

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU

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In Cooperation with Maryland State Weather Service

CLIMATOLOGICAL DATA

MARYLAND AND DELAWARE SECTION

ROSCOE NUNN, Meteorologist and Section Director

VOL. XXXII BALTIMORE, MD., NOVEMBER, 1927 No. 11

GENERAL SUMMARY

This was the second mildest November of record. The mean temperature, 49.9°, 5.3° above normal, was 1° less than that of the mildest November (1902). Rainfall was somewhat below normal over the southern third of the section; it was somewhat above normal in other divisions, except more than twice the normal in extreme northern Delaware. Monthly sunshine was slightly below normal, while relative humidity averaged about 5 per cent above. A southerly gale swept over the central and eastern divisions on the 17th and a westerly gale over the northern divisions at night of the 30th. The feature of the month was a tornado on the 17th (see below).

Warm periods were 1st-3d, 11-12th, 15-17th, and 22d-30th. Cold periods were 4-10th, 13-14th, and 18th-21st. Outstanding warm days were 1st-2d, 12th, 15-17th, 22d-24th, and 27-30th. The coldest days were 6-7th and 19-20th. Highest temperatures were between 70° and 79°. Lowest temperatures ranged from 9° at Friendsville to 30° at Stevensville.

Between the Allegheny Mountains and the Atlantic coast the first general freezing temperature and killing frost occurred on the 7th.

Monthly rainfall averaged one and one-eighth times the normal. Monthly amounts were between 2 and 3 inches, except slightly below 2 inches in the southern portion of southern Maryland and in western Montgomery and southeastern Allegheny Counties; and between 3 and 4 inches in the Allegheny Mountain region, northeastern Washington and extreme northwestern Frederick Counties, near the Atlantic coast, and in the northeastern portion of the section, except between 4 and 5.2 inches in extreme northern Delaware.

Heavy rain fell in the Allegheny Mountain region and on the Eastern Shore on the 3d, and over the entire section, except Allegheny and Garrett Counties, on the 17th.

Monthly snowfall averaged about one-third of normal. Light snow fell in the Allegheny Mountain region on the 3d, 4th, 5th, 6th, 18th, and 19th. To the eastward thereof snow flurries occurred on the 4th as far east as Baltimore County and on the 6th over the northern half of the section; they occurred over the entire section on the 8th.

Humid periods were 1st-3d, 9-12th, 14-17th, and 26-30th.

The westerly gale at night of the 30th wrecked a glass factory in "The Narrows" near Cumberland. It tore off the roof and then the walls collapsed. Damage estimated at \$20,000. The gale also badly damaged three airplanes that were moored on a farm near Westminster. Minor property damage occurred locally over the section.

Wheat, rye, grasses, and pastures were in good to excellent condition. Digging late potatoes and husking corn ended. The potato crop was good. Much plowing was done.—*J. B., jr.*

THE VIRGINIA-DISTRICT OF COLUMBIA-MARYLAND TORNADO OF NOVEMBER 17, 1927

(For a detailed account, see Monthly Weather Review, November, 1927)

At about 2:15 p. m. a tornado cloud formed at the edge of Fairfax County, Va., about 3 or 4 miles south-southwest of Alexandria, Va. It proceeded in a north-northeasterly direction toward Alexandria, Va., crossing the upper portion of the city and doing considerable damage

to trees and buildings. It then moved diagonally up the Potomac River to the District of Columbia shore; passed over the Naval Air Station and the Navy Yard; entered southeastern Washington and proceeded thence over the northeastern section of the city into Prince Georges County, Md., where it passed through the communities of Colmar Manor, Lenox, Bladensburg, East Hyattsville, and East Riverdale, and then rapidly disintegrated. The entire length of the destructive path was about 17 miles, the approximate distance between Mont Eagle, Va., and East Riverdale, Md. The width of the path varied from about 50 to 800 feet.

The total damage to property was estimated at \$690,000, distributed as follows: Alexandria, Va., \$200,000; Arlington County, Va., \$125,000; Naval Air Station, \$100,000; Navy Yard, \$80,000; District of Columbia, \$120,000; Prince Georges County, Md., \$65,000. In Alexandria, Va., 26 buildings were greatly damaged and 44 others to a lesser degree; in Arlington County, Va., 6 buildings were badly damaged or destroyed and the Potomac River Clay Works were wrecked; in the District of Columbia, 429 buildings were damaged; in Prince Georges County, Md., 6 buildings were wrecked and 16 others were damaged.

