Climatography of the United States

Number 40–18

Climatic Guide For Baltimore, Maryland

U. S. Department of Commerce
Weather Bureau

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Baltimore
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COOPERATION BETWEEN THE MARYLAND STATE WEATHER SERVICE, DEPARTMENT OF RESEARCH AND EDUCATION, AND THE U. S. WEATHER BUREAU, DEPARTMENT OF COMMERCE

The Weather Bureau wishes to acknowledge with gratitude the active interest, cooperation, and assistance of the Maryland State Weather Service in the preparation of this climatic guide.

In May 1891 the Maryland State Weather Service under the joint auspices of the Johns Hopkins University, the Maryland Agricultural College, and the U. S. Signal Service, was added to the list of state weather services. In order to obtain official recognition of the State Weather Service a bill was introduced in the Maryland General Assembly on February 5, 1892, and later signed by the Governor on April 7, 1892, which established a State Weather Service and provided an appropriation therefor.

Upon its organization the Maryland State Weather Service was located at the Johns Hopkins University. It was joined there by the office of the weather service operated by the United States Signal Service, in order to permit the closest possible cooperation between the state and national services. From 1891 to the present this cooperation has continued. On July 1, 1891, the national weather service became the U. S. Weather Bureau under the U. S. Department of Agriculture and on January 1, 1908, the combined weather services were moved from the Johns Hopkins University to the U. S. Custom House and later to Friendship International Airport. The Maryland State Weather Service became a part of the Department of Research and Education when the latter agency was established in 1941.

The objectives for which the State Weather Service is organized include a thorough study of all the varied climatic conditions of the state, together with their influence upon the welfare of the people and the economy of the state. This includes the collection, publication, and distribution of detailed information concerning the weather and climates of the state including forecasts and warnings which are most beneficial to the people of the state. By providing funds for the collection, tabulation, and interpretation of weather records, for travel, for equipment, and for communications, valuable services are made available to agriculture, industry, aviation, commerce, fishing, boating, and resort interests throughout the state. The State Weather Service is under the direction of the Meteorologist in Charge of the U. S. Weather Bureau Office at Baltimore, who is also designated as the State Meteorologist for the Maryland Weather Service.

U. S. DEPARTMENT OF COMMERCE
Sinclair Weeks, Secretary

U.S. WEATHER BUREAU
F. W. Reichelderfer, Chief

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GENERAL SUMMARY

Climatically, Baltimore has more of the characteristics of a southern city than of a northern one. Its summer and winter, separated by fairly long transition seasons in spring and autumn, are generally temperate, with few heavy rains, deep snows or other critically unfavorable weather conditions. Cold waves, hot spells, and periods of unseasonably high humidity are not over frequent or of long duration for the latitude, and hurricane winds or other destructive storm actions seldom occur. Also, the nearness of Chesapeake Bay and the Atlantic Ocean, and of the mountain altitudes of western Maryland, offer convenient and ample escape if summertime's warmth becomes too uncomfortable.

Because climate affects health, business, agriculture, and practically all activities of man to some extent, the Weather Bureau is called upon constantly to answer questions concerning climate. A manufacturer or processor can prepare his product most economically under certain average weather conditions and needs climatic information before establishing his plant. Health authorities frequently need detailed information when attempting to discover the connection of weather to the incidence of disease. Agricultural interests are concerned about rainfall and frost. Table 39 of this publication is designed to show how the climate of Baltimore compares with other large cities. For example, "How does the climate compare with that of Miami, Chicago, or Los Angeles?"... "Is the climate of Denver drier and warmer than that of Baltimore?"..."I suffer from sinus trouble; can you tell me some location where the climate is drier but where summer temperatures are not too high?"

The Baltimore area lies about midway between the rigorous climate of the North and the warm climate of the South and is near the modifying influences of the Chesapeake Bay and Atlantic Ocean to the east and the Appalachian Mountains to the west. The over-all effect of the mountains to the west and of the Bay and Ocean to the east is to produce a quite equable climate. See Graph C, page 31, for temperature data. In descending from the higher elevations to the west, cold polar air of winter is warmed somewhat by the time it reaches Baltimore. Conversely, during the summer months, air moving into the Baltimore area from over the comparatively cool waters of the Atlantic Ocean and Chesapeake Bay is itself somewhat cooler than air from continental sources to the south and southwest. As a result, the city seldom experiences the extreme seasonal temperatures common to inland areas. Temperatures over 100° occur on the average only twice in 3 years while temperatures below zero occur only once in about 8 years. The highest temperature of record at Baltimore was 107° on July 10, 1936, and the lowest, -7°, on February 9, 1934, and February 10, 1899. The months of June through August, which are the warmest, have a temperature average of approximately 76°. While hot, humid, muggy periods of weather do occur during the warmer months, they are sometimes attended by afternoon or evening thunderstorms which provide relief from the oppressive conditions. The months of December, January, and February are the coldest with temperatures averaging 36°, but spells of extreme weather during this season are usually of short duration.

The appreciable difference between temperatures experienced in the city of Baltimore and the suburban areas and nearby towns is due primarily to the difference in exposure of the instruments. On clear, still nights temperatures in suburban areas are occasionally 15° or more lower than those recorded in downtown Baltimore. The average annual minimum temperature at Woodstock, Md., 42.8°, as compared to 47.6° for Baltimore city, is an excellent example of the average variation in temperature between city and rural communities. The higher temperatures of urban areas are produced by commercial and home heating. These factors affect both radiation and the representativeness of the exposure of instruments. Another example is the average of 116 days annually on which the temperature drops to 32° or lower at Woodstock, as compared to only 72 such low readings in Baltimore city.

Table 10 gives a good illustration of temperature differences due largely to urban effects. This table shows the average and extreme dates of several threshold temperatures at the Baltimore City Office and at Woodstock, some 18 miles to the west northwest. Woodstock is used because of the length and quality of the record there and because it is sufficiently distant to eliminate urban factors. The average date of last occurrences of various selected temperatures in spring is two to three weeks earlier in Baltimore while, in the fall, the average date of first occurrences of these temperatures is three to four weeks earlier at Woodstock. The difference in the time between the last and first occurrence dates of specified temperatures at Baltimore and Woodstock is 40 to 50 days.

Rainfall distribution throughout the year is rather uniform. See Graph D, page 31. The lowest monthly average is 2.97 inches in November and the highest is 4.09 inches in August. However, all months except February and November have an average of 3 inches or more. Severe droughts during the growing season are infrequent. Rainfall during the growing season occurs principally in the form of thundershowers, and totals during these months vary appreciably, depending on the number of thundershowers which occur in a given locality. Rainfall is usually sufficient for agricultural purposes but occasionally the amounts are either too great or are insufficient for the best crop growth. The longest and most severe drought of record occurred in 1930 when only 0.64, 0.78, 0.37 and 0.37 inches of rainfall occurred in the months from July to October, respectively. The total for the 4 months, 2.16 inches, was approximately one-half the amount which normally falls in either July or August. On the other hand, total monthly amounts of over 5 inches are not uncommon during the summer months. The wettest season was June, July and August 1920 when the precipitation amounted to 22.66 inches, almost twice the normal amount.

Most rainfall during the summer months occurs in connection with thunderstorms, an average of 32 such storms occurring each year. Excessive rainfall associated with thunderstorms causes local flooding in metropolitan Baltimore on an average of once or twice a year. See Graph A, page 18, for Depth-Duration-Frequency of Precipitation. High winds or hail associated with thunderstorms occasionally cause considerable damage. On rare occasions, tornadoes develop with the thunderstorms.

The frictional effects of the land surfaces between Baltimore and the Atlantic Ocean decrease the intensity of hurricanes that move into the Baltimore area to the extent that damaging hurricane winds rarely occur. Rainfall associated with these hurricanes, however, is occasionally excessive. The greatest damage by hurricanes is that produced along waterfronts and shores by the high tides and waves.

The last 83 years of Baltimore records indicate that the time between the last freeze in spring (average date March 31) and the first freeze in autumn (average date November 16) is sufficiently long for the normal development of most crops, fruits and berries that grow in the area. The corresponding "growing season" at Annapolis is 210 days, at Benson 189 days, and at Woodstock 175 days.

The sun shines at least a few minutes on an average of 232 days each year and the average annual sunshine is 59 percent of the total possible. The amount of sunshine received depends on the amount and kind of clouds. Records show that Baltimore has an average of 121 clear days, 123 partly cloudy days and 121 cloudy days each year. Rain amounting to 0.01 inch or more occurs on an average of 124 days each year and snow measuring a trace or more occurs on an average of 26 days. See Graph B, page 20, for dates when snowfall may be expected and Graph E, page 31, for other snowfall dates. Snowfalls of a few inches occur several times each winter, while a snowfall of 6 inches or more on the average occurs only about once each season. It is unusual for snows to accumulate to considerable depth in the Baltimore area. During the last 57 years the greatest depth of snow on the ground in the month of January was 26 inches in 1922, maximum snow depth for December was 11.5 inches in 1932, for February 12 inches in 1900 and for March 22 inches in 1942. Maximum snow depth for the months of October, November and April during this period was less than 10 inches.

Other climatic features are shown in Graphs F, G, and H, page 31. Graph F indicates that March follows the usual pattern of being a windy month and that there are no great seasonal fluctuations in average wind movement. The lightest winds, as would be expected, occur during the warm season. Graph G gives the annual surface wind rose and Graph H shows visibilities both of which are of interest to aviation. As would be expected, the latter shows that visibilities average better during the warmer months than in the winter season.

Further information concerning the climatology of Maryland (and Delaware) is available at the office of the State Climatologist for Maryland, United States Weather Bureau Airport Station, Friendship International Airport, Baltimore, Maryland.

THE WEATHER RECORDS OF BALTIMORE

The earliest accounts of the climates in the vicinity of Chesapeake Bay begin with the chronicles of the first English settlers in the winter of 1606-07 principally in the reports by Captain John Smith. The next interesting record of weather in this region, taken near the head of Delaware Bay and probably the first attempt in this vicinity to note systematically from day to day the state of the weather for a considerable period, was the daily account kept by John Campanius, a settler in an early Swedish Colony, in the years 1644-45. Accounts of weather and climates in the Maryland area were kept for various periods by various individuals in subsequent years, viz., Clayton, 1865; Franklin, various periods; Evans, 1747; Mason & Dixon, 1763-67.

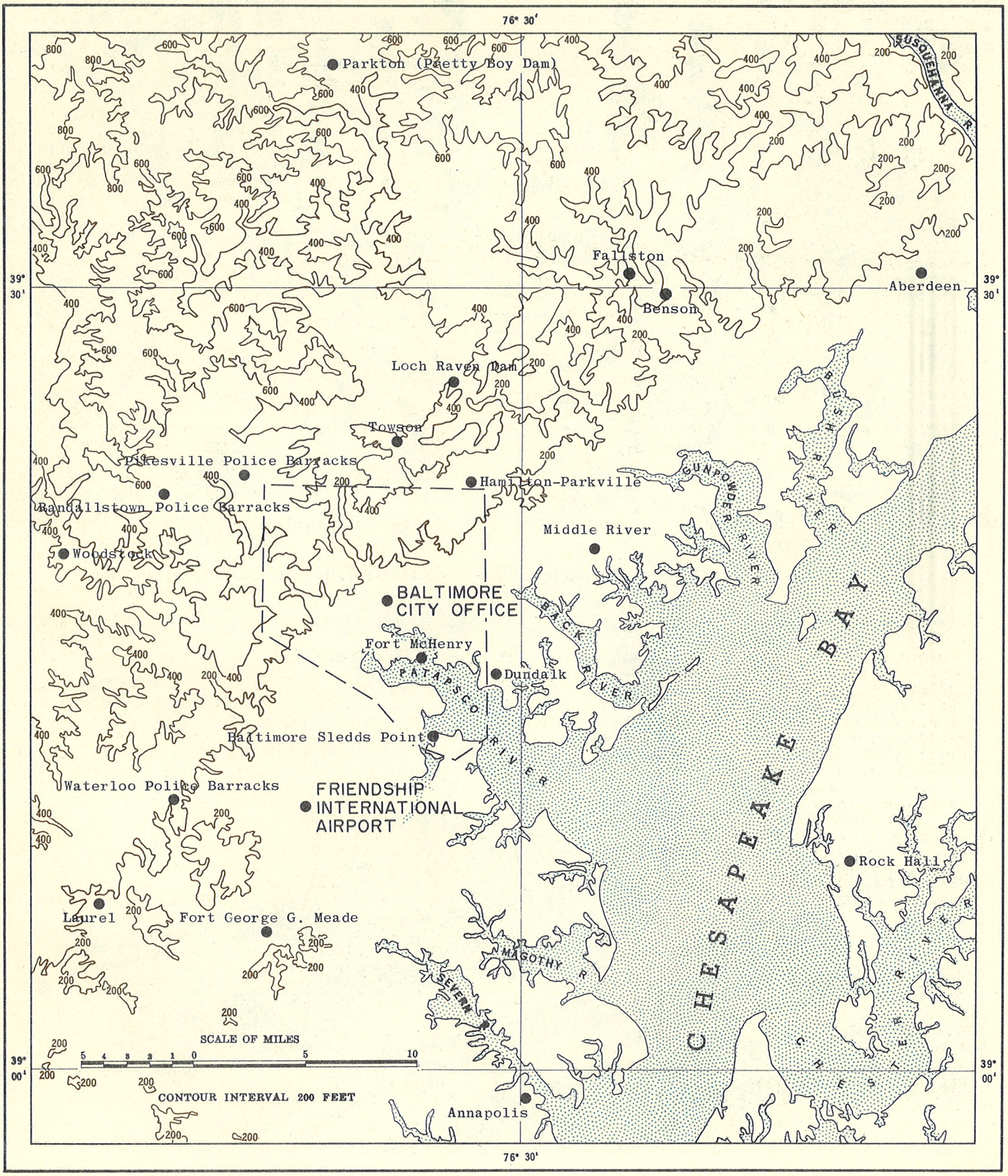
To the best of our knowledge, the first instrumental observations of weather, i.e., air temperature, taken within the limits of Maryland and Delaware, are those recorded by Dr. Richard Brooke, September 1, 1753, to December 1757. Unfortunately, there is nothing in the published records to reveal the place of observation except that the observations were made in Maryland. Doubtless, however, they were made at Brookfield, Prince Georges County, Maryland. From 1757 to 1817 there is no record of systematic observations in Maryland and Delaware. However, from 1817 to 1824 there is an excellent series made by Captain Lewis Brantz in the western part of the city of Baltimore.

The first organized system for collection of climatological statistics was instigated by the U. S. Army Medical Department in 1814. As a result of this program we have several long and valuable records in Maryland. At Fort McHenry observations began in 1831 and continued until 1892 with the exception of about three years just preceding and during the Civil War. The policy of the Surgeon General's Office was to discontinue observations after the establishment of a U. S. Weather Bureau station in the vicinity of the military post.

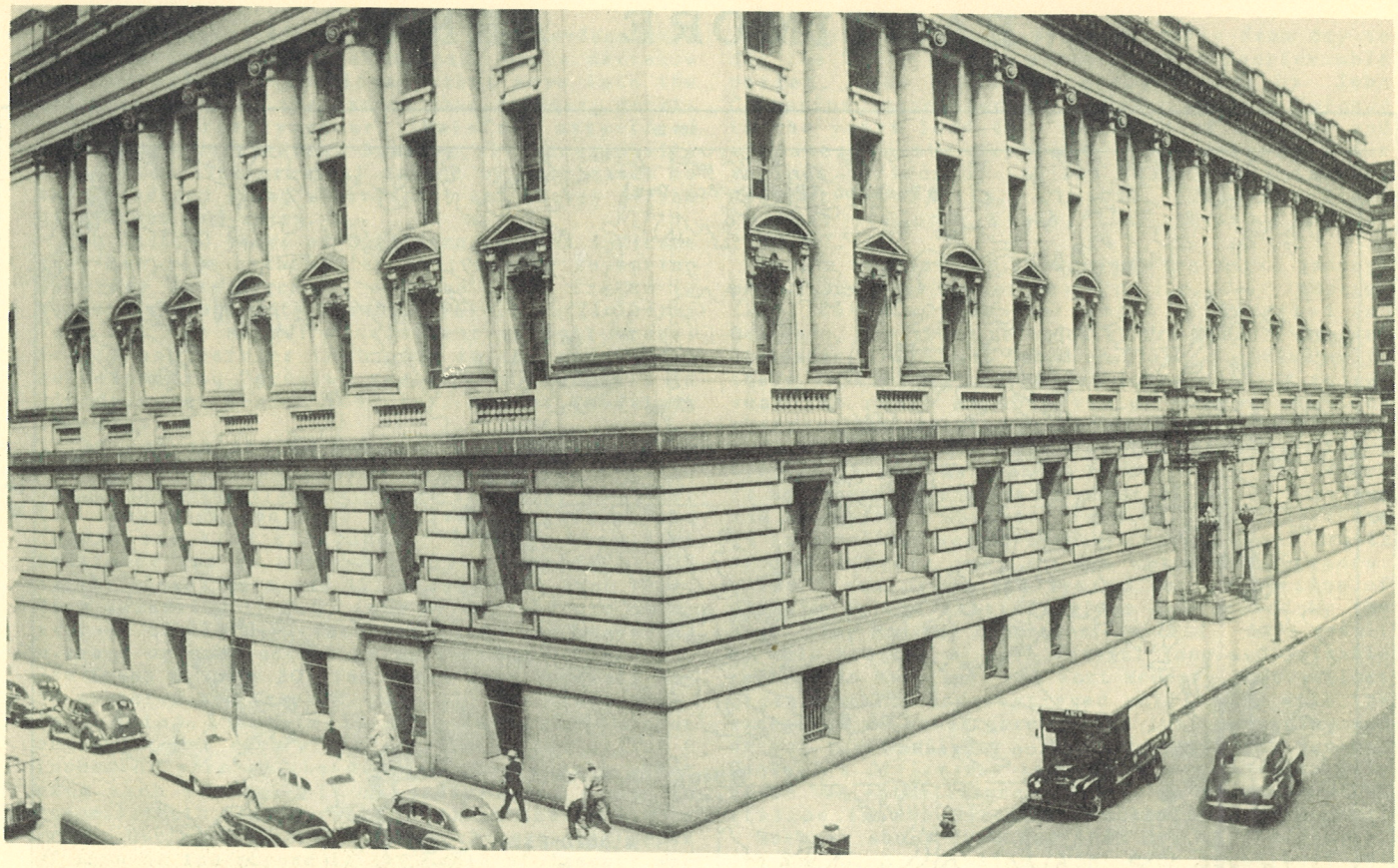
Between about 1830 and 1840 Drs. T. Edmonston, Jr., and G. S. Sproston, USN, made occasional observations in the Baltimore area which are a matter of record. Between 1850 and 1860 local observations were made by two individuals under the direction of the Smithsonian Institution. From April 1850 to July 1852 the Smithsonian's observer was Dr. A. Zumbrock followed by Professor Alfred M. Mayer who made observations from November 1857 to August 1859.

A joint Congressional resolution approved on February 9, 1870, provided for the establishment of a national weather service as a next step in the development of meteorology in the United States. The work of the U. S. Army Medical Department, the Land Office, the Hydrographic Office of the Navy, and the Smithsonian Institution, of course, paved the way for bringing the work under one central head. The national weather service was organized on a military basis as a branch of the U. S. Signal Service with Brigadier General Albert J. Myer, Chief Signal Officer of the Army in charge. Among the first stations to be established was Baltimore, Maryland, on December 23, 1870, which from the beginning has been maintained as one of the best equipped in the service. The national weather service remained a bureau of the War Department until July 1, 1891, when it became the U. S. Weather Bureau under the U. S. Department of Agriculture in recognition of its importance to agriculture. On June 30, 1940, the U. S. Weather Bureau was transferred to the Department of Commerce because of its important relations to transportation, aviation, and commerce in general.

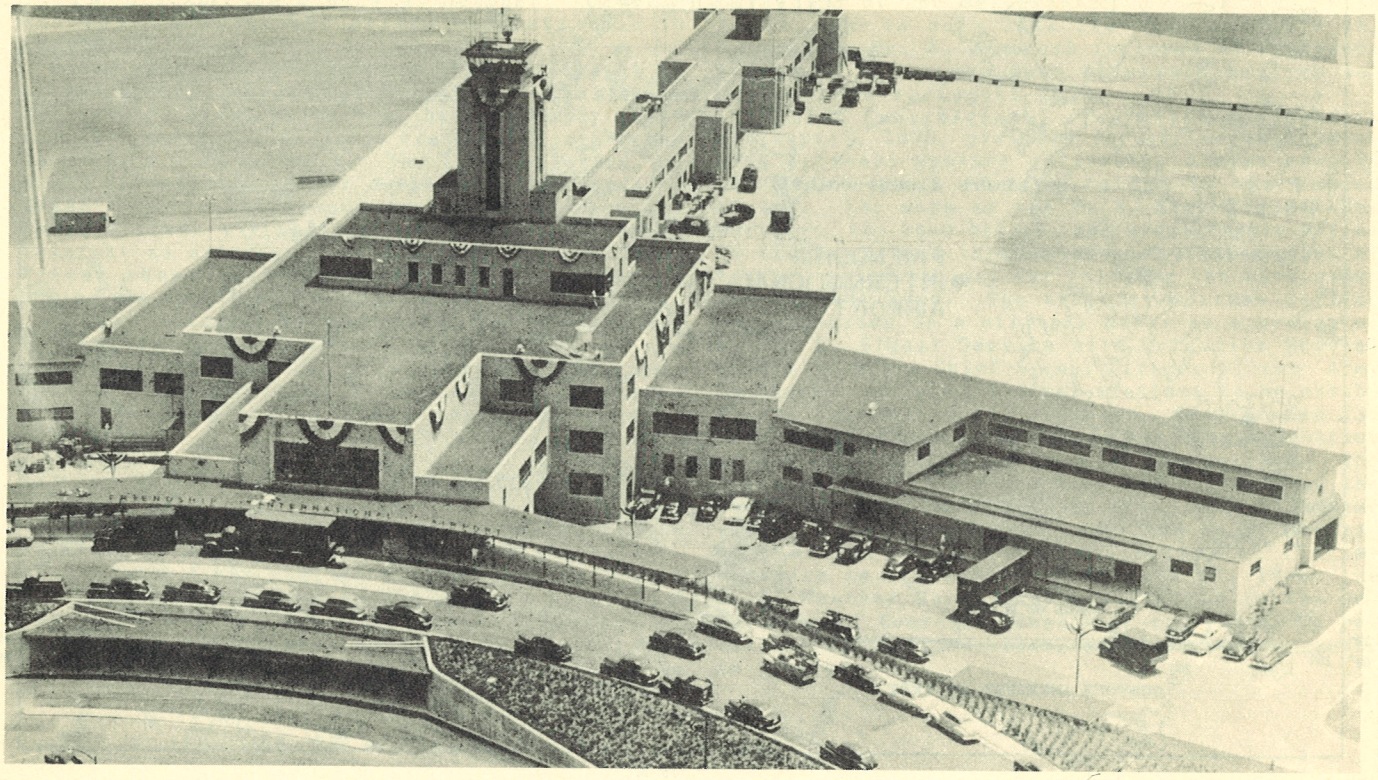
BALTIMORE AREA



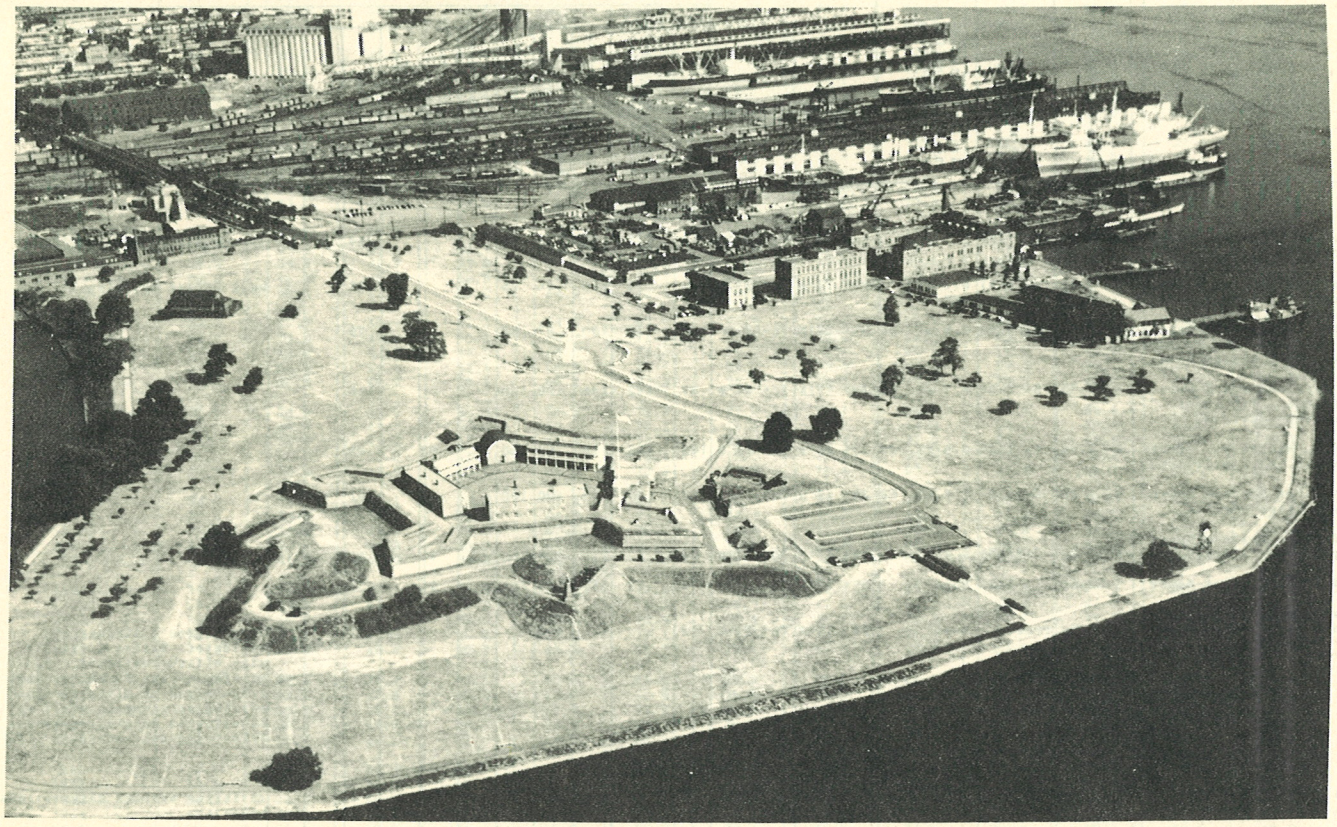
Topographic map showing location of climatological stations.



U. S. Customs House, Baltimore, Md. - Weather Bureau City Office site.



Friendship International Airport, Baltimore, Md. - Weather Bureau Airport Office site.



Official U.S. Navy Photograph

Aerial view of Fort McHenry, Baltimore, Md., where meteorological observations were made from 1831 through 1892.

STATION LOCATION

Location	Occupied from	Occupied to	Airline Distance and Direction from Previous Location	Latitude	Longitude	Elevation Above Sea Level: Ground	Elevation Above Sea Level: Actual Barometer Elevation (Hz)	Elevation Above Ground: Wind Instruments	Elevation Above Ground: Extreme Thermometers	Elevation Above Ground: Psychrometer	Elevation Above Ground: Telepsychrometer	Elevation Above Ground: Tipping Bucket Rain Gage	Elevation Above Ground: Weighing Rain Gage	Elevation Above Ground: 8" Rain Gage			Remarks
						CITY OFFICE											
Southwest corner South and Water Streets	12-23-70	1- 1-89		39° 17'N	76° 37'W	13	45	75	33	33				69			(Fireman's Insurance Bldg.)
Southwest corner Baltimore & Holliday Streets	1- 1-89	6- 1-91	0.1 mi. NNE	39° 17'N	76° 37'W	20	76	100	86	86				78			Neal Office Building
Johns Hopkins University Physics Lab., NW corner Monument & Linden Aves.	6- 1-91	9- 7-95	0.8 mi. NW	39° 18'N	76°37'W	108	179	100	87	87				78			
SW cor. Calvert & Fayette Sts., 9th floor Equitable Building	9- 7-95	8- 1-96	0.7 mi. SE	39° 17'N	76° 37'W	37	142	146	120	120				116			
532 N. Howard St. (Johns Hopkins Uni.) Baltimore	8- 1-96	1- 1-08	0.6 mi. NW	39° 18'N	76° 37'W	103	123	115	68	68		73		73			
4th floor Customs House Gay & Water Streets	1- 1-08	8-16-38	0.8 mi. SE	39° 17'N	76° 37'W	14	78	215	100	100		91		91			
3rd floor Customs House Gay & Water Streets	8-16-38	7-23-50	None	39° 17'N	76° 37'W	14	63	215	100	100		91		91			
3rd floor Customs House	7-23-50	1- 1-51	None	39° 17'N	76° 37'W	14	63	215	100	100		91		91			
Roof Exposure Customs House Gay & Water Sts.	1- 1-51	Present	None	39° 17'N	76° 37'W	14			100				91	91			City Office & Airport consolidated. Marine & records city office continued. Remaining marine & records work transferred to airport. Recording instruments still on location to maintain downtown climatological record.
						AIRPORT STATION											
1st floor Admn. Bldg., Logan Fld., Dundalk, Md.	(2-16-30)	11-15-45	Orig. Airport loc.	39° 16'N	76° 31'W	16	16	41	5	5				3			(Aviation Weather Observations began.)
3rd floor Terminal Bldg. Mun. Airport, Dundalk, Md.	11-15-45	7-23-50	1.6 mi. WNW	39° 15'N	76° 32'W	13	42	73	31	31				29			Logan Field abandoned.
3rd floor Terminal Bldg. Friendship Airport, Baltimore, Maryland	7-23-50	Present	8.0 mi. WSW	39° 11'N	76° 40'W	146	197	133	a 54 b 7	a 54 b 6	b 7	a 51	a 51	a51 b 3			City Office consolidated with Airport Office. Location provides excellent exposure Met. instruments. a. Roof exposure b. Ground exposure

GENERAL NOTES

1. The data presented in this publication, issued 1956, were for the most part compiled during 1955 and in general include observations for the period of record through 1954.
2. Data are for the City Office unless otherwise shown.
3. Hours given are in Eastern Standard Time.
4. "Normal" values appearing in this publication are for the 30-year period 1921 through 1950. They have been adjusted when necessary both to the present station location and to this particular period of time.

TEMPERATURE

Table 1. Monthly and Annual Average Temperatures (°F.)

