	39.0	25.5	51.6	25.0	72	26.9	30	21.2

Table 1.—Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
	<b>NEW YORK</b>													
Mean	36.0	25.4	34.1	25.1	37.3	24.7	44.8	23.9	54.1	22.9	62.7	24.6	68.1	25.2
Maximum	45	28.2	41	28.0	49	28.0	56	27.3	66	27.2	72	28.5	77	28.8
Mean Max.	39.3	26.0	37.3	25.6	41.8	25.8	50.6	25.1	60.4	24.8	67.7	25.6	72.5	26.3
Mean Min.	32.7	24.3	31.7	23.8	33.4	23.4	39.3	22.7	48.2	22.9	58.0	23.7	64.2	24.1
Minimum	28	21.6	28	20.4	30	20.6	33	20.4	43	21.2	54	21.4	60	22.5
	<b>NEW YORK</b>													
1927-1928	35.7	20.6	35.9	19.6	38.5	17.1	45.2	18.3	53.0	19.1	62.6	20.0	70.0	18.4
1929-1933	39.2	21.7	37.3	22.0	39.3	19.9	45.5	17.0	55.1	19.9	64.8	22.4	71.5	23.5
1934-1938	37.3	21.0	34.2	21.7	38.1	19.1	45.3	18.0	55.0	20.9	65.0	23.4	72.5	23.3
1939-1943	36.5	21.0	34.9	21.0	37.7	18.0	44.6	15.2	55.8	18.2	66.5	20.6	70.4	22.9
1944-1948	36.1	21.8	34.7	22.1	38.4	16.6	46.6	16.5	55.3	16.2	64.4	18.2	71.2	21.4
1949-1953	39.8	18.2	38.3	18.6	40.2	17.7	47.3	14.8	56.2	18.0	65.5	20.9	72.7	23.0
1954	38.3	22.4	37.7	20.5	41.5	18.0	49.1	17.4	56.0	15.8	65.2	19.6	71.5	24.2
1955	37.9	20.3	35.2	22.2	39.2	16.3	46.0	16.0	56.6	20.8	65.0	22.7	73.1	25.0
1956	35.4	22.5	37.0	20.8	37.9	17.8	43.1	12.9	52.9	16.7	64.7	19.5	70.0	23.3
1957	36.4	21.4	37.8	21.6	40.3	20.4	47.1	17.9	58.1	22.2	67.8	24.2	70.6	25.2
1958	38.6	20.5	--	--	--	--	--	--	--	--	62.0	21.2	69.9	23.3
Mean	37.6	20.9	36.0	21.0	38.9	18.2	45.9	16.3	55.4	18.7	65.1	21.2	71.5	22.9
Maximum	44	26.8	43	26.8	46	26.5	54	24.4	65	25.5	74	27.3	78	27.2
Mean Max.	40.5	24.2	38.1	24.2	42.0	22.9	50.4	20.6	60.6	22.4	69.9	24.1	74.5	25.2
Mean Min.	34.6	16.5	33.7	16.2	36.0	12.2	41.8	11.5	49.9	13.7	60.2	17.1	68.1	19.9
Minimum	30	5.6	30	10.5	30	42.0	38	5.6	46	5.6	55	3.9	63	11.4
	<b>BEAR MOUNTAIN,</b>													
1958	--	--	32.0	0.2	35.1	0.0	47.2	0.0	56.4	0.0	65.7	0.0	74.6	0.6
	<b>NEW YORK</b>													
1911-1913	36.7	22.7	34.2	25.1	37.8	20.9	45.0	16.6	55.4	21.6	64.4	24.2	70.6	27.1
1914-1918	35.2	22.2	33.1	22.5	34.0	20.5	42.7	17.1	52.6	20.8	61.5	23.3	68.5	24.1
1919-1920	34.8	23.0	33.6	24.6	37.2	19.2	42.6	16.0	52.0	19.6	63.4	22.9	67.6	24.1
---														
1927-1928	36.7	23.1	36.8	23.0	39.3	20.4	45.4	20.5	53.4	21.2	62.1	22.2	71.4	23.3
Mean	35.8	22.7	34.2	23.7	36.4	20.4	43.7	17.4	53.3	20.9	62.6	23.3	69.4	24.7
Maximum	44	30.3	41	30.2	46	28.9	53	28.0	64	28.2	70	28.6	79	29.5
Mean Max.	40.1	26.9	37.8	28.2	40.4	26.7	48.7	23.3	59.1	25.1	67.2	25.9	73.8	27.3
Mean Min.	32.0	17.4	31.3	18.2	32.8	12.3	38.9	11.0	48.4	15.8	57.8	19.6	65.4	21.4
Minimum	28	12.4	28	12.2	30	3.3	36	2.1	46	12.7	54	14.9	62	16.3
	<b>SANDY HOOK,</b>													
1887-1888	32.0	21.0	32.0	22.1	33.1	20.3	47.0	17.0	58.3	20.6	68.7	24.3	73.9	25.6
1889-1893	34.6	21.7	34.2	22.7	37.8	21.7	47.9	21.2	58.6	22.7	69.0	24.3	72.9	25.9
---														
1944-1948	34.1	23.9	33.3	24.4	41.0	20.4	49.2	21.7	56.6	21.2	65.9	20.9	73.2	23.9
1949-1953	39.1	21.3	37.8	20.6	41.1	21.0	49.5	19.2	58.7	21.2	69.3	23.3	76.1	25.5

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

Temperatures and Salinities

Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>(Willets Point), N.Y. -continued</b>															
71.7	25.9	70.0	25.9	62.1	25.8	51.7	25.6	41.0	25.5	52.8	25.1				
81	29.0	81	29.1	72	28.5	64	28.2	52	28.4			81	29.1		
74.7	26.8	74.3	26.7	67.4	26.5	57.9	26.5	46.8	26.1						
68.6	24.8	64.3	25.1	56.3	24.8	45.4	24.6	35.3	24.4						
64	21.6	60	21.7	50	19.9	35	20.3	30	20.5					28	19.9
<b>(The Battery), N.Y.</b>															
71.2	21.7	68.6	22.1	62.2	22.7	51.4	20.3	43.0	19.9	53.1	20.0	75	26.7	30	8.4
72.9	24.3	71.0	24.3	61.9	23.9	51.8	22.6	42.5	22.6	54.4	22.0	77	27.3	33	8.4
73.2	24.6	70.0	23.7	61.4	23.8	52.6	22.2	42.4	20.4	53.9	21.8	78	27.7	30	4.2
74.5	23.9	70.5	24.2	62.1	23.8	51.6	21.3	42.3	21.4	54.0	21.0	79	29.8	30	7.1
73.1	22.4	71.5	23.3	62.4	22.9	53.6	22.0	42.9	21.3	54.2	20.4	79	28.0	30	5.6
74.0	23.7	70.6	23.7	62.8	24.3	53.4	22.7	44.7	20.0	55.5	20.5	78	28.1	32	5.6
71.2	25.1	67.9	23.9	64.5	23.9	52.2	19.6	42.7	19.2	54.8	20.8	75	27.3	34	3.9
76.5	21.2	71.4	22.7	63.7	17.1	51.8	16.7	40.5	20.5	54.7	20.1	79	27.8	31	7.5
72.4	24.4	68.9	23.0	61.0	23.5	54.9	22.9	46.1	20.3	53.7	20.6	74	26.5	35	5.6
72.4	25.5	71.8	26.0	61.2	25.9	53.3	25.4	43.9	20.0	55.1	23.0	74	27.7	33	9.7
72.5	24.2	68.0	24.2	58.5	22.2	52.5	20.8	39.5	20.4	--	--	75	26.0*	31*	14.9*
73.3	23.7	70.4	23.8	62.1	23.5	52.6	22.0	42.9	20.9	54.3	21.0				
79	27.8	77	29.8	72	28.0	63	28.1	52	27.1			79	29.8		
75.7	25.8	73.5	26.0	66.9	26.0	57.4	25.1	47.2	24.6						
70.5	20.9	66.4	20.8	57.1	20.1	47.3	17.9	38.6	15.7						
66	11.6	62	5.9	49	7.5	43	10.1	31	5.6					30	3.9
<b>HUDSON RIVER, N.Y.</b>															
76.7	0.7	72.4	1.3	62.0	0.6	49.3	0.0	37.0	0.0	--	--	80	4.8*	31*	0.0
<b>(Fort Hamilton), N.Y.</b>															
71.9	28.4	68.0	27.5	60.3	25.6	50.3	22.4	42.7	22.4	53.1	23.7	76	30.6	28	2.1
71.5	26.0	67.4	26.1	58.2	24.4	48.8	24.8	38.9	23.4	51.0	22.9	76	32.7	28	6.8
69.2	23.9	67.2	23.7	59.7	23.0	49.2	21.4	38.5	20.8	51.2	21.8	73	29.5	28	8.9
71.9	23.8	68.4	22.6	62.0	24.6	51.0	21.4	44.2	21.4	53.6	22.3	81	29.3	30	8.1
71.3	25.9	67.7	25.5	59.6	24.4	49.6	23.0	40.8	22.6	52.0	22.9				
81	32.7	77	31.2	70	30.6	60	30.6	49	30.1			81	32.7		
74.6	28.0	72.1	28.5	64.3	27.8	55.8	27.1	46.2	26.8						
68.3	22.5	62.7	21.6	54.6	19.9	44.2	18.3	35.7	15.8						
64	16.2	58	12.9	50	14.4	41	8.1	28	10.5					28	2.1
<b>N.J.</b>															
73.3	25.1	65.8	24.8	54.4	25.1	46.4	24.6	38.2	23.5	51.9	22.8	82	29.4	28	11.6
72.6	25.9	69.0	25.5	55.4	25.4	45.3	24.1	37.1	23.5	53.0	23.7	82	30.7	28	10.5
73.4	24.7	70.2	25.5	59.2	25.4	50.2	24.6	38.3	24.4	53.7	23.4	83	32.9	29	13.2
75.5	25.6	69.9	25.9	60.6	26.3	49.8	25.2	41.3	23.1	55.7	23.2	84	28.6	30	10.3

Table 1.- Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>SANDY HOOK,</b>														
1954	34.5	24.8	37.5	23.9	42.0	22.5	51.8	22.7	57.9	20.5	69.1	23.5	75.0	25.5
1955	35.3	23.1	34.9	24.6	41.4	21.8	48.9	20.9	62.1	23.0	68.8	25.9	77.6	27.2
1956	33.2	25.2	36.8	22.5	38.7	20.9	46.1	18.6	56.4	21.0	69.8	23.5	73.4	25.6
1957	33.8	23.7	37.3	23.7	41.9	23.4	49.1	21.6	61.7	24.6	71.4	26.8	74.8	28.0
1958	35.3	21.2	31.5	22.2	38.5	20.9	48.4	18.0	56.4	19.6	64.9	24.3	74.3	25.6
Mean	35.5	22.5	35.2	22.6	39.7	21.3	48.7	20.3	58.3	21.7	68.4	23.5	74.3	25.4
Maximum	46	28.5	46	29.3	56	26.7	61	25.5	69	27.8	81	28.0	84	29.1
Mean Max.	40.2	25.9	40.1	25.8	46.0	25.2	55.7	23.8	65.4	24.8	76.7	26.1	79.2	27.2
Mean Min.	31.6	19.1	31.5	18.6	34.6	17.1	43.3	16.5	51.6	17.7	60.8	20.9	69.7	23.1
Minimum	28	13.2	29	13.1	30	13.2	40	12.8	47	10.3	54	13.6	66	17.9
<b>LONG BRANCH,</b>														
1948	--	--	--	--	--	--	--	--	51.5	28.0	63.0	26.9	67.6	28.9
1949-1953	39.7	31.4	39.6	31.4	39.9	31.0	46.6	32.1	55.2	32.3	64.5	33.5	69.6	33.1
1954	35.0	31.4	35.8	30.8	39.1	31.2	45.1	31.8	54.0	31.6	62.9	31.9	67.0	34.2
1955	36.4	30.8	34.1	30.7	38.5	31.1	44.6	31.4	53.4	31.5	61.0	32.7	68.5	33.3
Mean	38.6	31.2	38.3	31.1	39.6	31.1	46.1	32.0	54.3	31.5	63.7	32.4	68.9	32.7
Maximum	47	34.1	46	34.5	45	34.8	55	35.4	61	35.0	74	37.2	77	37.3
Mean Max.	41.3	33.2	41.1	33.2	43.4	33.1	51.7	34.4	59.9	34.1	68.5	34.6	72.6	35.5
Mean Min.	35.9	29.8	35.6	29.7	37.0	29.0	42.1	29.3	48.9	28.4	57.6	29.8	64.1	29.8
Minimum	33	29.4	32	29.4	35	27.8	40	28.0	45	20.6	54	21.4	59	24.7
<b>ASBURY PARK,</b>														
1945-1947	41.1	30.6	37.8	31.2	37.7	31.5	45.0	29.3	50.0	30.1	59.8	29.0	66.2	29.9
<b>ATLANTIC CITY,</b>														
1912-1913	38.0	31.4	35.6	32.1	41.2	31.6	48.1	31.4	56.5	31.1	64.4	31.9	68.6	32.4
1914-1918	35.8	31.8	34.8	31.4	37.9	31.1	46.5	31.0	55.0	31.0	63.2	31.2	69.0	31.4
1919-1923	36.1	31.1	34.4	31.0	39.2	30.7	46.9	30.7	55.6	30.8	65.7	30.8	68.6	31.4
1924-1928	35.7	31.4	36.2	31.4	39.5	31.2	46.2	31.2	55.1	31.4	63.5	32.0	68.2	32.1
1929-1933	39.0	31.8	37.1	32.0	39.8	31.9	46.6	31.6	55.3	32.1	64.0	32.5	68.8	32.7
1934-1938	37.9	31.0	34.7	31.0	39.7	31.2	46.8	30.8	55.9	31.8	65.1	31.8	70.9	31.5
1939-1943	35.7	31.5	35.5	31.6	39.1	31.6	46.7	31.4	56.2	31.5	65.5	31.9	68.9	32.1
1944-1948	36.9	31.6	35.5	31.8	40.9	31.1	48.9	31.2	56.4	31.6	65.0	31.4	69.1	31.8
1949-1953	40.9	31.2	40.2	31.0	41.9	30.8	48.7	31.1	57.1	31.1	65.4	31.5	72.0	31.9
1954	39.0	31.8	39.0	32.0	43.1	32.1	51.2	32.0	57.0	30.2	64.2	31.9	71.6	31.8
1955	37.6	30.6	35.2	31.0	42.2	31.4	48.8	30.7	55.9	31.1	63.7	31.6	70.2	31.8
1956	35.5	30.8	37.9	30.8	40.2	30.1	44.6	20.2	55.0	31.2	64.2	31.1	69.1	31.5
1957	36.8	30.6	39.0	31.0	42.1	30.7	49.6	31.0	57.6	31.4	67.3	31.9	67.2	32.8
1958	37.7	31.2	33.7	31.0	38.7	30.3	46.9	29.9	53.9	29.7	61.5	31.0	64.5	31.2
Mean	37.3	31.4	36.2	31.4	40.0	31.2	47.3	31.1	55.9	31.4	64.6	31.6	69.3	31.9
Maximum	46	34.5	44	34.1	51	33.6	61	34.2	67	34.6	76	35.0	81	34.6
Mean Max.	41.3	32.3	39.8	32.3	44.7	32.3	53.1	32.4	62.2	32.5	71.5	32.7	75.6	32.8
Mean Min.	33.2	30.2	32.9	30.3	35.5	29.9	42.4	29.3	50.1	29.8	57.4	30.4	61.2	31.0
Minimum	28	27.1	28	27.5	29	27.6	36	27.3	44	27.1	54	26.8	54	28.6

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

# Temperatures and Salinities

## Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<i>N.J. -continued</i>															
73.2	26.7	68.0	25.5	64.0	25.5	49.0	25.1	39.6	23.0	55.1	24.1	79	27.8	30	18.3
78.0	24.1	70.6	24.3	61.5	21.2	49.4	20.4	35.4	23.5	55.3	23.3	82	28.9	30	12.8
74.7	26.3	68.8	26.4	59.3	25.8	50.5	25.0	43.2	23.1	54.2	23.7	79	29.0	31	14.2
73.9	28.4	71.5	28.8	59.0	27.8	49.3	27.6	41.0	24.1	55.4	25.6	79	29.4	30	15.6
74.4	27.2	67.6	27.3	56.9	25.4	49.1	23.0	33.9	23.7	52.6	23.3	79	29.3	29	14.4
74.3	25.6	69.3	25.8	58.6	25.5	48.6	24.6	38.9	23.7	54.2	23.5				
83	29.3	80	31.2	72	32.9	62	28.6	50	31.1			84	32.9		
79.5	27.5	74.9	27.7	65.6	27.7	55.1	26.8	44.2	26.5						
69.8	23.5	62.9	23.4	51.6	23.0	41.7	21.7	32.9	20.3					28	10.3
65	14.5	56	19.7	41	12.8	32	17.4	28	14.6						
<i>N.J.</i>															
69.9	29.4	68.0	30.2	59.2	30.3	55.9	--	48.2	--	--	--	78	31.9*	42*	20.6*
70.4	32.7	66.2	33.8	59.5	32.0	50.3	31.8	42.1	31.4	53.6	32.2	78	37.9	33	27.8
65.7	35.5	63.4	34.5	58.5	33.6	48.7	32.4	41.3	30.8	51.4	32.5	69	37.7	33	28.5
73.1	32.4	70.4	35.0	64.4	34.4	53.9	31.8	42.9	31.0	53.4	32.1	74	37.0	32	28.0
70.1	32.7	66.6	33.6	59.9	32.3	51.3	31.9	42.8	31.2	53.4	32.0				
78	37.9	73	37.7	67	36.3	60	34.8	51	33.7			78	37.9		
73.1	34.8	70.8	35.7	65.0	34.0	55.9	33.3	47.6	33.1						
66.4	30.2	61.8	31.0	54.6	29.9	45.9	30.3	37.5	29.5					32	20.6
61	27.3	56	27.3	49	28.8	42	29.9	33	29.1						
<i>N.J.</i>															
70.5	29.1	68.9	29.8	64.0	30.3	55.2	31.1	45.2	30.3	53.4	30.2	74	33.2	35	20.3
<i>N.J.</i>															
71.2	32.1	69.4	32.1	61.7	31.9	51.9	31.8	43.4	31.9	54.2	31.8	78	33.3	29	27.5
73.2	31.4	69.0	31.5	61.3	31.6	50.5	31.5	40.1	31.4	53.0	31.4	80	33.3	29	28.5
70.1	31.1	70.4	31.1	61.9	31.2	50.8	31.0	43.3	30.7	53.6	31.0	78	32.7	29	28.5
70.9	31.8	68.8	31.4	60.5	31.6	50.3	31.8	40.4	31.6	52.9	31.6	78	33.8	28	27.1
70.8	32.3	70.2	32.4	60.5	32.4	50.9	32.0	41.4	31.9	53.7	32.1	78	35.0	29	28.1
70.7	31.6	69.0	31.0	60.3	31.1	51.7	31.5	40.9	31.2	53.6	31.3	79	33.6	28	27.7
71.6	32.0	69.4	31.9	60.9	32.1	50.8	32.1	41.1	32.0	53.4	31.8	80	34.2	29	27.5
71.9	31.2	70.8	31.5	61.6	31.5	53.4	31.6	41.7	31.1	54.3	31.4	80	34.5	30	26.8
74.4	31.6	70.3	31.9	62.4	31.9	52.6	31.5	43.8	31.4	55.8	31.4	81	33.8	33	27.1
68.7	32.1	70.2	31.4	64.8	31.8	50.9	30.8	41.4	30.4	55.1	31.5	76	33.8	34	28.8
75.1	31.5	71.9	31.0	65.0	31.1	51.7	30.6	38.2	30.3	54.6	31.1	79	33.1	31	28.1
72.8	31.2	69.0	31.4	60.6	30.6	53.4	30.3	46.6	30.6	54.1	30.8	76	32.4	32	27.6
70.0	32.5	72.0	32.4	60.5	32.0	52.7	31.9	43.8	31.4	54.9	31.6	76	33.3	33	28.8
68.3	31.0	66.1	31.1	58.8	30.7	52.2	30.4	38.6	30.2	51.7	30.6	76	32.1	29	27.6
71.7	31.6	69.7	31.6	61.3	31.6	51.5	31.6	41.6	31.4	53.9	31.5				
80	34.1	80	34.1	72	34.0	64	34.1	53	33.6			81	35.0		
76.5	32.5	74.5	32.4	67.0	32.4	57.6	32.4	47.3	32.1						
65.4	30.6	64.1	30.7	55.2	30.7	44.7	30.6	35.8	30.3						
57	28.5	58	28.1	46	27.7	38	28.0	28	28.0					28	26.8

Table 1.- Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F.	Sal. ‰	Temp. °F.	Sal. ‰	Temp. °F.	Sal. ‰	Temp. °F.	Sal. ‰	Temp. °F.	Sal. ‰	Temp. °F.	Sal. ‰	Temp. °F.	Sal. ‰
<b>BREAKWATER</b>														
1919-1923	37.5	28.5	36.2	28.4	44.3	28.0	49.3	27.5	58.9	28.4	68.0	28.2	73.3	29.5
---														
1947-1948	33.4	28.1	33.3	29.5	41.9	28.6	50.9	27.2	59.1	27.8	69.9	28.2	72.2	29.1
1949-1953	42.9	27.8	41.9	26.7	44.1	27.5	51.6	27.3	61.0	27.5	69.2	27.6	75.2	29.1
1954	38.7	27.6	40.0	29.3	43.3	28.4	52.1	28.2	60.1	28.1	68.6	29.4	74.0	30.6
1955	38.0	28.0	36.4	28.9	43.5	28.6	51.4	28.4	59.9	28.8	--	--	74.7	30.8
1956	33.8	27.1	39.1	29.7	41.3	27.6	46.4	26.5	56.8	27.1	67.1	27.6	71.7	28.6
1957	38.1	27.2	39.0	27.2	43.7	27.5	51.6	27.3	62.1	29.1	69.7	30.1	72.6	31.6
1958	37.3	27.7	33.1	28.4	39.3	27.2	50.1	24.8	58.5	24.8	65.2	27.6	71.4	29.1
Mean	38.3	27.8	37.8	28.1	43.1	27.8	50.2	27.2	59.5	27.7	68.5	28.2	73.4	29.7
Maximum	50	31.0	47	31.5	61	31.4	60	32.5	68	30.8	83	31.4	86	32.8
Mean Max.	42.5	29.9	41.6	29.9	48.8	29.7	55.6	29.7	65.4	29.3	74.6	29.8	77.5	30.8
Mean Min.	34.2	25.0	33.9	25.6	38.0	24.3	43.8	24.4	53.4	25.4	62.6	25.6	69.6	28.1
Minimum	28	20.6	29	21.6	34	21.6	36	20.6	50	20.8	60	20.0	66	25.5
<b>PHILADELPHIA,</b>														
1923	34.5	0.4	32.5	0.4	36.7	0.6	49.6	0.6	60.3	0.6	74.5	1.2	77.7	0.9
1924-1928	34.0	0.2	35.2	0.2	40.7	0.0	49.9	0.3	60.4	0.7	70.5	0.7	76.8	0.7
1929-1933	38.2	0.7	37.3	0.7	41.5	0.8	50.3	0.8	62.8	1.1	74.3	1.1	79.0	1.2
1934-1938	36.3	0.6	35.2	0.6	41.6	0.7	51.2	0.8	64.9	1.1	74.6	1.1	79.5	1.1
1939-1943	35.3	0.2	35.9	0.2	40.7	0.2	50.4	0.3	64.6	0.6	74.6	0.7	79.1	0.7
1944-1946	35.7	0.0	37.3	0.0	43.5	0.0	54.3	0.3	64.2	0.6	71.6	0.7	78.9	0.7
---														
1954	--	--	--	--	--	--	--	--	--	--	--	--	79.6	0.8
1955	37.7	0.0	37.4	0.0	43.5	0.0	54.4	0.0	66.4	0.2	73.8	0.6	84.1	0.6
1956	37.2	0.0	39.7	0.0	41.0	0.0	47.7	0.0	61.9	0.2	74.2	0.2	77.5	0.3
1957	36.5	0.0	41.1	0.0	45.4	0.0	50.2	0.2	68.6	0.4	77.7	0.8	80.2	0.8
1958	37.0	0.0	34.9	0.0	41.5	0.0	51.0	0.3	59.0	0.7	71.6	1.1	79.9	0.9
Mean	36.0	0.3	36.3	0.3	41.5	0.3	50.9	0.4	63.3	0.7	73.6	0.8	78.9	0.8
Maximum	47	1.3	46	1.3	57	1.3	66	1.7	76	2.1	86	2.6	90	2.2
Mean Max.	39.6	0.7	39.5	0.7	47.4	0.7	58.4	0.9	69.5	1.3	78.7	1.6	82.4	1.5
Mean Min.	33.3	0.0	33.7	0.0	36.4	0.0	44.3	0.0	56.8	0.2	67.9	0.3	75.0	0.3
Minimum	30	0.0	30	0.0	33	0.0	36	0.0	47	0.0	61	0.0	68	0.0
<b>CHESAPEAKE</b>														
1952	41.6	--	43.9	--	43.1	--	51.7	--	60.0	--	72.1	--	77.1	--
1953	46.3	--	45.0	--	48.0	--	50.9	--	63.8	--	68.7	--	76.9	--
1954	45.3	--	43.5	--	46.2	--	53.1	--	60.5	--	71.1	--	75.8	--
1955	43.9	--	39.2	--	45.2	--	51.4	--	--	--	64.0	--	73.5	--
1956	38.3	--	40.6	--	43.4	--	47.5	--	56.1	--	68.8	--	72.5	--
1957	--	--	41.4	--	44.1	--	50.9	--	62.8	--	71.5	--	--	--
1958	41.4	--	36.9	--	39.3	--	47.0	--	59.6	--	68.3	--	72.6	--
Mean	42.8	--	41.5	--	44.2	--	50.4	--	60.5	--	69.2	--	74.7	--
Maximum	49	--	46	--	52	--	62	--	69	--	79	--	81	--
Mean Max.	46.0	--	44.3	--	47.3	--	57.6	--	66.5	--	74.6	--	78.5	--
Mean Min.	39.8	--	39.4	--	41.3	--	44.6	--	55.0	--	64.6	--	69.8	--
Minimum	36	--	33	--	38	--	37	--	50	--	60	--	66	--

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



## Temperatures and Salinities

## Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
HARBOR, DEL.															
72.1	30.1	70.7	30.2	62.7	30.4	51.1	30.1	41.3	29.0	55.4	29.0	79	32.5	28	22.7
73.8	29.3	71.8	29.3	62.2	28.9	53.2	29.5	43.0	28.9	55.4	28.7	83	32.3	29	21.2
75.5	29.8	71.9	30.1	63.1	30.1	52.8	29.7	44.6	28.9	57.8	28.5	86	31.6	34	20.0
72.3	31.5	71.5	30.7	65.1	31.0	51.5	30.6	42.1	29.0	56.6	29.5	77	32.3	35	23.1
77.5	29.1	72.7	28.4	65.2	28.4	52.4	27.3	38.8	27.7	--	--	83	31.5*	31	22.2*
73.0	29.3	70.4	29.5	61.5	29.3	54.4	28.6	47.5	28.6	55.2	28.2	77	31.6	31	20.6
73.1	32.1	73.2	21.6	60.5	31.1	52.5	30.3	44.4	29.9	56.7	29.5	77	32.8	35	24.2
71.9	28.5	69.6	29.0	59.9	29.1	52.2	28.6	37.3	28.1	53.8	27.7	76	30.3	29	20.6
73.6	29.9	71.4	29.9	62.6	29.8	52.3	29.5	42.5	28.8	56.1	28.7				
83	32.8	81	32.3	72	32.3	61	32.1	54	31.1			86	32.8		
77.9	31.0	76.7	31.0	68.7	30.8	58.2	30.7	48.8	30.1						
69.8	28.0	66.0	28.4	56.0	28.1	45.0	27.2	36.6	27.1						
66	22.2	56	25.4	50	23.0	40	22.6	32	25.2					28	20.0
PA.															
77.0	1.1	74.1	0.9	63.0	0.7	49.3	0.4	42.4	0.4	56.0	0.7	80	2.6	32	0.0
76.5	0.7	70.7	0.6	60.0	0.4	48.6	0.2	38.4	0.0	55.1	0.4	82	2.2	30	0.0
78.5	1.2	74.3	1.2	62.5	1.2	50.0	1.1	39.7	0.8	57.4	1.0	84	2.5	32	0.0
79.8	0.9	72.1	1.1	61.9	0.8	50.1	0.7	38.9	0.4	57.2	0.8	86	2.5	32	0.0
79.5	0.7	73.6	0.7	62.8	0.6	49.8	0.4	40.5	0.3	57.2	0.5	90	2.0	32	0.0
77.2	0.7	73.8	0.6	63.0	0.3	53.8	0.3	40.0	0.3	57.8	0.4	85	2.0	33	0.0
79.3	1.1	74.0	0.4	69.8	0.6	51.0	0.0	39.9	0.0	--	--	84*	1.3*	36*	0.0
79.7	0.3	74.2	0.0	61.5	0.0	48.5	0.0	38.0	0.0	58.3	0.0	86	1.1	34	0.0
79.0	0.6	74.3	0.4	63.5	0.2	54.1	0.2	43.9	0.4	57.8	0.0	82	0.8	34	0.0
78.7	0.8	76.2	0.8	66.8	0.8	55.9	0.3	44.9	0.0	60.2	0.4	86	1.9	34	0.0
--	--	73.4	0.8	62.3	0.0	50.9	0.2	34.8	0.2	--	--	82*	2.4*	26	0.0
78.4	0.8	73.1	0.8	62.5	0.6	50.5	0.4	39.7	0.3	57.1	0.6				
86	2.5	82	2.5	76	2.2	64	1.7	53	1.6			90	2.6		
82.2	1.5	77.3	1.3	69.2	1.2	56.8	0.8	44.9	0.7						
74.5	0.2	67.9	0.2	55.8	0.0	43.6	0.0	35.4	0.0						
67	0.0	59	0.0	46	0.0	36	0.0	26	0.0					26	0.0
LIGHTSHIP															
75.7	--	--	--	--	--	58.0	--	50.4	--	--	--	81	--	36	--
77.7	--	--	--	--	--	59.3	--	52.4	--	--	--	81	--	44	--
74.0	--	--	--	--	--	57.8	--	49.1	--	--	--	78	--	42	--
79.7	--	74.4	--	--	--	--	--	--	--	--	--	82	--	37	--
75.0	--	71.4	--	63.9	--	57.6	--	--	--	--	--	78	--	36	--
74.0	--	74.1	--	63.9	--	57.1	--	49.5	--	--	--	79*	--	40*	--
75.0	--	71.6	--	63.3	--	56.8	--	49.0	--	56.7	--	79	--	33	--
75.9	--	72.9	--	63.7	--	57.8	--	50.1	--	58.6	--				
82	--	81	--	70	--	65	--	58	--			82	--		
79.0	--	76.8	--	67.7	--	61.7	--	56.2	--						
73.0	--	67.2	--	59.0	--	54.0	--	44.8	--						
71	--	65	--	56	--	49	--	41	--					33	--

Table 1.—Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
	<b>KIPTOPEKE</b>													
1951-1953	43.3	25.9	42.8	24.3	46.9	23.7	56.4	22.0	66.5	21.4	74.8	22.0	79.9	25.1
1954	40.6	26.4	43.5	27.1	47.4	24.8	57.6	25.4	65.6	23.7	74.3	25.4	78.3	26.0
1955	39.7	28.2	38.3	27.7	46.8	24.7	55.7	26.7	65.2	25.8	72.9	27.6	79.5	28.5
1956	36.7	27.1	41.3	25.2	45.7	24.7	49.8	22.7	54.2	--	77.3	26.3	76.4	27.1
1957	39.1	26.1	43.2	26.5	50.7	22.0	--	--	70.6	27.6	76.1	27.8	80.6	27.7
1958	38.2	28.6	35.7	25.8	42.8	26.7	51.2	23.4	63.2	22.4	72.3	25.5	78.2	24.3
Mean	40.1	26.9	41.4	25.9	46.7	25.1	54.5	23.7	64.5	23.7	74.6	25.5	79.0	26.3
Maximum	48	31.6	51	32.5	57	35.5	69	30.1	84	30.6	83	30.3	89	32.1
Mean Max.	44.7	30.8	45.9	30.4	51.9	30.1	61.5	28.5	71.0	28.0	80.3	29.1	83.7	30.2
Mean Min.	36.1	23.3	36.6	23.7	41.7	21.6	48.2	20.4	57.0	18.6	66.9	22.1	75.0	22.2
Minimum	31	22.2	29	20.6	39	18.8	44	18.3	46	13.5	63	17.4	71	19.3
	<b>CAPE CHARLES</b>													
1947-1948	36.4	22.7	36.7	23.1	47.0	22.9	56.7	21.7	65.0	20.0	73.9	20.6	79.2	23.3
1949-1952	42.2	21.8	42.9	21.0	45.2	20.4	54.6	20.1	64.4	20.3	75.0	21.7	80.0	23.1
Mean	41.9	22.0	41.7	21.4	45.5	20.9	55.0	20.4	64.5	20.1	74.3	21.6	79.8	23.1
Maximum	51	25.6	51	26.7	56	26.0	64	23.9	74	25.0	86	26.9	86	27.1
Mean Max.	46.1	23.5	47.0	23.9	53.7	24.6	61.5	22.5	71.6	23.1	82.7	23.9	84.1	25.9
Mean Min.	36.5	20.5	35.8	19.1	38.4	18.6	50.0	18.0	57.8	17.0	67.2	18.7	75.0	20.1
Minimum	31	18.4	30	17.3	36	17.3	45	15.3	56	14.2	66	17.3	74	18.8
	<b>LITTLE CREEK,</b>													
1954	42.2	22.4	43.3	22.9	--	--	--	--	65.8	22.0	75.2	22.5	79.4	23.9
1955	39.9	23.0	38.6	23.4	49.3	20.8	56.9	21.4	67.1	21.2	74.1	23.5	--	--
1956	37.6	22.4	44.2	21.0	47.0	22.6	51.9	20.9	63.1	20.5	73.1	21.2	77.7	23.5
1957	40.4	21.2	43.5	16.9	46.7	15.7	57.6	19.0	68.3	21.0	75.0	22.1	78.2	25.8
1958	38.9	20.1	35.9	20.1	42.5	17.4	53.1	16.1	63.6	16.9	72.4	19.7	79.1	23.5
Mean	39.8	21.8	41.1	20.9	46.4	19.1	54.9	19.3	65.2	20.3	74.0	21.8	78.6	24.2
Maximum	46	23.9	48	24.8	55	25.4	66	23.3	75	23.8	81	25.1	84	26.4
Mean Max.	44.2	23.1	45.8	22.4	50.0	21.8	63.2	21.4	71.0	22.1	79.2	23.5	82.0	25.6
Mean Min.	34.2	18.8	36.4	18.8	43.0	14.6	48.0	15.8	60.2	18.7	68.6	20.1	76.0	22.0
Minimum	30	16.1	30	12.9	41	7.6	45	7.5	57	14.1	65	18.4	75	19.5
	<b>OLD POINT</b>													
1944-1948	38.2	20.8	39.0	19.6	48.7	17.1	58.1	17.7	67.7	18.8	75.4	19.2	79.4	20.9
1949-1953	44.7	18.3	45.0	16.3	47.9	16.2	56.3	16.1	67.0	16.7	75.1	18.3	80.7	20.4
1954	41.0	21.2	43.6	21.4	48.9	18.2	59.1	19.7	65.5	19.6	75.3	20.1	79.0	22.1
1955	41.7	20.3	39.6	21.3	50.0	16.3	57.4	18.6	--	--	73.1	20.9	--	--
Mean	42.5	19.3	42.5	18.3	48.4	16.7	57.2	17.1	67.1	17.8	75.0	19.0	80.1	20.8
Maximum	53	23.9	50	25.6	58	22.5	69	23.4	77	22.4	84	26.4	88	25.8
Mean Max.	46.1	21.8	46.6	21.4	54.4	20.0	63.4	20.0	72.9	19.7	80.0	21.7	83.6	22.7
Mean Min.	39.2	16.5	38.2	14.2	43.4	13.9	51.8	13.6	61.5	14.8	69.4	16.1	76.4	18.7
Minimum	36	12.3	30	8.6	42	11.4	47	6.7	59	9.7	66	13.1	75	15.6

