

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU

in cooperation with Maryland State Weather Service

CLIMATOLOGICAL DATA

15 MARYLAND AND DELAWARE SECTION

J. R. WEEKS

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VOL. XL BALTIMORE, MD., DECEMBER, 1935 No. 12

GENERAL SUMMARY

This was a cold, unusually cloudy, and very snowy December. It was 5.4° colder than normal, and the coldest December since 1917. The lowest temperature of the month, -22°, was the second lowest of record in December, and the lowest since 1917. Monthly precipitation was below normal. Monthly snowfall was heavy, and the greatest of record in December since 1904. During the first half of the month precipitation was mostly rain, except rain and snow in western Maryland and in the northern Blue Ridge Mountain region; during the second half the precipitation was snow. The number of clear days was the least of record in December. The features of the month were the severe cold of the 21th-31st, the high snow drifts on the central and southern Eastern Shore caused by the strong northwest winds of the 26-27th, and the general heavy snow-storm of the 29-30th.

Cold weather during the first week was followed by a mild period from the 8th to the 19th. The mean temperature of the 20th-31st was about 15° colder than normal, except about 20° colder than normal in the Allegheny Mountain region.

Monthly sunshine was about 10 per cent below normal. Relative humidity averaged about 5 per cent below normal.

Monthly precipitation was below normal with totals mostly between 2 and 3 inches, except above normal with totals 3 to 5.5 inches in the Allegheny Mountain region. The average for the section was four-fifths of normal.

Monthly snowfall totaled mostly between 10 and 15 inches, except 15 to 20 inches over the central and southern Eastern Shore and from 11 inches at the eastern foothills to between 30 and 40 inches in the highlands of the Allegheny Mountain region. The average for the section was slightly more than three times the normal.

Snowfalls were light, except moderate over extreme southern Maryland and locally over the northern Eastern Shore during night of the 25-26th, and heavy in the Allegheny Mountain region on the 20th, over the central and southern Eastern Shore during night of the 22-23d, and over the entire section on the 29-30th.

The Allegheny Mountain region was snow-covered throughout the month (heavily on and after the 20th), except on the 8-9-10th and 14-15th. Eastward thereof to Chesapeake Bay the ground became snow-covered on the 22d and on the Eastern Shore during night of the 22-23d; the snow-cover continued to the close of the month.

Grains were good to excellent; grasses and pastures were good. Their growth was checked during the first week. They made good growth and were nicely green during the second and third weeks. They were snow-covered during the severe cold of the third decade. - J. B., jr.

TEMPERATURE

The monthly mean for the section, 30.0°, is 5.4° below normal. The highest monthly mean was 34.9° at Crisfield; the lowest, 21.4° at Sines. The highest temperature, 66°, occurred at Ferry Landing on the 9th; the lowest, 22° below zero at Oakland on the 22d. The greatest local monthly range was 73° at Oakland; the least, 51°, at Wilmington. The greatest daily range was 36° at Oakland on the 31st.

PRECIPITATION

The monthly average for the section, 2.50 inches, is 0.65 inch below normal. The greatest monthly amount was 5.45 inches

at Friendsville; the least, 1.43 inches at Frostburg. The greatest 24-hour amount was 1.13 inches at Milford on the 29-30th. The monthly average snowfall for the section, 14.4 inches, is 9.8 inches above normal. The greatest monthly snowfall was 37.5 inches at Friendsville; the least, 8.0 inches at College Park. The average number of days with .01 inch or more of precipitation, 13, is 4 above normal.

MISCELLANEOUS PHENOMENA (WITH DATES)

Fogs, light. -1, 8 to 16, 19, 20, 22 to 26. Fogs, dense. -8, 9, 13, 14, 15.
 Coronae, lunar. -Coleman, 1; Dundalk, 12. Halos, Lunar -3, 9, 31. Solar. -12, 28, 31.
 Sleet, light. -7, 11, 13, 15. Thunderstorm. -Garrett County, 15.
 Winds, high. -Northeast, 11, 13. Northwest, 4, 5, 16, 20, 21, 26, 27.

