

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU  
IN COOPERATION WITH MARYLAND STATE WEATHER SERVICE

# CLIMATOLOGICAL DATA

15

MARYLAND AND DELAWARE SECTION

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**GENERAL SUMMARY**

This September was slightly milder than normal. The average rainfall was one and one-half times the normal, the greatest in September since 1938. There was much cloudiness, except the first decade was sunny. The dry weather of the summer terminated on the 11th. The 1st-6th was the warmest period of the month; other warm periods were 13th-22d and 26-29th. Cool periods were 7-12th and 23d-25th. The 30th was a cold wet day. The first and third decades were dry; the second decade was wet. Monthly sunshine was 10% below normal.

Monthly rainfall was above normal, except slightly below normal at Hancock and Westminster; it averaged twice the normal over the eastern half of the Eastern Shore. Totals ranged from 2.4 to 3 inches in eastern Allegany and western Washington Counties to 8 to 9.1 inches in Sussex and Worcester Counties.

Late potatoes, sweet potatoes, truck crops, grasses, and pastures, poor to fair in the first decade, were benefited greatly by the rains of the second decade and improved, and were mostly good during the third decade. Cutting field corn, filling silos, cutting the early tobacco crop, picking tomatoes, pulling sweet corn, picking apples, peaches, and pears, haying, plowing, sowing grains, and harvesting truck crops were in progress. During the third decade: Digging late potatoes and sweet potatoes in some localities, threshing buckwheat, and husking corn began; the peach season ended; early sown grains, crimson clover, and alfalfa came up. Early potatoes remained undug at La Plata and were maturing in the Allegheny Mountain region. Tomatoes, sugar corn, and truck crops yielded fair to good. Tree fruits were good crops and plentiful.

**TEMPERATURE**

The monthly mean for the section, 68.1°, is 0.4° above normal. The highest monthly mean was 73.6° at Solomons; the lowest, 57.8°, at Mt. Savage Summit. The highest temperature, 96°, occurred at Bridgeville on the 4th; the lowest, 32°, at Oakland on the 26th. The greatest local monthly range was 56° at Bridgeville; the least, 34°, at Annapolis.

**PRECIPITATION**

The monthly average for the section, 5.03 inches, is 1.71 inches above normal. The greatest monthly rainfall was 9.07 inches at Snow Hill; the least, 2.40 inches, at Hancock. The greatest 24-hour rainfall was 4.90 inches at Snow Hill on the 14-15th.

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**EVAPORATION STATION: Beltsville, Md. (Elevation, 120 feet)**  
U. S. Bureau Dairying Industry, Joseph B. Shepherd, in charge  
(Evaporation Tank: 10 inches deep, 48 inches in diameter)

Precipitation, 6.31; evaporation, 4.092; average daily wind movement, 33.8.

**PRESSURE, HUMIDITY, SUNSHINE, WIND, DEGREE DAYS**

Stations	Atmospheric pressure reduced to sea level			Wind				Mean relative humidity			Percentage of sunshine	Heating degree days (base 65°)	
	Highest	Date	Lowest	Date	Average hourly velocity	Maximum velocity	Direction	Date	7:30 a. m.	1:30 p. m.			7:30 p. m.
Aberdeen, Md.	30.36	17	29.45	14	8.2	...	...	...	84	61	81	...	53
Annapolis, Md.	30.40	18	29.46	14	8.2	...	...	...	87	...	78	...	29
Baltimore, Md.	30.43	18	29.46	14	9.0	25	nc.	14	82	60	69	...	127
Elkins, W. Va.	30.42	17	29.74	5	5.1	27	nw.	4	93	63	83	57	139
Harrisburg, Pa.	30.46	18	29.56	14	6.8	21	nw.	7	85	59	71	61	59
Norfolk, Va.	30.34	17	29.07	14	9.0	56	nw.	14	84	63	78	58	31
Norfolk, Va.	30.47	18	29.33	14	8.1	32	n.	14	84	54	70	42	5
Philadelphia, Pa.	30.38	17	29.70	4	8.8	22	w.	7	89	59	68	51	86
Pittsburgh, Pa.	30.34	17	29.50	14	6.1	35	w.	21	84	58	72	47	24
Washington, D. C.	30.42	17	29.50	14	6.1	35	w.	21	84	58	72	47	24