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

# Temperatures and Salinities

## Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>BEACH, VA.</b>															
79.0	26.1	74.7	27.1	64.5	27.6	53.5	26.9	46.7	26.5	60.8	25.0	89	32.4	38	13.5
77.7	28.0	76.0	27.7	—	—	52.9	28.2	42.2	26.9	—	—	83	32.5*	35	16.9*
80.1	28.9	75.0	26.9	66.2	26.5	53.3	25.9	40.8	26.5	59.5	26.9	85	32.4	34	21.7
77.4	28.9	70.3	27.8	65.2	28.0	53.1	25.9	49.6	26.1	58.1	—	83	31.0*	35	20.9*
81.0	29.1	75.5	28.6	61.8	29.4	52.8	28.5	47.1	25.6	—	—	84	33.2*	31	15.6*
75.6	26.0	73.9	27.7	63.6	27.8	55.9	26.8	43.0	27.7	57.8	26.0	84	35.5	29	16.9
78.6	27.6	74.4	27.5	64.3	27.7	53.6	26.9	45.3	26.5	59.8	26.1				
85	32.4	84	33.2	75	32.5	66	31.5	55	31.8			89	35.5		
82.6	30.8	80.2	31.1	71.7	31.0	61.2	30.2	50.4	30.2						
74.3	24.2	68.9	24.1	57.6	25.0	46.9	24.1	38.9	22.5						
68	21.7	64	21.2	53	23.7	40	22.1	35	15.6					29	13.5
<b>(town), VA.</b>															
79.4	23.4	76.2	24.1	65.2	23.7	56.8	24.2	45.2	22.6	59.8	30.7	86	28.2	30	16.1
78.9	23.9	74.7	24.4	66.2	24.4	53.0	23.9	43.4	23.3	60.1	30.3	88	28.4	34	14.2
79.1	23.8	75.2	24.3	65.8	24.2	54.5	24.1	44.1	23.0	60.2	30.3				
86	26.5	88	27.2	74	28.4	66	28.2	54	27.7			88	28.4		
84.2	25.8	83.6	26.3	72.0	26.1	63.0	26.8	50.7	25.0						
74.3	21.2	66.6	22.0	59.1	22.4	45.5	22.0	35.4	21.4						
73	20.6	62	20.6	52	21.2	39	20.9	30	19.0					30	14.2
<b>VA.</b>															
79.8	25.9	76.9	26.0	68.9	27.3	54.5	26.1	42.2	23.7	—	—	84	28.2*	37	17.4*
82.1	23.7	75.0	20.1	66.4	22.7	54.8	23.0	42.5	22.0	—	—	85*	26.1*	33	18.4*
77.9	23.1	71.9	24.4	65.6	23.3	55.5	20.9	50.2	22.2	59.6	22.2	81	25.8	35	16.0
77.9	25.4	75.2	25.2	60.8	23.8	54.2	24.1	46.4	22.5	60.2	21.8	81	26.4	30	7.6
79.6	21.6	75.0	22.9	65.1	23.0	57.6	22.2	43.9	22.4	58.9	20.5	84	25.9	30	7.5
79.5	23.9	74.8	23.8	65.4	24.1	55.3	23.3	45.0	22.5	60.0	22.1				
85	27.6	80	27.1	78	28.2	66	27.3	55	25.0			85	28.2		
82.6	25.6	78.8	25.1	71.4	25.5	61.2	24.4	50.6	24.2						
74.8	21.4	70.2	22.0	59.4	22.5	49.6	21.4	39.4	20.3						
71	17.5	67	19.1	49	20.0	46	16.0	37	18.7					30	7.5
<b>COMFORT, VA.</b>															
78.5	21.2	75.6	21.3	64.2	20.0	56.4	21.3	44.8	18.0	60.5	19.7	84	26.1	30	4.8
79.7	21.4	74.4	21.4	66.6	21.7	54.2	21.7	45.8	20.8	61.4	19.1	88	25.6	37	8.6
77.8	23.4	76.6	24.3	67.7	24.8	53.4	23.4	42.8	21.2	60.9	21.6	82	26.3	38	15.0
—	—	—	—	—	—	—	—	—	—	—	—	—	26.4*	34*	11.5*
79.1	21.6	75.1	21.7	65.9	21.6	54.9	21.7	45.2	20.1	61.1	19.6				
85	26.1	84	25.6	77	26.3	68	25.2	56	25.4			88	26.4		
83.1	23.3	80.1	23.7	72.9	23.4	61.3	23.3	50.6	22.7						
75.4	19.6	70.2	19.0	60.0	19.6	48.5	19.5	40.7	16.5						
73	14.9	65	15.4	54	16.2	43	16.6	37	4.8					30	4.8

Table 1.—Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>RICHMOND,</b>														
1947-1948	36.4	0.0	38.8	0.0	46.9	0.0	58.8	0.0	68.2	0.2	76.4	0.3	80.8	0.3
1949-1953	44.2	0.2	44.8	0.0	49.0	0.0	58.1	0.3	69.1	0.7	77.7	0.7	82.6	0.8
1954	40.5	0.0	45.2	0.3	48.2	0.3	62.9	0.2	67.6	0.3	79.6	0.4	81.5	0.3
1955	43.7	0.4	41.1	0.3	52.6	0.6	60.9	0.6	71.7	0.6	75.8	0.2	84.5	0.3
1956	37.9	0.7	44.6	0.7	48.7	0.6	55.1	0.8	70.8	0.7	80.7	0.9	84.4	0.8
1957	40.0	0.3	45.0	0.3	49.8	0.3	59.3	0.7	73.9	0.7	--	--	--	--
1958	39.1	0.2	37.9	0.2	45.1	0.2	55.6	0.4	65.2	0.4	76.4	0.8	83.3	0.8
Mean	41.7	0.2	43.3	0.2	48.6	0.2	58.5	0.3	69.3	0.6	77.6	0.6	82.6	0.6
Maximum	52	1.1	54	1.1	64	1.5	76	1.3	81	1.6	89	2.0	89	1.7
Mean Max.	46.0	0.6	48.6	0.4	55.9	0.6	67.8	0.9	75.2	1.1	84.3	1.3	85.8	1.2
Mean Min.	37.3	0.0	38.6	0.0	43.2	0.0	51.4	0.0	62.6	0.0	71.0	0.0	77.9	0.0
Minimum	33	0.0	33	0.0	36	0.0	47	0.0	57	0.0	67	0.0	75	0.0
<b>GLOUCESTER</b>														
1950-1953	43.2	19.5	43.7	17.5	47.8	16.9	57.2	16.0	68.6	16.1	76.6	17.9	81.4	19.5
1954	41.1	21.0	42.4	20.6	48.7	20.1	61.1	20.0	67.3	19.3	76.7	19.9	80.1	21.3
1955	40.8	22.2	39.7	21.6	49.6	19.1	57.8	19.2	69.0	18.4	75.0	21.0	83.3	22.4
1956	37.1	20.8	43.0	19.5	46.6	19.1	51.7	18.2	63.8	17.4	74.8	17.5	79.5	19.2
1957	40.9	19.0	43.0	16.5	47.4	16.2	58.0	16.1	68.5	17.7	78.6	18.4	80.1	21.8
1958	39.2	19.6	36.4	18.2	42.5	16.5	54.2	14.1	66.8	13.9	73.3	16.1	79.2	19.2
Mean	41.1	20.1	42.1	18.6	47.3	17.8	56.8	17.0	67.6	16.9	76.1	18.3	80.9	20.3
Maximum	48	23.0	48	22.5	56	21.3	70	21.0	78	20.6	86	22.6	90	23.1
Mean Max.	44.8	21.6	45.5	20.0	53.1	19.6	64.6	19.0	73.6	18.4	82.7	20.0	85.6	21.6
Mean Min.	38.0	18.3	38.9	16.5	43.5	15.4	50.4	14.9	61.6	15.2	70.2	16.6	76.9	18.6
Minimum	35	16.0	32	12.4	40	12.2	46	11.4	58	10.7	69	14.6	72	16.2
<b>WASHINGTON,</b>														
1944-1948	37.6	0.0	38.3	0.0	48.7	0.0	60.1	0.1	70.1	0.3	78.3	0.4	83.7	0.5
1949-1953	41.6	0.2	42.5	0.3	46.7	0.4	56.8	0.4	68.6	0.7	77.8	0.8	83.7	0.8
1954	36.5	0.0	40.8	0.0	47.3	0.0	62.4	0.2	66.8	0.0	78.3	0.0	82.1	0.0
1955	38.0	0.0	36.2	0.0	48.8	0.0	58.1	0.0	69.6	0.0	73.4	0.0	85.3	0.0
1956	34.8	0.0	39.7	0.0	45.0	0.0	52.3	0.0	66.7	0.0	77.1	0.2	80.3	0.2
1957	35.4	0.0	40.0	0.0	46.9	0.0	56.8	0.0	71.9	0.0	79.7	0.2	82.0	0.2
1958	35.6	0.0	34.3	0.0	40.3	0.0	54.7	0.0	65.5	0.0	74.9	0.2	81.3	0.0
Mean	38.4	0.0	39.7	0.0	47.0	0.0	57.9	0.2	68.9	0.3	77.6	0.4	83.2	0.4
Maximum	50	0.8	52	0.8	64	1.7	72	1.3	82	2.1	89	2.4	90	1.7
Mean Max.	43.2	0.3	45.8	0.3	54.1	0.6	66.1	0.6	74.9	0.9	84.1	1.1	86.9	0.9
Mean Min.	35.4	0.0	35.7	0.0	41.1	0.0	51.0	0.0	61.9	0.0	70.6	0.0	79.5	0.0
Minimum	33	0.0	32	0.0	34	0.0	44	0.0	58	0.0	66	0.0	75	0.0
<b>SOLOMONS,</b>														
1938	39.4	13.2	41.5	13.3	46.6	12.0	56.1	10.7	66.4	11.8	74.1	12.7	79.7	14.0
1939-1943	37.4	15.3	36.6	15.3	41.9	12.7	50.5	11.1	64.8	10.6	75.7	11.2	79.5	12.9
1944-1948	37.0	15.3	36.5	15.4	42.9	13.5	54.1	11.2	64.8	10.8	73.9	9.8	79.5	11.2
1949-1953	41.1	13.1	40.8	11.2	42.8	11.5	53.0	9.8	64.7	9.7	74.6	10.6	80.7	11.5

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

Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>VA.</b>															
80.8	0.3	76.3	0.2	62.4	0.0	53.3	0.0	42.3	0.0	60.1	0.1	87	1.2	33	0.0
81.0	0.7	74.5	0.6	65.3	0.3	51.4	0.2	42.8	0.2	61.7	0.4	89	2.0	34	0.0
81.5	0.3	79.3	0.3	68.0	0.3	52.5	0.6	40.4	0.3	62.3	0.3	87	1.7	35	0.0
80.6	0.2	75.3	0.3	—	—	51.5	0.3	39.3	0.4	—	—	88	1.5*	35	0.0
83.3	0.9	76.0	0.8	64.9	0.9	52.0	0.7	47.3	0.4	62.1	0.7	91	2.0	35	0.0
—	—	78.4	1.1	61.8	0.7	—	—	43.6	0.4	—	—	84*	1.7*	35	0.0
80.6	0.8	76.2	0.4	64.7	0.4	55.8	0.6	39.2	0.3	59.9	0.4	86	2.2	34	0.0
81.2	0.6	75.9	0.6	64.6	0.2	52.3	0.2	42.4	0.2	61.5	0.3				
91	2.2	86	2.0	84	1.6	65	1.5	54	0.9			91	2.2		
86.6	1.2	82.4	1.3	72.6	0.9	60.4	0.8	52.9	0.7						
76.2	0.0	68.8	0.0	57.5	0.0	45.2	0.0	37.7	0.0						
72	0.0	62	0.0	52	0.0	40	0.0	34	0.0					33	0.0
<b>POINT, VA.</b>															
81.3	20.6	76.7	21.0	67.0	21.2	55.7	21.7	46.0	20.6	62.1	19.0	90	27.3	37	10.7
80.4	23.1	78.3	23.9	70.6	24.2	54.6	23.9	43.7	23.0	62.2	21.7	85	25.1	38	17.9
83.4	18.4	76.4	16.7	68.3	19.7	55.0	19.9	41.7	19.7	61.7	19.9	88	23.4	33	8.8
78.5	20.0	73.6	21.2	65.0	20.4	55.0	18.0	49.1	19.2	59.8	19.2	87	22.1	35	15.8
78.5	22.5	77.3	22.1	62.7	21.4	54.0	22.1	45.6	19.1	61.2	19.3	86	23.5	38	12.4
79.7	19.3	74.7	20.3	64.0	20.4	56.3	20.5	41.9	20.5	59.0	18.2	84	22.4	32	11.5
30.6	20.6	76.3	20.9	66.5	21.2	55.3	21.2	45.1	20.5	61.3	19.4				
88	25.4	85	27.3	78	25.1	68	26.3	54	23.9			90	27.3		
84.6	22.5	82.4	22.6	72.8	22.4	61.8	22.6	50.8	21.8						
76.9	18.6	70.8	19.5	60.6	20.1	49.2	19.5	39.3	18.4						
74	8.8	64	14.2	56	18.0	46	15.8	33	14.8					32	8.8
<b>D.C.</b>															
82.2	0.6	78.0	0.4	64.8	0.2	55.2	0.0	41.8	0.0	61.6	0.2	90	2.0	32	0.0
82.2	0.7	75.8	0.4	66.2	0.4	52.6	0.4	42.2	0.3	61.4	0.5	90	2.4	33	0.0
80.8	0.2	77.0	0.2	66.7	0.0	49.1	0.0	38.9	0.0	60.6	0.0	86	1.1	34	0.0
80.7	0.0	74.6	0.0	65.2	0.0	50.3	0.0	36.8	0.0	59.8	0.0	88	0.4	33	0.0
79.3	0.2	75.0	0.0	63.0	0.0	52.9	0.0	44.0	0.0	59.2	0.0	85	0.4	34	0.0
79.9	0.2	77.9	0.0	61.6	0.0	51.9	0.0	41.5	0.0	60.5	0.0	87	0.6	34	0.0
80.9	0.0	74.8	0.0	64.2	0.0	54.4	0.0	37.2	0.0	58.2	0.0	84	0.4	32	0.0
81.6	0.4	76.6	0.3	65.0	0.2	53.1	0.2	41.2	0.0	60.8	0.2				
90	2.0	88	2.0	78	1.7	69	0.9	52	0.9			90	2.4		
86.2	1.1	82.9	0.8	72.2	0.7	61.1	0.4	46.8	0.3						
77.2	0.0	69.7	0.0	58.8	0.0	45.7	0.0	35.9	0.0						
73	0.0	63	0.0	52	0.0	42	0.0	33	0.0					32	0.0
<b>MD.</b>															
82.2	13.7	72.9	14.5	64.4	15.2	56.5	17.0	43.3	15.2	60.3	13.6	85	17.7	36	9.4
80.2	14.4	75.3	15.6	65.2	17.0	53.6	16.9	43.2	16.0	58.7	14.1	87	20.4	30	5.4
80.1	11.6	75.9	13.5	64.8	14.8	55.8	16.2	43.3	15.3	59.1	13.2	86	18.8	30	6.2
80.5	12.9	75.3	14.2	66.1	15.6	53.9	16.6	43.8	15.3	60.1	12.7	88	19.0	33	5.9

Table 1.- Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>SOLOMONS,</b>														
1954	38.5	16.1	39.6	15.7	43.9	13.1	56.5	13.1	64.3	10.8	74.3	13.2	79.2	14.5
1955	38.3	15.8	35.6	16.2	43.9	14.0	53.4	11.2	65.5	12.7	72.3	14.4	82.4	15.4
1956	35.1	13.9	38.8	14.9	43.2	12.2	49.8	10.5	62.1	10.1	74.5	9.9	80.2	11.8
1957	37.6	13.3	39.0	11.6	44.4	12.8	54.3	11.1	66.9	11.0	76.1	12.4	80.1	14.2
1958	37.6	15.0	34.7	14.6	39.6	12.8	50.4	10.1	63.9	7.3	72.9	8.8	80.1	9.9
Mean	38.3	14.5	38.0	14.1	43.4	12.7	52.9	10.8	64.8	10.5	74.5	11.0	80.0	12.3
Maximum	49	20.0	46	19.2	58	18.0	69	16.9	78	15.6	84	16.3	88	16.3
Mean Max.	41.7	15.8	41.8	15.3	49.0	14.5	60.2	12.9	72.2	12.0	80.4	12.7	84.1	13.5
Mean Min.	35.1	13.1	35.0	12.7	38.7	10.3	46.7	8.6	57.9	8.5	68.3	9.4	76.0	11.2
Minimum	30	7.1	30	8.1	34	6.7	43	5.9	53	5.9	64	5.4	70	7.7
<b>CAMBRIDGE,</b>														
1945-1948	36.5	8.9	36.3	9.3	45.1	9.9	56.0	9.3	66.2	8.5	74.7	8.0	79.6	7.6
1949-1953	41.2	10.1	41.3	8.8	44.5	8.4	55.0	7.7	66.4	7.5	75.8	8.0	81.6	8.9
Mean	39.4	9.7	39.4	9.0	44.7	9.0	55.4	8.4	66.3	7.9	75.4	8.0	80.8	8.4
Maximum	54	14.8	48	13.2	59	13.2	66	12.0	76	11.4	85	10.8	90	11.0
Mean Max.	45.4	11.4	45.1	10.5	53.2	10.2	62.6	9.4	73.7	8.9	82.6	8.9	85.8	9.2
Mean Min.	35.4	7.1	34.7	7.2	37.1	7.6	49.5	6.8	58.6	6.6	68.4	6.9	76.1	7.3
Minimum	31	1.9	30	3.4	31	5.9	42	4.1	55	4.6	66	4.7	72	5.4
<b>ANNAPOLIS,</b>														
1947-1948	36.1	12.3	34.5	11.2	41.3	9.9	53.2	5.4	63.6	5.8	73.8	5.5	79.2	7.1
1949-1953	39.9	8.6	39.8	7.7	43.8	8.5	53.2	6.3	64.8	6.4	74.3	7.1	81.1	8.1
1954	36.6	13.3	38.4	12.9	43.6	9.7	56.3	8.9	64.0	7.1	74.0	9.9	78.8	11.4
1955	37.0	11.8	34.6	12.9	43.8	8.4	53.4	8.8	65.0	10.5	72.2	11.8	82.8	12.3
1956	34.4	12.4	37.8	13.1	41.4	7.3	49.0	6.3	61.7	6.0	74.2	6.7	78.7	8.1
1957	36.0	9.8	38.2	9.0	43.2	10.2	52.9	7.2	66.6	8.0	75.9	9.3	79.2	11.1
1958	35.6	13.1	32.8	13.3	38.8	10.3	52.7	5.6	63.5	4.5	72.1	5.5	--	--
Mean	37.6	10.7	37.5	10.2	42.7	9.0	53.0	6.6	64.4	6.7	74.0	7.5	80.3	8.9
Maximum	52	14.1	47	14.9	56	13.6	64	11.0	74	12.3	84	12.3	89	12.9
Mean Max.	41.2	12.6	41.8	11.9	48.2	11.4	60.5	8.8	70.6	8.0	80.0	8.6	83.7	9.9
Mean Min.	34.2	8.0	34.2	7.3	37.9	5.8	46.8	4.2	58.1	5.1	68.1	6.2	76.5	8.0
Minimum	30	2.1	30	3.5	34	2.4	42	2.5	53	3.2	65	3.5	74	4.7
<b>BALTIMORE,</b>														
1914-1918	35.0	9.2	34.9	8.1	39.3	8.1	51.3	6.0	63.7	6.0	73.2	5.8	78.5	5.8
1919-1923	36.0	9.3	36.2	10.2	43.7	7.1	53.5	4.8	63.3	5.0	74.9	5.0	79.1	6.2
1924-1928	35.1	8.9	36.1	7.5	42.2	6.8	51.9	5.6	61.9	5.8	71.6	5.5	78.9	5.8
1929-1933	39.4	11.2	38.4	11.4	42.5	10.2	52.6	6.3	64.5	5.5	74.2	6.4	79.5	7.7
1934-1938	37.8	8.9	35.7	9.0	42.0	7.3	51.7	6.0	64.3	5.6	74.6	6.4	80.7	7.3
1939-1943	36.6	11.2	36.5	11.1	41.3	9.2	51.5	6.2	64.5	6.3	75.2	6.4	79.3	7.6
1944-1948	38.7	10.3	37.3	10.7	45.2	8.0	55.2	5.8	65.4	5.5	73.9	5.1	80.3	5.6
1949-1953	41.3	7.1	40.5	6.7	44.2	7.3	53.4	5.4	65.0	4.8	74.4	5.0	80.6	6.2

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

## Temperatures and Salinities

## Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<i>MD. -continued</i>															
79.0	15.8	77.0	17.8	70.0	18.2	53.1	17.9	42.1	18.2	59.8	15.4	82	18.8	35	9.3
81.5	14.9	75.9	14.2	66.7	14.6	53.6	13.2	40.6	12.6	59.1	14.1	86	17.1	33	10.5
79.9	12.7	74.1	14.2	64.0	14.6	55.9	15.2	46.9	15.2	58.7	12.9	84	16.5	34	8.1
79.0	15.6	76.5	16.9	62.2	17.8	53.8	18.8	45.0	18.0	59.6	14.5	84	19.5	35	7.3
79.9	11.1	74.5	13.6	63.5	14.2	56.1	15.2	40.6	16.1	57.8	12.4	84	16.7	31	5.9
80.3	13.2	75.4	14.6	65.3	15.8	54.6	16.5	43.3	15.6	59.2	13.5				
87	17.4	83	18.4	78	19.7	66	19.6	54	20.4			88	20.4		
84.3	14.6	80.3	15.7	71.3	16.7	60.8	17.4	48.7	16.7						
76.4	11.9	69.6	13.6	59.9	14.8	47.9	15.3	38.8	14.1						
72	8.2	65	11.0	55	11.5	42	11.8	35	8.9					30	5.4
<i>MD.</i>															
79.2	7.2	74.4	9.3	62.8	10.8	54.0	11.5	40.5	10.3	58.8	9.2	86	14.4	30	1.9
79.9	9.6	73.6	10.8	63.8	12.0	51.0	12.7	41.0	11.6	59.6	9.7	90	14.8	32	4.1
79.6	8.5	74.0	10.2	63.4	11.5	52.5	12.0	40.8	11.0	59.3	9.5				
86	11.6	85	12.9	73	14.5	67	14.4	53	14.6			90	14.8		
84.2	9.7	81.2	11.2	71.1	12.8	61.1	12.9	48.8	12.6						
74.6	7.3	66.5	8.6	57.4	10.2	44.0	9.8	34.2	9.2						
72	4.3	60	6.8	50	7.9	40	7.6	31	4.8					30	1.9
<i>MD.</i>															
80.2	7.3	74.8	9.2	62.9	12.0	53.8	13.5	43.0	12.6	58.0	9.3	86	14.9	30	2.4
80.0	9.3	74.3	11.0	64.8	12.8	52.7	14.2	42.0	11.9	59.2	9.3	89	16.5	32	2.1
78.2	13.9	75.5	15.2	67.3	15.3	51.0	15.2	39.9	15.0	58.6	12.3	84	16.5	32	5.0
81.2	12.2	74.5	11.5	65.9	11.1	51.4	9.2	37.6	9.9	58.3	10.8	86	14.1	32	4.1
78.1	8.9	73.7	10.8	63.0	12.3	52.5	12.7	44.6	10.7	57.4	9.7	82	14.1	32	1.6
77.2	13.2	75.4	15.2	61.0	15.2	52.1	16.5	41.5	14.4	58.3	11.6	84	17.3	33	3.7
--	--	--	--	--	--	--	--	37.2	9.8	--	--	--	14.5*	30	1.6*
79.6	9.9	74.6	11.4	64.3	12.9	52.6	13.7	41.4	12.0	58.5	10.0				
86	15.0	84	16.2	76	16.5	66	17.1	51	17.3			89	17.3		
84.0	11.2	80.5	12.6	70.5	14.2	59.6	14.8	46.9	13.7						
76.2	8.8	67.8	10.1	58.7	11.6	45.5	12.2	36.6	8.2						
74	5.8	62	6.8	54	8.1	42	8.4	32	1.6					30	1.6
<i>MD.</i>															
79.6	6.3	73.2	8.1	63.6	9.8	52.1	10.3	40.7	11.2	57.1	7.9	85	15.3	31	2.6
78.0	6.8	75.0	8.4	66.1	9.7	53.4	10.3	43.2	9.4	58.5	7.7	83	12.8	31	2.5
78.3	6.7	73.9	8.5	64.3	8.6	51.9	8.4	42.0	8.2	57.3	7.2	85	13.6	31	2.0
79.5	8.8	76.3	10.2	65.2	11.4	53.5	12.0	42.5	11.9	59.0	9.4	85	18.3	32	2.1
80.9	8.0	74.5	9.4	65.0	11.0	53.9	10.6	42.2	10.3	58.6	8.3	86	13.2	31	1.9
79.9	9.3	75.2	11.4	65.0	12.3	52.8	11.6	43.3	11.8	58.4	9.5	85	17.5	29	2.6
80.3	6.2	76.4	8.5	66.3	10.6	56.6	11.0	44.6	10.6	60.0	8.2	86	16.5	28	2.5
80.2	8.1	75.4	9.4	66.8	11.2	55.2	11.9	45.0	9.4	60.2	7.7	86	14.4	32	1.5

Table 1.—Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
BALTIMORE,														
1954	39.4	10.5	40.5	10.3	45.4	8.1	57.7	6.6	—	—	74.3	7.7	78.4	10.5
1955	39.0	11.6	37.1	11.0	44.7	7.2	52.9	6.9	64.6	8.4	71.1	9.6	82.9	10.1
1956	37.1	12.2	39.2	10.8	43.2	6.8	49.9	5.6	62.9	4.5	73.8	5.0	78.8	6.2
1957	38.7	8.8	40.3	7.7	45.0	8.9	54.1	6.4	67.0	6.3	76.9	6.9	80.2	8.8
1958	37.9	11.6	34.7	12.0	39.9	9.4	53.4	5.0	64.4	3.0	71.9	3.9	79.1	5.5
Mean	37.6	9.7	37.1	9.4	42.6	8.1	52.7	5.9	64.1	5.6	74.0	5.9	80.0	6.7
Maximum	47	17.5	47	18.0	61	18.3	68	16.0	77	12.3	84	11.8	86	11.4
Mean Max.	40.3	11.4	40.4	11.2	48.7	10.5	59.6	7.7	70.6	6.8	79.2	7.1	82.7	7.7
Mean Min.	34.6	7.9	34.3	7.5	37.7	5.8	46.8	4.2	57.3	4.3	68.5	4.7	75.9	5.6
Minimum	29	3.5	28	2.9	32	2.0	42	1.9	52	2.1	63	1.5	71	2.0
DIAMOND SHOAL														
1923-1928	61.8	35.3	60.0	35.3	58.6	34.5	62.1	34.8	70.0	35.5	76.0	35.7	79.1	35.5
Mean	61.8	35.3	60.0	35.3	58.6	34.5	62.1	34.8	70.0	35.5	76.0	35.7	79.1	35.5
Maximum	74	38.1	73	38.0	75	37.6	75	37.7	81	39.4	83	38.9	85	38.1
Mean Max.	72.4	37.6	71.8	37.3	72.2	37.1	72.4	37.5	77.2	38.1	82.4	37.9	83.8	37.7
Mean Min.	46.4	31.4	46.0	31.6	44.0	30.7	49.2	30.4	59.8	32.4	68.6	32.0	70.8	32.0
Minimum	39	30.3	43	30.1	39	29.1	46	28.1	55	30.1	63	27.2	64	27.7
SOUTHPORT,														
1946-1948	50.6	17.0	48.0	16.2	54.4	16.6	64.5	16.9	73.5	21.2	79.3	23.3	81.7	21.0
1949-1953	52.4	22.7	53.6	19.9	56.0	17.9	63.3	21.3	73.0	22.0	79.4	26.5	82.6	23.7
1954	50.1	18.4	52.4	20.5	56.6	17.8	66.2	16.0	70.8	24.4	79.5	28.9	82.5	32.1
Mean	51.7	20.8	51.6	19.1	55.5	17.4	64.0	19.2	72.9	22.0	79.4	25.6	82.3	23.8
Maximum	60	33.6	63	34.4	66	34.5	74	32.1	80	33.8	87	34.0	91	34.9
Mean Max.	56.5	32.4	57.3	31.1	61.7	31.8	70.3	30.1	78.0	31.4	84.9	32.3	86.1	31.2
Mean Min.	46.3	9.2	46.6	7.2	49.5	7.1	57.1	7.1	67.8	11.5	72.8	16.6	78.1	14.1
Minimum	40	3.2	39	0.0	43	3.0	52	2.2	66	4.5	69	4.3	74	1.2
MYRTLE BEACH,														
1951-1953	49.7	—	51.6	—	56.2	—	62.0	—	70.8	—	79.6	—	82.5	—
1954	49.4	—	51.3	—	56.2	—	65.7	—	71.5	—	78.5	—	83.1	—
1955	50.0	—	50.0	—	59.3	—	67.3	—	74.4	—	79.3	—	85.8	—
1956	48.0	—	53.2	—	57.7	—	65.1	—	72.2	—	79.8	—	84.3	—
1957	50.2	—	54.5	—	58.6	—	65.2	—	73.8	—	80.1	34.0	83.4	35.3
1958	46.3	33.5	44.7	—	51.2	33.1	60.2	31.6	72.1	31.5	77.2	32.4	79.4	34.4
Mean	49.0	33.5	51.0	—	56.5	33.1	63.9	31.6	72.2	31.5	79.1	33.2	83.0	34.8
Maximum	54	34.6	57	—	64	36.6	73	33.1	82	33.1	84	35.3	88	36.0
Mean Max.	52.0	—	54.7	—	60.7	—	69.6	—	78.1	—	82.9	—	86.0	—
Mean Min.	45.6	—	47.3	—	52.6	—	59.6	—	66.6	—	75.1	—	80.1	—
Minimum	44	32.3	40	—	47	31.8	55	28.9	63	28.1	74	30.4	77	32.4

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



# Temperatures and Salinities

## Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<i>MD. -continued</i>															
78.7	11.9	77.1	12.0	70.2	12.2	54.8	13.2	43.4	12.8	--	--	82	15.0*	37	4.3*
81.2	8.4	76.4	8.9	67.9	8.6	54.7	7.3	40.5	8.8	59.4	8.9	86	14.5	33	4.3
79.0	7.9	76.0	9.4	66.1	10.5	56.5	10.3	47.7	9.3	59.2	8.2	83	13.6	35	3.2
78.8	10.5	76.6	11.0	63.2	12.7	53.8	14.1	43.2	11.6	59.8	9.4	84	14.8	36	2.9
78.5	6.6	74.2	8.8	64.4	9.4	54.9	12.4	40.2	10.8	57.8	8.2	82	14.5	32	2.5
79.6	7.7	75.1	9.3	65.4	10.6	53.8	10.8	42.9	10.5	58.7	8.4				
86	12.9	84	14.6	76	17.8	68	18.3	54	17.7			86	18.3		
83.0	9.0	79.8	10.6	71.3	11.8	59.8	12.0	47.7	11.8						
76.1	6.4	70.4	7.9	59.2	9.2	47.5	9.6	38.0	8.6						
72	2.9	63	4.1	50	4.6	42	4.5	32	1.6					28	1.5
<i>LIGHTSHIP</i>															
80.4	35.7	78.3	34.6	73.7	35.0	66.8	34.8	64.4	34.9	69.3	35.1	86	39.4	39	27.1
80.4	35.7	78.3	34.6	73.7	35.0	66.8	34.8	64.4	34.9	69.3	35.1				
86	39.3	85	38.5	82	38.2	77	38.6	76	38.4			86	39.4		
84.8	38.1	83.4	37.3	80.4	37.7	76.6	38.0	73.4	37.1						
72.8	32.1	72.0	31.8	65.8	31.1	59.2	32.0	52.4	32.4						
68	29.9	69	30.1	63	27.1	54	29.4	47	31.2					39	27.1
<i>N.C.</i>															
82.0	22.6	78.1	23.1	69.9	22.2	63.6	20.1	54.9	19.2	66.7	20.0	87	35.0	39	1.1
82.1	25.8	77.8	25.9	70.5	28.8	60.1	27.6	52.0	25.0	66.9	23.9	91	36.0	41	0.0
83.8	32.5	79.8	33.7	--	--	--	--	--	--	--	--	87	36.4*	46*	5.6*
82.3	25.5	78.1	25.9	70.2	26.4	61.4	24.7	53.1	22.7	66.9	22.8				
87	36.4	85	35.7	78	36.0	76	34.5	64	34.4			91	36.4		
85.9	33.7	83.3	33.8	75.5	33.8	70.0	33.6	59.1	32.9						
78.1	14.5	71.7	17.5	64.5	13.5	52.4	14.5	46.4	12.2						
73	3.8	67	3.8	59	0.0	44	5.0	41	2.2					39	0.0
<i>S.C.</i>															
80.9	--	77.3	--	68.9	--	58.7	--	51.3	--	65.8	--	88	--	45	--
82.1	--	78.9	--	69.8	--	59.9	--	50.5	--	66.4	--	85	--	46	--
85.0	--	80.7	--	72.8	--	61.6	--	51.7	--	68.2	--	89	--	45	--
83.9	--	77.4	--	70.4	--	62.7	--	56.4	--	67.6	--	87	--	45	--
81.5	35.4	80.9	35.1	68.2	34.0	59.7	34.8	52.9	34.1	67.4	--	87	36.3*	46	31.5*
80.8	35.9	79.1	35.5	70.0	34.5	62.6	34.5	50.1	33.5	64.5	--	84	36.6*	40	28.1*
82.0	35.6	78.6	35.3	69.8	34.2	60.3	34.6	51.9	33.8	66.4	--				
89	36.6	86	36.3	79	35.1	69	35.3	61	35.3			89	36.6		
85.6	--	82.9	--	75.0	--	65.1	--	56.1	--						
77.5	--	73.8	--	64.1	--	55.4	--	47.8	--						
73	34.6	72	33.7	60	32.8	52	32.5	46	31.0					40	28.1