PRESSURE, HUMIDITY, SUNSHINE AND WIND

Stations	Atmospheric pressure reduced to sea level				Wind			Mean relative humidity			Percentage of sunshine	
	Average	Highest	Date	Lowest	Date	Average hourly velocity	Maximum velocity	Direction	Date	8 a. m.		Local a'n	8 P. m.
Aberdeen, Md.	30.08	30.75	6	29.62	20	11.3	42	nw.	26	75	66	70
Annapolis, Md.	30.07	30.71	6	29.61	20	9.3	.....	.....	26	75	66	70
Baltimore, Md.	30.07	30.72	7	29.62	20	11.7	35	nw.	26	69	59	66
Elkins, W. Va.	30.15	30.66	6	29.69	15	7.3	30	w.	25	84	76	81
Harrisburg, Pa.	30.06	30.71	6	29.62	20	8.5	24	nw.	21	70	62	63
Norfolk, Va.	30.09	30.72	6	29.65	20	11.0	37	w.	26	74	60	66
Philadelphia, Pa.	30.06	30.74	7	29.64	20	12.9	35	nw.	4	67	56	61
Pittsburgh, Pa.	30.07	30.61	6	29.63	15	11.4	39	sw.	25	89	82	88
Washington, D. C.	30.10	30.72	6	29.66	20	8.6	26	nw.	26	70	60	65

COMPARATIVE DATA FOR MARYLAND AND DELAWARE FOR DECEMBER

Year	Temperature				Precipitation				Number of days				
	Mean	Departure	Highest	Lowest	Average	Departure	Greatest	Least	Average snowfall	With 0.1 in. or more precipita'n	Clear	Partly cly	Cloudy
1895.....	37.6	+2.2	70	-7	2.49	-0.66	3.75	1.50	2.4	8	11	9	11
1896.....	34.0	-1.4	70	-2	0.84	-2.31	2.71	0.11	4.3	4	15	9	7
1897.....	36.9	+1.5	74	-4	3.57	+0.42	6.38	1.96	2.5	10	11	10	10
1898.....	34.2	-1.2	70	-20	3.60	+0.45	6.26	1.85	4.5	8	15	6	10
1899.....	35.4	0.0	69	-6	1.86	-1.29	4.63	0.80	2.1	7	17	8	8
1900.....	34.4	-1.0	68	-2	2.43	-0.72	4.10	1.51	2.2	5	15	8	8
1901.....	32.7	-2.7	74	-15	6.74	+3.59	11.18	4.15	1.4	10	13	7	11
1902.....	33.3	-2.1	70	-4	6.00	+2.35	8.63	3.07	6.8	12	11	8	12
1903.....	30.2	-5.2	60	-9	2.46	-0.69	4.52	0.32	5.1	7	15	8	8
1904.....	29.6	-5.8	66	-11	3.50	+0.35	6.19	1.63	15.6	9	11	7	13
1905.....	36.6	+1.2	64	-2	4.36	+1.21	6.21	2.41	4.0	8	14	8	9
1906.....	35.7	+0.3	72	0	4.11	+0.96	7.16	1.84	1.1	10	8	8	14
1907.....	37.4	+2.0	76	-7	4.19	+1.04	5.86	2.04	4.4	9	14	8	9
1908.....	36.1	+0.7	71	-1	3.32	-0.17	5.49	1.25	7.8	9	12	8	11
1909.....	30.7	-4.7	69	-5	3.64	+0.49	5.63	1.72	10.9	7	15	9	7
1910.....	28.5	-6.9	65	-15	2.42	-0.73	4.13	0.90	11.5	7	12	9	10
1911.....	40.0	+4.6	76	7	3.66	+0.51	6.12	1.76	1.0	10	9	13	9
1912.....	38.5	+3.1	75	-10	3.94	+0.79	5.25	1.81	7.2	9	13	9	10
1913.....	39.0	+3.6	72	-1	2.43	-0.72	3.36	1.43	0.9	6	13	8	10
1914.....	31.9	-3.5	68	-21	4.63	+1.48	8.16	1.82	5.1	14	8	6	17
1915.....	33.1	-2.3	73	-6	3.16	+0.01	4.86	1.70	5.0	7	11	11	9
1916.....	33.5	-1.9	76	-3	3.74	+0.59	5.51	0.85	9.6	11	14	9	8
1917.....	26.7	-8.7	59	-32	1.69	-1.46	3.32	0.57	8.9	8	12	7	12
1918.....	40.4	+5.0	71	-7	4.23	+1.08	5.43	2.51	0.3	10	10	8	13
1919.....	30.6	-4.8	70	-17	2.96	-0.19	4.34	1.47	6.0	11	12	8	11
1920.....	37.5	+2.1	71	-5	3.43	+0.23	4.62	1.95	1.5	8	9	9	13
1921.....	36.2	+0.8	73	0	3.51	-0.64	5.30	1.65	3.3	10	11	8	12
1922.....	36.3	+0.9	71	3	3.84	+0.69	7.72	2.32	2.9	10	9	8	14
1923.....	43.7	+8.3	72	-2	3.52	+0.37	6.17	1.47	1.8	11	13	7	11
1924.....	35.2	-0.2	76	-4	2.36	-0.79	3.36	1.07	0.3	8	9	10	12
1925.....	35.4	0.0	64	-7	1.90	-1.25	4.22	0.90	0.8	9	12	7	12
1926.....	32.1	-3.3	62	-16	3.19	+0.04	5.73	2.16	2.2	12	9	6	16
1927.....	37.3	+1.9	73	0	3.78	+0.63	8.20	1.62	2.2	12	12	5	14
1928.....	36.9	+1.5	63	0	1.63	-1.52	2.94	0.83	3.0	7	15	6	10
1929.....	36.9	+1.5	75	-6	2.45	-0.70	3.84	1.21	3.8	9	11	6	14
1930.....	33.4	-2.0	62	-17	2.00	-0.55	4.35	1.59	5.4	9	8	9	14
1931.....	42.8	+7.4	72	-9	2.45	-0.70	5.04	1.76	0.6	8	10	9	12
1932.....	37.7	+2.3	73	-6	3.30	+0.15	5.12	1.30	12.2	13	9	9	13
1933.....	36.5	+1.1	73	-10	3.00	-0.15	4.80	1.58	5.7	10	10	8	13
1934.....	35.2	-0.2	71	-16	2.75	-0.40	4.71	1.59	1.4	8	8	11	12
1935.....	30.0	-5.4	66	-22	2.50	-0.65	5.45	1.43	14.4	13	7	10	14
Period.	35.4	.....	76	-32	3.15	.....	11.18	0.11	4.6	9	12	8	11

