

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU

In Cooperation with Maryland State Weather Service

CLIMATOLOGICAL DATA

15 MARYLAND AND DELAWARE SECTION

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VOL. XLII BALTIMORE, MD., JULY 1937 No. 7

GENERAL SUMMARY

This was the first July with mean temperature cooler than normal since 1933. Monthly rainfall was deficient, except above normal in extreme northwestern Garrett County and in many districts in the eastern half of Maryland.

Temperatures were cool for the season, except warmer than normal during the 7-13th, 15-17th, and 23d-26th.

Monthly sunshine was about 5 per cent above normal.

Rainfall was in the form of summer showers, except for an easterly rain on the 20th, and therefore was unequally distributed over the section. Monthly amounts were below 3 inches in north-eastern New Castle County, the southeastern portion of the Eastern Shore, and over western Maryland, except 3 to 7 inches in northwestern Garrett County; over the remainder of the section the totals varied between 3 and 8 inches.

Heavy thundershowers in the afternoon of the 5th in Harford, Cecil, and northwestern New Castle Counties caused many streams to overflow their banks, and flooded fields and roads. Road damage at Del Haven in Harford County was \$10,000. Flooded roads and some missing small bridges held up about 10,000 autos for many hours near Elkton in Cecil County. At the Delaware Park race track near Stanton, Del., New Castle County, about 20,000 persons were marooned for many hours, due to flooding of the auto parking lot and of the exit tunnel. An auto was swept off the highway as it was crossing the Christina River, at Cooch's Bridge; 2 of the 4 men in the auto were drowned. All roads within a 25-mile radius southwest of Wilmington were under water; portions of some roads and some small bridges were washed away; the first floor of many homes was flooded; 7 autos were washed away; and some farm stock was drowned.

A heavy thundershower in the afternoon of the 22d in the Bear Creek district of northwestern Garrett County washed fields and the highway badly from east of Friendsville to north of Accident.

Growing crops mostly good to excellent and grasses and pastures mostly good declined during the warm and dry weather of the third decade to fair to good, except poor to fair in some

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TEMPERATURE

The monthly mean for the section, 74.9°, is 0.3° below normal. The highest monthly mean was 78.6° at Solomons; the lowest, 66.3°, at Sines. The highest temperature, 100°, occurred at Annapolis on the 9th; the lowest, 39°, at Sines and Oakland on the 28th. The greatest local monthly range was 52° at Hancock; the least, 37°, at Crisfield and Solomons. The greatest daily range was 43° at Hancock on the 28th.

PRECIPITATION

The monthly average for the section, 3.80 inches, is 0.42 inch below normal. The greatest monthly amount was 7.29 inches at Parkton; the least, 1.29 inches, at Keedysville. The greatest 24-hour amount was 3.76 inches at Fallston on the 5th and 6th. The average number of days with 0.01 inch or more of precipitation, 10, is normal.

MISCELLANEOUS PHENOMENA (WITH DATES)

Fogs, light. — 1, 2, 4 to 10, 12 to 16, 18, 20, 23 to 25, 29 to 31. Fogs, dense. — Conowingo Dam, 24; Delaware Breakwater and Dundalk, 7; Ferry Landing, 7, 29, 30; La Plata, 29, 30; Mt. Savage Summit, 5, 6, 13, 14, 15. Hail, light. — Garrett County, north of Accident, 3:15 p.m., 22. Easton, 4 p.m., 26. Hail, moderate. — Newcomb, Royal Oak, and Diamond Corners area in Talbot County; sw. to ne.; path, one-half mile wide, 5 miles long; little damage to crops; 4:30 p.m., 26. Hail, heavy. — Springs, Pa., 3 miles north of Grantsville; width one-quarter mile; corn blades cut into ribbons, 2 p.m., 22. Lightning destroyed 2 barns and disrupted telephone service at Leonardtown and burned out light and power lines from Leonardtown to Piney Point, on 13; damaged church at Royal Oak, on 26; struck a barn, killing a mule, at Princess Anne, on 26; damaged church steeple and disrupted electric light service to many homes in Baltimore, on 26. Thunderbolt wrecked beach house at Ocean City, damage \$500, on 26. Thunderbolts, high—11, 15, 16, 17, 26, 31. Thunderstorms. — 2 to 5, 9, 10, 13 to 18, 22, 23, 25, 26, 30, 31. Tide, high, due to strong south-east wind. — On the coast and in Chesapeake Bay, night 13-day 14. Waterspout. — In Eastern Bay, off McDaniels, nw. to se., 100 to 150 feet wide, 10 minutes duration, no damage; 7:30 p.m., 31.

