

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

# CLIMATOLOGICAL DATA

15

MARYLAND AND DELAWARE SECTION

G. N. BRANCATO

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VOL. L BALTIMORE, MD., NOVEMBER 1946 No. 11

### GENERAL SUMMARY

While mountain and western Piedmont sections had experienced freezing temperatures during October, the approach of winter was reflected in coastal and eastern Piedmont sections with the first freezing temperatures during the period November 10th to 16th, although Annapolis and Solomons did not report a freezing temperature during November. The month started out unseasonably warm, a continuation of the last nine days of October, with temperatures over the section some fifteen degrees above the average. During this period, Fort George G. Meade reported the warmest temperature of the month, 82 on the 1st, while Bridgeville and Millsboro were Delaware's warmest with 79 degrees a day later. From the fifth to the end of November, the temperatures were generally not far from the normal, exceptions being warm periods about the 8th, 11th, 21st, and 26th. Lowest readings during the month in Maryland were 15 degrees at Oakland on the 18th and at Frostburg on the 23d, and the Delaware lowest of 19 at Bridgeville was on the 16th. However, the early very warm weather, aided by the later warm periods, were sufficient to cause the Maryland mean temperature to be 4.5 degrees above the normal, while Delaware was 3.5 degrees warmer than anticipated. Great Falls in Montgomery County reported the greatest departure, being 7.7 degrees above the normal, while Hancock showed the least excess, being only 1.2 degrees warmer than average.

Ordinarily the driest month of the year, this November was comparatively dry over the section. A strip of land along the coast extending inland about 30 to 40 miles from the Atlantic Ocean, was the only area reporting above-normal rainfall. The average precipitation for Maryland was 1.33 inches, a deficiency of 1.20 inches, and for Delaware 2.02 inches, a deficiency of only 0.74 of an inch. 4.06 inches of rain at Snow Hill gave that locality an excess of 1.30 inches, while Luke, in Allegany County, with 0.39 of an inch, had the least Maryland rainfall. Emmitsburg had the greatest Maryland deficiency at 2.29 inches. Delaware's wettest area was around Lewes where 3.86 inches of precipitation fell, almost an inch more than ordinarily expected, while Wilmington was driest with 1.38 inches, a deficiency of 1.67 inches. Singularly, November had less snow than October in 1946. Normally 1.1 inches of snow should fall but this November produced only a trace at two stations, Western Port on the 4th and Oakland on the 12th.

The month was generally favorable for outdoor activities, being without any protracted wet periods. The harvesting of late crops was completed. Husking and cribbing of corn and hauling fodder were in progress, while woodcutting and repair work were started. Winter grains were mostly very good to excellent and made good growth under favorable weather conditions. Pastures continued good to very good for the season.

### TEMPERATURE

The monthly mean for the section, 49.8°, was 4.4° above normal. The highest monthly mean was 56.7° at Crisfield, Maryland; the lowest, 42.6°, at Sines, Maryland. The highest temperature, 82°, occurred at Fort George G. Meade, Maryland, on the 1st; the lowest, 15°, at Frostburg, Maryland, on the 23d, and Oakland, Maryland on the 18th. The greatest local monthly range was 61° at Bell, Maryland; the least, 41°, at Annapolis, Maryland.

### PRECIPITATION

The monthly average for the section, 1.43 inches, was 1.15 inches below normal. The greatest monthly amount was 4.06 inches at Snow Hill, Maryland; the least, 0.39 of an inch, at Luke, Maryland. The greatest 24-hour rainfall was 1.73 inches at Lewes, Delaware on the 3d. The average monthly snowfall for the section, Trace, was 1.1 inches below normal. The greatest monthly snowfall was a Trace at Oakland and Western Port, both in Maryland.

### 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.	30.56	18	29.55	8	3.1	27	sw.	22	86	64	75	63	436
Annapolis, Md.	30.63	18	29.84	8	3.2	27	sw.	22	82	64	74	62	338
Baltimore, Md.	30.63	18	29.64	8	9.2	27	sw.	22	74	54	65	62	379
Elkins, W. Va.	30.64	18	29.70	8	6.4	34	w.	22	90	55	76	64	571
Harrisburg, Pa.	30.67	18	29.62	8	7.3	29	w.	22	77	54	65	61	533
Norfolk, Va.	30.51	16	29.68	8	9.4	23	n.	17	83	62	79	58	238
Philadelphia, Pa.	30.62	18	29.61	8	7.6	19	nw.	8	81	56	70	63	475
Pittsburgh, Pa.	30.66	18	29.67	7	9.9	32	sw.	22	80	59	64	37	498
Washington, D. C.	30.63	18	29.65	8	7.2	25	nw.	22	78	55	64	63	377