Table 1.- Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>CHARLESTON (Customhouse)</b>														
1922-1923	51.2	29.9	52.2	29.5	60.0	27.8	67.2	27.5	74.1	29.0	80.8	28.2	83.2	29.7
1924-1928	49.7	29.5	53.3	27.6	56.7	26.9	65.7	27.5	72.9	29.7	81.0	31.1	83.5	30.2
1929-1933	53.3	30.2	54.3	28.5	57.2	28.1	65.7	28.9	74.8	30.6	79.6	31.0	83.9	30.8
1934-1938	53.5	30.8	50.6	29.4	58.0	29.7	65.8	30.1	73.9	30.3	80.5	31.6	82.8	31.9
1939-1941	50.1	32.7	51.1	31.8	56.0	28.8	65.1	29.8	72.3	31.8	81.1	31.6	83.3	28.8
Mean	51.8	30.4	52.4	29.1	57.4	28.2	65.8	28.8	73.7	30.3	80.5	31.0	83.4	30.6
Maximum	66	34.4	63	33.8	69	33.6	75	34.0	82	34.5	87	34.4	88	34.9
Mean Max.	55.7	32.3	56.6	31.2	62.9	30.4	70.5	30.8	78.6	32.1	84.0	32.5	85.6	32.8
Mean Min.	47.9	28.8	48.2	26.7	51.8	25.9	60.5	26.8	68.2	28.1	76.2	28.9	81.1	27.7
Minimum	41	20.6	40	18.0	45	19.7	56	20.1	62	22.1	71	21.8	78	12.6
<b>CHARLESTON (Customhouse)</b>														
1942-1943	51.4	16.9	50.6	15.3	56.2	17.0	64.2	16.5	74.4	16.7	81.8	15.7	84.2	18.8
1944-1948	50.8	16.9	51.3	14.8	58.0	13.5	66.7	13.3	73.9	13.6	80.3	16.2	82.0	16.3
1949-1953	53.9	17.5	55.4	16.7	58.3	13.5	64.7	13.6	74.4	15.0	81.1	16.1	84.3	17.3
1954	52.5	17.5	53.8	14.8	57.1	13.9	68.8	14.6	73.5	17.0	81.9	15.7	84.3	17.3
1955	51.1	20.6	50.7	22.1	61.3	18.0	66.8	18.0	74.8	17.3	79.4	18.6	84.4	24.2
1956	46.6	25.8	54.6	22.0	59.2	15.7	63.7	14.5	73.5	14.8	80.1	18.8	84.0	21.8
1957	51.5	24.6	56.7	17.0	57.7	16.0	66.8	12.8	75.5	17.3	81.6	15.3	83.8	15.6
1958	46.6	12.4	44.8	9.8	52.1	9.0	61.6	9.0	72.9	11.0	79.6	13.1	83.4	15.3
Mean	51.5	18.2	52.7	16.1	57.7	14.2	65.5	14.0	74.1	14.9	80.8	16.1	83.5	17.7
Maximum	61	32.4	62	32.0	70	27.6	75	26.9	82	28.9	88	30.8	89	30.8
Mean Max.	55.2	25.1	56.9	23.3	62.6	21.0	71.1	20.5	78.5	22.4	84.3	25.0	86.1	26.5
Mean Min.	47.8	11.6	48.8	10.3	52.8	9.0	60.2	8.6	69.4	9.6	76.7	9.6	81.0	10.2
Minimum	43	5.5	41	5.0	46	3.9	55	3.7	66	4.5	73	4.5	79	5.5
<b>CAINHOY, WANDO</b>														
1951-1952	56.1	17.3	55.0	14.8	59.9	12.0	66.7	9.4	75.2	12.9	80.8	14.8	84.0	13.7
<b>NORTH CHARLESTON TERMINALS,</b>														
1951-1952	54.5	4.5	53.2	3.3	57.9	1.2	64.0	0.8	74.1	2.4	79.0	2.0	83.8	3.0
<b>CHARLESTON (Virginia-Carolina)</b>														
1951-1952	56.8	20.6	55.4	15.7	59.9	12.2	66.4	12.7	75.6	17.5	82.0	18.6	84.7	18.2
<b>FORT PULASKI,</b>														
1940-1943	49.0	13.9	49.5	14.4	56.2	11.0	65.3	13.6	74.3	17.7	81.5	19.1	83.8	17.5
1944-1948	51.7	13.3	52.4	11.8	60.4	9.3	68.0	8.5	74.5	12.2	81.2	16.2	82.9	18.7
1949-1953	55.6	16.1	57.2	14.8	59.9	11.9	65.7	11.8	75.6	14.6	82.1	17.4	84.4	20.3
1954	54.4	16.5	55.4	16.6	59.4	15.7	69.7	12.7	74.3	17.0	82.6	19.6	84.9	18.8
1955	52.2	19.7	52.3	19.7	62.4	19.3	67.9	17.1	77.1	17.9	79.5	21.3	84.7	21.0
1956	48.3	23.8	56.5	19.5	60.0	18.3	65.5	17.9	76.2	18.4	81.7	20.4	85.2	23.0
1957	53.0	19.2	58.5	19.6	59.3	18.7	68.3	16.3	76.4	14.6	82.4	15.2	84.5	18.3
1958	46.4	15.0	45.8	12.8	55.5	10.1	64.8	9.0	72.8	9.8	81.3	18.3	84.3	14.6

Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
Wharf), S.C.															
82.4	29.0	79.8	28.2	70.8	29.9	60.9	31.1	55.8	30.2	68.2	29.2	86	33.6	44	25.1
84.2	29.7	81.1	29.4	72.6	28.0	61.3	31.0	53.9	31.5	68.0	29.3	89	34.8	44	4.1
83.1	32.1	81.1	30.6	71.7	30.8	61.9	31.0	55.1	31.4	68.5	30.3	88	36.2	45	17.0
83.8	31.6	79.9	30.2	70.9	30.7	62.7	31.2	50.8	31.5	67.8	30.8	87	34.9	41	19.0
83.6	28.9	79.2	30.1	72.7	32.1	62.2	32.8	55.4	32.0	67.7	30.9	88	34.5	40	12.6
83.6	30.7	80.4	29.9	71.8	30.2	61.9	31.4	53.8	31.4	68.0	30.2				
89	35.0	88	35.5	83	36.2	74	34.5	65	35.0			89	36.2		
86.5	33.1	84.4	32.5	77.8	32.5	67.7	32.7	58.7	32.9						
80.3	27.5	75.5	25.8	65.4	27.6	55.0	29.5	49.6	29.5					40	4.1
77	22.0	68	10.2	60	4.1	51	24.6	41	23.7						
Wharf), S.C. — Second Series															
83.3	20.4	78.7	20.6	69.8	22.0	61.9	19.6	52.6	20.0	67.4	18.3	88	33.2	46	5.6
82.1	16.7	79.8	18.0	70.8	17.9	64.0	18.2	53.3	16.3	67.8	16.0	86	30.8	43	4.2
84.2	18.4	79.1	17.5	71.6	20.4	61.6	20.6	53.1	19.1	68.5	17.1	89	34.1	45	5.2
85.5	26.7	81.3	28.0	73.7	28.1	60.3	25.9	51.8	24.8	68.7	20.4	87	35.3	48	7.7
84.3	27.2	80.0	21.4	72.9	19.3	62.9	22.0	50.8	24.8	68.3	21.1	86	33.6	46	10.6
83.7	25.4	78.7	29.5	70.8	29.4	62.5	23.1	57.0	24.4	67.9	22.1	87	34.5	45	6.7
82.4	20.9	82.4	21.6	69.0	22.0	61.2	18.6	53.0	11.9	68.5	17.8	86	32.4	47	8.2
83.5	17.9	80.2	19.3	69.3	22.7	64.6	22.0	52.8	21.4	66.0	15.2	86	33.6	41	3.7
83.4	19.7	79.7	20.0	71.0	21.0	62.5	20.3	53.1	19.1	68.0	17.6				
88	33.6	86	34.5	83	34.1	73	35.3	63	33.7			89	35.3		
86.1	28.5	83.9	28.9	76.8	30.4	68.5	28.6	58.1	26.8						
80.3	12.4	74.4	12.8	65.9	13.5	57.0	12.8	48.7	12.2					41	3.7
76	5.6	70	4.2	59	5.5	54	7.2	45	6.0						
RIVER, S.C.															
85.1	12.9	80.4	15.3	71.8	17.7	59.7	19.1	55.0	17.9	69.1	14.8	88	20.4	50	8.1
COOPER RIVER, S.C.															
84.9	3.5	80.4	4.7	71.2	7.6	61.2	8.5	54.7	6.3	68.2	4.0	88	19.0	50	0.0
Chemical Co. Wharf), ASHLEY RIVER, S.C.															
86.2	17.7	81.3	19.2	72.3	22.4	61.0	23.5	55.4	21.4	69.8	18.3	92	25.6	51	4.7
SAVANNAH RIVER, GA.															
84.0	18.8	80.4	18.6	72.4	21.4	63.3	21.2	54.7	18.8	67.9	17.2	89	32.0	38	1.2
82.6	19.1	80.2	19.0	71.6	18.3	64.5	17.1	53.3	15.0	68.6	14.9	89	30.7	45	0.7
84.5	20.8	79.5	19.2	72.7	19.3	62.2	19.2	53.9	18.6	69.4	17.0	90	31.6	45	2.4
86.2	21.7	82.6	22.7	74.6	22.2	61.0	23.4	52.9	22.5	69.8	19.1	88	30.4	49	9.3
85.6	21.6	80.9	21.6	73.3	19.6	63.9	22.6	52.7	21.0	69.4	20.2	87	29.1	48	10.5
85.4	22.4	79.1	22.5	72.1	22.5	62.3	23.3	58.1	20.5	69.2	21.0	87	30.6	47	8.1
83.5	19.1	82.2	20.5	69.6	17.5	62.0	18.8	53.4	12.4	69.4	17.5	88	27.2	48	7.2
85.3	19.1	82.2	22.0	71.4	23.0	65.8	22.5	54.6	22.5	67.5	16.6	87	29.3	41	3.9

Table 1.- Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
FORT PULASKI, SAVANNAH														
Mean	52.1	15.7	53.6	14.6	59.1	12.2	66.6	12.0	75.0	14.8	81.6	17.8	84.0	19.1
Maximum	68	29.8	64	29.3	77	29.9	75	28.2	84	32.0	90	29.8	89	31.2
Mean Max.	56.5	24.8	57.9	23.5	64.5	21.0	71.4	20.1	79.4	23.3	84.9	26.8	86.5	28.6
Mean Min.	48.5	9.4	49.5	8.4	53.7	6.8	61.6	5.8	70.6	7.6	77.8	9.7	81.2	11.2
Minimum	38	2.2	41	0.7	45	0.8	57	1.1	65	2.6	75	5.0	78	4.2
FERNANDINA														
1944-1948	57.3	26.9	56.8	26.9	63.2	26.8	71.1	26.5	76.0	30.3	81.5	31.6	82.7	30.0
1949-1953	59.5	29.9	61.7	29.1	64.5	29.3	68.4	30.1	76.6	31.6	82.0	33.0	83.7	33.1
1954	58.2	26.1	59.7	28.0	62.8	30.2	73.0	32.0	77.0	32.4	82.7	33.6	85.0	34.1
1955	57.1	32.4	55.7	31.1	63.5	32.1	69.7	34.0	77.9	34.2	79.7	35.3	84.4	35.8
1956	52.6	32.1	60.9	31.9	63.4	32.0	67.3	33.8	77.4	32.9	81.4	33.2	81.5	33.8
1957	58.8	33.5	62.6	33.7	63.5	32.1	70.9	30.8	78.0	29.8	82.0	26.5	84.8	31.0
1958	52.6	26.3	51.1	28.1	58.8	26.3	66.5	22.6	74.2	28.6	81.1	30.7	83.0	31.9
Mean	57.6	29.1	58.8	29.0	63.4	29.0	69.5	29.3	76.5	31.2	81.6	32.1	83.4	32.1
Maximum	68	35.0	70	35.0	73	34.5	80	36.6	83	36.4	88	37.0	89	37.2
Mean Max.	62.3	32.2	64.9	32.0	69.6	32.3	74.8	32.9	81.1	34.5	85.3	35.1	86.2	35.5
Mean Min.	53.1	24.6	54.1	26.0	58.3	24.2	64.4	25.5	71.6	27.1	78.1	28.5	79.9	28.0
Minimum	47	19.2	46	20.3	52	13.7	60	11.8	67	22.2	77	14.2	78	18.6
MAYPORT,														
1944-1948	58.8	21.2	57.6	20.6	63.6	20.9	70.9	24.8	76.1	25.6	80.9	27.5	82.8	20.1
1949-1953	60.2	20.5	61.4	23.0	64.2	23.4	68.3	25.0	75.8	29.7	81.3	30.7	82.3	29.7
1954	58.5	17.8	60.1	20.6	61.6	22.1	71.6	29.3	75.5	31.1	82.2	31.6	84.4	30.2
1955	57.2	29.3	56.8	23.9	63.2	26.7	69.3	31.4	77.1	32.3	78.6	33.7	83.7	32.0
1956	52.7	28.0	60.0	23.8	63.5	27.1	67.9	31.9	75.6	31.9	80.5	32.1	79.2	28.6
1957	60.1	27.5	63.1	29.7	63.0	29.4	69.7	29.5	76.5	29.5	82.0	25.5	83.8	28.9
1958	52.0	22.9	51.5	20.3	59.7	16.5	66.1	18.7	73.2	23.7	79.6	27.7	81.9	25.6
Mean	58.3	22.4	59.2	22.5	63.3	23.0	69.1	26.1	75.8	28.5	80.9	29.5	82.5	26.7
Maximum	68	35.3	69	34.9	72	38.1	78	38.1	82	36.6	87	37.9	88	36.8
Mean Max.	62.2	31.0	63.5	31.6	68.1	32.3	73.9	34.5	79.8	34.9	84.5	35.9	85.4	35.1
Mean Min.	54.3	11.2	55.1	12.8	58.6	12.9	63.9	15.3	71.5	19.1	77.2	19.5	78.8	17.1
Minimum	47	4.1	47	3.7	52	1.2	60	5.6	68	12.6	73	9.2	71	6.7
JACKSONVILLE,														
1955	—	—	57.8	6.6	68.3	12.3	72.5	14.2	79.9	21.0	81.6	19.2	86.4	12.8
1956	53.4	11.9	62.1	7.3	64.6	14.8	68.3	18.0	78.9	18.4	82.0	16.9	85.9	10.3
1957	60.1	12.2	65.6	17.9	65.6	16.7	72.0	12.7	79.8	14.9	84.1	8.8	86.1	8.0
1958	52.5	9.2	52.0	6.3	63.2	2.4	73.0	2.5	80.5	4.3	86.0	8.2	87.8	6.6
Mean	55.3	11.1	59.4	9.5	65.4	11.6	71.4	11.8	79.8	14.6	83.4	13.3	86.6	9.4
Maximum	65	25.0	72	27.8	76	27.1	83	28.0	87	30.4	91	26.9	93	19.2
Mean Max.	60.3	23.7	66.0	17.2	72.2	19.3	79.0	20.6	86.2	24.4	88.2	20.6	91.0	16.2
Mean Min.	51.7	2.5	54.0	3.2	59.5	5.4	65.2	4.3	72.8	8.6	80.2	6.3	83.0	5.2
Minimum	49	0.3	47	1.3	58	1.1	63	0.4	72	1.1	79	1.7	82	2.1

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

## Temperatures and Salinities

## Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
RIVER, GA. -continued															
84.1	20.0	80.4	19.7	72.2	20.0	63.3	19.9	54.0	18.0	68.8	17.0				
89	31.6	86	30.7	83	31.0	74	31.1	64	29.5			90	32.0		
86.8	29.0	84.2	28.0	77.5	27.8	69.7	27.1	59.3	25.4						
81.3	12.0	75.2	11.9	67.1	12.6	57.5	12.6	49.5	11.2						
79	4.3	69	5.2	62	4.3	50	4.3	45	1.6					38	0.7
BEACH, FLA.															
83.1	28.0	81.7	27.0	73.6	24.7	68.0	26.8	58.5	27.8	71.1	27.8	88	37.0	48	11.8
83.3	32.2	80.6	28.1	74.6	26.0	64.6	28.5	58.2	30.0	71.5	30.1	90	37.1	50	9.3
86.0	35.0	83.7	32.5	75.6	32.0	63.3	32.5	56.4	31.8	72.0	31.7	88	36.2	53	19.2
85.6	35.0	83.5	31.0	75.4	28.4	67.3	31.5	56.4	31.8	71.4	32.7	88	37.2	51	21.4
83.6	34.5	79.8	34.8	73.3	31.5	65.6	30.7	63.3	33.2	70.8	32.9	88	36.4	48	13.1
83.6	27.3	82.8	29.0	72.4	26.5	66.3	29.5	57.7	29.4	72.0	29.9	88	35.9	52	14.2
83.2	32.9	83.2	33.6	72.8	32.9	68.2	32.8	58.4	32.7	69.4	30.0	86	35.5	46	17.0
83.6	31.2	81.6	29.1	74.0	27.1	66.2	28.9	58.4	29.8	71.2	29.8				
90	36.7	88	37.1	84	35.7	76	35.3	68	34.9			90	37.2		
87.2	35.3	85.3	34.4	79.8	32.4	72.4	32.7	64.0	32.8						
79.6	24.8	77.0	23.4	68.6	21.6	60.4	23.9	52.9	26.4						
78	9.3	69	10.1	62	11.6	55	13.1	48	15.7					46	9.3
FLA.															
83.3	17.0	82.1	17.1	74.3	16.3	68.8	18.0	60.5	20.0	71.6	20.8	91	38.1	49	0.8
81.9	28.5	80.7	23.1	75.2	17.1	65.7	16.3	59.4	20.0	71.4	23.9	87	36.8	52	2.2
84.9	30.7	83.5	29.8	75.9	27.3	64.4	22.5	57.4	25.0	71.7	26.5	87	37.7	52	6.4
84.7	33.1	83.2	28.9	75.8	25.2	68.3	24.3	58.3	27.1	71.4	29.0	86	37.9	52	15.2
79.9	32.8	80.0	33.1	73.9	28.4	66.3	19.1	63.3	20.4	70.2	28.1	84	36.8	50	11.1
83.8	21.6	82.4	21.2	74.1	20.6	67.4	23.4	59.5	24.7	72.1	26.0	87	38.1	52	9.9
81.6	29.5	83.1	31.9	74.1	30.6	68.8	22.7	59.7	24.3	69.3	24.5	86	36.8	47	6.3
82.7	25.6	81.7	23.5	74.7	20.3	67.1	19.1	59.8	21.6	71.3	24.1				
91	37.1	87	36.8	84	36.4	77	34.5	70	34.5			91	38.1		
86.0	34.6	84.5	33.3	80.0	31.5	72.4	31.2	64.7	31.0						
79.4	16.2	77.9	13.1	69.2	9.0	61.0	9.2	54.8	11.6						
71	4.8	72	0.9	63	0.8	56	1.6	49	3.7					47	0.8
FLA.															
85.9	18.8	84.0	11.9	75.6	7.7	66.5	5.4	58.6	11.6	--	--	90	31.6*	52*	0.4*
85.9	15.0	81.2	19.0	74.6	14.5	65.7	6.3	63.7	4.7	72.2	13.1	91	31.8	50	0.8
84.6	5.2	84.0	4.2	73.8	4.6	67.8	6.9	59.4	7.9	73.6	9.9	91	29.7	53	0.8
87.0	11.8	85.2	12.0	74.3	16.6	70.8	3.7	61.1	7.3	72.8	7.6	93	30.1	47	0.3
85.8	12.7	83.6	11.8	74.6	10.8	67.7	5.6	60.7	7.9	72.8	10.8				
91	31.6	88	31.8	85	30.1	75	16.2	68	22.0			93	31.8		
89.8	23.0	87.2	21.7	82.2	22.7	73.0	13.7	66.5	17.4						
82.5	3.8	79.5	6.4	68.2	3.7	62.5	1.3	54.8	2.8						
81	0.8	76	0.9	66	0.4	57	0.6	53	0.9					47	0.3

Table 1.- Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
	FLAGLER													
1946	--	--	--	--	--	--	69.8	--	75.2	--	--	--	80.2	--
	DAYTONA BEACH													
1925-1928	58.8	35.8	63.0	36.4	64.8	36.6	69.0	35.7	75.1	35.8	78.3	36.2	77.5	36.4
1929-1932	61.4	34.0	61.2	33.5	62.4	35.4	68.8	35.4	74.0	35.7	76.3	35.9	77.4	36.0
---														
1939-1943	59.4	34.6	59.4	35.3	61.8	35.1	69.6	35.7	76.0	36.6	78.9	36.6	79.0	36.3
1944-1948	62.5	34.0	61.8	33.7	67.4	34.9	72.8	35.4	76.9	36.2	80.4	36.3	81.2	36.2
1949	67.1	34.8	67.3	32.9	66.8	32.9	70.2	33.3	75.7	33.7	78.6	34.5	81.3	35.7
1950	67.1	34.6	68.8	35.8	65.7	35.7	67.1	36.0	76.1	36.4	80.4	36.4	70.3	35.8
Mean	61.8	34.4	62.0	34.5	64.5	35.1	70.4	35.4	75.8	35.9	78.9	36.2	78.7	36.2
Maximum	74	36.8	73	37.3	76	38.6	82	38.4	85	38.2	87	38.2	87	39.3
Mean Max.	67.0	35.4	66.6	35.4	69.9	36.2	74.6	36.6	80.3	36.8	82.5	37.1	83.1	37.0
Mean Min.	56.6	33.1	57.2	33.5	58.2	33.8	65.0	34.1	71.9	34.5	74.7	35.3	73.5	35.1
Minimum	50	29.1	53	28.9	51	29.3	61	31.1	66	32.5	69	32.1	63	32.5
	DAYTONA BEACH													
1946-1948	64.6	22.7	58.6	24.3	68.1	14.1	77.7	13.9	81.7	18.8	84.6	20.6	86.2	12.6
	CANOVA													
1946-1948	67.4	--	62.6	--	67.5	--	72.1	--	74.8	--	78.2	--	77.8	--
1949-1953	67.4	36.3	67.8	36.2	69.6	36.6	72.2	36.6	76.6	36.3	80.1	36.3	79.1	36.3
1954	65.8	35.9	65.9	36.2	66.7	36.3	76.0	36.6	78.4	36.4	80.7	36.7	80.1	36.2
1955	65.3	36.2	64.1	36.0	70.8	36.3	73.1	36.7	78.0	36.8	78.3	36.6	81.9	36.7
1956	60.6	35.7	65.5	35.9	67.8	36.3	70.5	36.7	78.0	36.6	81.0	36.7	72.3	36.0
1957	66.4	36.2	70.3	36.6	69.7	37.0	74.1	36.8	76.4	37.2	78.4	36.6	77.4	36.2
1958	58.8	35.3	58.0	36.3	64.9	36.0	70.1	35.9	75.8	36.2	77.0	36.3	78.1	36.3
Mean	65.7	35.9	65.7	36.2	68.5	36.4	72.4	36.6	76.5	36.6	79.3	36.4	78.3	36.3
Maximum	74	38.1	75	38.1	76	38.6	80	38.5	86	39.3	85	38.6	86	37.9
Mean Max.	69.7	37.1	69.8	37.1	72.6	37.3	77.7	37.5	81.2	37.6	83.2	37.6	83.2	37.1
Mean Min.	60.7	35.1	61.6	35.4	63.9	35.5	67.9	35.8	72.1	35.7	74.2	35.7	71.7	35.8
Minimum	51	33.6	54	34.6	58	35.0	65	35.1	68	34.9	70	35.3	62	35.3
	PALM BEACH,													
1946	--	--	--	--	75.0	36.8	77.4	36.8	80.8	37.0	82.6	36.6	84.6	36.7
	MIAMI BEACH,													
1940-1943	70.6	35.8	70.1	36.2	72.4	36.3	76.1	36.2	80.0	36.2	84.6	36.3	86.0	36.3
1944-1948	70.8	35.4	71.4	35.5	74.2	36.0	78.2	36.2	80.1	36.3	83.8	36.4	85.4	35.9
1949-1951	71.7	34.8	74.3	35.7	74.3	35.9	76.6	36.2	80.8	36.4	84.8	36.4	85.8	36.0
---														
1955	--	--	--	--	75.1	36.0	76.5	36.4	80.8	37.1	82.5	36.6	84.3	35.7
1956	68.4	36.3	72.7	36.3	73.7	36.8	75.3	37.2	81.4	37.0	82.8	37.1	85.9	37.2
1957	71.9	36.8	74.2	36.7	74.3	36.6	76.7	36.3	81.3	36.2	84.4	36.8	86.2	37.1
1958	66.9	35.3	64.0	35.8	71.2	35.8	75.0	35.8	79.4	35.1	83.5	34.8	85.1	35.3

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

## Temperatures and Salinities

## Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>BEACH, FLA.</b>															
78.6	--	80.6	--	74.8	--	--	--	64.8	--	--	--	82*	--	60*	--
<b>(ocean), FLA.</b>															
76.8	36.0	81.6	36.0	77.0	34.0	69.5	32.9	64.9	35.7	71.4	35.6	86	38.6	50	25.1
76.3	35.7	80.0	35.7	74.6	34.2	71.6	34.8	64.9	34.4	70.7	35.1	85	37.6	46	26.0
78.0	36.2	81.8	35.7	76.8	34.9	70.7	35.1	65.3	34.8	71.4	35.6	87	39.3	50	31.8
80.5	36.3	82.6	35.4	76.4	33.5	72.6	34.0	64.9	33.2	73.3	34.9	88	38.0	53	28.8
77.0	35.9	80.8	35.4	78.2	32.8	69.4	34.5	64.2	33.7	73.0	34.2	84	39.0	61	30.6
78.6	35.8	77.8	35.5	--	--	--	--	--	--	--	--	84	37.0*	60*	31.6*
78.4	36.0	81.5	35.7	76.4	34.1	71.1	34.4	65.0	34.1	72.0	35.2				
87	37.3	88	39.0	85	38.8	79	37.0	75	36.7			88	39.3		
83.6	36.7	84.7	36.7	80.6	35.8	75.8	35.5	70.2	35.1						
70.5	35.0	77.4	33.7	71.5	31.9	64.8	33.2	59.0	32.9					46	25.1
61	33.3	73	31.6	68	25.1	59	28.9	46	28.8						
<b>(Halifax River), FLA.</b>															
87.4	9.0	84.3	9.8	78.2	11.0	73.4	14.8	66.4	20.6	75.9	16.0	90	28.9	50	0.9
<b>BEACH, FLA.</b>															
78.1	--	82.0	--	77.3	--	75.5	--	70.3	--	73.6	--	85	--	58	--
79.3	36.3	81.8	35.9	78.6	34.8	72.0	34.8	66.9	35.8	74.3	36.0	87	40.7	58	30.2
82.8	36.2	83.1	36.3	77.3	36.3	70.8	36.4	65.5	36.2	74.4	36.3	86	38.6	60	35.0
84.7	37.0	83.9	37.2	78.6	36.8	73.8	37.1	68.0	36.3	75.0	36.6	86	38.8	57	34.6
80.4	36.0	--	--	78.0	35.9	71.4	35.0	69.4	35.7	--	--	86*	37.9*	56*	34.0*
80.5	36.6	82.1	36.7	77.3	35.8	72.8	35.7	66.2	36.8	74.3	36.5	86	39.3	60	34.5
80.0	35.8	84.7	35.7	78.4	35.7	74.8	35.8	68.3	35.7	72.4	35.9	86	38.8	51	33.5
79.9	36.3	82.4	36.3	78.0	35.5	73.1	35.5	67.9	36.0	74.0	36.2				
86	38.8	87	38.6	85	40.7	79	38.8	76	38.8			87	40.7		
84.5	37.3	84.7	37.3	82.6	37.1	76.7	37.1	72.3	37.3						
72.4	35.3	78.9	34.9	73.4	34.0	68.4	34.4	62.8	35.0						
62	34.6	72	32.9	70	30.2	64	32.4	59	34.6					51	30.2
<b>FLA.</b>															
86.4	36.7	84.9	36.2	80.8	36.2	79.2	36.4	76.1	36.4	--	--	90	38.4*	72*	34.8*
<b>FLA.</b>															
86.4	36.3	84.2	35.1	79.2	35.5	75.0	35.8	73.7	35.9	78.2	36.0	91	38.5	60	31.0
85.4	35.8	83.8	35.1	79.7	34.2	76.6	34.6	72.8	35.1	78.5	35.5	90	40.6	61	29.4
86.8	35.3	85.0	35.0	81.0	34.0	75.2	35.1	71.8	34.6	79.0	35.4	90	37.2	66	31.6
85.3	35.9	84.0	35.8	78.6	35.4	--	--	72.9	35.9	--	--	88	37.7*	70*	34.2*
87.1	37.0	82.1	35.3	81.1	35.7	74.8	36.0	73.1	36.3	78.2	36.5	90	38.0	64	34.4
86.4	36.2	84.2	35.4	80.1	35.3	76.2	35.8	70.2	35.5	78.8	36.2	90	39.6	66	33.1
86.8	35.5	84.9	35.0	80.3	35.4	78.3	35.7	73.4	35.3	77.4	35.4	90	36.4	58	32.9

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
	MIAMI BEACH,													
Mean	70.6	35.5	71.3	35.9	73.7	36.2	76.8	36.3	80.3	36.3	84.1	36.3	85.6	36.2
Maximum	77	38.0	78	37.9	81	38.0	85	38.2	86	38.9	90	40.6	90	39.6
Mean Max.	74.0	36.4	75.1	36.7	78.1	37.0	80.3	37.0	83.6	37.1	87.0	37.2	87.8	37.2
Mean Min.	65.6	34.5	66.5	35.3	69.1	35.1	72.9	35.4	76.4	35.4	81.3	35.4	83.6	35.1
Minimum	62	31.6	58	34.2	64	32.1	70	33.1	72	33.1	80	32.9	81	33.3
	KEY WEST,													
1926-1928	70.6	36.6	73.6	36.4	74.4	36.6	78.5	36.8	81.4	36.8	86.3	36.7	87.6	36.3
1929-1933	71.8	34.9	73.9	35.5	74.5	36.0	78.5	36.3	82.8	36.6	84.6	35.9	87.1	36.3
1934-1938	72.1	36.0	71.5	36.2	74.4	36.2	78.5	36.7	82.4	37.0	84.8	36.8	86.1	36.7
1939-1940	70.5	36.3	71.4	36.4	74.8	36.8	78.8	36.6	81.6	37.3	85.6	37.1	87.6	37.3
---														
1946-1948	72.6	36.6	72.2	35.8	75.3	36.6	80.4	37.0	83.4	37.0	85.9	36.8	87.0	36.6
1949-1953	71.7	36.4	72.4	36.2	76.0	36.6	78.1	36.8	82.2	37.0	86.4	36.8	86.2	36.4
1954	72.6	35.3	72.4	35.8	72.4	35.3	80.1	36.3	83.1	36.6	84.9	36.2	87.5	36.4
1955	70.9	35.8	69.7	36.6	76.6	37.1	79.0	37.5	82.5	37.9	85.7	37.5	85.0	37.1
1956	67.6	36.8	74.1	36.8	74.6	37.6	76.3	37.6	82.2	37.7	83.3	37.5	85.9	37.5
1957	72.5	37.3	75.6	37.2	75.2	37.1	78.8	37.7	82.5	36.7	85.0	37.0	87.8	37.1
1958	66.4	34.8	63.6	35.3	72.2	35.8	76.0	35.9	80.8	36.3	84.7	35.9	86.0	36.3
Mean	71.3	36.0	72.3	36.2	74.7	36.4	78.6	36.7	82.4	37.0	85.3	36.7	86.7	36.6
Maximum	78	37.9	82	38.0	83	38.2	86	38.8	88	38.6	90	38.8	91	38.8
Mean Max.	75.1	36.6	76.5	36.7	79.7	37.1	82.3	37.5	85.7	37.6	88.0	37.5	88.8	37.3
Mean Min.	66.4	35.1	68.2	35.4	69.7	35.7	74.7	35.9	78.9	35.9	82.3	35.7	84.3	35.7
Minimum	57	28.0	61	33.1	65	33.2	71	33.5	75	33.3	79	32.1	81	31.5
	ST. PETERSBURG,													
1947-1948	65.1	26.8	64.6	25.5	68.9	25.9	76.4	25.6	80.8	27.1	84.6	28.2	85.1	26.7
1949-1953	65.0	26.5	66.3	26.9	69.6	27.5	72.1	27.8	79.7	28.8	84.3	29.9	85.6	30.2
1954	63.3	22.0	65.6	23.0	65.5	25.0	78.6	25.6	80.1	26.9	84.7	28.1	85.7	27.7
1955	63.6	26.1	62.5	26.8	70.4	27.8	74.2	28.8	80.0	30.1	83.0	31.5	85.4	32.1
1956	58.5	29.3	67.6	29.4	69.0	30.3	72.0	31.9	81.5	32.4	82.8	34.6	85.3	34.4
1957	64.5	32.7	70.7	32.9	69.5	32.4	75.4	30.2	81.3	29.0	85.2	28.1	86.4	26.8
1958	56.1	26.8	55.6	25.4	66.2	22.5	71.1	22.4	79.2	22.7	85.8	26.1	86.7	25.4
Mean	63.4	26.9	65.2	26.9	68.9	27.3	73.7	27.5	80.2	28.2	84.4	29.5	85.6	29.1
Maximum	77	33.6	74	33.6	78	33.2	83	32.5	88	34.0	89	35.1	90	35.0
Mean Max.	67.9	28.1	70.0	27.6	73.8	28.2	78.1	28.2	83.5	29.3	87.0	30.6	88.2	30.1
Mean Min.	58.4	25.8	60.9	25.8	64.2	26.3	69.0	26.5	76.4	27.2	81.1	27.6	82.8	27.7
Minimum	52	21.4	52	20.1	56	20.3	64	20.9	74	21.2	79	19.3	79	23.3
	CEDAR KEYS,													
1922-1926	58.1	28.1	60.7	25.9	64.7	24.4	72.1	25.0	77.4	25.4	83.8	26.9	84.1	26.1
---														
1944-1948	59.2	25.9	59.7	25.6	67.4	23.8	74.3	24.3	78.1	25.6	82.5	26.7	83.8	27.5
1949-1951	61.7	25.9	63.0	27.2	64.3	26.8	68.3	23.7	78.0	26.8	82.8	27.8	83.9	27.2



Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<i>FLA. -continued</i>															
86.2	35.9	84.1	35.1	79.9	34.9	75.9	35.3	72.9	35.4	78.4	35.8				
91	38.6	89	38.0	86	37.7	82	38.4	79	36.8			91	40.6		
88.8	36.8	86.6	36.2	84.1	35.9	79.9	36.3	76.4	36.0						
83.9	34.9	81.4	34.1	75.7	33.7	71.4	34.1	67.9	34.2						
82	32.8	79	31.0	72	29.9	67	29.4	60	32.7					58	29.4
<i>FLA.</i>															
86.7	35.7	85.2	35.3	81.6	35.0	74.5	35.7	72.5	35.9	79.4	36.2	92	38.1	61	31.5
87.5	36.4	85.9	36.2	81.2	35.1	75.0	35.7	72.8	35.4	79.6	35.9	91	38.2	62	28.0
86.2	36.7	85.4	36.2	81.7	36.2	76.0	36.7	71.1	36.4	79.2	36.5	90	38.8	62	33.2
87.4	37.0	85.6	35.8	81.2	35.8	73.2	37.0	72.1	36.7	79.2	36.7	91	38.8	57	32.7
87.3	37.0	85.5	36.6	81.3	35.7	80.0	36.4	75.3	36.6	80.5	36.6	90	38.5	64	31.5
87.3	36.4	85.5	36.0	81.7	35.5	75.2	36.2	71.6	36.3	79.5	36.4	91	38.2	62	32.8
87.4	36.8	84.6	36.3	79.8	36.2	75.2	35.3	69.7	35.1	79.1	36.0	90	37.1	66	32.5
86.9	37.5	85.7	37.1	79.8	37.0	76.1	37.5	72.0	37.2	79.2	37.2	89	38.4	64	34.8
87.5	37.3	83.4	36.6	81.5	36.8	74.5	37.6	73.6	37.5	78.7	37.3	89	38.6	62	35.8
87.6	37.0	85.1	36.7	80.6	35.8	76.5	37.0	69.4	37.0	79.7	37.0	89	38.8	64	34.9
87.8	36.4	85.6	35.8	81.7	36.2	79.9	36.6	74.5	35.5	78.3	35.9	90	37.0	61	34.1
87.1	36.6	85.4	36.0	81.3	35.7	75.9	36.3	72.3	36.2	79.4	36.4				
92	38.1	91	37.6	88	38.1	83	38.8	80	38.4			92	38.8		
89.5	37.2	88.0	36.8	85.0	36.7	79.9	37.1	76.0	36.8						
84.1	35.7	82.7	35.1	77.1	34.2	71.2	35.4	67.6	35.4						
81	31.5	81	33.7	72	29.0	66	32.5	62	32.7					57	28.0
<i>FLA.</i>															
84.6	22.7	83.3	21.2	76.7	22.6	75.4	25.1	70.8	25.5	76.4	25.2	88	30.7	54	20.0
85.2	27.6	83.4	23.1	78.4	22.2	68.6	24.6	63.6	25.4	75.2	26.7	89	32.8	56	17.4
87.0	24.8	85.1	24.8	77.5	24.3	67.8	25.6	61.3	26.4	75.2	25.4	90	29.1	57	21.4
85.8	28.4	85.4	24.7	77.9	25.8	70.6	27.6	63.1	27.7	75.2	28.1	88	32.4	56	22.1
87.4	34.1	82.5	33.1	77.3	31.8	70.3	32.3	68.0	32.4	75.2	32.1	88	35.1	54	28.2
85.4	22.7	84.5	21.6	76.4	20.8	70.5	24.8	60.4	26.0	75.8	27.3	90	33.6	52	18.8
86.5	25.4	86.2	24.8	77.4	26.5	72.9	26.0	64.3	26.4	74.0	25.1	90	28.5	52	20.3
85.6	26.5	84.0	24.1	77.7	24.1	70.2	26.0	64.2	26.5	75.3	26.9				
90	35.1	88	34.2	86	33.1	80	33.1	74	32.9			90	35.1		
87.9	28.5	86.6	25.8	82.9	25.9	75.6	26.9	68.9	27.5						
83.3	24.4	80.9	22.2	71.8	22.5	64.0	24.8	58.5	25.6						
81	18.6	78	17.9	65	17.4	58	21.3	52	21.3					52	17.4
<i>FLA.</i>															
34.3	25.5	82.4	27.5	73.3	27.1	64.9	27.7	61.0	28.5	72.2	26.5	90	31.6	41	13.5
83.9	25.9	81.9	26.1	73.5	25.6	68.4	27.2	59.4	26.1	72.7	25.9	90	32.0	43	13.1
83.3	25.4	80.6	22.4	75.5	24.4	62.6	25.4	58.5	25.9	71.9	25.7	90	33.8	41	9.7

