# CLIMATOLOGICAL DATA

# 15 MARYLAND AND DELAWARE SECTION

### J. R. WEEKS

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Vol. XLII Baltimore, Md., Year 1938

No. 13

### GENERAL SUMMARY

There was no severe cold during January, February, and March. Winds were strong to gale force during January 24-25. Northwest gales of February 28 felled a greenhouse chimney at Maugansville, damage, \$500; piled several fishing vessels on a sand reef off Tangier Island and wrecked a power boat which attempted to salvage them; and felled 15 telephone poles in Anne Arundel County. March was windy. Maximum of 88° on March 22 was the highest temperature recorded in March since 1921. April 2-11 was cold and windy. Freezing temperatures and frosts of April 11 damaged peach and pear blossoms and strawberry buds in the eastern and central divisions and of April 23 and 24 damaged peach and pear blossoms and apple and strawberry buds in the western half of the section. On April 18 a tornado moved from Newark northeastward through Wilmington to Edgemoor and caused a property loss of \$50,000. On April 29 heavy hall over an area 20 to 25 miles wide and 110 to 115 miles long, from southern Montgomery County and the District of Columbia east-southeastward to the coast of Sussex County, caused property, crop, and tree fruit losses of \$200,000 to \$250,000. May was mostly cool with frequent rains, except the first week was warm and sunshiny. Freezing temperatures and frosts of May 12 and 13 damaged wheat, rye, tree fruits, and strawberry blossoms in the Allegheny Mountain region and growing crops, tender grasses, strawberries, and strawberry blossoms over the mainder of western Maryland. A thundergust unroofed a factory building at Hagerstown at nightof May 21. A waterspout passed over the Susquehanna Flats in upper Chesapeake Bay from north of to northeast of Aberdeen on June 23; no damage. Heavy showers of June 26-27 yielded 4 to 8 inches of rain in 24 hours in Cecil, eastern Kent (Md.), and New Castle Counties. The first half of July 16 a tornado developed at 3 a.m. in extreme northeastern Carroll County, moved east-northeastward, and terminated at 3:45 a.m. in extreme southeastern York County, Pa.; loss of crops and property

# CONDENSED SUMMARY OF CLIMATOLOGICAL DATA 1938

	т	empera	ture			Precipit	ation	Numb	direction				
Months	Mean	Departure from the normal Highest		Lowest	Average	Departure from the normal	Greatest in 24 hours	Snowfall	With 0.01 inch or more of precipitation	Clear	Partly cloudy	Cloudy	Prevailing directly of wind
January. February March April May June July August. September October November December	33. 6 38. 9 46. 9 54. 8 61. 3 70. 2 75. 9 65. 8 65. 8 65. 7 47. 9 36. 3	$\begin{array}{c} -0.1 \\ +5.3 \\ +4.5 \\ +3.0 \\ -1.1 \\ -0.6 \\ +3.0 \\ -1.9 \\ +0.6 \\ +2.8 \\ +0.9 \end{array}$	67 76 88 94 96 98 98 100 92 92 85 68	-2 4 6 19 23 35 42 38 32 19 -8 -1	2.53 2.72 1.77 4.34 4.13 7.33 2.71 6.11	-0.98 -0.41 -0.85 -1.68 +0.93 +3.11 -1.88 +2.94 +0.34 -0.49	1.71 2.28 1.25 1.23 2.33 7.83 8.20 3.45 4.00 1.50 1.98 2.21	2.1 2.1 3.7 0.2 0.0 0.0 0.0 0.0 0.0 0.0 8.3 2.5	111 9 14 8 15 10 14 6 13 7 10	9 8 12 14 11 12 17 9 19 16 9	8 8 7 5 10 12 11 12 9 7 8	14 12 12 11 10 7 8 2 12 5 6 12	nw. nw. sw. sw. sw. sw. sw. ne. nw. sw.