Climatological Data, December, 1935

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	Greatest daily range	Total	Departure from the normal	Greatest in 24 hours	Total snowfall (unmelted)	With precip. 0.01 in. or more	Clear			Partly cloudy	Cloudy
<i>Maryland</i>																				
Aberdeen	Harford	30	17	30.6	-4.1	61	9	7	26	22	1.87	-0.55	0.44	13.6	14	6	9	16	nw.	U. S. Army.
Annapolis	Anne Arundel	45	70	32.5	-4.6	62	9	6	26	23	2.44	-1.02	0.87	10.8	14	7	12	12	nw.	U. S. Navy.
Baltimore	Baltimore	115	65	32.8	-4.4	62	9	8	26	24	2.16	-1.21	0.63	10.4	15	8	6	17	sw.	U. S. Weather Bureau.
Bell†	Prince Georges	151	15	30.6	-4.7	64	9	1	23	34	2.10	-0.42	0.53	9.5	13	8	10	13	nw.	Bureau Plant Industry.
Boys	Montgomery	375	16	29.2	-6.6	60	9	3	26	25	1.55	-0.87	0.52	9.3	13	8	10	13	nw.	Ralph F. Staley.
Cambridge (near)	Dorchester	25	42	33.6	-4.3	61	9	7	26	28	2.50	-0.75	0.80	17.0	11	11	7	13	nw.	Matt Harding.
Cecilton	Cecil	85	17																	
Cheltenham	Prince Georges	230	35	30.1	-5.7	62	9	4	26	33	1.81	-1.56	0.51	11.6	12	8	9	14	nw.	U. S. Magnetic Obs'y.
Chewsville	Washington	530	38	27.8	-4.9	58	9	0	26	24	2.35	-0.31	0.66	12.6	16	5	12	14	nw.	D. Paul Oswald.
Clear Spring	do.	600	38																	
Coleman†	Kent	90	38	31.1	-4.9	60	9	7	26	25	2.65	-0.93	0.90	13.5	11	7	9	15	nw.	Mrs. Anna Bevan Cobhill.
College Park	Prince Georges	87	48	31.4	-4.6	63	9	5	23	35	1.94	-1.07	0.50	8.0	12	8	10	13	nw.	Walter B. Harris.
Crisfield	Somerset	5	16	34.9	-5.6	62	9	10	26	30	2.24	-1.34	0.80	16.5	11	8	12	11	nw.	Prof. Thos. H. White.
Cumberland	Allegany	623	63	28.9	-5.1	56	9	1	26	21	3.10	+0.60	0.71	10.8	12	4	8	19	nw.	A. B. Cochran.
Darlington	Harford	300	45	28.0	-5.6	56	9	1	29	27	2.74	-0.85	0.90	13.5	11	5	10	16	nw.	W. R. E. King.
Dundalk	Baltimore	12	1	31.2		60	9	7	26	25	2.38		0.71	10.5	15	6	10	15	nw.	Fred. C. Jones.
Easton	Talbot	35	45	31.2	-5.7	61	9	6	29	25	2.36	-0.68	0.50	20.0	11	8	9	14	nw.	U. S. Airway Station.
Elkton	Cecil	28	9	30.2		60	9	1	29	23	2.08		0.80	10.0	10	7	10	14	nw.	Clement E. Bray.
Emmitsburg	Frederick	720	67	28.2	-5.2	56	9	0	26	22	3.23	+0.09	0.85	11.8	13	8	10	13	nw.	H. W. Bouchelle.
Fallston†	Harford	450	66	29.2	-4.7	58	9	5	26	24	1.43	-2.11	0.43	8.8	11	5	15	11	nw.	Mt. St. Mary's College.
Ferry Landing†	Calvert	110	19	32.2	-5.1	66	9	3	26	33	1.99	-0.65	0.60	10.5	11	8	12	11	nw.	Miss Dora Curtiss.
Frederick	Frederick	325	61	30.0	-4.8	60	9	2	26	26	2.80	-0.27	0.91	9.7	13	8	10	13	nw.	Thos. J. Bourne.
Friensburg	Garrett	1,501	17	23.6	-8.7	50	9	-11	22	28	5.45	+1.85	0.60	37.5	22	3	4	24	w.	August T. Brust.
