

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU

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In Cooperation with Maryland State Weather Service

CLIMATOLOGICAL DATA

MARYLAND AND DELAWARE SECTION

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VOL. XXXIV BALTIMORE, MD., DECEMBER, 1929 No. 12

GENERAL SUMMARY

This was the third successive mild December and had a mean temperature 1.8° above normal. Precipitation and snowfall were below normal. Cloudiness was in excess of normal, while the sunshine was correspondingly deficient. Relative humidity averaged above normal. Frequency of light fog was unusually great, and the number of days with dense fog was twice the normal. The dense-fog period of the 17-19th interrupted fishing, oystering, shipping, and air transportation. There were no high winds of a damaging character. The feature of the month was the occurrence of three glaze, or ice, storms over the central and eastern portions of the section on the 2d, 12th, and 23d, an unusual frequency of a phenomenon rare in Maryland and Delaware.

Temperature periods were well marked. The cold wave at the close of November continued until the 5th. Other cold periods were 11-13th and 20-26th. Mild weather prevailed during the 6-10th, 14-19th, and 27th-31st. The 14th, 15th, and 19th were outstandingly warm, with maximum temperatures close to the highest of record for December. At Frederick the maximum of 72° on the 15th exceeded the previous highest of record, while at Salisbury the maximum of 75° on the 15th equaled the previous highest of record. Below-zero temperatures occurred in the Allegheny Mountain region on the 1st.

Monthly precipitation was deficient throughout the section, the average of 2.45 inches being three-fourths of normal. Monthly totals were from 2 to 3 inches, except slightly below 2 inches between the Allegheny and the Blue Ridge Mountains and from 3 to 4 inches over the extreme northern portion of the Eastern Shore and in northwestern Garrett County.

Rainfall was heavy over the southern half of the section on the 2d, in the Allegheny Mountain region on the 13th, and in eastern Harford County and on the northern Eastern Shore on the 18th.

Monthly snowfall totaled less than 1 inch over the southern half of the Coastal Plain and from 1 inch at the south to 3 inches at the north and west of the northern half. In north-central Maryland totals increased from 3 inches at the east to from 10 to 11 inches in the Blue Ridge Mountain region at the west. Between the Blue Ridge and the Allegheny Mountains the totals were from 5 to 10 inches. In the Allegheny Mountain region they were between 10 and 16 inches.

On the 2d snowfall was light in the northern border counties from Garrett to Harford, inclusive, except moderate in the Piedmont Plateau and heavy in the Blue Ridge Mountain region and eastern Washington County. On the 23d snowfall was light in southern Maryland and on the northern Eastern Shore and moderate in north-central and western Maryland, except heavy in the Allegheny Mountain region. Light snow also fell in western Maryland on the 25th.

Winter grains advanced in growth, stooled well, and were green and in good condition. No damage resulted from the cold and there was little or no heaving-out. The snow of the 2d disappeared on the 6th or 7th, while that of the 23d disappeared by

the close of the month. Outdoor activities were cutting and hauling wood, logs, and ties, hauling manure, repairing, fencing, plowing, husking and cribbing corn, marketing crops and holly, butchering, hunting, and stripping tobacco.—*J. B., jr.*

PRESSURE

The monthly mean sea-level pressure at Washington, Baltimore, and Aberdeen was 30.09 inches. The highest at Washington was 30.61; at Baltimore, 30.62; at Aberdeen, 30.65 inches—all on the 12th. The lowest at Washington was 29.44; at Baltimore, 29.47; at Aberdeen, 29.49 inches—all on the 19th.

TEMPERATURE

The monthly mean for the section, 36.9°, is 1.8° above normal. The highest monthly mean was 41.6° at Salisbury; the lowest, 32.8°, at Grantsville. The highest temperature, 75°, occurred at Salisbury on the 15th; the lowest, -6°, at Friendsville and Oakland on the 1st. The greatest monthly range was 69° at Oakland; the least, 47°, at Crisfield. The greatest daily range was 42° at Westminster and Woodstock on the 20th.

PRECIPITATION

The monthly average for the section, 2.45 inches, is 0.84 inch below normal. The greatest monthly amount was 3.84 inches at Wilmington; the least, 1.21 inches, at Chewsville. The greatest 24-hour amount was 2.14 inches at Elkton on the 18th. The monthly average snowfall for the section, 3.8 inches, is 0.7 inch below normal. The greatest monthly snowfall was 15.3 inches at Friendsville; the least, a trace, at several stations on the southern Eastern Shore. The average number of days with 0.01 inch or more of precipitation, 9, is normal.

RELATIVE HUMIDITY

The average percentages were: Washington, D. C., 8 a. m., 77; 12 noon, 64; 8 p. m., 69. Baltimore, Md., 8 a. m., 75; 12 noon, 67; 8 p. m., 71. Aberdeen, Md., 8 a. m., 85; 4 p. m., 73. Philadelphia, Pa., 8 a. m., 74; 12 noon, 67; 8 p. m., 68.