Fortunately, no one was killed, but 31 persons were injured; 10 in Alexandria, Va., 2 in Arlington County, Va., and 19 in the District of Columbia.—*J. B., jr.*

PRESSURE

The monthly mean sea-level pressure at Washington, Baltimore, and Aberdeen was 30.14 inches. The highest at Washington and Baltimore was 30.74; at Aberdeen, 30.81 inches—all on the 13th. The lowest at Washington was 29.44; at Baltimore, 29.41; at Aberdeen, 29.43 inches—all on the 4th.

TEMPERATURE

The monthly mean for the section, 49.9°, is 5.3° above normal. The highest monthly mean was 53.4°, at Crisfield; the lowest, 42.8°, at Grantsville. The highest temperature, 79°, occurred at Cumberland, Milford, and Western Port on the 2d and at Millsboro on the 16th; the lowest, 9°, at Friendsville on the 20th. The greatest local monthly range was 64° at Friendsville; the least, 42°, at Stevensville. The greatest daily range was 41° at Grantsville on the 14th.

PRECIPITATION

The monthly average for the section, 2.85 inches, is 0.31 inch above normal. The greatest monthly amount was 5.20 inches at Wilmington; the least, 1.54 inches, at Picardy. The greatest 24-hour amount was 3.05 inches at Maryland Line on the 17th. The monthly average snowfall for the section, 0.3 inch, is 0.7 inch below normal. The greatest monthly snowfall was 7 inches at Grantsville; the least, a trace, over the section between the Allegheny Mountains and the coast. The average number of days with precipitation of 0.01 inch or more, 9, is 2 above normal.

RELATIVE HUMIDITY

The average percentages were: Washington, D. C., 8 a. m., 79; 12 noon, 60; 8 p. m., 68. Baltimore, Md., 8 a. m., 77; 12 noon, 61; 8 p. m., 70. Aberdeen, Md., 8 a. m., 88; 4 p. m., 69. Philadelphia, Pa., 8 a. m., 79; 12 noon, 70; 8 p. m., 74.

WIND

The prevailing direction for the section was southwest. The total movement at Washington was 4,758; at Baltimore, 7,282; at Aberdeen, 5,320 miles. The maximum velocity at Washington was 45 miles from the southwest; at Baltimore, 48 miles from the south; at Aberdeen, 43 miles from the south—all on the 17th.

SUNSHINE AND CLOUDINESS

At Washington 56 per cent of the possible sunshine was recorded; at Baltimore, 52 per cent; at Aberdeen 44 per cent. For the whole section the average number of clear days was 9; partly cloudy, 11; cloudy, 10.

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Climatological Data for November, 1927

Table with columns: Stations, Counties, Elevation, Length of record, Temperature (Mean, Departure from normal, Highest, Date, Lowest, Date, Greatest daily range), Precipitation (Total, Departure from normal, Greatest in 24 hours, Total snowfall), Number of days (With 0.01 inch or more, Clear, Partly cloudy, Cloudy), Prevailing direction of wind, Observers.

The departures from normal temperature and precipitation are computed only for such stations as have 10 or more years of record, but all complete reports are used in determining section or division means. Data in italics determined from surrounding sections. T. Precipitation is less than 0.01 inch rain or melted snow. Reference letters, a, b, c, appearing in the table indicate number of days missing: For example, b represents two days, etc. *Record incomplete. † Post office addresses of these stations are as follows: Of Bell, Glendale; of Coleman, Worton; of Fallston, Bagley; of Ferry Landing, Owings; of Great Falls, Bethesda; of Pleasant Hill, Owings Mills; of Public Landing, Snow Hill. † Also on other dates. *Customhouse Building, Gay and Water Streets. **Weather Bureau Building, 24th and M Streets.

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MISCELLANEOUS PHENOMENA (WITH DATES)

Fogs, dense.—Central and eastern portions of section, 1, 16, 30; also upper Chesapeake Bay, 3; on the coast, 3, 15; southern Maryland, 3, 15, 26; District of Columbia, 26; north-central Maryland and Eastern Shore, 28; Blue Ridge Mountain region, 29.

Frosts, killing.—First of season (see Summary).

Princess Anne.—Wild geese flying south, 10; rainbow, 16.

