

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

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No. 7

GENERAL SUMMARY

This was the sixth consecutive cool July, the mean temperature being 1° below normal. Rainfall was well below normal generally over the section to westward of Chesapeake Bay, especially in north-central Maryland, and also in the extreme west-central portion of the Eastern Shore. Elsewhere on the Eastern Shore and in eastern Harford County rainfall was abundant. Monthly sunshine was normal, while the monthly relative humidity was slightly below normal. Thunderstorms, though frequent, were not general. Thundergusts were not violent; some damage, however, resulted in the interior of the southern Eastern Shore on the 7th. No damaging hailstorms occurred.

The 1st and 2d in western Maryland and the 3d and 7th over the section were warm; otherwise the first decade was markedly cool. Then followed the only warm wave of note of the summer so far, from the 11th to the 18th, with maximum temperatures above 90° almost daily, except in the Allegheny Mountain region. The weather was cool again during the 19th-22d and on the 24th, and moderately warm on the 23d and from the 25th to the 31st, except that the 28th was warm.

Highest temperatures ranged from 88° at Grantsville to 100° at Cumberland and Frederick; they occurred on the 13th or 14th generally in the northern tier of counties and on the 28th to the southward thereof. Lowest temperatures ranged from 39° at Oakland to 59° at Solomons and occurred on the 5th generally.

The 4th was clear and decidedly cool, with moderate to fresh northwest winds. It was the coolest 4th since 1922.

Rainfall was of the thundershower type, except on the 9-10th when a northeast rain produced moderate amounts as far west as eastern Allegany County; therefore, it was unevenly distributed over the section. The monthly average was nine-tenths of the normal. The northern portion of Maryland, including the District of Columbia, to the westward of Harford County and Chesapeake Bay comprised the area of least monthly rainfall, with monthly amounts between 2 and 3 inches generally, except between 1.4 and 2 inches over a narrow belt extending from the District of Columbia northeastward into southern Baltimore County and between 3 and 4.6 inches in northern Baltimore County and in the Allegheny Mountain region. In southern Maryland monthly amounts were between 3 and 5 inches; in Harford County they were between 3 and 7.6 inches. The Eastern Shore comprised the area of greatest monthly rainfall, with totals of 4 to 7.1 inches, except between 2.6 and 4 inches in the extreme west-central portion. The greatest and least monthly rainfalls, 7.6 inches at Aberdeen and 1.4 inches at Baltimore, respectively, were 30 miles apart.

Thundershowers were heavy in Somerset, Wicomico, and Worcester Counties in the afternoon and night of the 7th; in Somerset and southern Worcester Counties in the forenoon of the 11th; in central Prince Georges County during the night of the 15-16th; in the extreme northern portions of Baltimore and Harford Counties at night of the 16th; in St. Marys, southern Calvert, and eastern Sussex Counties in the afternoon of the 18th; in extreme northern Baltimore and southern Harford Counties and on the Eastern Shore, except the extreme west-

central portion, on the 19th; in western Maryland in the afternoon of the 22d and during the night of the 22-23d; in eastern Harford, Cecil, extreme northern New Castle, Caroline, southern Kent (Del.), and northern Sussex Counties in the morning or forenoon of the 23d; and locally over the section during the night of the 30th-31st.

Crops.—In the southern counties harvesting of wheat and rye was finished during the first decade and threshing during the third decade; in the northern counties harvesting was in progress during the first and second decades and threshing during the third decade, except in western Maryland where harvesting was under way during the second half of the month. Yield of wheat and rye was fair to very good. Harvesting of oats, a good crop, was finished, except in western Maryland. Corn, well cultivated and good in color and condition, made rapid progress during the warm periods of the second and third decades; at the close of the month it still was somewhat backward for the season, but the early crop was silking in the southern and central counties. Digging of early potatoes extended northward into the northern border counties during the first and second decades, except westward into western Maryland during the third; they were of fine quality and yielded well. Harvesting of peas in the northern counties ended during the first decade. Tomatoes, sweet potatoes, tobacco, and truck crops made good progress, though they continued backward for the season. During the last decade harvesting of tomatoes began in the southern counties and tobacco began to bloom. Pastures were fair to westward of Chesapeake Bay and good on the Eastern Shore. Good crops of hay were secured.

Fruits.—Strawberries in the Allegheny Mountain region were harvested during the first decade. Harvesting of early varieties of apples and peaches was in progress with but fair yields.—*J. B., jr.*

PRESSURE

The monthly mean sea-level pressure at Washington was 29.99; at Baltimore, 29.98; at Aberdeen, 30.00 inches. The highest at Washington was 30.25; at Baltimore, 30.24—both on the 5th; at Aberdeen, 30.26 inches, on the 21st. The lowest at Washington and Baltimore was 29.74; at Aberdeen, 29.70 inches—all on the 23d.