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1817--------	33.2	30.1	43.4	61.9	62.0	72.2	77.9	74.8	67.3	53.8	50.2	38.2	55.4
1818--------	35.6	30.9	42.9	50.8	61.7	74.5	79.5	76.8	65.6	53.3	50.6	33.8	54.6
1819--------	40.7	39.0	39.7	54.5	63.4	75.9	77.7	79.8	71.0	51.5	50.2	37.9	56.7
1820--------	30.4	42.9	44.6	56.4	59.1	72.4	77.7	77.2	69.0	51.6	42.5	36.7	55.0
1821--------	28.5	40.2	41.2	49.0	62.8	77.0	75.6	81.0	71.3	55.6	46.7	38.5	55.5
1822--------	31.6	36.1	47.2	59.5	70.7	75.6	81.0	79.5	72.7	59.7	52.5	39.7	58.8
1823--------	39.7	31.9	44.4	59.1	66.4	72.6	78.0	77.5	68.8	54.2	44.2	41.0	56.4
1824--------	43.4	37.6	43.9	55.5	63.7	72.7	79.1	75.0	67.1	58.1	48.0	44.5	57.3
1825--------	37.6	39.1	49.3	56.7	63.8	76.1	79.7	76.8	68.4	60.3	46.5	37.5	57.6
1826--------	37.9	41.3	49.4	53.7	72.2	76.2	77.9	77.2	73.2	58.8	47.7	37.7	58.5
1827--------	32.4	42.6	47.8	60.3	65.0	74.1	80.3	79.4	71.1	58.5	46.8	43.0	58.4
1828--------	41.6	45.4	48.6	50.3	62.6	78.3	77.9	79.1	69.2	54.7	50.4	41.6	58.2
1829--------	34.7	29.1	42.1	56.7	63.7	74.5	74.9	76.0	66.1	54.1	45.5	45.6	55.2
1830--------	36.0	33.7	46.8	56.6	64.0	73.2	81.5	79.0	70.2	58.8	54.4	38.7	57.6
1831--------	31.2	32.6	48.4	57.7	65.0	75.9	76.6	76.9	67.4	59.4	44.7	27.0	55.1
1832--------	34.3	39.3	45.6	53.9	63.5	72.9	77.6	76.7	71.9	59.4	47.8	40.6	56.9
1833--------	39.6	39.2	41.9	57.8	70.8	73.8	78.2	75.1	69.6	54.3	45.3	40.1	57.1
1834--------	32.2	46.3	48.3	56.5	61.8	73.1	81.5	78.3	67.1	52.6	45.6	38.1	56.7
1835--------	34.3	30.9	42.1	50.2	64.7	72.3	76.6	73.5	62.1	58.0	49.4	34.9	54.0
1836--------	36.3	27.9	33.9	52.7	64.1	67.9	75.9	71.0	68.8	47.8	42.6	34.2	51.8
1837--------	31.3	35.9	41.9	50.3	63.0	71.0	75.8	74.8	64.8	55.9	47.7	37.9	54.1
1838--------	39.8	28.6	43.7	49.6	60.0	75.6	81.7	78.4	67.9	50.9	41.7	32.7	54.1
1839--------	34.9	36.5	44.4	57.6	66.9	71.1	78.2	73.9	67.4	59.7	41.2	35.9	55.6
1840--------	26.7	40.5	46.4	55.4	62.2	72.3	74.9	75.5	63.8	55.3	44.7	31.5	53.9
1841--------	32.9	33.6	41.5	46.6	56.4	70.7	77.5	75.1	70.9	48.9	43.1	36.7	52.9
1842--------	38.9	39.9	49.1	55.4	60.3	70.1	76.5	74.4	68.4	54.0	39.9	34.3	55.0
1843--------	40.9	29.9	31.2	51.5	51.7	73.7	76.8	77.4	71.5	54.0	43.0	36.8	53.9
1844--------	31.7	33.9	43.0	57.1	67.2	70.4	78.5	75.1	66.9	52.5	42.1	34.8	54.4
1845--------	39.3	35.9	45.2	55.8	61.3	72.9	77.2	76.4	67.1	55.9	46.4	30.1	55.2
1846--------	34.8	31.4	43.1	54.2	65.5	69.2	75.4	75.2	70.3	53.9	48.3	36.4	54.7
1847--------	33.2	34.3	39.1	56.9	64.9	71.1	78.7	76.3	68.6	55.4	50.2	39.5	55.6
1848--------	40.0	38.0	41.8	58.1	68.6	76.0	76.4	77.2	65.5	57.2	43.2	45.5	57.2
1849--------	34.4	32.7	45.5	53.2	61.9	76.3	77.3	76.5	68.2	56.7	54.6	38.7	56.2
1850--------	40.7	41.6	43.9	51.8	61.9	75.8	79.7	75.0	68.2	57.8	52.4	42.0	57.5
1851--------	39.8	41.3	48.1	55.9	65.5	72.5	79.4	74.6	69.7	58.5	47.6	33.9	57.2
1852--------	30.5	37.7	44.1	49.2	63.9	71.2	75.9	77.0	66.2	57.9	44.0	42.1	54.9
1853--------	34.8	38.5	43.9	54.4	65.0	75.6	77.1	76.2	70.1	53.7	49.7	38.2	56.4
1854--------	36.1	38.3	45.5	50.2	65.0	73.1	79.4	76.4	71.6	57.9	51.6	35.4	56.6
1855--------	39.1	30.7	40.6	58.9	65.5	72.3	79.1	76.9	70.2	63.9	49.6	39.4	57.1
1856--------	26.3	28.4	35.3	56.2	63.3	76.6	80.8	75.0	68.8	56.5	47.2	35.9	54.1
1857--------	25.9	43.1	41.5	47.7	63.0	72.5	76.5	75.4	68.9	55.9	46.4	43.8	55.0
1858--------	43.9	33.5	43.4	55.4	61.3	77.7	79.1	75.8	67.8	58.7	43.9	41.9	56.8
1859--------	37.3	38.7	49.5	54.2	64.9	70.7	76.2	75.1	68.0	52.4	48.4	32.8	55.6
1860--------	33.7	32.7	46.2	52.1	64.9	70.7	76.7	75.8	65.1	56.2	45.6	33.8	54.4
1861--------	32.7	39.1	44.4	54.6	58.5	73.5	74.8	72.7	69.1	59.1	44.7	37.8	55.0
1862--------	34.2	31.4	39.9	51.5	61.9	69.1	74.6	75.9	69.3	58.1	42.8	36.7	53.7
1863--------	36.2	32.4	38.0	49.9	64.6	70.9	77.1	77.8	64.3	52.7	46.2	34.3	53.6
1864--------	37.9	40.4	43.4	52.5	68.8	74.7	78.3	79.5	69.5	57.2	48.5	37.7	57.3
1865--------	32.6	36.1	50.3	59.1	68.2	77.3	79.4	76.1	74.1	58.1	47.8	39.8	58.2
1866--------	33.4	38.0	44.9	57.1	64.1	73.3	79.1	71.6	70.8	58.1	51.5	35.6	56.4
1867--------	28.5	30.6	39.8	58.3	61.6	73.7	77.9	76.3	69.6	58.6	49.7	34.4	55.7
1868--------	32.9	30.0	43.1	51.2	62.8	74.1	83.2	79.0	70.0	55.8	48.4	34.5	55.3
1869--------	40.8	41.0	42.5	55.9	62.3	74.5	78.1	76.6	70.1	53.1	43.2	40.5	56.5
1870--------	42.9	37.7	41.1	56.3	65.9	78.8	83.5	80.6	71.1	59.4	48.4	37.5	58.5
1871--------	35.3	39.8	47.7	58.9	65.4	74.0	76.0	77.5	63.7	58.7	45.2	33.8	56.2
1872--------	34.4	36.0	37.0	55.3	67.2	75.3	81.7	79.8	69.5	56.9	43.7	32.4	55.7
1873--------	34.2	35.6	40.4	52.0	62.3	73.9	79.6	76.6	68.3	55.3	41.5	40.7	55.0
1874--------	39.3	37.4	43.8	47.0	63.1	75.9	77.5	73.1	70.2	57.1	45.8	39.3	55.8
1875--------	30.3	29.4	39.6	49.5	64.1	73.7	78.2	73.7	66.2	56.0	43.4	38.6	53.5
1876--------	41.7	37.9	39.9	52.2	64.2	75.9	80.6	76.2	65.9	52.9	47.6	29.0	55.3
1877--------	32.3	40.6	41.5	53.7	62.7	73.7	78.9	77.9	68.2	60.2	48.4	43.8	56.8
1878--------	34.9	40.4	49.2	58.6	63.5	70.2	80.8	76.0	69.7	58.8	47.4	35.6	57.1
1879--------	31.5	32.2	43.8	52.8	65.7	73.3	79.0	75.3	65.2	63.0	46.7	41.9	55.8
1880--------	42.9	41.2	42.8	55.1	70.8	75.3	77.7	74.7	68.3	56.0	42.0	31.3	56.4
1881--------	30.3	34.6	41.8	51.7	67.8	70.8	78.9	77.2	77.2	63.5	49.3	43.8	57.2
1882--------	34.7	41.3	45.0	52.1	59.6	74.0	76.9	74.2	69.3	61.9	44.5	36.7	55.8
1883--------	32.3	39.1	39.5	52.2	64.2	74.6	77.1	73.2	65.4	57.9	48.4	39.0	55.2
1884--------	32.0	42.2	44.1	52.4	65.0	73.2	75.4	75.5	72.4	60.6	46.6	37.4	56.3
1885--------	34.0	28.5	35.4	54.3	63.2	72.6	79.9	74.9	67.2	55.8	45.8	37.6	54.0
1886--------	29.1	31.3	41.7	54.7	62.1	69.9	74.7	73.8	69.9	59.0	46.6	31.3	53.6
1887--------	32.4	38.2	37.9	51.3	67.6	72.3	80.6	73.6	65.0	56.3	45.3	37.2	54.7
1888--------	29.1	35.5	37.4	52.7	62.8	73.2	74.6	76.5	65.1	53.0	48.3	37.2	54.1
1889--------	38.7	30.6	44.1	54.8	65.7	71.2	76.5	73.7	66.3	54.1	47.9	45.1	55.6
1890--------	43.7	43.0	40.9	53.9	63.7	75.1	76.3	74.1	67.8	57.0	47.5	34.9	56.4
1891--------	37.3	41.6	39.0	56.0	62.1	71.7	71.6	74.5	70.5	54.4	43.9	43.0	55.4
1892--------	31.9	36.2	37.3	51.9	63.1	75.5	76.8	76.4	66.7	56.0	44.0	33.7	54.0
1893--------	24.3	34.0	40.4	52.5	61.6	72.5	76.8	75.6	65.9	57.1	43.9	38.1	53.4
1894--------	37.4	34.4	47.8	52.3	64.8	73.1	77.4	73.7	69.9	57.4	43.3	37.3	55.6
1895--------	31.4	26.2	40.2	52.8	62.5	74.3	73.1	77.2	71.7	53.4	47.0	38.7	54.0
1896--------	33.3	35.2	37.8	56.5	68.7	71.3	77.7	77.0	68.0	54.3	50.9	36.2	55.5
1897--------	30.8	36.6	45.2	52.6	63.4	69.9	77.0	74.9	68.9	58.5	46.2	38.5	55.2
1898--------	36.7	34.7	48.6	51.4	63.5	73.7	78.6	77.7	71.2	59.0	44.6	36.2	56.2
1899--------	32.7	28.0	41.6	53.6	64.8	75.3	77.1	76.0	66.5	59.0	46.7	36.8	54.8
1900--------	36.2	33.1	38.6	55.0	65.2	73.4	80.1	80.4	73.8	62.0	49.6	37.2	57.0
1901--------	34.9	29.5	43.8	50.7	61.8	72.6	80.4	76.7	68.4	56.7	41.8	35.2	54.4
1902--------	31.6	30.4	46.7	53.3	64.6	72.3	77.8	73.6	67.2	58.6	51.9	34.8	55.2
1903--------	33.6	37.8	49.6	54.4	65.2	67.2	77.2	71.9	68.2	58.4	43.2	33.0	55.0
1904--------	27.4	28.6	41.0	49.9	65.7	71.4	75.6	73.6	68.2	54.8	43.8	31.6	52.6
1905--------	30.8	27.3	44.6	54.2	65.1	72.2	77.0	74.2	69.0	58.2	45.8	38.4	54.7

TEMPERATURE

Table 1 (Cont'd.). Monthly and Annual Average Temperatures (°F.)

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1906--------	40.2	34.2	37.6	56.1	65.1	73.6	75.9	76.8	72.4	56.2	47.3	36.3	56.0
1907--------	36.5	28.8	47.0	47.8	59.0	66.7	76.6	73.6	69.9	53.2	45.4	39.0	53.6
1908--------	35.0	31.2	47.1	56.5	65.1	73.6	79.0	74.2	68.4	59.8	46.4	37.9	56.2
1909--------	35.6	42.6	41.8	53.9	64.5	74.1	76.0	74.4	67.7	54.8	51.5	33.2	55.8
1910--------	34.0	34.8	49.8	58.2	62.2	70.4	78.9	74.4	71.6	60.8	42.6	31.2	55.7
1911--------	38.4	36.6	40.8	51.0	69.4	73.4	79.2	76.2	70.4	58.3	43.8	41.5	56.6
1912--------	25.8	31.5	40.2	54.6	65.4	71.4	76.5	74.4	70.6	60.6	48.6	40.6	55.0
1913--------	43.5	36.2	48.8	55.6	64.9	73.7	78.6	75.2	68.4	59.6	49.0	41.4	57.9
1914--------	37.6	30.2	39.6	53.0	68.0	74.4	76.3	77.0	66.8	61.4	47.0	33.4	55.4
1915--------	36.0	38.4	39.4	59.2	62.2	70.6	76.9	74.2	71.5	59.6	47.0	35.4	55.9
1916--------	39.5	33.6	37.0	52.6	66.6	69.4	78.0	76.8	67.6	57.6	47.3	36.0	55.2
1917--------	35.3	32.2	43.2	53.8	59.2	73.0	77.2	76.4	64.5	52.6	44.6	28.4	53.4
1918--------	24.2	35.4	47.2	53.0	69.3	70.9	75.4	78.3	65.0	60.8	47.2	41.9	55.7
1919--------	38.2	37.6	46.2	52.9	64.9	73.4	78.0	74.6	70.4	63.0	47.4	33.2	56.6
1920--------	28.6	32.8	44.8	52.8	60.8	72.6	76.0	74.8	69.8	63.1	47.1	39.8	55.2
1921--------	37.0	39.0	54.6	58.6	63.1	75.0	80.2	73.9	74.5	57.8	48.1	37.2	58.2
1922--------	32.2	38.4	44.8	55.8	67.2	75.1	77.0	74.1	70.8	60.6	49.0	37.4	56.9
1923--------	36.6	32.4	44.5	53.6	63.8	76.7	76.7	74.8	70.4	57.4	46.4	45.4	56.6
1924--------	34.8	34.6	43.0	52.2	60.2	71.2	76.1	76.0	65.4	59.4	47.0	36.8	54.7
1925--------	33.0	41.8	46.1	56.4	61.2	78.7	77.2	74.7	73.4	52.7	45.4	37.3	56.5
1926--------	34.5	35.6	39.8	51.6	64.5	69.7	77.4	76.8	69.6	58.0	45.6	33.6	54.7
1927--------	34.2	42.1	47.4	51.8	63.2	69.3	77.2	71.0	70.3	61.4	51.6	40.0	56.6
1928--------	36.3	37.6	43.8	51.9	63.0	71.0	79.2	77.8	65.8	60.7	50.3	41.0	56.5
1929--------	35.4	35.6	50.2	57.4	64.3	73.3	77.4	74.4	70.4	56.2	48.3	38.7	56.8
1930--------	36.2	42.0	45.2	52.6	68.4	76.2	80.6	77.6	76.2	57.6	47.5	37.0	58.1
1931--------	38.1	39.6	41.9	53.8	65.2	74.5	81.0	77.0	76.0	63.4	54.7	45.7	59.2
1932--------	47.4	42.8	40.3	52.8	64.4	73.6	78.3	78.4	71.1	58.6	45.8	40.9	57.9
1933--------	43.5	38.0	42.8	54.7	67.1	76.0	77.2	77.0	73.0	58.0	45.2	38.2	57.6
1934--------	39.0	24.3	40.5	53.8	67.2	77.8	81.4	74.7	71.3	57.0	50.5	37.7	56.3
1935--------	33.2	35.0	49.4	52.6	62.2	73.6	79.4	76.8	67.3	58.5	50.4	32.8	55.9
1936--------	30.8	29.7	48.8	51.8	67.8	73.2	78.6	78.2	71.4	60.0	45.6	40.8	56.4
1937--------	43.5	36.7	41.9	53.2	66.8	75.2	78.3	78.4	67.2	56.2	47.6	38.0	56.9
1938--------	36.2	40.4	49.2	56.7	63.6	73.1	79.1	80.0	68.0	59.8	50.4	39.4	58.0
1939--------	38.0	41.8	45.2	53.4	68.4	75.5	77.2	80.0	71.2	59.6	47.4	40.8	58.2
1940--------	26.0	37.4	40.0	50.2	64.4	75.0	78.8	73.5	68.2	55.8	48.4	43.0	55.1
1941--------	34.7	34.0	40.1	60.4	68.3	73.6	78.4	77.0	73.2	65.1	52.0	42.5	58.3
1942--------	35.8	34.4	47.0	58.8	69.0	74.4	79.7	75.4	71.2	60.7	49.0	34.9	57.5
1943--------	35.0	38.8	44.6	50.6	66.8	79.8	78.4	79.1	68.5	56.6	47.0	37.3	56.9
1944--------	38.2	38.0	41.8	53.0	70.6	74.7	79.7	77.4	70.6	57.8	48.0	34.8	57.0
1945--------	30.4	38.6	55.7	58.4	63.2	75.0	77.0	75.8	72.6	58.7	49.6	33.4	57.4
1946--------	37.3	38.2	53.0	55.6	65.8	72.2	77.3	73.2	71.0	62.2	52.4	42.4	58.4
1947--------	41.4	31.8	40.4	55.8	64.5	71.6	76.7	78.6	70.0	64.8	46.4	37.0	56.6
1948--------	29.3	36.6	47.8	55.0	65.0	73.9	78.7	76.6	70.2	56.7	53.0	40.8	57.0
1949--------	42.3	43.9	46.6	55.0	65.8	75.6	81.4	78.1	67.2	64.2	48.8	41.5	59.2
1950--------	46.9	37.5	41.1	51.9	63.0	73.8	77.2	75.9	66.8	61.2	49.0	35.9	56.7
1951--------	38.8	38.0	45.1	55.5	65.0	73.6	79.0	76.7	70.5	61.9	44.0	41.1	57.4
1952--------	40.4	41.4	43.2	57.2	64.2	76.8	81.3	76.6	70.7	56.7	49.6	40.7	58.2
1953--------	41.7	42.2	46.7	54.7	68.2	73.9	78.7	77.0	70.4	61.5	49.7	42.8	59.0
1954--------	36.7	44.8	45.5	60.2	63.8	75.2	80.2	76.3	73.7	63.2	47.1	37.6	58.7
Mean Temperature (°F.) - By Decades													
1821-1830---	36.3	37.7	46.1	55.7	65.5	75.0	78.6	78.0	69.8	57.3	48.3	40.8	57.4
1831-1840---	34.1	35.8	43.7	54.2	64.2	72.6	77.7	75.4	67.1	55.3	45.1	35.3	55.0
1841-1850---	36.7	35.1	42.3	54.3	62.0	72.6	77.4	75.9	68.6	54.6	46.3	37.5	55.3
1851-1860---	34.7	36.3	43.8	53.4	64.2	73.3	78.0	75.8	68.6	57.1	47.4	37.7	55.8
1861-1870---	35.2	35.7	42.7	54.6	63.9	74.0	78.6	76.6	69.8	57.0	47.1	36.9	56.0
1871-1880---	35.7	37.0	42.6	53.5	64.9	74.1	79.0	76.1	67.5	57.5	45.2	36.6	55.8
1881-1890---	33.6	36.4	40.8	53.0	64.2	72.7	77.1	74.7	68.6	57.9	47.0	38.0	55.3
1891-1900---	33.1	34.0	41.6	53.4	63.9	73.0	76.6	76.3	69.3	57.1	46.0	37.5	55.1
1901-1910---	34.0	32.5	44.9	53.5	63.8	71.4	77.4	74.3	69.1	57.2	46.0	35.1	54.9
1911-1920---	34.7	34.5	42.7	53.9	65.1	72.3	77.2	75.8	68.5	59.7	46.9	37.2	55.7
1921-1930---	35.0	37.9	45.9	54.2	63.9	73.6	77.9	75.1	70.7	58.2	47.9	38.4	56.6
1931-1940---	37.6	36.6	44.0	53.3	65.7	74.8	78.9	77.4	70.5	58.7	48.6	39.7	57.2
1941-1950---	37.1	37.2	45.8	55.5	66.2	74.5	78.5	76.7	70.1	60.8	49.5	38.1	57.5
Friendship International Airport Mean for five-year period September, 1950 - August, 1955 except Annual which is 1951-1954 (four years)													
1950-1954---									67.8	57.9	44.7	36.8	56.0
1951-1955---	36.0	38.2	43.4	55.3	63.9	72.4	78.5	75.3					
City Office Normal Values													
1921-1950---	36.6	37.3	45.3	54.3	65.3	74.3	78.5	76.4	70.4	59.3	48.7	38.8	57.1
Airport Normal Values (Adjusted to 1955 Location)													
1921-1950---	34.2	35.0	43.2	52.4	62.9	72.2	76.3	74.4	67.9	56.5	45.6	35.7	54.7

Data, adjusted to the Baltimore City Office location, are composed of observations made at:

1. West Baltimore, by Capt. Lewis Brantz from 1817 through 1824.
2. Washington, D. C. 1825 through 1830.
3. Ft. McHenry (Baltimore Harbor), 1831 through 1870.
4. U. S. Weather Bureau 1871 through 1954.

TEMPERATURE

Table 2. Highest Temperature of Record for Each Day of Year with Year of Occurrence (1871-1954)

	Jan.	Year	Feb.	Year	Mar.	Year	Apr.	Year	May	Year	June	Year	July	Year	Aug.	Year	Sept.	Year	Oct.	Year	Nov.	Year	Dec.	Year
1---------	64	1905	63	1891	72	1895	85	1917	89	1942	97	1895	103	1901	99	1933	97	1943	91	1941	87	1950	71	192[illegible]
2---------	71	1876	62	1933	69	1882	84	1946	88	*1930	96	1923	103	1901	98	*1917	98	1953	88	1881	84	1950	65	190[illegible]
3---------	62	1950	66	1932	78	1923	80	*1932	91	1913	98	1925	104	1898	100	1931	97	1898	92	1919	78	1936	70	*1950
4---------	70	1950	66	1903	80	1923	83	1892	89	1913	96	1925	100	1898	101	1930	96	1937	90	1941	79	1914	73	1873
5---------	68	1950	71	1890	79	1946	83	*1942	92	1930	101	1925	102	1919	104	1930	94	1954	97	1941	79	1935	70	1916
6---------	72	1950	70	1938	76	1935	90	1929	91	*1934	99	1925	98	1911	105	1918	96	1910	95	1941	76	1948	71	1912
7---------	74	1907	64	1904	75	1921	93	1929	96	1930	96	1899	97	1925	105	1918	101	1881	96	1941	77	1938	75	1951
8---------	69	1930	65	1932	75	1921	91	1929	93	1930	96	*1914	98	1890	99	1900	100	1939	88	1931	76	1938	65	1927
9---------	75	1937	68	1949	72	1939	87	1922	93	1896	98	*1933	103	1936	101	1930	94	*1933	91	1939	77	*1945	70	1946
10--------	70	1950	65	1909	74	1909	89	1922	96	1896	95	1925	107	1936	100	1900	97	*1941	93	1939	74	1879	70	*1946
11--------	64	*1928	72	1887	73	1925	85	1887	94	1896	99	1911	100	1936	100	1900	98	1931	89	1919	77	1949	66	1897
12--------	70	1890	65	1898	76	1890	80	1947	94	1881	96	1914	97	1908	99	1900	96	1931	90	1954	78	1879	70	*1931
13--------	76	1932	72	1951	75	1890	86	1945	95	1881	94	*1943	99	1880	98	1881	97	1951	88	*1954	76	1902	69	1889
14--------	79	1932	69	*1946	76	1933	91	1941	91	*1940	95	*1945	101	1954	99	1943	94	1931	84	1920	72	1951	71	*1929
15--------	78	1932	77	1954	72	1946	88	1941	94	1900	95	1945	97	1934	98	1938	97	1927	85	1920	75	*1902	70	1929
16--------	70	1953	77	1954	85	1945	86	*1942	92	1944	97	1913	101	1887	96	*1938	94	1930	90	1897	76	1928	63	1877
17--------	68	1913	73	1891	85	1945	89	1896	93	1896	96	1939	100	1900	96	*1944	93	1941	90	1938	75	*1928	65	1924
18--------	66	1929	73	1938	79	1927	94	1896	95	1911	97	1944	102	1887	95	1914	91	1898	84	1881	78	*1938	69	1937
19--------	69	1951	71	1948	78	1918	93	1896	92	1877	95	*1952	103	1930	97	1914	94	1896	82	*1947	77	1928	66	*1931
20--------	70	1951	76	1930	85	1945	94	1941	94	1934	100	1931	102	1930	97	*1899	90	1895	81	*1953	79	1942	67	1877
21--------	66	1921	74	1930	89	1948	86	1936	96	1934	100	1923	104	1930	97	1899	96	*1931	90	1947	79	1900	61	1885
22--------	69	1927	74	1874	86	1907	89	1902	98	1941	95	*1943	100	*1952	98	1916	99	1931	85	1920	76	1940	70	1889
23--------	69	1874	78	1874	82	1907	88	*1925	98	1925	97	1894	99	1914	97	1936	95	1895	91	1947	73	*1927	67	*1891
24--------	73	1950	70	*1944	83	1929	88	1886	93	1933	98	*1908	95	1884	94	*1919	90	1926	79	1900	71	1927	63	1933
25--------	70	1934	83	1930	85	1939	89	*1939	90	1880	98	*1952	99	1934	97	*1948	95	1930	80	1902	67	1946	67	*1932
26--------	79	1950	74	*1932	84	1921	85	1942	94	1914	100	1952	101	1940	101	1948	93	1895	80	*1939	71	*1946	73	1889
27--------	73	1954	73	1946	86	1921	91	1935	95	1941	97	*1952	101	1940	102	1948	91	1933	78	1947	74	1896	65	1949
28--------	70	1949	71	1903	87	1945	85	1938	97	1941	96	1921	103	1941	101	1948	91	1886	87	1919	71	1896	74	1946
29--------	64	1876	67	1880	90	1945	90	1888	96	1941	105	1934	98	1931	99	1953	91	1945	82	*1946	74	1927	63	1893
30--------	72	1914			83	1910	92	1910	95	1895	100	1945	98	*1954	99	1953	90	1954	83	*1950	74	1933	66	1898
31--------	69	*1947			84	1945			95	*1929			102	1954	100	1953			85	1946			66	1884
Extreme---	79		83		90		94		98		105		107		105		101		97		87		75	
Date------	26	*1950	25	1930	29	1945	20	*1941	22	*1941	29	1934	10	1936	%7	1918	7	1881	5	1941	1	1950	7	1951

* Also in previous years.
% Also on previous date.

Table 3. Lowest Temperature of Record for each day of Year with Year of Occurrence (1871-1954)

	Jan.	Year	Feb.	Year	Mar.	Year	Apr.	Year	May	Year	June	Year	July	Year	Aug.	Year	Sept.	Year	Oct.	Year	Nov.	Year	Dec.	Year
1--------	-6	1881	8	*1935	14	1884	15	1923	34	1876	47	1894	55	1943	57	1895	55	1934	36	1946	31	1873	15	1936
2--------	6	*1899	4	1881	15	*1925	23	1907	37	1903	47	1907	59	*1943	58	1875	50	1892	38	1899	32	*1923	17	1886
3--------	0	1879	5	1905	12	*1925	29	*1899	38	1882	48	*1929	57	*1933	58	1920	51	1893	36	1899	31	1951	16	1886
4--------	4	1918	5	1918	5	1873	29	1904	40	*1900	49	1907	54	1933	58	*1912	50	1872	38	1888	28	1879	18	*1940
5--------	1	1877	-1	1886	10	1873	25	1881	40	1907	49	1926	58	*1909	57	1912	50	1872	40	1935	25	1879	16	*1926
6--------	5	1904	1	1895	13	*1901	26	1898	40	*1925	47	1894	58	1891	57	1948	50	1924	36	1892	28	1950	16	1901
7--------	9	1884	6	1895	12	1890	30	*1898	44	*1947	47	1894	58	1906	62	*1948	51	1883	36	1904	28	1903	15	*1885
8--------	6	1878	2	*1934	16	1883	32	*1936	39	1947	47	1891	55	1891	58	1903	55	1892	38	1876	28	1886	10	1882
9--------	3	1883	-7	1934	17	1932	28	*1917	37	1947	46	1913	56	1891	60	1922	50	1914	37	1896	29	1886	4	1876
10--------	-2	1875	-7	1899	16	*1932	30	1900	38	*1923	50	1913	56	1894	56	1879	46	1883	35	1895	30	1914	1	1876
11--------	2	1875	-6	1899	20	*1933	28	1909	40	1913	50	1904	57	*1898	58	1879	43	1917	35	1925	29	1913	12	*1917
12--------	4	1886	5	1899	12	1900	27	1874	39	1907	50	1907	57	1895	57	1928	45	1917	33	*1906	27	*1911	16	1933
13--------	0	1912	4	1917	12	1888	29	1950	40	1895	53	1907	57	1888	56	1902	49	1917	34	*1917	22	1911	14	1895
14--------	-2	1912	6	1899	14	1888	24	1950	45	1939	53	*1933	58	1895	57	1893	48	*1953	34	1875	24	1905	14	1898
15--------	8	1893	6	*1943	20	1932	31	1950	42	1895	50	1933	57	1895	59	*1907	40	1873	33	1876	22	1933	11	1914
16--------	1	1893	5	1905	14	1911	31	*1943	43	1904	52	1884	58	1929	58	1889	41	1873	30	1876	19	1933	12	1914
17--------	8	1912	5	*1904	15	1900	27	1875	44	*1891	53	1926	59	1892	55	1902	48	1923	36	*1893	21	1933	8	1876
18--------	2	1893	7	1903	9	1877	26	1875	46	*1895	54	1879	60	*1924	56	1915	47	1943	36	1876	22	1891	7	1919
19--------	6	1904	5	1903	12	1876	24	1875	47	*1916	56	*1909	60	1924	56	1953	44	1929	34	1940	20	1936	10	*1884
20--------	8	1940	8	1896	12	*1885	27	1904	47	*1950	55	*1946	57	1890	54	1896	47	*1937	32	1940	23	1879	6	1942
21--------	8	1924	8	1885	12	1885	32	1875	43	1907	53	1940	55	1890	55	1876	45	*1897	35	1940	21	1879	5	1942
22--------	7	1924	13	1896	19	*1885	32	1875	42	1895	54	1897	56	1890	55	1923	40	1904	34	*1940	15	1880	6	1872
23--------	0	1936	9	1907	16	*1934	34	1933	47	*1892	52	1918	58	1947	55	*1923	40	1904	36	*1924	16	1880	15	1945
24--------	6	1936	2	1873	18	1896	34	1930	45	1931	54	*1915	59	1876	51	1890	43	1875	34	1889	17	1880	8	1872
25--------	6	1935	8	*1914	21	1878	34	1883	43	1925	55	1902	59	*1953	55	*1942	42	1887	33	1879	23	1938	8	1872
26--------	6	1905	15	1900	21	1878	35	1919	44	1925	60	1918	57	1920	52	1874	40	1879	30	1879	18	1950	8	*1935
27--------	8	*1936	9	*1934	20	1894	38	1928	43	1915	57	*1927	56	1920	53	1885	41	1947	32	1936	18	1903	5	1914
28--------	2	1935	5	1934	22	1923	34	1898	44	1907	56	1897	59	1903	53	1885	44	*1947	30	1936	17	1930	13	*1933
29--------	6	1873	10	1884	18	1923	33	1874	43	1894	55	1888	60	1914	52	1874	43	1903	31	1873	18	*1930	2	1917
30--------	-4	1873			21	1887	34	1874	46	1884	54	1919	58	1914	54	*1896	39	1888	30	1873	12	1929	-3	1880
31--------	7	1948			21	1923			47	*1938			55	1895	53	1934			30	1925			-1	1880
Extreme--	-6		-7		5		15		34		46		54		51		39		30		12		-3	
Date-----	1	1881	9	*1934	4	1873	1	1923	1	1876	9	1913	4	1933	24	1890	30	1888	28	*1936	30	1929	30	1880

* Also in previous years.