Frostburg	Allegany	1,929	34	24.7	-7.1	50	9	-5	26	24	3.21	+0.28	1.05	16.5	18	3	8	20	w.	Joab J. Friend.
Grantsville	Garrett	2,351	42																	
Great Falls†	Montgomery	200	46	30.4	-3.8	60	9	4	26	30	2.63	-0.46	0.80	12.5	10	8	10	13	nw.	F. T. Lewis.
Hancock (Tonoloway)	Washington	455	25	28.0	-5.3	57	9	-2	26	28	1.98	-0.64	0.50	9.9	14	5	11	15	nw.	Floyd J. Miller.
Hancock (City)	do.	421	11								1.71	-0.91	0.45	9.7	10					
Keedysville	do.	400	31	29.2	-4.6	58	9	2	26	30	2.57	-0.21	0.63	14.7	13	8	9	14	nw.	Chas. E. Sullivan.
La Plata	Charles	190	21	32.0	-6.1	65	9	4	26	35	2.23	-0.35	0.63	14.8	13	8	9	14	nw.	American Fruit Growers.
Laurel	Prince Georges	320	41	30.4	-4.3	62	9	2	26	29	1.87	-1.68	0.46	9.5	11	8	12	11	nw.	Marvin K. Murray.
Lutherville	Baltimore	340	9	29.2		60	9	2	29	31	2.41		0.65	10.5	11	8	11	12	nw.	J. A. Miller.
Maryland Line	do.	840	11	27.8	-6.4	57	9	2	26	24	2.48	-0.14	0.70	10.2	11	7	12	12	nw.	Walter M. Page.
Mechanicsville	St. Marys	165	9																	
Millington	Kent	27	38	31.3	-4.5	60	9	3	29	27	2.64	-1.02	1.00	14.0	12	7	9	15	nw.	Evan G. Chaney.
Oakland	Garrett	2,461	36	22.0	-7.6	51	7	-22	22	36	4.11	+0.29	0.90	31.7	22	3	4	24	w.	Clarence J. Thomson, Jr.
Parkton	Baltimore	780	5	28.0		56	9	4	26	21	2.63		0.70	10.0	10					
Picardy	Allegany	900	9	27.6		54	9	-3	22	23	2.14		0.60	11.0	12	5	9	17	w.	Chester L. Fulton.
Pleasant Hill†	Baltimore	660	11								2.66	+0.14	0.75	11.5	10	8	11	12	nw.	Henry L. Higman.
Princess Anne	Somerset	17	60	32.0	-6.7	64	9	2	25	31	2.22	-0.98	0.70	14.0	10	8	12	11	nw.	R. E. Weber.
Ridgely	Caroline	57	45	31.6	-4.6	62	9	5	29	27	1.68	-1.42	0.45	14.0	11	8	8	15	nw.	C. W. Hendrix.
Rock Hall	Kent	25	21	32.8	-3.9	60	9	5	29	28	2.53	-0.59	0.80	13.5	12	7	9	15	nw.	American Fruit Growers.
Salisbury	Wicomico	23	30	33.0	-5.5	61	9	6	29	30	2.40	-0.95	0.80	17.0	12	9	11	11	nw.	J. E. Henry.
Sines (Deep Creek) †	Garrett	2,040	8	21.4		53	8	-16	22	33	3.89		0.63	36.5	24	3	4	24	nw.	James R. Stewart.
Snow Hill	Worcester	15	5	32.4		62	9	-1	25	33	2.80		0.90	20.0	12	8	12	11	nw.	Albert White.
Solomons	Calvert	20	44	34.4		64	9	7	26	24	2.26	-0.38	0.70	17.0	12	8	9	14	nw.	Richard Leake.
State Sanatorium	Frederick	1,460	27	26.4	-5.8	53	9	-2	26	22	3.35	+0.33	0.90	12.3	13	6	11	14	nw.	Chesapeake Biological L'b.
Stevensville	Queen Annes	12	9	32.8		60	9	7	26	26	2.37		0.90	14.3	11	7	9	15	nw.	Dr. V. F. Cullen.
Takoma	Montgomery	320	37	31.7	-2.9	64	9	4	26	31	2.22	-1.22	0.80	12.0	12	8	11	12	nw.	T. R. Price.