TEMPERATURE

The monthly mean for the section, 74.2°, is 1.0° below normal. The highest monthly mean was 77.2° at Baltimore; the lowest, 66.7°, at Grantsville. The highest temperature, 100°, occurred at Cumberland on the 13th and at Frederick on the 14th; the lowest, 39°, at Oakland on the 5th. The greatest local monthly range was 53° at Hancock; the least, 33°, at Solomons. The greatest daily range was 39° at Oakland on the 6th.

PRECIPITATION

The monthly average for the section, 3.86 inches, is 0.47 inch below normal. The greatest monthly amount was 7.55 inches at Aberdeen; the least, 1.41 inches, at Baltimore. The greatest 24-hour amount was 3.10 inches at Aberdeen on the 19th. The average number of days with 0.01 inch or more, 10, is normal.

RELATIVE HUMIDITY

The average percentages were: Washington, D. C., 8 a. m., 78; 12 noon, 58; 8 p. m., 70. Baltimore, Md., 8 a. m., 70; 12 noon, 51; 8 p. m., 62. Aberdeen, Md., 8 a. m., 80; 4 p. m., 62. Philadelphia, Pa., 8 a. m., 77; 12 noon, 65; 8 p. m., 70.

WIND

The prevailing wind direction for the section was southwest. The total movement at Washington was 3,686; at Baltimore, 6,508; at Aberdeen, 4,946 miles. The maximum velocity at Washington was 32 miles from the northwest on the 15th; at Baltimore, 33 miles from the southwest on the 30th; at Aberdeen, 28 miles from the south on the 17th.

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Climatological Data for July, 1927