TEMPERATURE

Table 4. Distribution * of Mean, Maximum and Minimum Temperatures (°F.) - Friendship International Airport

Month \ %	Mean					Maximum					Minimum				
	95	75	50	25	5	95	75	50	25	5	95	75	50	25	5
January---------	41.6	37.2	34.2	31.2	26.8	50.2	45.8	42.8	39.8	35.4	33.0	28.6	25.6	22.6	18.2
February--------	42.7	38.1	35.0	31.9	27.3	51.6	47.0	43.9	40.8	36.2	33.8	29.2	26.1	23.0	18.4
March----------	50.4	46.1	43.2	40.3	36.0	60.5	56.2	53.3	50.4	46.1	40.3	36.0	33.1	30.2	25.9
April----------	57.3	54.4	52.4	50.4	47.5	68.1	65.2	63.2	61.2	58.3	46.4	43.5	41.5	39.5	36.6
May----------	66.8	64.5	62.9	61.3	59.0	77.1	74.8	73.2	71.6	69.3	56.4	54.1	52.5	50.9	48.6
June----------	75.3	73.5	72.2	70.9	69.1	85.7	83.9	82.6	81.3	79.5	64.8	63.0	61.7	60.4	58.6
July----------	79.1	77.4	76.3	75.2	73.5	89.4	87.7	86.6	85.5	83.8	68.8	67.1	66.0	64.9	63.2
August----------	77.7	75.7	74.4	73.1	71.1	88.0	86.0	84.7	83.4	81.4	67.3	65.3	64.0	62.7	60.7
September-------	71.7	69.4	67.9	66.4	64.1	81.9	79.6	78.1	76.6	74.3	61.5	59.2	57.7	56.2	53.9
October---------	60.9	58.3	56.5	54.7	52.1	71.5	68.9	67.1	65.3	62.7	50.3	47.7	45.9	44.1	41.5
November--------	50.8	47.7	45.6	43.5	40.4	60.6	57.5	55.4	53.3	50.2	40.9	37.8	35.7	33.6	30.5
December--------	41.9	38.2	35.7	33.2	29.5	50.3	46.6	44.1	41.6	37.9	33.4	29.7	27.2	24.7	21.0

Computed to the nearest tenth of a degree by statistical methods from 30-year normal monthly values.
* Percentage frequency of temperature less than stated values: for example, the mean daily temperature for January will be less than 31.2° 25% of the time.

Table 5. Distribution * of Mean, Maximum and Minimum Temperatures (°F.)

Month \ %	Mean					Maximum					Minimum				
	95	75	50	25	5	95	75	50	25	5	95	75	50	25	5
January---------	44.0	39.6	36.6	33.6	29.2	51.0	46.6	43.6	40.6	36.2	37.0	32.6	29.6	26.6	22.2
February--------	45.0	40.4	37.3	34.2	29.6	52.3	47.7	44.6	41.5	36.9	37.6	33.0	29.9	26.8	22.2
March----------	52.5	48.2	45.3	42.4	38.1	60.9	56.6	53.7	50.8	46.5	44.0	39.7	36.8	33.9	29.6
April----------	59.2	56.3	54.3	52.3	49.4	68.2	65.3	63.3	61.3	58.4	50.2	47.3	45.3	43.3	40.4
May----------	69.2	66.9	65.3	63.7	61.4	78.3	76.0	74.4	72.8	70.5	60.1	57.8	56.2	54.6	52.3
June----------	77.4	75.6	74.3	73.0	71.2	86.2	84.4	83.1	81.8	80.0	68.6	66.8	65.5	64.2	62.4
July----------	81.3	79.6	78.5	77.4	75.7	89.7	88.0	86.9	85.8	84.1	72.8	71.1	70.0	68.9	67.2
August----------	79.7	77.7	76.4	75.1	73.1	87.9	85.9	84.6	83.3	81.3	71.5	69.5	68.2	66.9	64.9
September-------	74.2	71.9	70.4	68.9	66.6	82.4	80.1	78.6	77.1	74.8	66.0	63.7	62.2	60.7	58.4
October---------	63.7	61.1	59.3	57.5	54.9	72.2	69.6	67.8	66.0	63.4	55.1	52.5	50.7	48.9	46.3
November--------	53.9	50.8	48.7	46.6	43.5	61.4	58.3	56.2	54.1	51.0	46.3	43.2	41.1	39.0	35.9
December--------	45.0	41.3	38.8	36.3	32.6	51.6	47.9	45.4	42.9	39.2	38.3	34.6	32.1	29.6	25.9

Computed to the nearest tenth of a degree by statistical methods from 30-year normal monthly values.
* Percentage frequency of temperature less than stated values: for example, the mean daily temperature for January will be less than 33.6° 25% of the time.

Table 6. Distribution* of Dry-Bulb Temperature (°F) at Six-Hour Intervals - Friendship International Airport (Sept. 1950-Aug. 1955)

Hour \ %	January				February				March				April				May				June			
	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm
5--------	51	50	61	54	50	50	60	54	57	52	66	60	65	64	79	73	68	69	86	78	74	78	93	85
25--------	38	38	47	42	41	39	50	45	44	42	57	51	56	56	69	64	63	64	78	72	70	73	88	81
50--------	33	31	40	35	34	33	45	40	39	36	49	46	49	50	61	57	57	59	72	66	65	68	81	75
75--------	27	25	35	32	30	27	39	35	34	32	42	39	45	44	54	51	53	54	64	60	61	64	74	70
95--------	17	13	23	22	15	12	26	22	29	25	35	33	36	37	47	43	46	50	57	55	54	58	65	63

Hour \ %	July				August				September				October				November				December			
	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm
5--------	79	82	97	89	77	77	94	85	74	75	91	81	68	68	85	74	59	58	71	60	54	49	61	56
25--------	75	77	92	85	73	73	87	79	68	66	82	73	58	57	74	64	48	46	60	51	39	38	47	43
50--------	72	75	87	81	70	70	82	76	62	61	76	69	51	50	66	57	39	36	50	44	34	32	42	37
75--------	67	71	82	78	67	68	77	73	57	57	71	65	47	44	59	54	33	32	44	39	27	26	35	32
95--------	62	67	77	73	58	61	73	70	49	48	63	58	39	37	51	47	27	25	37	31	18	17	28	23

Dry bulb temperatures will be higher than shown for the percentage of time given. For example, the temperature at 7 a.m. in July will be higher than 77° 25% of the time.

TEMPERATURE

Table 7. Total Heating Degree Days, Base 65°F.

Season	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	Apr.	May	June	Total
1898-1899------	0	0	19	267	617	893	979	1017	723	344	91	1	4951
1899-1900------	0	0	62	209	526	857	901	891	819	320	83	6	4676
1900-1901------	0	0	8	153	465	863	934	995	661	435	115	16	4645
1901-1902------	0	0	53	262	694	924	1027	967	569	376	96	2	4970
1902-1903------	0	1	37	208	393	934	974	761	478	325	97	27	4235
1903-1904------	0	4	61	231	658	991	1170	1057	743	455	74	23	5467
1904-1905------	0	1	49	337	632	1036	1049	1056	632	331	74	13	5210
1905-1906------	0	0	31	254	577	822	761	864	844	283	103	8	4547
1906-1907------	0	0	9	278	531	891	886	1016	569	518	206	86	4990
1907-1908------	0	0	29	368	585	806	930	979	559	269	141	1	4667
1908-1909------	0	13	20	192	555	838	914	620	718	346	110	12	4338
1909-1910------	0	0	32	320	405	986	961	843	482	219	133	44	4425
1910-1911------	0	0	7	186	673	1048	825	798	753	419	65	6	4780
1911-1912------	0	10	25	214	648	730	1218	972	768	313	71	14	4983
1912-1913------	0	0	32	179	489	752	668	801	513	299	73	21	3827
1913-1914------	0	0	43	181	483	727	851	972	790	366	60	1	4474
1914-1915------	1	2	74	156	539	979	900	747	798	211	121	28	4556
1915-1916------	0	5	45	185	541	925	788	912	867	374	57	14	4713
1916-1917------	0	0	51	259	528	891	923	920	678	343	207	4	4804
1917-1918------	0	0	82	383	614	1131	1269	830	555	363	33	6	5266
1918-1919------	0	0	71	161	534	717	830	767	581	366	98	2	4127
1919-1920------	0	0	18	143	533	989	1125	932	626	382	170	12	4930
1920-1921------	0	0	12	130	536	778	871	728	345	204	131	1	3736
1921-1922------	0	0	1	222	519	862	1015	743	605	314	29	1	4311
1922-1923------	0	0	17	211	481	858	882	914	638	344	82	1	4428
1923-1924------	0	1	26	238	559	610	937	885	683	387	162	21	4509
1924-1925------	0	0	64	187	542	875	991	649	585	290	161	0	4344
1925-1926------	0	0	30	388	583	857	945	823	783	412	70	36	4927
1926-1927------	1	5	29	260	584	977	954	641	552	412	88	28	4531
1927-1928------	0	9	22	168	404	772	889	795	663	399	102	7	4230
1928-1929------	0	1	97	200	469	748	916	821	474	270	119	17	4132
1929-1930------	0	0	45	275	509	825	893	647	618	374	48	0	4234
1930-1931------	0	0	3	247	525	871	833	713	713	338	96	7	4346
1931-1932------	0	5	10	124	314	591	545	625	767	371	102	5	3459
1932-1933------	0	0	19	212	576	746	669	758	683	311	84	14	4072
1933-1934------	3	0	8	230	593	837	805	1148	756	338	69	0	4787
1934-1935------	0	2	2	256	433	844	982	838	484	392	140	2	4375
1935-1936------	0	0	36	216	447	1010	1059	1022	500	403	47	11	4751
1936-1937------	0	0	28	195	587	751	667	794	718	354	49	0	4143
1937-1938------	0	0	61	283	519	841	896	690	496	284	108	8	4186
1938-1939------	0	0	36	189	449	791	838	651	623	367	99	1	4044
1939-1940------	0	0	13	227	531	749	1208	798	773	442	95	2	4838
1940-1941------	0	8	49	296	498	685	940	866	771	213	61	8	4395
1941-1942------	1	0	8	134	393	698	905	857	558	235	21	4	3814
1942-1943------	0	2	50	149	484	928	932	732	634	437	63	1	4412
1943-1944------	0	0	54	273	536	863	831	783	719	361	25	6	4451
1944-1945------	0	0	27	246	515	936	1072	735	339	216	128	28	4242
1945-1946------	0	1	19	206	464	980	856	751	377	290	73	18	4035
1946-1947------	0	1	11	134	379	699	728	928	764	302	126	5	4077
1947-1948------	0	0	87	82	561	866	1104	820	562	308	80	1	4471
1948-1949------	0	0	25	268	363	751	702	592	578	312	79	0	3670
1949-1950------	0	0	47	98	488	728	562	765	735	396	102	0	3921
1950-1951------	0	0	61	147	497	894	806	749	611	295	74	10	4144
1951-1952------	0	0	23	148	624	734	755	681	667	267	77	1	3977
1952-1953------	0	0	8	264	457	747	714	636	558	311	38	15	3748
1953-1954------	0	0	28	130	454	686	875	565	601	185	112	0	3636
1954-1955------	0	0	2	177	529	845	926	763	549	203	38	14	4046
Mean 1898-1955	0	1	34	216	520	841	902	818	635	333	92	11	4404
Friendship International Airport													
1950-1951	0	1	85	207	572	973	862	791	665	338	101	17	4612
1951-1952	0	0	39	196	698	820	816	739	715	301	115	2	4439
1952-1953	0	1	27	369	555	842	794	692	597	327	37	14	4238
1953-1954	0	0	58	225	567	795	986	667	706	243	175	5	4427
1954-1955	0	0	25	259	641	924	1005	849	620	274	76	27	4700
Mean 1950-1955	0	0	47	251	607	871	893	748	661	297	101	13	4483

TEMPERATURE

Table 8. Distribution* of Total Degree Days, Base 65°F. (with normals)

MONTH	NORMAL 1921-1950	Cumulative Percentage of Degree Days less than Indicated Totals				
		5%	25%	50%	75%	95%
JULY---------	0	0	0	0	0	0
AUGUST--------	0	0	0	0	0	9
SEPTEMBER-----	29	2	14	29	49	75
OCTOBER-------	207	119	162	211	260	338
NOVEMBER------	489	377	466	528	573	649
DECEMBER------	812	671	749	845	919	1011
JANUARY-------	880	647	826	901	972	1171
FEBRUARY------	776	615	733	798	915	1057
MARCH---------	611	372	557	630	732	799
APRIL---------	326	204	288	336	376	438
MAY----------	73	29	66	87	112	163
JUNE----------	0	0	0	7	14	29
SEASONAL------	4203	3663	4078	4391	4706	4991

Distribution compiled from preceding Table 7
* Percentage frequency of monthly total degree days less than stated value: for example, total degree days for January will be less than 826 25% of the time

Table 9. Dry-Bulb Temperature Versus Wind Speed, Friendship International Airport (Hourly Observations, September 1950-August 1955)

Wind Speed (m.p.h.) / °F	January(3720*)				February(3384*)					March(3720*)					April(3600*)				
	0-4	5-14	15-24	25 & over	°F	0-4	5-14	15-24	25 & over	°F	0-4	5-14	15-24	25 & over	°F	0-4	5-14	15-24	25 & over
74-70------			2		79-75			2	1	84-80		1			89-85		4	5	1
69-65------	1	10	11	1	74-70		3	7	4	79-75		3	2	1	84-80		10	29	
64-60------	4	14	22	10	69-65	1	10	13	7	74-70	1	3	11	2	79-75	5	74	68	5
59-55------	5	59	33	8	64-60	3	22	20	7	69-65		26	41	5	74-70	5	86	65	5
54-50------	10	99	53	11	59-55	6	50	38	9	64-60	1	40	102	23	69-65	17	160	95	12
49-45------	37	167	66	17	54-50	28	129	80	21	59-55	15	133	126	21	64-60	39	301	134	2
44-40------	102	311	111	15	49-45	70	235	133	14	54-50	31	229	145	24	59-55	52	381	200	11
39-35------	145	431	208	25	44-40	61	335	201	18	49-45	47	348	140	22	54-50	47	470	204	5
34-30------	150	536	116	24	39-35	54	435	141	15	44-40	64	464	202	40	49-45	51	370	176	7
29-25------	69	336	76	7	34-30	60	466	63	7	39-35	70	409	194	45	44-40	25	199	86	4
24-20------	30	138	75	3	29-25	43	201	34	6	34-30	35	291	114	21	39-35	6	105	28	
19-15------	13	73	12		24-20	13	99	27	5	29-25	13	106	43	11	34-30	5	42	2	
14-10------	12	53			19-15	10	39	26	13	24-20	4	31	11	7	29-25		2		
9- 5------	1	8			14-10	14	45	23	6	19-15		2							
					9-5	1	8	2											

Wind Speed (m.p.h.) / °F	May(3720*)				June(3600*)					July(3720*)					August(3720*)				
	0-4	5-14	15-24	25 & over	°F	0-4	5-14	15-24	25 & over	°F	0-4	5-14	15-24	25 & over	°F	0-4	5-14	15-24	25 & over
94-90------		1		1	99-95	1	12	11		104-100		3	2		104-100		7		
89-85------	8	46	17	3	94-90	10	83	42	1	99-95	14	56	29		99-95	2	33	2	
84-80------	16	89	46	4	89-85	27	192	66	4	94-90	33	260	33	1	94-90	7	101	19	
79-75------	32	197	88	1	84-80	41	307	79	1	89-85	51	385	44		89-85	27	207	47	1
74-70------	56	284	97	5	79-75	52	384	67	2	84-80	106	532	55	1	84-80	59	371	62	
69-65------	74	494	118	2	74-70	83	553	68		79-75	150	643	50	4	79-75	97	654	106	7
64-60------	95	506	118	4	69-65	83	537	77	1	74-70	130	587	28	4	74-70	202	761	69	19
59-55------	87	482	117	5	64-60	58	378	58		69-65	61	262	12	2	69-65	105	410	24	6
54-50------	41	305	85	4	59-55	24	169	28	3	64-60	49	99	10		64-60	30	171	2	
49-45------	12	115	21	1	54-50	9	73	12		59-55	4	17	2		59-55	8	80		
44-40------	2	35	5		49-45		4			54-50	1				54-50		24		
39-35------		1																	

Wind Speed (m.p.h.) / °F	September(3600*)				October(3720*)					November(3600*)					December(3720*)				
	0-4	5-14	15-24	25 & over	°F	0-4	5-14	15-24	25 & over	°F	0-4	5-14	15-24	25 & over	°F	0-4	5-14	15-24	25 & over
99-95------	2	17	1		94-90		3	1		89-85		1	2		74-70			4	
94-90------	9	27	8		89-85	1	23	13	2	84-80		5	4		69-65	1	11	17	
89-85------	10	66	25	2	84-80	8	53	6		79-75		5	3		64-60	5	29	20	
84-80------	30	151	54		79-75	25	121	21		74-70	1	21	22		59-55	14	63	48	9
79-75------	38	303	80	7	74-70	34	193	43	8	69-65	13	54	27	2	54-50	20	88	36	5
74-70------	93	530	86	5	69-65	52	266	67	4	64-60	17	128	54	14	49-45	34	208	72	16
69-65------	98	518	91	1	64-60	91	429	78	1	59-55	55	206	71	10	44-40	82	367	194	13
64-60------	100	454	61		59-55	98	496	104	4	54-50	60	294	59	8	39-35	92	516	169	16
59-55------	64	321	14	1	54-50	83	472	84	1	49-45	80	415	87	13	34-30	112	492	131	10
54-50------	43	151	10		49-45	58	330	40	2	44-40	103	342	111	19	29-25	58	265	72	5
49-45------	23	66			44-40	20	221	27	6	39-35	102	371	118	13	24-20	32	195	56	
44-40------	3	35			39-35	10	76	10		34-30	65	343	59	13	19-15	13	80	12	2
39-35------		2			34-30	2	23			29-25	22	120	19	3	14-10	8	14	5	2
					29-25		10			24-20	8	18	4		9-5		7		
										19-15	2	12	2						

* Number of hourly observations

TEMPERATURE

Table 10. Critical Low Temperatures with Mean and Extreme Dates and Length of Seasons.

Station	Minimum Temperature (°F.)*							
	16°	20°	24°	28°	32°	36°	40°	42°
BALTIMORE								
Mean date, last Spring occurrence	(b) Feb. 13	Feb. 26	Mar. 9	Mar. 21	Mar. 31	Apr. 12	Apr. 22	Apr. 26
Latest Spring occurrence	Apr. 1	Apr. 1	Apr. 2	Apr. 20	Apr. 20	Apr. 28	May 13	May 22
Earliest Fall occurrence	Nov. 22	Nov. 16	Nov. 13	Nov. 5	Oct. 20	Oct. 1	Sep. 22	Sep. 22
Mean date, first fall occurrence	(c)	Dec. 20	Dec. 8	Nov. 26	Nov. 16	Oct. 30	Oct. 20	Oct. 16
Mean length of Season (a)	(c)	297	274	250	230	201	181	173
WOODSTOCK								
Mean date, last Spring occurrence	Mar. 1	Mar. 13	Mar. 26	Apr. 10	Apr. 22	May 5	May 16	May 20
Latest Spring occurrence	Apr. 1	Apr. 16	Apr. 23	Apr. 30	May 29	May 29	May 31	May 31
Earliest Fall occurrence	Nov. 8	Nov. 1	Oct. 15	Oct. 8	Sep. 25	Sep. 11	Sep. 10	Sep. 2
Mean date, first fall occurrence	Dec. 7	Nov. 24	Nov. 12	Oct. 31	Oct. 14	Oct. 6	Sep. 28	Sep. 21
Mean length of Season (a)	281	256	231	204	175	154	135	124

(a) Mean number of days between the mean dates of Spring and Fall temperatures shown.

(b) The two years when temperatures remained above 16° are excluded from these compilations.

(c) Temperature did not fall below 20° by Dec. 31 in one out of three years; data not computed.

* Indicated temperatures, or lower.

Table 11. Mean Daily Temperature °F. (Substations)

Station	1954 ELEVATION (FT.)	PERIOD OF RECORD (YRS.)	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	ANNUAL
Aberdeen	62	36	32.3	34.0	42.2	51.6	62.3	71.4	75.8	73.8	67.8	56.6	45.3	35.2	54.0
Annapolis	40	88	34.9	35.4	43.5	53.4	64.1	73.2	77.6	76.0	69.8	58.4	47.2	37.4	56.0
Baltimore Sledds Point	135	7	37.3	37.8	43.8	54.3	63.9	73.5	77.4	75.0	69.4	60.3	46.4	37.0	56.3
Benson	365	6	37.0	37.7	41.8	52.4	62.1	71.1	75.2	(7) 72.8	(7) 65.7	(7) 56.5	(7) 44.9	(7) 35.5	54.4
Dundalk	28	*20	35.4	36.5	44.5	54.2	65.1	73.8	78.0	76.4	69.3	59.0	47.5	37.5	56.4
Fallston	#450	83	31.9	32.3	40.5	51.0	(82) 61.7	(82) 69.9	(82) 74.3	(82) 72.4	(82) 66.4	(82) 55.5	(82) 44.1	(82) 34.2	(82) 52.9
Fort George G. Meade	195	12	36.4	37.1	44.2	53.2	63.7	71.9	75.1	73.7	66.8	56.8	45.7	35.7	55.0
Hamilton - Parkville	305	6	(5) 40.1	39.1	42.9	53.9	(5) 63.8	72.7	(7) 76.8	74.3	(7) 67.6	58.0	(7) 47.0	37.5	(2) 56.5
Laurel	400	54	33.6	34.2	(53) 43.1	52.8	63.1	71.3	75.7	73.7	67.9	(53) 56.2	45.4	35.4	(52) 54.2
Middle River	15	5	(4) 36.7	(4) 39.0	(4) 43.8	54.5	64.3	73.6	77.7	(4) 75.4	68.3	(4) 58.3	45.5	37.1	(3) 56.1
Parkton (Pretty Boy Dam)	600	21	(20) 32.8	33.6	41.0	51.1	62.2	70.4	74.5	72.6	66.2	55.7	44.4	34.5	(20) 53.3
Pikesville Police Brks	500	6	39.2	39.5	43.4	54.3	63.8	73.1	77.5	(7) 74.6	(7) 67.4	(7) 58.0	(7) 46.4	(7) 37.3	56.2
Randallstown Police Brks	625	6	37.8	38.1	42.6	53.3	63.0	72.1	76.1	(7) 72.6	(7) 65.7	(7) 56.1	(7) 44.5	35.6	(5) 54.8
Rock Hall	20	37	35.3	35.5	44.2	53.2	63.6	72.8	77.0	75.1	69.3	58.4	47.1	37.0	55.7
Towson	415	16	(17) 35.1	35.1	41.5	53.2	63.0	70.6	75.4	(17) 73.4	66.6	56.7	45.1	(17) 34.7	(13) 54.6
Waterloo Police Brks	230	6	39.9	39.4	43.8	54.3	64.0	72.7	76.9	(7) 74.2	(7) 67.5	(7) 57.9	(7) 46.1	(7) 37.2	(5) 56.3
Woodstock	415	83	32.6	33.5	41.9	52.3	63.0	70.9	75.1	72.8	66.3	55.1	43.7	34.4	53.5

Numbers in parentheses indicate number of years for which that month's data is computed
* Period of 1946-1948 taken from Airport records
\# 1953 elevation

TEMPERATURE

Table 12. Mean Daily Maximum Temperature °F. (Substations)

Station	1954 ELEVATION (FT.)	PERIOD OF RECORD (YRS.)	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	ANNUAL
Aberdeen	62	36	41.0	42.3	51.6	61.9	72.6	81.5	85.5	83.2	77.6	66.8	54.3	43.2	63.5
Annapolis	40	59	42.8	42.8	52.5	62.6	73.1	81.5	85.6	83.6	78.0	67.3	55.4	44.4	64.2
Baltimore Sledds Point	135	7	45.9	46.2	53.7	64.9	74.0	84.0	87.4	84.2	79.3	70.2	55.2	44.7	65.8
Benson	365	6	47.0	48.0	53.1	64.8	73.9	82.8	86.7	(7)84.0	(7)77.5	(7)68.1	(7)55.8	(7)45.1	65.5
Dundalk	28	*20	42.6	44.4	53.6	63.9	75.0	83.4	87.3	85.5	78.8	68.3	55.9	44.6	65.3
Fallston	#450	57	40.6	41.0	51.4	62.2	(56)72.6	(56)79.9	(56)84.2	(56)82.2	(56)77.0	(56)66.4	(56)53.7	(56)42.2	(56)62.8
Fort George G. Meade	195	12	46.0	47.8	55.8	66.2	76.1	84.5	87.5	85.9	79.4	69.7	57.2	45.5	66.8
Hamilton - Parkville	305	6	(5)48.6	47.9	52.6	64.8	(5)75.1	84.1	88.3	84.9	(7)79.0	68.6	(7)56.7	45.7	(2)66.5
Laurel	400	54	43.0	43.9	(53)54.0	64.9	75.5	82.7	86.8	84.4	79.0	(53)68.1	56.0	44.6	(52)65.1
Parkton (Pretty Boy Dam)	600	21	40.8	42.1	50.8	61.9	73.3	81.1	85.0	82.8	76.7	66.1	53.3	42.1	63.0
Middle River	15	5	(4)44.1	(4)47.0	(4)52.0	64.1	73.9	83.8	87.5	(4)84.4	77.4	(4)66.7	54.0	44.3	(3)64.9
Pikesville Police Bks	500	6	48.4	48.8	53.9	65.8	75.3	84.3	88.7	(7)85.2	(7)78.3	(7)68.6	(7)56.1	(7)45.6	66.6
Randallstown Police Bks	625	6	47.3	47.9	53.6	65.2	75.1	84.5	87.9	(7)84.2	(7)77.7	(7)67.5	(7)54.7	44.3	(5)65.9
Rock Hall	20	37	43.7	44.6	54.3	64.2	74.9	83.5	87.6	85.5	79.9	69.3	56.5	45.4	65.8
Towson	415	16	(17)44.4	44.8	52.1	(15)64.9	75.0	81.9	86.9	(17)84.6	78.8	68.4	55.7	(17)43.3	(12)65.8
Waterloo Police Barracks	230	6	50.3	49.9	55.4	66.8	76.4	85.3	89.2	(7)86.3	(7)80.1	(7)69.8	(7)57.2	(7)47.3	67.8
Woodstock	415	62	42.6	43.5	54.3	65.2	75.8	82.9	87.2	84.6	79.2	68.0	55.1	43.8	65.1

Numbers in parentheses indicate number of years for which that month's data is computed
1953 elevation
* Period of 1945-1949 taken from Airport records

Table 13. Mean Daily Minimum Temperature °F. (Substations)

Station	1954 ELEVATION (FT.)	PERIOD OF RECORD (YRS.)	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	ANNUAL
Aberdeen	62	36	25.1	25.6	32.7	41.4	52.0	61.4	66.1	64.3	58.1	46.2	36.2	27.3	44.7
Annapolis	40	59	28.0	27.4	35.6	44.7	55.4	64.5	69.2	68.1	62.3	50.7	40.0	30.8	48.1
Baltimore Sledds Point	135	7	28.6	29.3	33.9	43.6	53.8	63.1	67.4	65.7	59.4	50.5	37.6	29.4	47.0
Benson	365	6	27.0	27.3	30.5	39.9	50.2	59.3	63.7	(7) 61.6	(7) 54.0	(7) 44.9	(7)33.9	(7) 25.8	43.2
Dundalk	28	*20	28.2	28.6	35.4	44.4	55.2	64.2	68.7	67.2	59.8	49.6	39.0	30.4	47.6
Fallston	#450	56	24.6	23.7	32.0	40.6	(55)51.1	(55)60.0	(55)64.8	(55)63.3	(55)55.9	(55)45.9	(55)35.7	(55)26.6	(55)43.8
Fort George G. Meade	195	12	26.7	26.4	32.6	42.5	51.2	59.4	62.8	61.4	54.2	44.0	34.3	26.0	43.3
Hamilton - Parkville	305	6	(5) 31.5	30.2	33.3	43.0	(5) 52.5	61.2	65.5	63.6	(7) 56.1	47.4	(7) 37.3	29.3	(2) 46.5
Laurel	400	54	24.4	24.6	(53)32.2	40.8	51.1	59.9	64.6	63.1	56.7	44.5	34.7	26.2	(53)43.5
Middle River	15	5	(4) 29.2	(4) 30.9	(4) 35.5	44.9	54.6	63.4	67.8	(4) 66.3	59.3	(4) 49.7	37.1	32.9	(3) 47.7
Parkton (Pretty Boy Dam)	600	21	25.2	25.1	31.3	40.2	51.0	59.7	63.9	62.3	55.8	45.3	35.5	26.8	43.5
Pikesville Police Bks	500	6	29.9	30.1	32.8	42.9	52.2	61.8	66.2	(7) 63.8	(7) 56.5	(7) 47.4	(7) 36.7	(7) 28.9	45.8
Randallstown Police Bks	625	6	28.1	28.2	31.6	41.4	51.0	59.7	64.2	(7) 61.0	(7) 53.6	(7) 44.7	(7) 34.1	26.8	(5) 43.6
Rock Hall	20	37	26.9	26.5	34.0	42.1	52.3	62.1	66.4	64.7	58.7	47.6	37.6	28.6	45.6
Towson	415	16	(17)25.7	25.4	30.9	(15)41.8	51.0	59.2	63.8	(17)62.1	54.4	45.0	35.1	(17)26.1	(12) 43.7
Waterloo Police Barracks	230	6	29.4	28.8	32.2	41.7	51.6	60.0	64.6	(7) 62.1	(7) 54.8	(7) 46.0	(7) 34.9	(7) 27.1	44.4
Woodstock	415	61	23.8	23.7	31.9	40.3	50.5	59.2	63.6	62.0	55.4	43.5	33.9	25.8	42.8

Numbers in parentheses indicate number of years for which that month's data is computed.
1953 elevation
* Period of 1945-1949 taken from Airport records