### COMPARATIVE DATA FOR NOVEMBER

Year	FOR MARYLAND						FOR DELAWARE					
	Temperature			Precipitation			Temperature			Precipitation		
	Mean	Highest	Lowest	Average	Average snowfall with .01 in. or more	No. of days with .01 in. or more	Mean	Highest	Lowest	Average	Average snowfall with .01 in. or more	No. of days with .01 in. or more
1895	45.6	86	0	1.64	0.1	7	47.9	78	24	1.94	1.7	8
1896	49.1	78	12	3.07	2.2	7	51.6	78	25	3.18	1.7	10
1897	45.0	78	5	4.76	0.2	12	46.6	72	21	4.58	0.5	13
1898	42.8	78	6	3.52	5.5	8	44.2	73	22	4.58	0.0	12
1899	44.9	73	12	2.02	T.	6	45.0	68	22	2.15	0.0	6
1900	47.5	81	4	3.00	1.0	8	49.9	76	22	2.59	0.0	4
1901	39.1	74	4	2.72	2.3	5	40.6	76	17	2.20	1.2	6
1902	50.8	80	11	3.12	0.3	8	52.2	80	27	3.06	0.0	7
1903	40.9	82	1	1.17	0.8	5	42.5	79	12	1.36	0.1	5
1904	41.9	72	11	1.62	2.2	4	42.2	67	18	2.17	0.1	6
1905	43.2	77	10	1.30	0.1	6	44.8	73	14	1.09	T.	5
1906	42.8	78	15	1.43	1.0	5	46.0	75	22	1.99	0.4	6
1907	45.2	70	10	5.27	1.0	11	45.2	70	22	5.78	0.1	12
1908	44.5	76	3	0.95	4.2	3	45.9	76	20	1.31	0.1	8
1909	49.1	85	11	1.16	1.0	6	49.6	79	23	2.12	1.2	7
1910	40.9	76	2	2.05	3.5	8	42.1	74	18	2.44	0.2	11
1911	42.3	82	6	3.99	0.5	10	44.7	72	20	5.31	0.0	11
1912	46.1	79	10	2.04	1.2	5	47.8	78	14	2.74	3.0	5
1913	47.0	87	10	2.19	1.2	7	48.8	79	27	1.54	T.	6
1914	44.2	82	0	2.04	0.1	3	46.8	80	15	1.96	T.	3
1915	44.8	79	14	1.46	T.	7	46.6	76	19	0.92	T.	4
1916	44.9	83	9	2.18	0.1	8	45.4	74	15	2.28	T.	8
1917	41.2	76	1	0.60	1.9	4	41.5	70	15	0.49	1.6	3
1918	44.9	74	13	1.47	0.1	5	45.4	71	17	1.27	0.0	4
1919	45.5	81	11	3.29	0.1	11	46.6	78	20	3.35	0.0	10
1920	44.4	76	3	3.82	0.8	10	46.3	75	16	5.88	0.0	10
1921	46.7	82	15	4.34	0.1	18	48.4	81	25	3.98	T.	13
1922	46.2	75	14	0.65	0.5	5	47.0	74	23	0.82	T.	3
1923	43.9	68	12	2.60	0.2	9	45.0	67	21	2.85	0.0	7
1924	44.4	79	10	1.79	1.3	5	46.2	79	16	2.13	0.3	6
1925	42.9	74	6	3.11	0.3	10	45.0	74	20	3.04	0.2	6
1926	48.0	78	7	4.45	0.1	8	44.9	75	19	3.70	T.	8
1927	49.7	79	9	2.78	0.3	9	51.2	79	22	3.44	T.	10
1928	47.0	80	13	1.89	1.3	8	43.3	79	21	1.72	T.	9
1929	45.8	85	7	2.62	1.8	11	48.0	82	11	2.62	1.4	12
1930	44.6	75	16	1.19	0.8	9	46.8	74	8	2.04	T.	9
1931	51.6	80	16	0.95	0.9	6	52.9	79	23	0.86	0.1	5
1932	43.2	72	2	5.22	T.	9	45.7	70	13	5.50	0.2	9
1933	42.5	81	8	1.38	2.0	7	44.2	75	10	1.63	T.	5
1934	47.8	80	10	3.56	0.2	10	49.1	76	20	3.65	T.	9
1935	48.4	86	9	4.32	0.8	12	50.4	80	28	5.34	1.1	16
1936	48.0	82	4	1.02	0.7	6	44.3	80	15	0.93	T.	8
1937	44.2	79	3	3.43	0.6	7	46.2	71	19	3.61	T.	8
1938	47.7	85	8	2.77	8.6	10	49.8	81	8	2.95	6.3	11
1939	43.4	75	12	1.33	1.4	5	43.9	71	23	1.36	T.	6
1940	45.4	77	14	5.14	1.1	10	46.5	75	20	4.66	T.	9
1941	47.8	78	11	1.77	T.	5	49.0	76	20	2.23	T.	5
1942	46.7	81	11	2.34	0.1	10	48.2	77	16	2.84	T.	9
1943	44.0	76	10	3.03	0.4	6	45.1	75	19	2.96	T.	5
1944	45.0	78	8	3.36	0.8	8	45.9	75	20	5.07	T.	8
1945	47.5	80	12	4.21	0.4	12	49.3	81	19	4.11	0.1	13
1946	49.7	82	15	1.33	T.	7	50.2	79	19	2.02	0.0	7
Period	45.2	87	-16	2.53	1.1	8	46.7	82	8	2.78	0.5	8