Stations	Counties	Elevation, feet	Length of record, years	Temperature, in degrees Fahr						Precipitation, in inches				Number of days				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 inch or more	Clear	Partly cloudy		Cloudy	Prevailing direction of wind
<i>Maryland</i>																				
Aberdeen	Harford	80	9	74.6	.....	91	28	53	5	25	7.55	.....	3.10	0.0	9	8	10	13	s.	U. S. Army.
Annapolis	Anne Arundel	45	62	75.5	-2.2	97	28	54	5	31	4.26	-0.37	1.58	0.0	10	13	10	8	s.	Louis E. Foster.
Baltimore		151	57	77.2	-0.2	96	14	58	1	24	1.41	-3.41	0.46	0.0	12	12	8	11	sw.	U. S. Weather Bureau.
Bell II	Prince Georges	424	8	74.2	.....	95	28	48	5	35	1.90	.....	0.60	0.0	6	13	11	7	sw.	Bureau Plant Industry.
Boys	Montgomery	424	8	74.2	.....	98	28	48	5	35	2.25	.....	0.75	0.0	11	13	7	7	s.	James L. Higgins.
Cambridge (near)	Dorchester	25	34	76.2	-1.9	94	28	54	1	27	4.10	-0.55	1.08	0.0	9	12	11	8	s.	Matt Harding.
Cecilton	Cecil	85	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Wm. F. Coale.
Cheltenham	Prince Georges	230	27	74.4	-1.2	95	28	49	5	33	4.30	-0.24	2.21	0.0	8	13	12	6	sw.	Geo. Hartnell.
Chewsville	Washington	530	30	72.7	-1.4	95	14	46	5	32	3.47	-0.51	1.26	0.0	11	13	14	4	sw.	D. Paul Oswald.
Clear Spring	do	600	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leo A. Cobill.
Coleman II	Kent	80	30	75.8	-0.8	96	15	55	1	30	5.95	+1.33	1.46	0.0	10	12	14	5	sw.	Walter B. Harris.
College Park	Prince Georges	87	41	75.4	+0.2	98	28	49	15	37	1.88	-2.56	0.61	0.0	8	12	13	6	sw.	Prof. Thos. H. White.
Crisfield	Somerset	5	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. E. Cochrane.
Cumberland	Alleghany	623	55	74.4	+0.4	100	13	49	5	37	2.80	-0.43	1.45	0.0	8	17	11	3	w.	Harvey H. Weiss.
Darlington	Harford	300	37	74.6	+0.1	95	28	47	6	37	6.20	+1.71	1.80	0.0	9	12	12	7	w.	Fred. C. Jones.
Easton	Talbot	35	37	75.4	-0.7	96	28	50	5	33	2.63	-1.88	0.84	0.0	9	13	10	8	s.	Clement E. Bray.
Elkton	Cecil	28	1	.....	.....	93	28	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. W. Bouchelle.
Emmitsburg	Frederick	720	59	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mt. St. Mary's College.
Fallston II	Harford	450	58	72.6	-1.4	91	28	53	5	28	3.13	-1.48	0.93	0.0	11	12	12	7	sw.	Miss Dora Curtiss.
Ferry Landing II	Calvert	45	11	74.8	.....	96	28	52	5	29	3.27	.....	0.89	0.0	9	14	11	6	sw.	Thos. J. Bourne.
Frederick	Frederick	275	53	76.3	0.0	100	14	51	5	34	2.57	-1.45	1.04	0.0	12	11	14	6	sw.	Chas. S. Birely.
Friendsville	Garrett	1,501	9	68.8	.....	90	11	41	5	38	3.74	.....	1.08	0.0	8	17	9	5	w.	Joab J. Friend.
Frostburg	Alleghany	1,929	26	70.2	-1.4	94	13	45	5	33	2.37	-1.66	0.0	0.0	7	17	11	3	w.	T. F. Lewis.
Grantsville	Garrett	2,351	34	66.7	-1.2	88	13	41	5	35	4.45	+0.14	1.15	0.0	10	10	16	5	w.	C. S. Zeller.
Great Falls II	Montgomery	200	38	74.5	-1.1	95	14	48	5	32	2.77	-1.38	0.69	0.0	10	12	13	6	sw.	Chas. E. Sullivan.
Hancock (Tonoloway)	Washington	455	17	73.0	-1.9	97	13	44	5	35	3.18	-0.59	0.87	0.0	8	16	11	4	.....	American Fruit Growers.
Keedysville	do	400	23	75.3	-0.2	99	14	48	5	34	3.25	-0.56	1.44	0.0	8	15	12	4	sw.	J. A. Miller.
Laurel	Prince Georges	320	33	74.2	-1.0	96	28	50	5	33	2.60	-2.08	1.37	0.0	9	12	13	6	sw.	Evan G. Chaney.
Lutherville	Baltimore	340	1	74.1	.....	97	14	45	5	38	2.82	.....	0.82	0.0	12	12	13	6	sw.	August W. Clark. P. M.
Maryland Line	Baltimore	840	3	72.8	.....	95	14	51	5	28	4.57	.....	2.00	0.0	8	13	11	7	w.	Chester L. Fulton.
Mechanicsville	St. Marys	165	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Zach. S. Graves.
Millington	Kent	27	30	75.2	-0.9	94	14	49	5	29	5.82	+1.12	2.41	0.0	9	12	11	8	s.	Henry L. Hignman.
Newburg	Charles	110	2	75.2	.....	94	28	50	5	29	4.84	.....	2.45	0.0	11	13	12	6	sw.	John P. Burdette.
Oakland	Garrett	2,461	28	67.2	+0.5	89	13	39	5	39	3.78	-0.91	0.83	0.0	13	12	16	3	w.	R. E. Weber.
Picardy	Alleghany	900	1	72.8	.....	99	13	47	5	34	3.95	.....	1.06	0.0	11	16	11	4	w.	D. E. Catlett.
Pleasant Hill II	Baltimore	660	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. E. Henry.
Pocomoke City	Worcester	37	22	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. Louis L. Williams.
Princess Anne	Somerset	17	52	75.3	-0.7	95	128	49	11	33	6.06	+1.73	1.76	0.0	10	10	14	7	sw.	James R. Stewart.
Public Landing II	Worcester	10	12	73.7	-1.3	94	29	47	1	28	6.76	+2.76	2.39	0.0	11	9	8	14	s.	Louis C. de Guibert.
Ridgely	Caroline	57	6	75.8	-0.3	95	15	50	5	30	4.73	+0.22	1.66	0.0	8	12	10	9	sw.	Albert White.
Rock Hall	Kent	25	13	76.2	-0.6	98	28	49	5	34	2.70	-2.06	0.76	0.0	12	12	7	7	s.	Charles Judefind.
Salisbury	Wicomico	23	22	75.6	-1.0	93	128	50	5	30	5.68	+1.82	2.40	0.0	10	11	16	4	s.	Homestead Dairy Farms.
Solomons	Calvert	20	36	75.6	-2.5	92	28	59	5	24	3.17	-1.10	1.90	0.0	10	7	14	10	sw.	Dr. W. H. Marsh.
State Sanatorium	Frederick	1,460	19	.....	.....	93	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. V. F. Cullen.
Stevensville	Queen Anne	12	1	74.8	.....	92	14	53	5	25	3.31	.....	1.75	0.0	9	12	10	9	sw.	T. R. Price.
Takoma	Montgomery	320	29	74.4	-0.5	93	28	55	5	26	2.18	-2.45	1.14	0.0	9	8	13	10	.....	L. M. Mooers.
Towson	Baltimore	465	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Metropolitan District.
Western Port	Alleghany	1,000	34	72.4	-1.0	94	116	47	5	34	2.80	-0.95	0.90	0.0	11	.....	.....	.....	.....	Norris Bruce.
Westminster	Carroll	770	18	74.0	-1.2	96	114	48	5	31	2.46	-2.06	0.78	0.0	10	12	13	6	.....	Prof. S. P. Caltrider.
Woodstock	Baltimore	415	57	72.8	-2.4	94	114	49	6	34	1.63	-2.51	0.40	0.0	10	12	11	8	sw.	Rev. S. J. Toranish. S. J.
<i>Dist. of Columbia</i>																				
Washington**		112	57	76.4	-0.4	96	14	56	5	27	1.82	-2.83	0.64	0.0	9	8	13	10	sw.	U. S. Weather Bureau.
<i>Delaware</i>																				
Bridgeville	Sussex	45	4	74.8	-1.1	94	28	50	11	33	5.10	-0.07	1.63	0.0	10	13	14	4	sw.	George Ray.
Delaware City	Newcastle	12	41	75.8	-1.0	96	113	48	5	34	4.60	+1.00	3.05	0.0	9	13	12	6	s.	N. W. Wilkinson.
Dover	Kent	34	38	75.8	-0.8	93	113	58	15	30	4.76	+0.10	1.82	0.0	8	13	11	7	sw.	Arthur G. Livingston.
Milford	Sussex	20	45	74.6	-2.1	93	28	51	5	28	7.09	+2.83	2.22	0.0	10	14	10	7	sw.	Chas. J. Holzmuller.
Millsboro	do	20	35	75.2	-0.9	96	28	49	5	31	5.62	+0.96	1.91	0.0	11	14	11	6	s.	Rev. M. P. S. Huntington.
Wilmington	Newcastle	86	34	73.8	-2.7	93	13	43	5	25	5.57	+0.51	2.02	0.0	7	15	9	7	sw.	Street and Water Depts.
For Maryland and District of Columbia.				74.0	-1.0	100	113	39	5	39	3.64	-0.65	3.10	0.0	10	12	12	7	sw.	
For Delaware				75.0	-1.4	96	113	48	5	34	5.46	+0.89	3.05	0.0	9	14	11	6	sw.	
For entire section				74.2	-1.0	100	113	39	5	39	3.86	-0.47	3.10	0.0	10	12	12	7	sw.	