PRECIPITATION

Table 14. Total Precipitation, Inches

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1817---------	2.25	2.80	4.50	1.50	2.60	9.00	3.50	10.00	3.30	1.80	3.70	3.60	48.55
1818---------	0.90	2.00	3.00	2.10	6.45	1.15	4.10	2.00	3.20	3.10	2.00	2.60	32.60
1819---------	0.70	1.90	4.55	2.70	4.10	1.30	2.20	4.30	3.00	0.70	1.10	2.20	28.75
1820---------	2.80	2.20	3.30	1.10	4.40	4.60	2.20	8.00	1.50	7.80	2.70	1.90	42.50
1821---------	3.30	5.40	1.70	2.10	5.10	1.80	7.50	0.30	10.70	3.40	5.60	3.30	50.20
1822---------	1.80	4.80	1.30	2.10	1.50	1.50	4.35	0.80	2.25	2.50	5.10	1.20	29.20
1823---------	5.60	0.70	7.10	1.80	2.10	1.60	3.60	4.10	5.80	2.80	3.10	6.25	44.55
1824---------	2.30	5.90	4.30	4.70	2.95	5.03	3.37	4.50	2.94	1.77	2.27	2.25	42.28
1825---------	(0.62)	(2.87)	(4.53)	(0.67)	(1.59)	(3.08)	(1.74)	(3.21)	(2.47)	(0.88)	(1.23)	(3.36)	26.25
1826---------	(0.81)	(1.85)	(5.70)	(3.41)	(0.21)	(3.86)	(3.20)	(2.40)	(1.92)	(4.54)	(1.62)	(1.16)	30.68
1827---------	(2.03)	(3.13)	(1.13)	(2.47)	(2.29)	(1.80)	(2.56)	(4.95)	(0.83)	(4.60)	(3.95)	(2.95)	32.69
1828---------	(1.46)	(2.41)	(3.25)	(3.37)	(3.18)	(2.28)	(4.68)	(1.35)	(4.28)	(0.99)	(5.51)	(0.25)	33.01
1829---------	5.50	4.40	9.10	4.40	3.40	8.50	4.64	(3.98)	(1.93)	(1.72)	(3.32)	(1.37)	52.26
1830---------	(1.17)	(1.79)	(4.02)	(1.57)	(3.42)	(4.92)	(3.55)	(3.35)	(2.76)	(3.32)	(4.42)	(4.68)	38.97
1831---------	(4.38)	(2.13)	(2.87)	(4.61)	(1.01)	(2.98)	(3.64)	(4.64)	(4.92)	(3.48)	(1.65)	(1.09)	37.40
1832---------	(3.24)	(2.33)	(1.80)	(2.61)	(4.90)	(1.37)	(2.24)	(4.90)	(1.38)	(2.60)	(2.21)	(4.69)	34.27
1833---------	(2.81)	(1.05)	(2.12)	(0.56)	(5.33)	(4.36)	(3.62)	(2.94)	(3.56)	(7.92)	(1.89)	(5.12)	41.28
1834---------	(1.77)	(1.93)	(1.92)	(2.47)	(3.21)	(3.32)	(3.80)	(0.59)	(3.33)	(2.51)	(2.55)	(2.11)	29.51
1835---------	(1.96)	(1.57)	(3.73)	(3.82)	(1.83)	(5.15)	(5.78)	(1.81)	(2.49)	(0.85)	(2.69)	(2.42)	34.10
1836---------	3.94	3.41	1.64	4.23	4.10	9.20	2.35	6.70	3.15	4.00	4.80	7.10	54.62
1837---------	2.10	3.10	6.30	2.10	4.20	4.90	4.30	5.10	3.80	3.10	3.40	2.60	45.00
1838---------	2.10	2.90	4.50	2.80	4.30	4.70	1.90	9.10	4.50	3.10	2.70	4.50	47.10
1839---------	3.50	3.60	4.00	9.10	4.50	4.10	5.60	2.20	1.90	1.60	2.80	8.80	51.70
1840---------	2.30	2.30	2.70	4.30	3.90	5.10	1.85	2.35	2.80	4.50	2.15	3.25	37.50
1841---------	6.10	1.40	5.95	4.50	2.75	4.35	1.35	4.00	2.30	2.80	3.30	5.10	43.90
1842---------	1.80	3.35	2.40	4.30	4.00	2.65	3.70	4.40	1.00	1.40	2.75	3.35	35.10
1843---------	1.60	2.20	3.80	2.90	3.55	0.90	5.40	7.82	10.50	1.97	4.25	3.90	48.79
1844---------	3.65	1.45	3.00	1.60	4.00	1.70	3.90	0.31	4.47	3.03	1.85	3.50	32.46
1845---------	2.40	3.59	1.70	1.49	2.36	2.93	1.26	2.77	1.51	3.73	1.22	3.43	28.39
1846---------	2.83	1.82	3.54	2.38	5.77	1.78	6.89	7.20	3.88	1.30	7.17	2.10	46.66
1847---------	2.92	3.42	2.38	0.41	1.19	3.36	2.51	2.97	5.55	3.38	2.54	2.38	33.01
1848---------	1.58	0.94	2.70	0.81	2.96	4.24	4.42	3.24	1.64	7.35	1.44	3.10	34.42
1849---------	1.02	1.15	3.63	0.87	4.18	1.50	2.06	2.55	1.90	6.27	1.06	4.44	30.63
1850---------	3.58	2.43	5.90	3.85	3.08	1.66	3.10	4.70	4.70	3.10	4.30	4.40	44.80
1851---------	1.70	2.90	5.70	4.70	4.60	1.20	4.20	3.30	0.50	2.20	5.60	1.50	38.10
1852---------	2.60	3.60	3.90	7.80	1.70	2.70	5.70	4.60	2.20	2.60	7.90	6.20	51.50
1853---------	1.30	3.40	2.70	3.10	4.30	0.60	3.30	4.70	2.40	4.40	3.50	2.30	36.00
1854---------	4.40	4.90	4.70	7.20	5.20	4.80	2.60	3.00	4.10	7.10	7.30	3.90	59.20
1855---------	2.50	4.00	2.80	0.39	0.91	2.79	2.62	2.50	2.30	3.70	1.20	3.60	29.31
1856---------	2.11	0.50	2.47	1.48	1.19	0.92	1.82	4.88	2.83	0.77	1.85	2.05	22.87
1857---------	3.50	0.66	2.30	1.84	3.23	7.45	2.47	4.43	1.40	2.89	1.87	6.33	38.37
1858---------	1.83	1.61	1.31	4.33	9.08	4.90	3.23	3.37	4.44	2.34	3.97	5.65	46.06
1859---------	7.06	5.74	6.26	6.96	2.74	1.16	6.20	3.76	(7.03)	(2.38)	(3.20)	(3.15)	55.64
1860---------	(2.29)	(2.42)	(1.32)	(3.35)	(3.48)	(2.44)	(0.77)	(7.25)	(2.69)	(3.49)	(5.05)	(2.99)	37.54
1861---------	(3.70)	(1.79)	(3.82)	5.13	4.76	2.38	7.06	3.31	1.80	2.96	5.48	1.36	43.55
1862---------	0.60	(4.11)	(3.45)	(3.67)	(2.12)	(5.71)	(2.11)	(0.85)	(3.70)	(3.69)	(3.97)	(1.50)	35.48
1863---------	(3.33)	(4.15)	(5.79)	(6.25)	(4.10)	(3.53)	(5.29)	(1.30)	(0.91)	(1.84)	(2.30)	(4.18)	42.97
1864---------	0.80	0.14	4.23	3.54	3.39	0.82	0.41	2.36	2.19	(1.33)	2.41	1.40	23.02
1865---------	1.19	1.21	2.62	2.82	4.92	(3.93)	1.74	1.90	1.81	2.68	2.50	5.90	33.22
1866---------	2.50	4.90	1.40	(2.56)	0.20	(2.50)	(2.15)	(1.92)	4.20	1.55	1.10	2.50	27.48
1867---------	0.90	3.80	3.90	(1.56)	(6.63)	2.00	(2.03)	3.52	1.00	2.60	(2.49)	(2.47)	32.90
1868---------	(2.56)	(2.21)	(3.26)	1.65	2.80	(3.63)	5.05	1.33	4.48	0.50	3.50	1.66	32.63
1869---------	2.42	2.85	3.64	0.50	1.38	1.76	0.30	0.50	3.15	5.08	1.86	3.90	27.34
1870---------	2.00	1.50	1.90	3.03	2.52	3.37	0.35	1.68	1.76	3.00	0.28	1.04	22.43
1871---------	1.55	1.38	3.03	1.90	2.03	2.82	6.15	3.41	2.22	3.11	3.24	1.90	32.74
1872---------	0.88	1.46	3.06	3.06	1.44	4.16	1.58	4.59	5.06	4.08	3.17	2.22	34.76
1873---------	4.27	4.74	3.02	2.77	6.31	0.94	2.90	9.49	3.70	6.21	4.05	0.97	49.37
1874---------	2.22	3.18	1.41	6.65	1.92	1.11	4.30	3.47	4.83	0.16	2.48	1.90	33.63
1875---------	2.51	2.91	4.72	4.27	1.49	2.85	4.78	8.67	3.62	1.44	4.86	3.14	45.26
1876---------	1.67	2.96	6.37	1.90	4.94	4.09	5.64	1.76	10.52	2.79	2.74	1.32	46.70
1877---------	3.80	1.87	3.60	3.30	2.23	3.53	4.60	0.64	5.27	5.22	6.85	2.23	43.14
1878---------	4.51	3.31	4.74	4.19	5.38	4.09	4.66	4.82	0.82	4.41	3.55	5.61	50.09
1879---------	2.59	1.55	1.65	3.69	2.74	3.92	3.16	6.71	2.72	0.75	1.30	5.23	36.01
1880---------	2.26	1.96	4.82	3.07	1.23	5.48	6.47	4.44	1.78	2.64	2.86	4.89	41.90
1881---------	4.84	5.68	7.59	2.00	2.30	7.81	1.40	2.15	2.98	4.06	2.41	5.90	49.12
1882---------	5.38	3.73	3.43	2.14	3.42	2.30	4.02	5.10	9.38	0.86	0.65	1.70	42.11
1883---------	3.16	4.69	3.68	3.20	1.22	8.08	3.10	2.72	3.49	2.83	1.37	2.98	40.52
1884---------	4.81	6.69	6.37	2.65	3.17	2.51	9.43	1.74	0.09	1.42	3.09	3.91	45.88
1885---------	3.07	4.40	1.60	1.37	4.50	6.31	2.67	7.78	1.30	6.51	4.04	2.49	46.04
1886---------	4.48	5.49	4.85	2.06	7.07	5.64	8.08	3.94	1.90	1.39	4.09	3.12	52.11
1887---------	2.57	4.69	3.49	2.44	2.57	4.44	8.32	4.15	2.80	1.06	2.02	5.04	43.59
1888---------	3.35	2.83	4.62	2.11	4.22	3.22	2.82	6.17	4.90	2.99	3.04	3.26	43.53
1889---------	4.22	2.53	5.71	8.70	6.82	6.17	11.03	1.40	4.59	4.12	6.45	0.61	62.35
1890---------	1.80	4.80	4.07	3.94	5.98	2.42	3.61	6.44	4.76	5.73	0.74	2.67	46.96
1891---------	4.89	5.52	7.94	2.48	3.11	5.45	7.79	4.24	5.46	2.76	1.33	3.24	54.21
1892---------	6.42	2.41	7.20	3.15	6.35	4.87	4.07	1.83	2.36	0.26	3.85	2.28	45.05
1893---------	1.78	4.43	1.38	3.52	3.78	2.26	1.88	1.81	1.80	3.44	3.78	2.29	32.15
1894---------	1.46	3.53	1.19	3.80	7.26	3.29	1.73	1.41	4.75	3.80	1.98	4.12	38.32
1895---------	4.67	0.83	2.94	7.42	3.04	2.83	3.40	2.43	6.01	2.20	1.86	2.84	40.47
1896---------	2.62	7.07	4.70	1.44	1.61	3.94	6.32	1.93	4.14	1.11	3.34	0.37	38.59
1897---------	2.05	5.13	2.40	3.19	6.88	2.57	6.93	4.71	2.17	3.67	4.39	3.40	47.49
1898---------	2.99	1.32	2.58	1.84	3.86	1.06	3.51	6.09	1.56	3.97	4.34	3.34	36.46
1899---------	3.50	5.47	4.93	1.89	3.29	2.16	1.64	4.86	7.09	2.09	2.27	1.40	40.59
1900---------	2.11	4.65	3.17	2.06	1.00	4.34	1.51	2.91	4.26	1.68	1.81	2.07	31.57
1901---------	2.45	0.65	3.58	5.53	3.67	0.90	6.18	6.73	2.50	1.52	2.26	7.07	43.04
1902---------	3.05	4.68	3.41	2.90	1.62	4.30	2.45	4.31	7.19	6.85	3.71	5.66	50.13
1903---------	3.81	5.43	4.40	3.29	3.33	5.01	7.65	5.88	1.00	3.54	0.73	2.19	46.26
1904---------	2.86	1.50	2.88	2.37	1.84	3.27	4.58	1.95	5.90	3.73	1.87	3.34	36.09
1905---------	4.69	2.40	3.23	3.07	1.82	4.05	10.65	6.85	2.14	2.04	1.35	4.32	46.61

PRECIPITATION

Table 14 (Cont'd.) Total Precipitation, Inches

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1906---------	3.22	2.21	4.63	3.31	2.73	5.10	7.96	5.80	0.32	5.74	1.74	4.06	46.82
1907---------	3.14	1.93	2.94	3.13	2.92	5.22	5.76	4.60	8.52	1.61	5.02	4.30	49.09
1908*--------	3.49	4.71	2.50	1.09	4.04	1.08	4.34	5.17	2.59	2.59	0.77	3.04	35.41
1909---------	2.78	3.25	4.58	2.18	4.59	4.38	1.31	0.86	3.97	1.03	1.15	4.62	34.70
1910---------	4.68	2.28	0.46	7.76	2.95	5.30	0.95	1.37	2.13	2.71	1.93	2.45	34.97
1911---------	3.48	2.31	2.45	2.69	3.45	5.52	3.53	12.28	1.60	3.31	4.28	3.68	48.58
1912---------	2.63	2.75	6.64	1.94	3.30	3.09	5.96	3.25	8.75	0.72	1.93	4.17	45.13
1913---------	2.45	1.61	3.89	5.15	3.12	1.47	2.63	6.38	1.51	3.50	1.82	2.58	36.11
1914---------	5.66	2.89	1.80	4.55	1.17	1.64	2.55	6.74	1.64	1.24	2.18	4.34	36.40
1915---------	6.81	4.75	1.06	1.37	3.19	6.23	2.22	9.93	2.30	3.86	1.59	3.08	46.39
1916---------	1.51	3.21	3.61	3.68	3.49	5.33	5.04	0.83	1.82	1.61	1.97	3.94	36.04
1917---------	3.04	1.75	3.80	2.21	3.24	4.05	7.09	2.39	2.86	5.01	0.52	1.96	37.92
1918---------	5.00	1.04	4.17	6.79	3.17	1.75	2.28	3.35	3.01	0.76	1.50	4.72	37.54
1919---------	3.51	2.62	4.22	4.05	5.46	2.69	7.21	6.45	2.31	2.50	3.10	3.11	47.23
1920---------	1.87	3.41	2.56	4.84	2.30	8.25	4.94	9.47	3.08	0.17	3.96	3.58	48.43
1921---------	2.05	2.85	2.60	2.59	5.99	1.97	4.93	3.49	3.19	1.61	4.37	2.08	37.72
1922---------	4.88	2.94	4.83	0.88	4.00	4.45	7.28	1.11	2.69	5.58	0.44	3.43	42.51
1923---------	4.14	2.51	4.12	3.68	2.59	1.84	2.04	3.14	3.85	2.83	2.04	3.88	36.66
1924---------	4.33	4.14	6.66	5.89	5.80	5.54	1.99	5.22	5.75	0.05	1.37	2.30	49.04
1925---------	5.35	0.98	2.00	2.66	1.86	1.01	5.57	2.41	0.75	5.43	3.16	1.54	32.72
1926---------	3.10	4.27	2.19	1.46	2.60	2.46	5.74	5.58	4.19	4.24	6.46	2.89	45.18
1927---------	1.38	3.78	1.47	5.48	2.03	2.96	1.41	3.04	1.95	6.90	2.22	3.61	36.23
1928---------	2.76	2.89	3.12	6.26	3.09	4.43	3.54	9.70	4.35	0.26	1.78	1.22	43.40
1929---------	2.90	3.45	3.16	6.73	1.78	4.82	1.13	4.04	2.79	6.77	2.44	2.46	42.47
1930---------	2.66	2.38	2.27	3.12	2.91	2.97	0.64	0.78	0.37	0.37	1.13	1.95	21.55
1931---------	1.89	1.41	4.62	2.77	5.80	1.89	6.04	7.98	2.05	1.79	1.13	2.20	39.57
1932---------	5.85	2.08	6.48	2.15	5.51	2.91	2.42	3.92	1.47	7.17	6.17	3.45	49.58
1933---------	3.37	2.95	4.60	7.58	5.17	3.09	3.90	13.83	3.28	1.76	0.96	2.47	52.96
1934---------	2.53	3.29	4.47	2.32	4.04	5.39	2.24	6.63	12.41	0.95	3.51	3.10	50.88
1935---------	4.79	2.74	2.82	5.12	4.51	5.01	4.55	3.97	7.59	2.63	5.63	2.16	51.52
1936---------	5.94	3.75	6.42	2.56	3.18	1.48	4.89	4.60	2.16	1.73	0.79	7.10	44.60
1937---------	6.74	3.52	1.93	7.92	3.27	3.53	3.81	5.06	1.10	7.75	5.21	0.95	50.79
1938---------	2.23	3.10	2.44	1.40	4.86	1.49	4.87	2.43	5.05	2.15	2.11	2.66	34.79
1939---------	3.77	6.52	3.75	5.92	1.47	3.86	2.41	3.52	3.08	4.01	0.76	1.87	40.94
1940---------	1.81	3.97	3.97	6.99	4.41	2.37	2.85	5.60	1.32	2.37	5.99	2.68	44.33
1941---------	3.29	1.07	2.20	3.29	3.61	7.77	5.61	1.60	0.50	0.99	1.32	3.48	34.73
1942---------	2.04	2.79	6.50	0.88	4.19	2.26	4.46	7.01	1.82	7.75	2.36	3.96	46.02
1943---------	3.53	2.08	4.38	2.56	4.76	1.29	4.95	0.86	1.84	6.29	2.77	1.44	36.75
1944---------	5.04	2.20	6.04	3.80	1.72	2.55	2.81	4.22	5.39	4.01	3.93	3.83	45.54
1945---------	3.75	3.44	1.41	3.55	3.50	2.65	9.68	2.48	5.06	1.18	3.92	5.99	46.61
1946---------	1.66	3.33	1.89	1.56	6.39	3.65	5.37	4.02	3.98	2.59	1.24	1.97	37.65
1947---------	3.89	1.87	1.54	5.56	3.95	7.48	4.92	3.74	3.54	1.20	6.92	1.63	46.24
1948---------	5.83	1.89	3.85	2.92	6.41	9.36	1.94	5.75	2.27	3.62	5.40	5.47	54.71
1949---------	6.13	3.41	2.74	2.44	5.90	1.19	3.24	2.82	2.33	4.11	1.13	2.25	37.69
1950---------	2.13	4.12	4.30	1.37	5.00	3.81	3.07	2.96	7.71	2.96	2.16	4.37	43.96
1951---------	2.85	3.56	3.21	3.63	3.84	9.14	3.11	0.77	3.48	2.29	6.03	5.02	46.93
1952---------	4.30	2.23	4.66	8.18	6.59	3.79	7.11	3.81	4.53	0.74	6.25	3.70	55.89
1953---------	4.78	2.77	6.57	3.86	5.62	6.49	4.54	3.25	3.72	2.75	1.50	3.47	49.32
1954---------	1.84	1.07	4.45	3.04	2.72	0.37	2.18	4.34	1.59	3.32	2.67	2.87	30.46
Mean Total Precipitation (Inches) - By Decades													
1821-1830----	2.46	3.33	4.21	2.66	2.57	3.44	3.92	2.89	3.59	2.65	3.61	2.68	38.01
1831-1840----	2.81	2.43	3.16	3.66	3.73	4.52	3.51	4.03	3.18	3.37	2.68	4.17	41.25
1841-1850----	2.75	2.18	3.50	2.31	3.38	2.51	3.46	4.00	3.74	3.43	2.99	3.57	37.82
1851-1860----	2.93	2.97	3.35	4.11	3.64	2.90	3.29	4.18	2.99	3.19	4.14	3.77	41.46
1861-1870----	2.00	2.67	3.40	3.07	3.28	2.96	2.65	1.87	2.50	2.52	2.59	2.59	32.10
1871-1880----	2.63	2.53	3.64	3.48	2.97	3.30	4.42	4.80	4.05	3.08	3.51	2.94	41.36
1881-1890----	3.77	4.55	4.54	3.06	4.13	4.89	5.45	4.16	3.62	3.10	2.79	3.17	47.22
1891-1900----	3.25	4.04	3.84	3.08	4.02	3.28	3.88	3.22	3.96	2.50	2.90	2.54	40.49
1901-1910----	3.42	2.90	3.26	3.46	2.95	3.86	5.18	4.35	3.63	3.14	2.05	4.11	42.31
1911-1920----	3.60	2.63	3.42	3.73	3.19	4.00	4.35	6.11	2.89	2.27	2.29	3.52	41.98
1921-1930----	3.36	3.02	3.24	3.88	3.27	3.25	3.43	3.85	2.99	3.40	2.54	2.54	38.75
1931-1940----	3.89	3.33	4.15	4.47	4.22	3.10	3.80	5.75	3.95	3.23	3.23	2.86	46.00
1941-1950----	3.73	2.62	3.49	2.79	4.54	4.20	4.61	3.55	3.44	3.47	3.12	3.44	42.99
Mean Total Precipitation (Inches) for Period of Record, 138 years													
1817-1954----	3.09	2.98	3.67	3.36	3.59	3.61	3.97	4.09	3.40	3.01	2.97	3.22	40.96
Normal Precipitation - City Office and Friendship International Airport													
1921-1950----	3.66	2.99	3.63	3.72	4.01	3.52	3.94	4.38	3.46	3.37	2.96	2.95	42.59
Friendship International Airport Mean Total Precipitation for the five-year period September 1950 - August 1955 except annual which is 1951-1954 (four years)													
1950-1954----									4.19	2.25	3.93	3.49	
1951-1955----	2.78	2.52	4.51	4.34	3.93	4.35	3.11	6.44					44.63

* Beginning 1908 new location 0.8 Mi. S.E.

NOTE: This table shows total precipitation amounts, including rain and the water melted from frozen precipitation, as observed in the area (not adjusted to a single location) as follows:

1. West Baltimore, by Capt. Lewis Brantz from 1817 through 1824.
2. Washington, D. C., January 1829 through July 1829.
3. Ft. Henry (Baltimore Harbor), 1831 through 1870.
4. Values for the two periods from January 1825 through December 1828 and from August 1829 through December 1935 together with those values shown in parentheses during the period from September 1859 through June 1868 are interpolated.
5. U. S. Weather Bureau 1871 through 1954.

See Table 1.

PRECIPITATION

Table 15. Maximum Precipitation, Inches, by Time Intervals (1893-1954)

Month		DURATION									
		5 Min.	10 Min.	15 Min.	30 Min.	1 Hr.	2 Hrs.	3 Hrs.	6 Hrs.	12 Hrs.	24 Hrs.
JANUARY	Amt.....	0.20	0.30	0.30	0.47	0.69	0.88	1.25	1.97	2.64	3.73
	Date.....	4/1907	26/1895	26/1895	30/1895	30/1939	1/1948	1/1948	1/1948	1/1948	3-4/1944
FEBRUARY	Amt.....	0.23	0.27	0.32	0.35	0.60	0.87	1.08	1.66	2.72	3.48
	Date.....	28/1903	28/1939	28/1939	28/1939	21/1954	28/1939	28/1939	6/1896	6/1896	5-6/1896
MARCH	Amt.....	0.28	0.36	0.44	0.62	0.79	1.20	1.39	1.92	2.41	2.60
	Date.....	15/1953	19/1905	19/1905	28/1932	28/1932	28/1932	28/1932	27-28/1932	27-28/1932	27-28/1932
APRIL	Amt.....	0.54	0.88	1.15	1.48	2.14	2.17	2.38	3.09	3.64	3.99
	Date.....	26/1939	26/1939	26/1939	26/1939	26/1939	26/1939	30/1947	30-1/1947	30-1/1947	25-26/1937
MAY	Amt.....	0.68	0.92	1.13	1.48	2.05	2.10	2.20	3.09	3.64	3.89
	Date.....	20/1940	20/1940	24/1930	24/1930	25/1952	25/1952	25/1952	30-1/1947	30-1/1947	25/1952
JUNE	Amt.....	0.77	1.23	1.67	2.50	3.40	4.40	4.40	4.40	4.40	4.40
	Date.....	12/1948	12/1948	23/1941	28/1953	28/1953	28/1953	28/1953	28/1953	28/1953	28/1953
JULY	Amt.....	0.80	1.35	1.92	2.75	2.87	2.87	2.90	3.61	4.01	4.01
	Date.....	12/1903	12/1903	12/1903	12/1903	12/1903	12/1903	18/1907	22/1906	22-23/1906	22-23/1906
AUGUST	Amt.....	0.59	1.13	1.56	2.30	2.36	2.50	2.50	4.13	6.50	7.62
	Date.....	31/1918	25/1911	25/1911	25/1911	25/1911	25/1911	25/1911	23/1933	23/1933	23/1933
SEPTEMBER	Amt.....	0.45	0.75	0.98	1.40	1.95	2.43	2.92	3.70	4.16	6.07
	Date.....	19/1954	19/1896	1/1910	1/1910	1/1952	10/1950	10/1950	10/1950	24/1912	24-25/1912
OCTOBER	Amt.....	0.45	0.64	0.70	1.26	2.06	3.17	4.04	4.59	5.18	5.30
	Date.....	15/1931	15/1931	12/1927	10/1922	10/1922	10/1922	10/1922	9-10/1922	9-10/1922	9-10/1922
NOVEMBER	Amt.....	0.27	0.32	0.41	0.65	0.93	1.50	1.79	2.60	3.82	4.19
	Date.....	18/1918	18/1918	17/1927	16/1926	26/1895	16/1926	16/1926	13/1937	12-13/1937	12-13/1937
DECEMBER	Amt.....	0.19	0.25	0.31	0.39	0.76	1.26	1.51	2.15	2.90	3.16
	Date.....	12/1894	12/1894	6/1923	6/1923	13/1909	13/1909	13/1909	13/1909	13/1909	12-13/1909
	Greatest Amt.....	0.80	1.35	1.92	2.75	3.40	4.40	4.40	4.59	6.50	7.62

Table 16. Distribution* of Precipitation Totals, Inches

MONTH	Percentage of time Monthly Totals Will be Less than indicated values				
	5%	25%	50%	75%	95%
JANUARY-------	0.90	2.03	2.82	3.93	5.87
FEBRUARY------	.94	1.90	2.86	3.78	5.50
MARCH---------	1.33	2.45	3.55	4.60	6.59
APRIL---------	.88	2.05	3.04	4.26	7.45
MAY----------	1.19	2.34	3.40	4.56	6.47
JUNE----------	.94	1.94	3.33	4.86	7.85
JULY----------	1.12	2.25	3.61	5.18	7.82
AUGUST--------	.78	2.37	3.77	5.10	9.15
SEPTEMBER-----	.82	1.86	2.84	4.41	7.80
OCTOBER-------	.49	1.61	2.77	3.93	6.93
NOVEMBER------	.76	1.77	2.55	3.97	6.28
DECEMBER------	1.10	2.15	3.10	4.02	6.02
ANNUAL--------	27.48	34.78	41.91	46.69	53.09

These data compiled from records in previous Table 14
* Percentage of precipitation totals less than stated values: for example, precipitation in May will be less than 2.34 inches 25% of the time

Table 17. Distribution of Monthly Snowfall Totals -1883-1955 (72 yrs.) Snowfall (snow, sleet and hail - inches)

MONTH	Percentage of time Monthly Totals will be Less than indicated values				
	5%	25%	50%	75%	95%
JULY----------	0	0	0	0	0
AUGUST--------	0	0	0	0	0
SEPTEMBER-----	0	0	0	0	0
OCTOBER-------	0	0	0	0	T
NOVEMBER------	0	T	T	0.4	3.8
DECEMBER------	T	0.2	2.9	5.5	12.1
JANUARY-------	T	1.4	3.2	8.2	17.4
FEBRUARY------	T	1.6	4.9	9.4	15.6
MARCH---------	T	.1	2.2	7.5	14.6
APRIL---------	0	0	T	T	4.7
MAY----------	0	0	0	0	T
JUNE----------	0	0	0	0	0
SEASONAL------	4.7	13.5	21.5	29.3	42.2

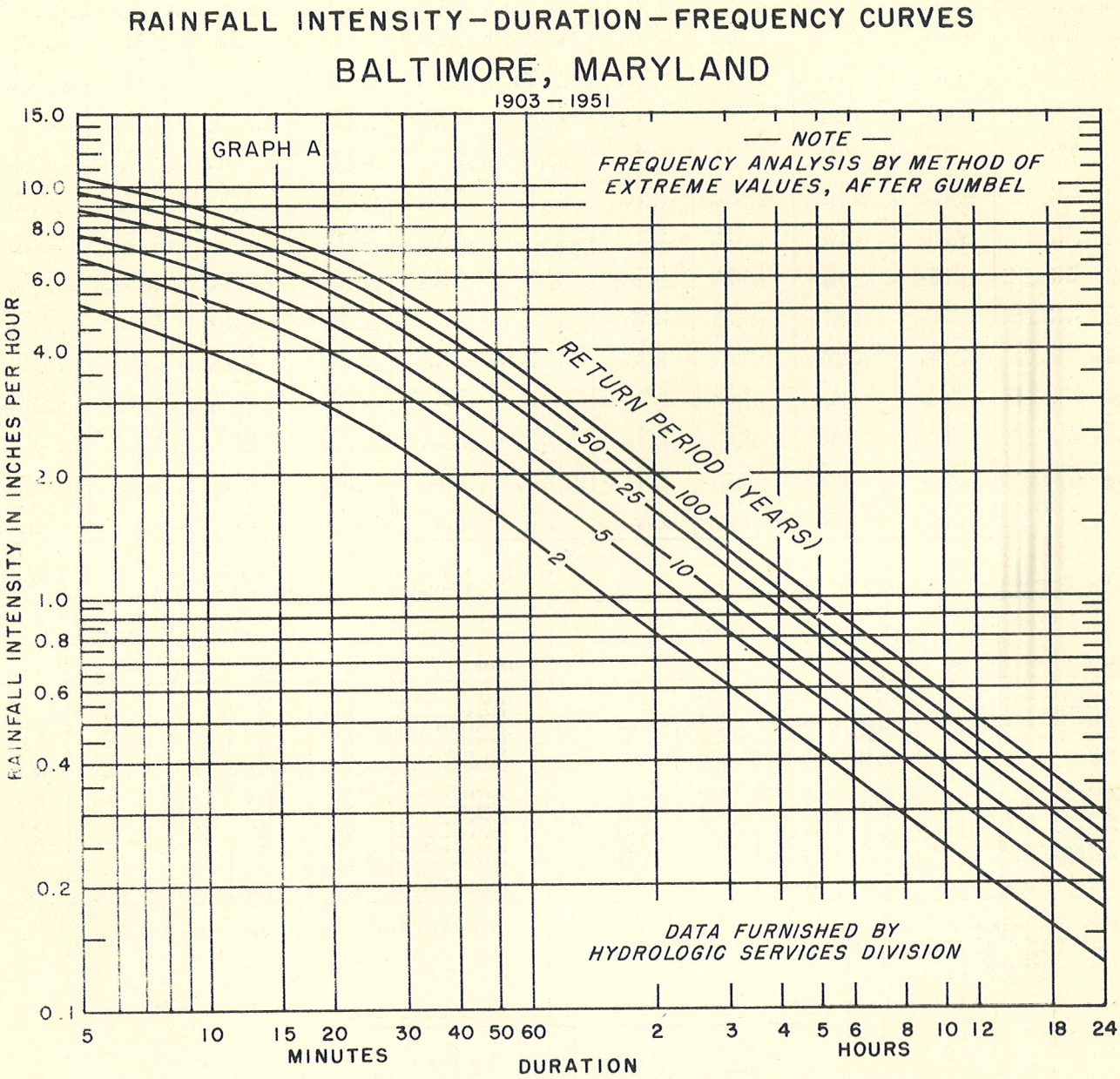
These data compiled from subsequent Table 19

Table 18. Maximum Snowfall* (Inches)

Month	Maximum Monthly	Year	Maximum 24 Hours	Year
(a)--------	72		83	
January--------	31.3	1922	24.5	1922
February-------	33.9	1899	15.5	1899
March----------	25.6	1892	22.0	1942
April----------	9.4	1924	9.4	1924
May----------	T	1954+	T	1954+
June----------	.0		.0	
July----------	.0		.0	
August---------	.0		.0	
September------	.0		.0	
October--------	2.5	1925	2.5	1925
November-------	9.7	1938	8.5	1938
December-------	17.1	1932	11.5	1932
Annual---------	33.9	Feb. 1899	24.5	Jan. 1922

NOTE: City Office data to 1950; Airport data thereafter.
(a) Length of record, in years.
\+ Also in previous years.
* Snowfall includes sleet and hail.