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
	CEDAR KEYS,													
1954	59.2	25.6	60.8	24.1	62.9	24.6	78.1	27.7	78.8	27.8	85.7	30.1	85.6	27.6
1955	56.2	28.8	59.5	28.9	68.1	32.5	73.6	31.6	81.4	30.4	83.1	30.7	86.7	31.5
1956	54.5	30.7	67.2	32.0	67.8	31.6	72.1	28.5	84.1	28.8	85.4	30.8	87.8	28.8
1957	63.7	29.7	69.6	32.0	67.3	28.0	76.2	29.4	82.8	31.2	86.5	30.4	87.9	25.4
1958	52.7	23.9	51.2	22.2	65.0	21.3	73.3	21.4	80.9	22.5	85.6	23.4	87.2	26.7
Mean	58.7	27.1	61.2	26.7	65.7	25.6	72.7	25.4	78.9	26.4	83.7	27.6	84.9	27.2
Maximum	75	33.3	77	33.8	78	34.2	85	33.8	90	34.0	91	34.1	92	32.7
Mean Max.	66.7	29.7	69.7	29.5	73.6	29.0	79.3	28.9	84.9	29.7	88.2	30.2	88.7	29.8
Mean Min.	49.0	23.5	50.9	21.7	55.9	20.8	63.4	20.9	72.1	21.8	78.8	24.7	80.2	24.1
Minimum	41	16.6	43	13.5	46	13.1	50	14.4	64	15.6	75	19.2	76	18.8
	PENSACOLA,													
1924-1928	53.8	16.0	58.3	12.6	61.8	12.9	69.9	12.8	75.4	16.1	82.7	15.8	85.0	16.3
1929-1933	57.9	16.1	60.0	16.1	62.5	13.5	71.4	13.5	78.8	16.2	82.9	20.6	85.9	19.3
1934-1938	59.9	17.0	58.4	17.3	66.1	13.3	72.3	9.7	78.5	12.8	83.9	15.7	85.2	17.4
1939-1943	54.4	19.3	55.7	19.0	60.7	11.2	69.0	11.4	76.9	17.3	83.2	16.7	85.2	12.6
1944-1948	54.2	16.1	57.1	15.2	64.3	10.2	71.1	7.2	76.5	10.6	82.9	13.3	83.5	17.0
1949-1953	60.2	18.8	60.8	18.3	62.8	16.2	67.3	11.9	77.4	12.9	83.3	18.2	84.0	18.7
1954	54.7	10.5	57.9	19.1	60.9	15.8	74.0	14.8	73.9	23.5	83.3	26.5	85.2	26.0
1955	55.4	26.7	56.1	20.9	68.2	23.3	70.6	16.0	77.9	16.1	80.9	18.4	84.8	23.1
1956	53.0	28.8	62.1	20.5	64.4	13.3	70.0	16.5	80.0	21.2	81.8	25.1	84.5	18.7
1957	59.6	15.2	66.8	17.5	63.8	21.7	71.5	6.7	80.7	12.6	85.7	16.0	87.0	18.8
1958	51.8	20.8	50.5	16.3	61.2	12.8	70.2	12.4	79.4	14.0	86.0	19.6	86.4	14.9
Mean	56.4	17.5	58.4	16.6	63.0	13.6	70.3	11.4	77.4	14.6	83.2	17.4	84.9	17.4
Maximum	72	34.1	75	31.2	78	32.0	82	29.3	87	30.1	90	29.1	90	30.4
Mean Max.	64.0	25.2	65.1	23.5	70.3	22.0	76.2	19.3	82.4	22.2	86.9	23.7	88.1	23.9
Mean Min.	49.8	8.8	51.8	9.4	56.1	6.4	63.0	5.8	72.0	8.4	79.1	11.4	81.2	11.1
Minimum	40	1.2	45	1.9	48	0.7	59	0.7	66	1.3	75	2.8	78	3.8
	GRAND ISLE (Drilling Platform													
1949-1953	62.4	26.9	61.9	24.6	64.6	23.5	67.7	25.0	77.0	22.4	83.4	25.5	84.6	26.8
1954	61.0	32.4	63.1	31.4	64.5	33.2	73.7	28.9	76.0	26.5	82.9	26.7	84.7	32.4
1955	62.9	32.5	61.1	29.1	66.4	29.3	71.4	22.6	79.7	22.9	81.2	30.1	84.1	27.7
1956	62.1	34.5	64.1	30.1	65.4	25.4	68.5	27.2	77.6	25.2	80.9	30.7	83.3	32.9
1957	65.4	32.0	68.1	25.5	66.5	30.2	70.3	24.1	77.7	21.4	83.4	18.7	84.1	23.7
1958	58.7	30.3	57.1	31.1	62.0	29.4	68.8	26.1	76.5	21.4	83.5	19.7	84.4	22.4
Mean	62.2	29.9	62.4	27.3	64.8	27.3	69.5	25.5	77.3	23.1	82.8	25.4	84.3	27.3
Maximum	72	37.9	75	36.3	74	36.3	78	35.0	85	34.5	87	38.1	89	37.1
Mean Max.	65.9	34.5	66.9	33.5	70.0	33.3	74.8	32.1	82.6	31.5	85.9	31.6	87.2	32.0
Mean Min.	57.4	23.4	57.7	17.0	60.4	19.3	64.0	17.9	73.2	16.1	79.0	18.7	81.4	20.6
Minimum	52	11.6	51	0.0	58	2.6	62	14.0	72	13.1	75	5.9	79	3.8
	EUGENE													
1944-1948	51.0	3.0	53.0	1.9	61.6	2.2	70.1	2.9	75.4	1.3	82.6	1.7	84.3	1.9
1949-1953	56.5	3.3	55.6	2.0	60.5	1.9	66.1	1.6	76.4	2.0	83.6	1.9	84.6	2.4

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

Temperatures and Salinities

Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<i>FLA. -continued</i>															
88.3	28.4	84.6	30.4	75.4	28.1	63.9	29.7	--	--	--	--	92	32.9*	49*	14.9*
87.7	30.6	85.8	29.9	77.3	30.7	68.0	30.4	58.2	29.9	73.8	30.4	92	34.1	46	24.6
88.8	30.3	82.1	33.1	76.4	30.4	66.5	29.8	67.3	30.6	75.0	30.4	92	34.4	47	23.9
85.1	24.3	82.4	17.5	74.8	19.3	67.9	26.7	59.7	23.9	75.3	26.5	92	33.6	49	4.6
87.0	24.6	87.0	26.9	78.4	28.6	73.6	27.7	59.9	27.1	73.5	24.7	92	31.0	43	14.9
84.9	26.3	82.5	26.3	74.7	26.3	66.4	27.5	60.1	27.1	72.9	26.7				
92	33.5	92	34.2	88	34.4	80	32.5	74	32.8			92	34.4		
88.9	29.1	87.0	29.4	82.2	29.5	75.0	30.1	67.8	29.5						
80.9	22.6	77.3	22.2	65.9	21.0	55.6	24.2	49.9	24.3						
76	16.7	69	5.6	61	4.6	46	17.7	41	14.1					41	4.6
<i>FLA.</i>															
85.4	17.5	82.7	20.1	74.7	20.6	64.3	23.5	57.2	22.0	70.9	17.2	90	30.8	43	1.2
85.6	18.0	83.0	21.3	73.9	22.1	64.7	21.8	59.7	19.5	72.2	18.2	90	31.0	46	1.1
85.8	13.3	82.3	17.5	75.1	17.5	65.7	19.9	56.5	20.0	72.5	16.0	92	32.3	46	1.6
85.2	13.5	81.3	18.4	74.5	21.8	62.8	24.2	58.1	23.0	70.6	17.4	92	29.8	40	1.3
84.1	14.0	80.7	16.7	72.3	21.3	66.2	22.1	56.6	16.9	70.8	15.0	89	31.1	45	0.6
84.7	19.2	80.3	23.0	73.7	24.6	62.7	25.5	57.5	21.4	71.2	19.1	88	34.1	47	1.9
85.5	27.6	83.1	29.1	75.8	29.7	62.1	29.7	55.4	28.0	71.0	23.4	88	32.8	50	3.8
85.0	17.1	84.0	24.6	75.4	26.9	64.4	27.7	57.1	28.1	71.6	22.4	90	31.9	50	1.3
86.8	21.4	81.1	24.3	75.2	17.9	66.5	25.4	62.0	23.1	72.3	21.3	91	32.4	48	5.9
85.9	24.2	82.0	21.3	70.9	21.8	64.3	22.2	56.6	15.6	72.9	17.8	90	29.1	50	2.0
86.5	12.0	83.1	16.6	74.6	21.0	67.6	23.8	56.8	26.0	71.2	17.5	90	28.8	45	5.0
85.2	16.6	81.9	20.0	74.1	21.6	64.5	23.1	57.6	20.9	71.4	17.6				
92	31.0	92	32.1	86	32.7	77	33.1	72	32.8			92	34.1		
88.5	23.7	86.7	25.1	80.1	26.9	71.9	28.1	64.8	27.1						
81.2	10.7	76.4	14.2	67.4	16.1	56.9	17.9	50.9	13.5						
78	0.7	71	2.9	60	4.6	49	5.2	45	0.6					40	0.6
<i>8 miles SE. of), LA.</i>															
85.0	27.6	82.2	28.2	76.7	30.1	69.8	33.2	64.0	31.9	73.3	27.1	89	38.8	52	0.0
85.0	32.9	--	--	--	--	69.1	33.7	63.2	35.0	--	--	88*	36.0*	57	16.5*
84.4	30.7	--	--	79.3	33.1	70.7	34.2	64.4	33.1	--	--	86*	35.5*	57	15.3*
85.5	31.9	82.7	31.8	77.7	31.8	71.0	33.3	68.0	33.6	73.9	30.7	88	35.7	58	17.5
83.6	31.4	82.1	28.4	74.9	30.4	69.3	31.8	62.9	28.2	74.0	27.2	89	36.3	60	5.9
85.7	21.0	83.7	23.7	77.1	27.7	71.0	31.8	64.6	32.4	72.8	26.4	88	34.6	51	11.0
84.9	28.6	82.4	28.1	76.9	30.4	70.0	33.1	64.3	32.1	73.5	28.2				
88	38.8	87	34.2	86	35.8	78	36.7	73	36.3			89	38.8		
87.3	33.1	85.0	31.2	83.1	33.3	75.5	34.9	69.4	34.8						
82.1	23.8	79.1	24.3	71.1	26.7	62.9	29.7	58.5	26.0						
79	12.7	76	19.6	65	18.7	58	21.4	52	16.9					51	0.0
<i>ISLAND, LA.</i>															
85.2	5.5	82.1	9.0	74.2	8.2	66.0	9.0	55.2	4.2	70.1	4.2	91	29.9	38	0.0
85.4	3.7	81.4	6.4	74.1	8.6	61.3	5.9	55.1	6.7	70.0	3.9	90	31.2	39	0.0

Table 1.- Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
EUGENE														
1954	56.5	11.0	60.0	6.8	62.8	8.2	—	—	75.4	5.0	84.2	2.1	86.4	5.4
1955	—	—	—	—	63.6	6.0	68.3	2.8	79.0	3.2	82.0	2.6	84.4	2.6
1956	—	—	58.7	—	61.6	1.3	67.9	2.6	77.8	2.6	82.1	2.8	86.4	2.6
1957	57.6	6.7	59.3	2.5	59.5	2.0	69.2	0.8	77.5	1.5	81.9	2.8	86.2	3.3
1958	—	—	50.2	0.8	58.0	3.3	67.6	4.1	76.5	1.9	84.7	0.0	85.0	1.1
Mean	54.6	4.2	55.3	2.4	61.0	2.8	68.1	2.4	76.4	2.0	83.1	1.9	84.9	2.4
Maximum	70	29.9	74	28.0	75	29.0	78	29.8	84	26.9	89	19.2	90	25.4
Mean Max.	62.0	17.7	63.5	12.8	69.9	16.5	74.3	14.9	81.6	11.2	86.8	8.9	88.0	10.3
Mean Min.	46.8	0.2	47.0	0.0	52.4	0.0	60.2	0.0	69.9	0.2	77.8	0.6	81.0	0.4
Minimum	38	0.0	39	0.0	45	0.0	50	0.0	66	0.0	75	0.0	78	0.0
GALVESTON														
1957	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1958	53.8	27.2	52.6	28.1	58.7	27.1	69.2	27.1	79.3	24.1	85.0	28.5	86.3	27.5
GALVESTON														
1922-1923	61.1	27.5	59.3	21.7	63.4	22.2	72.7	9.3	79.7	19.1	85.2	14.6	86.0	22.0
1924-1928	57.7	20.8	62.6	21.6	64.2	20.4	72.0	20.3	79.1	18.8	84.9	20.8	87.6	25.5
1929-1933	60.2	20.3	61.2	17.1	65.1	19.5	72.5	22.7	79.7	20.9	83.9	21.3	87.5	27.2
1934-1938	57.3	23.0	57.3	20.6	63.1	20.6	70.0	21.0	77.8	19.6	84.5	22.2	85.9	27.1
1939-1943	53.5	22.5	55.9	24.4	60.1	25.2	69.3	23.7	77.6	21.3	83.6	20.8	86.0	21.4
1944-1948	53.3	19.1	56.2	19.5	63.4	18.2	71.8	19.0	77.6	18.0	83.8	19.0	85.9	25.1
1949-1953	58.4	25.0	59.2	23.5	63.7	21.7	69.0	21.6	78.3	20.6	84.4	23.5	86.1	25.8
1954	54.5	26.7	59.9	27.8	59.9	30.8	72.6	30.2	76.3	29.4	83.8	29.9	85.9	33.8
1955	55.9	30.8	55.4	26.4	65.8	25.4	69.7	26.3	78.8	27.8	82.4	29.0	85.9	31.8
1956	55.0	29.4	57.9	27.6	63.1	26.8	68.3	27.8	80.4	28.0	83.7	29.9	85.4	34.9
1957	58.4	31.2	63.8	29.7	63.5	28.4	69.8	24.2	78.5	13.5	83.4	15.6	86.9	24.8
1958	51.8	20.8	51.5	21.3	58.1	21.6	68.2	25.4	78.8	18.8	85.1	23.5	86.3	25.8
Mean	56.7	23.0	58.5	22.0	63.1	21.8	70.7	21.8	78.5	20.4	84.2	21.4	86.4	25.9
Maximum	72	34.0	77	32.5	86	37.9	88	34.2	90	35.5	95	34.1	97	37.2
Mean Max.	63.2	29.1	65.2	28.0	69.9	28.6	77.2	28.0	83.2	27.5	88.1	28.8	89.7	31.4
Mean Min.	48.2	15.7	50.9	14.6	55.0	13.5	62.6	13.7	73.1	12.4	79.8	14.5	83.0	19.5
Minimum	35	3.9	37	3.0	43	2.5	49	2.5	68	0.7	75	3.7	79	6.0
BRAZOSPORT, FREEPORT														
1955	—	—	—	—	—	—	—	—	78.4	29.5	81.3	30.1	85.5	33.3
1956	57.1	30.6	60.6	29.0	64.6	29.0	70.8	30.7	78.8	26.5	82.2	32.8	83.0	36.4
1957	58.1	31.2	63.8	29.5	64.2	25.5	71.2	20.0	77.3	9.6	82.1	14.1	83.5	29.1
1958	53.2	22.5	52.5	22.6	58.3	23.8	68.5	27.8	76.7	21.6	82.9	29.5	84.0	28.5
Mean	56.1	28.1	59.0	27.0	62.4	26.1	70.2	26.2	77.8	21.8	82.1	26.6	84.0	31.8
Maximum	65	34.4	70	33.1	70	33.3	79	34.1	82	34.4	86	35.9	89	38.1
Mean Max.	61.3	32.7	66.3	32.1	67.7	31.9	77.0	30.3	81.8	31.0	85.2	30.7	86.8	36.0
Mean Min.	47.3	22.6	49.0	19.9	56.0	16.1	64.0	19.1	72.5	14.2	77.8	21.2	80.0	23.0
Minimum	45	10.7	42	12.7	52	9.6	62	5.4	69	3.0	77	7.2	75	9.8

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

## Temperatures and Salinities

## Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
ISLAND, LA. -continued															
86.7	8.9	83.6	15.8	75.5	17.7	—	—	—	—	—	—	89	32.0*	47*	0.3*
84.1	4.5	84.3	13.3	—	—	59.0	7.5	47.6	7.7	—	—	88	29.0*	40*	0.0
86.1	4.5	82.1	9.7	77.2	11.0	65.1	12.2	61.8	6.8	—	—	90	28.2*	52*	0.0
85.2	3.4	81.9	5.2	69.0	8.4	60.7	1.1	—	—	—	—	88	25.4*	45*	0.0
86.2	1.1	81.5	6.7	72.2	6.0	66.1	11.2	53.1	7.1	—	—	89	26.7*	45*	0.0
85.4	4.6	82.0	8.5	74.0	9.2	63.4	7.7	54.9	5.9	70.3	4.5				
91	29.9	90	29.9	85	32.0	79	28.6	70	31.2			91	32.0		
88.6	16.1	86.9	22.6	81.3	23.3	72.9	23.4	64.9	21.3						
81.2	0.7	76.0	1.1	64.8	0.9	53.4	0.4	46.6	0.0						
79	0.0	70	0.0	54	0.0	49	0.0	40	0.0					38	0.0
(Gulf Coast), TEX.															
—	—	81.8	28.6	73.5	27.6	65.8	26.8	59.4	28.5	—	—	88*	33.1*	53*	19.7*
86.5	35.1	82.1	22.6	75.0	25.2	66.8	26.9	57.2	29.7	71.0	27.4	91	36.7	46	3.9
(Galveston Channel), TEX.															
87.4	30.4	83.8	26.9	75.3	25.1	65.5	24.8	63.2	22.0	73.6	22.1	92	34.9	47	3.4
88.5	29.9	85.5	28.2	80.8	23.5	70.5	23.0	64.1	23.0	74.8	23.0	95	36.3	39	3.7
87.6	29.3	85.1	28.2	76.7	26.4	67.1	27.7	59.2	26.3	73.8	23.9	102	40.1	42	2.5
86.8	31.0	83.0	27.7	75.9	27.1	64.7	26.7	56.8	25.1	71.9	24.3	91	37.3	42	2.5
85.9	29.0	82.6	27.5	76.3	25.1	64.6	23.8	58.9	21.2	71.2	23.8	91	35.5	35	3.0
86.0	29.3	82.9	24.4	75.3	24.1	66.8	23.5	58.2	22.2	71.8	21.8	90	36.2	37	3.7
86.3	28.5	82.5	26.3	74.8	23.3	63.9	25.6	57.5	25.5	72.0	24.2	90	35.8	37	5.1
86.6	36.0	84.0	33.2	77.9	31.4	63.1	30.2	59.0	32.8	72.0	31.0	88	37.5	49	17.1
86.5	30.6	83.2	26.9	75.9	27.2	63.7	29.3	56.7	29.1	71.7	28.4	89	34.6	47	19.0
86.4	36.3	82.5	33.7	77.3	32.4	65.5	31.5	59.1	30.3	72.0	30.7	89	37.2	48	20.9
86.1	31.1	81.6	26.0	72.5	22.2	64.0	21.3	58.2	23.4	72.2	24.3	90	36.2	49	0.7
86.4	31.2	82.4	22.2	73.4	20.5	65.8	23.8	54.5	25.1	70.2	23.3	89	34.1	44	9.3
86.8	30.1	83.5	27.2	76.2	25.2	65.9	25.2	59.1	24.3	72.5	24.0				
102	40.1	95	39.6	91	34.1	86	33.3	84	35.1			102	40.1		
89.9	34.1	87.9	31.6	82.3	28.9	74.6	29.4	66.9	29.1						
83.2	24.7	77.3	22.5	68.0	20.6	56.5	19.5	50.7	18.4						
79	13.3	69	8.6	59	8.9	48	3.7	42	3.0					35	0.7
HARBOR, TEX.															
85.7	32.7	83.2	27.7	75.9	24.8	65.4	31.4	57.9	29.1	—	—	89	35.9*	50*	16.6*
85.0	37.1	81.7	34.4	76.5	33.7	65.2	31.9	59.9	28.9	72.1	31.8	87	38.1	49	17.4
84.1	34.5	81.2	28.5	71.3	19.2	63.7	18.7	59.1	27.1	71.6	23.9	87	36.0	48	2.6
84.8	35.1	81.3	20.1	72.9	20.1	66.6	25.0	56.1	26.5	69.8	25.3	86	37.0	42	4.6
84.9	34.8	81.8	27.7	74.2	24.4	65.2	26.8	58.2	27.9	71.3	27.4				
87	38.1	86	38.1	86	35.4	74	35.5	66	33.7			89	38.1		
86.5	36.7	85.5	34.6	80.8	30.3	73.5	30.3	63.5	31.5						
82.2	31.2	76.5	15.2	64.8	16.1	53.2	22.2	50.8	22.1						
81	25.2	72	2.8	58	2.6	52	6.8	48	17.7					42	2.6

Table 1.- Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
ROCKPORT,														
1948	--	--	56.4	21.8	65.6	22.1	77.5	25.5	82.8	26.3	86.4	31.1	88.4	34.9
1949-1953	62.6	28.8	62.8	28.5	68.4	27.2	73.1	28.2	80.9	28.2	86.4	29.3	87.3	33.7
1954	59.6	23.8	64.7	26.4	66.2	28.1	76.8	29.5	78.3	31.2	85.0	33.3	87.1	37.5
Mean	62.1	28.0	62.2	27.2	67.7	26.7	74.3	28.0	80.8	28.4	86.2	30.3	87.4	34.5
Maximum	75	35.7	75	36.4	77	33.8	84	35.7	88	37.1	91	36.6	94	40.6
Mean Max.	69.5	30.1	70.1	30.4	74.9	28.8	80.0	30.8	85.7	30.6	89.2	33.5	90.1	37.2
Mean Min.	52.7	25.9	52.1	24.8	57.7	24.6	66.6	26.1	75.9	26.5	82.8	27.3	84.9	30.6
Minimum	45	19.9	40	19.1	50	20.0	63	20.3	72	19.2	82	19.7	84	19.1
PORT ARANSAS,														
1958	--	--	--	--	--	--	--	--	--	--	84.2	33.5	86.0	35.9
BRAZOS SANTIAGO,														
1958	--	--	--	--	--	--	--	--	--	--	81.5	35.8	82.2	36.3
PORT ISABEL,														
1944-1948	59.6	32.8	61.5	31.8	66.8	32.1	74.1	33.8	79.4	33.1	83.9	34.6	85.7	37.5
1949-1953	65.0	34.9	65.4	35.0	69.6	34.0	74.0	34.1	80.8	35.0	84.5	35.0	85.4	37.2
1954	62.4	34.0	66.7	34.6	68.5	36.0	76.9	36.3	79.5	36.8	85.5	37.5	84.5	37.3
1955	--	--	62.3	35.9	70.2	35.0	74.6	35.4	81.3	37.0	84.3	37.5	85.5	36.4
1956	63.8	33.7	64.3	34.8	69.5	34.9	74.9	32.7	81.9	34.9	85.5	37.5	84.1	37.3
1957	63.4	36.7	70.3	35.4	70.5	35.7	76.7	35.1	80.6	33.1	84.1	34.1	86.0	36.3
1958	60.4	30.7	64.1	31.6	65.6	26.5	73.9	32.7	82.5	33.7	85.6	35.5	85.9	35.8
Mean	62.4	33.8	64.2	33.8	68.5	33.2	74.5	34.1	80.5	34.5	84.5	35.3	85.4	37.1
Maximum	73	38.8	76	38.0	77	38.0	82	37.6	87	38.4	90	38.8	90	39.7
Mean Max.	68.8	35.8	69.9	35.3	74.5	35.0	79.2	35.9	84.8	36.4	87.5	37.5	87.8	38.4
Mean Min.	52.6	31.1	57.0	30.4	59.9	31.2	67.9	31.9	75.4	31.6	81.5	31.5	83.0	35.1
Minimum	42	19.7	45	19.6	46	17.9	62	25.5	72	24.4	79	20.0	81	32.0
TAMPICO,														
1956	70.5	--	73.0	--	75.6	--	81.2	--	84.2	--	84.1	--	82.6	--
1957	72.2	9.0	77.2	9.4	76.1	9.6	76.6	11.1	84.0	10.8	--	--	85.9	11.9
1958	67.7	15.7	70.8	18.4	72.3	21.7	77.0	23.3	81.9	26.4	85.2	17.5	82.5	0.3
Mean	70.1	12.4	73.7	13.9	74.7	15.6	78.3	17.2	83.4	18.6	84.6	17.5	83.7	6.1
Maximum	80	23.1	81	32.0	80	27.8	85	30.3	88	31.2	90	29.5	89	22.7
Mean Max.	75.3	18.0	78.3	22.7	79.0	20.4	84.3	29.1	87.0	25.6	88.5	29.5	86.7	12.0
Mean Min.	65.7	4.7	68.7	2.6	68.7	8.9	73.7	11.2	79.0	12.0	79.5	0.3	79.3	2.4
Minimum	64	2.6	65	0.0	64	4.3	70	6.0	78	5.6	79	0.3	79	0.0
TUXPAN,														
1958	67.9	29.9	71.3	31.8	74.2	32.9	78.8	--	81.5	--	--	--	80.4	--

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

Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
TEX.															
87.7	38.0	83.4	29.4	76.5	28.5	68.8	29.9	65.0	30.3	--	--	94	40.8*	45*	15.0*
87.2	36.3	84.5	31.8	78.4	27.6	67.9	27.5	61.9	25.1	75.1	29.6	92	42.1	40	15.3
88.1	39.9	--	--	--	--	--	--	--	--	--	--	89*	40.8*	53*	21.3*
87.4	37.1	84.3	31.4	78.1	27.7	68.1	27.8	62.5	26.1	75.1	29.4				
92	41.7	90	42.1	86	36.4	80	36.6	72	32.7			94	42.1		
89.6	39.6	88.7	36.7	85.0	31.0	76.3	30.3	69.8	28.5						
84.6	34.5	79.2	25.4	71.5	24.8	59.2	26.1	54.4	23.4						
81	25.4	76	15.0	65	15.3	53	19.2	51	17.9					40	15.0
TEX.															
--	--	84.4	29.8	76.8	27.1	69.5	29.3	59.6	31.5	--	--	89*	38.2*	52*	24.1*
TEX.															
80.0	36.8	--	--	76.2	32.0	68.7	--	59.6	28.5	--	--	89*	38.0*	42*	17.7*
TEX.															
85.7	36.7	83.8	32.4	78.7	30.4	71.3	34.5	63.0	33.8	74.5	33.6	91	40.3*	42	6.3*
85.1	37.2	84.0	35.0	78.7	33.7	69.8	35.3	64.4	35.4	75.6	35.2	90	41.5	45	19.0
84.4	37.1	86.4	37.3	78.8	30.2	69.3	33.7	--	--	--	--	88	38.8*	57*	18.2*
86.3	37.2	84.7	29.3	79.0	31.6	68.7	34.1	63.8	32.7	--	--	88	38.6*	54*	20.3*
85.0	37.6	84.5	37.2	81.2	37.7	68.0	37.5	65.2	36.8	75.7	36.0	86	39.7	54	25.5
85.9	37.6	84.5	38.4	76.2	34.5	65.7	32.8	64.7	34.6	75.7	35.4	89	39.7	46	26.1
85.7	37.3	85.8	34.8	77.6	23.7	71.5	18.2	61.7	28.1	75.0	30.7	88	38.5	53	10.2
85.4	37.1	84.3	34.4	78.7	32.0	69.9	33.6	63.8	34.2	75.2	34.4				
91	40.3	90	40.1	88	39.3	80	41.5	75	40.2			91	41.5		
87.9	38.5	87.6	38.4	84.4	36.2	76.8	36.7	71.2	36.2						
81.7	32.8	79.6	28.6	71.1	25.9	60.7	31.2	50.4	32.3						
78	12.7	76	6.3	63	11.5	54	10.2	46	24.2					42	6.3
MEXICO															
84.2	--	81.3	--	83.1	--	75.1	--	70.7	--	78.8	--	88	--	66	--
86.7	8.8	87.1	8.8	79.5	4.1	74.8	13.6	70.5	16.7	--	--	90	28.0*	65	1.3*
87.5	2.8	84.9	1.5	79.7	0.9	76.5	0.7	70.1	2.6	78.0	11.0	90	32.0	64	0.0
86.1	5.8	84.4	5.2	80.8	2.5	75.5	7.2	70.4	9.6	78.8	11.0				
90	21.4	90	12.4	85	6.9	83	17.3	77	22.5			90	32.0		
88.7	12.8	87.3	8.4	84.7	4.6	81.3	9.6	75.3	14.1						
83.0	2.1	79.0	1.6	75.0	0.6	67.7	1.7	65.0	7.5						
81	0.0	75	0.0	70	0.0	67	0.0	64	1.5					64	0.0
MEXICO															
86.4	--	83.1	--	79.3	--	75.2	--	--	--	--	--	90*	35.7*	64*	24.6*

Table 1.- Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
VERACRUZ,														
1953	73.0	35.8	73.9	36.2	77.9	36.3	80.4	35.7	81.0	35.9	85.2	35.5	85.6	34.0
1954	73.1	36.2	73.6	36.0	74.1	36.0	79.1	35.9	81.0	35.8	83.3	34.5	83.8	30.6
1955	73.7	35.8	71.4	36.3	75.5	36.3	77.2	36.7	80.8	36.4	83.2	36.6	82.1	29.5
1956	72.4	35.3	74.8	35.5	75.9	35.9	79.4	36.2	82.0	35.8	82.5	34.1	82.8	31.1
1957	73.8	35.8	77.4	35.8	76.4	36.4	79.8	36.6	81.8	36.2	84.0	36.4	84.4	34.8
1958	69.7	35.8	71.6	35.8	74.4	35.9	77.7	35.8	81.5	36.0	84.5	35.4	84.8	30.8
Mean	72.6	35.8	73.8	35.9	75.7	36.1	78.9	36.2	81.4	36.0	83.8	35.4	83.9	31.8
Maximum	77	36.4	82	36.8	84	38.1	84	39.6	87	39.3	90	38.4	90	36.7
Mean Max.	75.7	36.2	77.5	36.4	80.5	37.0	82.5	37.1	85.2	37.1	86.8	36.8	87.3	34.9
Mean Min.	69.7	35.1	71.0	35.3	70.3	35.5	76.0	35.3	78.2	34.6	80.8	33.6	80.8	27.3
Minimum	68	34.4	68	34.8	68	34.9	73	33.5	76	32.4	80	30.2	79	18.3
ALVARADO,														
1955	--	--	--	--	77.4	--	--	--	82.0	--	85.0	--	82.1	--
1956	73.4	--	75.6	--	78.5	--	79.7	--	84.7	--	78.8	--	81.7	--
1957	74.6	--	78.6	--	78.0	--	81.1	--	85.3	--	87.0	--	83.5	--
1958	71.4	--	73.2	--	71.9	--	82.4	--	--	--	--	--	83.7	--
Mean	73.1	--	75.8	--	76.4	--	81.1	--	84.0	--	83.6	--	82.8	--
Maximum	79	--	81	--	84	--	88	--	89	--	90	--	88	--
Mean Max.	77.3	--	79.7	--	81.2	--	86.0	--	87.3	--	86.7	--	87.5	--
Mean Min.	67.0	--	71.3	--	72.0	--	75.0	--	79.7	--	79.3	--	78.2	--
Minimum	66	--	68	--	69	--	72	--	78	--	76	--	75	--
COATZACOALCOS														
1946-1948	71.6	2.2	72.8	3.2	76.9	6.0	81.6	11.6	84.4	13.1	84.6	12.0	80.7	2.4
1949-1953	75.0	4.3	76.1	6.7	80.5	10.3	82.0	15.3	84.1	19.5	84.7	12.9	82.7	4.6
1954	72.9	1.9	75.0	3.8	76.5	4.2	82.2	6.7	83.5	9.6	83.7	5.1	79.7	0.4
1955	--	--	--	--	80.1	10.2	82.0	16.3	84.4	21.8	85.6	17.5	81.1	3.5
1956	73.0	5.1	78.1	7.5	79.5	9.8	83.1	15.3	82.2	9.2	79.5	0.9	79.9	1.1
1957	73.9	2.4	77.7	2.9	78.6	5.6	82.2	10.6	84.7	19.6	84.9	18.4	82.6	4.7
1958	71.6	4.8	74.8	8.5	79.0	12.2	82.2	16.2	84.6	20.9	82.9	8.2	80.2	1.3
Mean	73.6	3.7	75.6	5.6	79.2	8.8	82.1	13.7	84.1	17.0	84.1	11.6	81.5	3.2
Maximum	80	34.0	82	25.4	86	36.0	88	36.7	90	38.1	95	36.0	89	27.2
Mean Max.	77.1	11.9	79.9	13.7	83.9	23.5	86.0	31.1	88.2	32.4	88.0	27.7	85.6	9.4
Mean Min.	70.2	0.8	71.9	2.5	74.4	3.8	77.6	5.9	79.7	8.0	80.4	3.4	78.3	0.9
Minimum	68	0.0	69	0.9	71	1.1	74	1.3	76	0.3	77	0.2	76	0.0
CARMEN,														
1956	--	--	--	--	--	--	--	--	--	--	--	--	84.0	--
1957	76.6	20.3	79.1	--	79.4	--	83.3	--	85.3	--	87.1	--	85.7	--
PROGRESO,														
1946-1948	74.8	36.4	74.0	37.0	76.7	37.7	80.3	38.4	82.2	38.1	84.1	37.6	84.2	37.3
1949-1953	74.0	37.0	74.4	36.8	77.5	37.3	79.0	37.9	81.1	37.6	82.6	37.1	83.6	36.9

