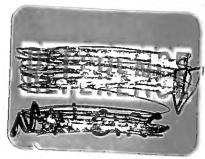


CGS TW-1 (1947)



# SURFACE WATER TEMPERATURES

AT

COAST AND GEODETIC SURVEY TIDE STATIONS

## ATLANTIC AND GULF COASTS

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## LIST OF STATIONS

STATION	LAT.	LONG.	PAGE	<i>En route</i> <i>16</i>
	° ' <i>North</i>	° ' <i>West</i>		
Eastport, Me.-----	44 54	66 59	5	<i>En route</i>
Pulpit Harbor, North Haven I., Me.-----	44 09	68 53	6	
Portland, Me.-----	43 40	70 15	6	<i>En route</i>
Portsmouth, N. H.-----	43 05	70 45	7	<i>En route</i>
Boston, Mass.-----	42 21	71 03	8	
Woods Hole, Mass.-----	41 31	70 40	9	
Nantucket Shoals Lightship-----	40 37	69 37	9	<i>Complete</i>
Willetts Point, East River, N. Y.-----	40 48	73 47	10	<i>En route</i>
New York (The Battery); N. Y.-----	40 42	74 01	11	
New York (Fort Hamilton), N. Y.-----	40 37	74 02	12	
Sandy Hook, N. J.-----	40 28	74 01	13	
Asbury Park, N. J.-----	40 13	74 00	13	
Atlantic City, N. J.-----	39 21	74 25	14	
Breakwater Harbor, Del.-----	38 47	75 06	15	
Philadelphia, Pa.-----	39 57	75 08	16	
Old Point Comfort, Va.-----	37 00	76 18	17	
Washington, D. C.-----	38 52	77 01	18	
Cambridge, Md.-----	38 34	76 04	18	
Solomons Island, Patuxent River, Md.-----	38 19	76 27	19	
Baltimore, Md.-----	39 16	76 35	20	
Diamond Shoal Lightship-----	35 05	75 20	21	
Southport, N. C.-----	33 55	78 01	22	
Charleston, S. C.-----	32 47	79 55	22	
Fort Pulaski, Savannah River, Ga.-----	32 02	80 54	24	
Fernandina, Fla.-----	30 41	81 28	25	
Mayport, Fla.-----	30 24	81 26	25	
Flagler Beach, Fla.-----	29 29	81 08	25	
Daytona Beach (Ocean), Fla.-----	29 14	81 00	26	
Daytona Beach (Halifax River), Fla.-----	29 13	81 01	27	
Canova Beach, Fla.-----	28 08	80 35	27	
Palm Beach, Fla.-----	26 43	80 02	27	
Miami Beach, Fla.-----	25 46	80 08	28	
Key West, Fla.-----	24 33	81 48	29	
Cedar Keys, Fla.-----	29 08	83 02	30	
Pensacola, Fla.-----	30 24	87 13	31	
Eugene Island, La.-----	29 22	91 23	32	
Galveston, Tex.-----	29 19	94 48	33	
Port Isabel, Tex.-----	26 04	97 13	34	
Ivigut, Greenland-----	61 12	48 11	34	
Ferry Reach, St. Georges I., Bermuda-----	32 22	64 42	35	
Cristobal, Canal Zone-----	9 21	79 54	35	
Balboa, Canal Zone-----	8 57	79 34	35	

## INTRODUCTION

The monthly and yearly mean and extreme surface water temperatures given on the following pages are obtained from observations made through 1946. The data were recorded principally at tide stations maintained by the U. S. Coast and Geodetic Survey along the Atlantic and Gulf coasts of the United States and in Greenland and Bermuda. There are also included monthly mean and extreme temperatures for Balboa and Cristobal which were furnished by the Department of Operation and Maintenance, The Panama Canal.

The daily temperature observations are taken at whatever time the tide observer services the tide gage. The visits are usually made during daylight hours, and it may be assumed that in the course of a year the distribution of the observations is fairly uniform over all phases of the tide. The water samples are drawn with a bucket from near the surface and may be regarded as representative of the first one or two feet of water. Thermometer readings are made in the bucket immediately after the sample has been drawn and before it has become affected appreciably by the temperature of the surrounding air. When ice has prevented the observation of water temperatures at some North Atlantic stations, temperatures based on the freezing point of water at each station have been inferred and used in computing monthly means.

Recording thermometers, recently installed at a few stations, give continuous records of the temperatures of the water a foot or two below extreme low water.

An expectancy range table is included for each station for which there are five or more years of observations. The table shows the percentage of the individual temperature readings which agree with the monthly means within the indicated limits. Graphs showing mean temperature variations during the month and year and monthly extreme temperatures are also included for these places. The unusual shape of the temperature curve for Daytona Beach reflects the upwelling which occurs along this section of the coast during the summer months.

All temperatures in this publication are given in degrees Fahrenheit. A table for converting into degrees centigrade is provided on the inside back cover.

The following publications complete this series and may be obtained from the Director, U. S. Coast and Geodetic Survey, Washington (25), D. C.:

- TW-2. Surface Water Temperatures, Pacific Coast.
- DW-1. Density of Sea Water, Atlantic and Gulf Coasts.
- DW-2. Density of Sea Water, Pacific Ocean.

Surface Water Temperatures

EASTPORT, ME.

Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
1930	36.3	33.6	34.5	37.8	41.5	45.1	51.8	54.5	53.1	52.5	48.7	43.2	44.4	57	32
1931	37.9	34.3	35.2	37.6	40.6	45.1	48.7	51.6	52.3	50.2	48.4	43.9	43.8	54	34
1932	39.6	36.0	34.7	36.9	39.6	43.9	48.0	51.6	52.5	52.2	47.7	42.3	43.8	54	34
1933	39.6	37.4	36.5	37.9	41.0	45.1	48.6	50.7	--	50.4	45.1	39.2	--	52	35
1934	34.2	30.7	32.4	35.8	39.9	43.9	48.9	50.7	52.0	51.4	47.3	43.0	42.5	54	28
1935	34.5	31.6	32.2	34.9	39.2	43.9	48.2	51.6	51.6	50.0	47.8	42.1	42.3	53	30
1936	37.8	34.7	35.8	37.8	41.2	45.3	48.4	51.8	52.0	50.7	46.6	41.5	43.6	53	33
1937	38.3	35.8	35.8	38.1	42.3	46.0	49.8	52.9	53.1	50.9	48.0	43.3	44.5	55	35
1938	37.9	34.9	34.2	36.9	39.9	44.6	48.7	51.8	51.4	50.9	48.4	42.1	43.5	54	33
1939	38.5	34.9	33.6	35.4	39.4	43.9	48.7	51.4	52.0	50.2	45.7	41.2	42.9	54	32
1940	36.0	33.3	32.9	35.8	38.7	43.2	46.8	49.8	50.4	48.2	45.7	40.8	41.8	52	31
1941	36.5	33.8	33.4	36.1	39.7	43.3	47.3	49.3	50.2	48.7	45.9	41.0	42.1	51	32
1942	36.5	33.1	34.2	36.5	39.9	43.5	47.3	49.6	50.4	49.3	46.0	39.7	42.2	52	32
1943	34.3	32.4	31.6	34.3	38.3	43.3	47.3	50.5	51.4	50.5	47.5	42.4	42.0	52	30
1944	37.6	34.2	33.3	35.6	39.4	44.1	47.8	51.4	52.9	51.1	47.1	43.2	43.1	54	32
1945	37.2	35.4	36.0	37.9	40.8	44.2	48.9	51.8	52.3	50.4	46.6	41.2	43.6	54	34
1946	36.5	32.5	34.5	37.2	40.5	43.9	48.6	51.3	52.5	52.3	49.1	44.2	43.6	53	30
Means	37.0	34.0	34.2	36.6	40.1	44.3	48.5	51.3	51.9	50.5	47.2	42.0	43.1		
Max.	41	38	41	41	45	49	54	57	54	54	52	47		57	
Min.	30	28	30	33	36	40	44	48	49	46	41	35			28

Expectancy Range

Limits Referred to Means	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%
± 2	63	75	76	83	79	79	75	82	95	85	76	65		78
± 4	94	97	99	100	99	99	96	99	100	99	98	93		98
± 6	99	100	99	100	100	100	100	100	100	100	100	99		100

## PULPIT HARBOR, NORTH HAVEN I., ME.

Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F			
1945	--	--	--	--	--	--	--	63.4	59.2	52.5	47.3	37.0	--	70	--
1946	33.6	29.8	--	40.5	46.9	53.2	59.9	60.3	58.6	54.3	48.7	42.1	--	63	29

## PORTLAND, ME.

Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F			
1922	*32.0	*32.0	35.8	41.0	47.8	--	59.2	59.7	57.0	51.1	42.8	34.9	--	63	--
1923	*31.0	*31.0	*31.0	36.1	46.0	52.7	55.9	56.7	57.4	52.0	45.3	41.2	44.7	62	--
1924	34.9	33.8	34.2	38.8	45.1	50.2	56.7	57.7	56.5	52.2	44.8	36.5	45.1	61	34
1925	*32.0	*32.0	35.2	42.3	47.1	53.8	58.3	60.3	57.7	49.8	43.0	37.4	45.8	62	--
1926	33.6	*31.0	*32.0	37.2	45.1	51.4	58.1	59.9	57.9	52.7	45.5	38.3	45.2	61	--
1927	33.4	*31.0	34.2	41.0	47.7	54.7	58.8	58.1	57.4	52.9	46.8	36.9	46.1	61	--
1928	33.8	33.1	37.0	39.2	--	--	--	--	--	--	--	38.1	--	--	32
1929	34.9	32.5	34.7	38.7	--	--	58.6	58.5	58.1	52.9	45.9	36.1	--	60	32
1930	*31.0	--	34.7	39.9	48.6	57.2	60.1	60.6	60.3	54.0	44.3	34.2	--	64	--
1931	*31.0	*31.0	36.3	42.6	52.3	56.5	61.5	60.6	59.4	52.9	46.9	39.9	47.6	63	--
1932	34.3	*31.0	35.1	40.8	48.6	57.4	60.6	61.7	58.6	52.2	44.6	41.0	47.2	63	--
1933	38.8	36.3	35.6	41.4	48.9	56.8	60.8	63.0	58.8	53.4	43.3	34.7	47.6	64	32
1934	--	--	*31.0	40.1	49.6	55.8	58.6	58.6	57.9	--	--	--	--	61	--
1935	--	*31.0	35.1	39.7	--	--	62.2	61.9	59.7	53.4	48.4	37.4	--	66	--
1936	*32.0	*31.0	36.9	40.3	45.0	53.1	58.6	59.9	56.5	51.1	--	36.0	--	63	--
1937	35.2	33.8	35.4	40.6	47.8	56.5	62.1	63.3	58.3	51.4	44.6	36.7	47.1	65	32
1938	32.9	33.3	35.1	42.8	47.8	55.6	59.4	61.9	56.7	52.9	45.7	37.6	46.8	64	--
1939	33.3	*31.0	33.4	37.6	45.5	52.7	58.3	60.8	56.5	50.2	41.2	36.0	44.7	63	--



1940	*31.0	*31.0	32.7	37.4	46.2	53.2	58.1	59.7	56.7	49.5	42.8	34.5	44.4	64	--
1941	*31.0	*31.0	33.4	41.5	48.6	54.3	59.4	58.5	56.1	51.1	44.2	36.9	45.5	62	--
1942	32.5	*31.0	34.7	40.5	48.7	56.5	59.5	59.7	56.7	51.6	44.4	35.4	45.9	63	--
1943	*31.0	*31.0	*32.0	37.8	46.6	55.0	60.1	60.4	57.9	51.6	45.0	36.1	45.4	67	--
1944	32.9	30.9	33.8	39.0	48.7	55.6	60.6	62.1	57.7	50.7	42.1	34.7	45.7	66	28
1945	30.6	30.0	35.6	41.2	46.0	54.7	59.7	60.4	59.4	50.9	44.8	35.6	45.7	63	28
1946	--	--	--	--	49.8	55.2	60.6	62.4	61.0	55.0	49.1	42.3	--	65	--
Means	32.9	31.8	34.4	39.9	47.6	54.7	59.4	60.3	57.9	52.0	44.8	37.0	46.1	67	28
Max.	42	37	42	50	55	64	66	67	65	59	54	46			
Min.	28	28	30	32	40	47	53	54	50	42	36	30			

\* All temperatures of 32° or below were recorded as 32°. For months during which all or most of the daily observations were recorded as 32°, a mean of 31.0° has been inferred. For months during which about half of the daily observations were recorded as 32°, a mean of 32.0° has been inferred.

Expectancy Range

Limits Referred to Means	Expectancy Range												Average		
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.			
°F	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
± 2	--	--	62	54	44	43	62	67	64	51	50	48	--	--	--
± 4	--	--	92	86	75	74	90	94	90	83	80	76	--	--	--
± 6	--	--	99	97	93	91	99	99	99	95	94	95	--	--	--
± 8	--	--	100	100	100	97	100	100	100	99	99	99	--	--	--

PORTSMOUTH, N. H.