PRECIPITATION



This graph is for use in estimating runoff and the frequency of various rainfall intensities in the Baltimore area. For example: Rain lasting 5 hours at the average rate of 0.8 inch per hour can be expected about once in 25 years, while approximately once in 10 years a rain of 2.0 inches (intensity 3.0 inches per hour) will fall in 40 minutes.

PRECIPITATION

Table 19. Total Snowfall*, Inches

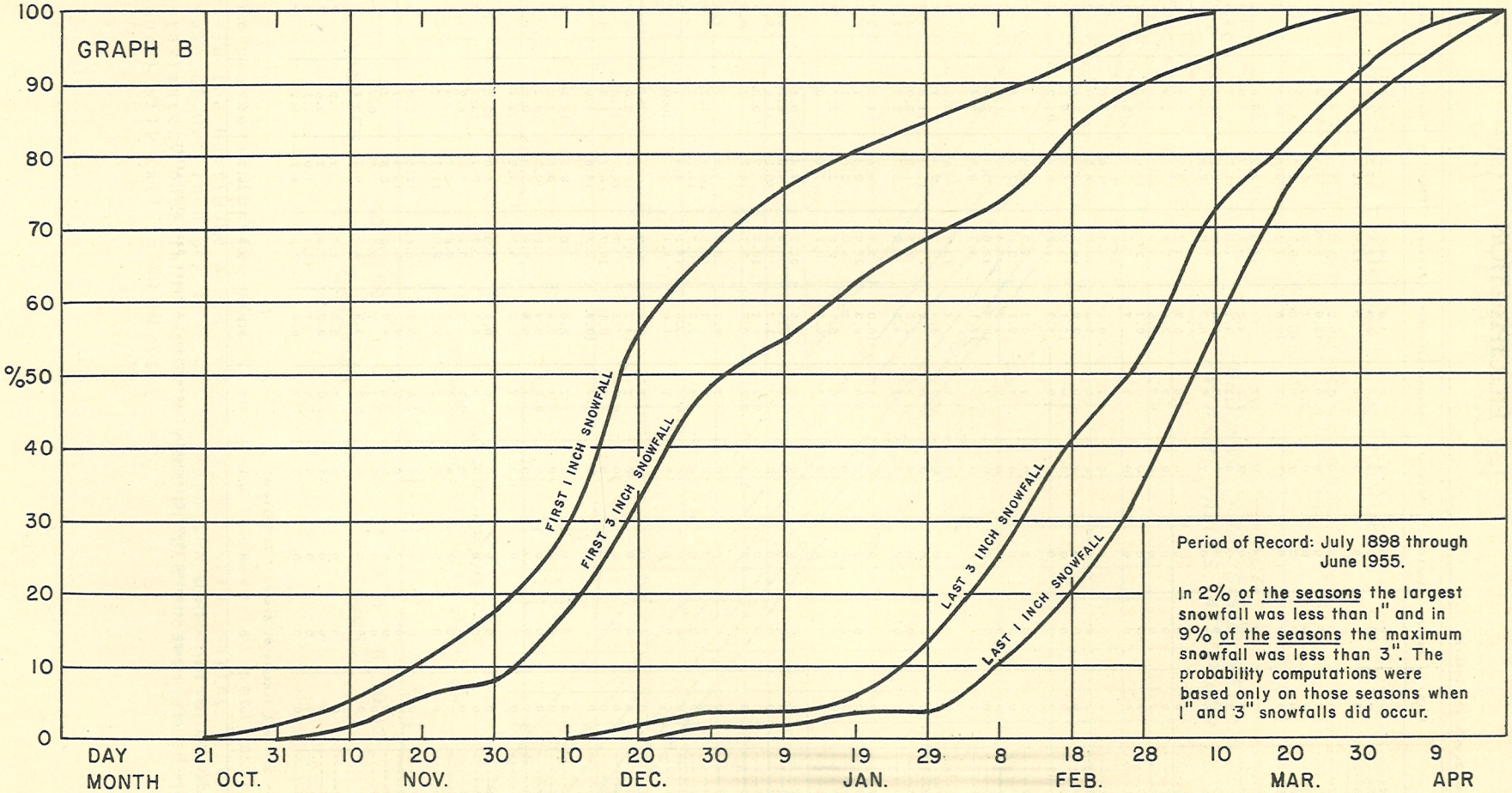
Season	July	August	September	October	November	December	January	February	March	April	May	June	Total
1883-1884-----	0	0	0	0	0	4.4	14.2	0	8.7	8.0	0	0	35.3
1884-1885-----	0	0	0	0	0.6	3.8	1.9	17.2	5.9	2.0	0	0	31.4
1885-1886-----	0	0	0	0	0	0	13.0	15.3	2.0	0	0	0	30.3
1886-1887-----	0	0	0	0	T	10.2	2.5	5.0	6.8	1.1	0	0	25.6
1887-1888-----	0	0	0	0	0	12.0	8.8	3.9	7.4	0	0	0	32.1
1888-1889-----	0	0	0	0	1.1	T	2.6	5.3	T	T	0	0	9.0
1889-1890-----	0	0	0	T	0	0	0.1	2.5	2.3	T	0	0	4.9
1890-1891-----	0	0	0	T	T	10.6	1.3	3.5	20.5	0	T	0	35.9
1891-1892-----	0	0	0	0	T	T	14.5	4.2	25.6	T	0	0	44.3
1892-1893-----	0	0	0	0	2.2	4.3	8.1	11.7	4.0	0	T	0	30.3
1893-1894-----	0	0	0	0	0.2	3.1	1.0	11.7	T	5.0	0	0	21.0
1894-1895-----	0	0	0	0	T	3.0	5.0	9.3	0.6	0	0	0	17.9
1895-1896-----	0	0	0	T	T	0.2	1.0	2.8	13.8	T	0	0	17.8
1896-1897-----	0	0	0	0	3.0	3.2	4.7	0.7	T	0	0	0	11.6
1897-1898-----	0	0	0	0	T	2.6	5.4	0	2.4	0.1	0	0	10.5
1898-1899-----	0	0	0	0	9.7	0.6	5.3	33.9	1.6	0	0	0	51.1
1899-1900-----	0	0	0	0	0	0.7	2.5	13.0	9.5	T	0	0	25.7
1900-1901-----	0	0	0	0	T	T	6.5	2.1	0.1	0	0	0	8.7
1901-1902-----	0	0	0	0	0.1	0.6	6.7	1.0	5.0	0	0	0	13.4
1902-1903-----	0	0	0	0	0	7.0	6.8	6.0	0	0	0	0	19.8
1903-1904-----	0	0	0	T	1.0	3.8	16.6	2.5	2.0	0	0	0	25.9
1904-1905-----	0	0	0	0	3.0	17.1	15.0	5.4	0.2	T	0	0	40.7
1905-1906-----	0	0	0	0	0	5.7	1.2	6.9	11.2	0	0	0	25.0
1906-1907-----	0	0	0	0	T	0.2	7.3	15.9	7.7	T	0	0	31.1
1907-1908-----	0	0	0	0	T	2.1	2.6	12.1	0.5	T	0	0	17.3
1908-1909-----	0	0	0	0	4.8	7.5	4.4	3.3	11.7	T	0	0	31.7
1909-1910-----	0	0	0	0	T	10.9	12.8	3.8	2.1	0	0	0	29.6
1910-1911-----	0	0	0	0	1.0	12.1	4.7	8.9	8.4	T	0	0	35.1
1911-1912-----	0	0	0	0	T	T	13.9	T	8.5	0	0	0	22.4
1912-1913-----	0	0	0	0	0.5	4.4	T	2.4	T	T	0	0	7.3
1913-1914-----	0	0	0	0	0	T	T	11.4	11.6	0	0	0	23.0
1914-1915-----	0	0	0	0	0	2.5	2.5	1.5	5.0	4.5	0	0	16.0
1915-1916-----	0	0	0	0	T	4.3	1.5	5.7	2.5	5.0	0	0	19.0
1916-1917-----	0	0	0	0	T	10.0	5.9	6.6	1.5	3.0	0	0	27.0
1917-1918-----	0	0	0	T	2.0	8.3	21.9	2.4	T	0	0	0	34.6
1918-1919-----	0	0	0	0	0	T	1.0	3.0	T	T	0	0	4.0
1919-1920-----	0	0	0	0	0	5.1	2.0	5.5	2.3	T	0	0	14.9
1920-1921-----	0	0	0	0	T	0.5	0.2	7.2	0	T	0	0	7.9
1921-1922-----	0	0	0	0	T	8.6	31.3	4.4	0.1	0	0	0	44.4
1922-1923-----	0	0	0	0	T	2.5	6.0	4.3	6.2	0.5	T	0	19.5
1923-1924-----	0	0	0	0	0	1.7	0.4	10.2	11.6	9.4	0	0	33.3
1924-1925-----	0	0	0	0	0.2	T	18.7	T	0.3	0	0	0	19.2
1925-1926-----	0	0	0	2.5	0.2	0.2	3.1	14.2	T	0.5	0	0	20.7
1926-1927-----	0	0	0	0	T	0.7	0.9	5.6	T	1.3	0	0	8.5
1927-1928-----	0	0	0	0	T	T	14.3	0.1	1.7	T	0	0	16.1
1928-1929-----	0	0	0	0	T	0.3	0.7	11.2	T	T	0	0	12.2
1929-1930-----	0	0	0	T	0.3	3.6	14.1	3.4	T	T	0	0	21.4
1930-1931-----	0	0	0	T	T	1.6	1.1	0.7	10.0	T	0	0	13.4
1931-1932-----	0	0	0	0	T	0.7	0.8	T	2.7	0	0	0	4.2
1932-1933-----	0	0	0	0	T	14.7	0.1	10.6	2.5	T	0	0	27.9
1933-1934-----	0	0	0	0	0.8	7.2	T	26.1	13.8	T	0	0	47.9
1934-1935-----	0	0	0	0	T	0.1	18.7	8.1	1.3	1.0	0	0	29.2
1935-1936-----	0	0	0	0	1.2	10.4	2.2	14.6	1.6	T	0	0	30.0
1936-1937-----	0	0	0	0	T	2.8	0	8.5	14.3	T	0	0	25.6
1937-1938-----	0	0	0	0	T	0.8	1.4	0.6	4.8	T	0	0	7.6
1938-1939-----	0	0	0	0	8.5	0.4	8.0	0.2	0.2	T	0	0	17.3
1939-1940-----	0	0	0	0	T	6.9	9.6	5.3	0.8	0.8	0	0	23.4
1940-1941-----	0	0	0	1.3	T	0.2	5.5	4.8	12.1	0	0	0	23.9
1941-1942-----	0	0	0	0	0	0.1	3.0	1.0	22.2	T	0	0	26.3
1942-1943-----	0	0	0	0	0	5.1	2.3	2.1	14.7	T	0	0	24.2
1943-1944-----	0	0	0	0	0.7	T	5.2	5.8	6.9	1.7	0	0	20.3
1944-1945-----	0	0	0	0	T	3.8	9.8	3.7	0	0	0	0	17.3
1945-1946-----	0	0	0	0	T	12.2	2.8	11.1	T	0	0	0	26.1
1946-1947-----	0	0	0	0	0	3.2	6.6	12.5	2.8	0	0	0	25.1
1947-1948-----	0	0	0	0	T	4.1	8.9	10.4	T	0	0	0	23.4
1948-1949-----	0	0	0	0	0	6.8	4.2	8.9	T	0	T	0	19.9
1949-1950-----	0	0	0	0	T	T	0.5	T	0.2	T	0	0	0.7
1950-1951-----	0	0	0	0	0.5	3.0	2.5	0.7	T	0	T	0	6.7
1951-1952-----	0	0	0	0	T	5.4	1.7	T	7.0	T	0	0	14.1
1952-1953-----	0	0	0	T	2.8	3.0	2.4	T	3.6	T	0	T	11.8
1953-1954-----	0	0	0	0	5.9	T	13.7	1.0	1.5	0	T	0	22.1
1954-1955-----	0	0	0	T	T	0.4	2.3	6.2	1.2	0	0	T	10.1
Mean Snowfall (Length of Record - 72 Seasons)													
1883-1955-----	0	0	0	0.1	0.7	3.8	5.9	6.2	4.7	0.6	T	T	22.0

* Snowfall includes sleet and hail

City office data through December 1949; Friendship International Airport data thereafter.

PRECIPITATION

PERCENTAGE CHANCE OF FIRST AND LAST SNOWFALLS



PRECIPITATION

Table 20. Mean Total Precipitation, Inches (Substations)

Station	1954 ELEVATION (FT.)	PERIOD OF RECORD (YRS.)	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	ANNUAL
Aberdeen----------	62	36	3.32	2.71	3.39	3.36	(35)3.71	3.38	4.10	4.30	3.25	2.57	2.91	2.80	(35)39.76
Annapolis----------	40	83	3.36	3.15	3.77	3.66	4.04	3.97	4.33	4.52	3.78	3.06	2.86	3.31	43.80
Baltimore Sledds Point---	135	8	(7) 3.04	(7) 2.62	4.09	4.76	4.23	3.53	4.85	3.96	2.96	2.03	3.37	3.46	(7) 43.84
Benson----------	365	6	4.02	2.84	4.86	4.01	4.75	2.75	4.56	(7) 3.70	(7) 3.92	(7) 2.77	(7)4.18	(7) 4.59	46.53
Dundalk----------	28	*20	3.80	2.79	3.68	3.68	4.27	3.64	4.26	4.12	3.29	3.17	3.26	3.21	43.18
Fallston----------	#450	84	3.61	3.28	3.76	(83)3.64	(83)3.89	(83)3.95	(83) 4.48	(83)4.81	(83)4.00	(83)3.41	(83)3.29	(83)3.49	(82)45.59
Fort George G. Meade-----	195	13	(12)3.83	2.54	4.09	2.88	4.96	4.01	4.06	4.66	3.66	(12)3.19	3.48	3.50	(11)44.77
Hamilton - Parkville-----	305	6	3.70	2.79	4.61	4.22	4.70	3.28	(7) 3.87	(7) 3.33	(7) 4.40	(7) 3.14	4.30	(7) 4.32	(5) 45.09
Laurel----------	400	56	3.28	2.80	3.65	(55)3.71	3.66	3.90	(57) 4.25	(57)4.59	3.40	(57)3.04	(57)2.77	3.19	(54)42.18
Lock Raven Dam----------	190	5	(4) 3.83	(4) 2.57	(4) 4.63	(4) 4.75	4.84	3.67	2.99	2.38	4.29	2.31	3.86	3.95	(4) 43.08
Middle River----------	15	5	(4) 3.31	(4) 2.09	(4) 4.26	3.59	4.37	3.87	3.96	3.53	3.77	2.38	3.49	3.08	(4) 42.17
Parkton (Pretty Boy Dam)-	600	23	(22)3.62	(22)2.72	3.89	(21)3.89	(22)4.20	3.64	4.34	(24)4.69	(24)3.96	3.44	3.51	3.47	(20)46.05
Pikesville Police Brks---	500	6	(5) 4.02	2.92	4.52	4.56	4.96	3.88	3.98	(7) 3.13	(7) 3.66	(7) 2.66	(7)4.03	4.09	(4) 45.06
Randallstown Police Brks-	625	6	3.63	2.75	4.34	4.12	4.46	3.32	3.85	(7) 2.92	(7) 3.73	(7) 2.85	(7)4.14	4.29	(5) 44.47
Rock Hall----------	20	39	3.49	2.96	3.61	(40)3.55	3.49	3.37	4.63	(40)4.72	(40)3.64	(40)2.84	3.02	3.12	(38)42.42
Towson----------	415	42	3.67	(41)2.90	3.77	3.94	3.82	3.59	(41) 3.86	4.46	3.17	(41)3.32	(41)2.99	3.37	(40)42.75
Waterloo Police Brks-----	230	6	3.50	2.99	4.79	4.32	4.94	3.41	3.12	(7) 4.53	(7) 3.58	(7) 2.69	(7) 4.14	(7) 4.11	45.24
Woodstock----------	415	85	3.31	2.96	3.59	3.34	3.80	3.78	3.91	4.10	3.62	3.10	2.90	3.07	41.48

Numbers in parentheses indicate number of years for which that month's data is computed
1953 elevation
* Period of 1945-1949 taken from Airport records

Table 21. Mean Total Snowfall, Inches (Substations)

Station	1954 ELEVATION (FT.)	PERIOD OF RECORD (YRS.)	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	ANNUAL
Aberdeen----------	62	36	5.6	5.4	2.6	0.4	0.0	T	0.0	0.0	0.0	0.1	0.7	3.1	17.8
Annapolis----------	40	58	6.1	5.9	3.2	.3	.0	.0	T	.0	.0	.1	.6	3.2	19.4
Baltimore Sledds Point---	135	8	(6) 1.1	(6) 2.1	(7) .7	T	T	.0	T	.0	.0	.0	1.0	1.5	(4) 8.0
Benson----------	365	6	(5) 2.4	2.4	2.3	(5) T	(5) .0	T	T	T	.0	T	(7) 1.8	(7) 2.9	(4) 12.2
Dundalk----------	28	*20	5.7	4.5	3.6	(19) .1	(19) T	.0	T	(19) .0	(19) .0	(19) T	(19)1.0	3.2	(18)17.8
Fallston----------	#450	61	6.5	6.8	4.3	1.1	(60) T	(60).0	(60) .0	(60) .0	(60) .0	(60) .1	(60) .9	(60) 4.0	(60)23.9
Fort George G. Meade-----	195	12	4.1	3.7	3.9	.1	.0	T	T	T	.0	.0	.5	3.2	15.4
Hamilton - Parkville-----	305	7	(4) 3.2	(5) 2.8	(6) 2.0	(6) T	(6) .0	T	T	.0	T	.0	(5) 3.1	(6) 2.7	(1) 21.1
Laurel----------	400	53	(52) 5.8	5.6	(52)4.8	.7	T	.0	.0	T	.0	.1	.8	3.8	(52)21.9
Middle River----------	15	5	(4) 4.5	(4) .2	(4) 1.7	T	T	T	T	.0	.0	T	1.8	1.7	(4) 10.4
Parkton (Pretty Boy Dam)-	600	21	(20) 7.3	5.7	5.4	.2	.0	T	T	.0	.0	.1	1.3	4.1	(20)24.1
Pikesville Police Bks----	500	6	(4) 2.7	2.1	(5) 2.6	(5) .0	(5) .0	.0	.0	.0	.0	.0	1.8	1.6	(2) 15.0
Randallstown Police Bks--	625	6	(5) 3.0	2.3	2.2	(5) T	(5) .0	.0	.0	.0	.0	.0	2.3	(5) 1.8	(3) 12.3
Rock Hall----------	20	37	5.3	6.6	2.7	.4	T	.0	T	.0	T	.1	.7	3.2	19.0
Towson----------	415	38	(36) 6.9	5.0	(37)5.1	.8	.0	.0	T	.0	.0	.1	.7	(37) 4.7	(36)24.0
Waterloo Police Bks------	230	6	4.0	2.1	(5) 2.8	(5) T	(5) .0	.0	.0	.0	.0	.0	1.5	1.8	(3) 10.7
Woodstock----------	415	62	6.2	6.1	4.1	.5	T	T	.0	.0	.0	.1	.7	3.7	21.4

Numbers in parentheses indicate number of years for which that month's data is computed
1953 elevation
* Period of 1946-1949 taken from airport records

WIND

Table 22. Percentage Frequency of Surface Winds. Friendship International Airport
(Hourly Observations, September 1950 - August 1955)

3720* January	Wind Speed (m.p.h.) 1-3	4-7	8-12	13-18	19-24	25-31	32-38	39-46	47 & over	Total %	Mean Speed
N--------	0.3	1.5	2.1	0.8	0.1	#				4.8	9.4
NNE------	0.2	0.5	1.0	0.6	0.1					2.4	8.7
NE-------	0.5	1.2	2.3	1.8	0.6	#				6.4	10.2
ENE------	0.5	1.0	0.9	0.3	0.1					2.8	8.1
E--------	0.6	1.3	1.6	0.1						3.6	7.1
ESE------	0.3	1.1	1.2	0.1	#					2.7	7.2
SE-------	0.5	1.7	1.7	0.5	0.1		#			4.5	7.8
SSE------	0.2	1.0	1.4	0.6	0.1					3.3	9.3
S--------	0.6	2.6	3.1	1.2	0.4					7.9	8.8
SSW------	0.3	1.6	2.0	1.0	0.3	0.1				5.3	10.3
SW-------	0.4	2.7	2.8	1.3	0.5	0.2	#			7.9	10.0
WSW------	0.3	1.7	1.7	1.1	0.4	0.1				5.3	10.0
W--------	0.3	1.8	3.3	2.2	1.0	0.6	0.1			9.3	12.2
WNW------	0.3	1.4	3.3	3.9	2.3	0.9	0.2			12.3	14.7
NW-------	0.3	1.5	4.1	3.5	2.0	0.7	#	#		12.1	13.7
NNW------	0.2	0.9	2.0	1.8	0.6	0.2				5.7	12.6
Calm-----										3.7	
Totals---	5.8	23.5	34.5	20.8	8.6	2.8	0.3	#		100.0	10.7

3384* February	Wind Speed (m.p.h.) 1-3	4-7	8-12	13-18	19-24	25-31	32-38	39-46	47 & over	Total %	Mean Speed
N--------	0.2	1.7	2.8	1.2	0.2	#				6.1	9.9
NNE------	0.1	0.7	0.5	0.7	0.2	#				2.2	10.2
NE-------	0.3	1.1	1.5	0.4	0.2					3.5	8.9
ENE------	0.1	1.4	1.8	1.1	0.3	#				4.7	9.7
E--------	0.4	2.3	3.1	0.7	0.1					6.6	8.1
ESE------	0.4	1.1	0.8	0.1						2.4	6.7
SE-------	0.3	1.6	2.2	1.0	0.1	#				5.2	8.9
SSE------	0.2	1.1	1.9	1.2	0.4	#				4.8	10.8
S--------	0.2	1.3	2.1	1.2	0.2					5.0	9.8
SSW------	0.1	0.8	1.5	1.1	0.9	0.1				4.5	11.7
SW-------	0.3	1.2	3.1	1.7	0.2	0.1				6.6	10.0
WSW------	0.1	1.0	2.1	0.4	0.2	#				3.8	9.5
W--------	0.1	1.5	3.3	1.8	1.0	0.5	#	0.1		8.3	13.1
WNW------	0.2	1.4	3.2	3.1	2.2	1.4	0.2			11.7	15.6
NW-------	0.2	1.7	4.8	4.7	3.0	0.9	0.1			15.4	14.3
NNW------	0.1	1.1	2.8	1.7	0.7	0.3	#			6.7	12.8
Calm-----										2.5	
Totals---	3.3	21.0	37.5	22.1	9.9	3.3	0.3	0.1		100.0	11.5

3720* March	Wind Speed (m.p.h.) 1-3	4-7	8-12	13-18	19-24	25-31	32-38	39-46	47 & over	Total %	Mean Speed
N--------	0.1	0.8	2.1	1.0	0.2	#				4.2	10.7
NNE------	0.1	0.6	0.6	0.2	#					1.5	8.5
NE-------	0.2	1.4	1.4	0.9	0.1					4.0	9.3
ENE------	0.2	1.0	2.3	1.9	0.3	0.1	0.1	#		5.9	11.4
E--------	0.3	1.8	3.3	1.4	0.4	0.1	0.1			7.4	10.2
ESE------	0.2	1.3	1.6	0.4	0.1	#				3.6	8.9
SE-------	0.5	1.0	2.2	1.0	0.5	0.3	#	#		5.5	11.9
SSE------	0.1	0.7	1.3	1.4	0.6	0.2		#	#	4.3	13.3
S--------	0.3	1.2	1.7	1.2	0.6	#	#	#		5.0	11.0
SSW------	0.1	0.8	1.2	1.3	0.8	0.3		#		4.5	13.9
SW-------	0.2	0.9	2.2	1.8	0.8	#				5.9	11.0
WSW------	0.2	0.6	1.3	1.2	0.4	0.2	0.1			4.0	12.5
W--------	0.1	1.0	2.8	2.3	1.3	0.7	0.2			8.4	14.1
WNW------	0.1	1.1	2.5	4.3	3.2	2.0	0.2			13.4	16.6
NW-------	0.2	1.5	4.1	4.3	3.4	1.0	0.1			14.6	15.0
NNW------	0.1	1.0	2.1	2.3	0.6	0.1				6.2	12.8
Calm-----										1.6	
Totals---	3.0	16.7	32.7	26.9	13.3	5.0	0.8	#	#	100.0	12.9

3600* April	Wind Speed (m.p.h.) 1-3	4-7	8-12	13-18	19-24	25-31	32-38	39-46	47 & over	Total %	Mean Speed
N--------	0.1	0.8	2.1	1.5	0.3					4.8	11.4
NNE------	#	0.5	1.2	0.7	0.1					2.5	10.2
NE-------	0.1	0.8	3.1	1.9	0.4					6.3	10.9
ENE------	0.2	0.9	2.2	1.8	0.4					5.5	11.2
E--------	0.1	1.2	3.4	2.2	0.1					7.0	11.1
ESE------	0.3	0.9	2.1	0.9	0.2					4.4	9.9
SE-------	0.1	1.2	1.8	1.0	0.2	#				4.3	10.7
SSE------	0.2	0.8	1.6	2.1	0.7	0.1				5.5	13.3
S--------	0.4	1.6	2.7	2.2	0.7	0.1				7.7	11.5
SSW------	0.2	1.0	1.5	1.6	0.4	0.2				4.9	12.1
SW-------	0.2	1.6	3.2	2.9	1.0	0.2	#			9.1	12.2
WSW------	#	0.6	2.3	1.8	0.6	#				5.3	12.0
W--------	0.2	1.2	3.3	2.6	1.3	0.1	#			8.7	12.5
WNW------	#	0.6	2.2	3.0	2.1	0.2	#			8.1	14.5
NW-------	0.1	1.4	3.0	2.9	1.7	0.4	#			9.5	13.9
NNW------	0.1	0.5	1.7	2.0	0.3	#				4.6	12.6
Calm										1.8	
Totals---	2.3	15.6	37.4	31.1	10.5	1.3	#			100.0	12.1

Table 22 (Cont'd.). Percentage Frequency of Surface Winds. Friendship International Airport
(Hourly Observations, September 1950 - August 1955)

3720* May	Wind Speed (m.p.h.) 1-3	4-7	8-12	13-18	19-24	25-31	32-38	39-46	47 & over	Total %	Mean Speed
N--------	0.2	1.2	2.3	1.0	0.1					4.8	9.6
NNE------	0.2	0.8	1.5	0.7	0.2					3.4	9.7
NE-------	0.2	1.2	3.3	1.7	0.2					6.6	10.6
ENE------	#	1.0	2.6	1.4	0.4					5.4	11.3
E--------	0.2	2.0	3.7	1.3	0.2					7.4	9.7
ESE------	#	1.0	2.0	0.7	#					3.7	9.3
SE-------	0.5	1.3	2.1	1.2	0.1					5.2	9.7
SSE------	0.1	0.8	1.8	0.9	0.1					3.7	10.0
S--------	0.4	1.5	2.7	1.1	0.1					5.8	9.4
SSW------	0.2	0.9	2.1	1.1	0.1	0.1				4.5	9.9
SW-------	0.5	2.1	3.1	1.4	0.3	0.1				7.5	9.6
WSW------	0.1	1.3	2.3	1.3	0.5	0.1				5.6	10.9
W--------	0.5	2.3	4.1	2.1	1.5	0.2				10.7	11.7
WNW------	0.1	1.2	3.1	2.5	1.5	0.2				8.6	13.2
NW-------	0.3	2.5	3.5	2.7	0.8	0.2				10.0	11.4
NNW------	0.1	1.1	1.9	1.1	0.4					4.6	11.0
Calm-----										2.5	
Totals---	3.6	22.2	42.1	22.2	6.5	0.9				100.0	10.5

3600* June	Wind Speed (m.p.h.) 1-3	4-7	8-12	13-18	19-24	25-31	32-38	39-46	47 & over	Total %	Mean Speed
N--------	0.2	1.5	2.2	0.8	0.1					4.8	9.1
NNE------	0.1	0.8	1.0	1.1			#			3.0	10.7
NE-------	0.4	1.0	2.3	1.2	0.2					5.1	9.8
ENE------	0.1	1.0	2.5	1.0	0.2					4.8	10.3
E--------	0.4	1.7	2.7	0.9	0.3	0.1				6.1	10.0
ESE------	0.1	0.9	1.5	0.7	0.1					3.3	9.9
SE-------	0.1	1.4	2.7	1.3	0.2					5.7	10.1
SSE------	0.1	0.9	1.9	1.1	0.1					4.1	10.3
S--------	0.4	2.3	4.2	0.9	0.2	#				8.0	8.7
SSW------	0.2	1.3	1.8	0.5	0.1					3.9	8.8
SW-------	0.4	2.1	4.2	0.7	0.1					7.5	8.6
WSW------	0.1	1.6	4.2	1.2	0.2	#				7.3	9.9
W--------	0.4	2.3	4.1	1.6	0.4					8.8	9.6
WNW------	0.3	2.1	4.3	2.3	0.8	#				9.8	10.8
NW-------	0.4	2.7	5.0	1.9	0.7	#				10.7	10.1
NNW------	0.2	1.6	2.1	1.0	0.2	#				5.1	9.9
Calm-----										2.0	
Totals---	3.9	25.2	46.7	18.2	3.9	0.1	#			100.0	9.7

3720* July	Wind Speed (m.p.h.) 1-3	4-7	8-12	13-18	19-24	25-31	32-38	39-46	47 & over	Total %	Mean Speed
N--------	0.5	1.9	1.8	0.3		#				4.5	7.4
NNE------	0.2	1.0	0.9	0.2	#					2.3	7.5
NE-------	0.4	1.4	2.1	0.6	#					4.5	8.4
ENE------	#	1.3	1.5	0.8	0.1					3.7	9.3
E--------	0.3	1.6	2.6	0.7	0.1					5.3	9.0
ESE------	0.2	0.8	1.4	0.2						2.6	8.4
SE-------	0.5	2.0	1.9	0.5		#				4.9	7.8
SSE------	0.1	1.0	1.9	0.8	0.1					3.9	10.0
S--------	0.6	2.9	3.5	1.6	0.1					8.7	8.7
SSW------	0.2	2.1	3.3	1.2	0.1					6.9	9.4
SW-------	0.5	4.0	5.0	0.8	0.2					10.5	8.3
WSW------	0.4	3.3	3.5	0.6						7.8	8.0
W--------	0.7	4.2	3.7	0.8	0.1	0.1				9.6	8.0
WNW------	0.4	2.2	2.8	1.2	0.2	0.1				6.9	9.5
NW-------	0.7	3.7	4.6	1.0	0.2	#				10.2	8.6
NNW------	0.2	1.6	1.7	0.5						4.0	8.3
Calm-----										3.7	
Totals---	5.9	35.0	42.2	11.8	1.2	0.2				100.0	8.3