#### **KILLING FROSTS 1938**

	Stations	Last in Spring	First in Autumn	Stations	Last in Spring	First in Autumn
	Maryland		[	Maryland (con.t.)		
	Aberdeen	Apr. 11	Nov. 10	Maryland Line	Apr. 11	Nov. 16
:	Annapolis	Mar. 11	Nov. 24	Millington	Apr. 11	Oct. 8
	Baltimore	Apr. 11	Nov. 10	Mt. Savage Summit	May 25	Oct. 3
	Bell		Oct. 8	Oakland	May 25	Oct. 3
	Boyds	Apr. 24	Oct. 8	Oxford	Mar. 11	Nov. 24
	Cambridge	Apr. 11	Nov. 10	Parkton	Apr. 11	Nov. 24 Nov. 16
,	Charlotte Hall	Apr. 11	Nov. 10		Apr. 11	Nov. 24
	Cheltenham			Perryville		
	Chestertown			Picardy Pleasant Hill	May 13	
	Chestertown	Apr. 11			Apr. 24	Oct. 8
ı	Chewsville		Oct. 7	Princess Anne	Apr. 11	Nov. 1
	Clear Spring	May 13		Ridgely	Apr. 11	Nov. 10
	Coleman	Apr. 11	Nov. 16	Rock Hall	Apr. 11	Nov. 10
Į	College Park	Apr. 24	Oct. 8	Salisbury	Apr. 11	Nov. 1
ı	Conowingo Dam	Apr. 11	Oct. 8	Sines	May 25	Oct. 2
١	Crisfield	Mar. 11	Nov. 24	Snow Hill	Apr. 11	Nov. 1
ı	Cumberland	May 13	Oct. 8	Solomons	Mar. 11	Nov. 24
ı	Darlington	Apr. 11	Nov. 1	State Sanatorium	Apr. 11	Nov. 16
ı	Dundalk		Nov. 10	Stevensville	Apr. 11	Nov. 24
ŀ	Easton	Apr. 11	Nov. 10	Takoma	Apr. 11	Nov. 10
	Elkton	Apr. 11	Oct. 8	Towson	Apr. 11	Nov. 10
1	Emmitsburg		Nov. 10	Western Port		Oct. 8
1	Fallston	Apr. 11	Nov. 16	Westminster	Apr. 11	Oct. 8
i	Ferry Landing	Apr. 11	Nov. 10	Woodstock	Apr. 24	Oct. 8.
	Frederick	Apr. 24	Oct. 8	District of Columbia		
1	Friendsville	May 25	Oct. 3	Washington	Mar. 11	Nov. 24
Į	Frostburg	May 13	Oct. 7	}		
Į	Georgetown	Apr. 11	Nov. 16	Delaware		
ľ	Grantsville	May 25	Oct. 2	Bridgeville	Apr. 24	Nov. 1
Į	Great Falls	Apr. 11	Oct. 8	Delaware Breakwater	Apr. 11	Nov. 24
ł	Hancock	May 13	Oct. 2	Delaware City	Apr. 11	Nov. 16
	Huntingtown	Apr. 11	Nov. 10	Dover	Apr. 11	Nov. 16
ı	Keedysville	Apr. 24	Oct. 7	Milford	Apr. 24	Nov. 1
i	La Plata	Apr. 24	Nov. 1	Millsboro	Apr. 24	Nov. 1
į	Laurel	Apr. 11	Nov. 10	Odessa	Apr. 11	Nov. 16
ĺ	Lutherville	Apr. 24	Oct. 8	Wilmington	Apr. 11	Nov. 16
ł					[	

## COMPARATIVE DATA FOR THE YEAR

		FOR	MAR	FOR DELAWARE									
,	Ter	nperat	ure	Pre	cipita	tion	Tei	mperat	ture	Pre	eipita	tion	
Year	Mean	Highest	Lowest	Average	Average snowfall	No. of days with .01 in. or more	Mean	Highest	Lowest	Average	Average	No. of days with .01 in. or more	
1895 1896 1897 1896 1897 1898 1899 1990 1901 1902 1908 1908 1909 1909 1910 1911 1912 1918 1914 1915 1918 1914 1915 1918 1919 1919 1910 1911 1912 1922 1923 1924 1925 1928 1929 1921 1921 1922 1923 1924 1925 1928 1928 1938 1938 1938	68. 5 64. 8 63. 4 63. 5 63. 6 63. 5 63. 5 64. 5 65. 9 65. 9 65. 9 65. 7 65. 9 65. 9 65	102 100 102 109 102 106 106 106 107 104 109 102 102 102 103 101 102 103 104 104 105 106 106 107 107 107 108 108 108 108 108 108 108 108 108 108	-18 -13 -12 -20 -26 -15 -15 -15 -11 -13 -20 -15 -11 -13 -20 -15 -11 -13 -20 -15 -11 -13 -20 -15 -11 -13 -20 -15 -11 -13 -20 -15 -11 -13 -20 -15 -11 -13 -20 -15 -11 -13 -20 -15 -11 -13 -20 -15 -11 -13 -20 -15 -11 -13 -20 -15 -11 -13 -20 -15 -11 -13 -20 -10 -15 -23 -20 -10 -10 -15 -23 -20 -10 -10 -15 -23 -20 -10 -10 -10 -10 -10 -10 -10 -10 -10 -1	34.67.38.69.44.53.65.29.84.69.40.10.44.58.40.69.46.79.38.65.29.40.10.10.10.10.10.10.10.10.10.10.10.10.10	36, 5 4, 4 7 35, 9 8 40, 4 7 35, 9 8 40, 4 7 35, 9 8 4 8 4 23, 2 4 6, 9 4 23, 2 6 6 7 20, 5 6 7 25, 6 7 25, 6 7 25, 6 7 25, 6 8 20, 9 21, 9 6 4 6, 3 2 20, 5 6 7 20, 9 2 20, 9 8 200, 9 8 200, 9 8 200, 9 8 200, 9 8 200, 9 8 200, 9 8 200, 9 8 200, 9 8 200, 9 8 2000	91 91 90 108 109 109 109 109 109 109 109 109 109 109	55. 8 55. 0 64. 6 55. 7 64. 2 56. 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	101 103 97 99 100 104 104 104 109 99 101 108 98 96 102 99 99 101 101 101 102 102 99 100 102 102 102 102 103 104 104 105 106 107 107 108 108 109 109 109 109 109 109 109 109 109 109	-4 0 3 3 0 -14 3 1 -10 -6 5 5 3 3 -1 6 -4 112 -10 0 1 5 5 -7 -10 0 1 1 4 1 1 -1 5 2 2 -11 1 6 6 -7 5 9 7 -15 9 7	37, 13 40, 99 46, 81, 44, 111 42, 191 44, 111 42, 191 44, 114 43, 625 44, 144, 114 45, 625 44, 145, 145, 147, 147, 147, 147, 147, 147, 147, 147	$\begin{array}{c} 13. \ 1\\ 4. \ 5\\ 10. \ 7\\ 7\\ 42. \ 5\\ 8. \ 3\\ 22. \ 5\\ 8. \ 3\\ 22. \ 5\\ 8. \ 3\\ 27. \ 7\\ 11. \ 2\\ 23. \ 4\\ 4. \ 7\\ 23. \ 4\\ 23. \ 4\\ 24. \ 7$	95 96 111 108 96 81 99 97 96 122 127 105 106 120 99 90 98 103 107 108 108 109 108 109 109 109 109 109 109 109 109 109 109	
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# Climatological Data for the Year 1938