Towson	Baltimore	475	24								2.62	-0.47	0.80	12.2	11					
Western Port	Allegany	1,000	42	28.4	-5.9	55	9	-1	26	24	3.36	+0.99	0.90	24.0	19					
Westminster	Carroll	770	26	28.5	-6.8	58	9	2	26	25	2.52	-0.69	0.65	13.0	12	8	10	13	nw.	Guy L. Seaman.
Woodstock	Baltimore	415	66	28.9	-5.4	59	9	4	26	29	1.74	-1.33	0.40	9.4	13	8	9	14	nw.	Charles E. Prince.
<i>Dist. of Columbia</i>																				
Washington**		112	65	32.1	-4.5	62	9	4	26	22	2.06	-1.26	0.76	11.0	14	7	9	15	nw.	Norris Bruce.
<i>Delaware</i>																				
Bridgeville	Sussex	45	45	31.6	-5.6	61	9	0	29	28	1.76	-1.45	0.60	18.0	12	10	10	11	nw.	Harry J. Mathias.
Delaware City	New Castle	12	49	30.7	-5.3	60	9	5	26	25	3.12	-0.22	1.00	15.0	10	7	10	14	nw.	Woodstock College.
Dover	Kent	34	46	31.5	-5.2	60	9	7	26	25	3.04	-0.33	1.00	17.2	10	9	7	15	nw.	William M. Ray.
Millford	Sussex	20	53	31.2	-6.7	63	9	2	29	27	2.63	-1.05	1.13	19.6	11	8	12	11	nw.	James E. Maden.
Millsboro	do.	20	43	32.0	-5.5	62	9	3	29	30	2.43	-1.33	0.80	19.0	10	9	11	11	nw.	Arthur G. Livingston.
Wilmington	New Castle	86	42								2.84	-0.78	0.90	13.5	11	7	10	14	nw.	Chas. J. Holzmueller.
Wilmington	do.	260	24	29.7	-5.3	57	9	6	26	23	2.53	-1.09	0.72	14.5	11	7	10	14	nw.	Wm. T. Moore.
Means and extremes:																				
For Maryland and District of Columbia.				29.9	-5.3	66	9	-22	22	36	2.49	-0.61	1.05	14.1	13	7	10	14	nw.	Street Department.
For Delaware.				31.1	-5.9	63	9	0	29	30	2.61	-0.89	1.13	17.1	11	8	10	13	nw.	Water Department.
For entire section.				30.0	-5.4	66	9	-22	22	36	2.50	-0.65	1.13	14.4	13	7	10	14	nw.	

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 stations. T. Precipitation is less than 0.01 inch rain or melted snow. †Post 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 Picardy, Paw Paw, W. Va.; of Pleasant Hill, Owings Mills; of Sines, Oakland. **Custom House, Gay and Water Sts. **Weather Bureau Building, 24th and M Sts. †Also on other dates. §§Prettyboy Dam. §§§Municipal Building. §§§§Porter Reservoir.

Daily Temperatures for December, 1935

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

†† Instruments are read in morning; maximum temperature then read is charged to preceding day, on which it almost always occurs. Temperatures at Aberdeen, Annapolis, Baltimore, Dundalk, Sines, and Washington are from midnight to midnight; other stations, except Cumberland and Cheltenham, are for 24-hour period ending late in afternoon, near sunset.

(W. B., Richmond, Va., 2-11-36-950)