3720* August	Wind Speed (m.p.h.) 1-3	4-7	8-12	13-18	19-24	25-31	32-38	39-46	47 & over	Total %	Mean Speed
N--------	0.3	1.6	3.7	0.7	0.1					6.4	8.7
NNE------	0.1	1.1	1.1	0.6	0.1					3.0	9.3
NE-------	0.3	1.6	3.4	1.1	0.1	0.1	0.1	0.1		6.8	10.4
ENE------	0.2	1.0	2.1	0.7	0.1	0.1	#	#		4.2	9.7
E--------	0.2	1.5	3.1	0.9	0.1	0.1				5.9	9.7
ESE------	0.2	1.2	1.8	0.8	0.1					4.1	9.2
SE-------	0.2	1.7	2.3	0.5	0.2		#			4.9	9.1
SSE------	0.3	0.9	1.8	0.8	0.1	#				3.9	9.6
S--------	0.4	2.4	3.5	1.4	0.2	#				7.9	9.1
SSW------	0.3	1.6	3.0	1.0	0.2					6.1	9.2
SW-------	0.5	3.1	3.3	0.9	#					7.8	8.3
WSW------	0.2	2.3	3.1	0.4	#					6.0	7.9
W--------	0.6	3.3	4.4	1.1	0.1	0.1				9.6	8.4
WNW------	0.3	2.2	2.7	1.0	0.2	0.1				6.5	8.8
NW-------	0.3	2.6	4.0	1.6	0.1	0.1				8.7	9.3
NNW------	0.2	1.5	2.5	0.7	#					4.9	8.9
Calm-----										3.3	
Totals---	4.6	29.6	45.8	14.2	1.7	0.6	0.1	0.1		100.0	9.0

WIND

Table 22 (Cont'd.). Percentage Frequency of Surface Winds. Friendship International Airport
(Hourly Observations, September 1950 - August 1955)

3600*	Wind Speed (m.p.h.)										
September	1-3	4-7	8-12	13-18	19-24	25-31	32-38	39-46	47 & over	Total %	Mean Speed
N--------	0.4	2.1	3.8	1.3						7.6	9.0
NNE------	0.1	0.9	0.9	0.4	0.1					2.4	8.5
NE-------	0.4	1.6	2.6	0.4	0.1					5.1	8.4
ENE------	0.2	1.1	1.7	1.0	0.1					4.1	9.2
E--------	0.4	2.1	2.8	1.5	0.1	#	#			6.9	9.2
ESE------	0.2	1.0	1.8	0.4						3.4	8.7
SE-------	0.3	1.3	1.9	0.5	0.1	0.1				4.2	8.6
SSE------	0.2	0.8	2.1	1.6	0.3	#				5.0	9.3
S--------	0.3	2.5	4.1	1.8	0.3					9.0	9.0
SSW------	0.1	1.5	2.9	1.2	0.2					5.9	9.7
SW-------	0.4	2.6	3.6	1.1	0.1	0.1				7.9	8.9
WSW------	0.2	1.8	2.8	0.7	#					5.5	8.4
W--------	0.5	3.1	4.5	0.6	0.1	#				8.8	8.3
WNW------	0.1	1.8	2.4	0.7	0.5					5.5	10.1
NW-------	0.6	2.9	4.3	1.8	0.7	0.2				10.5	10.3
NNW------	0.2	1.7	2.2	1.2	0.1	#				5.4	9.5
Calm-----										2.8	
Totals---	4.6	28.8	44.4	16.2	2.8	0.4	#			100.0	9.2

3720*	Wind Speed (m.p.h.)										
October	1-3	4-7	8-12	13-18	19-24	25-31	32-38	39-46	47 & over	Total %	Mean Speed
N--------	0.2	2.1	5.0	1.9	0.1	#				9.3	9.8
NNE------	0.1	1.2	2.0	1.2	0.3	#				4.8	9.7
NE-------	0.2	1.5	3.8	2.0	0.5	#				8.0	10.4
ENE------	0.1	0.8	1.6	1.5	0.2	0.1				4.3	10.2
E--------	0.3	1.8	2.2	0.8	0.1	#				5.2	9.0
ESE------	0.4	1.2	1.1	0.1	#	#	0.1	0.1		3.0	8.3
SE-------	0.6	1.4	2.2	0.4	#				#	4.6	8.0
SSE------	0.2	0.7	1.4	0.5	#	#				2.8	9.3
S--------	0.4	2.1	3.0	0.5	0.1					6.1	8.3
SSW------	0.4	1.6	2.4	0.4	#					4.8	7.7
SW-------	0.5	3.2	4.2	1.0	0.1	#				9.0	8.3
WSW------	0.2	2.1	2.2	0.5	0.2					5.2	8.3
W--------	0.3	2.5	4.2	1.4	0.4	0.1				8.9	9.6
WNW------	0.1	1.4	3.0	1.9	0.4	#				6.8	11.1
NW-------	0.3	1.4	4.0	2.3	0.8	0.2				9.0	11.2
NNW------	0.1	1.2	2.5	1.3	0.3	#				5.4	10.6
Calm-----										2.8	
Totals	4.4	26.2	44.8	17.7	3.5	0.4	0.1	0.1	#	100.0	9.6

3600*	Wind Speed (m.p.h.)										
November	1-3	4-7	8-12	13-18	19-24	25-31	32-38	39-46	47 & over	Total %	Mean Speed
N--------	0.2	1.2	2.6	0.7	0.1	#				4.8	9.2
NNE------	0.2	0.9	0.7	0.3	0.3	#				2.4	9.3
NE-------	0.7	1.6	2.0	0.6	0.2	0.1				5.2	9.1
ENE------	0.2	1.5	1.4	0.5	0.2					3.8	9.3
E--------	0.3	1.8	2.1	0.5	0.2	0.2	0.2	#		5.3	9.9
ESE------	0.2	1.2	1.1	0.1	0.1	#				2.7	7.5
SE-------	0.6	1.6	1.5	0.4	0.1	#	#			4.2	7.9
SSE------	0.3	0.9	0.9	0.8	0.3	0.1				3.3	10.1
S--------	0.4	2.2	2.5	1.4	0.5	0.1	#			7.1	9.7
SSW------	0.2	1.3	1.6	1.1	0.3	#	#			4.5	10.3
SW-------	0.3	2.6	4.0	1.2	0.2					8.3	9.1
WSW------	0.2	1.8	3.0	1.0	0.3	0.1				6.4	9.8
W--------	0.3	2.7	4.1	2.1	1.7	0.4	0.1			11.4	12.0
WNW------	0.4	1.9	3.3	3.2	1.7	0.8	#			11.3	13.5
NW-------	0.3	2.1	4.3	2.3	0.9	0.4	#			10.3	11.3
NNW------	0.2	0.8	2.5	0.9	0.2	0.1	#			4.7	10.8
Calm-----										4.3	
Totals---	5.0	26.1	37.6	17.1	7.3	2.3	0.3	#		100.0	10.3

3720*	Wind Speed (m.p.h.)										
December	1-3	4-7	8-12	13-18	19-24	25-31	32-38	39-46	47 & over	Total %	Mean Speed
N--------	0.2	0.9	1.3	0.8	0.4	#				3.6	9.7
NNE------	0.2	0.6	0.5	0.7	0.2					2.2	8.2
NE-------	0.2	1.3	2.1	0.7	0.5	#	#			4.8	10.5
ENE------	0.1	1.3	1.4	0.9	0.3					4.0	10.2
E--------	0.3	1.6	1.9	0.3	0.2	#				4.3	8.1
ESE------	0.2	0.5	0.5	0.1	#	#				1.3	7.6
SE-------	0.2	0.7	0.6	0.5	0.2	0.1	#			2.3	10.9
SSE------	0.2	0.7	1.0	0.5	0.1					2.5	9.2
S--------	0.4	2.3	2.4	0.4	0.1	#				5.6	7.9
SSW------	0.4	1.6	2.2	1.0	0.1	0.1				5.4	9.4
SW-------	0.5	3.4	5.3	1.6	0.6	#				11.4	9.2
WSW------	0.1	2.1	3.3	1.5	0.2					7.2	9.7
W--------	0.2	3.0	5.3	3.8	1.3	0.2				13.8	11.8
WNW------	0.2	2.3	3.8	4.1	2.6	1.0	#			14.0	14.5
NW-------	0.2	1.4	4.4	3.6	1.2	0.3	0.1			11.2	12.5
NNW------	0.1	0.5	0.9	0.8	0.2					2.5	11.4
Calm-----										3.9	
Totals---	3.7	24.2	36.9	21.3	8.2	1.7	0.1			100.0	10.6

less than 0.05 percent
* number of houly observations
see Graph G for annual surface wind rose
see Graph F for fastest single mile wind speed

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Table 23. Mean and Distribution of Relative Humidity, Friendship International Airport (September 1950-August 1955)

Month	Mean				Percentage Frequency of Relative Humidity Less Than Stated Values*																			
					1 am					7 am					1 pm					7 pm				
	1 am	7 am	1 pm	7 pm	95	75	50	25	05	95	75	50	25	05	95	75	50	25	05	95	75	50	25	05
January----	72	76	58	66	98	86	72	60	46	98	90	75	62	52	95	72	53	43	35	98	81	62	52	38
February---	71	73	50	60	97	85	67	58	48	98	87	72	62	49	92	60	45	36	26	94	71	58	47	33
March------	70	74	51	58	98	87	67	56	44	98	89	73	60	48	95	66	43	34	25	96	68	52	43	33
April------	74	73	51	59	97	89	74	62	47	98	88	73	59	47	94	65	44	34	22	94	78	55	42	27
May--------	78	75	50	61	98	91	81	68	47	98	89	75	62	47	86	61	46	34	25	95	78	60	46	30
June-------	82	76	51	63	97	90	86	75	62	97	86	78	64	52	93	60	49	38	27	92	77	62	51	38
July-------	82	75	47	62	96	90	83	77	61	95	85	75	66	58	72	53	44	38	30	89	70	61	49	42
August-----	86	82	55	70	99	93	87	81	64	100	92	85	75	59	83	69	52	42	30	97	81	70	60	46
September--	86	84	52	72	96	93	89	82	66	96	91	86	79	67	89	60	46	39	31	95	81	70	62	52
October----	81	83	51	68	97	90	85	74	57	99	93	86	75	56	86	60	48	37	24	92	77	68	59	40
November---	77	80	54	67	99	89	78	66	52	100	92	81	70	56	94	66	50	39	28	97	76	64	55	43
December---	74	76	58	67	98	85	73	64	51	97	89	75	64	53	95	74	53	43	32	96	81	64	56	42

* Example: at 1 am in January a relative humidity of less than 60% occurred 25% of the time.

Table 24. Distribution* of Wet Bulb Temperature (°F) Friendship International Airport (September 1950-August 1955)

Hour / %	January				February				March				April				May				June			
	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm
5--------	47	47	55	49	48	48	52	50	52	51	58	54	59	59	64	62	66	67	70	68	72	73	77	76
25--------	37	36	41	38	37	36	42	39	41	41	47	44	51	51	58	56	59	61	65	63	66	68	72	70
50--------	30	29	35	32	30	30	37	34	36	34	41	39	46	46	51	50	54	54	59	58	62	63	67	65
75--------	24	23	30	28	27	24	32	30	30	29	36	34	40	41	46	44	48	49	54	53	57	59	61	61
95--------	16	12	21	18	13	10	21	19	24	22	29	27	33	34	39	37	43	44	49	47	52	54	56	57

Hour / %	July				August				September				October				November				December			
	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm
5--------	74	75	77	78	74	75	78	77	72	72	76	75	66	67	70	68	57	57	60	58	53	48	54	55
25--------	72	72	75	75	71	71	74	73	65	64	69	68	56	55	62	60	46	42	51	46	35	35	42	39
50--------	69	70	72	72	67	67	71	70	59	58	63	63	49	48	56	52	37	34	43	39	31	30	36	34
75--------	63	64	68	67	63	63	66	66	54	53	59	58	42	41	49	47	31	30	38	34	25	24	31	27
95--------	58	59	62	62	55	56	60	60	46	46	52	52	35	33	43	40	25	23	31	27	16	16	24	20

* Percentage frequency of wet-bulb temperature greater than stated value: for example, at 1 am in January the wet-bulb temperature was greater than 37°F. 25% of the time.

Table 25. Distribution* of Dew Point Temperature (°F) Friendship International Airport (September 1950-August 1955)

Hour / %	January				February				March				April				May				June			
	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm
5---------	46	46	48	44	46	46	45	48	50	49	52	49	58	56	58	58	65	66	67	66	71	71	72	73
25---------	33	33	35	34	32	33	33	33	39	38	38	38	49	49	51	51	57	58	57	59	65	66	65	67
50---------	24	23	27	26	25	24	25	26	30	30	29	30	42	41	41	42	51	51	50	52	60	61	59	60
75---------	17	16	17	17	19	18	17	18	21	21	21	22	34	35	33	33	44	43	42	44	55	55	53	55
95---------	6	4	9	6	5	3	7	5	12	11	13	14	26	26	21	23	34	35	32	35	48	48	44	47

Hour / %	July				August				September				October				November				December			
	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm	1 am	7 am	1 pm	7 pm
5---------	74	74	73	75	73	75	74	76	71	71	71	72	65	66	64	65	56	57	58	57	51	45	52	53
25---------	71	70	69	72	70	70	70	71	64	63	64	66	55	53	56	57	43	39	42	41	33	32	35	34
50---------	67	67	65	68	66	66	65	67	58	56	56	59	46	45	47	48	31	30	34	32	25	25	25	27
75---------	61	61	57	61	60	60	57	61	51	51	48	53	40	38	39	40	25	25	24	26	17	16	18	18
95---------	54	54	51	53	51	51	48	51	43	42	42	46	28	27	23	26	16	18	18	16	8	8	8	8

* Percentage frequency of dew point temperature greater than stated value: for example, in January at 1 am the dew point was greater than 33°F 25% of the time.

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AIR MOISTURE CONTENT

Table 26. Percentage Frequency and Mean of Discomfort Index#. Friendship International Airport (September 1950 - August 1955)

Index, °F \ Period	January (3720*)					February (3384*)					March (3720*)					April (3600*)				
	Midn-5 am	6 am-11 am	12 m-5 pm	6 pm-11 pm	All Hours	Midn-5 am	6 am-11 am	12 m-5 pm	6 pm-11 pm	All Hours	Midn-5 am	6 am-11 am	12 m-5 pm	6 pm-11 pm	All Hours	Midn-5 am	6 am-11 am	12 m-5 pm	6 pm-11 pm	All Hours
< 50	96.1	94.8	87.7	94.8	93.4	96.5	92.2	85.1	93.6	91.8	90.3	87.1	63.9	85.2	81.6	64.0	44.7	18.7	37.3	41.2
50-54-----	1.3	4.5	6.5	3.2	3.9	2.1	6.4	9.2	4.3	5.5	5.2	9.7	19.4	8.0	10.6	16.7	22.0	19.3	24.0	20.5
55-59-----	2.6	.6	3.9	1.3	2.1	1.4	.7	2.1	.7	1.2	3.9	3.2	9.0	5.8	5.5	14.0	16.7	26.7	19.3	19.2
60-64-----			1.9	.6	.6		.7	2.1	1.4	1.1	.6		6.5	.6	1.9	5.3	10.7	14.7	15.3	11.5
65-69-----								1.4		.4			1.3		.3		6.0	10.0	4.0	5.0
70-74-----																		10.0		2.5
75-79-----																		.7		.2
Mean, °F--	31.6	32.7	38.2	33.9	34.2	32.4	34.5	40.9	36.0	35.9	37.0	39.5	45.9	41.0	40.8	47.3	51.2	56.9	52.0	51.8

Index, °F \ Period	May (3720*)					June (3600*)					July (3720*)					August (3720*)				
	Midn-5 am	6 am-11 am	12 m-5 pm	6 pm-11 pm	All Hours	Midn-5 am	6 am-11 am	12 m-5 pm	6 pm-11 pm	All Hours	Midn-5 am	6 am-11 am	12 m-5 pm	6 pm-11 pm	All Hours	Midn-5 am	6 am-11 am	12 m-5 pm	6 pm-11 pm	All Hours
< 50-----	21.9	3.9		3.9	7.4	0.7				0.2										
50-54-----	27.1	22.6	8.4	17.4	18.9	9.3	1.3	0.7	1.3	3.2	0.6				0.2	3.9				1.0
55-59-----	23.9	21.3	16.1	27.7	22.3	18.7	6.0	2.0	2.7	7.3	3.9				1.0	7.7	1.9		0.6	2.6
60-64-----	16.1	24.5	23.9	21.3	21.5	30.7	20.7	8.7	23.3	20.8	21.9	2.6		1.3	6.5	15.5	8.3		10.3	8.5
65-69-----	10.3	18.7	19.4	24.5	18.2	23.3	28.0	20.0	27.3	24.7	21.3	14.8	1.3	19.3	14.2	32.9	24.5	9.8	20.0	21.8
70-74-----	.6	8.4	20.0	5.2	8.5	16.0	25.3	20.7	30.0	23.0	43.2	32.9	16.8	25.8	29.7	35.4	36.7	27.7	42.6	35.6
75-79-----		.6	11.6		3.1	1.3	16.0	25.3	13.3	14.0	9.0	38.7	32.2	44.5	31.1	4.5	25.8	34.8	23.9	22.3
80-84-----			.6		.2		2.7	20.0	2.0	6.2		11.0	38.1	9.0	14.5		2.6	21.9	2.6	6.8
85-89-----								2.7		.7			11.6		2.9			5.8		1.5
Mean, °F--	55.1	59.9	65.4	60.2	60.1	63.0	68.6	73.4	68.9	68.3	68.6	74.3	79.1	74.0	73.9	67.0	71.1	76.3	71.2	71.4

Index, °F \ Period	September (3600*)					October (3720*)					November (3600*)					December (3720*)				
	Midn-5 am	6 am-11 am	12 m-5 pm	6 pm-11 pm	All Hours	Midn-5 am	6 am-11 am	12 m-5 pm	6 pm-11 pm	All Hours	Midn-5 am	6 am-11 am	12 m-5 pm	6 pm-11 pm	All Hours	Midn-5 am	6 am-11 am	12 m-5 pm	6 pm-11 pm	All Hours
< 50-----	12.0	2.7	0.7	2.7	4.5	49.0	33.5	7.7	29.0	29.8	82.0	80.0	64.7	78.6	76.3	94.2	95.5	87.1	91.6	92.1
50-54-----	13.3	6.7	.7	5.3	6.5	19.4	19.9	17.4	24.5	20.3	8.0	8.7	10.0	8.0	8.7	2.6	2.6	5.2	3.2	3.4
55-59-----	24.0	17.3	4.7	16.7	15.7	16.8	23.2	20.0	20.0	20.0	7.3	7.3	13.3	10.0	9.5	2.6	1.3	4.5	3.9	3.1
60-64-----	22.7	28.7	16.7	27.3	23.8	6.5	12.2	18.1	14.8	12.9	2.7	2.0	8.7	2.0	3.8	.6	.6	2.6	.6	1.1
65-69-----	13.3	24.0	25.3	24.7	21.8	6.5	5.2	20.0	6.5	9.5		2.0	1.3	1.3	1.2			.6	.6	.3
70-74-----	12.7	11.3	28.0	17.3	17.3	1.9	5.8	8.4	4.5	5.2			1.3		.3					
75-79-----	2.0	9.3	14.0	5.3	7.7			8.4	.6	2.3			.7		.2					
80-84-----			7.3	.6	2.0															
85-89-----			2.7		.7															
Mean, °F--	59.7	63.9	70.0	64.1	64.4	50.4	54.0	61.0	54.3	54.9	39.1	41.7	47.5	41.8	42.5	32.1	33.8	39.1	34.9	34.9

* Number of hourly observations

The average of the simultaneous wet-bulb and dry-bulb temperatures, here termed "discomfort index", is an easily secured figure which takes into account both the temperature and the moisture content of the air. In the range from 68° to 87° it agrees closely with the corresponding "effective temperatures". Other averages from 50° to 67° and from 88° to 100° differ more widely, being from 2° to 5° lower in the upper range and correspondingly higher than effective temperatures in the lower range.

Locations having the same effective temperature are considered to have temperature and relative humidity combinations that cause about the same degree of comfort or discomfort. Effective temperatures are read from a graph produced in laboratory studies of the degree of comfort or discomfort experienced by human subjects. However, such a graph is not suited for a program requiring processing of many hundreds of thousands of observations monthly. At the same time, the complexity of an equation derived to give effective temperature dictates against use of an effective temperature formula. It is much more practical to use the discomfort index since it is easily secured from existing basic punched card data and since it agrees with the effective temperatures closely enough for most practical applications.

Both the need for and the use of air conditioning equipment is indicated quite well by the discomfort index value - better, in fact, than by any other easily obtainable figure. An operating utility company in one of our large cities has developed and is using a "cooling-degree day" plan based on averages of dry-bulb and wet-bulb readings.

It appears that the discomfort index value may prove useful since it gives a good basis for comparison of the relative summer comfort and discomfort of various locations and it serves as a useful planning tool for the air conditioning and utility industries.

PRESSURE

Table 27. Average Station Pressure,* Inches

YEAR	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	ANNUAL
1873-------	29.97	29.89	29.88	29.81	29.87	29.86	29.89	29.92	29.96	29.93	29.86	30.04	29.91
1874-------	30.05	30.02	29.88	29.90	29.80	29.83	29.87	29.88	29.94	29.98	30.06	30.04	29.94
1875-------	30.08	29.99	29.95	29.83	29.84	29.87	29.84	29.87	29.92	29.90	29.99	29.92	29.92
1876-------	30.04	30.01	29.92	29.89	29.93	29.87	29.88	29.94	29.85	29.91	29.86	29.93	29.92
1877-------	30.04	29.97	29.97	29.85	29.88	29.86	29.83	29.82	29.95	29.94	30.00	30.08	29.92
1878-------	29.96	29.83	29.84	29.69	29.80	29.79	29.81	29.76	29.98	29.90	29.87	29.91	29.84
1879-------	29.96	29.97	29.98	29.81	29.94	29.85	29.85	29.83	30.01	30.04	30.04	30.05	29.94
1880-------	30.06	29.99	29.94	29.89	29.93	29.86	29.85	29.92	29.92	29.98	30.12	29.93	29.95
1881-------	30.02	30.06	29.64	29.79	29.91	29.77	29.82	29.89	29.94	30.01	30.06	30.04	29.91
1882-------	30.05	30.02	29.98	29.91	29.88	29.78	29.89	29.90	29.93	29.96	30.05	30.02	29.95
1883-------	30.08	30.16	29.87	29.89	29.84	29.84	29.86	29.90	29.93	30.04	30.05	30.00	29.96
1884-------	30.02	29.96	29.91	29.76	29.82	29.94	29.74	29.92	29.97	30.02	29.96	30.05	29.92
1885-------	30.01	29.88	29.92	29.91	29.81	29.88	29.82	29.83	29.94	29.87	29.83	29.91	29.88
1886-------	29.93	29.96	29.82	29.95	29.78	29.83	29.80	29.84	29.98	30.03	29.90	30.00	29.90
1887-------	29.92	30.08	29.85	29.87	29.88	29.86	29.83	29.85	29.98	29.91	29.95	30.00	29.92
1888-------	30.07	29.96	29.94	29.98	29.84	29.80	29.88	29.86	29.92	29.85	29.99	29.94	29.92
1889-------	29.91	30.03	29.78	29.82	29.82	29.88	29.83	29.93	29.88	29.89	29.93	30.02	29.89
1890-------	30.08	29.96	29.91	29.96	29.82	29.84	29.88	29.88	29.97	29.77	29.94	29.93	29.91
1891-------	29.92	29.95	29.95	29.87	29.90	29.83	29.89	29.86	30.02	29.96	30.04	30.05	29.94
1892-------	29.92	29.99	29.88	29.94	29.84	29.85	29.92	29.86	30.02	29.90	29.94	29.94	29.92
1893-------	29.85	30.00	29.92	29.89	29.76	29.87	29.83	29.83	29.91	29.96	29.98	30.00	29.90
1894-------	30.02	29.99	29.96	29.90	29.79	29.86	29.87	29.88	29.95	29.86	29.98	30.00	29.92
1895-------	29.91	29.88	29.87	29.87	29.92	29.92	29.84	29.83	29.92	29.91	30.03	29.98	29.91
1896-------	30.03	29.76	29.86	29.98	29.88	29.84	29.89	29.90	29.90	29.91	30.06	30.05	29.92
1897-------	30.01	29.94	29.94	29.96	29.82	29.82	29.81	29.84	30.01	29.99	29.97	29.95	29.92
1898-------	29.90	29.97	30.07	29.83	29.79	29.86	29.90	29.87	29.94	29.97	29.95	29.93	29.92
1899-------	30.03	29.92	29.82	29.94	29.91	29.90	29.84	29.83	29.92	30.05	29.93	29.96	29.92
1900-------	29.95	29.90	29.89	29.88	29.84	29.83	29.86	29.90	29.94	30.03	29.92	29.97	29.91
1901-------	29.89	29.83	29.79	29.80	29.73	29.86	29.82	29.88	29.93	30.03	29.92	29.95	29.87
1902-------	29.98	29.76	29.86	29.80	29.89	29.78	29.87	29.83	29.90	29.94	29.95	29.97	29.88
1903-------	29.87	29.95	30.07	29.76	29.99	29.79	29.82	29.86	30.01	29.92	29.96	29.93	29.91
1904-------	29.97	30.05	29.98	29.85	29.85	29.89	29.88	29.92	29.96	29.98	29.88	29.92	29.93
1905-------	30.00	30.06	30.00	29.78	29.86	29.84	29.85	29.87	29.94	30.00	29.94	29.99	29.93
1906-------	30.00	30.09	29.97	29.88	29.87	29.82	29.85	29.88	29.96	29.92	29.98	30.00	29.93
1907-------	30.10	30.00	29.95	29.79	29.87	29.81	29.78	29.88	29.89	29.96	29.93	29.90	29.91
1908-------	29.89	29.98	29.97	29.83	29.80	29.94	29.92	29.88	29.98	30.01	29.96	29.97	29.93
1909-------	30.04	29.85	29.76	29.94	29.81	29.86	29.83	29.89	29.98	29.92	30.07	29.87	29.90
1910-------	30.00	30.04	29.98	29.81	29.87	29.81	29.80	29.93	29.96	29.92	29.79	29.99	29.90
1911-------	30.06	30.02	29.93	30.02	29.92	29.83	29.89	29.90	29.94	29.97	29.96	30.07	29.96
1912-------	29.96	29.87	30.01	29.90	29.85	30.04	29.90	29.85	29.94	29.96	29.95	29.96	29.92
1913-------	30.02	29.95	30.02	29.91	29.89	29.91	29.86	29.92	30.01	30.00	30.04	29.95	29.94
1914-------	29.83	30.04	29.93	29.92	29.95	29.87	29.86	29.90	30.02	29.98	30.00	30.06	29.95
1915-------	29.99	30.01	29.82	29.93	29.81	29.88	29.81	29.85	29.97	30.00	29.94	29.94	29.91
1916-------	30.13	29.93	29.83	29.83	29.81	29.81	29.88	29.88	29.96	30.03	30.04	29.91	29.92
1917-------	29.94	29.89	29.98	29.85	29.74	29.89	29.85	29.89	29.99	29.94	30.00	30.12	29.92
1918-------	29.82	29.99	29.90	29.89	29.96	29.83	29.88	29.92	29.93	30.01	29.96	30.02	29.92
1919-------	29.96	29.89	30.00	29.91	29.82	29.99	29.88	29.83	29.92	30.01	29.99	30.02	29.94
1920-------	30.09	29.89	29.91	29.72	29.94	29.85	29.87	29.94	29.89	30.00	30.01	29.88	29.91
1921-------	30.05	29.96	30.02	29.93	29.87	29.85	29.87	29.96	29.90	29.88	29.93	29.93	29.93
1922-------	30.06	30.02	29.99	29.96	29.86	29.84	29.89	29.86	29.99	29.89	29.97	30.03	29.95
1923-------	29.97	30.02	29.92	29.86	29.82	29.78	29.86	29.85	29.97	29.98	29.95	29.94	29.91
1924-------	30.07	29.95	29.67	29.86	29.72	29.82	29.87	29.86	29.95	30.07	29.97	30.06	29.91
1925-------	30.06	29.92	29.95	29.89	29.83	29.85	29.81	29.95	29.90	29.87	30.02	29.83	29.91
1926-------	29.92	29.77	29.84	29.85	29.77	29.80	29.83	29.87	29.98	29.84	30.00	29.99	29.87
1927-------	30.04	29.89	29.98	29.96	29.79	29.88	29.86	29.87	29.90	29.88	30.00	29.96	29.92
1928-------	29.94	29.98	29.81	29.84	29.79	29.76	29.85	29.89	29.92	30.02	29.94	30.02	29.90
1929-------	29.96	29.98	29.85	29.78	29.94	29.82	29.91	29.87	29.97	29.93	29.95	29.95	29.91
1930-------	30.12	29.97	29.71	29.92	29.88	29.85	29.80	29.87	29.85	29.96	30.06	29.95	29.91
1931-------	29.90	29.92	29.79	29.89	29.80	29.84	29.79	29.88	29.89	29.94	30.07	30.00	29.89
1932-------	30.01	29.89	29.73	29.83	29.91	29.78	29.74	29.86	29.94	29.91	30.06	30.05	29.89
1933-------	29.91	29.92	29.85	29.85	29.83	29.81	29.89	29.84	29.82	30.00	29.89	30.01	29.88
1934-------	30.01	30.05	30.04	29.87	29.87	29.78	29.83	29.91	29.95	29.93	30.00	29.97	29.93
1935-------	30.05	29.93	29.95	29.78	29.88	29.81	29.87	29.89	29.93	30.08	29.99	29.94	29.92
1936-------	29.91	29.99	29.76	29.92	29.92	29.79	29.77	29.89	29.96	29.98	29.96	30.13	29.91
1937-------	30.13	29.89	29.84	29.86	29.85	29.78	29.85	29.93	29.95	29.92	29.97	30.02	29.92
1938-------	29.94	30.08	29.89	29.92	29.82	29.87	29.85	29.87	29.89	29.97	30.04	29.98	29.93
1939-------	29.92	29.99	29.95	29.83	29.85	29.85	29.85	29.84	29.92	29.92	30.08	29.79	29.90
1940-------	29.95	29.83	29.84	29.84	29.78	29.81	29.92	29.96	29.93	29.97	30.02	30.00	29.90
1941-------	30.02	29.82	29.86	29.94	29.84	29.84	29.84	29.85	29.99	29.98	29.94	29.97	29.91
1942-------	29.96	29.80	29.76	29.93	29.90	29.84	29.86	29.92	29.93	29.92	29.97	29.96	29.90
1943-------	29.96	29.88	30.03	29.85	29.90	29.86	29.85	29.80	29.97	29.85	29.99	29.99	29.91
1944-------	30.00	29.96	29.95	29.86	29.94	29.80	29.86	29.89	29.90	29.96	29.91	30.01	29.92
1945-------	29.92	29.99	29.89	29.96	29.77	29.83	29.88	29.90	30.01	29.91	29.93	29.90	29.91
1946-------	30.02	29.93	29.94	29.88	29.83	29.94	29.92	29.88	30.00	30.00	30.03	29.99	29.95
1947-------	29.96	29.75	29.79	29.96	29.83	29.85	29.85	29.94	30.02	30.02	29.93	29.97	29.91
1948-------	30.00	30.10	29.96	29.98	29.78	29.79	29.84	29.87	29.94	29.96	29.94	29.95	29.92
1949-------	30.05	30.02	29.89	29.83	29.90	29.91	29.88	29.88	29.95	30.04	29.78	30.18	29.94
1950-------	30.12	30.01	29.87	29.89	29.88	29.84	29.89	29.92	29.95	29.96	29.87	29.92	29.93
1951-------	29.99	30.08	29.91	29.81	29.79	29.84	29.83	29.87	29.88	29.93	30.00	30.00	29.91
1952-------	30.00	29.93	29.86	29.83	29.78	29.80	29.95	29.90	29.96	29.95	29.90	29.95	29.90
1953-------	29.86	30.00	29.91	29.70	29.71	29.90	29.90	29.92	29.92	29.95	30.01	29.93	29.89
1954-------	30.01	29.83	29.81	30.06	29.82	29.83	29.81	29.86	29.89	29.94	29.95	29.90	29.89

PRESSURE

Table 27 (Cont'd.) Average Station Pressure,* Inches

YEAR	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	ANNUAL
Mean Station Pressure (Length of Record - 82 years)													
1873-1954---	29.99	29.95	29.90	29.87	29.85	29.85	29.85	29.88	29.95	29.97	29.97	29.98	29.92
Extremes of Pressure - Period of 84 years, 1871-1954 (Inches - reduced to Sea Level)													
Highest-----	31.02	30.96	30.96	30.75	30.62	30.50	30.40	30.47	30.63	30.84	30.84	30.97	31.02
Year--------	1927	1920	1943	1923	1936	1884,1913	1947	1925	1947	1879	1891	1949	1927
Lowest------	28.80	28.96	28.68	29.07	29.00	29.38	29.38	29.08	29.27	28.93	28.99	28.73	28.68
Year--------	1922	1896	1932	1929	1929	1918	1932	1933	1876	1954	1878	1878	1932

* See Station Location Table for barometer elevation up to August 1, 1896. From that date through June 1939 City Office data adjusted to official station elevation of 123 ft. Subsequent values from Airport locations also adjusted to 123 ft.