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SUNSHINE AND CLOUDINESS

At Washington 54 per cent of the possible sunshine was recorded; at Baltimore, 63 per cent; at Aberdeen, 62 per cent. For the whole section the average number of clear days was 12; partly cloudy, 12; cloudy, 7.

MISCELLANEOUS PHENOMENA (WITH DATES)

Fogs, dense.—On the coast, early morning, 11; on the coast and over the Eastern Shore and Chesapeake Bay, during night, 11-12.

Hail, light.—Cumberland, 7, 26; Grantsville, 21; Lutherville 27, 30; Towson, 27.

Rainfall, 2.50 inches or more in 24 hours.—On 19th: Aberdeen, 3.10; Delaware City, 3.05. At Aberdeen, 2.61 fell in 1 hour and 40 minutes, and 2.98 in 4 hours.

Thunderstorms.—Not general, 1, 7, 11, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 26, 27, 28, 29, 30.

Winds, high (thundergusts).—Westerly, 7, 15, 18, 30.

NOTES

First locust was heard at Princess Anne on the 11th and at Frederick on the 16th.

On the 7th in Wicomico County one negro boy was killed at Allen and one adult negro at Wetipquin by lightning; a \$4,000 barn and contents were fired by lightning and destroyed, near Salisbury. During the same thunderstorm a barn was blown over, killing two mules and injuring a third, and some buildings were slightly damaged,

Daily Temperatures for July, 1927

Table with columns for Stations, days 1-31, and Mean. Rows list stations like Aberdeen, Annapolis, Baltimore, etc., with their respective temperature readings for each day.

a, b, c, etc. indicate respectively 1, 2, 3, etc., days missing from the 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.