**COMPARATIVE DATA FOR SEPTEMBER**

Year	FOR MARYLAND						FOR DELAWARE						
	Temperature			Precipitation			Temperature			Precipitation			
	Mean	Highest	Lowest	Average	Average snowfall	No. of days with 0.1 in. or more	Mean	Highest	Lowest	Average	Average snowfall	No. of days with 0.1 in. or more	
1895	70.4	101	27	2.08	T.	4	71.2	99	39	1.92	0.0	4	
1896	66.3	94	25	4.39	0.0	3	67.1	93	36	3.96	0.0	7	
1897	66.7	100	22	1.67	0.0	3	67.9	97	40	1.55	0.0	3	
1898	69.3	100	29	1.80	0.0	5	70.3	97	44	3.35	0.0	6	
1899	65.3	99	25	4.85	0.0	6	66.4	92	39	2.81	0.0	6	
1900	72.0	103	29	3.47	0.0	7	71.6	95	43	2.75	0.0	6	
1901	66.4	94	29	3.08	0.0	3	68.1	94	42	2.45	0.0	6	
1902	66.0	101	25	6.19	0.0	10	67.4	92	42	6.14	0.0	10	
1903	66.0	98	24	1.97	0.0	6	67.2	90	36	3.29	0.0	6	
1904	67.1	99	27	3.68	0.0	6	67.5	95	33	3.21	0.0	5	
1905	67.0	94	24	2.68	0.0	6	67.8	91	38	4.81	0.0	8	
1906	70.6	94	36	1.25	0.0	6	72.2	98	47	1.51	0.0	6	
1907	68.2	95	30	6.21	0.0	12	69.6	93	35	6.39	0.0	11	
1908	65.9	94	24	2.39	0.0	3	66.8	90	40	2.49	0.0	4	
1909	65.4	92	28	3.35	0.0	5	66.5	87	39	2.94	0.0	5	
1910	69.4	98	32	1.90	0.0	6	69.9	96	46	0.76	0.0	4	
1911	69.2	95	30	2.80	0.0	8	69.6	91	41	2.00	0.0	6	
1912	69.1	102	30	5.93	0.0	10	70.2	102	39	4.65	0.0	10	
1913	66.5	102	22	2.65	T.	7	68.1	91	41	3.92	0.0	8	
1914	64.6	93	21	1.20	0.0	4	66.5	97	34	0.68	0.0	4	
1915	69.2	98	31	2.26	0.0	6	71.1	99	36	0.90	0.0	4	
1916	65.1	98	26	3.39	0.0	7	66.5	94	38	3.64	0.0	6	
1917	62.5	93	27	2.62	0.0	7	63.5	91	37	3.35	0.0	6	
1918	63.2	88	27	3.73	0.0	8	64.2	87	37	3.92	0.0	8	
1919	68.1	100	31	2.34	0.0	4	68.3	94	40	2.23	0.0	4	
1920	67.7	92	35	3.11	0.0	6	68.4	89	40	2.87	0.0	6	
1921	72.5	99	37	3.48	0.0	9	73.4	98	45	2.16	0.0	7	
1922	68.6	100	27	2.61	0.0	4	68.9	93	39	2.26	0.0	4	
1923	68.2	92	28	3.45	0.0	9	68.8	88	39	3.93	0.0	8	
1924	62.9	101	30	6.06	0.0	12	64.8	98	40	5.63	0.0	11	
1925	71.4	100	35	1.78	0.0	7	72.3	94	39	1.06	0.0	4	
1926	67.8	93	35	5.15	0.0	11	68.5	93	44	3.81	0.0	7	
1927	67.8	99	26	1.36	0.0	4	68.0	96	38	2.04	0.0	5	
1928	63.1	92	28	4.45	0.0	10	64.9	93	34	6.57	0.0	12	
1929	68.2	100	25	5.55	0.0	8	69.4	96	40	3.99	0.0	8	
1930	72.9	102	33	1.31	0.0	6	73.8	100	42	2.80	0.0	5	
1931	72.0	100	30	2.61	0.0	8	73.5	98	43	2.00	0.0	5	
1932	67.9	106	25	2.20	0.0	6	69.3	97	37	2.20	0.0	6	
1933	70.0	94	37	3.20	0.0	11	71.6	94	46	3.44	0.0	10	
1934	68.5	92	36	9.36	0.0	14	70.0	90	46	9.12	0.0	13	
1935	65.0	92	28	7.60	0.0	8	66.2	87	38	10.97	0.0	6	
1936	69.3	97	29	2.14	0.0	7	69.5	92	42	4.79	0.0	9	
1937	64.1	96	26	1.75	0.0	6	65.4	93	38	1.48	0.0	6	
1938	65.6	92	32	5.80	0.0	13	67.3	90	39	8.36	0.0	12	
1939	68.7	100	31	3.25	0.0	7	69.5	95	44	1.97	0.0	7	
1940	64.4	95	25	3.35	0.0	6	65.6	91	32	3.20	0.0	6	
1941	70.0	100	31	0.57	0.0	3	71.0	97	35	0.24	0.0	2	
1942	68.0	95	19	3.03	0.0	3	69.3	92	32	2.75	0.0	8	
1943	65.7	99	25	1.85	0.0	6	67.4	99	36	1.79	0.0	6	
1944	67.9	95	32	4.86	0.0	12	69.9	96	39	6.36	0.0	10	
1945	...	...	...	...	...	...	...	...	...	...	...	...	...
Period.....	67.6	106	19	3.32	T.	7	68.6	102	32	3.42	0.0	7	