SUNRISE AND SUNSET

Table 28. Time of Sunrise and Sunset at Baltimore, Maryland (Eastern Standard Time)

	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
1------	7:27	4:54	7:15	5:27	6:40	5:59	5:52	6:30	5:08	7:00	4:42	7:27	4:44	7:38	5:06	7:20	5:35	6:38	6:03	5:50	6:35	5:06	7:08	4:44
2------	7:27	4:55	7:14	5:28	6:39	6:01	5:51	6:31	5:07	7:01	4:42	7:28	4:44	7:37	5:07	7:19	5:36	6:36	6:04	5:49	6:36	5:05	7:09	4:44
3------	7:27	4:56	7:13	5:29	6:37	6:02	5:49	6:32	5:06	7:02	4:42	7:29	4:45	7:37	5:08	7:18	5:37	6:35	6:04	5:47	6:37	5:04	7:10	4:44
4------	7:27	4:57	7:12	5:31	6:36	6:03	5:48	6:33	5:05	7:03	4:41	7:30	4:45	7:37	5:09	7:17	5:38	6:33	6:05	5:46	6:38	5:03	7:11	4:44
5------	7:27	4:58	7:11	5:32	6:34	6:04	5:46	6:34	5:04	7:04	4:41	7:30	4:46	7:37	5:10	7:15	5:39	6:32	6:06	5:44	6:39	5:01	7:11	4:44
6------	7:27	4:59	7:10	5:33	6:33	6:05	5:44	6:35	5:03	7:05	4:41	7:31	4:46	7:37	5:11	7:14	5:40	6:30	6:07	5:42	6:41	5:00	7:12	4:44
7------	7:27	5:00	7:09	5:34	6:31	6:06	5:43	6:36	5:01	7:06	4:40	7:31	4:47	7:36	5:12	7:13	5:41	6:29	6:08	5:41	6:42	4:59	7:13	4:44
8------	7:27	5:01	7:08	5:35	6:30	6:07	5:41	6:37	5:00	7:07	4:40	7:32	4:48	7:36	5:13	7:12	5:42	6:27	6:09	5:39	6:43	4:58	7:14	4:44
9------	7:27	5:02	7:07	5:37	6:28	6:08	5:40	6:38	4:59	7:08	4:40	7:33	4:48	7:36	5:14	7:11	5:43	6:25	6:10	5:38	6:44	4:57	7:15	4:44
10-----	7:27	5:03	7:05	5:38	6:27	6:09	5:38	6:39	4:58	7:09	4:40	7:33	4:49	7:35	5:14	7:10	5:44	6:24	6:11	5:36	6:45	4:57	7:16	4:44
11-----	7:27	5:04	7:04	5:39	6:25	6:10	5:37	6:40	4:57	7:10	4:40	7:34	4:49	7:35	5:15	7:08	5:44	6:22	6:12	5:35	6:46	4:56	7:17	4:44
12-----	7:27	5:05	7:03	5:40	6:24	6:11	5:35	6:41	4:56	7:11	4:40	7:34	4:50	7:35	5:16	7:07	5:45	6:21	6:13	5:33	6:47	4:55	7:17	4:44
13-----	7:26	5:06	7:02	5:41	6:22	6:12	5:34	6:42	4:55	7:12	4:40	7:34	4:51	7:34	5:17	7:06	5:46	6:19	6:14	5:32	6:48	4:54	7:18	4:44
14-----	7:26	5:07	7:01	5:42	6:21	6:13	5:32	6:43	4:54	7:13	4:40	7:35	4:52	7:34	5:18	7:04	5:47	6:18	6:15	5:30	6:50	4:53	7:19	4:44
15-----	7:26	5:08	6:59	5:44	6:19	6:14	5:31	6:44	4:54	7:14	4:40	7:35	4:52	7:33	5:19	7:03	5:48	6:16	6:16	5:29	6:51	4:52	7:20	4:45
16-----	7:25	5:09	6:58	5:45	6:17	6:15	5:29	6:45	4:53	7:15	4:40	7:36	4:53	7:33	5:20	7:02	5:49	6:14	6:17	5:28	6:52	4:52	7:20	4:45
17-----	7:25	5:10	6:57	5:46	6:16	6:16	5:28	6:46	4:52	7:15	4:40	7:36	4:54	7:32	5:21	7:00	5:50	6:13	6:18	5:26	6:53	4:51	7:21	4:45
18-----	7:24	5:11	6:55	5:47	6:14	6:17	5:26	6:47	4:51	7:16	4:40	7:36	4:55	7:31	5:22	6:59	5:51	6:11	6:19	5:25	6:54	4:50	7:22	4:46
19-----	7:24	5:12	6:54	5:48	6:13	6:18	5:25	6:48	4:50	7:17	4:40	7:36	4:55	7:31	5:23	6:58	5:52	6:09	6:20	5:23	6:55	4:50	7:22	4:46
20-----	7:23	5:13	6:53	5:49	6:11	6:19	5:23	6:49	4:49	7:18	4:40	7:37	4:56	7:30	5:24	6:56	5:52	6:08	6:21	5:22	6:56	4:49	7:23	4:46
21-----	7:23	5:14	6:51	5:51	6:10	6:20	5:22	6:50	4:49	7:19	4:40	7:37	4:57	7:29	5:25	6:55	5:53	6:06	6:23	5:20	6:57	4:48	7:23	4:47
22-----	7:22	5:15	6:50	5:52	6:08	6:21	5:21	6:51	4:48	7:20	4:40	7:37	4:58	7:29	5:26	6:53	5:54	6:05	6:24	5:19	6:58	4:48	7:23	4:47
23-----	7:22	5:17	6:49	5:53	6:06	6:22	5:19	6:52	4:47	7:21	4:41	7:37	4:59	7:28	5:27	6:52	5:55	6:03	6:25	5:18	6:59	4:47	7:24	4:48
24-----	7:21	5:18	6:47	5:54	6:05	6:23	5:18	6:53	4:47	7:22	4:41	7:37	4:59	7:27	5:28	6:50	5:56	6:01	6:26	5:16	7:00	4:47	7:25	4:49
25-----	7:20	5:19	6:46	5:55	6:03	6:24	5:16	6:54	4:46	7:22	4:41	7:38	5:00	7:26	5:29	6:49	5:57	6:00	6:27	5:15	7:02	4:46	7:25	4:49
26-----	7:20	5:20	6:44	5:56	6:02	6:25	5:15	6:55	4:45	7:23	4:42	7:38	5:01	7:25	5:30	6:47	5:58	5:58	6:28	5:14	7:03	4:46	7:25	4:50
27-----	7:19	5:21	6:43	5:57	6:00	6:26	5:14	6:56	4:45	7:24	4:42	7:38	5:02	7:24	5:31	6:46	5:59	5:57	6:29	5:12	7:04	4:45	7:26	4:50
28-----	7:18	5:22	6:42	5:58	5:58	6:27	5:12	6:57	4:44	7:25	4:42	7:38	5:03	7:24	5:32	6:44	6:00	5:55	6:30	5:11	7:05	4:45	7:26	4:51
29-----	7:17	5:23			5:57	6:28	5:11	6:58	4:44	7:25	4:43	7:38	5:04	7:23	5:33	6:43	6:01	5:53	6:31	5:10	7:06	4:45	7:26	4:52
30-----	7:17	5:24			5:55	6:29	5:10	6:59	4:43	7:26	4:43	7:38	5:05	7:22	5:34	6:41	6:02	5:52	6:32	5:08	7:07	4:44	7:27	4:53
31-----	7:16	5:26			5:54	6:30			4:43	7:27			5:05	7:21	5:35	6:40			6:34	5:06			7:27	4:53

Sunrise and sunset are the times when the apparent upper edge of the sun is 90° from the zenith. These times vary a little from year to year but the times shown closely approximate the actual times each year, the variations at most not being over two or three minutes. Civil twilight, which is about 30 minutes in length the year round at Baltimore is the interval between sunrise or sunset and the time when the center of the sun is 6° below the horizon.

CEILING AND VISIBILITY

Table 29. Percentage Frequency of Selected Ceiling Heights.
Friendship International Airport (Hourly Observations, Aug. 1950-Sept. 1955)

Ceiling Less Than / Month	FEET							
	100	200	300	500	1000	2000	5000	10000
January-----	1.6	2.4	3.2	5.7	10.3	13.6	26.0	37.3
February----	0.4	1.8	2.8	4.9	7.3	9.9	18.1	29.8
March-------	0.9	2.0	3.8	7.2	12.7	16.2	27.2	38.1
April-------	0.1	0.8	1.9	4.1	10.1	15.7	25.6	40.2
May---------	0.1	0.7	1.5	3.0	7.4	11.9	19.5	35.0
June--------	0.0	0.2	0.4	1.8	6.6	11.8	19.1	25.3
July--------	#	0.1	0.1	0.2	1.9	4.4	9.3	15.1
August------	0.0	0.1	0.4	1.2	5.8	11.6	20.8	28.4
September---	0.2	0.4	0.8	1.7	6.5	11.5	15.9	24.5
October-----	0.7	1.2	1.6	2.3	5.0	8.7	17.3	26.5
November----	2.0	2.9	4.1	5.9	10.6	13.5	23.1	35.5
December----	0.8	1.3	1.8	3.4	8.7	13.7	25.8	37.7
Annual------	0.6	1.1	1.9	3.4	7.7	11.9	20.7	31.1

Less than 0.05 per cent

Table 30. Percentage Frequency of Selected Visibilities.
Friendship International Airport (Hourly Observations, August 1950-September 1955)

Visibility Less Than / Month	STATUTE MILES						
	1/4	1/2	1	1½	3	6	10
January--------	2.1	2.9	5.3	7.0	11.7	27.4	52.8
February-------	1.1	2.4	3.9	5.1	8.6	20.9	45.6
March----------	1.5	2.5	4.5	6.3	9.8	22.5	40.4
April----------	0.6	1.1	1.9	3.4	6.8	18.9	39.4
May----------	0.5	0.9	1.7	2.8	5.7	17.5	43.6
June----------	0.1	0.2	0.7	1.8	5.2	16.9	41.5
July----------	#	0.1	0.2	0.4	1.8	13.8	49.5
August---------	0.2	0.5	1.4	2.0	5.2	22.5	58.3
September------	0.4	0.8	1.4	2.6	5.3	19.6	45.3
October--------	1.3	1.7	2.4	3.1	6.6	22.5	55.6
November-------	2.8	3.7	5.7	7.5	12.4	26.6	52.0
December-------	1.2	1.7	2.9	4.8	9.0	24.9	50.7
Annual---------	1.0	1.5	2.7	3.9	7.3	21.2	47.9

Less than 0.05 per cent

Table 31. Percentage Frequency of Selected Combinations of Ceiling and Visibility.
Friendship International Airport (Hourly Observations, September 1950-August 1955)

Ceiling Less Than / and/or Visibility Less Than	100 Ft. / 3/16 Mi.	200 Ft. / 1/2 Mi.	300 Ft. / 1/2 Mi.	500 Ft. / 1 Mi.	1000 Ft. / 3 Mi.	2000 Ft. / 3 Mi.	5000 Ft. / 7 Mi.
January-------	2.1	3.2	3.7	6.9	14.3	16.6	40.6
February------	1.1	2.6	3.2	5.5	10.0	11.9	31.5
March----------	1.5	2.8	4.0	7.7	14.2	17.2	35.8
April----------	0.6	1.3	2.0	4.3	11.1	16.4	32.5
May----------	0.5	1.0	1.6	3.2	9.2	13.0	28.8
June----------	0.1	0.2	0.4	2.0	8.1	12.9	30.0
July----------	0.1	0.2	0.2	0.3	3.1	5.3	23.7
August--------	0.2	0.5	0.7	1.9	8.4	13.6	38.2
September-----	0.4	0.8	1.1	2.2	8.6	12.8	28.8
October-------	1.5	2.0	2.2	3.4	8.2	11.9	36.1
November------	2.9	3.9	4.7	7.2	16.2	18.9	40.8
December------	1.3	1.9	2.2	4.4	12.1	16.3	38.6
Annual--------	1.0	1.7	2.2	4.1	10.3	13.9	33.8

OTHER CLIMATIC DATA

Table 32. Summary of Selected Climatic Elements

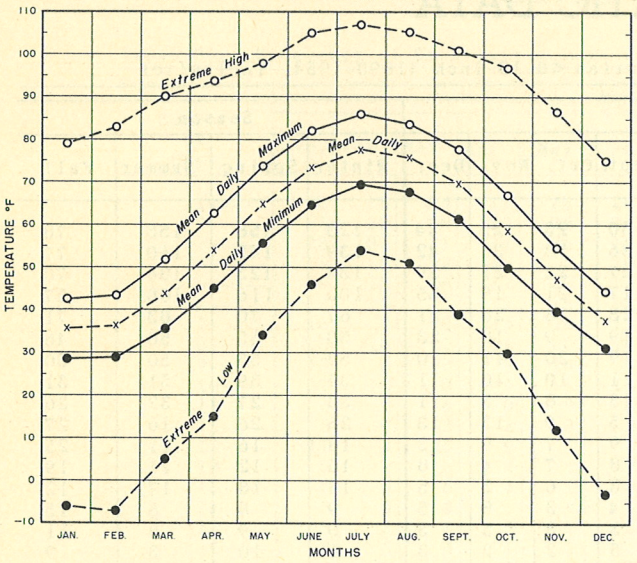
MONTH	Percent of Possible Sunshine	Mean Sky Cover Sunrise to Sunset (tenths)	Mean Number of Days: Sunrise to Sunset: Clear	Partly Cloudy	Cloudy	Precipitation .01 inch or more	Snow, Sleet, Hail 1.0 inch or more	Thunderstorms	Heavy Fog	Temperatures: Maximum: 90° and above	32° and below	Minimum: 32° and below	Zero and below
	#	#	#	#	#		#	#	#				
(a)-----	61	84	84	84	84	84	62	71	64	82	82	82	82
JANUARY-----	48	5.9	9	9	13	11	2	*	3	0	5	20	*
FEBRUARY----	56	5.6	9	9	11	10	2	*	2	0	4	18	*
MARCH-------	58	5.6	10	10	11	12	1	1	2	*	1	11	0
APRIL-------	58	5.5	9	10	11	11	*	2	1	*	0	1	0
MAY---------	60	5.4	10	11	10	12	0	5	1	1	0	0	0
JUNE--------	64	5.3	9	13	8	11	0	6	*	5	0	0	0
JULY--------	66	5.1	10	13	8	11	0	8	*	10	0	0	0
AUGUST------	64	5.2	11	11	9	11	0	6	*	6	0	0	0
SEPTEMBER---	65	4.8	12	9	9	8	0	3	1	2	0	0	0
OCTOBER-----	64	4.7	13	9	9	8	*	1	2	*	0	*	0
NOVEMBER----	55	5.3	10	10	10	9	*	*	2	0	*	5	0
DECEMBER----	50	5.7	9	9	12	10	1	*	3	0	3	17	*
ANNUAL------	59	5.3	121	123	121	124	6	32	17	24	13	72	*

\# City Office data to 1950; Airport Data thereafter
(a) Length of record, years
* Less than ½

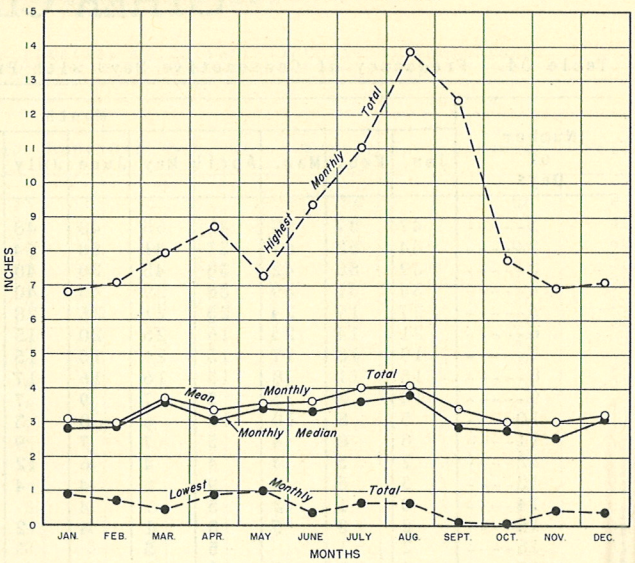
Table 33. Percentage Frequency of Selected Climatic Elements
Friendship International Airport (Hourly Observations, Sept. 1950-Aug. 1955)

Month \ Visibility Statute Miles	Fog: Less Than 3	Fog: 3 or More	Haze, Smoke or Dust: Less Than 3	Haze, Smoke or Dust: 3 or More	Thunder	Precipitation
January--------	9.6	4.8	2.8	14.8	0.1	12.9
February-------	7.5	3.3	1.6	12.4	0.0	9.6
March----------	9.0	6.8	1.4	9.0	0.1	15.2
April----------	6.6	7.2	0.8	6.9	0.5	15.5
May----------	5.1	7.0	0.8	8.2	1.1	11.5
June----------	4.7	4.9	0.6	10.7	1.3	8.5
July----------	1.4	2.6	0.5	14.7	1.4	2.8
August---------	4.5	7.3	0.8	15.8	1.0	8.4
September------	4.8	5.9	1.2	11.9	0.8	7.4
October--------	5.6	5.7	2.2	15.9	0.2	7.0
November-------	9.6	4.4	7.1	14.6	0.0	10.5
December-------	6.8	5.9	2.5	13.1	0.0	13.0
Annual---------	6.3	5.5	1.9	12.3	0.5	10.2

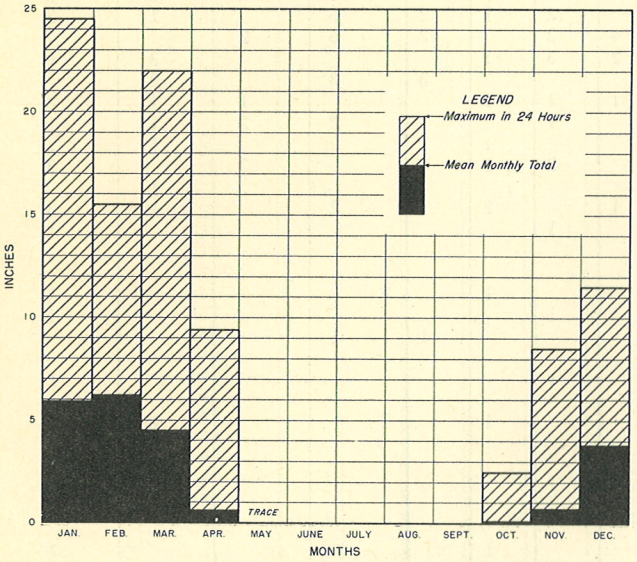
GRAPH C — BALTIMORE TEMPERATURES



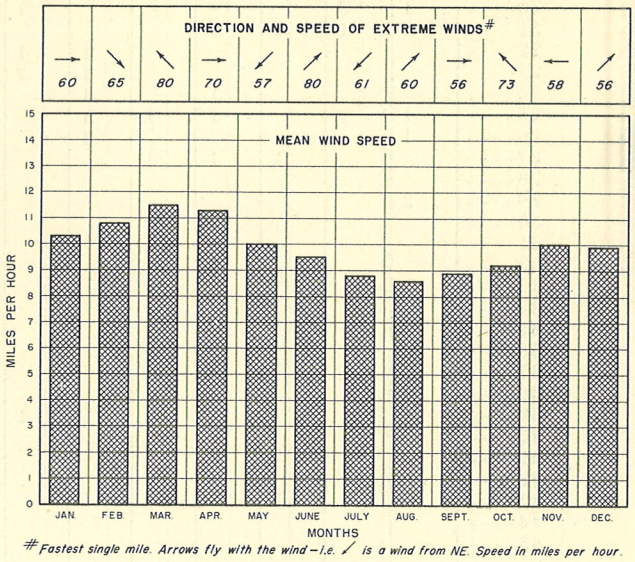
GRAPH D — BALTIMORE PRECIPITATION



GRAPH E — BALTIMORE SNOWFALL

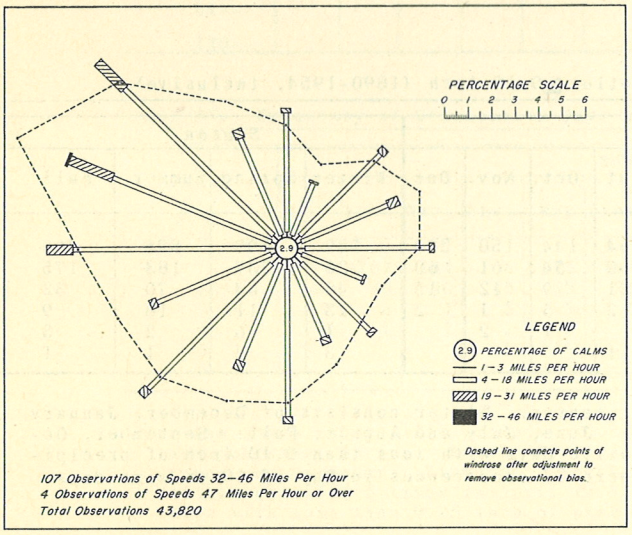


GRAPH F — BALTIMORE WIND SPEED

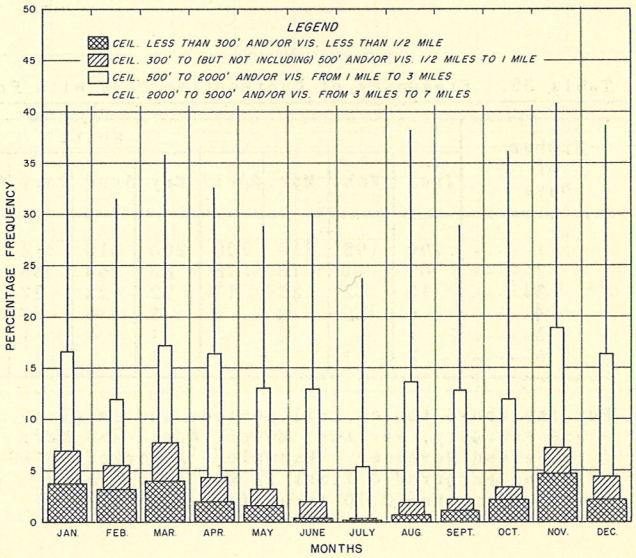


#Fastest single mile. Arrows fly with the wind — i.e. ↙ is a wind from NE. Speed in miles per hour.

GRAPH G — BALTIMORE ANNUAL SURFACE WIND ROSE



GRAPH H — SIMULTANEOUS CEILINGS AND VISIBILITIES



OTHER CLIMATIC DATA

Table 34. Frequency of Consecutive Days with Precipitation <0.10 inch (1890-1954, inclusive)

Number of Days	Month												Season			
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Winter	Spring	Summer	Fall
1-----	47	37	52	41	65	48	48	62	30	23	25	44	128	158	158	78
2-----	44	53	67	37	41	58	54	48	26	18	33	42	139	145	160	77
3-----	39	56	42	36	45	30	40	36	27	22	21	39	134	123	106	70
4-----	34	31	39	38	39	40	40	28	17	21	19	35	100	116	108	57
5-----	27	19	24	25	21	26	28	29	28	23	20	21	67	70	83	71
6-----	21	14	24	16	25	20	15	15	19	9	18	23	58	65	50	46
7-----	19	13	17	15	21	15	15	20	19	20	11	20	52	53	50	50
8-----	15	11	8	15	16	16	17	18	11	10	10	11	37	39	51	31
9-----	14	8	15	5	7	9	7	16	13	8	5	11	33	27	32	26
10----	5	8	10	10	6	8	3	5	5	9	13	13	26	26	16	27
11----	8	8	4	5	7	7	9	5	9	7	9	2	18	16	21	25
12----	2	5	4	4	4	6	12	3	8	7	4	8	15	12	21	19
13----	3	5	3	9	6	4	4	9	3	6	3	5	13	18	17	12
14----	3	1	3	5		4		2	4	3	8	5	9	8	6	15
15----	2	3	5	3	1	4	2	2	3	3	5	3	8	9	8	11
16----	2	1		5	5		3		5	2	2	3	6	10	3	9
17----	2	2	2	2	1	2	3	2	3	3	4		4	5	7	10
18----	3	1	2	1	1			1	4	3	5	3	7	4	1	12
19----	2	1			4		3			1	2	3	6	4	3	3
20----	1	3					1			2	1	2	6		1	3
21----	1	1	1	1					4	3		3	5	2		7
22----						1	1	1	2	3	1				3	6
23----						1	2					3	3		3	
24----				1		1			1	1	1			1	1	3
25----	1	1		1	1	1				1			2	2	1	1
26----	1					1					1	1	2		1	1
27----			1	1	1					2	1			3		3
28----								1							1	
29----	2							1	1		2		2		1	3
30----										1						1
31----																
32----																
33----											1					1
34----										1						1
35----												1	1			
36----																
37----										1						1
38----																
39----							1				1				1	1
40----																
41----																
42----																
43----																
44----																
45----											1					1

Table 35. Frequency of Consecutive Days with Precipitation ≥0.10 inch (1890-1954, inclusive)

Number of Days	Month												Season			
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Winter	Spring	Summer	Fall
1-----	190	195	213	180	206	210	212	223	164	144	158	204	589	599	645	466
2-----	87	71	76	78	83	64	59	60	60	54	61	68	226	237	183	175
3-----	13	12	25	17	22	22	27	21	11	9	12	15	40	64	70	32
4-----	6	5	4	4	3	6	7	5	3	5	1	2	13	11	18	9
5-----	1		2	3	1		1	1		1	2		1	6	2	3
6-----	2	1	1		1			1	1				3	2	1	1

For the above tables, all periods end in given month or season. Winter consists of December, January and February; Spring: March, April and May; Summer: June, July and August; Fall: September, October and November. Example: A period of 10 consecutive days with less than 0.10 inch of precipitation occurred 6 times in May in 65 years. (There were 37 occurrences in May of 10 or more days with less than 0.10 inch of precipitation.)

OTHER CLIMATIC DATA

Table 36. Frequency of Consecutive Days with Precipitation <0.25 inch (1890-1954, inclusive)

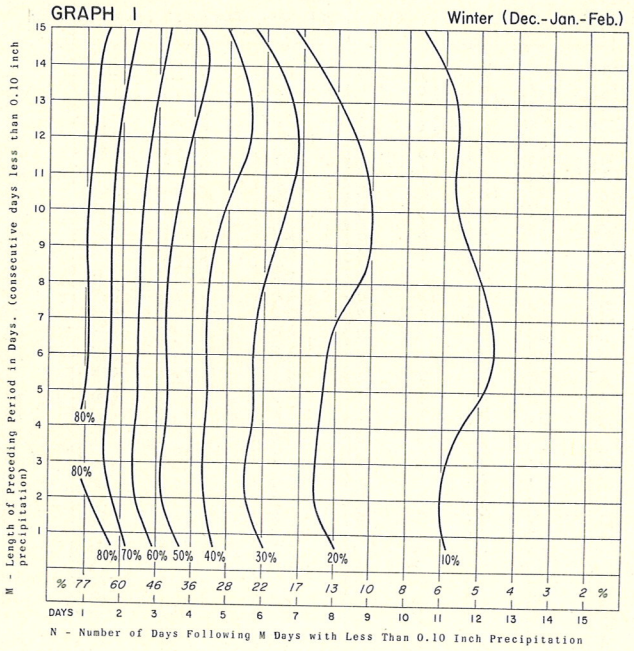
Number of Days	Month												Season			
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Winter	Spring	Summer	Fall
1-----	20	15	24	19	28	26	29	33	15	15	11	23	58	71	88	41
2-----	23	32	28	23	25	34	31	26	14	11	17	21	76	76	91	42
3-----	28	31	21	19	26	19	22	23	10	15	17	19	78	66	64	42
4-----	16	18	22	17	19	28	32	24	11	10	14	22	56	58	84	35
5-----	19	15	26	17	20	14	22	18	13	13	13	16	50	63	54	39
6-----	13	15	13	12	16	15	15	19	10	6	13	13	41	41	49	29
7-----	16	7	12	14	14	17	10	12	9	10	8	15	38	40	39	27
8-----	10	14	11	12	20	16	16	15	13	10	4	10	34	43	47	27
9-----	13	8	13	9	16	7	6	10	11	8	6	8	29	38	23	25
10----	7	11	10	9	6	13	7	6	5	8	9	14	32	25	26	22
11----	6	9	6	10	9	5	9	6	8	4	1	8	23	25	20	13
12----	5	7	3	2	3	3	10	2	9	5	5	6	18	8	15	19
13----	11	4	5	9	7	5	2	8	5	7	5	7	22	21	15	17
14----	5	1	6	4	4	7	3	1	6	1	3	3	9	14	11	10
15----	3	4	6	4	1	3	5	4	4	2	6	8	15	11	12	12
16----	3	3	3		4	5	3	3	2	2	3	5	11	7	11	7
17----	3	2	3	5	1	3	3	4	1	6	4	2	7	9	10	11
18----	2	3	4	1	2		3	2	3	5	4	1	6	7	5	12
19----	4	3	3	2	6	5	3	1	4	1	5	3	10	11	9	10
20----		2	4	5		2	3	2	3	2	2	4	6	9	7	7
21----	2	1	2	2	2		1		6	3	1	1	4	6	1	10
22----			3	3	1		3	1	2	4	1	2	2	7	4	7
23----		1		1	1	2	2	3		1	2	2	3	2	7	3
24----	1	2	1	2					2	1			3	3		3
25----	1	1	1	1			1			1			2	2	1	1
26----	1	1			1	1	1		1	3		3	5	1	2	4
27----		1		1	3	2	1	1	2		2		1	4	4	4
28----						1		3		1	1				4	2
29----	1	1			1			1	1	1	1		2	1	1	3
30----		1		1	1				1	1		1	2	2		2
31----	1			1		2			1	1			1	1	2	2
32----					1			1		1		1	1	1	1	1
33----					1				1	1	1	3	3	1		3
34----	1		1								1		1	1		1
35----					1		1			2	1			1	1	3
36----		2											2			
37----																
38----												1	1			
39----										1	1					2
40----											1					1
41----											1					1
42----											1					1
43----																
44----												1	1			
45----	1						1				1		1		1	1
46----											1					1
47----	1			1		1						1	2	1	1	
51----	1									1			1			1
54----												1	1			
61----								1							1	
120---												1	1			

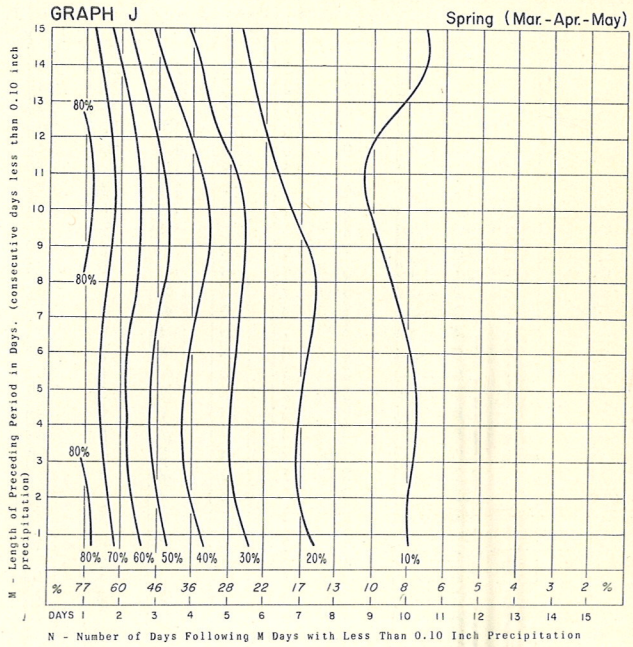
Table 37. Frequency of Consecutive Days with Precipitation ≥0.25 inch (1890-1954, inclusive)

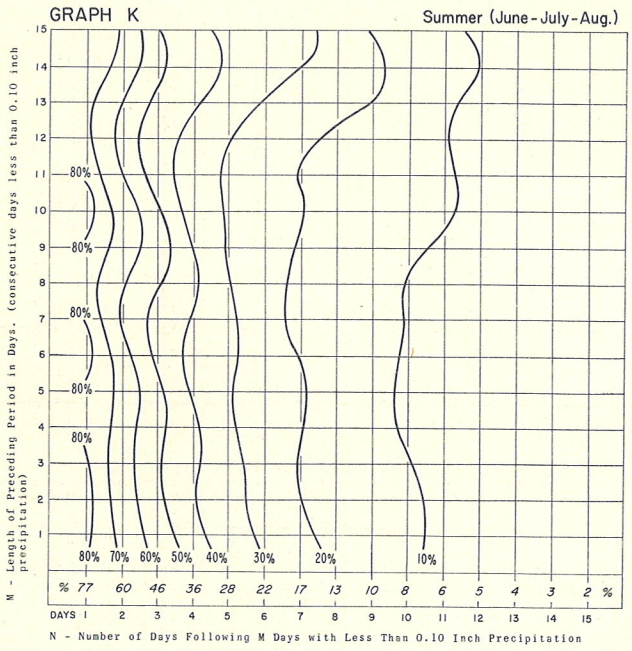
Number of Days	Month												Season			
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Winter	Spring	Summer	Fall
1-----	174	167	184	156	173	198	196	181	114	123	136	170	511	513	575	373
2-----	40	40	40	45	53	35	32	43	45	39	29	38	118	138	110	113
3-----	6	6	7	5	7	5	12	9	6	1	7	6	18	19	26	14
4-----	2	1	1	2	2		1	1	2	3		1	4	5	2	5
5-----				1			1	1						1	2	
6-----								1							1	

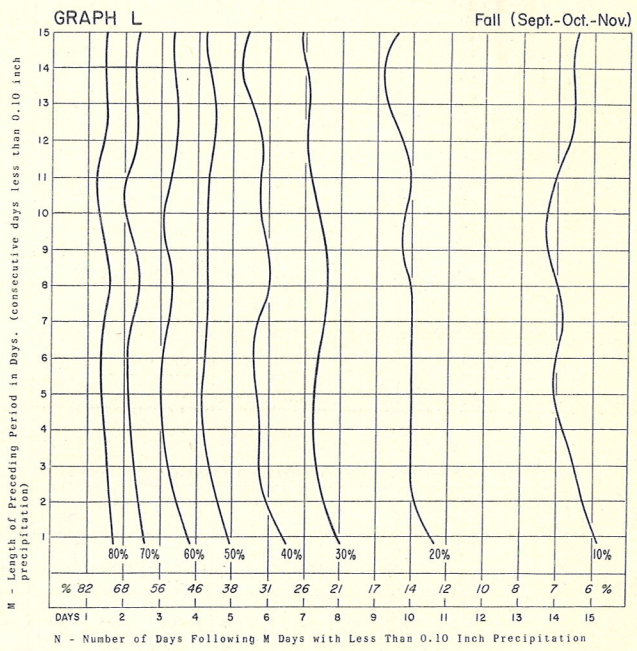
For the above tables, all periods end in given month or season. Winter consists of December, January and February; Spring: March, April and May; Summer: June, July and August; Fall: September, October and November. Example: A period of 20 consecutive days with less than 0.25 inch of precipitation occurred 5 times in April in 65 years. (There were 18 occurrences in April of 20 or more days with less than 0.25 inch of precipitation.)