Climatological Data for November 1946

Stations	Counties	Elevation, feet	Length of record, years	Temperature, in degrees, Fahr.						Precipitation, in inches				Number of days			Prevailing direction of wind	Observers			
				Mean	Departure from the normal	Highest	Date		Lowest	Date	Total	Departure from the normal	Greatest in 24 hours	Date	Total snowfall (Unmelted)	With precip. 0.01 inch or more			Clear	Partly cloudy	Cloudy
							Departure from the normal	Departure from the normal													
<i>Maryland</i>																					
Aberdeen, 4 miles SE.	Harford	61	28	48.5	+3.2	75	4	22	24	0.99	-1.72	0.74	17-18	0	7	14	8	8	U. S. Army		
Annapolis	Anne Arundel	4	81	52.2	+5.2	75	4	34	24†	0.88	-1.96	0.65	17	0	5	14	8	8	U. S. Navy		
Baltimore (central)	Baltimore	14	76	52.4	+6.1	78	4	32	23	1.24	-1.82	0.61	17	0	6	12	10	8	U. S. Weather Bureau		
Baltimore Airport	Baltimore	16	12	51.8	+7.1	77	4	29	24	1.15	-1.41	0.65	17	0	7	15	5	10	U. S. Airport Station		
Bell II	Prince Georges	151	26	49.9	+4.4	80	1	19	24	1.24	-1.73	0.43	17-18	0	6	17	5	8	Bureau Plant Industry		
Beltsville, 1 mi. ESE.	do.	120	9	47.2	.....	75	4	20	24	1.21	.....	0.88	17	0	5	.....	.....	.....	J. B. Shepherd		
Blackwater II.	Dorchester	5	6	50.8	.....	76	4	22	16	2.09	.....	0.92	17-18	0	7	16	6	8	National Wildlife Refuge		
Cambridge.	do.	13	52	52.2	+4.3	79	1	24	16†	1.91	-0.76	0.75	17-18	0	7	16	6	8	D'Arcy Harding		
Charlotte Hall, 2 1/2 mi. E	St. Marys	167	25	51.4	+4.4	77	4	25	24	1.65	-0.86	0.97	17-18	0	8	16	5	7	J. Burch Tennyson		
Cheltenham, 1 1/2 mi. NW	Prince Georges	230	46	49.8	+3.8	77	4	24	24	1.55	-1.14	0.96	17-18	0	6	15	7	8	U. S. Magnetic Obs'y.		
Chestertown	Kent	35	41	51.4	+5.6	76	4	26	24	1.62	-1.22	0.75	17-18	0	7	17	6	7	Mrs. M. C. Eliason		
Chewsville, 1/2 mile SE.	Washington	630	49	46.2	+3.1	72	3†	20	24	0.82	-1.34	0.32	17	0	6	15	9	6	D. Paul Oswald		
Clear Spring, 1 1/2 mi. NE	do.	560	47	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. Leo A. Cohill		
Coleman II, 3 miles NW	Kent	160	60	50.5	+5.2	79	1	21	24	1.90	-1.94	0.84	17-18	0	8	16	6	8	Walter B. Harris		
College Park	Prince Georges	40	11	47.4	+3.6	75	4	22	24	1.13	-0.82	0.56	17	0	7	16	8	6	Russell G. Brown		
Conowingo Dam.	Harford	40	11	47.4	+3.6	75	4	22	24	1.13	-0.82	0.56	17	0	7	16	8	6	Susquehanna Electric Co		
Crisfield.	Somerset	5	27	56.7	+6.3	78	2	32	24	2.60	-0.07	1.14	2-3	0	6	16	5	9	Grover C. Adams, Sr.		
Cumberland.	Allegheny	623	76	47.0	+4.0	75	2	23	24	0.58	-1.05	0.21	7-8	0	6	18	4	8	W. H. Shockley		
Easton	Talbot	35	56	51.5	+4.6	73	1†	24	16†	1.81	-0.81	0.73	17-18	0	6	18	4	8	Clement E. Bray		
Edgemont II, 1 mile SW	Washington	920	8	.....	.....	.....	.....	.....	.....	0.70	.....	0.88	17-18	0	4	.....	.....	.....	Lee G. Harne		