Means and Extremes

Year	Means and Extremes												Max.	Min.	
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.			
1944	34.0	33.8	34.5	40.3	49.8	54.0	59.4	62.2	57.4	51.8	45.1	37.9	46.7	67	30
1945	33.1	32.5	37.8	43.7	48.0	55.0	57.9	61.0	60.1	50.7	45.5	36.9	46.8	64	29
1946	34.5	31.6	36.1	41.5	47.3	52.9	58.6	62.1	60.1	52.7	48.2	40.1	47.1	65	30
Means	33.9	32.6	36.1	41.8	48.4	54.0	58.6	61.8	59.2	51.7	46.3	38.3	46.9	67	29
Max.	38	34	43	46	52	64	63	67	63	56	52	44			
Min.	29	30	31	37	43	46	50	53	54	46	40	33			

## BOSTON, MASS.

## Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
1922	31.3	32.5	37.4	44.1	54.3	60.1	64.4	64.6	61.5	54.5	44.6	35.8	48.2	70	29
1923	31.5	30.2	33.1	40.6	51.1	60.4	61.0	61.5	61.5	55.2	47.7	42.4	48.0	68	29
1924	35.4	31.6	35.8	43.0	49.1	57.0	61.9	63.1	60.4	53.2	46.6	36.7	47.8	68	30
1925	30.2	34.0	38.3	45.9	51.4	60.4	63.0	66.6	63.1	51.8	44.6	38.7	49.0	70	29
1926	32.9	31.1	34.2	39.9	49.6	57.2	63.9	67.3	62.2	55.0	47.3	35.4	48.0	70	29
1927	32.7	33.3	37.9	43.3	50.9	57.2	63.3	61.0	61.5	55.6	49.3	39.9	48.8	68	29
1928	35.8	32.9	36.0	42.4	50.4	57.7	63.5	67.3	63.0	55.8	46.6	40.1	49.3	71	30
1929	34.5	33.6	37.6	43.5	50.0	61.5	62.1	61.9	63.3	55.6	47.3	36.1	48.9	67	32
1930	36.3	33.6	37.8	43.0	52.7	59.7	63.0	65.1	65.7	55.4	48.4	39.2	50.0	68	31
1931	34.7	33.1	38.3	45.5	50.9	61.0	65.1	65.5	64.4	57.0	49.3	40.6	50.4	69	30
1932	38.5	34.9	36.0	43.7	52.9	59.2	61.0	63.1	61.9	55.6	47.7	39.4	49.5	65	32
1933	38.7	35.8	36.3	43.7	53.1	59.5	64.8	66.9	63.0	56.1	44.6	36.3	49.9	70	30
1934	32.7	29.8	33.4	43.7	49.1	61.3	64.4	62.8	63.3	55.6	47.1	38.3	48.5	65	29
1935	32.0	31.3	36.1	41.9	49.6	57.9	64.0	66.4	61.9	55.0	49.6	37.9	48.6	69	29
1936	33.3	29.8	37.4	43.0	51.8	60.6	66.0	63.9	61.5	54.7	44.4	37.2	48.6	69	29
1937	39.0	36.7	36.7	43.3	52.2	60.4	66.6	64.0	62.1	55.0	46.8	38.8	50.1	69	35
1938	34.3	35.2	38.1	45.1	52.7	58.5	63.9	64.4	60.3	55.0	47.1	39.9	49.5	73	31
1939	34.7	33.8	36.5	42.8	52.0	60.6	63.1	66.7	63.3	55.8	44.4	38.3	49.3	70	31
1940	31.5	31.5	34.3	41.7	51.8	58.5	63.1	64.2	62.8	54.5	46.0	38.3	48.2	69	29
1941	34.0	33.1	34.7	46.2	54.5	62.1	62.1	64.8	61.2	55.2	48.2	39.9	49.7	68	30
1942	33.3	31.5	38.8	45.5	54.3	61.7	64.8	67.1	63.7	57.6	47.1	35.8	50.1	72	28
1943	31.8	32.7	36.0	42.1	53.8	61.5	66.6	66.6	65.3	57.2	48.2	37.2	49.8	72	30
1944	34.5	34.3	37.6	44.2	57.0	61.5	--	68.9	64.0	56.7	47.7	39.0	--	75	31
1945	32.5	33.3	42.4	49.8	53.6	61.3	66.2	67.1	65.7	55.8	49.5	37.6	51.2	71	28
1946	36.0	33.7	42.3	45.5	53.6	60.4	64.4	68.0	66.2	59.0	52.2	41.9	51.9	72	31
Means	34.1	32.9	36.9	43.7	52.1	59.9	63.8	65.2	62.9	55.5	47.3	38.4	49.4	75	
Max.	41	38	48	54	63	70	72	75	70	64	58	47			
Min.	28	28	30	32	44	50	57	56	55	46	37	30			28

Expectancy Range

Limits Referred to Means	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
	%	%	%	%	%	%	%	%	%	%	%	%	%
± 2	45	62	46	46	42	51	53	50	56	40	47	49	49
± 4	83	92	80	79	74	79	84	81	87	72	77	77	80
± 6	97	100	94	94	92	93	98	96	98	92	91	92	95
± 8	100	100	98	98	99	99	100	99	100	98	98	99	99

WOODS HOLE, MASS.

Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
1944	°F --	°F --	°F 35.4	°F 42.1	°F 59.2	°F 63.1	°F 70.0	°F 71.8	°F 68.2	°F 59.2	°F 48.0	°F 38.1	°F --	°F 76	°F --
1945	°F 32.4	°F 30.6	°F 37.9	°F 48.0	°F 54.5	°F 62.4	°F 70.7	°F 70.7	°F 68.5	°F 59.0	°F 50.5	°F 37.6	°F 51.9	°F 73	°F 27
1946	°F 32.9	°F 31.9	°F 39.0	°F 45.3	°F 53.1	°F 61.9	°F 68.4	°F 68.5	°F 66.2	°F 61.2	°F 53.6	°F 42.8	°F 52.1	°F 71	°F 29
Means	°F 32.6	°F 31.2	°F 37.4	°F 45.1	°F 55.6	°F 62.5	°F 69.7	°F 70.3	°F 67.6	°F 59.8	°F 50.7	°F 39.5	°F 51.8	°F 76	°F 27
Max.	45	36	45	51	61	69	74	76	72	65	60	46			
Min.	28	27	32	38	47	56	66	66	64	51	43	30			

NANTUCKET SHOALS LIGHTSHIP

Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
1923	°F --	°F --	°F --	°F --	°F --	°F --	°F --	°F --	°F --	°F --	°F --	°F --	°F --	°F --	°F --
1924	°F 41.5	°F 38.3	°F 38.1	°F 40.3	°F 43.3	°F 49.8	°F 55.4	°F 59.5	°F 58.5	°F 56.6	°F 51.4	°F 44.2	°F 48.1	°F 69	°F 36
1925	°F 40.5	°F 39.4	°F 39.2	°F 42.8	°F 46.6	°F 51.8	°F 54.7	°F --	°F --	°F --	°F --	°F --	°F --	°F --	°F 37
Means	°F 41.0	°F 38.9	°F 38.6	°F 41.6	°F 44.9	°F 50.8	°F 55.1	°F 59.5	°F 58.5	°F 56.6	°F 51.0	°F 46.0	°F 48.5	°F 69	°F 36
Max.	46	43	40	46	52	57	66	69	63	61	54	52			
Min.	36	36	37	37	42	46	49	53	55	52	46	39			

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
1932	40.5	37.2	36.0	44.4	54.9	61.7	67.8	72.1	69.6	60.3	48.7	39.2	52.7	81	32
1933	38.5	35.6	36.0	43.0	53.1	60.1	64.8	69.4	67.5	60.3	45.0	38.3	51.0	72	32
1934	34.5	*29.7	32.7	41.0	49.8	62.2	66.2	68.0	67.6	63.7	50.0	38.5	50.3	71	29
1935	34.5	*30.4	35.4	41.4	51.1	59.2	65.7	71.4	68.5	58.5	52.7	37.2	50.5	72	29
1936	*32.5	*29.5	*35.6	41.4	54.5	61.9	68.2	71.4	68.7	62.1	48.0	38.8	51.0	76	29
1937	38.7	34.9	36.1	43.7	52.9	63.1	68.2	70.7	67.6	59.0	49.3	39.7	52.0	73	32
1938	35.4	35.1	37.0	44.2	53.2	62.4	68.0	71.2	--	60.4	53.1	41.2	--	73	31
1939	36.0	34.0	36.3	42.8	53.2	62.2	66.7	73.6	70.0	61.7	48.2	40.3	52.1	76	28
1940	32.4	32.2	35.4	41.9	52.9	63.9	68.0	71.6	69.4	59.5	49.6	41.4	51.5	75	32
1941	35.8	33.1	34.9	46.9	54.7	63.1	65.5	74.1	71.6	64.2	53.2	43.7	53.4	77	32
1942	36.0	32.7	39.0	47.5	58.6	65.8	70.5	72.9	71.1	63.1	52.7	38.7	54.0	76	30
1943	33.4	32.7	35.6	41.9	53.4	64.4	68.9	72.1	69.6	59.7	50.5	39.7	51.8	75	28
1944	34.3	33.8	36.3	43.3	55.8	63.3	69.4	72.7	--	--	46.8	38.1	--	81	29
1945	30.9	32.2	40.3	49.1	54.9	63.0	69.8	72.7	70.7	61.9	51.3	35.2	52.7	75	29
1946	*34.5	*32.7	39.6	47.5	55.8	63.0	69.4	72.5	71.4	64.2	56.1	43.9	54.2	74	30
Means	35.2	33.1	36.4	44.0	53.9	62.6	67.8	71.8	69.5	61.3	50.3	39.6	52.1		
Max.	45	41	48	55	66	72	74	81	81	72	63	52		81	
Min.	28	28	29	33	43	54	61	64	61	50	35	30			28

\* A temperature of 29.5°F. has been inferred for those days during the month when ice in bay prevented the taking of observations.

Expectancy Range

Limits Referred to Means	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%
+ 2	48	69	51	34	35	48	50	61	50	34	32	40	46	
+ 4	80	90	83	68	70	80	80	90	83	69	59	70	77	
+ 6	94	97	95	87	87	94	96	99	95	88	78	88	92	
+ 8	99	100	98	96	94	100	100	100	100	97	91	97	98	
+10	100	100	100	98	97	100	100	100	100	99	97	98	99	

# NEW YORK (The Battery), N. Y.

## Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
1927	34.0	35.8	38.5	45.7	53.4	--	--	68.9	68.2	63.5	51.6	42.8	--	71	30
1928	37.4	36.0	38.5	44.8	52.5	62.6	70.0	73.6	68.9	61.0	51.1	43.3	53.3	75	33
1929	37.0	34.7	38.8	45.1	52.9	64.6	70.0	70.7	69.4	59.2	52.2	39.9	52.9	73	33
1930	37.9	36.5	39.7	45.5	56.5	65.3	71.2	73.4	72.5	62.4	51.8	42.4	54.6	77	34
1931	37.2	36.5	39.6	46.4	54.9	64.4	74.3	73.9	72.7	63.7	54.5	46.6	55.4	77	35
1932	42.8	40.6	39.4	45.0	55.2	64.0	70.0	72.5	70.2	61.7	51.4	42.3	54.6	74	37
1933	41.2	38.1	39.0	45.5	55.8	65.8	72.0	73.9	70.2	62.6	49.3	41.2	54.6	76	35
1934	36.5	31.3	34.9	43.5	54.0	64.0	72.1	71.6	71.2	61.9	51.6	42.8	53.0	75	30
1935	36.7	33.4	38.5	44.4	52.9	64.0	72.9	73.4	68.5	59.4	54.0	41.9	53.3	76	30
1936	34.3	30.7	37.4	44.8	55.6	63.7	71.8	71.8	70.2	62.8	50.4	41.5	52.9	75	30
1937	40.6	37.9	39.6	45.7	55.8	67.1	73.4	75.0	70.5	61.2	52.0	43.0	55.2	77	36
1938	38.5	37.9	40.3	48.0	56.8	66.2	72.3	74.3	69.4	61.5	55.0	42.8	55.2	78	35
1939	39.4	37.0	39.2	44.2	55.6	67.5	71.2	77.2	71.4	63.1	49.8	42.4	54.8	79	34
1940	32.5	33.6	36.1	42.8	53.4	64.9	70.0	73.8	69.8	59.9	50.5	42.8	52.5	77	30
1941	37.4	34.9	36.5	46.9	56.3	65.3	72.3	74.8	70.0	63.9	52.9	44.8	54.7	75	32
1942	37.8	34.3	39.9	46.0	58.8	67.3	67.3	73.9	70.9	63.0	52.7	39.9	54.3	77	32
1943	35.4	34.7	36.9	43.3	54.7	67.3	71.2	73.0	70.2	60.8	52.0	41.7	53.4	75	32
1944	36.0	36.5	37.8	43.5	56.1	66.6	71.4	74.1	69.8	61.9	51.1	40.3	53.8	79	34
1945	33.3	33.6	39.2	50.4	55.8	62.6	71.2	73.2	71.1	60.1	52.3	39.4	53.5	76	30
1946	36.5	35.2	40.1	47.8	56.3	64.2	71.4	72.7	71.1	63.7	55.8	45.1	55.0	74	34
Means	37.1	35.5	38.5	45.5	55.1	65.1	71.4	73.3	70.3	61.9	52.1	42.3	54.0	79	30
Max.	44	43	46	54	65	72	77	79	77	72	63	52			
Min.	30	30	30	38	46	55	63	66	64	54	43	35			