Percentage Frequency of N or More Days with Less Than 0.10 Inch of Precipitation Following M Days with Less Than 0.10 Inch of Precipitation.









The above Graphs are based on data given in Table 34.

Example: In Graph I, if 12 days with less than 0.10 inch of precipitation have occurred (M scale), the chance of at least 4 more days with less than 0.10 inch of precipitation (N scale) is about 50%; i.e., 50 chances in 100, or, 1 chance in 2.

Figures immediately above N scale give percentage frequency for each consecutive number of days based on chance.

NORMALS

Table 38. Daily, Monthly and Annual Normals (City Office)

JULY	TEMPERATURE MAX	MIN	AVG	* DEGREE DAYS	PRECIP
1----	86	69	78	0	.12
2----	86	69	78	0	.12
3----	86	69	78	0	.12
4----	86	69	78	0	.12
5----	87	69	78	0	.12
6----	87	69	78	0	.12
7----	87	69	78	0	.12
8----	87	70	79	0	.12
9----	87	70	79	0	.12
10---	87	70	79	0	.12
11---	87	70	79	0	.12
12---	87	70	79	0	.12
13---	87	70	79	0	.12
14---	87	70	79	0	.12
15---	87	70	79	0	.12
16---	87	70	79	0	.13
17---	87	70	79	0	.13
18---	87	70	79	0	.13
19---	87	70	79	0	.13
20---	87	70	79	0	.13
21---	87	71	79	0	.13
22---	87	71	79	0	.13
23---	87	71	79	0	.13
24---	87	71	79	0	.13
25---	87	71	79	0	.13
26---	87	71	79	0	.14
27---	87	71	79	0	.14
28---	87	70	79	0	.14
29---	87	70	79	0	.14
30---	87	70	79	0	.14
31---	87	70	79	0	.14
MONTH	86.9	70.0	78.5	0	3.94

AUG.	TEMPERATURE MAX	MIN	AVG	* DEGREE DAYS	PRECIP
1---	87	70	79	0	.14
2---	87	70	79	0	.14
3---	86	70	78	0	.14
4---	86	70	78	0	.14
5---	86	70	78	0	.14
6---	86	70	78	0	.14
7---	86	70	78	0	.14
8---	86	69	78	0	.14
9---	86	69	78	0	.14
10--	86	69	78	0	.14
11--	85	69	77	0	.14
12--	85	69	77	0	.14
13--	85	69	77	0	.14
14--	85	69	77	0	.14
15--	85	68	77	0	.14
16--	85	68	77	0	.14
17--	85	68	77	0	.14
18--	84	68	76	0	.14
19--	84	68	76	0	.14
20--	84	68	76	0	.15
21--	84	68	76	0	.15
22--	84	67	76	0	.15
23--	84	67	76	0	.15
24--	83	67	75	0	.14
25--	83	67	75	0	.14
26--	83	67	75	0	.14
27--	83	66	75	0	.14
28--	83	66	75	0	.14
29--	83	66	75	0	.14
30--	82	66	74	0	.14
31--	82	66	74	0	.14
	84.6	68.2	76.4	0	4.38

SEP.	TEMPERATURE MAX	MIN	AVG	* DEGREE DAYS	PRECIP
1----	82	66	74	0	.13
2----	82	66	74	0	.13
3----	82	65	74	0	.13
4----	81	65	73	0	.13
5----	81	65	73	0	.12
6----	81	65	73	0	.12
7----	81	65	73	0	.12
8----	81	64	73	0	.12
9----	80	64	72	0	.12
10---	80	64	72	0	.12
11---	80	64	72	1	.12
12---	80	63	72	2	.12
13---	79	63	71	3	.11
14---	79	63	71	4	.11
15---	79	62	71	5	.11
16---	79	62	71	6	.11
17---	78	62	70	7	.11
18---	78	62	70	8	.11
19---	78	61	70	9	.11
20---	78	61	70	10	.11
21---	77	61	69	11	.11
22---	77	61	69	12	.11
23---	77	60	69	14	.11
24---	76	60	68	16	.11
25---	76	60	68	18	.11
26---	76	59	68	20	.11
27---	76	59	68	22	.11
28---	75	58	67	24	.11
29---	75	58	67	26	.11
30---	74	57	66	29	.11
	78.6	62.2	70.4	29	3.46

OCT.	TEMPERATURE MAX	MIN	AVG	* DEGREE DAYS	PRECIP
1---	74	57	66	32	.11
2---	74	56	65	35	.11
3---	73	56	65	38	.11
4---	73	55	64	41	.11
5---	72	55	64	45	.11
6---	72	54	63	49	.11
7---	72	54	63	53	.11
8---	71	53	62	57	.11
9---	71	53	62	62	.11
10--	70	53	62	67	.11
11--	70	52	61	72	.11
12--	69	52	61	77	.11
13--	69	51	60	83	.11
14--	69	51	60	89	.11
15--	68	51	60	95	.11
16--	68	50	59	102	.11
17--	67	50	59	109	.11
18--	67	50	59	116	.11
19--	66	49	58	124	.11
20--	66	49	58	132	.11
21--	66	49	58	140	.11
22--	65	48	57	148	.11
23--	65	48	57	157	.11
24--	65	48	57	166	.11
25--	64	48	56	175	.11
26--	64	47	56	184	.11
27--	63	47	55	194	.11
28--	63	47	55	204	.10
29--	63	47	55	214	.10
30--	62	46	54	225	.10
31--	62	46	54	236	.10
	67.8	50.7	59.3	207	3.37

NOV.	TEMPERATURE MAX	MIN	AVG	* DEGREE DAYS	PRECIP
1----	62	46	54	247	.10
2----	62	46	54	258	.10
3----	61	45	53	270	.10
4----	61	45	53	282	.10
5----	61	45	53	294	.10
6----	60	44	52	307	.10
7----	60	44	52	320	.10
8----	59	44	52	333	.10
9----	59	44	52	347	.10
10---	59	43	51	361	.10
11---	58	43	51	375	.10
12---	58	43	51	390	.10
13---	57	42	50	405	.10
14---	57	42	50	420	.10
15---	57	42	50	436	.10
16---	56	41	49	452	.10
17---	56	41	49	469	.10
18---	55	40	48	486	.10
19---	55	40	48	504	.10
20---	54	40	47	522	.10
21---	54	39	47	541	.10
22---	53	39	46	560	.10
23---	53	38	46	579	.10
24---	52	38	45	599	.10
25---	52	38	45	619	.10
26---	52	37	45	639	.10
27---	51	37	44	660	.09
28---	51	36	44	681	.09
29---	50	36	43	703	.09
30---	50	36	43	725	.09
MONTH	56.2	41.1	48.7	489	2.96

DEC.	TEMPERATURE MAX	MIN	AVG	* DEGREE DAYS	PRECIP
1---	49	35	42	748	.09
2---	49	35	42	771	.09
3---	48	35	42	795	.09
4---	48	34	41	819	.09
5---	47	34	41	843	.09
6---	47	34	41	868	.09
7---	47	34	41	893	.09
8---	46	33	40	918	.09
9---	46	33	40	943	.09
10--	46	33	40	969	.09
11--	46	33	40	995	.09
12--	45	33	39	1021	.09
13--	45	32	39	1047	.09
14--	45	32	39	1073	.09
15--	45	32	39	1099	.09
16--	45	32	39	1125	.10
17--	45	32	39	1152	.10
18--	45	32	39	1179	.10
19--	45	31	38	1206	.10
20--	45	31	38	1233	.10
21--	44	31	38	1260	.10
22--	44	31	38	1287	.10
23--	44	31	38	1314	.10
24--	44	31	38	1341	.10
25--	44	31	38	1369	.10
26--	44	31	38	1397	.10
27--	44	30	37	1425	.10
28--	44	30	37	1453	.10
29--	44	30	37	1481	.10
30--	44	30	37	1509	.10
31--	44	30	37	1537	.10
	45.4	32.1	38.8	812	2.95

JAN.	TEMPERATURE MAX	MIN	AVG	* DEGREE DAYS	PRECIP
1---	44	30	37	1565	.11
2---	44	30	37	1593	.11
3---	44	30	37	1621	.11
4---	44	30	37	1649	.11
5---	44	30	37	1677	.11
6---	44	30	37	1705	.11
7---	44	30	37	1733	.12
8---	44	30	37	1761	.12
9---	44	30	37	1789	.12
10--	44	30	37	1817	.12
11--	44	30	37	1845	.12
12--	44	30	37	1873	.12
13--	44	30	37	1901	.12
14--	44	30	37	1929	.12
15--	44	30	37	1957	.12
16--	44	30	37	1985	.12
17--	44	30	37	2013	.12
18--	44	30	37	2041	.12
19--	44	29	37	2069	.12
20--	44	29	37	2098	.12
21--	43	29	36	2127	.12
22--	43	29	36	2156	.12
23--	43	29	36	2185	.12
24--	43	29	36	2214	.12
25--	43	29	36	2243	.12
26--	43	29	36	2272	.12
27--	43	29	36	2301	.12
28--	43	29	36	2330	.12
29--	43	29	36	2359	.12
30--	43	29	36	2388	.12
31--	43	29	36	2417	.12
	43.6	29.6	36.6	880	3.66

FEB.	TEMPERATURE MAX	MIN	AVG	* DEGREE DAYS	PRECIP
1---	43	29	36	2446	.11
2---	43	29	36	2475	.11
3---	43	29	36	2504	.11
4---	43	29	36	2533	.11
5---	43	29	36	2562	.11
6---	43	29	36	2591	.11
7---	43	29	36	2620	.11
8---	43	29	36	2649	.11
9---	43	29	36	2678	.11
10--	44	29	37	2707	.11
11--	44	29	37	2736	.11
12--	44	29	37	2764	.11
13--	44	29	37	2792	.11
14--	44	29	37	2820	.11
15--	44	29	37	2848	.11
16--	44	30	37	2876	.11
17--	45	30	38	2904	.11
18--	45	30	38	2931	.11
19--	45	30	38	2958	.11
20--	45	31	38	2985	.10
21--	46	31	39	3012	.10
22--	46	31	39	3039	.10
23--	46	31	39	3065	.10
24--	47	31	39	3091	.10
25--	47	32	40	3117	.10
26--	47	32	40	3143	.10
27--	48	32	40	3168	.10
28--	48	32	40	3193	.10
29--	48	32	40		.10
	44.6	29.9	37.3	776	2.99

MAR.	TEMPERATURE MAX	MIN	AVG	* DEGREE DAYS	PRECIP
1---	48	33	41	3218	.10
2---	49	33	41	3242	.10
3---	49	33	41	3266	.11
4---	49	33	41	3290	.11
5---	50	34	42	3313	.11
6---	50	34	42	3336	.11
7---	51	34	43	3359	.11
8---	51	35	43	3381	.12
9---	51	35	43	3403	.12
10--	52	35	44	3425	.12
11--	52	35	44	3446	.12
12--	52	36	44	3467	.12
13--	53	36	45	3488	.12
14--	53	36	45	3508	.12
15--	54	37	46	3528	.12
16--	54	37	46	3548	.12
17--	54	37	46	3567	.12
18--	55	37	46	3586	.12
19--	55	38	47	3605	.12
20--	55	38	47	3623	.12
21--	56	38	47	3641	.12
22--	56	38	47	3659	.12
23--	56	39	48	3676	.12
24--	56	39	48	3693	.12
25--	57	39	48	3710	.12
26--	57	40	49	3726	.12
27--	57	40	49	3742	.12
28--	58	40	49	3758	.12
29--	58	40	49	3774	.12
30--	58	41	50	3789	.12
31--	59	41	50	3804	.12
MONTH	53.7	36.8	45.3	611	3.63

APR.	TEMPERATURE MAX	MIN	AVG	* DEGREE DAYS	PRECIP
1---	59	41	50	3819	.12
2---	59	41	50	3834	.12
3---	59	42	51	3848	.12
4---	60	42	51	3862	.12
5---	60	42	51	3876	.12
6---	60	42	51	3890	.12
7---	61	43	52	3903	.12
8---	61	43	52	3916	.12
9---	61	43	52	3929	.12
10--	61	44	53	3942	.13
11--	62	44	53	3954	.13
12--	62	44	53	3966	.13
13--	62	44	53	3978	.13
14--	63	45	54	3989	.13
15--	63	45	54	4000	.13
16--	63	45	54	4011	.13
17--	64	46	55	4022	.13
18--	64	46	55	4032	.13
19--	64	46	55	4042	.13
20--	65	47	56	4052	.13
21--	65	47	56	4061	.13
22--	65	47	56	4070	.12
23--	66	48	57	4079	.12
24--	66	48	57	4087	.12
25--	67	48	58	4095	.12
26--	67	49	58	4103	.12
27--	67	49	58	4110	.12
28--	68	49	59	4117	.12
29--	68	50	59	4124	.12
30--	68	50	59	4130	.12
	63.3	45.3	54.3	326	3.72

MAY	TEMPERATURE MAX	MIN	AVG	* DEGREE DAYS	PRECIP
1---	69	51	60	4136	.12
2---	69	51	60	4142	.12
3---	70	51	61	4147	.12
4---	70	52	61	4152	.12
5---	70	52	61	4157	.12
6---	71	53	62	4161	.12
7---	71	53	62	4165	.12
8---	71	53	62	4169	.12
9---	72	54	63	4172	.12
10--	72	54	63	4175	.12
11--	73	54	64	4178	.13
12--	73	55	64	4181	.13
13--	73	55	64	4184	.13
14--	74	55	65	4186	.13
15--	74	56	65	4188	.13
16--	75	56	66	4190	.13
17--	75	56	66	4192	.13
18--	75	57	66	4194	.13
19--	76	57	67	4196	.13
20--	76	58	67	4197	.13
21--	76	58	67	4198	.13
22--	77	59	68	4199	.14
23--	77	59	68	4200	.14
24--	77	59	68	4201	.14
25--	78	60	69	4202	.14
26--	78	60	69	4203	.14
27--	78	60	69	4203	.14
28--	79	61	70	4203	.14
29--	79	61	70	4203	.14
30--	79	61	70	4203	.13
31--	80	62	71	4203	.13
	74.4	56.2	65.3	73	4.01

JUNE	TEMPERATURE MAX	MIN	AVG	* DEGREE DAYS	PRECIP
1---	80	62	71	4203	.13
2---	80	62	71	4203	.13
3---	80	63	72	4203	.12
4---	81	63	72	4203	.12
5---	81	63	72	4203	.12
6---	81	63	72	4203	.12
7---	81	64	73	4203	.12
8---	82	64	73	4203	.12
9---	82	64	73	4203	.12
10--	82	64	73	4203	.12
11--	82	65	74	4203	.12
12--	82	65	74	4203	.12
13--	83	65	74	4203	.12
14--	83	65	74	4203	.12
15--	83	66	75	4203	.12
16--	83	66	75	4203	.12
17--	84	66	75	4203	.12
18--	84	66	75	4203	.12
19--	84	67	76	4203	.12
20--	84	67	76	4203	.12
21--	84	67	76	4203	.11
22--	85	67	76	4203	.11
23--	85	67	76	4203	.11
24--	85	67	76	4203	.11
25--	85	68	77	4203	.11
26--	85	68	77	4203	.11
27--	85	68	77	4203	.11
28--	86	68	77	4203	.11
29--	86	68	77	4203	.11
30--	86	68	77	4203	.11
	83.1	65.5	74.3	0.	3.52

Annual Normals-- 65.2 49.0 57.1 4203 42.59

* Normal Accumulated Degree Days Since July 1.
Feb. 29 not included in monthly or annual normals; for Feb. 29, use value given for Feb. 28. Subsequent accumulations should be correspondingly increased for leap years.

COMPARATIVE DATA

Table 39.

State and Station	Elevation ground (feet)	Temperature (°F) Normal January Daily maximum	Temperature (°F) Normal January Daily minimum	Temperature (°F) Normal July Daily maximum	Temperature (°F) Normal July Daily minimum	Temperature (°F) Normal Annual	Temperature (°F) Extremes Length, yrs.	Temperature (°F) Extremes Record highest	Temperature (°F) Extremes Record lowest	Normal degree days January	Normal degree days Seasonal	Precipitation (inches) Normal Wettest month	Precipitation (inches) Normal Driest month	Precipitation (inches) Normal Annual	Precipitation (inches) Extremes Wettest month	Precipitation (inches) Extremes Driest month	Precipitation (inches) Extremes Maximum in 24 hours	Snow, sleet, hail Mean total January	Snow, sleet, hail Mean total Seasonal	Snow, sleet, hail Extreme Maximum in 24 hours	Relative humidity (percent) January 7:30 a.m. EST	Relative humidity (percent) January 1:30 p.m. EST	Relative humidity (percent) January 7:30 p.m. EST	Relative humidity (percent) July 7:30 a.m. EST	Relative humidity (percent) July 1:30 p.m. EST	Relative humidity (percent) July 7:30 p.m. EST	Wind Speed (m.p.h.) Mean hourly January	Wind Speed (m.p.h.) Mean hourly July	Wind Speed (m.p.h.) Fastest mile	Sunshine (percent of possible) January	Sunshine (percent of possible) July	Annual mean number of days Sunrise to sunset Clear	Sunrise to sunset Partly cloudy	Sunrise to sunset Cloudy	Precipitation .01 inch or more	Snow, sleet, hail 1.0 inch or more	Thunderstorms	Heavy fog	Temperature Max. 90° and above	Temperature Min. 32° and below	Temperature Min. Zero and below
Atlanta, Georgia	975	53.3	35.9	89.4	69.6	62.2	76	103	-9	632	2826	5.67	2.60	49.16	15.82	0.02	7.36	0.9	2.2	8.3	80	64	69	83	57	67	11.5	7.8	70	48	62	126	111	128	123	1	51	21	33	38	*
Baltimore, Maryland	146	42.8	25.6	86.6	66.0	54.7	81	107	-7	955	4787	4.38	2.95	42.59	13.83	.05	7.62	5.9	21.7	24.5	74	60	66	77	54	64	10.3	8.8	80	48	66	121	123	121	124	6	32	17	24	72	*
Boston, Massachusetts	15	36.5	21.6	80.0	64.3	50.7	83	104	-18	1113	5791	3.50	2.79	38.76	13.38	T	6.04	12.0	42.1	16.5	72	59	67	72	55	70	12.6	10.0	87	47	64	114	115	136	126	11	19	15	10	102	2
Buffalo, New York	693	32.4	18.5	81.1	60.0	47.5	81	99	-21	1225	6838	3.09	2.43	32.29	10.63	.05	4.28	18.7	74.3	24.3	79	72	78	78	53	63	17.6	12.1	91	31	70	74	128	163	164	22	29	13	2	128	3
Chicago, Illinois	610	32.7	17.1	85.3	63.9	50.1	84	105	-23	1243	6310	4.15	1.41	32.72	12.06	.06	6.19	8.7	33.9	14.9	80	71	75	76	56	61	11.7	8.7	87	44	73	113	120	132	124	10	37	11	13	110	8
Cincinnati Obs., Ohio	761	40.9	25.2	87.2	65.9	54.9	39	109	-17	989	4870	4.07	2.19	39.34	13.68	.17	4.77	4.7	17.8	11.0	82	69	74	84	51	59	8.6	5.5	49	41	72	108	116	141	135	5	53	17	30	96	2
Cleveland, Ohio	787	36.0	20.9	84.7	62.6	50.6	84	103	-17	1132	6006	3.13	2.12	32.08	9.77	.17	4.97	10.4	42.4	17.4	80	73	76	74	52	62	14.5	10.3	78	29	71	89	120	156	154	15	35	6	7	114	3
Denver, Colorado	5292	41.7	15.6	87.2	58.3	49.8	83	105	-29	1125	6132	2.20	.50	14.20	8.57	.00	6.53	6.1	55.9	23.0	58	42	46	64	30	33	7.7	7.0	65	67	68	142	152	71	86	17	43	4	23	139	8
Detroit, Michigan	619	33.1	19.3	83.5	62.6	49.3	84	105	-24	1203	6404	3.61	2.02	31.03	8.76	.04	4.75	10.1	39.4	24.5	81	72	78	73	50	59	11.8	9.0	95	34	69	96	123	146	137	13	32	11	10	125	4
Havre, Montana CO	2488	26.3	6.1	85.9	56.6	43.6	75	108	-57	1513	8213	2.98	.39	12.31	9.67	T	3.71	7.0	36.3	24.8	82	71	78	74	37	35	9.4	7.5	59	49	78	126	132	107	90	13	23	6	19	171	40
Houston, Texas CO	41	61.9	45.7	92.3	75.2	70.0	65	108	5	378	1276	4.84	2.81	45.37	17.64	T	10.83	.1	.2	3.0	86	66	73	90	58	66	10.6	8.4	84	49	69	117	126	122	101	*	56	16	84	8	0
Los Angeles, Calif. CO	312	64.6	45.4	83.2	61.7	63.9	77	109	28	328	1451	3.37	T	14.54	15.80	.00	7.36	T	T	2.0	65	N45	58	87	N52	58	6.4	5.8	49	70	78	181	124	60	39	*	5	23	14	*	0
Memphis, Tennessee	263	50.3	32.9	91.1	71.3	61.8	80	106	-11	725	3137	5.58	2.55	49.42	18.16	.00	10.48	1.9	5.2	18.0	79	68	70	81	57	63	12.8	7.8	57	44	73	140	107	118	112	2	51	6	53	45	*
Miami, Florida CO	8	74.4	62.6	86.8	76.4	75.3	44	95	27	57	173	7.88	1.73	47.20	25.34	T	15.10	.0	T	T	87	59	75	83	64	77	13.6	10.5	132	65	65	103	154	108	132	0	71	2	6	*	0
Milwaukee, Wisconsin	675	29.2	14.5	81.2	61.4	46.8	84	105	-25	1336	7205	3.33	1.27	27.57	10.03	.05	5.76	12.5	46.0	20.3	76	68	74	75	59	65	12.2	9.0	73	43	72	108	119	138	124	13	33	19	8	128	13
Minneapolis, Minn.	830	23.1	6.1	84.9	63.3	45.6	64	108	-34	1562	7853	4.26	.80	24.71	11.87	T	7.80	8.9	42.3	16.2	76	67	72	79	51	54	11.2	9.7	92	49	72	105	113	147	107	15	39	8	15	150	30
New Orleans, La. CO	9	63.5	48.3	90.3	75.8	70.4	81	102	7	341	1175	7.09	3.66	63.54	25.11	T	14.01	.1	.2	8.2	85	67	73	84	64	72	8.4	6.5	98	49	58	119	137	109	118	*	72	14	56	4	0
New York, New York CO	10	39.9	25.8	82.3	66.9	53.4	84	102	-14	995	5050	4.34	3.04	42.03	14.51	.11	9.40	7.6	30.4	15.8	72	62	66	76	58	68	16.5	12.1	113	51	65	105	130	130	126	8	30	21	7	91	*
Oklahoma City, Okla.	1280	47.0	27.2	93.3	70.9	60.4	15	109	-10	865	3644	4.25	1.24	30.22	10.78	T	4.73	3.8	9.1	8.4	79	63	63	83	53	49	16.5	12.1	87	62	79	154	96	115	85	2	50	17	71	73	*
Omaha, Nebraska	978	32.4	13.5	89.3	67.6	51.6	82	114	-32	1302	6160	4.51	.81	25.90	12.70	T	7.03	6.6	28.2	16.4	80	66	69	76	51	53	9.7	8.1	109	56	75	132	118	115	98	9	41	9	30	123	14
Philadelphia, Pa. CO	26	41.5	28.2	85.3	69.0	55.7	84	106	-11	933	4523	4.62	2.61	41.44	12.10	.09	5.89	5.7	21.2	21.0	74	65	68	75	56	66	10.9	8.7	88	45	64	109	122	134	123	6	27	10	14	76	*
Phoenix, Arizona	1114	64.8	34.5	105.1	75.1	69.4	59	118	16	474	1698	1.00	.06	7.16	6.47	.00	4.98	T	T	1.0	70	40	38	52	30	23	4.3	5.9	65	76	83	228	90	47	36	0	26	*	170	23	0
Pittsburgh, Pa.	1151	36.6	21.3	82.8	61.8	50.6	80	103	-20	992	5048	4.07	2.37	36.92	10.25	.06	4.08	8.6	33.3	17.5	77	67	73	77	53	60	11.6	8.5	73	32	65	84	129	152	150	11	40	25	16	102	2
St. Louis, Mo. CO	465	41.0	25.6	89.6	71.6	57.3	84	112	-22	983	4469	4.10	1.88	37.86	20.45	.00	8.78	4.2	17.3	20.4	77	65	68	73	50	55	11.9	9.3	91	48	72	137	116	112	112	5	49	10	36	80	2
Salt Lake City, Utah	4220	35.9	17.0	92.3	60.8	51.3	26	106	-30	1194	5866	1.76	.61	14.74	4.90	.00	2.03	13.7	50.1	15.4	80	70	72	56	28	24	7.6	9.5	71	48	81	135	108	122	86	16	36	10	50	133	5
San Francisco, Calif. CO	52	55.4	44.8	64.4	53.4	56.7	83	101	27	462	3069	4.07	.01	20.51	24.36	.00	4.67	T	.2	3.7	85	N68	71	91	N71	75	7.4	11.5	51	53	68	154	116	95	68	*	2	15	1	*	0
Seattle, Wash. CO	14	45.2	36.2	75.1	56.1	53.2	64	100	3	753	4438	5.34	.52	31.92	15.33	.00	3.52	4.9	11.1	21.5	86	80	74	86	63	47	10.3	7.9	65	25	64	75	106	184	151	3	6	24	1	20	0
Washington, D. C. CO	72	44.0	28.9	87.1	68.4	56.8	83	106	-15	884	4258	4.49	2.64	41.44	17.45	.14	7.31	6.1	19.7	25.0	73	56	64	78	52	68	7.7	5.8	62	46	64	125	119	121	124	6	33	12	27	82	*

CO after station name indicates city office data.
Other data either from airport or from airport and city office records combined

* Less than one-half.
N Computed as of noon local time.
T Trace, an amount too small to measure.

APPENDIX

Record climatic events noted subsequent to the period covered by the various tables:

Two months in 1955, January and December, established new monthly record-low precipitation totals of 0.33 and 0.15 inch, respectively.

The average temperature for July 1955, 83.5°, equaled the highest average on record for July established in 1870.

August 1955, with a total 17.69 inches of precipitation, was the wettest month ever recorded.

On August 12-13, 1955, Hurricane "Connie" let loose a record 24-hour amount of rain on the Baltimore area. The amount measured at the Baltimore City Office was 7.82 inches. Other 24-hour amounts for the same storm from nearby locations included Sledds Point 6.91 inches, Pikesville 8.69 inches, and Towson 9.96 inches.

Additional notes concerning Graphs C through H in this Guide follow:

Graph C:
Period of Record: 1871 through 1954.

Graph D:
Maximum and Minimum Monthly Precipitation: 1871 through 1954.
Mean and Median: 1817 through 1954.

Graph E:
Based on data given in Tables 18 and 19.

Graph F:
Mean Wind Speed: 1931 through 1954; Airport data.
Direction and Speed of Extreme Winds: 1912 through 1954.
City Office data to 1950; Friendship International Airport data thereafter.

Graph G:
Friendship International Airport, September 1950 through August 1955.
For method used to adjust wind direction percentages see Monthly Weather Review, Vol. 78, No. 10 (October 1950) pp. 185-188.

Graph H:
Based on data given in Table 31.

ALL TABLES IN THIS GUIDE ARE BASED ON CITY OFFICE DATA UNLESS OTHERWISE IDENTIFIED.

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