Elkton.	Cecil	28	20	48.0	+2.2	76	1†	21	24	1.18	-1.88	0.65	17-18	0	6	19	8	8	H. W. Bouchelle		
Emmitsburg, 2 1/2 mi. SW	Frederick	720	80	48.5	+4.9	73	4	25	23	0.98	-2.29	0.32	26	0	7	14	8	8	Mt. St. Mary's Seminary		
Fallston.	Harford	450	77	49.6	+5.6	75	4	24	23†	0.91	-2.26	0.39	17	0	5	14	9	7	Miss Dora Curtiss		
Ferry Landing II, 1 1/2 mi S	Calvert	120	30	52.5	+4.9	79	4	25	24	1.42	-1.85	0.77	17	0	8	16	7	7	Thos. J. Bourne		
Fort George G. Meade.	Anne Arundel	195	5	53.0	.....	82	1	24	24	1.27	.....	0.78	17	0	6	18	4	8	U. S. Army		
Frederick	Frederick	297	77	46.7	+2.2	69	3	23	16†	1.02	-0.61	0.58	17	0	9	14	7	9	D. J. Markey, jr.		
Frederick Airport I.	do.	380	3	47.4	.....	73	4	22	24	1.05	.....	0.60	17	0	5	14	7	9	U. S. Weather Bureau		
Friendsville.	Garrett	1,980	28	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Weather Bureau		
Frostburg.	Allegheny	1,950	45	48.7	+1.7	68	2	15	23	0.93	-1.54	0.26	7	0	9	15	5	10	S. Graf Haverstick		
Germanstown.	Montgomery	460	6	50.2	.....	75	1†	24	23	0.98	.....	0.65	17	0	8	19	4	7	Ralph F. Staley		
Great Falls II.	do.	200	58	50.6	+7.7	80	4	21	24	1.16	-1.23	0.76	17	0	6	18	5	7	John E. Bissett		
Hancock, No. 1.	Washington	428	87	.....	.....	.....	.....	.....	.....	0.73	-1.55	0.19	18	0	7	.....	.....	.....	H. E. Kershner		
Hancock, No. 2.	do.	1	1	44.8	+1.2	73	4	16	19†	0.69	-1.59	0.18	16-17	0	7	17	3	10	Charles O. Dunbar		
Huntington.	Calvert	160	11	51.6	+3.7	78	4	26	24	1.56	-1.15	0.84	17-18	0	7	19	4	7	Elmer O. Bowen		
Keedysville.	Washington	420	48	50.8	+6.3	77	3	25	24	1.55	-0.77	0.50	17	0	8	16	8	6	J. A. Miller		
La Plata.	Charles	190	32	50.4	+3.1	78	4	21	24	1.40	-1.36	0.85	17-18	0	5	18	5	7	Wallace S. Barnes		
Luke.	Allegheny	950	9	.....	.....	.....	.....	.....	.....	0.39	.....	0.16	26	0	4	.....	.....	.....	J. G. Patrick		
Maryland Line.	Baltimore	340	22	49.9	+5.6	74	4	23	24	1.07	-2.08	0.53	17	0	6	17	6	7	Chester L. Fulton		
Millington.	Kent	27	49	51.0	+4.9	73	1†	21	16	1.60	-1.11	0.64	17-18	0	7	17	6	7	Henry L. Higman		
Oakland, 1 mile SE.	Worcester	2,420	10	44.5	+6.0	72	2†	15	18	1.87	-0.97	0.46	17	T.	10	14	7	9	R. E. Weber		
Ocean City.	Talbot	10	10	58.4	+3.7	72	2	28	24	1.65	-0.81	0.42	17-18	0	7	18	4	8	U. S. Airway Station		
Oxford.	Cecil	40	6	.....	.....	.....	.....	.....	.....	1.21	.....	0.58	17	0	7	18	5	7	Henry Wilcox		
Perry Point.	do.	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Veterans Administration		
Picardy II, 3 miles NE.	Allegheny	1,030	20	47.7	+3.2	77	4	18	19	0.95	-1.25	0.30	26	0	6	18	4	8	Oscar R. Day		
Prettyboy Dam II.	Baltimore	780	16	48.4	+3.6	74	1	23	24	1.09	-1.58	0.53	17-18	0	7	.....	.....	.....	C. W. Hendrix		