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



## Temperatures and Salinities

## Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>MEXICO</b>															
86.9	32.9	83.4	35.3	80.7	35.3	76.8	34.9	72.9	35.8	79.8	35.3	91	39.6	68	32.0
85.0	32.9	84.0	33.8	82.2	33.6	77.5	35.3	74.3	35.1	79.2	34.6	90	36.8	69	24.3
85.6	31.6	82.7	32.4	80.3	32.7	78.3	35.0	74.1	35.1	78.7	34.5	88	37.2	68	18.3
84.1	32.7	82.5	33.7	81.9	34.8	77.2	35.7	73.8	35.9	79.1	34.8	86	36.8	68	27.2
85.2	34.4	85.0	35.1	81.3	35.4	77.7	35.7	73.6	35.9	80.0	35.7	88	38.4	70	32.0
86.6	29.9	85.4	33.2	82.7	32.9	78.7	33.5	72.9	34.6	79.2	34.1	90	36.6	68	25.1
85.6	32.4	83.8	33.9	81.5	34.1	77.7	35.0	73.6	35.4	79.4	34.8				
91	35.9	90	36.8	88	36.2	82	36.6	79	36.4			91	39.6		
88.5	34.2	87.3	35.8	85.7	35.5	81.0	36.0	77.7	36.0						
82.2	28.2	81.5	31.0	78.3	31.5	73.3	33.6	69.8	34.2						
81	24.3	80	25.4	79	27.7	71	31.5	68	31.0					68	18.3
<b>MEXICO</b>															
84.4	--	80.2	--	76.6	--	77.9	--	75.9	--	--	--	89	--	69*	--
82.0	--	80.9	--	79.7	--	76.4	--	76.8	--	79.0	--	88	--	67	--
84.6	--	82.3	--	80.5	--	79.5	--	76.9	--	81.0	--	90	--	66	--
83.6	--	81.0	--	79.7	--	79.6	--	75.2	--	--	--	88*	--	68	--
83.6	--	81.1	--	79.1	--	78.4	--	76.2	--	79.6	--				
88	--	86	--	86	--	84	--	80	--			90	--		
87.2	--	83.8	--	83.2	--	82.2	--	79.2	--						
79.0	--	77.2	--	74.0	--	74.5	--	71.2	--						
78	--	74	--	70	--	69	--	70	--					66	--
<b>(Puerto Mexico), MEXICO</b>															
83.0	3.2	81.6	2.5	78.3	1.2	77.5	2.1	74.1	2.2	78.9	5.1	90	35.5	68	0.0
82.4	3.3	80.7	1.2	77.9	0.8	75.4	2.0	74.7	4.2	79.7	7.1	95	36.7	68	0.0
82.6	1.2	80.6	0.6	--	--	75.6	1.9	--	--	--	--	89	38.1*	70*	0.0
82.4	1.5	79.7	0.3	75.0	0.6	77.4	1.3	74.1	1.6	--	--	90	36.0*	70*	0.0
80.4	0.8	78.4	0.8	78.3	0.8	74.8	2.2	73.0	1.5	78.4	4.6	87	35.0	68	0.0
80.8	1.2	81.1	1.2	79.7	2.1	77.9	3.2	72.7	3.4	79.7	6.3	88	33.1	68	0.3
82.2	1.3	82.0	1.3	78.8	0.4	77.0	1.1	72.0	1.1	78.9	6.4	88	33.8	68	0.0
82.4	2.5	80.8	1.3	78.0	0.9	76.3	2.0	74.0	2.9	79.4	6.1				
88	23.8	88	8.2	84	4.8	84	11.0	84	26.4			95	38.1		
84.8	5.5	84.3	2.9	81.3	2.2	80.5	4.8	78.5	8.5						
79.2	0.7	76.7	0.4	76.7	0.0	72.4	0.3	70.1	0.6						
76	0.0	74	0.0	73	0.0	69	0.0	68	0.0					68	0.0
<b>MEXICO</b>															
83.7	--	84.2	28.0	84.5	17.7	79.1	14.1	77.8	19.1	--	--	90*	32.0*	73*	4.1*
87.2	--	86.9	27.8	82.8	23.0	80.4	--	75.1	--	82.4	--	89	33.5*	71	8.6*
<b>MEXICO</b>															
84.2	37.1	84.3	37.0	82.4	36.8	80.4	36.7	76.3	36.4	80.3	37.2	87	39.4	68	35.0
83.5	36.8	83.6	36.4	81.9	36.2	77.9	36.3	75.4	36.3	79.5	36.9	86	38.9	70	33.5

Table 1.- Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
	PROGRESO,													
1954	75.9	36.4	75.9	36.8	75.6	37.1	79.3	37.5	82.0	38.4	82.3	37.6	82.4	36.7
1955	74.3	37.1	72.3	36.8	75.6	36.8	78.3	37.5	81.2	37.5	81.9	37.5	81.9	36.7
1956	72.1	35.9	75.0	35.9	75.2	37.1	79.1	37.9	82.1	37.7	83.8	37.2	83.4	36.8
1957	--	--	--	--	75.2	--	--	--	81.8	37.2	82.2	36.4	--	--
1958	--	--	76.1	37.2	76.4	37.0	79.2	37.2	--	--	79.7	36.7	79.3	36.3
Mean	74.2	36.7	74.5	36.8	76.6	37.2	79.2	37.8	81.5	37.7	82.6	37.2	83.1	36.9
Maximum	79	38.4	77	38.0	83	39.0	82	39.3	85	39.4	86	39.4	87	38.5
Mean Max.	76.3	37.2	75.8	37.3	78.5	38.0	81.3	38.5	83.0	38.4	83.9	38.0	84.2	37.5
Mean Min.	71.6	36.0	72.7	36.2	74.4	36.6	76.7	37.1	79.6	37.1	81.2	36.6	81.5	36.3
Minimum	68	35.4	69	35.1	71	35.4	73	36.0	76	36.4	78	35.7	78	35.7
	PUERTO CORTÉS,													
1949-1953	79.4	32.1	78.8	32.9	81.3	34.6	83.4	34.6	84.7	34.9	85.6	31.6	85.6	29.3
1954	78.9	28.0	79.2	30.7	81.2	34.5	82.6	34.5	85.5	32.5	86.3	27.5	85.5	25.9
1955	79.7	--	78.3	--	80.4	--	82.4	35.0	84.0	35.5	85.6	35.3	85.4	32.1
1956	--	--	80.1	32.5	80.0	33.3	81.9	34.4	82.5	34.5	83.9	25.8	84.7	28.6
1957	79.0	27.8	81.5	30.8	82.8	31.9	84.2	32.7	86.2	34.1	87.4	34.1	85.9	32.1
1958	78.2	30.6	79.5	34.0	84.0	34.1	85.4	34.6	86.2	34.9	87.7	31.9	87.0	25.9
Mean	79.1	30.4	79.4	32.3	81.5	34.0	83.3	34.4	84.8	34.5	86.0	31.1	85.7	29.0
Maximum	83	36.2	84	36.6	87	36.4	88	36.6	89	37.3	91	36.4	89	35.8
Mean Max.	81.7	35.0	82.1	35.0	84.5	35.7	85.8	35.8	87.0	35.8	89.1	35.3	87.8	34.6
Mean Min.	73.9	21.4	77.0	28.0	79.4	30.8	81.0	31.1	83.0	32.3	82.8	21.8	83.6	19.2
Minimum	68	16.7	72	25.9	78	28.5	80	28.1	82	29.7	78	12.2	83	14.6
	PUERTO CASTILLA,													
1955	--	--	--	--	--	--	--	--	--	--	87.2	37.1	--	--
1956	76.2	33.8	78.0	36.6	78.2	37.1	80.4	37.0	80.0	36.7	81.5	36.2	80.0	36.4
1957	77.7	33.5	79.0	36.4	80.9	35.9	80.0	37.1	83.3	36.4	82.5	36.7	83.5	37.0
1958	77.8	33.8	78.1	35.9	82.8	35.7	83.8	36.6	83.7	36.3	84.4	36.6	82.6	36.4
Mean	77.2	33.7	78.4	36.3	80.6	36.2	81.4	36.9	82.3	36.4	83.9	36.6	82.0	36.6
Maximum	85	36.2	84	37.5	86	37.5	87	37.5	88	37.6	90	38.0	86	38.0
Mean Max.	80.7	36.0	81.7	37.2	83.0	37.1	84.7	37.5	86.0	37.3	87.0	37.6	84.7	37.5
Mean Min.	72.7	28.4	75.7	35.1	78.0	34.6	79.0	36.3	79.7	35.1	81.5	35.5	78.3	35.1
Minimum	70	26.3	74	34.4	77	32.8	78	35.9	78	34.2	79	34.2	76	35.0
	PUERTO CABEZAS,													
1949-1953	79.9	32.8	80.3	33.2	82.5	34.5	83.9	35.5	85.0	35.4	83.2	--	83.4	--
1954	81.3	32.1	81.0	34.4	84.3	34.9	83.9	34.9	86.0	31.2	84.1	28.5	83.6	23.7
1955	79.7	34.6	80.8	33.3	81.0	35.4	84.2	36.6	83.8	36.2	84.9	36.4	83.0	29.7
Mean	80.2	33.2	80.5	33.6	82.5	34.9	84.0	35.5	85.0	34.8	83.8	32.4	83.4	26.7
Maximum	90	37.6	85	35.3	88	37.1	88	38.1	88	37.6	88	37.2	88	35.0
Mean Max.	84.2	35.5	83.0	35.0	85.0	36.3	86.4	36.7	87.4	36.6	87.0	35.6	86.5	34.5
Mean Min.	78.2	30.6	77.3	31.5	80.0	32.3	80.6	34.4	82.6	27.5	80.0	19.1	80.8	14.5
Minimum	76	29.4	76	30.4	78	31.1	78	33.8	80	1.1	80	3.3	80	4.7

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

## Temperatures and Salinities

## Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<i>MEXICO -continued</i>															
81.5	36.4	--	--	--	--	77.7	37.5	76.7	36.1	--	--	83*	39.2*	73	35.4*
82.7	36.6	82.5	36.2	80.0	36.2	78.3	36.2	76.9	36.0	78.8	36.8	84	39.4	69	35.3
--	--	--	--	83.4	36.8	82.1	36.3	81.9	36.2	--	--	85*	38.8*	68	35.1*
82.4	36.7	82.7	36.7	--	--	--	--	--	--	--	--	84*	37.9*	75*	35.7*
80.8	36.3	83.8	36.4	84.4	36.4	81.6	36.8	--	--	--	--	85	38.1*	75*	35.7*
83.1	36.8	83.6	36.6	82.2	36.4	79.2	36.6	76.6	36.3	79.7	36.9				
87	38.6	86	37.6	86	38.4	85	38.9	82	37.6			87	39.4		
84.7	37.5	84.9	37.2	84.2	37.1	81.2	37.3	78.4	37.1						
81.1	36.2	82.1	35.9	80.2	35.7	76.4	35.8	74.1	35.4						
78	35.4	79	35.1	75	34.0	73	33.5	71	33.8					68	33.5
<i>HONDURAS</i>															
86.4	26.9	87.2	26.4	83.6	24.7	79.5	26.4	78.6	28.4	82.8	30.2	90	37.3	68	7.6
86.2	26.9	86.1	21.8	82.2	19.2	80.8	23.5	78.3	26.5	82.7	27.6	90	36.4	73	6.3
87.1	28.9	87.0	27.2	83.0	26.5	81.9	20.4	78.8	21.6	82.8	--	89	36.6*	72	8.1*
86.6	27.2	86.5	25.1	84.3	21.0	79.1	20.6	80.3	25.5	--	--	88	35.3*	74*	6.9*
87.6	24.7	87.8	22.9	83.7	26.3	83.0	31.2	78.2	27.6	82.9	29.7	91	36.4	72	14.4
88.7	25.9	88.8	28.4	85.4	22.6	85.6	30.4	80.9	28.6	84.8	30.2	91	35.9	72	12.8
86.9	26.8	87.2	25.6	83.7	23.8	80.9	25.8	79.0	27.1	83.1	29.6				
91	35.5	91	33.1	90	34.1	89	35.5	85	35.3			91	37.3		
88.9	33.6	89.4	31.5	87.8	31.4	85.0	32.5	82.7	33.2						
84.0	18.4	84.0	17.5	77.7	12.0	74.7	14.1	73.6	15.6						
83	16.5	78	6.3	72	6.9	68	7.1	70	8.1					68	6.3
<i>HONDURAS</i>															
--	--	87.5	35.4	85.9	34.5	81.5	33.3	79.6	31.6	--	--	95*	38.0*	76*	28.6*
82.9	36.8	83.6	35.9	83.6	33.1	78.4	30.2	79.4	34.6	80.2	35.4	86	37.6	72	26.7
84.3	36.8	85.5	35.3	83.5	34.0	81.7	34.1	78.4	32.4	81.7	35.5	88	38.0	76	26.1
84.7	36.3	85.4	36.3	84.1	34.0	84.2	35.5	81.3	31.6	82.7	35.4	89	37.9	70	24.2
84.0	36.7	85.5	35.8	84.3	33.9	81.4	33.3	79.7	32.6	81.7	35.4				
86	37.7	95	37.5	90	37.0	87	36.2	85	36.2			95	38.0		
85.3	37.5	89.5	37.1	87.5	36.3	83.5	35.4	82.2	35.5						
81.7	35.7	82.2	33.2	80.0	30.8	78.5	29.1	76.2	27.2						
81	35.3	80	30.4	79	29.7	76	26.7	76	24.2					70	24.2
<i>NICARAGUA</i>															
84.8	29.0	86.1	33.2	84.9	33.5	81.7	31.9	79.7	32.7	83.0	--	90	37.0	74	23.8
86.0	32.1	86.4	32.1	84.0	31.8	81.4	31.4	79.5	32.5	83.5	31.6	90	36.3	76	1.1
87.2	31.6	86.0	34.1	85.4	33.1	82.5	29.4	81.7	31.0	83.4	33.4	89	38.1	78	11.2
85.5	31.0	86.2	33.2	84.8	33.2	81.8	31.2	80.0	32.1	83.1	32.6				
89	36.0	90	36.8	89	36.7	86	35.8	86	35.3			90	38.1		
87.6	35.0	89.3	35.3	88.0	35.1	84.6	33.7	82.7	34.5						
83.0	20.5	82.7	29.8	80.9	29.5	78.6	28.4	76.7	27.2						
80	11.2	81	26.8	78	24.8	76	24.4	74	16.2					74	1.1

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>PUERTO LIMÓN,</b>														
1949-1953	80.4	32.7	80.2	33.3	81.0	34.4	82.6	35.3	82.9	32.0	83.3	34.0	82.8	31.9
1954	83.0	--	82.1	--	81.7	--	--	--	--	--	--	--	--	--
1955	81.9	--	82.9	--	82.3	33.6	82.7	34.5	84.3	35.5	83.2	33.6	83.3	34.8
1956	79.1	30.3	80.2	34.2	81.4	34.8	82.6	34.2	82.4	31.4	83.5	33.5	81.8	30.4
1957	80.2	33.5	80.8	32.4	82.3	35.0	81.8	34.0	82.2	33.8	83.2	34.0	82.3	30.8
1958	81.4	33.1	80.7	32.1	83.1	32.5	83.5	35.0	84.1	34.5	84.6	34.5	83.3	33.1
Mean	80.8	32.4	80.8	33.2	81.6	34.1	82.6	34.8	83.1	33.1	83.4	33.9	82.7	32.1
Maximum	86	36.3	86	36.6	86	36.8	86	36.8	88	37.5	86	37.0	86	36.7
Mean Max.	83.7	35.5	83.3	35.5	84.4	36.0	85.0	36.3	85.4	36.2	85.2	35.8	85.3	35.4
Mean Min.	77.8	23.1	77.9	24.4	79.1	28.4	80.0	29.1	80.4	26.8	81.2	30.3	79.6	23.9
Minimum	73	17.0	76	14.4	76	21.2	78	25.1	78	12.8	78	24.7	78	13.3
<b>CRISTOBAL,</b>														
1949-1953	80.6	28.4	80.3	28.5	80.8	28.5	82.6	28.9	83.4	29.8	83.9	30.6	83.2	28.0
1954	81.1	29.1	80.7	28.0	82.2	28.6	82.6	29.7	83.6	30.4	83.9	30.2	83.0	27.3
Mean	80.7	28.5	80.4	28.4	81.1	28.5	82.6	29.0	83.4	30.1	83.9	30.4	83.2	27.8
Maximum	83	31.0	83	31.5	85	32.4	85	32.3	86	34.6	87	33.8	86	31.9
Mean Max.	82.4	30.3	82.0	29.7	83.0	30.2	84.4	31.1	85.2	32.5	85.5	32.9	84.7	30.1
Mean Min.	79.4	26.5	79.0	26.7	79.2	26.0	81.0	25.9	81.8	26.3	82.0	27.2	81.3	23.5
Minimum	79	25.5	78	25.4	78	23.8	80	24.6	80	24.4	80	26.7	81	20.9
<b>FERRY REACH, ST.</b>														
1945-1948	64.6	--	63.0	--	64.7	--	68.7	--	73.9	--	78.0	--	81.7	--
1949-1953	64.3	--	64.0	--	63.9	--	68.2	--	73.0	--	77.0	--	82.4	--
1954	64.2	--	63.2	--	65.3	36.4	69.9	36.8	74.5	36.8	78.0	36.6	82.2	36.7
1955	61.6	36.4	61.5	36.6	65.7	36.8	67.0	36.7	73.2	36.7	76.9	36.7	82.0	36.4
1956	60.8	36.4	63.7	36.6	65.5	36.6	66.8	36.7	72.9	36.8	77.2	37.0	81.9	36.8
1957	64.2	36.6	66.3	36.7	65.3	36.4	68.4	36.7	74.0	37.3	79.0	37.0	80.5	36.4
1958	62.8	36.4	60.0	36.6	61.7	36.6	65.6	36.4	72.6	36.7	77.9	36.8	83.6	36.8
Mean	63.8	36.4	63.3	36.6	64.4	36.6	68.0	36.7	73.4	36.9	77.6	36.8	82.1	36.7
Maximum	70	37.0	69	37.0	71	37.1	75	37.1	79	37.7	83	37.3	86	37.1
Mean Max.	67.0	36.8	66.0	37.0	67.7	36.8	72.4	37.0	77.2	37.3	81.3	37.1	84.4	37.0
Mean Min.	61.1	35.9	60.4	36.3	61.4	36.0	64.4	36.2	70.1	36.6	74.3	35.8	79.2	35.8
Minimum	59	35.8	58	36.3	60	35.5	61	35.0	67	36.0	72	33.8	77	35.1
<b>SAN SALVADOR ISLAND,</b>														
1958	--	--	--	--	--	--	--	--	--	--	--	--	81.5	36.4
<b>LOS ARROYOS,</b>														
1955	--	--	--	--	--	--	81.8	--	83.9	--	86.2	--	85.9	--
1956	72.1	--	77.8	--	78.2	--	81.8	--	85.3	--	84.8	--	87.3	--
1957	75.9	--	77.2	--	--	--	--	--	--	--	--	--	--	--

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



Table 1.- Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>HABANA,</b>														
1947-1948	77.5	33.7	79.2	34.8	78.1	34.6	81.5	34.4	83.5	34.5	85.2	34.8	85.6	34.5
1949-1953	76.7	34.9	77.2	35.0	79.7	35.3	80.3	35.0	82.8	34.8	84.9	34.4	86.0	34.2
1954	77.5	34.1	76.5	34.5	76.6	34.0	81.4	34.8	82.6	31.2	84.3	32.7	86.3	33.3
1955	75.8	35.0	74.5	34.8	77.7	35.1	79.6	35.5	81.3	34.9	83.9	34.5	84.0	34.8
1956	73.5	34.4	76.7	35.0	77.2	34.6	78.7	34.8	81.9	34.0	83.5	34.0	84.9	34.1
1957	76.8	34.4	77.8	34.5	77.8	34.2	80.0	34.5	82.1	32.8	84.0	32.1	86.8	34.0
Mean	76.5	34.6	77.0	34.9	78.5	34.9	80.4	34.9	82.6	34.1	84.6	34.0	85.8	34.2
Maximum	82	37.3	81	37.3	83	37.5	85	38.1	87	37.1	90	37.7	90	38.0
Mean Max.	79.3	36.3	79.1	36.2	81.1	36.3	82.7	36.0	85.4	36.0	87.2	35.9	87.7	36.0
Mean Min.	73.1	30.8	74.5	32.4	75.6	32.1	77.9	31.4	79.6	29.1	81.2	29.0	83.6	30.2
Minimum	67	18.3	71	30.6	73	29.9	76	23.9	78	21.2	79	17.3	81	23.0
<b>GIBARA,</b>														
1949-1953	74.7	34.2	75.0	34.6	76.4	35.5	79.2	36.5	81.0	36.3	83.2	35.5	83.4	34.6
1954	77.2	35.7	75.8	34.5	76.5	34.9	77.0	35.1	82.0	35.3	84.0	33.7	83.5	34.8
1955	75.8	34.6	74.5	33.1	76.0	34.1	77.9	35.5	79.4	35.5	82.0	35.4	83.3	35.9
1956	73.2	35.7	75.6	36.0	76.4	35.5	77.2	35.8	80.0	36.3	82.0	35.0	82.0	35.1
1957	75.0	30.1	75.0	32.7	76.0	35.0	78.8	35.8	80.4	32.9	81.1	34.9	84.4	35.3
1958	76.0	35.3	73.6	35.4	77.4	35.5	80.5	36.3	—	—	—	—	—	—
Mean	75.1	34.2	74.9	34.5	76.4	35.1	78.6	35.9	80.6	35.3	82.7	35.0	83.3	35.0
Maximum	80	36.7	79	36.7	82	36.7	85	37.7	86	38.1	87	36.7	87	37.0
Mean Max.	77.8	36.2	77.9	36.0	79.0	36.3	81.9	36.7	84.2	37.2	85.7	36.3	85.9	36.6
Mean Min.	72.4	31.4	72.1	30.2	73.5	33.5	74.8	35.0	76.3	32.1	77.7	32.0	81.4	30.4
Minimum	70	26.0	68	20.4	72	31.1	71	33.3	74	23.7	75	29.7	80	24.6
<b>GUANTÁNAMO</b>														
1947-1948	81.2	36.4	81.4	36.6	82.4	36.8	83.7	37.2	85.6	36.3	85.6	32.9	86.4	36.3
1949-1953	79.5	36.6	80.0	37.0	81.3	37.2	83.8	37.5	84.7	37.2	85.9	36.8	86.1	37.1
1954	80.0	36.3	79.0	36.6	83.0	36.3	82.2	36.8	84.5	35.4	85.4	36.2	85.1	36.7
1955	78.0	35.9	78.1	36.6	78.2	—	80.2	—	82.3	—	84.2	—	84.7	36.7
1956	—	—	78.3	36.3	79.9	36.3	81.3	36.8	83.2	37.0	83.9	36.2	84.8	36.7
1957	79.5	36.2	79.6	36.4	81.2	36.8	82.8	37.1	83.9	36.7	84.5	36.3	85.3	36.4
1958	78.2	36.7	77.3	36.8	80.2	37.0	82.1	37.0	84.4	37.1	84.7	36.4	84.7	37.5
Mean	79.4	36.4	79.4	36.7	81.1	37.0	82.8	37.2	84.4	36.8	85.3	35.9	85.6	36.8
Maximum	84	37.9	86	38.1	87	38.6	88	39.2	89	39.0	91	38.0	92	38.5
Mean Max.	81.6	37.1	81.5	37.3	83.6	37.6	85.4	38.0	86.7	37.9	87.3	37.1	87.6	37.5
Mean Min.	77.0	35.5	77.7	36.0	78.9	36.2	80.6	36.2	81.6	35.0	82.2	33.5	83.7	35.9
Minimum	74	34.5	76	35.5	76	34.4	78	33.1	80	28.6	76	15.7	80	35.1
<b>CASILDA,</b>														
1949-1953	74.3	37.9	76.5	37.9	80.7	38.1	82.6	38.4	85.5	38.4	87.5	36.0	87.4	36.2
1954	77.2	37.2	77.1	37.1	80.9	37.5	83.5	38.4	86.9	38.1	86.8	35.0	88.6	36.4
1955	75.2	37.3	74.9	37.1	80.8	37.5	83.5	38.1	85.7	37.7	87.5	34.6	86.8	34.4
1956	71.5	36.7	77.6	37.1	78.6	37.5	82.2	37.7	84.1	37.9	85.3	37.1	87.5	37.5
1957	75.3	37.5	78.4	37.5	80.4	37.3	83.0	37.6	85.8	35.9	—	—	—	—

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

## Temperatures and Salinities

## Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>CUBA</b>															
86.4	34.9	85.9	34.0	85.0	34.0	80.6	34.2	79.4	34.5	82.3	34.4	90	40.6	73	25.2
86.9	34.1	85.8	33.6	83.9	31.5	80.2	34.0	77.6	34.6	81.8	34.3	92	38.1	67	17.0
86.2	34.5	84.9	33.3	82.2	33.3	79.0	33.8	76.2	34.5	81.1	33.7	88	36.6	73	22.0
86.1	34.5	84.9	33.8	82.1	33.5	79.9	34.5	77.7	33.6	80.6	34.5	88	36.2	71	29.9
86.0	34.1	84.5	33.1	82.5	32.7	78.3	33.6	77.9	34.6	80.5	34.1	88	35.7	69	23.0
86.8	32.7	85.2	33.6	82.9	32.5	80.1	34.0	--	--	--	--	88	35.8*	74	24.2*
86.6	34.1	85.5	33.6	83.6	32.5	79.9	34.0	77.9	34.5	81.6	34.2				
92	37.2	89	38.5	90	40.6	86	37.7	82	36.6			92	40.6		
89.1	35.8	87.6	35.9	86.8	35.8	83.1	36.0	80.3	36.0						
83.2	29.7	82.7	27.8	79.8	25.1	76.7	28.9	74.8	31.6					67	17.0
79	22.4	82	18.4	77	17.0	74	20.8	73	25.5						
<b>CUBA</b>															
84.5	35.4	84.4	34.4	83.8	33.5	80.2	31.2	76.8	33.5	80.2	34.6	88	39.3	70	0.2
84.3	35.0	83.7	35.3	82.2	34.2	80.7	32.3	77.6	32.8	80.4	34.5	87	36.8	74	20.1
84.0	36.4	83.2	34.1	82.6	33.7	79.9	34.6	78.0	35.4	79.7	34.9	86	37.6	71	25.9
83.8	36.2	84.2	36.7	82.7	36.3	77.9	32.9	75.8	33.1	79.2	35.4	86	37.7	71	14.2
84.7	35.4	84.0	35.0	81.9	34.9	80.1	34.2	77.8	34.8	79.9	34.2	87	38.1	72	20.4
--	--	--	--	--	--	--	--	--	--	--	--	85*	37.2*	68*	36.3*
84.3	35.7	84.1	34.9	83.1	34.1	80.0	32.3	77.0	33.7	80.0	34.6				
88	39.3	88	37.1	87	37.3	87	37.9	85	37.0			88	39.3		
86.0	37.0	86.0	36.3	85.6	36.4	85.0	36.2	81.4	36.0						
82.7	33.3	81.3	30.8	78.2	22.5	74.7	17.9	73.2	28.0					68	0.2
82	30.7	78	25.8	72	2.5	72	0.2	72	20.6						
<b>BAY, CUBA</b>															
87.0	36.8	87.0	35.4	87.2	35.1	84.6	36.0	82.8	36.0	84.6	36.0	92	37.9	76	15.7
87.0	37.2	87.0	36.7	86.4	35.8	84.5	36.0	80.8	36.3	83.9	36.8	91	39.2	74	27.8
85.4	37.0	85.2	33.5	83.9	34.6	83.1	34.8	79.3	35.5	83.0	35.8	88	37.7	77	21.4
85.5	36.4	85.3	35.8	84.4	31.2	82.2	35.1	80.9	35.5	82.0	--	87	37.2*	76	22.9*
85.4	37.2	85.5	37.0	84.0	32.5	82.6	34.8	80.6	35.5	--	--	87	37.6*	77*	20.3*
85.9	37.0	85.5	37.6	85.2	37.2	82.1	37.1	79.9	36.8	83.0	36.8	87	38.0	78	34.4
85.9	38.4	84.9	37.9	84.6	36.8	83.2	37.6	81.8	37.9	82.7	37.2	87	38.8	75	31.4
86.4	37.1	86.3	36.3	85.7	35.1	83.7	35.9	81.0	36.3	83.4	36.5				
91	38.8	92	38.6	91	38.2	89	38.1	86	38.1			92	39.2		
88.2	37.7	88.2	37.6	87.7	37.0	86.0	37.0	83.2	37.0						
84.2	36.3	83.9	33.8	82.9	30.8	81.4	34.5	78.6	35.5						
79	35.1	80	21.4	79	20.3	75	31.1	76	33.8					74	15.7
<b>CUBA</b>															
88.5	37.0	86.9	35.9	84.8	32.8	79.4	36.0	75.9	37.5	82.5	36.8	92	40.3	70	15.0
88.1	37.1	87.7	35.9	83.4	34.8	79.6	36.2	74.7	37.1	82.9	36.7	90	39.4	70	33.8
87.2	34.0	86.4	33.6	83.7	34.2	80.3	35.4	77.5	36.3	82.5	35.8	90	39.2	70	29.7
88.4	37.3	87.2	37.6	84.7	37.6	77.7	37.6	75.7	37.3	81.7	37.4	91	38.9	68	35.8
--	--	--	--	--	--	--	--	--	--	--	--	89*	38.8*	72*	35.4*

Table 1.- Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
	CASILDA,													
Mean	74.5	37.5	76.8	37.5	80.4	37.7	82.8	38.1	85.5	38.0	87.1	35.8	87.5	36.2
Maximum	81	38.6	82	40.1	85	39.2	89	39.4	91	39.9	91	40.3	92	39.7
Mean Max.	78.4	38.0	80.6	38.2	83.8	38.4	86.6	38.9	89.1	38.8	90.0	37.3	89.6	37.3
Mean Min.	71.2	36.7	73.2	36.4	76.9	37.1	78.4	37.2	81.3	37.2	81.9	32.7	84.0	34.8
Minimum	68	35.5	70	35.4	74	36.2	74	36.6	78	35.4	80	17.4	83	26.0
	COLOMBO, ISLA													
1953	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1954	75.5	37.1	--	--	--	--	--	--	84.2	36.0	83.9	32.3	--	--
1955	--	--	--	--	--	--	--	--	84.0	--	85.2	--	84.4	36.7
1956	70.7	38.0	75.9	38.2	--	--	80.5	39.0	83.8	38.9	83.7	36.8	85.8	36.7
1957	76.0	39.2	--	--	76.9	39.8	83.0	--	85.1	35.0	86.8	35.4	89.7	36.0
1958	71.1	36.2	68.5	35.4	76.8	35.9	83.2	36.0	--	--	--	--	--	--
Mean	73.3	37.6	72.2	36.8	77.8	37.8	82.2	37.5	84.3	36.6	84.9	34.8	86.6	36.5
Maximum	81	39.8	78	38.9	82	40.7	90	39.8	89	40.2	89	38.4	92	37.5
Mean Max.	77.2	38.6	76.0	37.9	82.0	38.6	87.0	39.2	86.5	38.5	87.5	36.2	88.7	37.2
Mean Min.	69.2	36.2	66.5	35.8	74.0	36.4	78.3	36.4	81.2	34.1	82.2	33.8	84.7	35.7
Minimum	66	32.4	63	33.8	73	33.8	77	34.6	79	30.2	80	31.4	83	35.4
	PORT ROYAL,													
1954	--	--	--	--	--	--	81.6	35.5	82.5	32.8	83.0	35.3	83.6	35.8
1955	78.9	35.7	78.2	34.8	79.1	35.8	80.8	35.9	82.4	36.0	82.1	34.4	82.4	34.6
1956	77.5	35.5	77.9	35.4	79.7	35.5	81.9	35.5	82.3	35.7	82.0	34.5	81.9	35.1
1957	79.3	35.0	78.2	35.3	80.2	34.9	80.6	35.7	81.8	35.3	83.0	35.9	83.4	36.2
1958	79.2	35.0	79.3	35.8	81.2	36.2	82.9	36.4	84.1	34.2	83.9	32.9	84.0	35.0
Mean	78.7	35.3	78.4	35.3	80.0	35.6	81.6	35.8	82.6	34.8	82.8	34.6	83.1	35.3
Maximum	82	36.2	82	36.4	83	36.8	84	37.1	87	37.0	88	36.7	86	36.4
Mean Max.	80.5	36.0	80.2	36.0	81.8	36.2	83.0	36.3	84.4	36.4	84.8	36.3	84.6	36.3
Mean Min.	75.8	33.5	76.2	33.2	78.5	33.5	80.4	34.6	80.2	28.9	81.0	28.4	80.8	32.1
Minimum	74	32.1	76	29.3	78	31.6	80	32.9	79	19.1	79	21.2	78	28.9
	PORT-AU-PRINCE,													
1949-1953	79.7	36.0	79.8	36.3	81.0	36.3	82.8	36.2	83.4	36.3	83.1	36.4	84.1	36.4
1954	82.0	35.9	81.7	35.9	82.2	36.3	83.6	36.3	84.2	36.4	84.4	36.3	85.4	36.0
1955	80.6	36.0	80.1	36.2	80.7	36.2	82.8	36.0	83.4	35.9	84.1	35.7	84.7	35.8
1956	80.0	35.9	80.0	35.9	80.9	36.0	83.7	35.8	83.8	35.4	83.8	35.8	83.8	36.4
1957	81.2	36.4	80.1	36.4	81.6	36.6	82.2	36.7	83.9	36.6	84.2	36.4	85.3	36.6
1958	81.3	36.4	80.6	36.6	81.9	36.8	84.3	37.1	84.5	37.3	84.6	37.2	85.2	37.1
Mean	80.4	36.0	80.2	36.2	81.3	36.3	83.1	36.3	83.7	36.3	83.7	36.3	84.5	36.4
Maximum	84	36.8	83	37.2	85	37.3	86	38.6	87	37.9	87	37.6	90	37.5
Mean Max.	81.9	36.4	81.4	36.7	83.1	36.7	84.9	37.0	85.9	36.7	85.2	36.8	86.6	36.8
Mean Min.	79.2	35.7	78.9	35.8	79.7	35.8	81.0	35.7	81.8	35.5	82.4	35.8	83.2	36.0
Minimum	78	35.3	78	35.0	77	35.1	79	34.0	81	34.1	82	34.5	82	35.4

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



## Temperatures and Salinities

## Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<i>CUBA -continued</i>															
88.3	36.6	87.0	35.8	84.5	34.0	79.3	36.2	75.9	37.2	82.5	36.7				
92	39.6	92	38.9	91	39.6	86	38.9	82	38.8			92	40.3		
91.0	37.6	90.2	37.0	88.2	37.0	84.0	37.2	79.5	38.0						
84.0	35.0	82.5	34.0	79.9	27.5	74.0	34.9	71.9	36.3						
76	30.3	78	31.1	78	15.0	71	32.8	70	34.9					68	15.0
<i>DE PINOS, CUBA</i>															
--	--	--	--	81.8	31.6	77.8	34.4	73.8	35.8	--	--	--	38.0*	66*	31.0*
--	--	84.6	34.5	--	--	--	--	--	--	--	--	88*	38.5*	73*	30.2*
86.4	36.2	84.3	35.7	81.3	35.3	77.9	35.9	--	--	--	--	88	37.3*	76*	33.5*
87.6	38.4	84.5	38.0	81.6	36.6	75.8	38.0	76.6	38.8	--	--	90	40.2*	67*	35.7*
88.0	35.8	86.7	34.6	83.0	34.2	79.1	37.0	73.4	38.1	--	--	92	40.7*	67*	32.5*
--	--	--	--	--	--	--	--	--	--	--	--	90*	38.5*	63*	32.4*
87.3	36.8	85.0	35.7	81.9	34.4	77.6	36.3	74.5	37.6	80.6	36.5				
91	39.2	89	38.8	88	38.1	83	39.6	82	40.1			92	40.7		
89.7	37.7	88.0	37.0	85.5	35.9	81.0	37.9	79.0	38.8						
84.7	35.1	82.2	34.0	76.5	33.2	74.2	35.1	68.3	36.6						
84	32.5	80	32.7	74	31.0	72	31.9	66	34.9					63	30.2
<i>JAMAICA</i>															
84.4	35.1	84.2	33.8	82.1	32.1	80.9	32.4	80.4	35.4	--	--	86	36.7*	79*	19.1*
85.0	35.5	83.8	34.5	82.8	32.4	82.7	35.1	80.4	34.9	81.6	35.0	86	36.4	76	21.2
83.6	34.9	83.9	35.1	82.7	32.8	81.4	33.6	80.6	34.5	81.3	34.8	86	36.6	74	27.7
84.4	36.2	83.7	34.9	83.4	34.1	82.7	35.8	80.6	35.7	81.8	35.4	86	36.4	76	27.6
85.3	34.6	84.0	32.1	82.6	26.0	81.9	32.9	80.5	33.5	82.4	33.7	88	37.1	76	8.9
84.5	35.3	83.9	34.1	82.7	31.5	81.9	34.0	80.5	34.8	81.7	34.7				
88	36.6	88	36.6	86	36.2	84	36.3	84	36.2			88	37.1		
86.2	36.4	86.4	36.2	84.8	35.8	83.2	35.7	82.4	35.9						
82.8	32.4	81.8	29.3	80.4	23.8	80.0	31.5	78.2	31.4						
82	29.0	81	18.8	79	8.9	79	29.0	77	24.4					74	8.9
<i>HAITI</i>															
85.8	36.3	86.0	36.2	85.6	36.2	84.7	35.8	82.2	35.9	83.2	36.2	89	37.1	78	32.0
86.8	36.2	85.6	36.0	83.8	36.0	84.5	35.7	82.6	35.8	83.9	36.1	89	37.0	81	35.0
86.6	35.8	86.0	35.9	86.0	35.9	85.1	35.8	83.2	35.7	83.6	35.9	88	36.8	79	35.3
86.4	36.3	86.1	37.2	86.0	36.3	84.1	36.4	82.1	36.6	83.4	36.2	88	38.0	77	34.0
86.2	36.6	87.3	36.8	86.1	36.3	85.0	36.6	82.9	36.7	83.8	36.6	90	37.3	78	35.4
87.6	37.0	86.0	36.7	85.9	36.8	84.8	36.7	83.1	36.7	84.2	36.9	90	38.6	79	34.6
86.3	36.3	86.1	36.3	85.6	36.2	84.7	36.0	82.5	36.0	83.5	36.2				
89	37.2	90	38.0	88	38.0	87	37.2	86	37.2			90	38.6		
87.9	36.7	88.1	36.8	87.0	36.8	85.8	36.4	84.0	36.4						
84.4	35.8	84.6	35.5	83.6	35.4	83.3	35.5	81.3	35.7						
83	35.4	84	32.0	80	34.9	82	34.6	81	35.3					77	32.0