PRESSURE, HUMIDITY, SUNSHINE, WIND, DEGREE DAYS

Stations	Atmospheric pressure reduced to sea level			Wind			Mean relative humidity			Cooling degree days (base 75°)			
	Highest	Date	Lowest	Date	Average hourly velocity	Maximum velocity	Direction	Date	7:30 a. m.		Local n'n	7:30 p. m.	Percentage of sunshine
Aberdeen, Md.	30.20	28	29.66	16	8.1	21	ne.	5	78	..	74	67	79
Annapolis, Md.	30.19	28	29.71	16	6.8	74	61	76	67	103
Baltimore, Md.	30.19	28	29.71	16	9.3	31	sw.	26	72	53	60	72	128
Belkins, W. Va.	30.27	28	29.82	15	4.8	21	nw.	10	91	59	66	60	4
Harrisburg, Pa.	30.17	28	29.69	16	6.4	24	nw.	16	77	55	61	83	68
Norfolk, Va.	30.20	28	29.79	17	7.6	31	nw.	17	79	58	73	66	153
Philadelphia, Pa.	30.19	28	29.70	1	10.3	29	sw.	26	72	52	61	67	103
Pittsburgh, Pa.	30.22	10	29.70	16	8.7	42	nw.	16	81	53	63	71	36
Washington, D. C.	30.19	28	29.74	16	5.9	24	nw.	11	79	56	65	53	103

COMPARATIVE DATA FOR JULY

Year	FOR MARYLAND						FOR DELAWARE					
	Temperature			Precipitation			Temperature			Precipitation		
	Mean	Highest	Lowest	Average	Average snowfall	No. of days with .01 in. or more	Mean	Highest	Lowest	Average	Average snowfall	No. of days with .01 in. or more
1895.....	71.0	102	32	3.40	0.0	8	72.5	100	52	3.04	0.0	8
1896.....	75.7	99	40	5.39	0.0	11	77.2	99	53	4.71	0.0	11
1897.....	75.6	102	41	6.82	0.0	12	75.9	94	59	8.46	0.0	17
1898.....	77.4	109	32	3.53	0.0	9	77.5	99	51	4.09	0.0	8
1899.....	75.6	100	37	3.45	0.0	10	76.9	98	52	6.11	0.0	10
1900.....	77.2	106	35	3.25	0.0	8	75.7	100	54	2.69	0.0	7
1901.....	78.7	106	40	5.41	0.0	11	80.2	104	59	5.62	0.0	9
1902.....	75.7	104	43	3.76	0.0	10	76.4	104	52	3.22	0.0	9
1903.....	75.1	100	41	5.63	0.0	11	75.3	100	50	4.20	0.0	8
1904.....	73.4	102	35	5.19	0.0	12	74.2	98	51	5.97	0.0	13
1905.....	75.2	101	42	7.63	0.0	14	75.9	101	56	5.25	0.0	12
1906.....	73.9	96	42	5.08	0.0	12	74.9	95	55	6.95	0.0	13
1907.....	74.6	99	39	3.98	0.0	9	75.9	96	53	3.66	0.0	12
1908.....	76.5	102	38	4.80	0.0	11	78.2	100	52	5.46	0.0	10
1909.....	73.1	98	32	1.57	0.0	8	73.9	98	49	2.22	0.0	6
1910.....	75.9	98	42	2.43	0.0	8	77.0	95	51	3.53	0.0	9
1911.....	76.9	106	35	2.67	0.0	6	78.0	102	49	2.87	0.0	7
1912.....	74.2	99	43	5.40	0.0	11	75.4	98	51	4.44	0.0	9
1913.....	75.6	102	38	2.86	0.0	9	77.2	98	50	2.22	0.0	7
1914.....	74.3	101	35	2.74	0.0	10	75.3	99	53	5.43	0.0	10
1915.....	74.2	103	36	3.31	0.0	12	76.4	100	55	3.11	0.0	10
1916.....	75.9	100	42	5.46	0.0	10	76.4	93	58	5.91	0.0	9
1917.....	74.8	102	45	6.41	0.0	14	75.8	100	56	6.07	0.0	13
1918.....	72.4	99	38	3.16	0.0	9	74.0	97	46	2.34	0.0	6
1919.....	75.5	105	41	7.38	0.0	12	75.7	105	47	10.90	0.0	12
1920.....	72.8	98	37	4.65	0.0	9	74.3	96	48	4.89	0.0	9
1921.....	77.6	101	45	4.32	0.0	10	78.4	98	58	3.50	0.0	10
1922.....	74.7	99	43	5.83	0.0	12	75.3	96	56	6.39	0.0	10
1923.....	73.9	101	39	4.48	0.0	11	73.6	97	49	5.58	0.0	10
1924.....	72.9	100	42	2.36	0.0	7	73.7	94	52	3.31	0.0	6
1925.....	74.6	100	36	5.04	0.0	10	76.2	98	49	5.24	0.0	11
1926.....	74.8	107	38	5.21	0.0	12	75.9	102	51	10.47	0.0	14
1927.....	74.0	100	39	3.64	0.0	10	75.0	96	48	5.46	0.0	9
1928.....	75.5	99	40	4.22	0.0	10	76.7	98	51	4.88	0.0	11
1929.....	74.2	101	34	1.76	0.0	7	75.6	102	46	1.28	0.0	8
1930.....	76.9	108	38	1.41	0.0	8	78.3	110	50	3.00	0.0	8
1931.....	77.5	108	44	4.70	0.0	12	78.9	100	55	3.12	0.0	11
1932.....	74.6	99	41	3.10	0.0	9	76.2	91	53	2.44	0.0	9
1933.....	74.0	102	37	5.34	0.0	8	75.0	99	50	5.50	0.0	7
1934.....	78.4	107	42	2.97	0.0	8	78.7	101	52	7.19	0.0	10
1935.....	76.9	101	42	4.23	0.0	10	77.1	97	53	4.33	0.0	9
1936.....	75.8	109	38	4.20	0.0	10	76.1	105	55	4.01	0.0	11
1937.....	74.8	100	39	3.96	0.0	10	76.0	97	53	2.64	0.0	8
Period.....	75.1	109	32	4.16	0.0	10	76.2	110	46	4.62	0.0	10