### Expectancy Range

Limits Referred to Means	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
	%	%	%	%	%	%	%	%	%	%	%	%	%
± 2	49	60	61	44	41	38	56	67	58	36	38	50	50
± 4	77	85	90	77	73	73	91	92	89	72	72	80	81
± 6	93	98	98	93	91	92	98	99	99	91	91	94	95
± 8	100	100	100	99	98	99	100	100	100	99	99	99	99

## Surface Water Temperatures

## NEW YORK (Fort Hamilton), N. Y.

## Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
1911	37.0	34.0	36.7	43.3	55.4	65.7	71.6	72.0	68.5	60.3	49.3	42.4	53.0	76	30
1912	32.7	31.6	36.3	43.9	54.5	63.0	70.9	69.8	67.6	59.9	50.9	42.4	52.0	76	28
1913	40.5	36.9	40.5	47.8	56.3	64.6	69.3	73.8	67.8	60.8	50.7	43.2	54.4	76	33
1914	34.7	32.9	34.3	42.3	53.8	62.8	69.8	72.3	67.6	60.4	48.0	38.3	51.4	75	28
1915	35.8	34.7	32.5	46.0	55.0	62.6	69.4	71.6	69.6	58.8	48.9	38.8	52.0	76	31
1916	35.4	33.6	32.7	40.8	51.3	60.4	68.9	71.6	67.3	58.3	48.9	39.9	50.8	74	30
1917	35.1	31.1	35.2	42.4	48.7	60.8	67.5	70.5	65.1	56.1	47.1	34.9	49.5	75	28
1918	--	--	35.1	42.1	54.0	60.8	67.1	71.6	67.5	57.6	50.9	42.4	--	73	--
1919	38.3	36.9	40.1	43.7	53.2	64.6	69.1	69.1	67.3	61.5	50.4	38.5	52.7	73	34
1920	31.3	30.4	34.3	41.5	50.7	62.1	66.2	69.3	67.1	57.9	48.0	--	--	72	28
--															
1927	35.1	37.0	39.4	45.3	53.6	61.2	70.5	69.1	68.4	62.6	50.7	43.5	53.0	74	30
1928	38.3	36.7	39.2	45.5	53.2	63.0	72.3	74.7	68.4	61.3	51.3	44.8	54.1	81	35
Means	35.8	34.2	36.4	43.7	53.3	62.6	69.4	71.3	67.7	59.6	49.6	40.8	52.0	81	28
Max.	44	41	46	53	64	70	79	81	77	70	60	49			
Min.	28	28	30	36	46	54	62	64	58	50	41	28			

## Expectancy Range

Limits Referred to Means	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%
°F														
± 2	53	42	38	40	35	46	50	56	52	47	39	31	31	44
± 4	81	81	74	72	71	79	83	91	82	79	70	62	62	77
± 6	94	97	95	91	89	94	95	99	95	95	91	85	85	93
± 8	100	100	98	97	97	99	99	100	99	98	98	97	97	98



## ATLANTIC CITY, N. J.

## Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
1912	32.9	32.4	38.5	46.2	54.9	63.1	69.6	68.4	69.3	61.5	52.2	43.7	52.7	76	29
1913	43.2	38.7	43.9	50.0	58.1	65.8	67.6	73.9	69.4	61.9	51.6	43.2	55.6	78	35
1914	36.7	34.7	35.8	46.0	57.0	64.4	70.0	71.6	68.4	63.1	49.3	40.8	53.2	76	29
1915	38.1	38.3	39.6	49.1	57.9	64.2	69.4	74.7	71.2	62.2	51.6	39.2	54.6	80	34
1916	37.2	35.8	36.0	45.3	54.1	63.1	68.5	72.9	69.6	61.0	52.2	40.6	53.0	78	32
1917	37.2	32.7	38.5	46.9	51.8	61.9	67.1	74.5	66.4	58.6	47.5	36.7	51.6	79	30
1918	29.8	32.4	39.4	45.0	54.0	62.4	70.2	72.3	69.4	61.7	51.4	43.0	52.6	79	29
1919	38.1	36.7	42.3	48.4	56.5	67.8	69.4	71.2	70.3	63.7	52.0	41.2	54.8	74	32
1920	32.2	33.3	36.7	46.8	54.7	65.5	64.9	66.9	70.7	61.5	50.9	43.2	52.3	74	29
--															
1923	38.1	33.1	38.7	45.5	55.6	63.9	71.6	72.1	70.3	60.4	49.5	45.5	53.7	78	29
1924	38.3	35.1	38.8	46.2	54.5	64.4	67.6	71.1	66.2	60.3	51.1	40.5	52.8	74	31
1925	36.1	37.4	42.8	49.8	56.5	66.6	69.4	70.7	71.1	57.6	47.8	40.3	53.8	76	28
1926	34.2	34.2	36.9	45.1	55.6	62.4	70.3	73.8	68.9	60.3	50.5	36.9	52.4	78	30
1927	33.4	38.5	40.5	45.0	54.7	63.1	67.3	66.9	70.0	62.8	52.0	42.8	53.1	73	28
1928	36.3	35.6	38.7	45.1	54.3	61.0	66.6	71.3	67.3	61.3	50.0	41.4	52.5	76	32
1929	37.2	35.1	41.2	47.5	54.0	63.5	67.6	69.8	68.5	58.1	51.4	40.1	52.3	75	29
1930	37.6	36.5	40.5	46.2	56.8	63.3	68.9	69.6	72.0	58.3	49.6	39.6	53.2	78	32
1931	35.2	35.6	39.0	46.9	55.0	64.0	70.5	71.8	70.9	63.0	54.5	45.5	54.3	77	32
1932	43.3	39.9	38.7	46.2	54.1	63.1	67.1	69.3	68.4	61.5	51.3	41.5	53.7	76	34
1933	41.5	38.3	39.7	46.4	56.7	66.2	69.8	73.6	71.2	61.7	47.7	40.1	54.4	78	32
1934	37.8	30.4	35.1	45.9	54.1	64.2	70.0	69.4	71.1	60.1	50.2	41.0	52.4	76	29
1935	36.0	35.1	41.5	45.7	54.7	64.9	70.5	74.5	69.4	59.2	53.8	39.9	53.8	79	29
1936	34.5	29.8	40.3	46.6	56.7	65.5	72.1	71.8	66.9	62.6	49.8	41.5	53.2	77	28
1937	42.6	38.7	40.1	46.4	55.9	66.7	73.9	69.1	68.9	59.2	50.4	39.9	54.3	78	33
1938	38.7	39.4	41.7	49.3	58.1	64.2	68.2	68.9	68.7	60.4	54.1	42.4	54.5	78	34
1939	38.1	38.8	41.9	47.5	56.1	65.5	67.5	76.1	71.6	62.4	49.1	41.4	54.7	80	32



1940	31.3	33.6	36.9	44.4	53.1	64.9	68.7	73.4	70.0	57.7	49.8	41.9	52.1	79.	29
1941	37.6	35.1	37.4	48.7	57.4	64.0	67.6	70.2	66.4	63.5	52.9	43.9	53.7	77	29
1942	35.8	33.6	40.5	47.8	58.1	68.4	72.3	72.3	70.9	61.7	52.0	39.0	54.4	79	30
1943	35.6	36.3	38.8	45.1	56.3	64.9	68.4	65.8	68.2	59.0	50.0	39.2	52.3	75	30
1944	37.4	37.2	39.6	46.6	56.8	66.4	67.3	68.5	67.3	60.1	49.8	39.2	53.0	76	34
1945	34.2	34.3	43.0	52.0	57.0	64.8	72.3	73.4	72.0	61.0	54.1	40.3	54.9	78	30
1946	36.8	36.3	44.2	50.0	57.7	64.2	70.9	73.6	70.7	63.8	55.9	43.9	55.7	76	32
Means	36.8	35.5	39.6	47.0	55.7	64.5	69.2	71.3	69.5	60.9	51.1	41.2	53.5		
Max.	46	43	51	61	67	74	79	80	77	72	64	53		80	
Min.	28	28	29	36	44	54	55	57	58	46	38	28			28

## Expectancy Range

Limits Referred to Means	Expectancy Range												Average		
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Dec.	Dec.	%
± 2	39	47	46	44	41	34	38	43	47	40	34	38	38	41	
± 4	69	77	75	76	73	65	68	72	81	72	66	67	67	72	
± 6	86	96	91	93	90	85	87	88	95	88	83	87	87	89	
± 8	99	100	98	99	98	96	95	96	99	96	94	96	96	97	
± 10	100	100	100	100	99	100	99	99	100	99	99	99	99	100	

## BREAKWATER HARBOR, DEL.

## Means and Extremes

Year	Means and Extremes												Max.	Min.	
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Dec.	%	%
1919	39.6	38.5	44.3	48.0	59.7	67.5	73.2	72.0	69.3	64.8	51.4	40.1	55.7	79	32
1920	--	--	--	--	--	67.5	72.0	70.9	--	61.9	48.6	41.7	--	76	--
1921	37.4	36.5	48.6	53.2	58.3	67.8	74.5	71.4	72.5	60.8	53.4	42.8	56.4	79	32
1922	34.9	35.6	--	49.6	58.6	69.1	73.4	73.9	70.3	63.5	51.1	40.6	--	79	28
1923	38.3	34.0	40.1	46.4	--	--	--	--	--	--	--	--	--	--	32
Means	37.5	36.2	44.3	49.3	58.9	68.0	73.3	72.1	70.7	62.7	51.1	41.3	55.4	79	
Max.	46	46	61	58	66	76	79	79	77	72	59	54			
Min.	28	32	34	36	50	61	66	66	66	50	41	32			28

## Surface Water Temperatures

## PHILADELPHIA, PA.

## Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
1923	34.5	32.5	36.7	49.6	60.3	74.5	77.7	77.0	74.1	63.0	49.3	42.4	56.0	80	32
1924	34.7	33.4	39.2	49.1	58.5	--	76.3	77.9	70.3	58.6	50.7	37.9	--	81	32
1925	33.3	37.2	43.5	54.3	61.9	74.8	78.6	76.3	72.9	57.2	45.5	39.0	56.2	80	30
1926	33.3	33.4	37.8	47.1	62.4	69.6	77.7	77.7	71.2	60.6	46.8	34.7	54.4	82	30
1927	33.3	37.0	42.3	50.9	60.1	69.4	77.2	74.5	70.3	61.2	48.2	38.8	55.3	82	32
1928	35.2	35.1	40.6	48.2	59.2	68.2	74.1	75.9	68.9	62.6	51.2	41.7	55.1	79	32
1929	35.4	35.8	42.8	51.3	60.6	75.0	78.4	76.6	73.8	58.2	49.6	36.0	56.2	84	32
1930	36.7	36.9	43.2	49.3	66.0	73.8	79.9	78.6	77.2	64.2	52.0	41.2	58.2	84	32
1931	36.1	37.9	41.9	51.4	60.8	73.0	79.7	79.0	77.0	66.9	56.5	45.3	59.8	83	34
1932	42.8	38.5	39.2	48.7	63.1	73.6	78.6	80.2	74.8	60.8	47.1	37.9	57.1	82	35
1933	40.1	37.4	40.5	50.7	63.7	76.1	78.6	77.9	68.9	61.9	45.0	38.3	56.6	84	33
1934	35.6	32.7	37.8	50.7	65.3	76.3	82.4	78.6	72.1	59.7	48.6	39.4	56.6	86	33
1935	34.3	34.5	42.8	49.8	61.7	73.8	79.9	79.7	70.7	63.1	52.0	37.8	56.7	83	32
1936	34.5	32.9	43.0	50.7	68.4	73.8	79.7	81.0	75.2	64.9	48.9	39.4	57.7	85	33
1937	41.4	38.1	40.5	50.2	64.0	76.1	79.2	79.9	72.1	60.6	48.7	38.5	57.4	84	35
1938	35.8	37.9	43.9	54.5	65.1	73.0	76.5	79.9	70.2	61.3	52.5	39.6	57.5	82	32
1939	36.7	37.2	42.3	49.5	64.4	76.2	78.8	82.0	74.3	64.0	47.8	41.7	58.0	86	32
1940	32.9	35.1	37.9	44.4	62.4	72.9	77.7	78.4	70.2	60.3	48.2	39.7	55.0	90	32
1941	35.8	35.1	38.8	55.4	66.9	72.9	79.2	79.0	75.6	68.4	55.0	44.6	58.9	82	33
1942	36.0	35.4	43.5	52.9	67.1	74.3	79.7	77.0	74.7	59.5	49.6	36.5	57.2	83	32
1943	35.2	36.9	41.2	49.6	62.2	75.9	79.9	81.1	73.4	61.9	48.4	39.9	57.1	84	32
1944	36.7	38.7	40.5	48.6	68.4	75.7	81.9	80.6	74.5	63.7	52.9	37.8	58.3	85	34
1945	33.8	36.3	45.1	59.2	61.0	70.9	76.3	74.3	72.3	59.9	50.8	37.4	56.4	81	33
1946	36.5	36.9	44.2	55.0	63.3	68.2	78.6	76.6	74.5	65.3	57.6	44.8	58.5	82	33
Means	35.9	36.0	41.2	50.9	63.2	73.4	78.6	78.3	72.9	62.0	50.1	39.6	56.8	90	
Max.	47	45	57	66	76	83	90	86	82	76	64	53			
Min.	30	32	33	38	47	61	68	67	59	46	36	32			30