Ridgeley.	Caroline	67	56	51.5	+4.8	75	2	23	24	1.57	-1.17	0.65	17-18	0	7	18	3	9	William Vernon Blades		
Rock Hall.	Kent	20	33	51.4	+4.4	75	2	24	24	1.54	-1.23	0.90	17-18	0	8	18	5	7	Geo. C. Simms		
Salisbury.	Wicomico	9	40	53.7	+5.8	79	2	23	24	2.76	+0.01	1.20	3	0	7	16	4	10	City of Salisbury		
Savage River Dam.	Garrett	1,460	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John E. Witt		
Sines (Deep Creek) II.	do.	2,040	22	42.6	+4.3	72	2	17	18	2.13	-0.96	0.59	17	0	7	15	5	10	C. E. MacMurray		
Snow Hill.	Worcester	20	31	51.9	+4.0	79	2	23	23†	4.06	+1.30	1.50	2-3	0	10	16	6	8	U. S. Airway Station		
Solomons.	Calvert	20	55	55.3	+6.2	77	4	34	24	2.32	-0.15	0.87	17-18	0	8	15	9	6	Chesapeake Biological Lab		
State Sanatorium.	Frederick	1,460	38	46.9	+3.9	72	4	24	23	0.73	-2.13	0.25	17	0	7	13	8	7	Dr. V. F. Cullen		
Takoma Park, No. 1.	Montgomery	320	48	51.6	+5.7	77	4	26	24	1.23	-1.24	0.81	17	0	6	17	6	7	Guy L. Seaman		
Takoma Park, No. 2 II.	do.	280	2	50.5	.....	76	4	22	24	1.17	.....	0.79	17	0	6	17	6	7	O. L. Harvey		
Tonoloway II.	Washington	550	22	45.2	+1.9	72	2	16	19	0.92	-1.42	0.33	26	0	6	17	3	10	American Fruit Growers		
Townson.	Baltimore	475	35	.....	.....	.....	.....	.....	.....	1.22	-1.62	0.72	17	0	5	15	7	8	S. Elmer Parks		
Trappe II.	Talbot	55	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Charles S. Mitchell		
Unionville.	Frederick	480	7	46.5	.....	75	4	20	16†	1.06	.....	0.61	17-18	0	8	14	7	9	G. Plitt Von Eiff, jr.		
Western Port.	Allegheny	1,000	53	47.2	+3.6	74	2	20	19	0.75	-1.28	0.18	26	T.	7	.....	.....	.....	Norris Bruce		
Westminster.	Carroll	770	37	48.8	+5.3	74	4	24	23†	1.11	-1.83	0.57	17	0	6	15	7	8	Harry J. Mathias		
Williamsport, 2 mi. NW	Washington	360	8	.....	.....	.....	.....	.....	.....	0.64	.....	0.22	17	0	7	.....	.....	.....	R. C. Wilson		
Woodstock.	Baltimore	415	77	47.8	+4.1	75	4	18	24	1.16	-1.62	0.70	17	0	7	16	6	8	Woodstock College		
<i>Dist. of Columbia</i>																					
Washington	do.	72	76	52.6	+7.4	78	4	30	24	1.05	-1.32	0.73	17	0	6	10	6	14	U. S. Weather Bureau		
<i>Delaware</i>																					
Bridgeville, 1 mile W.	Sussex	45	56	50.3	+3.6	79	2	19	16†	1.53	-1.10	0.62	17-18	0	7	17	6	7	William M. Ray		
Delaware City, 1 1/2 mi. SW	New Castle	10	60	50.6	+4.3	78	1	25	14†	1.75	-0.79	0.66	22	0	7	20	3	7	James E. Maden		
Dover.	Kent	34	59	51.5	+5.1	75	2	24	16†	1.54	-1.55	0.60	17-18	0	5	19	4	7	Arthur G. Livingston		



Daily Temperatures for November 1946-Continued

Table with columns for Stations (Maryland), days 1-31, and Mean. Rows list various stations like Aberdeen, Annapolis, Baltimore, etc., with their respective temperature ranges.

See page 42 for explanation of reference marks.