Climatological Data for July 1937

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 temperatures are computed from the averages of the entire period for stations having 10 or more years of record. Departures of precipitation with 15 years or more of record are computed from a normal or "standard mean", adjusted to a uniform 35-year period; for stations of 10 to 14 years the means for the period of record are used. 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, Glenddale; of Coleman, Worton; of Fallston, Bagley; of Ferry Landing, Owings; of Great Falls, Bethesda; of Mt. Savage Summit, Frostburg; of Picardy, Paw Paw, W. Va.; of Sines, Oakland. *Custom House, Gay and Water Sts. **Weather Bureau Building, 24th and M Sts. †Also on other dates. §Northwest of Frostburg. §§Prettyboy Dam. §§§Municipal Building. §§§§Porter Reservoir.

(Continued from front page) localities, during the last week. Corn was good color, made rapid growth, tasseled, and was earing. During the first decade: The strawberry and early pea harvests ended in Garrett County; harvesting wheat and rye ended, except during the second decade in Garrett County. Cutting oats ended, except in Garrett County. Digging early potatoes and harvesting early tomatoes and early sugar corn began. Planting late potatoes in the central and east-

ern divisions ended. In western Maryland late peas were harvested and late potato plants bloomed. Sweet potato plants vined heavily. Barley was threshed; yields were good. Haying, threshing wheat, rye, and oats, and harvesting early tree fruits, truck crops, and cantaloupes were in progress. Yields of wheat, rye, oats, and early potatoes were fair to good, except poor to fair in some localities. — J. B., jr.