Sleet, light.—Entire section, 8; northern tier of counties, from Garrett to Harford, 21.

Thunderstorms.—Entire section, except Allegany and Garrett Counties, 17.

Winds, high.—Entire section: Northwest, night 3-4, 6, 12, 18, night 24-25; westerly, 5, night 30; southerly, 17 (gale central and eastern divisions). On the coast: Northwest, 4, 19, 25.

Daily Precipitation for November, 1927

Stations	Watersheds	Day of month																															Total			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31				
<i>Maryland</i>																																				
Aberdeen**	Atlantic	T.	1.15	.04	.02	T.		.08	.01							T.	T.	1.74	.03			.01													3.31	
Annapolis	do	.55	.25	.01	T.			.10	.11								.01	.02	1.60				T.												2.71	
Baltimore***	do	.05	.40	.01	T.			.18			T.							1.43				.01													2.22	
Bell	do	.22	.25	T.	T.			.17	.05									1.25	.74			T.													2.72	
Boysds.	do	T.	.20	.24	T.	T.		.12										.75	.30			T.													1.75	
Cambridge (near)	do	T.	.90	.18	T.			.23	.15									1.01	.05			T.													2.61	
Cecilton.	do	T.	1.46	.34	.03	T.		.04	.09									1.22	.15			T.													4.48	
Cheltenham.	do	.05	.22	.42	T.			.20	.10									.84	1.56			T.													3.89	
Chewsville.	do		.43	.03	T.	T.		.12	.03									1.85	.33			T.													3.07	
Clear Spring	do		.69	.10	T.	T.		.15	.20			T.						1.89	.10			T.													3.62	
Coleman	do	T.	.50	.34	T.			.12										.68				T.													2.82	
College Park	do	T.	.28	.30	T.	T.		.12	T.									1.24	.65			T.													2.64	
Crisfield.	do	T.	.43	.14	.02			.26	.36									.85				T.													2.09	
Cumberland	do	T.	.64	.50	.02		.02	.03	.11				.01					.37	.63			T.													2.53	
Darlington.	do	T.	.25	.27	T.	T.		.10	.07									.84	1.00			T.													2.85	
Easton	do	.03	.93	.30	.04	T.		.20	.03									.50	.83			T.													2.80	
Elkton	do	T.	.78	.27	T.	T.		.16	.03									1.80				T.													2.32	
Emmitsburg	do	T.	.30	.32	T.	T.		.13	.08									.96	.15			T.													2.19	
Fallston	do	T.	.31	.19	T.	T.		.09	.08									.65	.88			T.													2.53	
Ferry Landing	do	T.	.24	.33	.03	T.		.18	.05									.50	.54			T.													1.87	
Frederick	do		.31	.14	.03	T.		.21	.06				.01					.84	.38			T.													2.13	
Friendsville	Ohio	* .150	*	*	*			.63	T.				.01					.59	T.			T.													3.73	
Frostburg	Atlantic	T.	1.65	.05	.09	.03		.18	.07									.52				T.													2.86	
Grantsville	Ohio	.18	.57	.18	.20	.10		.30	.45									.29	T.			T.													3.91	
Great Falls	Atlantic	T.	.38	.02		T.		.18										1.42				T.													2.11	
Hancock (Tonoloway).	do		.66	.08	T.	T.		.10	.05									1.07				T.													2.20	
Kedysville	do		.32	.12	T.	T.		.12	.04									1.67	.28			T.													2.69	
Laurel	do	T.	.20	.25	T.	T.		.12	.11	T.								.01	1.21	.73			T.												2.71	
Lutherville	do	T.	.32	.24	T.	T.		.10	.08									.94	.94			T.													2.82	
Maryland Line	do		.15	.35	T.	T.		.13										2.25	.80			T.													4.00	
Mechanicsville	do	T.	* .55	T.				.34										* .82				T.													2.21	
Millington	do	T.	1.38	.32	.05	T.		.05	.12									.28	1.30			T.													3.57	
Newburg	do	.01	.23	.41	.02			.32	.09									.25	.46			T.													1.79	
Oakland	Ohio	.01	1.50	.25	.20	.20		.10	T.								.03	.41	.01	.01			T.												3.61	
Picardy	Atlantic	.04	.53	.06	T.	T.		.10	.01									.63				T.													1.54	
Pleasant Hill	do		.20	.20	T.	T.		.06	.10									2.00	.40			T.													3.26	
Pocomoke City	do		.62	.27	T.			.46										.75	.09			T.													2.45	
Princess Anne	do	T.	.62	.27	T.			.46										.75	.09			T.													2.18	
Public Landing	do	.02	.22	.25	T.			.15	.45									1.35				T.													4.44	
Ridgely	do	T.	1.48	.25	.05	T.		.05	.18									.51	.96			T.													3.50	
Rock Hall	do	T.	.65	.44	T.	T.		.10	.20									1.50				T.													2.89	
Salisbury	do	.02	.78	.25	.06			.05	.30									.06	.74			T.													2.26	
Solomons	do	T.	.32	.52	T.			.12	.25									1.60	.22			T.													1.59	
State Sanatorium	do	T.	.32	.30	.05	T.		.12	.08									.60	.22			T.													3.16	
Stevensville	do	T.	.48	.36	T.	T.		.37										.03	1.46			T.													2.76	
Takoma	do	T.	.32	T.	T.	T.		.22			T.							1.45				T.													2.05	
Towson	do	T.	.37	.23	T.			.20										.03	1.56			T.													2.59	
Western Port	do	T.	1.83	.03	.11	.13		.18	.10									.58				T.													3.16	
Westminster	do		.22	.35	T.	T.		.10	.05									.65	.63			T.													2.31	
Woodstock	do		* .35	T.	T.			.12	.07									1.10	1.40			T.													3.26	
<i>District of Columbia</i>																																				
Washington***	Atlantic	T.	.35	.01		T.		.20										2.04				T.													2.65	
<i>Delaware</i>																																				
Bridgeville	Atlantic	.15	1.10	.21	.10			.09	.24									.05	.02	.76			T.												2.74	
Delaware City	do		.12	.41	.21	.03	T.		.06	.16								.23	1.51	.91			T.												5.05	
Dover	do	T.	.77	.19	T.	T.		.13	.18									.13	.90			T.														2.37
Millford	do	T.	.59	.14	.07	T.		.08	.29									.09	* .93			T.														2.23
Millsboro	do	T.	.02	1.11	.25	.04		.14	.18									.48	.84			T.														3.08
Wilmington	do	T.	.23	.30	.30	T.	T.		.20									.06	.18	.75			T.												5.20	