		1	[ ]	lempe	rature	, degrees	Fahre	nheit	1		Pr	ecipitati		Sky			Ħ			
Stations	Counties	Elevation, fect	Length of record, years	Annual mean	Highest	Date	Lowest	Date	Length of record, years	Total for the year	Greatest monthly	Month	Least monthly	Month	Total snowfall	Number of rainy days	Number of clear days	Number of partly cloudy days	Number of cloudy days	Prevailing direction of wind
Maryland Aberdeen. Annapolis Baltimore (U.S.W.B.) Bell § Boyds Cambridge (near) Charlotte Hall Cheltenham Chestertown Chewsville Colenan § College Park Conowingo Dam Cristield Cumberland Darlington Dundalk Easton Elkton Elkton Emmitsburg Fallston § Ferry Landing § Ferry Landing § Frederick Friendsville Great Falls § Georgetown Grantsville Great Falls § Hancock (Tonoloway) Huntingtown Keedy sville La Plata Laure Lutherville Maryland Line Millington Mt. Savage Summit § † Oakland Oxford. Park ton (Pretty boy Dam Perryville Picardy § Pleasant Hill § Princess Anne Ridgely Rock Hall Salisbury Sines (Deep Creek) § Snow Hill Solomons State Sanatorium Stevensville Takoma Towson Western Port Westminster Woodstoek District of Columbia Washington (U.S.W.B.) Delaware Bridgeville Delaware Bridgeville Delaware Westminster Woodstoek District of Columbia Washington (U.S.W.B.) Pelaware Breakwater Delaware Breakwater Delaware Bridgeville Delaware Gity Dover Milford Millsboro Odessas Wilmington \$\sqrt{1}{2}{3}{3}{3}{3}{3}{3}{3}{3}{3}{3}{3}{3}{3}	Anne Arundel Prince Georges Montgomery Dorchester St. Marys Prince Georges Kent Washington Kent Prince Georges Harford Somerset Allegany Harford Baltimore Talbot Ceeil Frederick Harford Calvert Frederick Garrett Montgomery Washington Charles Prince Georges Harford Calvert Frederick Garrett Allegany Ceeil Garrett Montgomery Washington Charles Prince Georges Allegany Baltimore Ceeil Allegany Baltimore Somerset Caroline Kent Worcester Carvett Frederick Queen Annes Montgomery Baltimore Allegany Baltimore Somerset Caroline Kent Worcester Calvert Frederick Queen Annes Montgomery Baltimore Allegany Carroll Baltimore Sussex  do New Castle Kent Sussex  do New Castle New Castle	450 120 120 120 120 120 120 120 120 120 12	l l	55. 2 5 5 5 6 6 6 6 7 8 5 6 6 6 6 7 8 5 6 6 6 8 8 8 6 7 7 2 6 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7	96 95 98 98 99 99 96 98 98 99 99 96 98 98 98 99 99 99 99 99 99 99 99 99 99	Aug. 16.	133 10 11 11 11 11 12 12 12 14 1 11 11 11 11 11 11 11 11 11 11 11 1	Mar. 4 Jan. 28 Nov. 26 Jan. 19 Jan. 19 Nov. 26 Jan. 27 Nov. 26 Jan. 27 Nov. 26 Jan. 29 Nov. 26 Nov. 26 Jan. 29 Nov. 26	52 51 56 46 2 45 27	39. 61 35. 29 34. 29 35. 87 36. 21 46. 33 48. 19 41. 27 36. 26 46. 28 30. 96 46. 28 30. 96 46. 28 30. 96 46. 28 30. 97 40. 97 40	5.77 7.20 6.94 9.69 9.69 6.86 8.81 9.22 6.86 6.74 9.60 6.24 9.72 6.24 9.72 6.24 9.72 6.24 9.72 6.24 9.72 6.24 9.72 9.72 9.73 9.74 9.74 9.74 9.74 9.74 9.74 9.74 9.74	Sept. July Sept. Sept. July July July July July July July July	1.61 1.40 1.44 1.44 1.15 1.15 1.19 1.108 1.19 1.108 1.17 1.14 1.25 1.24 1.24 1.25 1.24 1.25 1.36 1.17 1.24 1.25 1.36 1.17 1.24 1.25 1.36 1.17 1.24 1.25 1.36 1.17 1.26 1.27 1.36 1.28 1.28 1.28 1.28 1.28 1.28 1.28 1.28	Apr. Aug. Apr. Oct. Aug. Apr. Oct. Apr. Apr. Apr. Apr. Apr. Apr. Apr. Apr	17. 9 16. 3 16. 7 16. 3 17. 2 6 18. 5 19. 3 17. 2 6 19. 3 17. 5 6 19. 6 11. 5	142   133   139   127   108   136   137   138   128   139   128   128   129   140   140   141   151   152   153   153   160   161   161   161   162   163   163	94 102 109 133 166 178 168 168 135 164 148 170 169 169 177 111 111 188 170 169 169 169 169 169 169 169 169 169 169	116 (122 108 120 109 109 118 109 109 118 109 109 118 109 109 109 109 109 109 109 109 109 109	142 89 · 94 108   90 86   91 104   108 108   108	SW.
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(Continued from front page)
tornado moved northeastward from Glencoe to Corbett in Baltimore
County and caused \$3,000 property damage and \$500 corn crop loss. The
first and third decades of September were dry; the middle decade was
very wet. Heavy rain fell over north-central and southern Maryland
during September 19-20 and over the Eastern Shore during September
19-21. Dry sunshiny weather characterized October. Mild and warm
weather during November 1-23 was followed by unseasonable cold during
November 24-29. Thanksgiving Day, November 24, was featured by the
heaviest snowfall of record in November. Snowfall was moderate to heavy
Christmas morning in northern Garrett County and was heavy December