Table 1.- Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
	BARAHONA,													
1954	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1955	80.0	33.7	79.0	33.7	79.0	33.8	80.5	34.2	82.7	34.4	84.5	34.5	84.3	34.6
1956	78.7	34.5	79.0	34.2	80.1	34.5	82.2	34.8	83.1	34.8	84.2	34.4	84.2	34.4
1957	80.0	34.4	79.1	34.5	81.0	34.6	81.6	35.0	83.3	34.6	84.1	34.6	84.5	35.1
1958	80.3	35.0	80.2	35.3	82.1	35.3	83.6	35.5	84.2	31.6	85.6	29.0	84.5	29.9
Mean	79.8	34.4	79.3	34.4	80.6	34.6	82.0	34.9	83.3	33.8	84.6	33.1	84.4	33.5
Maximum	82	36.2	82	35.9	84	35.9	86	35.9	88	35.8	88	37.0	86	35.9
Mean Max.	81.8	35.5	80.8	35.3	83.2	35.4	83.8	35.5	85.0	35.5	86.2	35.7	86.0	35.1
Mean Min.	78.0	33.3	77.2	33.2	78.2	33.1	80.2	33.7	80.8	29.0	82.0	29.1	82.2	31.1
Minimum	77	32.0	77	31.9	77	31.9	79	31.5	79	18.7	82	17.8	82	23.1
	CIUDAD TRUJILLO,													
1949-1953	79.1	30.8	79.0	29.0	79.9	31.1	81.8	29.4	82.4	24.1	82.7	22.0	82.3	19.9
Mean	79.1	30.8	79.0	29.0	79.9	31.1	81.8	29.4	82.4	24.1	82.7	22.0	82.3	19.9
Maximum	82	35.8	83	35.5	85	35.8	85	35.8	88	36.0	86	35.8	84	36.2
Mean Max.	81.0	34.0	80.8	34.5	83.0	34.6	84.0	34.2	86.4	33.5	84.6	29.0	83.8	27.5
Mean Min.	77.8	24.4	76.8	17.7	77.8	25.2	79.2	21.6	77.8	15.3	80.6	13.7	79.6	12.4
Minimum	77	11.5	74	7.1	76	22.1	78	6.0	74	3.8	79	5.0	78	5.2
	PUERTO PLATA,													
1949-1953	77.0	34.9	76.5	34.9	76.9	35.8	78.6	35.9	79.8	35.9	81.1	36.0	81.1	36.2
1954	78.7	35.4	78.0	34.6	78.5	35.4	78.0	35.9	80.3	35.8	80.7	36.2	80.7	36.3
1955	77.9	35.4	76.8	34.6	77.2	36.0	78.2	35.7	79.6	35.7	80.8	35.3	81.1	36.0
1956	77.4	34.6	76.3	34.2	76.9	33.2	79.1	34.6	79.4	35.9	80.3	35.9	79.5	36.2
1957	79.2	35.7	78.0	35.4	79.3	35.8	79.5	36.2	80.6	36.2	81.6	36.2	82.1	36.4
1958	78.0	34.4	77.0	35.0	79.2	35.3	80.1	35.8	80.5	35.0	82.0	35.5	80.7	36.2
Mean	77.7	35.0	77.0	34.9	77.7	35.4	78.8	35.8	79.9	35.8	81.1	35.9	81.0	36.2
Maximum	82	36.4	80	36.8	82	36.8	82	36.7	85	37.1	84	37.6	84	37.2
Mean Max.	79.3	36.2	79.0	36.2	79.6	36.3	80.2	36.4	82.2	36.6	83.1	36.6	82.3	36.7
Mean Min.	75.9	31.8	75.1	31.6	76.1	32.7	77.2	34.0	78.2	33.6	79.4	33.8	79.4	35.5
Minimum	74	27.8	73	28.4	74	19.0	76	29.1	78	29.3	78	24.7	78	34.8
	MAGUEY ISLAND,													
1957	—	—	—	—	—	—	82.4	36.8	—	—	84.8	36.2	84.7	36.3
1958	81.1	35.8	81.2	36.0	83.1	36.4	84.9	36.4	85.1	36.3	85.6	36.2	85.2	36.3
	ST. LUCIA													
1955	—	—	—	—	—	—	79.2	35.3	80.1	35.5	81.2	35.3	81.9	34.1
1956	80.3	35.5	78.8	35.9	79.3	35.5	80.4	34.9	80.7	35.5	81.2	35.4	81.5	34.6
1957	78.6	36.0	77.3	35.5	78.5	35.4	79.3	35.4	80.5	35.5	81.6	34.8	81.8	35.3
1958	79.0	33.8	80.5	35.5	81.4	35.7	82.1	35.7	82.9	35.1	83.4	35.1	80.9	36.0

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

Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>DOMINICAN REPUBLIC</b>															
--	--	--	--	83.2	--	83.7	30.2	82.2	33.1	--	--	--	--	--	--
85.9	34.2	86.3	32.9	85.0	31.6	84.3	32.9	82.3	33.7	82.8	33.7	88	37.0	77	27.5
85.5	34.8	85.5	34.2	84.5	33.6	83.1	33.2	81.4	34.2	82.6	34.3	87	35.8	77	20.3
85.3	35.1	85.3	34.5	85.2	34.4	83.3	34.5	81.2	35.0	82.8	34.7	87	35.8	77	32.1
86.7	32.5	85.9	30.4	85.4	31.6	84.1	33.2	82.6	34.5	83.8	32.8	88	35.9	78	17.8
85.8	34.2	85.8	33.0	84.7	32.8	83.7	32.8	81.9	34.1	83.0	33.8				
88	35.7	88	35.4	88	35.3	87	35.4	84	35.8			88	37.0		
87.5	35.4	87.2	34.8	86.4	34.6	85.6	34.6	83.6	35.1						
84.0	31.5	83.5	29.9	81.4	26.8	81.4	29.0	80.8	32.4					77	17.8
83	25.5	82	22.0	78	20.3	80	25.4	80	31.4						
<b>DOMINICAN REPUBLIC</b>															
84.0	25.4	84.1	23.1	83.7	23.8	82.6	27.5	80.4	28.8	81.8	26.2	88	36.7	74	3.7
84.0	25.4	84.1	23.1	83.7	23.8	82.6	27.5	80.4	28.8	81.8	26.2				
86	36.7	88	34.6	86	34.6	84	36.3	82	35.3			88	36.7		
85.8	32.9	86.8	30.4	85.5	31.0	84.0	33.6	82.0	33.1						
82.0	14.4	81.2	12.4	80.8	11.1	80.5	15.6	77.0	21.0					74	3.7
82	5.6	79	3.7	80	5.0	78	8.1	75	5.5						
<b>DOMINICAN REPUBLIC</b>															
82.5	36.3	83.4	36.3	83.5	36.3	82.3	35.8	79.5	34.9	80.2	35.8	86	37.6	74	23.5
82.4	36.2	82.8	36.3	81.8	36.4	81.9	36.4	79.8	35.3	80.3	35.8	84	37.0	73	26.8
83.2	36.2	83.1	35.5	83.2	35.7	82.2	35.9	80.4	35.1	80.3	35.5	86	37.1	76	24.7
81.6	36.3	83.2	36.3	83.0	36.4	81.8	36.2	80.1	35.5	79.9	35.4	84	37.0	74	19.0
82.4	36.4	83.5	36.3	84.1	36.4	81.3	35.7	79.3	34.8	80.9	35.9	86	37.1	76	29.0
82.9	36.2	84.0	36.0	83.4	35.9	81.9	35.4	80.5	35.7	80.8	35.5	87	37.2	76	27.6
82.5	36.3	83.4	36.2	83.3	36.3	82.0	35.8	79.7	35.1	80.3	35.7				
86	37.1	87	37.6	86	37.1	84	36.8	83	37.0			87	37.6		
84.2	36.7	85.0	36.8	84.5	36.7	83.9	36.6	81.8	36.3						
80.9	35.7	81.8	35.5	81.7	35.5	79.9	32.9	77.4	30.4					73	19.0
80	34.9	81	33.1	80	33.1	76	27.6	74	23.5						
<b>PUERTO RICO</b>															
85.5	35.5	86.6	35.4	85.6	35.4	83.8	35.3	81.5	35.9	--	--	88	37.1*	80*	34.4*
86.9	36.3	86.2	35.4	85.0	35.4	83.2	35.1	81.6	36.0	84.1	36.0	90	37.5	80	34.1
<b>(Castries), B.W.I.</b>															
83.7	33.2	84.1	34.1	83.9	34.4	83.3	34.0	81.0	35.3	--	--	86	36.0*	78*	28.9*
82.5	34.6	82.9	34.8	82.8	35.0	82.0	35.0	80.0	35.8	81.0	35.3	86	37.0	78	29.3
83.2	34.1	84.1	34.8	84.8	34.4	83.0	34.5	80.9	34.5	81.1	35.0	88	36.3	76	27.2
82.3	35.4	83.0	35.9	--	--	--	--	--	--	--	--	88	37.7*	75	31.9*

Table 1.—Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
	ST. LUCIA													
Mean	79.3	35.1	78.9	35.7	79.7	35.5	80.2	35.3	81.0	35.4	81.8	35.1	81.5	35.0
Maximum	82	36.3	82	37.0	83	36.6	84	36.8	88	37.3	86	36.0	84	37.6
Mean Max.	81.0	35.9	80.3	36.4	81.0	36.2	81.2	36.0	83.2	36.3	83.2	35.9	83.0	36.0
Mean Min.	77.0	33.8	78.0	34.5	78.3	34.2	79.0	34.4	79.0	34.6	80.0	33.8	80.5	33.6
Minimum	75	31.9	76	33.8	77	34.1	78	33.7	78	33.8	80	32.7	80	33.2
	ST. LUCIA													
1949-1953	78.8	36.0	78.7	35.9	79.7	35.8	80.9	35.8	82.0	35.8	81.8	35.4	82.2	35.0
1954	79.4	35.9	80.8	36.3	80.4	35.9	80.4	35.9	80.8	34.5	82.0	35.0	83.1	34.5
Mean	79.0	35.9	79.1	36.0	79.8	35.8	80.8	35.8	81.7	35.5	81.9	35.3	82.4	34.9
Maximum	86	38.6	86	37.5	88	37.7	86	37.5	88	37.2	87	37.0	86	37.7
Mean Max.	81.6	36.7	82.0	36.7	83.6	36.6	82.8	36.4	84.0	36.3	84.2	36.6	84.6	35.9
Mean Min.	75.6	35.3	76.6	35.3	77.4	34.8	78.0	34.8	79.8	34.6	78.8	34.1	80.2	33.7
Minimum	74	34.6	74	35.0	76	34.0	73	32.5	78	33.8	76	33.2	78	32.5
	TRINIDAD													
1949-1953	79.6	30.3	79.8	29.9	80.0	32.0	81.5	34.4	81.8	33.2	81.8	28.9	82.0	24.6
1954	80.4	28.4	80.4	30.7	80.7	--	81.4	--	82.2	--	82.4	28.1	82.8	23.8
1955	81.6	25.6	79.8	--	79.1	33.5	80.4	31.8	81.6	32.7	81.8	28.8	83.0	23.4
Mean	80.1	29.0	79.9	30.1	79.9	32.3	81.3	33.5	81.8	33.1	81.9	28.8	82.3	24.2
Maximum	83	33.3	83	33.5	83	34.5	88	37.3	85	35.5	86	33.2	86	29.4
Mean Max.	81.8	30.8	81.7	31.9	81.3	33.2	84.2	35.1	83.5	34.4	84.0	31.5	84.7	26.9
Mean Min.	78.5	26.9	78.7	28.8	78.3	30.7	79.2	32.4	80.5	31.0	80.5	25.8	80.5	21.3
Minimum	77	23.9	78	26.7	77	28.9	78	31.1	80	29.0	80	24.6	80	17.5
	CARTAGENA,													
1949-1953	81.7	35.0	80.7	35.8	81.2	36.0	83.3	36.2	85.1	33.7	85.9	31.9	85.9	31.9
1954	82.6	34.4	81.0	35.8	82.1	36.2	83.3	35.8	86.1	31.4	86.6	29.8	85.2	29.0
1955	81.9	34.5	81.6	34.9	80.8	35.4	82.4	35.3	83.9	34.5	85.0	29.0	85.1	29.8
1956	80.6	33.7	82.0	32.8	81.6	35.1	83.4	35.1	85.3	32.0	85.4	30.1	85.7	32.1
1957	81.8	34.2	81.3	35.3	81.6	35.9	82.6	35.7	85.2	34.6	86.0	35.0	86.5	34.0
1958	83.7	35.9	83.1	36.4	83.8	35.2	84.7	36.2	86.4	34.8	87.9	31.9	87.9	32.7
Mean	81.9	34.8	81.3	35.3	81.6	35.9	83.3	35.8	85.3	33.6	86.0	31.5	86.0	31.6
Maximum	86	36.8	85	36.8	86	37.0	88	37.2	90	37.3	91	36.2	90	36.2
Mean Max.	84.0	36.3	83.0	36.3	83.7	36.4	85.8	36.4	87.6	36.0	88.1	33.7	87.7	34.1
Mean Min.	80.2	31.4	79.8	33.8	80.3	35.1	81.9	34.6	83.1	29.7	84.0	28.8	84.4	28.5
Minimum	78	26.1	78	28.5	78	33.8	80	33.1	81	23.0	82	26.5	82	23.8
	RÍOHACHA,													
1952	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1953	78.8	36.6	77.8	37.6	78.0	38.2	82.0	38.9	83.2	30.3	84.5	27.3	--	--
1954	77.8	37.7	79.9	37.7	80.9	37.9	80.8	37.9	83.6	36.7	83.2	36.8	82.7	--

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

## Temperatures and Salinities

## Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F.	Sal. ‰	Temp. °F.	Sal. ‰	Temp. °F.	Sal. ‰	Temp. °F.	Sal. ‰	Temp. °F.	Sal. ‰	Temp. °F.	Sal. ‰	Temp. °F.	Sal. ‰	Temp. °F.	Sal. ‰
<i>(Castries), B.W.I. -continued</i>															
82.9	34.4	83.5	34.9	83.8	34.6	82.8	34.5	80.6	35.2	81.3	35.0				
86	37.7	86	37.2	88	35.7	85	36.2	83	36.2			88	37.7		
84.8	35.7	85.0	35.9	85.7	35.5	84.7	35.7	82.0	36.0						
81.5	31.4	82.0	33.1	82.3	31.8	81.0	31.0	79.3	34.6						
80	27.2	82	28.9	82	30.3	80	29.3	78	33.8					75	27.2
<i>(Vieux Fort), B.W.I.</i>															
83.1	34.8	83.5	34.1	83.4	35.0	82.2	35.4	80.7	35.4	81.4	35.4	88	38.6	73	23.7
83.6	34.9	83.3	35.1	--	--	82.4	35.1	80.6	35.4	--	--	86*	37.1*	76	32.9*
83.2	34.8	83.4	34.4	83.4	35.0	82.2	35.4	80.7	35.4	81.5	35.4				
88	36.6	87	35.7	88	36.8	88	36.6	86	37.3			88	38.6		
85.5	35.8	85.7	35.3	85.8	36.0	85.0	36.0	83.7	36.6						
81.5	33.3	81.0	31.6	79.8	32.8	79.0	34.2	77.7	34.2						
81	31.2	78	23.7	77	28.1	75	32.5	76	32.3					73	23.7
<i>(Carenage Bay), B.W.I.</i>															
83.0	19.6	83.7	21.0	83.4	23.5	83.0	26.0	81.4	26.8	81.8	27.5	88	37.3	77	12.7
84.4	18.7	83.7	19.6	83.7	20.6	82.9	22.5	81.7	22.1	82.2	--	88	32.5*	78	12.9*
84.4	22.1	84.2	21.4	84.1	24.8	--	--	--	--	--	--	87	34.5*	78	10.6*
83.4	19.9	83.8	20.9	83.5	23.3	83.0	25.1	81.5	25.2	81.9	27.1				
88	25.2	88	27.2	86	30.6	86	29.8	84	31.2			88	37.3		
86.0	23.7	86.3	25.0	85.2	27.3	85.0	28.0	83.0	28.4						
81.7	15.2	81.7	14.9	81.8	19.6	81.4	22.5	79.5	22.9						
80	12.7	80	10.6	80	16.5	81	19.7	78	20.4					77	10.6
<b>COLOMBIA</b>															
86.4	32.1	86.4	30.3	85.9	29.0	85.5	30.6	84.3	33.2	84.4	33.0	90	37.3	78	23.4
85.8	28.9	86.1	28.8	84.8	26.1	85.0	28.1	83.9	33.1	84.4	31.4	89	36.6	79	19.9
85.8	29.4	84.8	27.6	83.5	25.0	84.5	27.6	84.4	30.3	83.6	31.1	88	36.2	79	19.2
85.5	31.4	86.2	29.1	85.8	27.7	84.8	28.0	84.0	32.0	84.2	31.6	89	36.2	78	20.8
86.8	33.2	87.1	32.7	86.7	31.2	85.4	33.5	84.4	35.4	84.6	34.2	89	36.4	80	29.4
87.0	32.0	87.7	30.8	87.6	29.9	86.9	31.0	84.7	34.8	86.0	33.6	91	36.8	82	27.3
86.3	31.5	86.4	30.1	85.8	28.5	85.4	30.1	84.3	33.1	84.5	32.7				
90	36.0	90	34.8	90	32.8	89	35.3	87	37.1			91	37.3		
87.9	33.6	88.4	32.7	87.7	30.8	87.2	33.2	86.3	35.7						
83.9	28.3	84.2	26.8	83.3	26.2	83.4	26.4	82.3	29.8						
80	23.4	80	19.2	79	20.4	82	19.9	81	25.0					78	19.2
<b>COLOMBIA</b>															
--	--	86.9	--	85.4	--	83.6	--	80.5	--	--	--	90*	--	--	--
--	--	--	--	85.5	26.4	84.3	33.5	81.9	36.3	--	--	88*	41.6*	75	8.4*
84.1	37.0	86.5	33.1	84.2	28.4	83.2	31.2	81.0	33.1	82.3	--	88	39.3*	76	9.3*

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>RÍOHACHA,</b>														
1955	79.5	33.8	79.6	--	77.5	--	80.1	--	82.3	--	83.2	--	82.7	--
1956	79.7	--	78.7	32.7	79.8	31.4	81.7	32.8	81.5	34.2	82.6	33.2	81.0	36.7
1957	77.7	34.8	76.7	--	80.6	37.3	80.1	38.5	82.7	34.4	84.0	32.0	81.6	37.7
1958	81.5	37.3	80.2	37.2	81.2	37.6	81.8	37.7	--	--	85.1	32.5	82.1	37.6
Mean	79.2	36.0	78.8	36.3	79.7	36.5	81.1	37.2	82.7	33.9	83.8	32.4	82.0	37.3
Maximum	82	38.8	83	41.6	84	40.4	86	40.6	86	40.3	87	38.8	85	39.4
Mean Max.	80.8	37.7	81.5	39.2	81.7	38.8	83.7	39.2	85.0	39.0	85.8	37.7	84.4	38.9
Mean Min.	77.3	34.0	76.7	33.6	77.8	33.2	78.7	33.8	80.6	23.4	81.0	25.8	80.8	33.3
Minimum	75	31.9	75	26.9	76	21.7	77	19.1	79	9.3	80	16.5	80	33.7
<b>AMUAY,</b>														
1953	72.9	35.8	70.8	36.0	67.6	--	70.7	--	74.2	36.2	76.1	36.2	74.1	36.3
1954	73.7	36.0	72.1	36.2	72.5	36.2	71.9	35.9	74.1	36.2	75.1	36.2	74.6	36.0
1955	75.4	36.6	73.4	36.7	71.8	36.7	70.9	36.3	74.1	36.6	78.2	36.6	76.6	37.0
1956	77.0	35.7	73.0	36.3	69.4	36.0	74.8	35.7	73.2	36.6	76.3	36.6	73.2	36.4
1957	71.6	36.2	66.4	35.5	72.7	35.8	71.9	35.9	72.0	36.3	74.8	36.4	73.3	36.2
1958	76.8	36.4	76.8	36.7	73.1	36.7	75.1	36.6	78.5	36.8	80.2	36.7	75.7	37.1
Mean	74.6	36.1	72.1	36.2	71.2	36.3	72.6	36.1	74.4	36.4	76.8	36.4	74.6	36.5
Maximum	82	37.1	80	37.5	76	37.5	80	37.1	84	37.3	85	37.2	80	38.2
Mean Max.	78.2	36.7	74.3	36.8	73.5	36.8	76.0	36.6	78.2	36.8	80.0	36.8	77.2	37.1
Mean Min.	71.8	35.1	70.3	35.9	69.0	35.7	69.8	34.9	71.8	36.0	74.3	35.8	72.2	36.0
Minimum	70	32.0	65	35.3	66	35.3	66	31.1	70	35.7	72	34.4	70	35.5
<b>LA GUAIRA,</b>														
1949-1953	76.0	36.8	76.6	36.6	75.9	36.6	77.7	36.7	81.2	36.6	80.4	36.6	79.8	36.6
1954	75.0	36.4	76.5	36.3	77.7	36.4	77.3	36.6	79.8	36.3	79.3	35.9	79.9	36.0
1955	78.4	36.4	76.8	36.4	74.7	36.8	74.8	36.8	78.8	36.6	79.9	36.3	79.8	36.6
1956	77.7	35.8	74.5	37.2	73.6	37.1	77.9	37.1	79.0	37.2	79.2	37.1	78.8	37.1
1957	74.7	37.1	71.5	37.1	77.7	37.0	75.0	37.0	76.5	36.7	79.3	36.8	79.7	36.7
1958	80.1	37.0	79.3	37.0	77.6	37.1	80.2	36.8	82.7	36.6	83.3	36.7	78.5	37.5
Mean	76.7	36.7	76.1	36.7	76.1	36.7	77.3	36.8	80.2	36.7	80.3	36.6	79.6	36.7
Maximum	84	37.7	86	39.3	82	38.1	84	38.8	86	38.5	88	37.6	85	38.0
Mean Max.	80.3	37.3	79.7	37.6	79.1	37.5	81.0	37.7	82.7	37.6	83.7	37.2	82.6	37.3
Mean Min.	73.7	35.7	73.4	35.4	73.8	35.9	74.4	35.8	76.6	35.4	77.4	35.5	76.9	35.8
Minimum	69	33.3	69	30.4	71	34.5	72	35.1	72	34.9	76	34.5	74	35.0
<b>CARENERO,</b>														
1949-1953	81.4	32.7	81.2	31.1	80.6	31.8	82.6	35.8	82.0	35.3	82.8	34.2	83.0	34.0
1954	--	--	82.9	35.7	83.7	36.0	83.3	36.2	83.3	36.3	84.5	36.8	83.0	36.2
1955	81.7	35.3	82.9	36.3	--	--	82.6	35.7	83.3	35.7	82.4	34.9	--	--
1956	--	--	--	--	82.8	34.1	82.9	34.2	84.9	34.4	83.3	35.3	--	--

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

## Temperatures and Salinities

## Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>COLOMBIA</b> -continued															
85.6	—	85.3	29.5	84.3	25.1	83.0	—	80.9	—	82.0	—	87	35.7*	76	11.4*
82.8	36.7	83.8	36.6	83.5	22.5	81.9	20.6	80.7	32.4	81.5	—	86	39.4*	77	0.4*
83.6	38.1	84.8	36.4	85.5	34.0	82.8	33.5	80.9	36.8	81.8	—	86	40.1*	75	23.9*
83.8	37.5	85.3	36.2	85.1	35.3	82.2	36.3	79.5	37.6	—	—	87*	38.4*	78	25.5*
84.0	37.3	85.4	34.4	84.8	28.6	83.0	31.0	80.8	35.2	82.1	34.7				
87	39.3	90	38.5	88	37.6	86	37.9	84	38.0			90	41.6		
85.8	38.6	86.8	36.7	86.7	34.4	85.1	35.7	82.7	36.6						
82.0	34.8	83.7	28.1	81.7	15.0	80.9	23.1	78.9	32.7						
80	31.9	82	17.8	80	0.4	80	3.0	78	28.1					75	0.4
<b>VENEZUELA</b>															
71.8	36.6	79.1	36.2	82.4	36.0	79.3	36.8	79.1	36.4	74.8	—	84	37.6*	66	35.3*
74.5	36.3	79.4	36.0	80.0	34.9	80.6	35.9	79.3	36.3	75.6	36.0	85	37.5	70	32.3
79.5	36.6	82.8	35.8	85.1	34.1	82.6	35.1	76.5	36.6	77.2	36.2	87	37.5	68	30.2
72.5	36.2	75.9	36.6	81.7	35.8	83.5	35.1	77.4	35.9	75.7	36.1	86	37.1	68	31.1
72.5	36.3	76.8	37.0	81.0	36.7	79.7	37.0	75.6	36.6	74.0	36.3	86	38.5	65	35.3
77.4	37.1	80.0	37.0	82.0	36.3	79.2	36.2	74.5	36.3	77.4	36.7	85	38.5	72	35.4
74.7	36.5	79.0	36.4	82.0	35.6	80.8	36.0	77.1	36.4	75.8	36.2				
87	38.5	86	38.4	86	37.3	86	38.5	82	37.2			87	38.5		
78.7	37.2	83.3	37.3	84.7	36.8	84.3	37.1	79.8	36.8						
71.7	35.9	74.5	35.3	78.8	33.7	77.7	35.0	73.5	35.8						
70	35.1	72	33.8	77	30.2	76	32.4	72	35.1					65	30.2
<b>VENEZUELA</b>															
81.6	36.6	83.7	36.6	83.1	36.6	82.6	36.3	80.2	36.3	79.9	36.6	88	39.3	69	30.4
82.6	36.0	82.8	35.7	81.1	35.4	80.6	35.7	78.6	35.9	79.3	36.0	86	37.7	72	33.7
82.6	35.8	83.7	36.0	83.8	35.3	83.0	35.9	78.6	36.4	79.6	36.3	85	38.1	71	34.5
81.9	36.6	81.1	36.8	82.6	36.3	82.2	35.7	78.7	36.7	78.9	36.7	85	37.9	71	33.3
80.8	36.7	81.8	36.6	82.8	36.4	81.0	36.3	80.0	36.6	78.4	36.8	85	37.9	69	35.1
82.5	36.6	83.5	36.7	82.9	37.1	80.4	37.1	78.9	37.2	80.8	37.0	86	38.0	75	34.0
81.9	36.4	83.1	36.4	82.8	36.3	82.0	36.2	79.6	36.4	79.6	36.6				
86	38.1	87	38.2	88	38.5	85	37.7	84	37.9			88	39.3		
84.4	37.3	85.4	37.2	84.8	37.1	84.2	37.2	82.1	37.2						
79.2	35.4	80.4	35.5	80.5	35.3	80.4	34.9	76.9	35.7						
77	34.0	78	34.6	78	33.7	78	31.0	76	34.5					69	30.4
<b>VENEZUELA</b>															
83.3	35.3	84.1	35.7	84.2	35.7	83.7	35.4	82.4	32.9	82.6	34.2	87	38.5	76	17.1
84.0	36.8	83.5	36.2	83.7	36.2	83.3	35.8	81.5	35.3	—	—	87*	38.0*	80*	34.9*
—	—	—	—	—	—	—	—	—	—	—	—	88*	37.7*	79*	33.3*
83.7	30.3	82.8	35.3	—	—	—	—	—	—	—	—	93*	36.3*	81*	24.3*

Table 1.- Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
	<b>CARENERO,</b>													
Mean	81.5	33.3	81.7	32.7	81.4	32.8	82.7	35.5	82.8	35.4	83.1	34.9	83.0	34.4
Maximum	87	36.8	86	37.0	86	37.7	88	38.5	93	37.3	87	37.6	86	37.3
Mean Max.	84.5	35.9	83.7	36.3	84.0	36.2	85.1	37.1	85.4	36.6	84.7	36.6	85.2	36.3
Mean Min.	79.5	31.1	79.2	30.1	79.2	29.8	80.4	33.5	80.4	34.0	81.0	32.5	81.2	31.2
Minimum	76	20.4	78	20.4	77	19.9	79	29.7	77	31.4	79	22.1	80	19.2
	<b>CUMANÁ,</b>													
1949-1953	76.4	36.8	75.5	36.6	74.8	36.7	76.1	36.0	76.6	36.3	77.1	36.3	78.2	35.9
1954	74.3	36.8	72.0	36.7	72.0	36.7	71.1	36.6	72.9	36.6	74.3	36.3	76.8	35.1
1955	75.9	35.9	73.6	36.3	71.1	36.7	70.0	36.2	74.4	36.2	76.6	35.9	75.9	35.7
1956	77.0	35.8	73.0	36.6	70.3	36.3	72.9	36.4	73.8	36.8	74.3	36.8	74.1	36.7
1957	72.3	36.6	69.4	36.6	71.1	36.7	69.8	36.6	70.3	36.7	74.3	36.7	75.2	36.6
1958	74.8	37.1	75.0	37.1	73.7	37.1	73.9	37.0	77.4	37.0	80.2	36.3	76.1	36.7
Mean	75.6	36.6	73.9	36.6	73.0	36.7	73.6	36.3	75.0	36.4	76.4	36.3	76.8	36.0
Maximum	83	38.6	84	38.8	84	38.5	82	39.6	82	38.1	85	38.0	83	38.5
Mean Max.	77.9	37.5	77.2	37.6	76.9	37.6	77.8	37.6	79.2	37.3	80.8	37.2	82.0	37.3
Mean Min.	72.8	33.7	72.0	34.0	70.3	34.0	69.9	33.8	72.3	34.4	72.9	32.9	72.8	29.7
Minimum	70	22.0	68	24.8	68	28.5	68	23.8	69	30.6	70	22.4	72	22.1
	<b>CARÚPANO,</b>													
1949-1953	75.0	36.6	73.4	36.7	73.1	36.6	73.1	36.4	73.2	36.4	75.0	36.2	76.2	36.3
1954	75.2	37.0	73.0	37.0	72.4	36.7	74.7	36.8	74.7	36.8	75.9	36.7	75.9	36.6
1955	77.0	36.8	74.5	36.8	73.4	36.8	70.3	36.6	72.5	36.6	74.3	36.8	77.5	37.0
Mean	75.3	36.7	73.5	36.7	73.0	36.7	72.9	36.6	73.3	36.6	75.0	36.4	76.4	36.6
Maximum	82	37.3	79	37.2	80	37.5	79	37.5	77	37.7	79	37.7	81	37.6
Mean Max.	79.2	37.1	76.3	37.1	76.2	37.1	76.3	37.0	75.8	37.1	77.7	37.0	79.3	37.1
Mean Min.	72.5	35.7	71.2	36.3	70.7	36.3	70.5	36.0	71.0	35.7	72.0	35.3	74.0	36.0
Minimum	71	34.4	70	35.8	69	35.7	68	35.5	70	34.9	69	32.0	72	35.5
	<b>PUERTO DE HIERRO,</b>													
1955	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1956	81.9	--	80.8	--	81.7	--	82.4	--	82.4	--	82.9	--	83.8	--
1957	80.0	23.1	79.5	26.9	80.2	30.3	80.2	31.4	81.9	31.8	82.0	25.6	83.0	19.1
1958	81.9	24.2	81.9	27.8	84.8	29.9	85.1	30.3	85.5	29.0	85.9	25.0	86.3	19.7
Mean	81.3	23.7	80.7	27.5	82.2	30.1	82.6	30.8	83.3	30.4	83.6	25.3	84.4	19.4
Maximum	85	27.8	84	32.4	86	33.6	88	34.2	88	34.5	88	29.1	88	32.1
Mean Max.	83.3	27.6	82.7	31.8	84.0	32.9	85.0	33.3	85.3	33.1	86.0	28.8	86.7	27.7
Mean Min.	80.0	18.0	78.7	22.6	80.3	27.2	81.7	28.5	81.0	27.1	81.3	20.3	82.3	14.8
Minimum	79	17.8	78	22.0	79	26.8	79	27.8	80	25.5	79	20.0	81	14.6
	<b>BELÉM,</b>													
1950-1953	84.3	1.2	83.8	1.1	83.3	0.8	83.8	0.6	83.2	0.8	83.6	0.9	83.8	1.1
1954	84.0	0.0	84.0	0.0	83.7	0.0	84.2	0.3	85.0	0.3	84.5	0.0	84.1	0.0

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



## Temperatures and Salinities

## Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>VENEZUELA</b> -continued															
83.5	34.8	83.8	35.7	84.1	35.8	83.7	35.5	82.3	33.3	82.8	34.5				
87	38.0	87	37.7	87	38.1	87	37.1	86	37.3			93	38.5		
85.7	36.8	85.8	36.6	86.0	37.0	85.7	36.6	84.8	35.9						
82.0	32.4	81.7	34.6	82.0	34.1	81.8	34.0	80.7	30.3						
82	24.3	81	31.8	81	31.5	81	30.4	78	17.1					76	17.1
<b>VENEZUELA</b>															
80.0	34.5	82.8	34.9	81.8	35.5	80.8	36.0	78.3	36.6	78.2	36.0	88	39.6	68	20.9
80.3	33.6	80.4	35.1	80.1	35.7	78.8	36.3	77.0	36.4	75.8	36.0	84	37.5	69	22.2
80.6	35.7	81.4	34.6	82.6	34.2	81.7	35.3	76.5	35.9	76.7	35.7	86	38.5	68	22.0
—	—	77.5	35.5	80.4	36.9	—	—	76.3	36.6	—	—	84*	38.4*	68	30.8*
77.3	36.7	77.3	36.8	79.6	36.7	80.1	36.3	75.7	36.8	74.4	36.6	83	38.4	68	33.5
78.8	36.0	80.5	36.3	78.9	36.4	76.5	36.7	74.0	36.7	76.6	36.7	85	37.6	72	29.8
79.6	35.0	81.1	35.3	81.0	35.7	80.1	36.0	77.1	36.6	76.9	36.1				
85	39.0	88	37.5	87	38.4	87	38.1	84	38.5			88	39.6		
83.6	37.7	84.4	37.1	84.2	37.3	83.1	37.2	80.6	37.5						
74.4	26.7	77.7	29.0	77.8	30.3	77.4	32.0	74.0	34.0					68	20.9
72	20.9	74	22.2	74	24.1	75	27.3	72	29.4						
<b>VENEZUELA</b>															
77.3	36.0	78.4	36.3	80.0	36.3	78.9	36.4	77.7	36.3	75.9	36.4	85	37.7	69	31.1
77.1	36.7	78.3	36.6	79.0	36.7	80.6	36.4	78.4	36.6	76.3	36.7	85	37.5	70	35.5
—	—	—	—	—	—	—	—	—	—	—	—	82*	37.5*	68*	35.8*
77.2	36.2	78.4	36.3	79.9	36.3	79.2	36.4	77.8	36.3	76.0	36.5				
82	37.3	85	37.1	84	37.2	84	37.3	85	37.5			85	37.7		
80.2	36.7	82.6	36.8	82.5	36.8	81.8	37.0	81.2	37.1						
74.8	35.7	75.0	35.8	77.2	35.5	77.3	35.9	75.5	35.1					68	31.1
74	35.0	73	35.5	74	34.2	76	35.5	74	31.1						
<b>VENEZUELA</b>															
—	—	—	—	—	—	85.1	—	82.4	—	—	—	—	—	—	—
85.3	—	—	—	—	—	—	—	—	—	—	—	88*	—	78*	—
84.6	17.7	85.6	14.1	85.5	15.7	83.1	22.4	81.5	20.6	82.3	23.2	88	34.5	78	7.2
86.4	16.2	88.1	14.9	86.1	19.6	85.8	20.6	84.7	23.8	85.2	23.4	90	32.4	80	10.3
85.4	17.0	86.8	14.5	85.8	17.6	84.7	21.5	82.9	22.2	83.6	23.3				
90	23.9	90	20.4	88	25.9	90	26.3	86	28.9			90	34.5		
88.3	23.0	89.0	19.6	87.5	25.6	87.7	25.6	84.7	26.7						
83.0	12.3	84.5	8.8	83.0	11.5	82.7	17.7	81.0	17.3						
82	12.0	83	7.2	82	10.6	81	17.5	80	16.6					78	7.2
<b>BRAZIL</b>															
84.2	1.1	84.2	0.8	84.1	0.9	84.0	1.2	84.0	0.9	83.9	1.0	86	3.0	78	0.0
84.2	0.0	84.3	0.7	84.1	0.9	84.6	0.9	84.6	0.9	84.3	0.3	85	1.2	82	0.0