## Expectancy Range

Limits Referred to Means	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
	%	%	%	%	%	%	%	%	%	%	%	%	%
°F													
± 2	48	53	37	28	31	37	54	46	37	30	24	38	39
± 4	84	90	64	54	59	69	84	81	70	56	53	67	69
± 6	95	99	84	75	78	86	96	96	91	76	73	90	87
± 8	98	100	94	87	92	94	99	99	97	90	88	97	95
±10	100	100	97	96	98	98	100	100	99	96	95	98	98

OLD POINT COMFORT, VA.  
Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
1943	--	--	--	--	--	--	--	--	--	62.4	53.2	42.4	--	--	--
1944	38.3	42.1	46.4	54.3	70.9	76.3	77.7	75.0	64.8	53.4	40.5	59.9	59.9	82	36
1945	38.1	39.7	51.3	60.8	65.5	74.5	78.8	77.2	65.7	57.9	--	--	--	83	34
Means	38.2	40.9	48.8	57.5	68.2	75.4	78.6	76.1	64.3	54.8	41.5	60.2	60.2	83	34
Max.	43	46	58	64	77	81	83	81	72	64	50	60.2	83	83	34
Min.	36	34	43	47	61	66	75	73	57	46	36	36	60.2	83	34

**WASHINGTON, D. C.**  
Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
1944	36.3	37.4	45.3	55.4	74.5	79.7	85.1	83.7	77.5	62.8	51.4	37.4	60.5	88	33
1945	34.7	37.8	51.6	66.0	69.4	79.3	82.2	81.0	77.0	63.3	55.2	39.7	61.4	89	33
1946	38.7	39.7	53.1	59.5	69.6	76.5	84.2	80.6	77.7	67.3	58.6	46.2	62.6	88	34
Means	36.6	38.3	50.0	60.3	71.2	78.5	83.8	81.8	77.4	64.5	55.1	40.8	61.5		
Max.	48	48	64	70	82	89	88	88	85	72	69	51		89	
Min.	33	33	37	46	60	68	77	73	68	52	45	33			33

**CAMBRIDGE, MD.**  
Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
1945	--	--	--	--	--	--	--	80.6	76.1	62.4	54.1	36.3	--	83	--
1946	36.3	37.8	49.6	56.3	66.6	74.8	79.7	77.0	73.8	63.9	55.0	42.4	59.4	84	32

# SOLOMONS ISLAND, PATUXENT RIVER, MD.

## Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
1938	39.4	41.5	46.6	56.1	66.4	74.1	79.7	82.2	72.9	64.4	56.5	43.3	60.3	85	36
1939	39.2	39.2	45.0	--	64.8	76.8	77.5	81.0	75.9	66.2	51.6	--	--	84	34
1940	33.3	33.3	--	46.6	62.1	73.6	78.4	78.1	73.6	62.6	52.7	44.1	--	86	30
1941	39.2	37.0	38.7	53.8	66.7	73.6	79.7	79.9	76.6	69.6	57.2	46.9	59.9	85	35
1942	38.5	36.3	42.8	52.5	66.7	76.5	81.3	80.8	76.8	65.5	54.7	40.5	59.4	87	35
1943	36.7	37.0	41.0	49.1	63.9	77.9	80.8	81.3	73.8	62.2	51.6	41.4	58.1	84	33
1944	36.5	38.3	42.4	51.8	68.7	74.8	79.5	80.2	75.7	64.8	52.7	39.6	58.8	84	34
1945	34.5	35.1	46.9	58.1	62.8	73.9	79.5	80.2	76.6	64.2	55.8	40.5	59.0	85	30
1946	37.2	38.1	47.3	55.0	64.2	72.3	79.2	78.4	73.9	66.6	59.0	46.8	59.8	83	32
Means	37.2	37.3	43.8	52.9	65.1	74.8	79.5	80.2	75.1	65.1	54.6	42.9	59.0	87	
Max.	45	45	58	69	78	83	86	87	82	76	66	54			
Min.	30	30	35	43	53	64	70	74	66	56	44	35			30

## Expectancy Range

Limits Referred to Means	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
	%	%	%	%	%	%	%	%	%	%	%	%	%
°F													
+ 2	52	58	63	76	83	86	87	82	76	66	54		43
+ 4	83	81	82	89	91	91	96	98	94	84	79	61	71
+ 6	96	94	92	96	98	98	100	100	100	100	95	92	87
+ 8	100	100	96	98	95	100	100	100	100	100	98	99	96
+10	100	100	96	98	95	100	100	100	100	100	98	99	99

## Surface Water Temperatures

## BALTIMORE, MD.

## Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
1914	36.5	34.7	37.2	50.9	65.7	74.8	78.4	78.9	72.5	66.0	51.4	40.1	57.2	84	31
1915	36.3	37.2	40.8	54.3	64.8	72.7	79.2	73.4	76.1	65.1	53.1	40.1	58.2	85	33
1916	35.8	36.5	36.1	49.1	63.5	71.6	80.2	80.6	73.8	63.3	53.4	41.9	57.2	84	32
1917	34.7	32.5	39.9	51.8	58.3	73.6	79.3	80.6	71.2	59.7	48.7	37.2	55.6	83	31
1918	31.8	33.4	42.4	50.2	66.4	73.4	75.6	79.7	72.3	63.7	54.0	44.4	57.3	83	31
1919	37.8	38.5	45.3	51.8	63.3	77.0	77.5	77.5	73.2	66.6	54.1	41.4	58.7	81	34
1920	33.1	33.3	39.4	51.6	60.8	71.8	78.1	78.6	74.1	68.0	54.0	43.9	57.2	81	31
1921	37.2	38.3	50.0	59.0	63.3	74.8	81.9	78.6	77.2	64.0	53.2	43.2	60.1	83	33
1922	34.7	35.8	43.2	54.7	66.2	75.9	79.9	77.9	75.6	66.9	54.0	41.7	58.9	83	32
1923	37.4	34.9	40.8	50.5	63.1	75.2	78.3	77.4	74.8	64.9	51.6	46.0	57.9	81	32
1924	36.7	35.2	--	53.4	61.2	70.5	78.3	77.7	70.9	63.7	53.4	41.0	--	81	33
1925	34.5	37.2	43.9	55.0	62.1	77.0	79.5	78.3	77.5	61.2	48.4	41.9	58.0	82	31
1926	34.0	34.3	38.7	48.9	62.6	69.4	78.3	79.5	74.5	65.5	51.6	39.7	56.4	85	32
1927	34.7	37.8	44.8	51.1	61.9	70.3	78.1	76.6	74.1	66.7	52.5	43.5	57.7	83	32
1928	35.6	35.8	41.2	50.9	61.9	70.9	80.4	79.2	72.5	64.2	53.6	43.7	57.5	84	33
1929	37.0	35.2	44.1	54.9	63.9	74.1	78.6	77.7	74.5	62.1	54.5	40.3	58.1	81	32
1930	37.8	38.5	43.9	51.1	65.5	74.7	80.4	79.0	77.9	65.3	52.3	40.6	58.9	84	31
1931	36.0	37.9	41.9	52.9	63.7	73.8	81.1	80.6	78.4	67.8	57.6	48.6	60.0	85	34
1932	44.8	42.1	40.8	51.1	64.6	73.8	78.1	80.6	76.1	64.8	52.5	41.9	59.3	83	36
1933	41.4	38.5	41.7	53.2	64.8	74.8	79.2	79.7	74.5	66.0	50.7	41.2	58.8	84	35
1934	37.6	32.4	37.2	51.4	63.9	75.7	82.8	79.2	74.8	65.3	51.3	43.3	57.9	84	31
1935	36.3	35.1	44.4	50.5	61.5	73.4	82.9	80.6	72.7	63.9	56.5	41.0	58.2	85	32
1936	34.3	32.5	42.8	51.1	67.1	73.9	78.6	80.6	75.9	66.9	53.1	41.4	58.2	83	31
1937	42.6	39.4	41.5	51.1	64.8	77.0	79.2	82.0	74.8	63.0	51.3	41.5	59.0	85	37
1938	38.1	39.2	43.9	54.3	64.4	73.2	80.2	82.0	74.1	65.8	57.2	43.7	59.7	85	36
1939	38.5	38.8	43.7	51.6	64.8	76.3	78.3	82.0	75.6	65.5	51.8	43.9	59.2	85	29

1940	32.9	35.1	38.8	46.4	62.2	73.9	78.1	79.0	73.2	63.1	52.3	43.3	56.7	84	31
1941	38.7	36.5	38.5	55.4	63.7	73.0	80.6	79.3	77.4	68.5	56.1	46.9	59.6	84	34
1942	37.9	35.8	43.9	53.4	67.3	75.2	79.2	78.4	75.7	65.1	52.9	39.6	58.7	82	34
1943	35.1	36.3	41.4	48.7	64.6	77.7	80.4	81.0	73.9	62.8	51.1	42.8	58.0	83	30
1944	37.4	38.5	42.3	50.9	68.9	74.8	81.9	81.7	75.6	63.9	54.3	41.4	59.3	86	35
1945	35.1	36.7	48.7	60.8	63.1	74.3	79.9	79.7	76.8	65.7	55.9	41.9	59.9	84	33
1946	39.0	39.0	49.3	56.5	66.9	74.1	81.0	79.2	77.9	69.4	60.1	49.1	61.8	83	35
Means	36.7	36.5	42.3	52.4	64.0	74.0	79.5	79.4	74.9	65.0	53.3	42.5	58.4	86	
Max.	47	44	61	68	76	83	85	86	83	74	67	54			
Min.	29	31	32	42	52	63	71	72	63	52	42	32			29

## Expectancy Range

Limits Referred to Means	Expectancy Range												Average		
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Dec.	Jan.	
°F	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
+ 2	50	49	33	30	34	40	57	56	41	34	30	39	41	41	41
+ 4	80	83	60	59	61	71	88	91	74	64	58	70	72	72	72
+ 6	94	98	80	80	79	90	97	99	92	85	80	87	88	88	88
+ 8	98	100	91	92	92	98	100	100	98	95	93	95	96	96	96
+10	100	100	96	98	98	100	100	100	100	99	98	99	99	99	99

## DIAMOND SHOAL LIGHTSHIP

## Means and Extremes

Year	Means and Extremes												Max.	Min.	
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	°F	°F	
1923	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
1924	--	--	48.0	55.4	62.8	73.8	78.8	80.4	77.2	74.5	62.4	66.0	--	--	--
1925	60.8	52.0	65.1	63.9	70.7	78.6	81.0	81.3	81.5	74.5	70.9	69.8	66.0	66.7	41
1926	58.1	65.1	57.9	62.4	70.0	76.1	79.5	81.1	79.5	75.4	68.2	55.9	66.7	66.7	86
1927	63.9	56.1	57.2	62.2	72.9	74.7	77.4	79.5	75.9	72.9	66.7	63.7	66.7	66.7	85
1928	60.6	61.9	57.2	62.2	72.9	74.7	77.4	79.5	75.9	72.9	66.7	63.7	66.7	66.7	84
1928	65.5	64.8	64.9	66.6	--	--	--	--	--	--	--	--	--	--	48
Means	61.8	60.0	58.6	62.1	70.0	76.0	79.1	80.4	78.3	73.7	66.8	64.4	69.3	69.3	86
Max.	74	73	75	81	83	85	86	86	85	82	77	76			
Min.	39	43	39	46	55	63	64	68	69	63	54	47			39

## Surface Water Temperatures

## SOUTHPORT, N. C.

## Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F			
1946	--	50.4	57.7	63.7	72.9	78.3	81.3	79.9	77.2	71.1	64.9	55.9	--	84	--

## CHARLESTON, S. C.

## Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F			
1922	49.3	52.0	60.1	69.6	74.8	81.3	84.0	82.0	79.3	71.2	63.9	55.4	68.6	86	44
1923	53.1	52.5	59.9	64.9	73.4	80.4	82.4	82.8	80.2	70.3	57.9	56.1	67.8	86	47
1924	52.2	50.7	53.6	64.6	72.5	82.2	84.0	84.2	78.1	68.5	63.0	53.8	67.3	87	48
1925	51.1	54.5	59.9	66.2	73.9	81.9	84.7	83.3	83.3	73.4	58.8	52.0	68.6	89	45
1926	47.5	52.3	53.8	63.3	72.1	79.7	83.1	85.8	82.9	74.5	60.1	55.8	67.6	88	44
1927	49.3	58.1	59.4	68.2	75.2	81.1	83.1	83.7	81.7	72.3	64.4	54.3	69.2	86	45
1928	48.4	50.7	57.0	66.0	70.7	79.9	82.8	84.0	79.3	74.5	60.3	53.4	67.2	86	44
1929	52.5	51.8	60.4	69.1	74.7	79.3	82.9	83.5	78.6	70.2	63.9	52.0	68.2	86	47
1930	51.4	53.6	56.1	64.8	75.7	78.3	84.0	81.9	82.4	70.0	58.3	50.2	67.2	86	45
1931	47.1	51.6	53.6	63.5	72.5	79.5	85.3	83.1	82.0	73.2	63.5	61.2	68.0	87	45
1932	59.7	60.3	57.0	65.3	74.3	80.1	85.1	82.9	78.8	72.3	62.4	54.5	69.4	88	50
1933	55.9	54.3	58.8	65.7	77.0	81.0	82.4	84.2	83.5	72.7	61.2	57.7	69.5	87	50
1934	53.8	48.9	54.9	64.9	71.6	81.0	84.9	84.2	80.4	73.0	61.7	53.1	67.7	87	45
1935	52.7	49.1	60.1	67.1	75.9	81.7	82.6	83.7	78.3	71.1	66.6	47.1	68.0	87	41
1936	48.6	47.5	57.4	64.4	73.8	79.5	82.9	83.8	81.0	73.4	60.8	51.1	67.0	86	43
1937	59.9	53.6	56.7	64.0	72.7	80.8	82.4	83.1	79.0	67.8	59.7	49.3	67.4	86	46
1938	52.3	53.8	60.8	68.4	75.6	79.5	81.3	84.4	81.0	69.4	64.8	53.2	68.7	86	49
1939	53.1	57.2	61.0	67.5	73.4	82.8	84.4	84.4	80.1	73.2	59.5	53.4	69.2	87	50