WIND

(By 3-cup anemometer, except 4-cup at Aberdeen, Md.)

The prevailing wind direction for the section was southwest. The total movement at Washington was 3,659; at Baltimore, 5,726; at Aberdeen, 4,047 miles. The maximum velocity at Washington was 28 miles from the northwest on the 29th; at Baltimore, 29 miles from the west on the 21st; at Aberdeen, 38 miles from the northeast on the 23d.

SUNSHINE AND CLOUDINESS

At Washington 41 per cent of the possible sunshine was recorded; at Baltimore, 46 per cent; at Aberdeen, 35 per cent. For the whole section the average number of clear days was 11; partly cloudy, 6; cloudy, 14.

MISCELLANEOUS PHENOMENA (WITH DATES)

Fogs, dense.—Oakland, 2; Aberdeen, 8; extreme southern portion of section, 10; Allegheny Mountain region, 11, 16; Solomons, 16; central and eastern divisions, 14, 15, 17, 18, 19; northern third of section, 28; also on coast, 13, 29.

Glaze, or ice, storms (rain freezing upon falling), light.—North-central and southern Maryland and northern Eastern Shore, 2, 23; Allegheny Mountain region, 11; entire section, except southern Eastern Shore, 12.

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Climatological Data for December, 1929

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 precip., 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. † 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. †† Post office addresses of these stations are as follows: Of Bell, Glendale; of Coloman, 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. *Custom House, Gay and Water Streets. **Weather Bureau Building, 24th and M Streets.

(Continued from page 45)

At Baltimore thickness of ice-coat was 0.2 inch on 2d and 0.1 inch on 12th and 23d. Sleet, light.—Central and eastern divisions, 2, 23; northern border counties, Garrett to Harford, 11; entire section, 12; central portion of section, 13. Fall of sleet at Baltimore on 23d was 0.5 inch. Thunderstorms.—Aberdeen, Solomons, and Wilmington, 18; Chewsville and District of Columbia, 19. Winds, high.—Northwest, Eastern Shore, 3, 24; westerly, entire section, 21, 29; northeast, eastern portion of section (gale on coast), 23.

NOTES

Boys, Md.—On the 1st Mr. Anthony M. Ray assumed the duties of cooperative observer, succeeding Mr. Thomas B. Daymude, who resigned on November 18, 1929. Mr. Daymude had rendered excellent service since August 14, 1928.

ERRATA

November, 1929.—Page 42: Public Landing, name of observer, published Mrs. Davida Lester, should be Harry Ward.