Daily Precipitation for July 1937

Stations	Drainage basin	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.	T.	T.	1.66	.13					T.	T.	T.	.08	.14		T.	T.	.02		.11						.55						.18	
Annapolis**	do.	T.	.04	T.	1.95	T.				.62	.47	.32	T.	.06	.10	.01	T.	T.	T.	T.	.49						.07						1.54	
Baltimore***	do.	T.	.02	T.	.22	T.						.03	T.	.18	.63	.04	T.	T.	T.	T.	.45				.07								1.32	
Bell	do.	.03	.02	T.	.52	T.						.33	.02		.73	.16	T.	T.	T.	T.	.70	T.	T.		.07		.73						.53	
Cambridge (near)	do.	.05	T.		1.50	T.						.10			T.	T.		T.	T.	.94						.60						.78		
Charlotte Hall	do.	*	.31		.90	T.								3.40	T.					*	1.41					.60		.28				.18		
Chesterham	do.	.35	.12	T.	.46	.42						T.	1.12		.17	.02	.04	.10			.35	.42				.60		.10				.19		
Chestertown**	do.	T.	.01	T.	.68	T.						T.	.20		.10	T.	.65	*	.90		.52					.15		.10				1.11		
Cheswille	do.	T.	.10		.01	T.						T.	.44	.06	.02	.11	.69	T.	T.	.12	.13					T.	.01					T.		
Coleman	do.	.08	.05	T.	.35	.86									T.	T.	T.	T.	T.	.69	.36						.44						1.69	
College Park	do.	.03	.06	T.	.50	.01							T.	.02	.28	1.20	T.	.02	T.		.64	.02			T.		.10					1.95		
Conowingo Dam	do.	1.04	T.	T.	.04	1.15							T.	.04	.05	.31	T.	.03		.16	.07				.05		.20					1.30		
Crisfield	do.	.11	.12		.30	.46	T.						.49		.38	T.	.54	T.	.03	.93	.46					.10	.59	.80					4.78	
Cumberland	do.	.03	.42	T.	.08	T.							.04	.17	1.05	.15	T.	.28		.1				.06		.12							4.74	
Darlington	do.	T.	T.	T.	.30	T.							.10	.01	T.	.02	.02	T.	T.	.10	.41					.68							2.38	
Dundalk**	do.	T.	T.	T.	* 1.51	T.									.13	.35	T.	T.	.21	.25					.50		.50						3.24	
Easton	do.	.05	.05	T.	1.59	.08									.02	.02	T.	T.	T.	.41	.98	.08				.68		.90					2.91	
Elkton	do.	.05	T.	T.	3.62	.07									.08	T.	T.	T.	T.	.47	.24	T.	T.	T.	T.	.75		.37					3.90	
Fallston	do.	.10	T.	T.	3.62	.07									.34	.35	T.	T.	T.	.11	.39					.36		.62					6.28	
Ferry Landing	do.	T.	.17		.37	T.								.15	T.	.28		.26	T.	1.04	.08					.65		.09					3.21	
Frederick	do.	.01	T.		.10	T.							T.	.01	T.	1.11			T.	.38						1.18		.12					3.26	
Friendsville	Ohio	T.	1.50	1.20	T.	T.							T.	.90	.20	1.10	T.	.20	.38	T.	.52				.20		.50						6.70	
Frostburg	Atlantic	T.	.78	.02	T.	.02								.21	T.	.43	T.	T.	T.	T.	.04	T.			.04		.20						1.50	
Grantsville	Ohio	.31	T.	.06	.41	.09	T.						T.	.01	T.	.63	.93	.07	.24	.28	.02	T.			.03	T.	T.	.11	.24				3.50	
Great Falls	Atlantic	.95	.06	T.	.40	.25	T.								*	.88	T.	1.30	.12	.15	.22	.34				.10		.12	T.	T.	T.	1.10		
Hancock (City)	do.	.08	.16	.03	T.	.03								.02	1.06	.14	.07	.04	.40	.04	T.	.04				.10		T.					2.17	
Hancock (Tonoloway)	do.	T.	.18	.06	T.	T.							.16	.15	.45	.26	.02	.20	.70	.07	.07					.01	T.						2.26	
Huntingtown	do.	.01	.14		1.47	T.									T.	.21	T.		.08	T.	1.03	.08				.18	*						3.93	
Keadysville	do.	T.	.03		.08	T.								T.	.02	.04	.14	.27	.12	.22					T.	T.	.18						3.81	
La Plata	do.	.05	.18		1.78	T.									.15	.38	T.	.67	T.	T.	1.04	.25				.10	.42						5.02	
Laurel	do.	.02	.05	T.	.46	T.									T.	.03	.49	T.	.01	.03	.53	T.					.88							4.79
Lutherville	do.	.25	T.	T.	1.10	T.								T.	T.	.80	T.		T.	*	.75					.15							2.10	
Maryland Line	do.	* T.	.10		.88	.07								T.	T.	1.22	T.	.29	.17	.17	.02					.92		.05					1.81	
Millington	do.	.05	T.		1.02	.54								T.	.03	T.	.05	T.	.05	.51	.05				.45		.02						1.00	