1940	45.7	46.8	54.9	63.0	70.5	80.4	82.2	82.6	77.9	68.2	62.8	56.1	65.9	88	40
1941	51.4	49.3	52.2	64.9	72.9	80.2	83.3	83.8	79.9	76.6	64.2	56.8	68.0	87	45
1942	51.3	49.6	57.0	65.1	75.4	82.0	84.7	83.3	79.9	71.1	63.5	52.9	68.0	88	46
1943	51.4	51.6	55.4	63.3	73.4	81.7	83.7	83.3	77.5	68.5	60.3	52.2	66.9	87	46
1944	48.7	54.0	59.2	64.4	74.8	82.6	79.3	78.8	80.2	71.1	60.8	48.7	66.9	85	45
1945	50.4	53.1	64.0	70.0	72.0	79.5	82.4	82.4	81.0	71.2	64.6	50.4	68.4	86	45
1946	50.2	52.7	59.7	66.6	73.8	79.2	82.9	82.4	78.3	71.1	66.2	56.1	68.3	85	47
Means	51.5	52.4	57.7	65.8	73.7	80.6	83.2	83.3	80.2	71.6	62.1	53.5	68.0		
Max.	66	63	70	75	82	87	88	89	88	83	74	65		89	
Min.	41	40	45	56	62	71	78	76	68	59	51	41			40

Expectancy Range

Limits Referred to Means	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
	%	%	%	%	%	%	%	%	%	%	%	%	%
± 2	45	42	34	43	42	61	73	66	42	35	31	39	46
± 4	73	72	63	74	75	89	97	94	78	63	59	68	75
± 6	88	86	83	90	93	99	100	99	94	82	81	86	90
± 8	95	96	94	98	98	100	100	100	99	93	93	96	97
± 10	98	99	99	100	99	100	100	100	100	98	99	99	99

FORT PULASKI, SAVANNAH RIVER, GA.

Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
1940	45.0	47.5	55.8	63.7	72.9	82.0	83.1	82.4	78.8	70.2	63.3	55.2	66.7	88	38
1941	51.4	50.5	53.1	66.4	74.7	81.1	82.6	85.1	81.1	77.7	65.1	57.0	68.8	87	47
1942	50.7	50.5	57.2	66.2	75.6	81.5	85.6	84.6	81.3	72.7	64.8	53.4	68.7	88	46
1943	--	--	58.6	64.8	74.1	--	--	--	--	68.9	60.1	52.5	--	--	--
1944	48.4	55.0	61.5	64.8	74.8	83.7	82.8	82.2	81.0	71.8	61.5	50.0	68.1	89	45
1945	52.3	53.8	65.8	70.7	72.3	81.1	83.3	83.1	81.0	72.7	65.1	50.2	69.3	86	45
1946	51.8	54.1	61.5	68.0	74.5	80.0	82.8	82.0	78.3	71.8	67.7	56.5	69.1	85	48
Means	49.9	51.9	59.1	66.4	74.1	81.9	83.5	83.3	80.3	72.4	63.5	53.8	68.3		
Max.	57	64	77	74	84	88	89	88	86	83	74	64		89	
Min.	38	41	48	57	65	75	78	79	69	64	56	45			38

Expectancy Range

Limits Referred to Means	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%
°F														
+ 2	38	50	22	36	35	68	62	56	44	36	30	34	43	
+ 4	74	84	47	66	64	92	94	94	77	65	56	63	73	
+ 6	88	91	69	87	84	97	100	100	94	81	75	82	87	
+ 8	95	95	86	99	96	100	100	100	97	89	92	92	95	
+10	99	98	94	100	100	100	100	100	98	100	98	99	99	

FERNANDINA, FLA.  
Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
1944	--	--	--	--	--	82.6	82.4	82.8	83.3	73.8	65.3	53.8	--	88	°F --
1945	55.9	59.7	68.4	73.0	75.7	81.9	82.2	83.1	82.0	74.3	67.1	55.6	71.6	86	°F 50
1946	57.4	58.3	63.9	70.5	76.8	81.0	83.3	83.5	80.1	73.8	70.3	61.3	71.7	87	°F 51
Means	56.6	59.0	66.2	71.8	76.2	81.8	82.6	83.1	81.8	74.0	67.6	56.9	71.5		
Max.	64	68	73	79	82	86	86	87	88	82	76	68		88	
Min.	51	53	58	65	68	77	78	79	76	65	58	48			48

MAYPORT, FLA.  
Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
1944	--	--	--	--	--	81.5	82.0	83.1	83.1	74.1	66.0	55.6	--	88	°F --
1945	57.2	60.4	68.4	73.2	75.9	81.1	82.8	84.4	82.6	75.7	67.8	58.6	72.3	91	°F 53
1946	59.0	59.0	63.7	71.1	76.8	80.8	83.8	83.3	81.0	74.8	72.0	62.4	72.3	86	°F 56
Means	58.1	59.7	66.0	72.2	76.4	81.1	82.9	83.6	82.2	74.9	68.6	58.9	72.0		
Max.	64	67	72	78	81	86	88	91	87	82	77	67		91	
Min.	54	54	60	64	72	77	79	80	78	63	58	49			49

FLAGLER BEACH, FLA.  
Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
1946	--	--	--	69.8	75.2	--	80.2	78.6	80.6	74.8	--	64.8	--	82	°F --

Surface Water Temperatures

DAYTONA BEACH (Ocean), FLA.

Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
1925	--	--	--	--	76.6	80.1	77.5	--	83.5	78.6	--	--	--	86	°F
1926	--	62.2	64.9	68.7	76.5	80.4	--	--	--	--	--	--	--	--	--
1927	--	--	--	--	--	--	79.7	75.4	--	75.4	70.3	64.9	--	--	--
1928	58.8	63.7	64.6	69.4	72.3	74.5	75.2	78.3	79.7	77.0	68.7	--	--	86	50
1929	--	--	--	--	--	78.4	79.5	--	--	73.0	72.0	64.6	--	--	--
1930	61.9	59.5	62.1	68.5	75.2	75.7	74.5	76.3	78.8	73.6	--	57.9	--	82	46
1931	54.0	56.7	--	--	72.7	74.8	78.3	76.3	81.3	77.2	71.2	72.1	--	85	50
1932	68.2	67.5	62.8	69.1	--	--	--	--	--	--	--	--	--	--	55
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1939	--	--	--	--	--	--	--	75.7	81.5	77.0	68.0	62.6	--	84	--
1940	55.0	57.9	61.9	68.4	73.0	76.1	80.4	83.3	81.0	75.2	70.3	65.1	70.6	87	50
1941	60.8	58.5	59.5	69.8	74.5	76.6	75.9	74.8	82.0	79.2	72.0	68.0	71.0	84	51
1942	58.8	58.5	62.8	69.3	77.0	79.5	79.0	75.9	81.9	77.0	71.6	66.4	71.5	86	53
1943	63.0	62.6	63.1	70.7	79.3	83.3	80.8	80.2	82.8	75.6	71.6	64.4	73.1	87	54
1944	59.4	66.2	70.2	72.9	78.4	84.2	83.3	80.5	83.2	73.9	70.3	60.8	73.6	87	54
1945	60.6	63.5	71.4	73.4	76.3	77.5	79.2	80.4	81.7	78.4	71.2	62.2	73.0	86	56
1946	63.0	61.7	64.4	71.8	76.5	79.5	82.6	80.8	82.6	77.7	74.6	67.5	73.6	86	57
Means	60.3	61.5	64.3	70.2	75.7	78.5	78.9	78.2	81.7	76.3	71.0	64.7	71.8	87	
Max.	71	72	76	82	85	87	87	87	87	85	78	75			
Min.	50	53	51	62	66	69	66	61	75	68	59	46			46

Expectancy Range

Limits Referred to Means	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
°F	%	%	%	%	%	%	%	%	%	%	%	%	%
± 2	45	34	33	46	49	40	40	34	66	42	44	35	42
± 4	71	62	59	74	80	71	69	64	92	77	73	63	71
± 6	83	84	77	91	95	91	89	85	99	91	89	81	88
± 8	93	93	88	98	98	98	98	93	100	99	98	93	96
± 10	99	98	96	100	100	100	100	97	100	100	99	98	99

DAYTONA BEACH (Halifax River), FLA.

Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
1946	°F --	°F --	°F 71.8	°F 76.1	°F 81.7	°F 83.8	°F 87.3	°F 87.4	°F 84.2	°F 79.5	°F 75.4	°F 68.2	°F --	°F 90	°F --

CANOVA BEACH, FLA.

Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
1946	°F --	°F --	°F 67.3	°F 72.5	°F 73.9	°F 77.7	°F 79.2	°F 76.8	°F 82.4	°F 78.1	°F 76.1	°F 70.7	°F --	°F 84	°F --

PALM BEACH, FLA.

Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
1946	°F --	°F --	°F 75.0	°F 77.4	°F 80.8	°F 82.6	°F 84.6	°F 86.4	°F 84.9	°F 80.8	°F 79.2	°F 76.1	°F --	°F 90	°F --

## Surface Water Temperatures

## MIAMI BEACH, FLA.

## Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
1940	68.7	68.9	71.4	77.5	79.5	84.4	85.6	85.6	82.4	77.7	73.9	73.9	77.5	90	63
1941	69.6	70.0	72.0	74.5	77.2	83.3	84.0	86.4	84.0	80.2	76.1	74.7	77.7	88	65
1942	70.3	69.4	72.7	75.7	81.1	84.7	88.2	86.9	86.0	81.7	76.5	75.0	79.0	90	64
1943	73.6	72.0	73.2	76.6	82.0	86.2	86.0	86.5	84.2	78.3	73.6	71.2	78.6	91	60
1944	68.4	72.3	--	78.3	78.8	84.9	85.6	85.5	85.3	78.8	72.9	69.1	--	89	62
1945	70.0	70.9	75.6	78.4	79.3	83.5	85.3	84.6	82.8	80.0	73.6	70.5	77.9	88	62
1946	70.5	71.4	73.9	78.3	82.0	83.8	86.7	87.8	84.9	80.1	78.1	74.3	79.3	90	65
Means	70.2	70.7	73.1	77.0	80.0	84.4	85.9	86.2	84.2	79.5	75.0	72.7	78.2	91	60
Max.	77	77	79	85	86	90	90	91	89	85	82	79			
Min.	62	62	65	71	72	80	82	82	79	72	67	60			

## Expectancy Range

Limits Referred to Means	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
°F	%	%	%	%	%	%	%	%	%	%	%	%	%
± 2	50	50	43	51	45	73	77	76	66	50	49	50	57
± 4	80	76	78	82	85	95	99	98	95	84	80	78	86
± 6	95	96	97	96	96	100	100	100	100	100	96	94	97
± 8	100	99	100	100	99	100	100	100	100	100	100	98	100

## KEY WEST, FLA.

## Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
1926	73.4	71.6	72.0	79.7	81.5	85.6	88.0	85.8	85.3	81.5	74.3	74.3	79.4	91	66
1927	69.4	76.6	75.2	78.4	83.3	87.3	87.8	88.2	85.8	81.3	74.8	72.0	80.0	92	65
1928	69.1	72.7	75.9	77.4	79.5	86.0	87.1	86.0	84.6	82.0	74.5	71.1	78.8	90	61
1929	71.4	75.4	77.9	80.1	82.9	84.9	85.6	86.7	85.3	78.3	78.1	71.1	79.8	91	63
1930	73.0	72.5	75.0	78.1	82.8	83.3	87.1	88.2	85.8	81.9	73.6	69.4	79.2	90	65
1931	65.8	67.5	69.3	75.9	82.4	84.9	87.1	88.0	85.8	81.0	74.3	77.2	78.3	90	62
1932	73.9	77.7	74.8	77.5	82.6	86.2	88.7	88.0	86.4	82.9	75.2	73.8	80.6	91	68
1933	74.7	76.5	75.6	81.1	83.1	83.8	87.1	86.7	86.4	82.0	73.9	72.5	80.3	91	69
1934	71.4	71.2	73.4	79.0	83.1	84.0	86.0	86.2	84.6	81.7	75.4	72.9	79.1	88	66
1935	71.2	70.5	74.8	80.8	84.0	86.4	85.6	87.3	85.6	80.6	76.5	67.3	79.2	90	62
1936	70.7	70.3	71.4	77.9	80.1	83.3	85.6	84.9	85.6	83.7	76.3	73.6	78.6	90	65
1937	75.4	73.6	75.2	77.4	81.5	85.6	86.4	87.1	85.8	81.9	73.9	70.3	79.5	90	65
1938	71.6	72.1	77.2	77.4	83.5	84.9	86.7	85.3	80.3	80.8	77.7	71.6	79.5	88	63
1939	73.0	75.4	77.0	79.7	82.9	85.1	87.1	86.2	86.5	83.3	73.2	72.1	80.1	89	68
1940	68.0	67.3	72.5	77.9	80.4	86.2	88.2	88.5	84.6	79.0	--	--	--	91	57
1946	--	--	75.0	80.2	84.0	84.4	87.3	87.8	85.8	81.7	79.0	75.0	--	90	--
Means	71.5	72.7	74.5	78.7	82.4	85.1	87.0	86.9	85.6	81.5	75.4	72.3	79.5	92	67
Max.	78	82	83	86	88	90	91	92	91	88	83	80		92	
Min.	57	61	65	71	75	79	81	81	81	74	66	62			57