Daily Precipitation for December, 1929

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		
Maryland																																		
Aberdeen**	Atlantic	.32						.01				T.	.10	.03				T.	T.	1.30	T.				.62					.07	.12	T.		2.57
Annapolis	do	.75	.10					T.				T.	.07	.23	.02				T.	T.	.50	T.	.04			.70				.04	.07	T.		2.45
Baltimore***	do	.56						.01				T.	.06	.17					T.	T.	.68	T.	.02		T.	.85				.12	.03	T.		2.46
Bell	do	.79	.01					T.	T.			T.	.01	.21	.01				T.	T.	.70	T.	.01			.60				.03	.12	T.		2.49
Boysds.	do	.60						T.	T.			T.	.02	.20	T.				T.	T.	.10	T.				.70				.80	T.		2.02	
Cambridge (near)	do	.87	.35					T.				T.									.75	T.				.60				T.		2.67		
Cecilton	do																																	
Cheltenham	do	.80	.10					T.	T.			T.	.03	.34	.01						.81	.05				.77	.03			T.				2.94
Chewsville	do	.24						T.	T.	.03		T.	.14								.14	T.				.45		T.		.22	T.	.01		1.21
Clear Spring	do	.62						T.	T.	.28		T.	.13	.40	T.						.14	T.				.53	T.		.09	T.			2.16	
Coleman	do	.64	.26					T.	T.			T.	.05	.22	T.						1.00	T.				.55	.03			.80	T.			3.00
College Park	do	.75	.13					T.	T.			T.	.02	.21	T.						.75	.09				.60			.05	.10	T.		2.70	
Crisfield	do	.60	.55					T.	T.			T.	.02	.21	T.						.38	.04				.35			.07	.07	T.		1.99	
Cumberland	do									.06											.03	.08	.32		T.	.39	.18		.03	.07	T.		1.83	
Darlington	do	.50						T.	T.			T.	.10	.20	T.						.81	.03	.32		T.	.54			.20	.06	T.		2.43	
Easton	do	1.10	.13					T.	T.	.04		T.	.03	.08	T.						.83	.06	T.			.73	.08		.05	.04	T.	.03	2.67	
Elkton	do	.55						T.	T.			T.	.10	.05	T.						2.14	.06	T.			.60			.08	.04	T.		3.57	
Emmitsburg	do	.42						T.	T.	.02																								
Fallston	do	.55						T.	T.			T.	.12	.30	T.																			
Ferry Landing	do	.90	.16					T.	T.			T.	.02	.05	.03	T.																		
Frederick	do	.15	.20	T.				T.	T.			T.	.04	.10	.05	.46																		
Friendsville	Ohio	.06						T.	T.			T.	.32	.75	.10																			
Frostburg	Atlantic	.09	.09	.04				T.	T.			T.	.04	.10	.10	.28																		
Grantsville	Ohio	.06						T.	T.			T.	.21	.21	T.																			
Great Falls	Atlantic	.12	.56					T.	T.			T.	.09	.14	T.																			
Hancock (Tonoloway)	do	.25						T.	T.	.04		T.	.11	.46	.02																			
Keedysville	do	.38						T.	T.	.02		T.	.06	.51	.01																			
Laurel	do	.68						T.	T.	.05		T.	.05	.24	T.																			
Lutherville	do	.51						T.	T.	.01		T.	.12	.17	T.																			
Maryland Line	do	.50						T.	T.			T.	.07	.11	T.																			
Mechanicsville	do	1.10	.70					T.	T.			T.	.05	.11	T.																			
Millington	do	.70	.06					T.	T.	.16		T.	.07	.01	T.																			
Newburg	do	1.04	.17					T.	T.			T.	.07	.01	T.																			
Oakland	Ohio	2.00	.07	T.						.05		T.	.25	.42	.53																			
Picardy	Atlantic	.11						T.	T.	.01		T.	.03	.11	.59	T.																		
Pleasant Hill	do	.60	.55					T.	T.			T.	.02	T.	T.																			
Pocomoke City	do	.23						T.	T.			T.	.02	T.	T.																			
Princess Anne	do	1.23						T.	T.	.02		T.	.02	T.	T.																			
Public Landing	do	.16						T.	T.	.05		T.	.02	.02	T.																			
Ridgeley	do	.52	.10					T.	T.	.02		T.	.02	.15	T.																			
Rock Hall	do	.82	.05					T.	T.	.02		T.	.20	.03	T.																			
Salisbury	do	1.10	.30					T.	T.			T.	.15	T.	T.																			
Sines**	Ohio	.15	.10	T.				T.	T.			T.	.20	.90	.28																			
Solomons	Atlantic	.87	.17					T.	T.			T.	.03	.02	T.																			
State Sanatorium	do	.35						T.	T.	.06		T.	.20	.15	T.																			
Stevensville	do	1.10	.04					T.	T.			T.	.02	.06	.38	T.																		
Takoma	do	.75						T.	T.			T.	.02	.20	.03																			
Towson	do							T.	T.			T.	.02	.20	.03																			
Western Port	do	.05						T.	T.	.05		T.	.05	.55	.10																			
Westminster	do	.45						T.	T.	.01		T.	.13	.24	T.																			
Woodstock	do	.50						T.	T.			T.	.13	.30	T.																			
District of Columbia																																		
Washington***	Atlantic	.75						T.				T.	.01	.09																				
Delaware																																		
Bridgeville	Atlantic	.83	.30					T.	T.	.19		T.	.01	.02	.03	T.																		
Delaware City	do	.35	.20					T.	T.			T.	.25	T.																				
Dover	do	.57	.47					T.	T.			T.	.14	.03																				
Millford	do	.12	.27					T.	T.			T.	.08	.10	T.																			
Millsboro	do	1.04	.25					T.	T.	.03		T.	.02	.03	.01	T.																		
Wilmington	do	.40	.14					T.	T.			T.	.20	.04																				

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 DECEMBER

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	37.6	+2.5	70	-7	2.49	-0.80	3.75	1.50	1.65	2.4	8	1913	39.0	+3.9	72	-1	2.43	-0.86	3.36	1.43	1.75	0.9	6
1896	34.0	-1.1	70	-2	0.84	-2.45	2.71	0.11	1.39	4.3	4	1914	31.9	-3.2	68	-21	4.63	+1.34	8.16	1.82	2.20	5.1	14
1897	36.9	+1.8	74	-4	3.57	+0.28	6.38	1.36	1.82	2.5	10	1915	33.1	-2.0	73	-6	3.16	-0.13	4.86	1.70	1.71	5.0	11
1898	34.2	-0.9	70	-20	3.60	+0.31	6.26	1.85	4.01	4.5	8	1916	33.5	-1.6	76	-3	3.74	+0.45	5.51	0.85	1.55	9.6	7
1899	35.4	+0.3	69	-5	1.86	-1.43	4.63	0.80	1.60														

Daily Temperatures for December, 1929

Table with columns for Stations, days 1-31, and Mean. Rows list various Maryland and Delaware locations such as Annapolis, Baltimore, and Wilmington, with their respective maximum and minimum temperatures for each day.

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