Except as otherwise indicated, observations are generally made late in afternoon, near sunset, and precipitation recorded is for the 24 hours ending at time of observation. ***Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight. **Precipitation is for 24-hour period, midnight to midnight. |||Precipitation measured in the morning; amount then recorded is for the preceding 24 hours. *Precipitation included in the next following measurement. T. Trace, or less than 0.01 inch. Data in italics determined from surrounding stations.

COMPARATIVE DATA FOR MARYLAND AND DELAWARE FOR NOVEMBER

Year	Temperature				Precipitation					Year	Temperature				Precipitation								
	Mean	Departure from the normal	Highest	Lowest	Average	Departure from the normal	Greatest local	Least local	Greatest in 24 hours		Snowfall	Number of days with 0.01 inch or more	Mean	Departure from the normal	Highest	Lowest	Average	Departure from the normal	Greatest local	Least local	Greatest in 24 hours	Snowfall	Number of days with 0.01 inch or more
1895	45.9	+1.3	81	0	1.41	-1.13	3.51	0.34	1.62	0.2	8	1912	46.3	+1.7	79	10	2.13	-0.41	3.80	0.68	2.56	1.5	5
1896	49.4	+4.8	78	12	3.08	+0.54	6.92	1.08	3.00	2.1	7	1913	47.3	+2.7	87	10	2.10	-0.44	4.38	0.69	1.65	1.0	7
1897	45.0	+0.4	80	8	4.69	+2.15	8.43	1.59	4.4														

Daily Temperatures for November, 1927

Table with columns for Stations, days 1-31, and Mean. Rows list various Maryland and Delaware locations such as Annapolis, Baltimore, and Wilmington.

a, b, c, etc., indicate, respectively, 1, 2, 3, etc., days missing from record. Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs. Temperatures at Aberdeen, Baltimore, and Washington are from midnight to midnight; at other stations, except Cumberland and Takoma, they are for the 24-hour period ending late in the afternoon, near sunset. Data in Italics determined from surrounding stations. (WB-1-9-28-800)