## Expectancy Range

Limits Referred to Means	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%
+ 2	39	39	35	59	62	65	76	68	81	47	40	42	54	
+ 4	72	65	66	87	88	94	97	95	98	86	74	72	83	
+ 6	90	88	88	96	98	99	100	100	100	98	94	92	95	
+ 8	96	98	98	100	100	100	100	100	100	100	99	98	99	

Surface Water Temperatures

**CEDAR KEYS, FLA.**

Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
1922	57.7	63.1	69.1	76.5	81.3	85.5	85.5	84.0	81.9	75.2	70.5	65.1	74.6	90	48
1923	63.0	63.0	68.7	73.8	78.3	83.1	84.6	86.2	84.0	73.4	62.6	64.8	73.8	90	48
1924	55.0	55.6	58.3	69.6	75.0	84.9	84.0	84.2	79.2	69.1	63.9	58.5	69.8	90	43
1925	59.9	61.3	65.3	71.6	76.5	82.6	82.4	82.9	84.7	75.6	62.6	55.6	71.8	88	41
1926	54.9	60.6	62.2	69.1	75.7	83.1	--	--	--	--	--	--	--	--	50
--	--	--	--	--	--	--	--	--	--	--	--	--	--	90	--
1944	--	--	--	--	81.0	83.1	82.6	83.5	82.9	71.8	65.1	53.4	--	90	--
1945	56.7	62.6	72.9	74.8	75.7	81.9	84.2	83.3	82.0	74.1	66.2	55.6	72.5	86	46
1946	60.4	61.0	67.8	73.9	79.2	82.0	84.2	84.4	82.0	73.9	71.8	62.1	73.6	90	54
Means	58.2	61.0	66.3	72.8	77.8	83.3	83.9	84.1	82.4	73.3	66.1	59.3	72.4	90	41
Max.	71	73	78	82	87	90	90	90	90	86	79	72			
Min.	43	46	46	50	64	77	77	79	73	63	50	41			

Expectancy Range

Limits Referred to Means	Expectancy Range												Average	
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	%	%
°F	%	%	%	%	%	%	%	%	%	%	%	%	%	%
± 2	28	28	29	32	30	54	53	69	50	30	25	18	37	
± 4	49	54	50	63	63	87	89	93	80	53	48	33	64	
± 6	68	71	66	80	82	98	98	99	95	70	64	57	79	
± 8	86	80	80	92	94	100	99	100	99	84	79	77	89	
± 10	95	89	88	97	98	100	100	100	100	100	95	88	95	
± 12	98	97	95	99	99	100	100	100	100	100	100	95	98	



PENSACOLA, FLA.  
Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
	<sup>o</sup> F	<sup>o</sup> F	<sup>o</sup> F	<sup>o</sup> F	<sup>o</sup> F	<sup>o</sup> F	<sup>o</sup> F	<sup>o</sup> F	<sup>o</sup> F	<sup>o</sup> F	<sup>o</sup> F	<sup>o</sup> F	<sup>o</sup> F	<sup>o</sup> F	<sup>o</sup> F
1924	52.5	54.9	58.8	69.4	74.7	83.1	84.6	86.0	81.3	71.2	66.6	57.7	70.1	89	46
1925	56.8	58.8	64.4	72.7	76.1	83.8	84.6	82.9	83.8	75.6	61.7	54.7	71.3	88	45
1926	52.5	57.0	58.3	67.3	74.5	81.5	83.8	85.5	84.4	74.5	61.2	60.6	70.1	89	48
1927	54.7	64.0	63.3	72.1	75.9	81.5	84.9	86.0	82.9	75.4	68.7	56.3	72.1	90	46
1928	52.5	56.7	64.0	68.2	75.7	83.5	86.9	86.5	81.0	77.0	63.3	56.7	71.0	90	43
1929	58.3	57.2	65.7	74.8	79.5	82.4	84.9	85.5	81.1	71.8	65.1	54.5	71.7	89	46
1930	55.6	60.1	61.3	71.4	79.2	81.3	86.5	85.1	82.2	72.5	63.5	54.5	71.0	90	46
1931	52.2	57.6	59.4	67.6	75.7	82.6	85.5	84.4	84.6	76.5	68.5	65.8	71.7	90	47
1932	63.0	66.4	61.9	71.8	77.2	85.3	88.0	86.2	81.0	72.9	61.2	59.4	72.9	90	52
1933	60.4	58.6	64.4	71.6	82.2	82.8	84.7	86.7	86.0	75.6	65.1	64.4	73.5	90	50
1934	60.3	55.4	62.1	72.5	78.3	85.3	86.2	86.2	82.6	76.6	67.5	57.9	72.6	90	50
1935	53.3	58.6	67.1	73.4	80.2	83.7	85.3	85.6	81.5	75.6	67.5	54.1	72.6	90	48
1936	57.0	55.9	66.2	71.1	77.9	84.2	86.7	86.4	84.2	77.2	66.0	58.3	72.6	92	47
1937	66.9	60.4	--	71.8	78.6	83.5	84.9	84.6	81.0	72.0	62.4	56.8	--	87	46
1938	57.2	61.9	69.1	72.5	77.7	82.8	82.9	86.0	82.4	73.9	64.9	55.4	72.2	90	50
1939	59.2	60.1	65.3	70.5	77.5	84.2	86.4	84.6	83.7	76.1	61.9	58.6	72.3	92	50
1940	48.6	51.6	60.8	66.9	75.0	81.7	83.7	84.9	80.1	73.0	63.7	58.5	69.0	90	40
1941	56.5	54.9	57.6	71.1	76.8	82.6	84.9	87.1	82.6	78.8	63.0	59.4	71.3	90	52
1942	52.7	54.7	59.0	67.8	76.6	82.8	85.3	83.7	80.6	74.1	65.7	58.3	70.1	88	45
1943	55.0	57.2	60.8	68.7	78.8	84.6	85.6	85.8	79.7	70.3	59.9	55.9	70.2	90	46
1944	51.8	61.7	64.6	67.3	76.3	84.6	83.1	84.0	81.9	71.6	65.8	53.4	70.5	89	46
1945	55.0	59.0	69.3	72.7	75.4	83.5	83.8	84.4	82.4	73.2	65.8	52.7	71.4	88	45
1946	54.7	56.7	64.9	72.3	76.5	81.1	83.1	83.5	78.6	71.8	68.5	60.8	71.0	88	49
Means	56.2	58.2	63.1	70.7	77.2	83.1	85.1	85.3	82.2	74.2	64.7	57.6	71.5		
Max.	72	73	78	82	87	90	90	92	92	85	76	72		92	
Min.	40	45	48	59	66	75	78	78	71	63	49	45			40

PENSACOLA, FLA. - Continued  
Expectancy Range

Limits Referred to Means	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
	%	%	%	%	%	%	%	%	%	%	%	%	
°F													
± 2	29	34	28	32	39	55	62	64	39	37	30	33	40
± 4	53	58	53	62	72	87	91	91	75	63	52	56	68
± 6	74	78	73	83	91	97	99	98	93	80	74	75	85
± 8	86	90	87	94	98	100	100	100	98	93	87	88	93
±10	92	96	94	98	100	100	100	100	99	98	95	97	97
±12	95	98	97	100	100	100	100	100	100	100	99	99	99

EUGENE ISLAND, LA.

Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Max.	Min.
	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
1944	--	--	--	68.0	73.0	84.0	85.8	85.8	83.8	73.2	65.8	53.4	--	--
1945	51.6	58.6	65.3	70.0	73.9	81.9	83.6	85.1	83.5	72.5	66.7	51.3	88	43
1946	52.7	54.1	63.3	72.5	75.1	81.0	83.7	86.4	81.5	75.4	68.0	59.0	90	46
Means	52.2	56.4	64.3	70.2	75.0	82.3	84.4	85.8	82.9	73.7	66.8	54.6	90	43
Max.	64	69	75	77	84	89	90	90	90	85	79	66		
Min.	46	43	54	58	66	75	81	81	77	65	55	43		

**GALVESTON, TEX.**  
Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F
1922	59.4	60.1	64.0	74.3	80.1	84.4	86.4	87.4	84.9	75.2	68.0	65.1	74.1	92	47
1923	62.8	58.5	62.8	71.1	79.3	86.0	85.5	87.3	82.8	75.4	63.0	61.2	73.0	91	50
1924	51.4	55.9	59.9	69.4	75.4	85.3	87.1	88.9	84.0	76.5	71.1	61.7	72.2	93	39
1925	53.6	59.7	67.6	73.2	78.4	83.0	86.4	86.0	84.6	--	66.2	61.2	--	93	45
1926	56.1	62.6	61.2	68.4	77.5	84.2	86.7	88.2	--	81.5	67.6	69.8	--	91	43
1927	64.0	68.0	--	79.5	84.7	--	88.2	88.5	87.3	83.3	78.1	61.2	--	91	45
1928	63.3	66.6	68.2	69.6	79.5	87.1	89.8	90.7	86.0	81.7	69.4	66.4	76.5	95	50
1929	66.0	61.7	72.9	81.1	84.0	87.1	90.1	93.0	88.7	--	--	--	--	102	50
1930	--	--	67.5	72.9	80.4	83.7	87.8	88.5	83.5	76.1	--	56.5	--	92	--
1931	55.0	61.2	59.9	67.3	75.7	83.5	87.8	85.3	84.9	77.7	71.6	57.9	72.3	90	49
1932	59.9	64.6	60.4	69.8	77.5	82.2	87.8	85.6	82.8	75.0	62.4	55.6	72.0	91	42
1933	59.7	57.2	64.8	71.2	81.0	83.1	84.2	85.8	85.5	77.9	67.3	66.6	73.7	89	50
1934	60.6	58.3	61.2	72.1	77.9	85.1	85.5	87.1	83.5	78.6	70.0	58.6	73.2	90	52
1935	59.0	59.9	--	73.0	77.9	83.3	86.4	86.7	81.3	77.0	65.5	56.5	--	91	44
1936	52.7	50.4	64.4	68.0	77.9	85.1	85.5	86.4	84.0	73.2	60.8	56.1	70.4	90	42
1937	58.8	58.5	60.1	68.0	78.4	85.1	86.5	87.4	84.0	74.1	63.0	54.7	71.6	90	46
1938	55.6	59.5	66.7	68.9	77.0	84.0	85.6	86.2	82.4	76.5	64.2	58.1	72.1	90	51
1939	57.0	57.9	63.3	69.3	78.1	84.0	86.0	86.4	83.8	74.8	62.8	59.9	71.9	91	48
1940	46.2	51.1	60.3	68.0	75.6	82.9	86.2	84.2	81.1	74.5	64.9	59.4	69.5	90	35
1941	57.6	55.8	57.2	68.5	77.4	83.1	85.6	86.4	82.9	80.1	62.8	59.0	71.4	89	46
1942	52.9	55.8	59.7	69.1	77.9	83.8	86.4	86.5	82.4	75.9	69.4	59.4	71.6	90	40
1943	53.8	58.8	60.1	71.8	79.0	84.4	--	--	--	--	63.0	57.0	--	--	46
1944	53.1	61.0	65.5	70.9	75.7	84.9	85.8	86.5	83.1	75.4	67.6	55.4	72.1	90	45
1945	55.0	59.4	67.8	71.4	76.8	83.3	85.5	85.8	84.0	73.9	69.3	55.6	72.3	89	47
1946	54.5	57.2	65.1	72.9	78.3	82.6	84.9	86.4	82.9	75.4	66.4	61.2	72.3	90	47
Means	57.0	59.2	63.5	71.2	78.5	84.2	86.6	87.1	83.9	76.8	66.7	59.8	72.9	102	
Max.	72	77	86	88	90	95	97	102	95	91	86	84			
Min.	35	44	43	49	68	75	79	79	69	64	49	42			35

**GALVESTON, TEX.- Continued**  
Expectancy Range

Limits Referred to Means	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
	%	%	%	%	%	%	%	%	%	%	%	%	%
± 2	26	33	30	33	41	54	62	64	48	36	20	29	40
± 4	51	54	54	60	74	86	90	87	79	59	41	50	65
± 6	67	72	74	75	88	97	97	96	91	76	62	67	80
± 8	81	81	86	82	95	99	99	98	96	87	78	78	88
±10	87	92	93	88	99	100	100	99	98	93	87	89	94
±12	94	97	96	93	100	100	100	100	99	98	94	95	97
±14	96	99	99	96	100	100	100	100	100	100	97	98	99