Table 1.- Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
	<b>BELEM,</b>													
1955	84.4	0.2	83.8	0.0	83.7	0.2	82.7	0.4	83.2	0.6	83.9	0.7	83.9	0.8
1956	84.0	0.7	83.4	0.7	83.3	0.4	83.2	0.6	83.2	0.6	83.3	0.6	83.0	0.6
1957	83.5	0.6	82.4	0.4	82.2	0.4	80.9	0.4	81.3	0.6	82.4	0.7	83.2	0.6
1958	84.3	0.6	84.1	0.7	83.5	0.6	84.6	0.8	84.7	0.8	84.6	0.8	84.1	0.8
Mean	84.2	0.7	83.6	0.7	83.3	0.6	83.3	0.6	83.4	0.7	83.7	0.7	83.7	0.8
Maximum	86	1.7	85	2.0	85	1.6	85	1.2	85	2.1	85	2.0	86	1.6
Mean Max.	85.1	1.2	84.7	1.0	84.2	1.0	84.3	0.9	84.1	1.2	84.2	1.2	84.8	1.1
Mean Min.	83.0	0.3	82.1	0.2	82.0	0.0	82.0	0.0	82.4	0.3	82.9	0.3	82.9	0.4
Minimum	82	0.0	78	0.0	80	0.0	80	0.0	80	0.0	82	0.0	82	0.0
	<b>SALINOPOLIS,</b>													
1951	--	--	82.1	36.3	82.2	28.5	82.8	--	84.1	--	83.4	28.1	--	--
1952	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1953	83.0	29.1	83.0	31.4	83.1	--	82.6	--	83.0	25.2	83.8	28.5	83.3	29.7
1954	82.4	33.2	81.7	--	82.9	--	82.8	--	83.8	--	83.8	--	83.0	--
1955	81.9	--	81.6	--	82.9	--	82.4	--	83.3	--	83.0	--	83.0	--
Mean	82.4	31.2	82.1	33.8	82.8	28.5	82.6	--	83.6	25.2	83.5	28.3	83.1	29.7
Maximum	84	38.4	85	37.6	85	37.6	86	--	86	30.3	86	32.8	84	32.3
Mean Max.	84.0	38.1	84.2	36.3	84.8	--	84.8	--	85.2	--	84.5	31.9	84.0	--
Mean Min.	81.0	22.0	79.8	32.3	80.0	--	79.8	--	81.8	--	81.8	22.7	82.0	--
Minimum	80	19.0	78	29.3	79	20.0	78	--	80	19.9	81	21.0	82	25.9
	<b>AMARRACAO,</b>													
1958	82.4	15.8	83.3	13.7	83.5	16.9	84.3	12.3	81.4	17.9	81.3	23.1	80.5	23.5
	<b>FORTALEZA</b>													
1950-1953	81.6	37.6	82.0	37.8	82.0	37.6	82.1	37.6	82.2	37.6	81.7	37.6	81.0	37.6
1954	82.2	38.5	82.5	38.2	82.2	38.2	82.4	38.0	82.3	37.9	82.0	37.9	81.5	37.6
1955	82.0	38.5	81.8	37.9	82.3	38.4	81.7	38.0	82.2	38.2	82.1	38.1	81.7	38.0
1956	81.9	37.9	81.9	37.9	82.1	37.7	82.2	37.5	81.2	36.7	82.3	37.2	81.3	37.2
1957	81.2	37.6	81.1	37.6	81.4	37.6	81.7	37.6	81.7	37.5	82.0	37.7	81.5	37.5
1958	82.0	37.6	82.3	37.7	81.8	37.5	81.5	37.5	80.8	37.5	81.7	37.5	81.5	37.5
Mean	81.7	37.9	82.0	37.9	82.0	37.9	82.0	37.7	81.9	37.6	81.9	37.6	81.3	37.6
Maximum	84	39.3	84	39.2	85	39.2	84	39.2	84	38.8	84	38.8	84	38.8
Mean Max.	83.1	38.6	83.7	38.6	83.9	38.5	83.4	38.5	83.2	38.4	83.0	38.4	82.9	38.4
Mean Min.	79.9	37.1	79.8	37.1	79.8	37.0	79.8	36.3	79.9	36.3	80.2	36.6	78.7	36.4
Minimum	79	36.2	79	36.8	79	36.4	78	35.8	78	35.3	78	35.3	78	35.3
	<b>RECIFE,</b>													
1950-1953	83.9	36.2	84.7	36.3	84.5	35.3	83.6	34.5	81.8	30.8	79.3	30.5	78.4	29.9
1954	83.8	37.0	85.7	37.3	85.0	36.8	84.7	30.8	82.2	--	80.0	--	79.1	29.7
1955	83.7	36.8	84.0	35.3	83.5	--	83.9	--	81.6	--	79.9	--	77.9	26.8
1956	83.7	36.3	84.7	35.1	84.4	31.5	83.7	28.0	83.9	34.0	81.0	29.3	79.4	28.2
1957	83.4	34.0	84.7	36.2	84.7	31.8	82.9	23.7	82.1	27.5	79.8	28.4	79.5	30.2
1958	84.2	36.8	85.0	36.8	85.4	35.9	84.6	34.1	81.9	22.1	81.2	31.4	79.0	25.1

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

## Temperatures and Salinities

## Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>BRAZIL -continued</b>															
83.9	0.7	84.1	0.7	84.2	1.1	84.7	1.2	84.2	0.8	83.9	0.6	86	1.9	82	0.0
83.6	0.7	83.1	0.6	83.5	0.6	83.6	0.6	83.8	0.6	83.4	0.6	85	1.7	82	0.0
83.6	0.3	83.6	0.6	83.5	0.6	83.8	0.7	83.8	0.7	82.8	0.6	85	1.3	80	0.0
84.2	0.9	83.6	1.2	83.0	2.0	82.8	2.9	83.0	2.4	83.9	1.2	85	4.2	82	0.0
84.1	0.7	83.9	0.7	83.8	1.0	83.9	1.2	83.9	1.1	83.7	0.8				
86	2.0	85	2.9	86	2.9	85	4.2	85	3.2			86	4.2		
84.9	1.1	84.6	1.3	84.6	1.5	84.5	1.8	84.7	1.6						
83.0	0.3	83.0	0.2	83.1	0.4	83.1	0.7	83.1	0.7					78	0.0
81	0.0	82	0.0	82	0.0	82	0.0	82	0.0						
<b>BRAZIL</b>															
83.6	35.5	83.4	37.0	83.0	37.9	83.4	38.8	84.1	38.4	--	--	86*	39.4*	79*	20.0*
82.1	31.1	81.9	34.1	82.5	35.8	82.9	36.7	82.6	37.5	--	--	84*	39.2*	80*	28.1*
82.4	33.1	82.3	35.3	82.5	36.7	82.3	37.6	82.3	38.0	82.8	--	85	38.8*	80	19.0*
82.0	34.0	81.8	36.0	82.2	37.3	82.4	38.0	82.1	38.1	82.6	--	86	39.4*	78	25.1*
82.4	--	82.5	32.8	82.9	35.1	83.4	36.3	82.8	35.9	82.7	--	86	37.5*	80	--
82.5	33.4	82.4	35.0	82.6	36.6	82.9	37.5	82.8	37.6	82.8	--				
85	36.6	86	39.2	86	38.9	85	39.4	85	39.4			86	39.4		
84.0	35.3	84.6	37.3	84.6	37.5	84.2	38.1	84.4	38.6						
80.8	30.8	80.6	31.4	81.0	35.7	81.0	37.0	81.4	36.3					78	19.0
80	28.1	80	20.9	80	34.2	80	35.7	80	33.7						
<b>BRAZIL</b>															
79.9	22.6	79.9	23.4	79.9	23.5	80.0	23.7	80.7	22.2	81.4	19.9	86	38.6	78	0.0
<b>(Mucuripe), BRAZIL</b>															
80.2	37.6	80.4	37.3	80.7	37.6	80.9	37.7	81.4	37.8	81.4	37.6	85	39.2	76	34.9
80.9	37.5	81.1	37.5	80.7	37.9	81.3	38.1	82.1	38.2	81.8	38.0	84	39.3	78	36.3
81.4	38.0	81.2	37.9	81.3	37.7	81.8	38.0	81.9	37.9	81.8	38.0	84	39.2	78	36.6
81.4	37.2	81.1	37.3	82.2	37.9	81.5	37.6	81.8	37.6	81.7	37.5	84	38.6	74	34.9
81.4	37.5	81.2	37.5	81.5	37.6	81.1	37.3	81.4	37.5	81.4	37.5	84	38.5	78	35.7
81.1	37.3	81.6	37.5	81.0	37.5	81.5	37.7	81.0	37.5	81.5	37.5	84	38.4	78	36.2
80.8	37.5	80.9	37.5	81.1	37.7	81.2	37.7	81.6	37.7	81.5	37.7				
84	38.8	83	38.6	83	38.8	84	39.2	84	39.2			85	39.3		
82.7	38.2	82.3	38.1	82.4	38.4	82.8	38.6	83.1	38.6						
77.0	36.4	78.6	36.3	78.7	36.6	78.6	36.8	79.1	36.8						
74	34.9	77	35.0	78	34.9	78	35.7	78	36.4					74	34.9
<b>BRAZIL</b>															
78.0	31.1	80.1	32.9	81.7	35.0	82.8	35.8	83.2	35.5	81.8	33.6	86	39.2	76	16.7
78.5	33.1	79.4	35.0	80.6	36.2	82.0	36.3	83.1	36.6	82.0	--	87	38.4*	77	--
78.0	28.0	79.8	33.6	81.9	34.5	83.5	35.5	83.0	34.8	81.7	--	85	37.9*	76	--
78.7	30.1	79.4	32.3	81.6	34.6	82.9	35.5	83.2	36.2	82.2	32.6	86	37.6	76	7.6
79.3	32.1	81.4	34.2	82.2	35.7	83.0	36.0	84.1	36.8	82.3	32.2	87	37.9	76	6.6
78.4	28.2	80.5	32.1	81.9	35.1	83.0	35.9	83.3	36.0	82.4	32.5	86	37.5	76	5.4

Table 1.- Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
	RECIFE,													
Mean	83.8	36.2	84.8	36.2	84.5	34.6	83.8	31.5	82.1	29.4	79.9	30.1	78.7	28.9
Maximum	86	39.2	87	38.4	86	38.5	87	38.0	85	36.2	83	36.3	81	36.0
Mean Max.	85.1	37.7	85.7	37.6	85.9	37.2	85.7	35.8	84.2	35.0	82.0	35.4	80.3	35.3
Mean Min.	82.4	33.2	83.6	32.8	82.7	25.1	81.7	22.0	79.6	19.2	77.6	19.6	77.0	18.8
Minimum	81	21.4	81	23.4	81	7.6	79	6.6	76	5.4	76	14.6	76	15.6
	SALVADOR,													
1950-1953	80.7	36.6	81.3	37.1	81.8	37.2	81.9	36.9	80.3	35.0	78.6	35.3	76.6	35.4
1954	80.6	36.3	81.7	36.7	82.5	36.3	81.9	35.8	81.1	35.5	79.6	36.0	78.2	36.2
1955	80.0	36.6	80.8	36.6	81.4	36.7	81.4	37.1	80.2	36.7	79.7	36.8	77.3	37.0
1956	80.2	37.2	81.4	37.5	82.0	37.0	81.8	36.3	81.1	36.0	79.3	35.8	77.0	35.5
1957	79.9	36.2	80.8	36.3	81.3	32.8	80.6	33.3	79.4	33.1	77.8	33.2	76.6	34.1
1958	81.0	36.8	81.3	36.0	81.6	35.7	82.0	35.8	81.0	35.3	79.2	35.1	77.3	34.2
Mean	80.5	36.6	81.2	36.8	81.8	36.3	81.7	36.2	80.5	35.3	78.9	35.4	77.0	35.4
Maximum	83	38.4	84	38.4	84	38.6	84	38.4	83	37.5	81	37.7	79	37.6
Mean Max.	82.1	37.6	82.6	37.7	83.0	37.6	82.9	37.1	82.1	36.4	79.9	36.2	78.0	36.2
Mean Min.	79.4	35.7	79.7	36.2	80.9	34.2	79.2	35.0	79.4	34.4	77.4	34.4	75.1	34.2
Minimum	78	34.9	78	35.0	80	19.0	72	30.8	78	32.3	76	30.1	70	31.6
	CANAVIEIRAS,													
1952-1953	83.0	12.9	83.0	21.4	82.5	13.3	81.6	13.5	77.4	11.5	76.8	13.1	75.2	13.1
1954	82.1	8.6	82.4	17.1	—	—	79.1	4.8	79.0	10.7	76.5	11.1	75.2	15.6
1955	80.9	10.3	81.1	6.4	81.6	14.1	80.6	13.2	77.9	17.5	76.5	19.1	74.0	14.0
1956	81.5	7.7	81.7	11.4	81.2	6.0	79.4	10.1	78.2	12.7	76.3	14.8	73.5	13.5
1957	79.8	1.2	80.8	16.0	80.1	—	79.3	0.8	76.6	2.9	74.5	2.9	74.1	7.2
1958	81.7	12.2	81.9	5.0	81.0	12.6	80.4	7.6	77.3	5.8	74.7	11.9	74.5	7.7
Mean	81.7	8.9	82.0	14.1	81.5	11.9	80.1	8.4	77.7	10.3	76.0	12.3	74.5	12.0
Maximum	86	35.8	85	36.0	85	35.9	84	34.4	82	35.8	80	35.5	80	34.9
Mean Max.	84.1	26.1	83.9	32.3	83.5	30.6	83.0	21.0	80.4	23.5	78.1	29.5	76.6	33.3
Mean Min.	79.0	0.3	79.0	4.6	77.0	1.9	76.0	0.9	75.0	1.9	73.3	1.2	71.9	1.7
Minimum	76	0.0	76	0.0	71	0.0	73	0.0	72	0.0	72	0.0	70	0.0
	RIO DE JANEIRO (Fortaleza)													
1950-1953	75.1	31.9	76.6	30.1	75.6	30.3	74.8	29.9	73.5	31.1	70.8	34.0	68.4	34.0
1954	75.1	32.7	75.8	34.6	75.1	34.8	74.2	33.8	71.8	33.5	72.3	33.7	71.8	34.6
1955	76.9	32.5	72.3	33.5	73.1	34.4	72.6	33.1	71.7	33.1	71.7	34.0	71.2	34.6
1956	74.8	32.1	74.6	33.6	75.5	33.3	76.6	32.7	71.7	32.9	69.3	33.3	69.6	34.0
1957	73.8	31.4	76.3	32.7	77.5	31.5	76.8	29.0	70.7	33.1	66.0	34.8	67.7	34.6
1958	69.9	33.8	75.0	33.5	77.9	32.8	75.4	30.8	74.2	29.8	73.9	32.8	71.3	33.2
Mean	74.5	32.3	75.6	32.0	75.7	32.0	75.0	31.0	72.7	31.9	70.7	33.8	69.5	34.4
Maximum	80	35.7	82	35.7	82	35.4	80	35.0	78	34.9	75	36.3	73	36.3
Mean Max.	78.4	34.8	80.0	34.2	79.4	34.4	78.2	33.7	75.0	34.0	72.3	35.1	71.1	35.4
Mean Min.	69.0	28.0	71.1	29.3	71.7	28.9	72.3	28.6	70.2	29.5	67.9	32.3	68.0	33.2
Minimum	62	17.0	67	20.0	68	23.9	69	23.0	66	24.3	63	30.7	64	31.8

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

# Temperatures and Salinities

## Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>BRAZIL -continued</b>															
78.3	30.7	80.1	33.2	81.7	35.1	82.8	35.8	83.3	35.8	82.0	33.1				
81	36.4	83	37.2	84	37.5	85	38.1	85	38.1			87	39.2		
79.7	35.3	81.8	36.2	83.4	37.0	83.9	37.2	84.6	37.5						
76.6	22.1	78.0	27.7	80.1	32.0	81.8	32.7	81.8	31.5						
76	15.3	76	19.9	79	28.5	81	24.7	81	23.9					76	5.4
<b>BRAZIL</b>															
76.4	35.7	77.2	36.0	78.5	36.6	79.2	36.9	80.0	36.8	79.4	36.3	84	38.6	72	33.2
76.6	36.2	77.0	36.3	78.2	37.3	78.7	37.6	79.7	36.2	79.6	36.4	83	38.2	75	34.0
76.2	36.3	77.0	36.8	78.0	37.0	79.2	37.3	79.8	36.4	79.2	36.8	83	38.0	76	35.4
76.7	35.5	76.3	35.8	78.2	36.6	78.9	35.1	79.9	35.1	79.4	36.1	83	38.4	75	32.4
77.3	34.9	78.1	35.4	79.0	36.2	79.6	36.4	80.3	37.2	79.2	34.9	84	38.5	70	19.0
77.3	35.3	77.8	36.2	78.7	36.7	79.6	36.6	80.5	36.8	79.8	35.9	83	38.4	76	33.2
76.6	35.7	77.2	36.0	78.4	36.7	79.2	36.7	80.0	36.4	79.4	36.1				
78	37.2	80	37.7	80	38.0	82	38.4	82	38.5			84	38.6		
77.4	36.4	78.3	36.8	79.8	37.2	80.3	37.6	81.5	37.7						
75.9	35.0	76.4	35.0	77.6	36.0	77.8	35.9	79.0	35.0						
74	34.4	75	34.2	77	35.5	76	32.4	78	33.3					70	19.0
<b>BRAZIL</b>															
75.5	13.7	77.8	17.8	79.8	18.0	80.7	19.0	80.0	5.8	79.4	14.4	86	35.9	72	0.0
72.6	4.3	76.3	14.2	79.5	19.7	79.1	16.0	79.1	2.2	—	—	84*	36.0*	70	0.0
74.1	12.0	76.2	20.1	77.5	19.3	77.3	5.9	79.3	1.1	78.1	12.8	83	35.8	71	0.0
73.3	14.1	75.8	12.6	78.2	18.3	77.2	8.4	79.8	1.3	78.0	10.9	84	35.9	70	0.0
75.0	11.0	78.3	13.9	79.4	11.1	80.5	11.4	82.6	12.3	78.4	—	84	35.5*	71	0.0
75.2	12.7	75.8	12.0	78.7	10.2	80.0	5.4	81.5	15.2	78.6	9.9	84	35.9	71	0.0
74.5	11.6	76.9	15.4	79.0	16.3	79.4	12.2	80.3	6.3	78.6	11.6				
78	35.5	81	35.9	82	36.0	84	35.9	84	35.4			86	36.0		
76.9	31.4	79.0	34.2	81.4	33.2	82.6	30.4	82.6	20.3						
72.3	1.5	73.7	3.5	75.9	2.9	75.0	0.0	76.4	0.0						
70	0.0	71	0.0	74	0.0	73	0.0	75	0.0					70	0.0
<b>de Santa Cruz), BRAZIL</b>															
69.4	34.8	70.4	34.9	71.6	34.8	72.7	34.0	72.9	32.7	72.6	32.8	82	36.3	63	17.0
70.4	34.9	70.7	34.9	70.0	34.8	73.4	34.0	73.2	34.4	72.8	34.2	80	35.7	65	30.7
69.8	34.6	70.6	34.8	68.3	34.8	70.8	33.2	72.3	31.9	71.8	33.7	80	35.4	65	28.2
68.3	33.6	66.4	34.4	66.4	34.4	69.8	33.7	71.0	31.0	71.2	33.2	80	35.1	63	26.5
69.0	34.9	70.6	34.8	73.3	34.4	74.2	34.9	70.5	34.0	72.2	33.3	80	36.8	63	26.1
71.1	34.0	71.1	34.4	70.9	34.6	76.4	33.5	79.0	31.5	73.8	32.9	82	35.4	62	25.8
69.6	34.6	70.1	34.8	70.6	34.6	72.8	33.8	73.1	32.5	72.5	33.1				
74	36.0	74	36.2	76	36.0	78	36.8	82	36.8			82	36.8		
71.4	35.4	72.0	35.4	73.6	35.4	75.3	35.1	76.7	34.4						
68.0	33.7	68.0	34.0	67.6	33.8	70.0	32.7	69.3	30.1						
63	32.3	63	33.3	63	32.5	66	30.8	66	26.0					62	17.0

Table 1.- Surface Water  
Means and

Years	January		February		March		April		May		June		July	
	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
	IMBITUBA,													
1950-1953	73.2	35.3	73.5	35.5	72.2	35.8	71.0	35.3	69.5	35.0	66.2	35.1	63.6	34.2
1954	73.5	35.7	74.3	*35.7	76.7	35.5	69.5	35.1	66.1	35.0	65.8	34.2	62.5	32.9
1955	74.3	35.0	--	--	73.8	35.4	73.2	35.1	69.1	34.1	63.1	32.3	60.0	30.8
1956	69.3	34.4	76.0	34.5	73.5	35.0	71.1	35.3	64.5	34.6	61.5	31.4	61.4	32.4
1957	70.9	35.4	74.9	34.9	76.4	34.5	72.6	34.6	67.2	35.1	63.5	35.0	62.4	34.4
1958	69.5	34.8	76.6	34.2	75.7	32.4	72.5	34.1	68.5	34.4	65.8	33.5	66.8	33.7
Mean	72.3	35.1	74.5	35.1	73.9	35.1	71.5	35.0	68.2	34.9	64.9	34.1	62.6	33.5
Maximum	79	36.3	79	37.0	80	36.3	76	36.3	74	36.7	70	36.4	68	36.0
Mean Max.	77.3	35.8	77.4	36.0	77.9	35.9	74.7	35.8	71.3	35.9	67.2	35.1	65.1	35.1
Mean Min.	65.8	34.1	69.0	34.1	68.7	33.7	68.0	34.1	64.8	33.5	62.1	32.9	60.3	32.0
Minimum	61	32.4	64	31.5	64	30.4	64	33.3	61	31.1	60	29.4	58	28.5
	MONROVIA,													
1953	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1954	81.7	31.5	80.8	31.5	81.3	32.1	81.9	32.5	82.4	32.0	80.1	28.9	77.0	28.9
1955	82.2	30.6	82.8	32.1	82.4	30.3	83.5	31.1	83.3	31.2	80.8	23.1	77.9	18.4
Mean	82.0	31.0	81.8	31.8	81.8	31.2	82.7	31.8	82.8	31.6	80.4	26.0	77.4	23.6
Maximum	84	33.3	86	33.6	84	34.0	86	34.5	85	34.5	84	32.8	80	33.5
Mean Max.	83.5	32.8	85.0	33.6	83.5	33.7	85.5	33.7	85.0	34.0	83.5	31.5	79.5	29.5
Mean Min.	80.5	28.1	79.5	27.7	79.5	24.6	79.5	28.2	80.5	25.6	78.0	14.8	75.5	13.3
Minimum	80	27.5	78	26.8	79	21.0	78	26.8	80	25.0	77	14.1	75	8.8

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

Extremes

August		September		October		November		December		Means		Maximum		Minimum	
Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰	Temp. °F	Sal. ‰
<b>BRAZIL</b>															
62.9	34.5	64.1	34.5	65.3	34.1	68.0	35.0	69.6	35.4	68.2	35.0	79	36.7	58	30.1
63.2	32.1	65.2	34.0	65.4	34.5	69.7	33.6	70.2	35.0	68.5	34.5	80	36.3	60	30.4
59.7	32.7	63.2	34.1	65.1	34.4	68.3	34.1	66.8	34.9	—	—	78*	36.3*	55	28.5*
61.5	33.5	64.7	35.1	63.9	35.3	64.6	35.3	69.6	35.5	66.8	34.4	78	36.2	59	29.4
59.6	32.7	61.3	31.2	65.0	34.1	66.4	34.2	64.2	34.6	67.0	34.2	79	36.4	58	30.3
65.7	34.6	65.9	34.1	67.9	34.5	70.6	34.4	72.3	34.8	69.8	34.1	79	37.0	61	30.4
62.4	33.7	64.1	34.1	65.4	34.4	68.0	34.6	69.0	35.1	68.1	34.6				
68	36.6	69	36.3	72	36.3	73	36.2	75	36.4			80	37.0		
65.0	35.5	66.6	35.3	68.6	35.7	71.2	35.7	73.6	35.8						
59.7	32.1	61.9	32.8	62.7	32.5	63.9	33.5	64.0	34.0						
55	30.1	59	30.3	60	30.4	61	32.0	61	32.4					55	28.5
<b>LIBERIA</b>															
—	—	79.0	12.7	80.1	13.7	82.6	25.4	82.4	30.1	—	—	84*	32.9*	76*	5.2*
75.9	20.6	78.6	11.1	79.9	15.7	81.1	23.3	82.0	26.4	80.2	26.3	86	34.5	75	6.8
76.8	17.3	77.9	12.4	81.9	15.7	82.6	25.8	81.5	25.8	81.1	24.4	86	33.6	75	8.5
76.4	19.0	78.5	12.1	80.6	15.0	82.1	24.8	82.0	27.4	80.7	25.4				
79	30.7	82	24.4	82	23.5	84	31.5	84	32.9			86	34.5		
78.5	27.7	81.3	20.5	82.0	23.4	83.7	30.3	84.0	31.1						
75.0	11.2	76.3	7.2	78.0	8.9	80.0	16.0	79.7	19.9						
75	8.5	76	6.2	78	5.2	78	11.2	78	17.8					75	5.2

Table 2.- Sea Water Temperatures from Recording Thermometers

Max. and Min. Obs.=Maximum and minimum observed (from a continuous trace),

Max. and Min. Day=Maximum and minimum daily mean (from hourly readings),

Mean=Monthly mean (from hourly readings).

Each bulb was in a fixed position below lowest observed low water.

Temperatures are in °F.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>BAR HARBOR, ME.</b>												
<b>1949-1953</b>												
Max.Obs.	41	37	42	47	53	58	63	62	61	56	52	48
Max.Day	41.0	36.9	40.5	44.2	49.9	55.7	60.1	59.5	58.9	55.1	52.0	47.7
Mean	35.9	33.4	34.1	39.3	45.2	50.7	55.6	56.4	55.6	52.4	47.5	41.4
Min. Day	30.4	28.5	28.1	33.8	39.6	45.6	50.9	53.7	52.0	47.8	40.8	34.2
Min. Obs.	29	28	28	33	39	44	49	51	51	46	39	32
<b>1954</b>												
Max.Obs.	42	35	40	46	49	56	59	60	58	56	51	45
Max.Day	41.0	34.2	37.8	44.3	48.0	53.9	55.6	57.3	56.6	55.5	50.2	43.7
Mean	34.8	32.8	35.7	39.8	45.2	50.1	53.8	55.4	54.6	52.5	47.4	40.9
Min. Day	29.6	28.9	33.9	33.9	43.0	46.0	51.1	53.7	52.5	49.3	44.4	37.6
Min. Obs.	29	28	32	32	43	45	49	52	52	48	44	35
<b>1955</b>												
Max.Obs.	41	35	37	45	51	56	62	64	58	55	50	42
Max.Day	40.3	34.5	36.4	41.4	50.0	53.4	59.4	59.7	55.8	53.6	50.0	41.8
Mean	34.7	32.3	34.4	39.5	45.3	50.6	55.3	56.8	54.1	51.4	46.1	--
Min. Day	30.0	29.0	31.7	37.0	41.9	48.2	51.6	52.7	52.2	48.3	40.7	--
Min. Obs.	29	28	30	36	41	47	49	51	51	47	40	28
<b>1958</b>												
Max.Obs.	43	38	40	49	53	56	61	61	59	55	50	43
Max.Day	42.8	37.7	39.9	46.7	49.8	52.9	57.8	58.9	58.0	54.2	49.6	42.7
Mean	37.8	34.8	37.7	41.5	46.0	49.7	54.2	56.4	55.2	51.7	46.9	36.1
Min. Day	33.8	31.9	34.9	38.7	43.9	47.0	51.7	54.0	53.7	49.4	41.9	30.9
Min. Obs.	32	30	34	38	42	45	50	53	53	49	37	30
<b>BOSTON, MASS.</b>												
<b>1952-1953</b>												
Max.Obs.	41	41	47	52	61	69	73	71	72	62	56	50
Max.Day	39.9	39.9	44.8	49.6	58.7	65.4	70.0	68.5	69.0	60.5	55.2	50.0
Mean	37.8	38.0	38.9	45.8	52.7	60.0	65.5	66.0	63.6	55.8	49.0	43.6
Min. Day	36.1	37.0	36.8	40.7	46.4	56.2	60.1	63.3	59.5	49.6	45.2	38.0
Min. Obs.	36	36	36	40	45	54	58	61	58	49	45	38
<b>1954</b>												
Max.Obs.	42	42	46	54	59	66	67	67	65	62	54	47
Max.Day	41.5	40.6	43.4	51.0	56.3	63.9	65.0	65.5	63.2	60.3	53.4	46.8
Mean	37.0	37.0	40.8	46.2	52.9	58.9	62.4	63.1	60.9	58.0	49.7	42.1
Min. Day	34.3	34.7	39.5	41.3	50.2	54.2	59.4	60.9	58.5	53.6	47.3	40.2
Min. Obs.	33	34	39	41	49	53	58	59	58	53	47	39



Table 2.-Sea Water Temperatures from Recording Thermometers -Continued

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>BOSTON, MASS. - Continued</b>												
<b>1955</b>												
Max.Obs.	42	40	42	52	61	67	69	75	70	60	54	44
Max.Day	42.0	39.1	40.8	48.8	57.2	64.0	66.1	72.3	67.5	58.5	53.1	43.1
Mean	37.9	35.8	39.4	45.7	53.6	58.9	64.7	69.9	60.0	56.0	49.3	38.9
Min. Day	34.8	33.1	37.5	40.8	48.5	53.5	63.7	66.6	56.5	53.1	43.6	34.5
Min. Obs.	34	33	37	39	47	52	62	65	55	52	43	34
<b>1956</b>												
Max.Obs.	40	40	40	49	54	66	67	70	66	59	56	47
Max.Day	39.0	39.0	39.2	45.9	51.2	64.1	65.2	68.8	64.7	58.0	55.4	45.8
Mean	36.4	37.4	37.6	42.6	49.1	58.7	61.8	66.0	61.4	56.3	51.3	43.6
Min. Day	33.0	36.3	35.6	38.2	46.2	51.3	59.6	61.3	57.3	53.9	46.3	39.6
Min. Obs.	33	36	35	37	45	49	58	60	57	53	46	39
<b>1957</b>												
Max.Obs.	40	44	46	55	62	69	72	71	69	59	56	48
Max.Day	39.4	40.8	43.8	51.1	58.6	66.3	69.3	69.0	67.7	57.4	54.2	47.1
Mean	35.6	37.5	40.6	45.8	55.0	62.4	65.5	67.8	63.8	56.1	51.1	44.0
Min. Day	32.7	36.1	38.6	43.0	50.6	59.0	63.2	66.4	56.7	52.7	47.2	42.2
Min. Obs.	32	36	38	42	49	58	62	65	56	52	47	42
<b>1958</b>												
Max.Obs.	45	41	46	53	57	64	68	69	64	61	53	46
Max.Day	44.4	40.0	43.5	49.3	54.6	60.2	65.0	66.3	62.7	59.5	52.2	44.9
Mean	39.4	36.1	40.3	45.7	52.0	57.6	61.8	61.8	59.2	55.9	50.1	39.7
Min. Day	37.5	32.9	36.2	42.4	49.2	55.1	59.7	59.0	56.7	52.0	46.4	35.0
Min. Obs.	37	32	36	42	48	54	57	57	56	52	45	35
<b>NEW YORK, (The Battery) N.Y.</b>												
<b>1948-1953</b>												
Max.Obs.	44	42	47	54	64	76	79	79	79	70	62	52
Max.Day	43.7	41.2	45.8	52.8	62.5	73.8	78.1	78.2	78.0	69.3	61.3	51.3
Mean	38.3	36.7	38.8	46.7	56.1	65.3	73.3	74.0	71.2	62.9	53.8	44.5
Min. Day	30.3	30.0	32.9	39.3	47.0	57.8	67.2	69.7	64.0	53.8	46.5	37.2
Min. Obs.	30	30	31	39	47	57	66	69	63	53	46	36
<b>1954</b>												
Max.Obs.	44	40	45	54	62	71	77	77	74	69	59	49
Max.Day	44.0	39.3	44.1	53.5	60.9	69.4	75.9	76.2	73.1	68.7	58.2	48.4
Mean	38.1	36.8	40.6	48.2	56.2	65.3	71.5	72.1	69.3	64.7	52.6	43.0
Min. Day	34.0	34.1	38.0	43.3	53.9	61.8	68.5	69.8	66.1	58.8	48.2	40.2
Min. Obs.	33	33	37	43	53	61	67	69	65	58	47	39
<b>1955</b>												
Max.Obs.	43	38	42	51	65	71	77	81	77	70	59	45
Max.Day	41.9	37.4	40.9	50.6	63.6	69.9	76.4	79.8	75.7	69.0	58.3	44.7
Mean	37.6	34.5	38.9	46.1	56.8	65.2	73.4	77.4	72.7	64.5	52.0	39.9
Min. Day	33.9	31.4	36.5	41.5	50.6	61.5	69.7	75.5	69.2	59.3	44.9	35.2
Min. Obs.	33	30	35	40	50	61	69	75	69	58	44	34

Table 2.- Sea Water Temperatures from Recording Thermometers - *Continued*

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>NEW YORK, (The Battery) N.Y. - <i>Continued</i></b>												
<b>1956</b>												
Max. Obs.	36	38	39	49	58	71	74	76	76	65	61	49
Max. Day	35.2	37.5	38.5	47.8	56.6	69.3	72.9	75.4	75.0	63.6	60.3	48.0
Mean	34.4	36.1	37.3	42.5	52.6	63.9	69.3	73.3	69.8	61.4	54.9	45.9
Min. Day	33.0	33.5	35.5	38.7	48.4	57.4	65.2	71.3	63.1	59.2	48.2	41.1
Min. Obs.	32	33	35	38	47	56	65	71	63	59	48	40
<b>1957</b>												
Max. Obs.	42	40	44	55	63	73	75	76	75	68	58	50
Max. Day	41.0	39.7	43.3	54.4	62.3	71.7	73.9	75.6	74.5	67.3	57.4	48.5
Mean	36.8	37.4	40.4	47.0	58.4	68.1	71.3	73.7	72.8	62.6	53.9	44.6
Min. Day	33.5	36.4	37.6	43.5	54.4	62.2	69.5	72.6	67.7	57.2	50.2	42.0
Min. Obs.	32	36	36	43	54	61	68	72	67	57	49	41
<b>1958</b>												
Max. Obs.	44	--	--	--	61	68	74	76	73	66	56	46
Max. Day	43.7	--	--	--	60.3	66.5	73.5	75.8	72.7	65.3	55.3	45.1
Mean	--	--	--	--	--	62.6	70.2	73.0	69.1	60.1	52.3	39.4
Min. Day	--	--	--	--	--	60.1	67.2	71.0	66.0	55.6	46.0	36.1
Min. Obs.	--	--	--	--	--	59	66	70	65	55	45	36
<b>ATLANTIC CITY, N.J.</b>												
<b>1946-1948</b>												
Max. Obs.	45	44	48	54	66	70	78	78	80	69	65	52
Max. Day	44.2	43.2	45.1	53.4	63.4	68.7	74.9	76.6	78.2	67.4	64.1	51.3
Mean	37.3	34.8	39.6	47.5	54.8	61.7	65.9	70.8	69.9	61.4	53.5	43.1
Min. Day	30.1	30.2	33.8	43.0	48.2	56.4	57.0	57.9	64.1	54.4	44.4	35.6
Min. Obs.	29	29	33	41	48	54	54	54	63	53	43	33
<b>1949-1953</b>												
Max. Obs.	45	44	49	57	65	75	81	81	79	71	62	51
Max. Day	44.7	42.4	47.7	54.8	62.3	74.0	78.7	78.9	76.9	69.5	61.4	50.8
Mean	40.0	39.2	40.5	47.4	55.6	63.3	69.9	73.3	69.7	61.7	52.1	43.2
Min. Day	34.4	31.4	33.5	41.0	48.0	54.4	57.7	62.3	60.2	52.6	42.8	32.0
Min. Obs.	33	29	31	40	47	52	55	58	60	51	41	30
<b>1954</b>												
Max. Obs.	45	43	49	58	63	71	77	74	76	71	57	47
Max. Day	44.3	42.5	47.5	55.6	61.3	68.7	--	72.5	74.3	70.2	56.3	46.0
Mean	38.1	38.7	42.6	50.2	56.2	63.0	71.5	68.3	70.1	64.4	50.7	40.7
Min. Day	33.9	34.6	39.5	44.0	53.2	56.2	66.6	61.4	66.8	57.2	46.8	36.7
Min. Obs.	31	34	39	43	52	54	62	60	66	56	46	35
<b>1955</b>												
Max. Obs.	42	40	45	53	62	--	--	78	75	70	61	45
Max. Day	41.6	38.2	43.7	50.5	60.1	--	--	77.1	74.0	68.9	60.0	44.6
Mean	36.7	34.1	41.0	47.2	54.5	--	--	72.8	70.0	64.9	51.1	38.2
Min. Day	31.8	30.0	38.1	43.3	49.8	52.9	59.6	66.9	65.9	58.8	43.1	33.0
Min. Obs.	30	28	37	42	49	52	58	65	65	58	42	32