Mt. Savage Summit	do.	.16	.54	.06	.03	.05								T.	.02	.29	.07	.21	.03	.01	T.	.08				.01		.01						1.58
Oakland	Ohio	T.	.15	.11	T.	T.								T.	.60	T.	.70	T.	.12	.21	.06	T.			.04	.29		.04	.29				.04	
Parkton	Atlantic	.06	T.	T.	1.90	.09									T.	T.	1.33	.49	.71	.32	*	.22				.77		.37					1.62	
Perryville	do.	1.35	T.	T.	.08	1.12									T.	.03	T.	.07	.04	.15	.32	*	.22				.37							3.50
Picardy	do.	T.	.48	T.	T.	T.									.38	.65	.20	.52	T.	.05	T.				.20		.50		.37	.20			.05	1.93
Princess Anne	do.	T.	T.		1.30	T.									.15	T.	.18	T.	T.	T.	.71	.15				.50		.37	.20					3.61
Ridgely	do.	.10	T.	T.	1.15	T.									T.	.12	T.	T.	T.	T.	.68	.05				.82		.82						.46
Rock Hall	do.	T.	T.	T.	.50	T.									T.	T.	T.	T.	T.	.02	.40					.05		.05						1.74
Salisbury	do.	.10	T.		1.00	T.									T.	T.	T.	T.	.22	T.	.84	.09				.73	.13	.20					.08	3.39
Sings**	Ohio	T.	.30	.44	.11	T.									.18	T.	.07	.17	.02	T.	.60	.20			.47		.11	.34					.02	
Snow Hill	Atlantic	.30	T.		.10	.40									T.	.01	.02	.65	.18	1.31	.12					.32	.02	.40						2.90
Solomons	do.	.27	.32		.67	.15									T.	.10	T.	.58	1.22	.04	.18	.09			.08		.20							.75
State Sanatorium	do.	T.	.15		.18	T.									T.	T.	.10	T.	T.	.04	.18	.09				.50		.55						.27
Stevensville	do.	T.	.02	T.	.80	T.									T.	.35	.31	T.	T.	T.	.50	T.				.50		.20						2.10
Takoma	do.	.02	.07	T.	.65	T.									T.	.31	.25	.54	T.	.13	.03	.72	T.			.13		.13						1.92
Western Port	do.	.03	.40	.03	1.0	.02									T.	.30	T.	.92	.40	.27	.07	.08	T.			.02		.02						.80
Westminster	do.	.04	.06		.13	.20									T.	T.	.04	.61		.60	.72				.21		1.08						.47	
Woodstock	do.	T.	T.	T.	.15	T.									T.	T.	.39	.25		.45	.36					.11								1.01
<i>District of Columbia</i>																																		
Washington***	Atlantic	.10	T.	.10	.57	T.								T.	.12	.55	.08	.72	.01	.02	T.				.55		.05						.80	
<i>Delaware</i>																																		
Bridgeville	Atlantic	.09	T.		.51	T.									T.	T.	T.	T.	T.	.84	T.					.59	T.	T.						2.03
Delaware Breakwater	do.	.02	T.		.02	.06									.51				.02	T.	.62	T.				.21	.01	.05						1.52
Delaware City	do.	.16	T.		.08	.16									.05				.11	T.	.41	.23	.01			.85	T.	.44						.84
Dover	do.	.09	T.	.01	.40	T.									.21	.03	.03	T.	T.	.45	.50	T.				.85	T.	.44						2.49
Milford	do.	.17	T.	T.	1.25	T.									.78	T.	T.	T.	T.	T.	.82	.08				.48	T.	.48						3.62
Millsboro	do.	.11	T.		.17	.71									T.	T.	T.	T.	T.	T.	.92	.14				.70	T.	.25						3.00
Odessa	do.	.05	T.		.14	.50									T.	.10	T.	.05	T.	.14	.14	T.			.70	T.	.70						.22	
Wilmington	do.	.45	T.	T.	.1	.50									T.	T.	.17	.02	T.	.07	.14					.45		.45						2.20
Wilmington	do.	.40	T.	T.	T.	.55									T.	T.	.21	.04	T.	.09	.13	</												

Daily Temperatures for July 1937-Continued

Table with columns for Stations, 31 days (1-31), and Mean. Rows include Maryland stations (Aberdeen to Woodstock) and District of Columbia (Washington). Each station entry includes Maximum and Minimum temperature values 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, Chestertown, Conowingo Dam, Dundalk, Sines, and Washington are from midnight to midnight; other stations, except Cheltenham and Cumberland, are for 24-hour period ending late in afternoon, near sunset.