**PORT ISABEL, TEX.**

Means and Extremes

Year	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.		Max.	Min.			
	°F	%	°F	%	°F	%	°F	%	°F	%	°F	%	°F	%	°F	%	°F	%	°F	%	°F	%	°F	%	°F	°F			
1944	--	--	--	--	73.4	78.1	83.7	85.3	85.5	81.7	76.8	70.3	61.3	--	--	90	--	--	--	90	--	90	--	90	--	90	--		
1945	63.7	65.5	72.1	74.3	77.9	84.6	87.1	86.9	84.5	77.4	73.6	62.2	75.8	91	54	88	88	88	88	88	88	88	88	88	88	88	88	88	
1946	60.6	64.2	69.3	76.1	81.5	83.7	84.9	84.6	84.4	79.9	71.4	66.0	75.6	91	53	88	88	88	88	88	88	88	88	88	88	88	88	88	
Means	62.2	64.8	70.7	74.6	79.2	84.0	85.8	85.7	83.5	78.0	71.8	63.2	75.3	91	53	88	88	88	88	88	88	88	88	88	88	88	88	88	88
Max.	69	70	77	79	87	89	90	91	89	88	79	72	72	91	53	88	88	88	88	88	88	88	88	88	88	88	88	88	88
Min.	53	58	64	62	72	80	81	78	78	65	61	54	54	91	53	88	88	88	88	88	88	88	88	88	88	88	88	88	88

**IVIGTUT, GREENLAND**

Means and Extremes

Year	Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.		Max.	Min.	
	°F	%	°F	%	°F	%	°F	%	°F	%	°F	%	°F	%	°F	%	°F	%	°F	%	°F	%	°F	%	°F	°F	
1945	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	50	--	
1946	32.0	31.8	32.0	32.0	32.5	39.6	44.4	46.8	44.4	39.9	37.4	35.8	33.5	32.0	31.8	32.0	32.5	39.6	44.4	46.8	44.4	39.9	37.4	35.8	33.5	54	29
Means	32.0	31.8	32.0	32.0	32.5	39.6	44.4	46.8	44.4	39.9	37.4	35.8	33.5	32.0	31.8	32.0	32.5	39.6	44.4	46.8	44.4	39.9	37.4	35.8	33.5	54	29
Max.	32.0	31.8	32.0	32.0	32.5	39.6	44.4	46.8	44.4	39.9	37.4	35.8	33.5	32.0	31.8	32.0	32.5	39.6	44.4	46.8	44.4	39.9	37.4	35.8	33.5	54	29
Min.	32.0	31.8	32.0	32.0	32.5	39.6	44.4	46.8	44.4	39.9	37.4	35.8	33.5	32.0	31.8	32.0	32.5	39.6	44.4	46.8	44.4	39.9	37.4	35.8	33.5	54	29

FERRY REACH, ST. GEORGES I., BERMUDA

Means and Extremes

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
1945	°F --	°F --	°F --	°F 71.8	°F 72.3	°F 76.1	°F 81.3	°F 82.9	°F 81.3	°F 76.8	°F 70.5	°F 64.6	°F --	°F 85	°F --
1946	°F 64.9	°F 62.6	°F 67.3	°F 67.6	°F 74.7	°F 79.0	°F 81.5	°F 83.1	°F 82.2	°F 76.6	°F 72.0	°F 67.1	°F 73.2	°F 86	°F 60

CRISTOBAL, CANAL ZONE\*

Means and Extremes

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
Means	°F 80.7	°F 80.5	°F 81.2	°F 82.4	°F 83.2	°F 83.7	°F 83.2	°F 83.1	°F 83.6	°F 83.4	°F 82.3	°F 81.4	°F 82.4	°F	°F
Max.	86	85	86	87	88	88	87	87	88	88	89	86		89	
Min.	75	76	76	77	76	79	79	77	79	74	75	75			74

BALBOA, CANAL ZONE\*

Means and Extremes

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Max.	Min.
Means	°F 78.7	°F 74.8	°F 73.5	°F 76.9	°F 81.7	°F 83.1	°F 82.7	°F 82.7	°F 82.9	°F 82.2	°F 81.3	°F 80.9	°F 80.1	°F	°F
Max.	85	85	84	86	88	89	88	89	88	88	90	86		90	
Min.	67	60	64	66	69	78	76	77	77	77	75	73			60

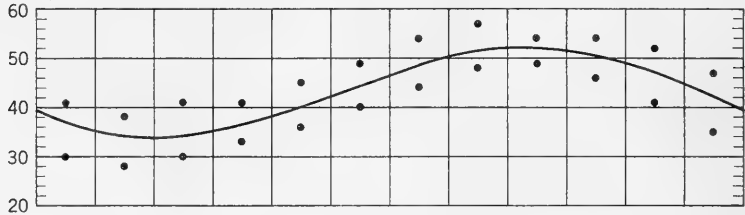
\* Means and extremes are from 39 years (1908-1946) of bihourly readings of recording thermometers. The values were furnished by the Department of Operation and Maintenance, The Panama Canal.

# Surface Water Mean Temperature Curves

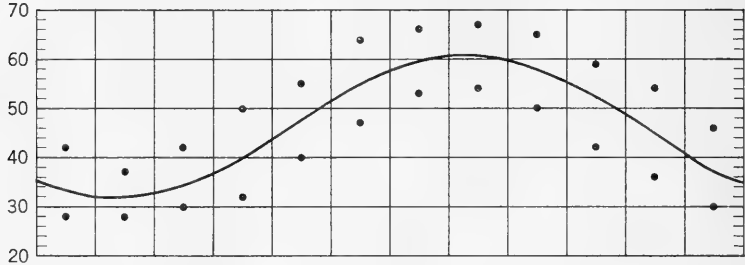
The mean temperatures in degrees Fahrenheit of the surface water during the month and year are shown by the solid lines. The dots indicate the maximum and minimum temperatures observed each month.

°F JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.

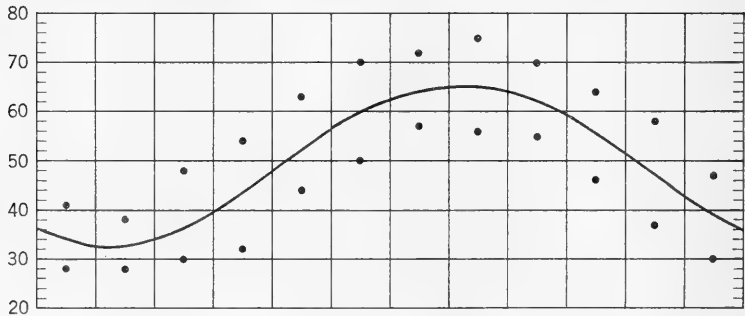
EASTPORT, ME.  
1930 - 1946



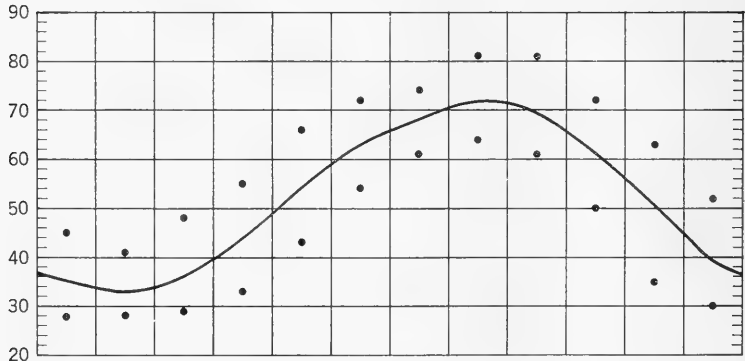
PORTLAND, ME.  
1922 - 1946



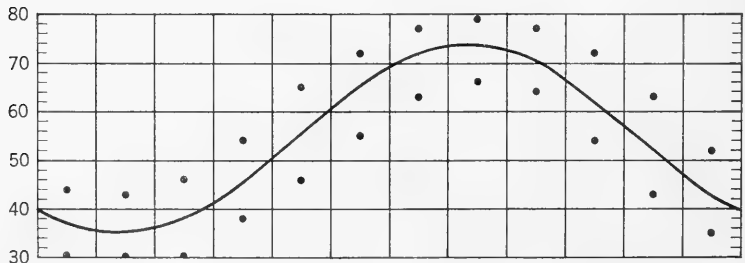
BOSTON, MASS.  
1922 - 1946



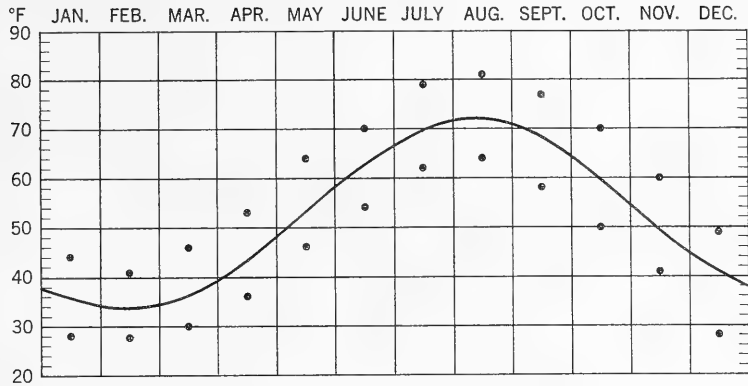
WILLETS POINT, N. Y.  
1932 - 1946



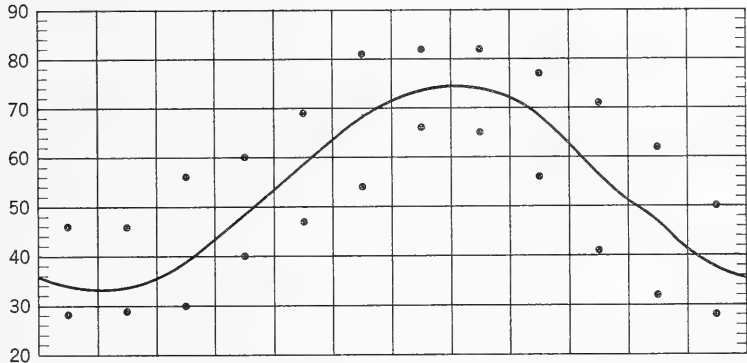
NEW YORK  
(The Battery), N. Y.  
1927 - 1946



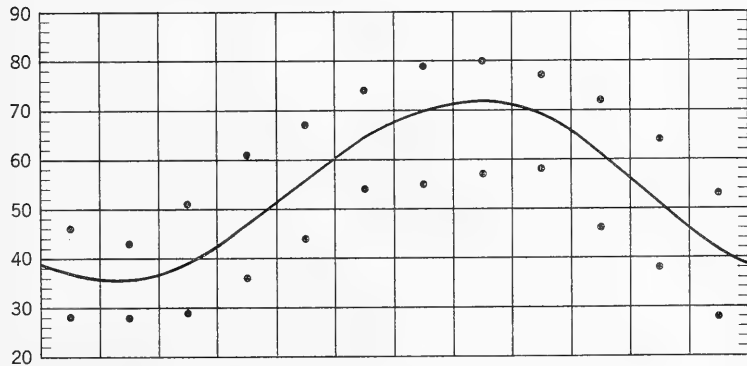
**NEW YORK**  
 (Fort Hamilton), N. Y.  
 1911 - 1920, 1927 - 1928



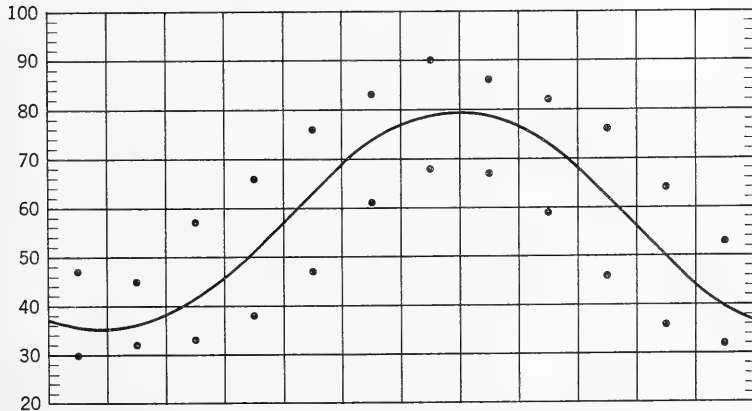
**SANDY HOOK, N. J.**  
 1887 - 1893, 1944 - 1946