Table 2.- Sea Water Temperatures from Recording Thermometers -Continued 69

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>ATLANTIC CITY, N.J. - Continued</b>												
<b>1956</b>												
Max.Obs.	40	40	43	51	60	72	74	76	76	64	61	49
Max.Day	39.3	39.7	42.3	49.3	58.1	69.2	71.4	73.5	75.5	62.9	59.8	48.4
Mean	35.6	37.6	38.3	43.8	54.0	62.0	67.2	71.3	68.6	60.1	53.3	46.5
Min. Day	33.0	35.2	35.1	39.7	48.2	54.4	56.5	69.2	60.1	56.7	46.6	43.2
Min. Obs.	30	35	33	39	46	51	54	68	58	56	45	42
<b>1957</b>												
Max.Obs.	43	42	46	60	64	75	75	--	--	--	--	--
Max.Day	42.8	40.8	44.1	57.3	62.1	70.0	73.5	--	--	--	--	--
Mean	36.9	38.8	41.7	48.8	57.0	65.6	66.5	--	--	--	--	--
Min. Day	33.4	37.0	39.2	44.0	53.8	62.6	60.7	--	--	--	--	41.0
Min. Obs.	32	36	39	43	52	61	58	59	--	--	--	39
<b>1958</b>												
Max.Obs.	44	39	42	52	58	67	72	76	72	61	55	45
Max.Day	43.5	37.6	40.5	51.0	56.2	65.7	69.4	74.8	70.7	60.5	54.5	43.6
Mean	37.1	32.9	37.6	44.8	51.6	59.1	61.0	66.8	64.6	57.7	51.3	37.6
Min. Day	33.0	29.0	33.6	39.8	47.5	52.2	49.7	59.1	59.9	54.1	46.4	32.9
Min. Obs.	32	29	33	39	47	50	48	55	58	54	46	31
<b>WASHINGTON, D.C.</b>												
<b>1947-1948</b>												
Max.Obs.	40	49	61	66	79	88	88	89	85	73	66	50
Max.Day	39.9	46.5	60.4	65.2	77.2	86.0	83.3	87.2	84.0	72.2	65.1	49.5
Mean	37.0	38.6	46.5	58.8	67.8	77.0	82.4	82.0	78.2	64.8	55.0	43.4
Min. Day	35.2	37.0	35.4	47.6	60.0	72.7	77.7	76.0	67.0	54.1	45.0	38.2
Min. Obs.	35	33	34	46	59	71	77	75	66	54	44	38
<b>1949-1953</b>												
Max.Obs.	52	52	62	67	76	87	91	89	89	76	66	52
Max.Day	50.6	50.5	60.6	65.7	75.0	86.2	90.2	87.9	88.1	74.6	64.5	50.2
Mean	42.0	43.1	46.8	56.5	68.1	77.2	83.8	82.3	75.9	66.0	52.8	42.6
Min. Day	35.9	35.6	38.1	48.1	57.5	66.3	79.5	76.8	62.9	55.5	42.5	35.9
Min. Obs.	35	35	38	48	57	66	78	76	62	55	42	34
<b>1954</b>												
Max.Obs.	40	50	55	72	76	85	88	88	83	80	56	48
Max.Day	40.0	49.4	54.0	70.2	74.2	82.5	86.7	87.5	--	78.4	55.8	47.7
Mean	37.9	42.0	48.0	62.4	67.1	79.0	82.9	81.4	77.4	67.6	50.0	40.5
Min. Day	36.0	38.0	44.6	52.8	61.8	75.9	80.6	78.8	74.0	56.6	48.0	37.7
Min. Obs.	36	38	44	52	61	75	80	78	74	56	48	37
<b>1955</b>												
Max.Obs.	43	45	54	66	80	81	90	90	80	72	59	43
Max.Day	42.9	43.7	52.9	66.0	79.8	79.7	89.9	89.3	80.0	71.9	58.3	42.2
Mean	39.5	37.4	49.5	58.4	70.6	74.2	86.2	81.0	75.6	65.6	50.9	38.2
Min. Day	36.0	34.5	44.8	46.7	61.3	68.2	80.7	74.9	70.8	58.0	42.6	36.0
Min. Obs.	36	34	44	46	61	68	80	74	70	58	42	35

Table 2.- Sea Water Temperatures from Recording Thermometers - *Continued*

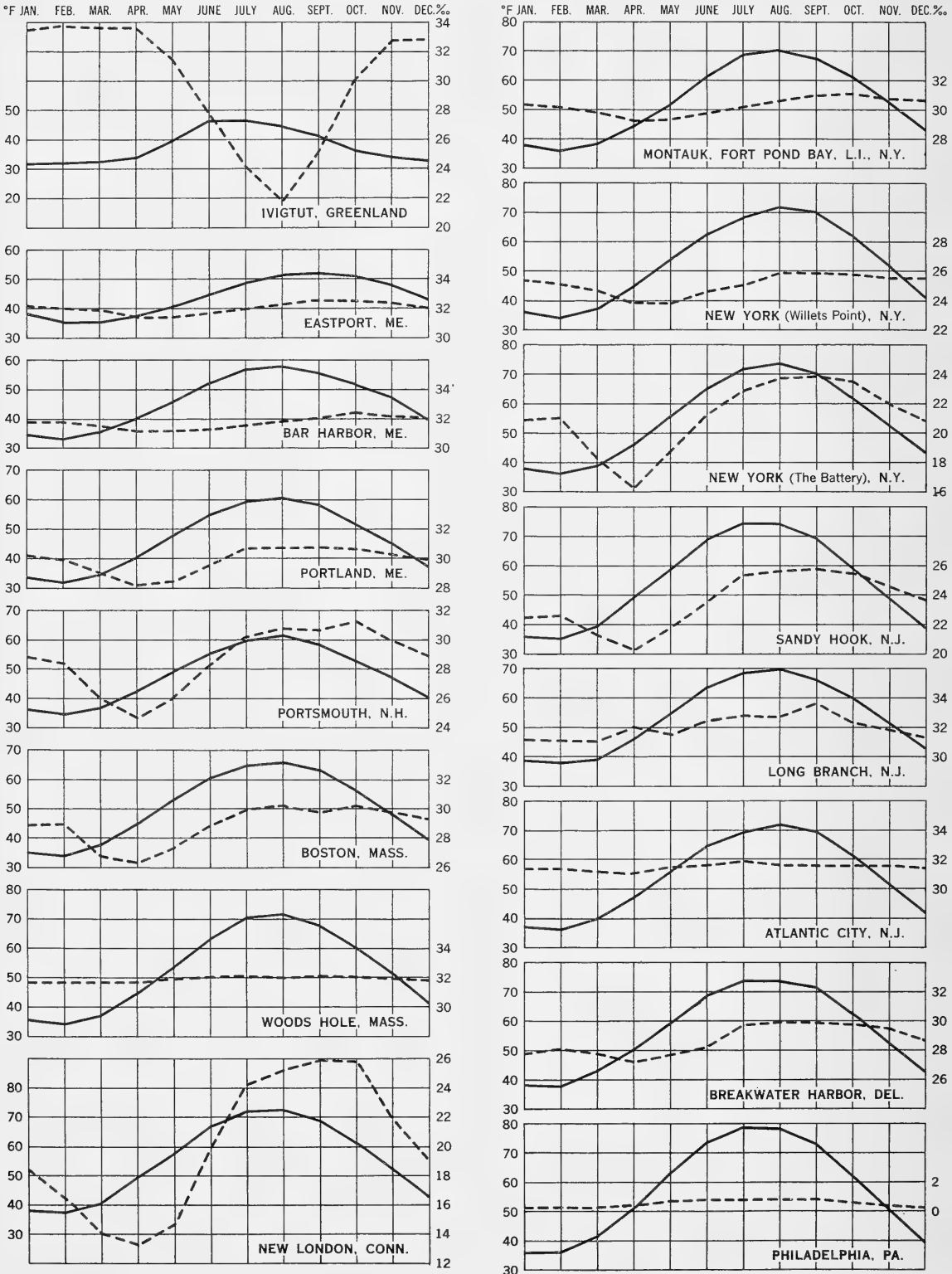
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>WASHINGTON, D.C. - <i>Continued</i></b>												
<b>1956</b>												
Max Obs.	38	45	52	65	73	84	86	85	84	66	62	47
Max Day	38.0	45.0	50.8	63.7	70.9	83.1	85.7	84.0	83.9	66.0	62.0	46.3
Mean	36.6	40.8	46.0	53.2	67.9	77.9	81.0	79.9	75.6	63.4	54.1	44.1
Min. Day	36.0	36.0	43.0	45.4	64.2	71.0	76.2	77.1	64.9	59.9	43.8	40.3
Min. Obs.	36	36	43	45	64	70	76	76	64	59	43	40
<b>1957</b>												
Max Obs.	42	46	52	72	78	87	85	85	82	69	56	47
Max Day	42.0	44.0	50.7	72.0	76.4	86.2	84.1	84.1	80.5	68.2	55.1	46.2
Mean	36.3	40.5	47.3	56.5	71.6	79.5	81.8	79.3	77.7	61.4	51.5	41.8
Min. Day	34.5	37.0	43.6	50.3	66.2	71.8	80.0	75.0	69.4	54.6	48.0	36.0
Min. Obs.	34	36	43	50	66	71	80	74	69	54	47	36
<b>1958</b>												
Max Obs.	43	38	45	66	73	82	86	84	80	71	60	46
Max Day	42.7	38.0	44.5	65.3	72.3	80.9	84.8	83.4	78.4	70.1	58.7	45.1
Mean	36.4	35.5	41.2	55.0	65.4	75.0	81.1	80.2	74.8	64.2	53.9	37.8
Min. Day	34.0	33.5	36.2	44.7	57.3	71.8	77.8	75.9	71.3	58.0	46.5	35.0
Min. Obs.	34	33	36	44	56	71	77	75	71	58	46	35
<b>DAYTONA BEACH, FLA.</b>												
<b>1948-1950</b>												
Max Obs.	72	73	70	76	80	84	85	85	84	80	77	72
Max Day	70.4	71.6	69.5	74.0	79.3	81.3	82.9	83.8	82.5	79.0	75.7	71.4
Mean	63.7	63.8	65.6	70.1	76.0	79.0	76.0	76.8	79.0	76.0	71.0	66.4
Min. Day	54.9	52.4	61.5	62.1	71.9	74.7	61.6	66.5	72.4	69.5	63.2	60.6
Min. Obs.	54	52	59	61	70	74	60	64	71	69	62	60
<b>CANOVA BEACH, FLA.</b>												
<b>1950-1952</b>												
Max Obs.	70	70	75	80	81	86	87	89	86	84	80	70
Max Day	68.5	68.5	73.3	78.2	79.0	83.7	84.7	86.5	84.2	82.0	78.9	68.6
Mean	65.8	64.0	68.8	71.4	75.9	78.9	79.1	79.1	80.6	78.0	71.8	64.2
Min. Day	60.8	58.9	63.2	67.3	70.8	70.1	64.5	63.4	72.6	68.9	64.8	60.0
Min. Obs.	59	58	62	65	69	66	62	60	71	67	63	59

Table 2.- Sea Water Temperatures from Recording Thermometers -Continued 71

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>MIAMI BEACH, FLA.</b>												
<b>1955</b>												
Max. Obs.	--	--	--	82	87	88	90	90	90	86	79	77
Max. Day	--	--	--	79.3	83.6	85.8	86.9	88.2	87.0	83.8	77.1	75.6
Mean	--	--	--	76.7	80.3	82.8	84.4	86.1	85.0	79.6	75.3	72.1
Min. Day	--	--	--	70.5	74.6	80.7	82.1	84.3	82.4	75.6	70.0	68.8
Min. Obs.	--	--	--	69	72	78	81	83	81	73	69	68
<b>1956</b>												
Max. Obs.	73	76	80	81	87	90	91	93	88	87	80	--
Max. Day	71.1	74.5	77.8	79.2	83.0	87.0	88.2	89.1	87.0	84.4	78.6	--
Mean	68.2	72.5	73.5	74.9	81.3	83.5	85.9	87.6	82.5	80.1	73.9	--
Min. Day	63.5	70.0	68.3	71.5	79.5	81.5	83.5	85.6	79.3	75.0	68.7	--
Min. Obs.	61	68	67	70	78	80	82	84	78	74	67	--
<b>1957</b>												
Max. Obs.	--	--	--	--	--	89	90	90	88	87	83	78
Max. Day	--	--	--	--	--	86.3	88.0	88.5	86.2	85.3	80.7	76.2
Mean	--	--	--	--	--	85.1	86.4	86.7	85.1	81.9	78.5	73.4
Min. Day	--	--	--	--	--	83.5	83.5	84.6	82.7	75.0	75.7	67.5
Min. Obs.	--	--	--	--	--	83	83	84	82	74	75	65
<b>1958</b>												
Max. Obs.	--	--	74	--	--	--	87	87	86	85	80	78
Max. Day	--	--	72.2	--	--	--	84.5	85.0	83.9	82.4	78.9	76.4
Mean	--	--	70.4	--	--	--	--	83.3	82.4	78.5	76.8	72.6
Min. Day	--	61.3	67.5	69.3	--	--	80.6	81.0	80.5	75.2	75.5	68.2
Min. Obs.	--	59	66	69	--	--	80	80	80	73	74	67

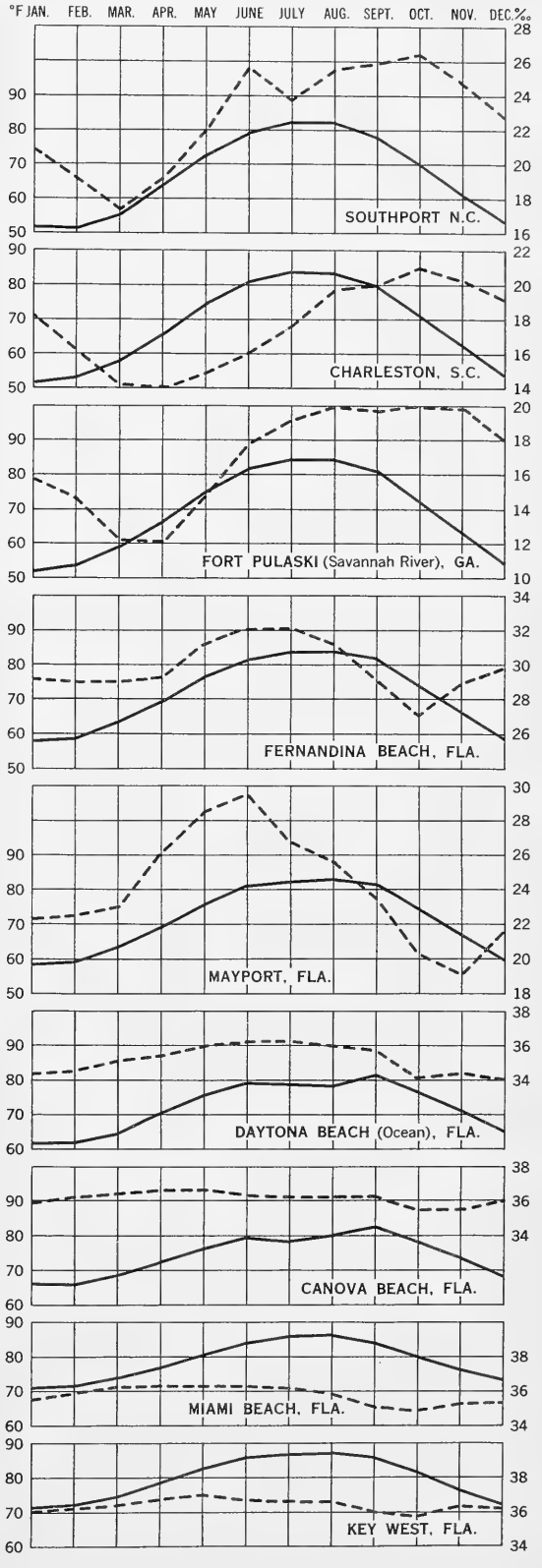
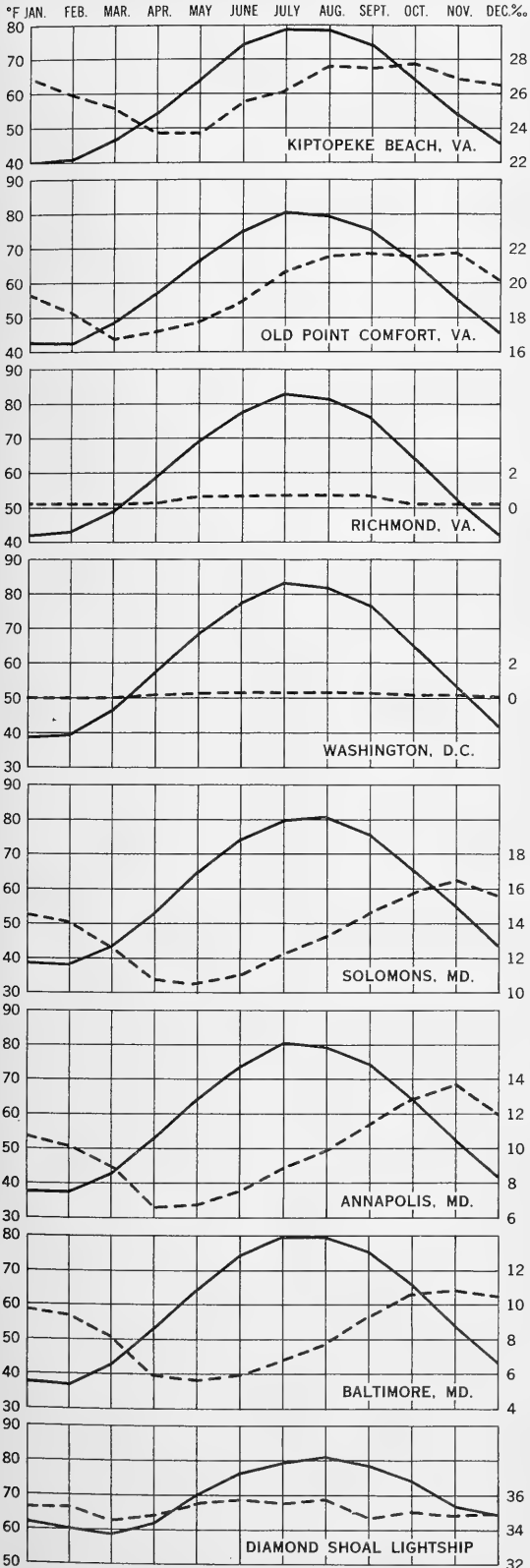
### Mean Temperature and Salinity Curves

Monthly mean surface water temperatures and salinities (in parts per thousand) are presented graphically to show the seasonal variation. — Temperatures - - - Salinities



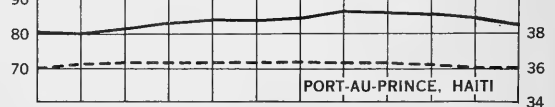
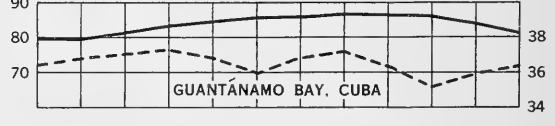
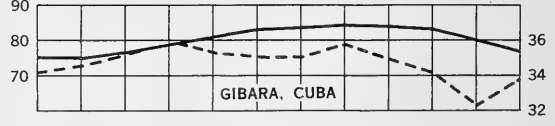
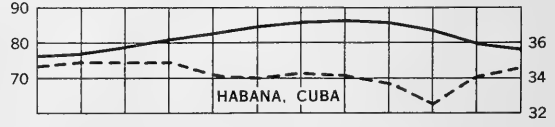
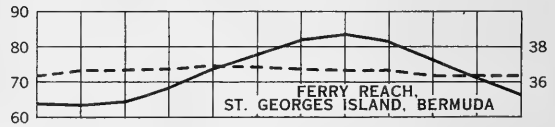
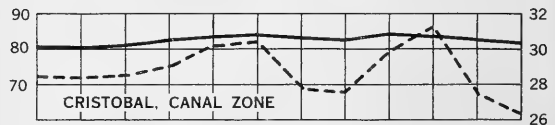
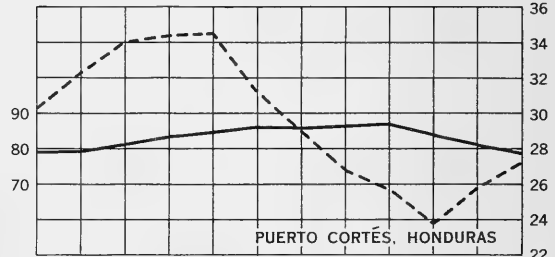
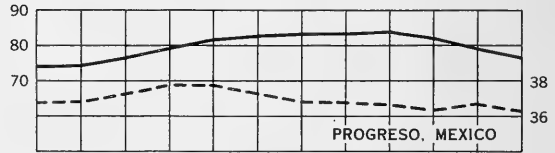
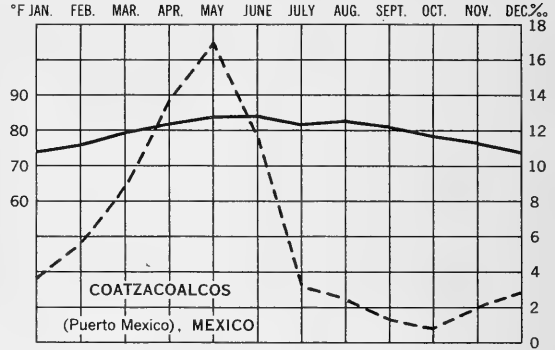
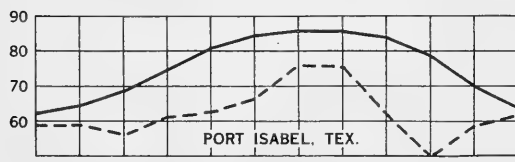
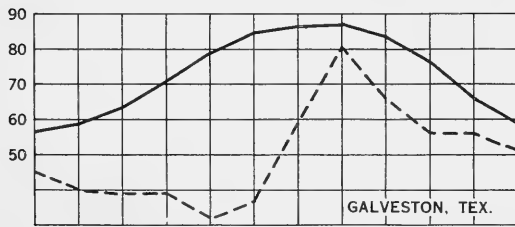
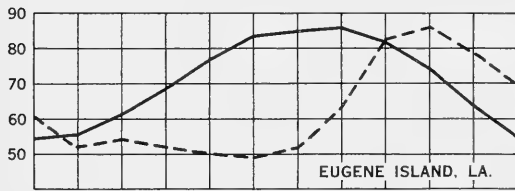
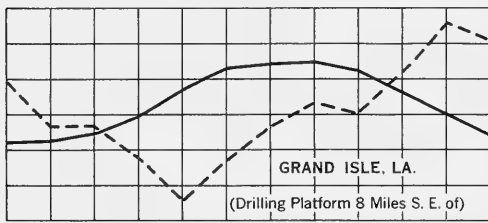
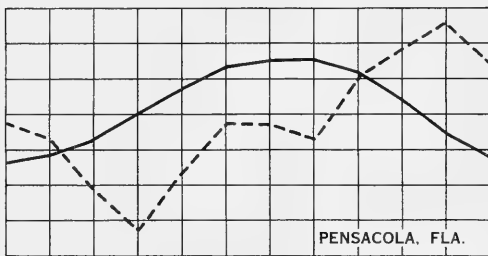
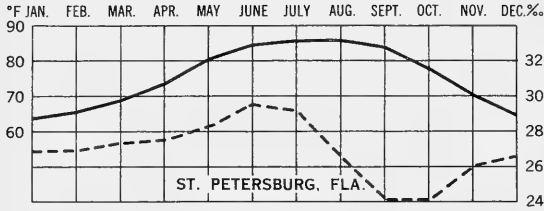
# Mean Temperature and Salinity Curves-Continued

— Temperatures    - - - Salinities



Mean Temperature and Salinity Curves - *Continued*

— Temperatures    - - - Salinities





# Mean Temperature and Salinity Curves - *Continued*

— Temperatures - - - Salinities

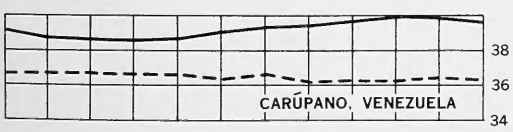
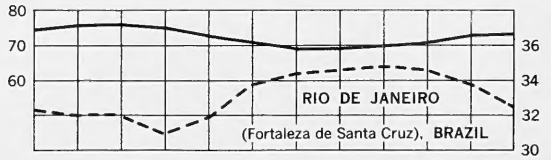
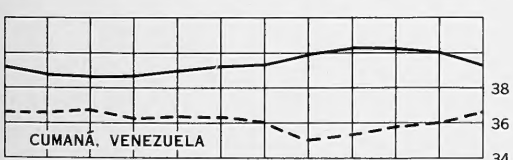
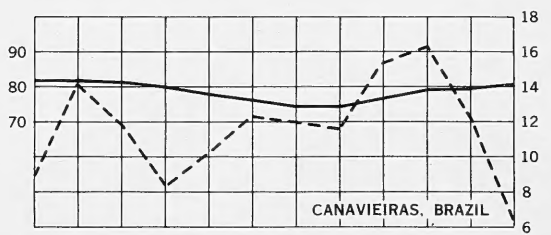
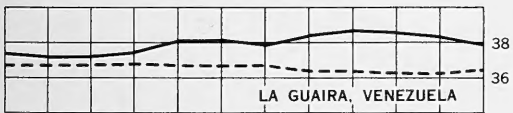
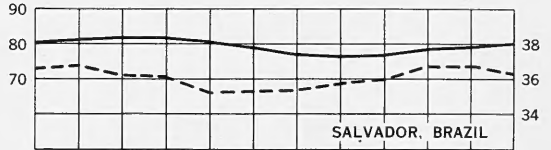
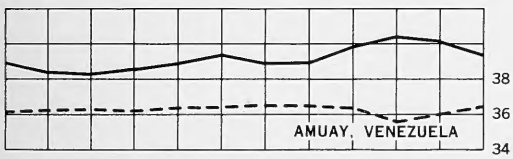
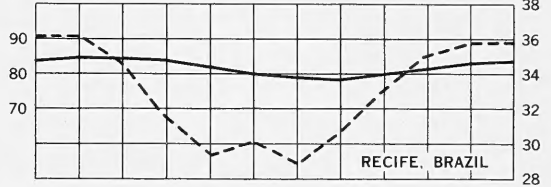
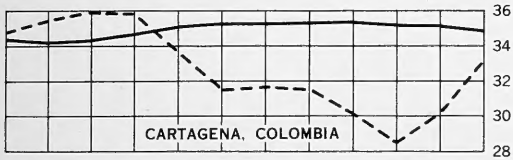
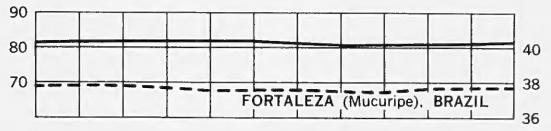
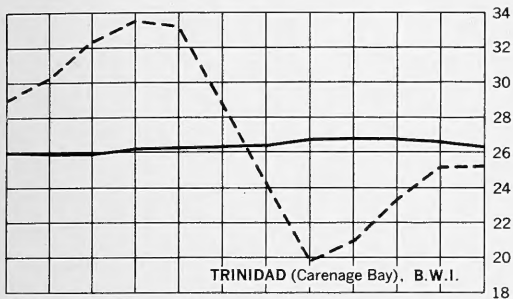
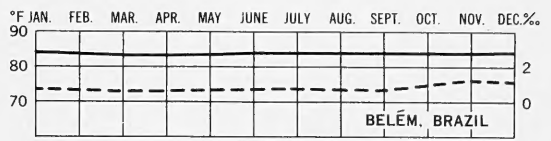
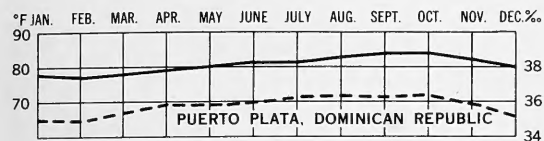


Table 3 - Conversion of Fahrenheit to Centigrade

°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C
25.0	-3.9	35.0	1.7	45.0	7.2	55.0	12.8	65.0	18.3	75.0	23.9	85.0	29.4		
25.2	-3.8	35.2	1.8	45.2	7.3	55.2	12.9	65.2	18.4	75.2	24.0	85.2	29.6		
25.4	-3.7	35.4	1.9	45.4	7.4	55.4	13.0	65.4	18.6	75.4	24.1	85.4	29.7		
25.6	-3.6	35.6	2.0	45.6	7.6	55.6	13.1	65.6	18.7	75.6	24.2	85.6	29.8		
25.8	-3.4	35.8	2.1	45.8	7.7	55.8	13.2	65.8	18.8	75.8	24.3	85.8	29.9		
26.0	-3.3	36.0	2.2	46.0	7.8	56.0	13.3	66.0	18.9	76.0	24.4	86.0	30.0		
26.2	-3.2	36.2	2.3	46.2	7.9	56.2	13.4	66.2	19.0	76.2	24.6	86.2	30.1		
26.4	-3.1	36.4	2.4	46.4	8.0	56.4	13.6	66.4	19.1	76.4	24.7	86.4	30.2		
26.6	-3.0	36.6	2.6	46.6	8.1	56.6	13.7	66.6	19.2	76.6	24.8	86.6	30.3		
26.8	-2.9	36.8	2.7	46.8	8.2	56.8	13.8	66.8	19.3	76.8	24.9	86.8	30.4		
27.0	-2.8	37.0	2.8	47.0	8.3	57.0	13.9	67.0	19.4	77.0	25.0	87.0	30.6		
27.2	-2.7	37.2	2.9	47.2	8.4	57.2	14.0	67.2	19.6	77.2	25.1	87.2	30.7		
27.4	-2.6	37.4	3.0	47.4	8.6	57.4	14.1	67.4	19.7	77.4	25.2	87.4	30.8		
27.6	-2.4	37.6	3.1	47.6	8.7	57.6	14.2	67.6	19.8	77.6	25.3	87.6	30.9		
27.8	-2.3	37.8	3.2	47.8	8.8	57.8	14.3	67.8	19.9	77.8	25.4	87.8	31.0		
28.0	-2.2	38.0	3.3	48.0	8.9	58.0	14.4	68.0	20.0	78.0	25.6	88.0	31.1		
28.2	-2.1	38.2	3.4	48.2	9.0	58.2	14.6	68.2	20.1	78.2	25.7	88.2	31.2		
28.4	-2.0	38.4	3.6	48.4	9.1	58.4	14.7	68.4	20.2	78.4	25.8	88.4	31.3		
28.6	-1.9	38.6	3.7	48.6	9.2	58.6	14.8	68.6	20.3	78.6	25.9	88.6	31.4		
28.8	-1.8	38.8	3.8	48.8	9.3	58.8	14.9	68.8	20.4	78.8	26.0	88.8	31.6		
29.0	-1.7	39.0	3.9	49.0	9.4	59.0	15.0	69.0	20.6	79.0	26.1	89.0	31.7		
29.2	-1.6	39.2	4.0	49.2	9.6	59.2	15.1	69.2	20.7	79.2	26.2	89.2	31.8		
29.4	-1.4	39.4	4.1	49.4	9.7	59.4	15.2	69.4	20.8	79.4	26.3	89.4	31.9		
29.6	-1.3	39.6	4.2	49.6	9.8	59.6	15.3	69.6	20.9	79.6	26.4	89.6	32.0		
29.8	-1.2	39.8	4.3	49.8	9.9	59.8	15.4	69.8	21.0	79.8	26.6	89.8	32.1		
30.0	-1.1	40.0	4.4	50.0	10.0	60.0	15.6	70.0	21.1	80.0	26.7	90.0	32.2		
30.2	-1.0	40.2	4.6	50.2	10.1	60.2	15.7	70.2	21.2	80.2	26.8	90.2	32.3		
30.4	-0.9	40.4	4.7	50.4	10.2	60.4	15.8	70.4	21.3	80.4	26.9	90.4	32.4		
30.6	-0.8	40.6	4.8	50.6	10.3	60.6	15.9	70.6	21.4	80.6	27.0	90.6	32.6		
30.8	-0.7	40.8	4.9	50.8	10.4	60.8	16.0	70.8	21.6	80.8	27.1	90.8	32.7		
31.0	-0.6	41.0	5.0	51.0	10.6	61.0	16.1	71.0	21.7	81.0	27.2	91.0	32.8		
31.2	-0.4	41.2	5.1	51.2	10.7	61.2	16.2	71.2	21.8	81.2	27.3	91.2	32.9		
31.4	-0.3	41.4	5.2	51.4	10.8	61.4	16.3	71.4	21.9	81.4	27.4	91.4	33.0		
31.6	-0.2	41.6	5.3	51.6	10.9	61.6	16.4	71.6	22.0	81.6	27.6	91.6	33.1		
31.8	-0.1	41.8	5.4	51.8	11.0	61.8	16.6	71.8	22.1	81.8	27.7	91.8	33.2		
32.0	0.0	42.0	5.6	52.0	11.1	62.0	16.7	72.0	22.2	82.0	27.8	92.0	33.3		
32.2	0.1	42.2	5.7	52.2	11.2	62.2	16.8	72.2	22.3	82.2	27.9	92.2	33.4		
32.4	0.2	42.4	5.8	52.4	11.3	62.4	16.9	72.4	22.4	82.4	28.0	92.4	33.6		
32.6	0.3	42.6	5.9	52.6	11.4	62.6	17.0	72.6	22.6	82.6	28.1	92.6	33.7		
32.8	0.4	42.8	6.0	52.8	11.6	62.8	17.1	72.8	22.7	82.8	28.2	92.8	33.8		
33.0	0.6	43.0	6.1	53.0	11.7	63.0	17.2	73.0	22.8	83.0	28.3	93.0	33.9		
33.2	0.7	43.2	6.2	53.2	11.8	63.2	17.3	73.2	22.9	83.2	28.4	93.2	34.0		
33.4	0.8	43.4	6.3	53.4	11.9	63.4	17.4	73.4	23.0	83.4	28.6	93.4	34.1		
33.6	0.9	43.6	6.4	53.6	12.0	63.6	17.6	73.6	23.1	83.6	28.7	93.6	34.2		
33.8	1.0	43.8	6.6	53.8	12.1	63.8	17.7	73.8	23.2	83.8	28.8	93.8	34.3		
34.0	1.1	44.0	6.7	54.0	12.2	64.0	17.8	74.0	23.3	84.0	28.9	94.0	34.4		
34.2	1.2	44.2	6.8	54.2	12.3	64.2	17.9	74.2	23.4	84.2	29.0	94.2	34.6		
34.4	1.3	44.4	6.9	54.4	12.4	64.4	18.0	74.4	23.6	84.4	29.1	94.4	34.7		
34.6	1.4	44.6	7.0	54.6	12.6	64.6	18.1	74.6	23.7	84.6	29.2	94.6	34.8		
34.8	1.6	44.8	7.1	54.8	12.7	64.8	18.2	74.8	23.8	84.8	29.3	94.8	34.9		

$$^{\circ}\text{C} = \frac{^{\circ}\text{F} - 32}{1.8}$$

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