### The Hurricane of September 14, 1944

A hurricane, which had been moving slowly northnorthwestward over the Atlantic Ocean since the 8th, moved northward over the North Carolina Coast during the forenoon of the 14th. The center was near but west of Hatteras at 8:20 a.m., E.S.T., and 50 miles east of Norfolk, Va., at 11:45 a.m., E.S.T. The hurricane then moved very rapidly northeastward, with its center 50 miles off the Maryland Coast between 2 p.m. and 3 p.m., E.S.T., and 60 miles east of New York City at 7:30 p.m., E.S.T., and reached Boston at 1:30 a.m., E.S.T., of the 15th, attended by winds of hurricane force.

The hurricane caused gales and heavy rains over the southern portion of the Eastern Shore and strong to gale winds westward to the western shore of Chesapeake Bay and northward to the Pennsylvania line. The gales grounded apples and peaches, blew down poles, uprooted trees, disrupted telephone and electric power services, ruined tomato, late bean, and pepper crops, and blew down much corn in Sussex, Wicomico, Worcester, and Somerset Counties.

The lowest sea-level pressure was 28.90 inches at 2:30 p.m., E.S.T., at Snow Hill and 28.71 inches at 2:45 p.m., E.S.T., at Ocean City. Northeast gales reached 50 to 60 miles per hour at Ocean City.

The rainfall was mostly between 3 and 5 inches in eastern and southern Sussex County and in Wicomico, Worcester, and Somerset Counties, between 2 and 3 inches in northwestern Sussex County, between 1 and 3 inches in Dorchester County, between 1 and 2 inches in Kent (Del.) and New Castle Counties, and less than 1 inch over the remainder of the Eastern Shore and over Maryland west of Chesapeake Bay, except slightly more than 1 inch at Fallston and Woodstock.

The tide was high in the upper and middle Chesapeake Bay and very high in the lower Chesapeake Bay and its estuaries and along the Atlantic Coast. The height of the tide at Ocean City was 5.5 feet above normal. Water was 2 to 3 feet deep in the streets of Crisfield, Pocomoke City, Princess Anne, Deal Island, Snow Hill, Bridgeville, and Seaford.

At Ocean City the boardwalk was lifted and broken to pieces by the waves and the pieces were dashed against the fronts of the hotels and damaged them. Hotels, homes, and business establishments were damaged by the gales and the waves, and the first floors and cellars were flooded; ocean water was 3 feet or more deep in the streets.

The 250-foot freighter, Thomas Tracy, was driven aground at Rehobeth Beach, Del., and broken in two by the waves.

A warehouse was blown over near Salisbury and a number of buildings were unroofed at Laurel, Del.

Damage by this hurricane over the southern Eastern Shore was estimated at \$500,000, of which about half occurred at Ocean City.

(Continued from front page)

#### MISCELLANEOUS PHENOMENA (WITH DATES)

*Fogs, light:* 1-23, 25-30. *Fogs, dense:* 1-3, 7, 9, 11-23, 25-30. *Halos, lunar:* 5, 27. *Halos, solar:* 8, 27, 28.

*Hail, light to heavy:* Southwestern portion of Harford County, 3 p.m. to 3:30 p.m., E.S.T., 4th; one-eighth inch at Abington, one-half to three-quarters inch or size of chestnuts at Bel Air; no damage.

*Gale:* Southern Eastern Shore and on coast, 14.

*Rainbows:* Ferry Landing, Frostburg, and Oxford, 1.

*Thundergust, severe:* From extreme northern Baltimore County, 2:30 p.m., E.S.T., southeastward to Bush River, Harford County, 3:30 p.m., E.S.T., 4th; area 10 miles wide and 35 miles long; some trees were uprooted and some telephone and electric wires were leveled, several barns and dwellings were unroofed and a number of each were damaged by uprooted trees. A number of workmen shacks at Black Horse Camp were overturned. A horse was killed at White Hall when he stepped upon a live wire.