**ATLANTIC CITY, N. J.**  
 1912 - 1920, 1923 - 1946

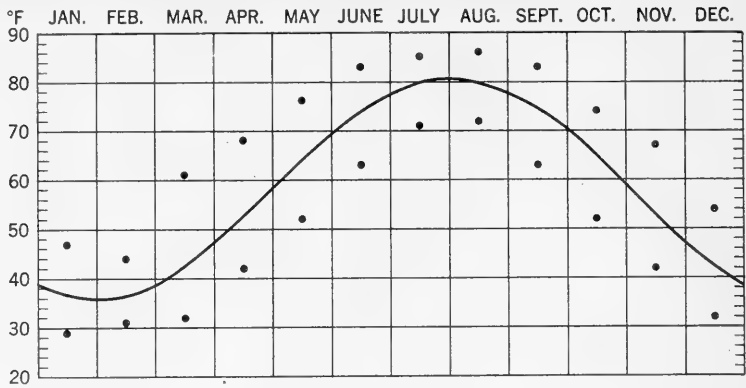


**PHILADELPHIA, PA.**  
 1923 - 1946

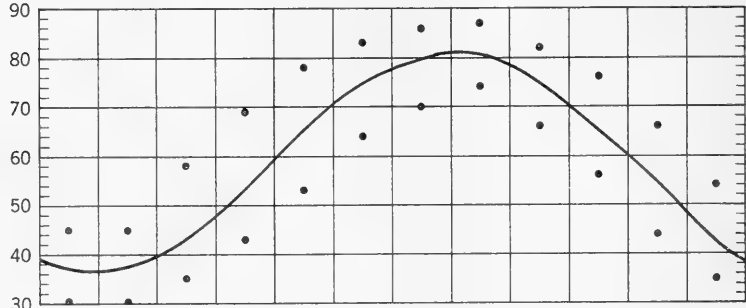


Surface Water Mean Temperature Curves - *Continued*

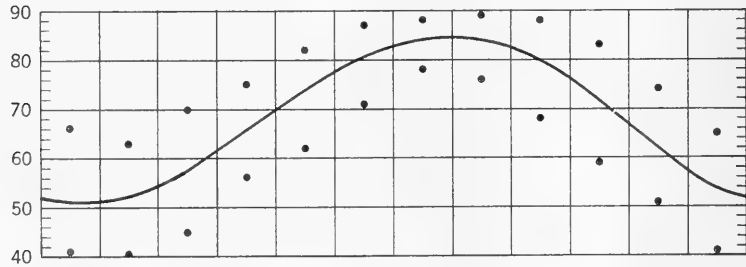
BALTIMORE, MD.  
1914 - 1946



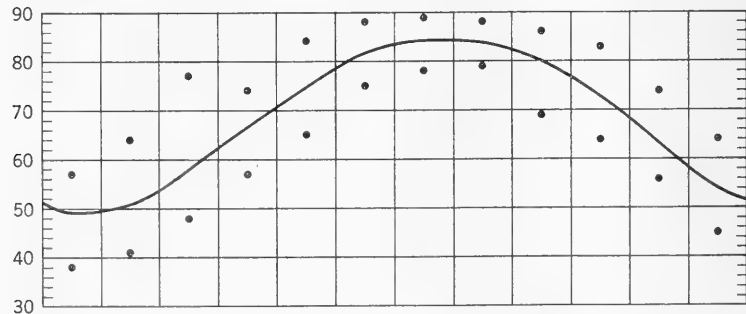
SOLOMONS ISLAND, MD.  
1938 - 1946



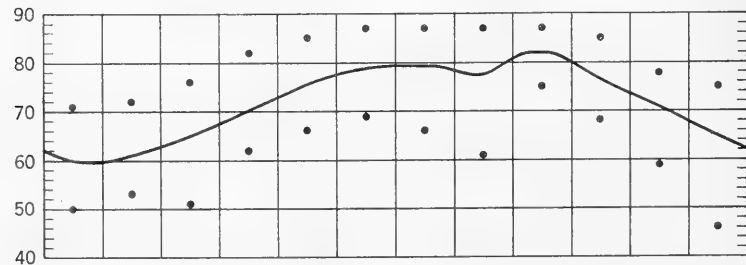
CHARLESTON, S. C.  
1922 - 1946



FORT PULASKI, GA.  
1940 - 1946

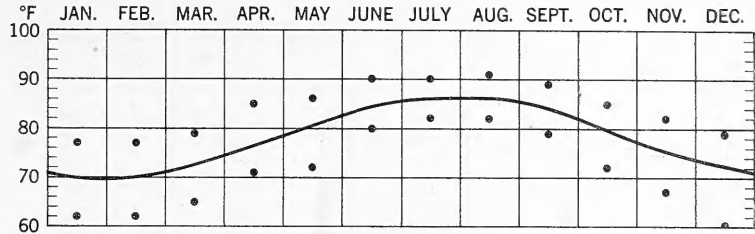


DAYTONA BEACH, FLA.  
1925 - 1932, 1939 - 1946

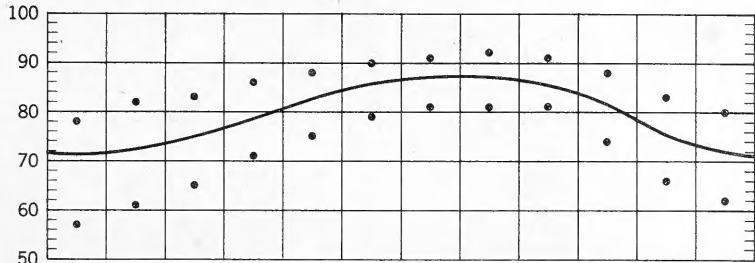




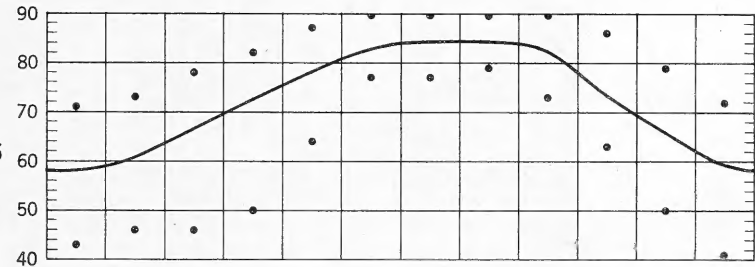
MIAMI BEACH, FLA.  
1940 - 1946



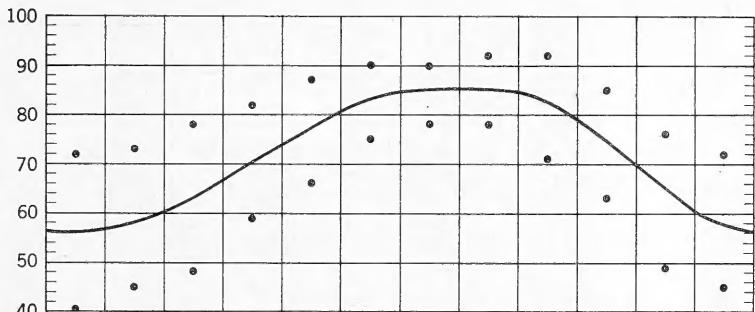
KEY WEST, FLA.  
1926 - 1940, 1946



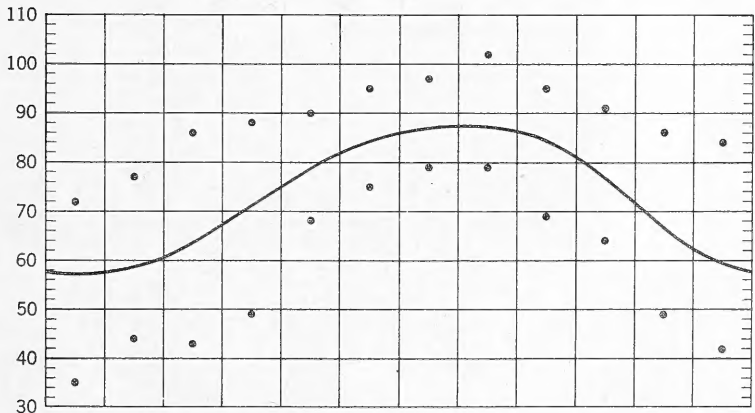
CEDAR KEYS, FLA.  
1922 - 1926, 1944 - 1946

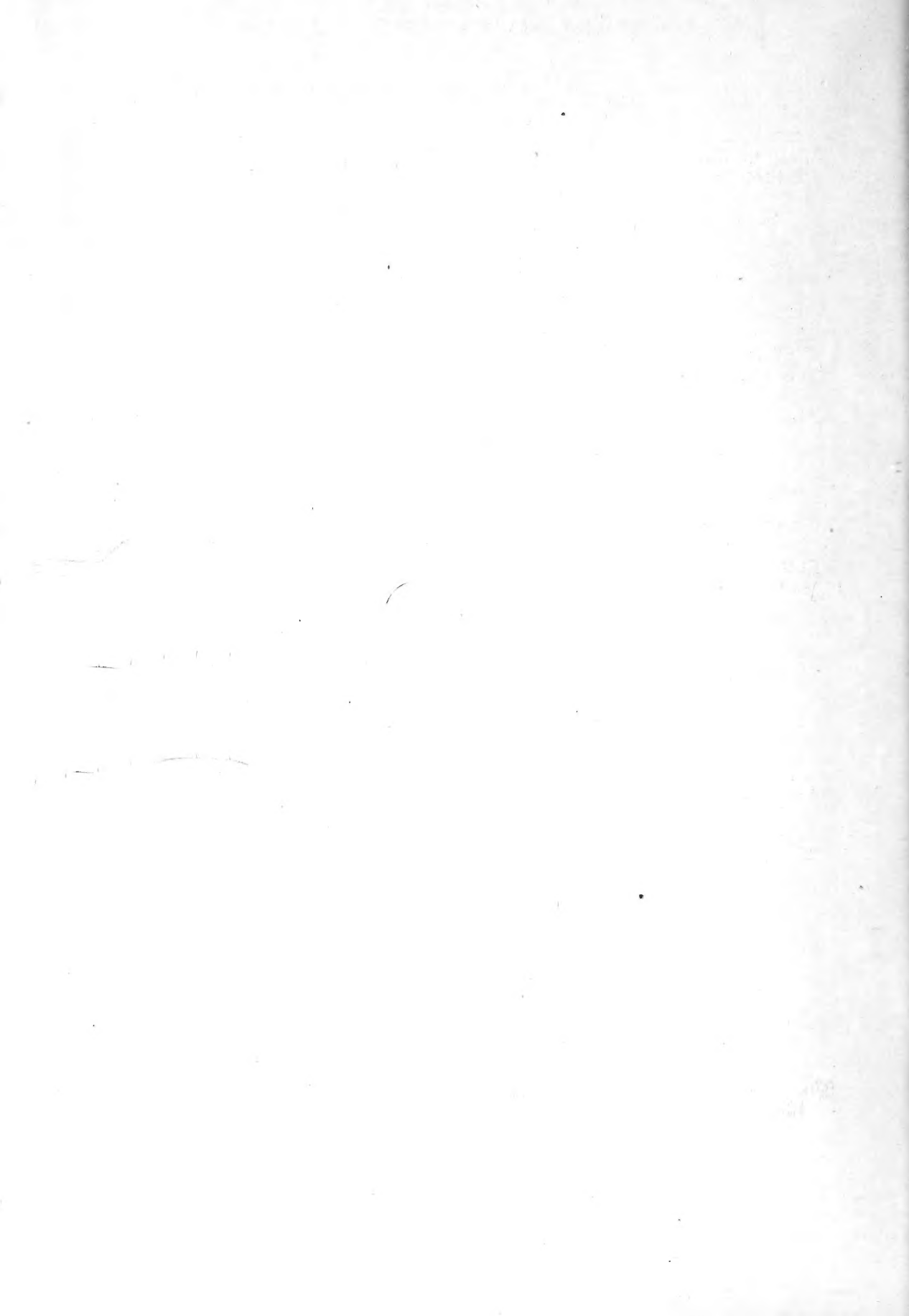


PENSACOLA, FLA.  
1924 - 1946



GALVESTON, TEX.  
1922 - 1946





**CONVERSION TABLE  
FAHRENHEIT TO CENTIGRADE**

°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							25.0		87.0	30.6
27.2	-2.7	37.2	2.9							25.1		87.2	30.7
27.4	-2.6	37.4	3.0							25.2		87.4	30.8
27.6	-2.4	37.6	3.1							25.3		87.6	30.9
27.8	-2.3	37.8	3.2							25.4		87.8	31.0
28.0	-2.2	38.0								25.6		88.0	31.1
28.2	-2.1	38.2								25.7		88.2	31.2
28.4	-2.0	38.4								25.8		88.4	31.3
28.6	-1.9	38.6								25.9		88.6	31.4
28.8	-1.8	38.8								26.0		88.8	31.6
29.0	-1.7	39.0								26.1		89.0	31.7
29.2	-1.6	39.2								26.2		89.2	31.8
29.4	-1.4	39.4								26.3		89.4	31.9
29.6	-1.3	39.6								26.4		89.6	32.0
29.8	-1.2	39.8								26.6		89.8	32.1
30.0	-1.1	40.0								26.7		90.0	32.2
30.2	-1.0	40.2								26.8		90.2	32.3
30.4	-0.9	40.4								26.9		90.4	32.4
30.6	-0.8	40.6								27.0		90.6	32.6
30.8	-0.7	40.8								27.1		90.8	32.7
31.0	-0.6	41.0								27.2		91.0	32.8
31.2	-0.4	41.2								27.3		91.2	32.9
31.4	-0.3	41.4								27.4		91.4	33.0
31.6	-0.2	41.6								27.6		91.6	33.1
31.8	-0.1	41.8								27.7		91.8	33.2
32.0	0.0	42.0								27.8		92.0	33.3
32.2	0.1	42.2								27.9		92.2	33.4
32.4	0.2	42.4								8.0		92.4	33.6
32.6	0.3	42.6								8.1		92.6	33.7
32.8	0.4	42.8								8.2		92.8	33.8
33.0	0.6	43.0								8.3		93.0	33.9
33.2	0.7	43.2								8.4		93.2	34.0
33.4	0.8	43.4								8.6		93.4	34.1
33.6	0.9	43.6								8.7		93.6	34.2
33.8	1.0	43.8								8.8		93.8	34.3
34.0	1.1	44.0								8.9		94.0	34.4
34.2	1.2	44.2								9.0		94.2	34.6
34.4	1.3	44.4								9.1		94.4	34.7
34.6	1.4	44.6								9.2		94.6	34.8
34.8	1.6	44.8								9.3		94.8	34.9

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