*Thunderstorms:* 1, 4, 6, 12, 13, 20, 21, 28.

*Tide, very high:* Atlantic Coast and lower Chesapeake Bay, 14th.

#### ERRATA

June 1944.—Page 21: Third paragraph under TORNADOES OF JUNE 23, 1944, according to letter of August 21, 1944, from Mr. R. E. Weber, cooperative observer at Oakland, property damage in Deer Park area should be 10 farm houses were destroyed and 3 were damaged, 19 barns were destroyed and 2 were damaged, 28 other buildings were destroyed and 3 were damaged, some farm machinery was lost and some was damaged, some cattle and some horses were lost, total loss about \$150,000; in addition, many wood lots and large areas of forest were damaged severely.

Page 22: Charlotte Hall, prevailing wind direction should be ne.; Frederick, minimum temperature should be 40; Frederick Airport, date of greatest precipitation in 24 hours should be 23; Picardy, greatest precipitation in 24 hours should be 0.90 and the date should be 14.

Climatological Data for September 1944

Table with columns: STATIONS, COUNTIES, Elevation, Length of record, Temperature (Mean, Departure from normal, Highest, Date, Lowest, Date), Precipitation (Total, Departure from normal, Greatest in 24 hours, Date), Number of days (Total snowfall, With precip., Clear, Partly cloudy, Cloudy), Prevailing direction of wind, OBSERVERS. Includes data for Maryland and Delaware stations.

All departures from normal are computed from the averages of the entire period for stations having 10 or more years of record, except that for First-Order Weather Bureau Stations they are based on adopted normals. The normal may be found by adding the departures when minus (-) or subtracting when plus (+). T. Trace or 0.005 inch or less rain or melted snow. 1 Recording gage. Italics. Data interpolated. Elevations are of ground above mean sea level.
Post addresses of these stations are as follows: of Bell, Glenndale; of Blackwater, Cambridge; of Coleman, Worton; of Edgemont, Smithsburg; of Fallston, Bagley; of Ferry Landing, Owings; of Great Falls, Bethesda; of Mt. Savage Summit, Frostburg; of Peadary, Paw Paw, W. Va.; of Prettyboy Dam, Parkton; of Sines, Oakland; of Tonoloway, Hancock. \*Custom House, Gay and Water Sts. \*\*Weather Bureau Building, 24th and M Sts. †Also on other dates. ‡On mountain top, 2 1/2 miles northwest of Frostburg. §Municipal Building. ¶Porter Reservoir. ||Water Pumping Station. |||University Farm. \$1 mile west. Figures and letters following station indicate distance and direction of the observation point from the City Postoffice. ¶1.8 miles west.

Thermometers are read in morning; maximum temperature then read is charged to preceding day, on which it almost always occurs. Temperatures at Aberdeen, Annapolis, Baltimore, Sines, and Washington are from midnight to midnight; at Dundalk, Mt. Savage Summit, Ocean City, and Snow Hill the thermometers are read at 1:30 a. m., the extremes are charged to the preceding day; at other stations temperatures are for a 24-hour period ending in late afternoon or near sunset, except 9 p. m. at Chestertown. Italics. Data interpolated.

Daily Precipitation for September 1944

Table with columns for Stations, Drainage basin, Day of month (1-31), and Total. Rows list various locations like Aberdeen, Annapolis, Baltimore, etc., with precipitation amounts and weather symbols (T, T., etc.).

Except as otherwise indicated, amounts are for 24-hours ending late in afternoon. \*Midnight to midnight; recording gage. \*\*Measured in the morning; for the preceding 24-hours. †Data for 24-hours ending at 1:30 a. m. of following day. T. Trace or 0.005 inch or less. \*Included in next measurement. ITALICS Data interpolated. †First-order Weather Bureau station. ‡Water Pumping Station. §University Farm. §§Municipal Building. §§§Porter Reservoir.

Daily Temperatures for September 1944

Table with columns for Stations, Day of month (1-31), and Mean. Rows list locations like Bridgeville, Delaware City, Dover, Millsboro, Newark, Wilmington, and Washington, with maximum and minimum temperatures for each day.

Daily Temperatures for September 1944-Continued

Table with columns for Stations (Maryland), days 1-31, and Mean. Rows list various stations like Aberdeen, Annapolis, Baltimore, etc., with their daily maximum and minimum temperatures.

See page 35 for explanation of reference marks.