26-27 in Allegany County.

26-27 in Allegany County.

This was the first warm year since 1933. February, March, and August were warm; April, November, and December were mild; May and September were cool. Monthly temperature was normal in January and October, slightly below normal in June, and slightly above in July.

Annual precipitation was the least since 1931. It was deficient over the section, except well above normal over the southern portion of southern Maryland and over the Eastern Shore. April, August, and October were dry. Precipitation was below normal in January, February, March, and December; normal in June; above normal in May and November. July and September were wet.

Annual snowfall averaged seven-tenths of normal and was the least since 1931. No (Continued on next page)

# Wonthly and Annual Precipitation for the Year 1938 with Departures from the Normal

Monthly and Annual Precipita									on fo	or the	e Year 1938 with Departure							s from the Normal								
	January February March			rch	April May					ine	J1	ıly	Au	gust	Sept	ember	Oct	ober	Nov	ember	December		Ann	nual		
Stations	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure
Maryland	0.00		1 0 40	1.000	0.01	1 10			0.00				- 0-		0.00			. 0 01	. 05	0.00	2.0=			اند ه		
Aberdeen	2.08 1.76	-1.03 $-1.79$	3.40	+0.39 $ -1.26$	2, 01 1, 64	-1.49 $-2.15$	$1.61 \\ 1.20$	-1.74 $-2.50$	3.30 4.22	+0.35 +0.68	4. 99	+1.52 $-0.25$	5. 31 7. 27	+1.17 $+2.74$	3.86 1.16	-1.09 $-3.80$	5. 77 5. 87	+2.31 +2.41	1.85	-0.83 $-1.74$	2.97	+0.54 -0.25 -0.45 -0.03 +0.20	2. 46 2. 34	-0.65 $-1.20$	39. 61 35. 22	-0.6
Baltimore (U.S.W.B.)	2, 23 2, 64	-1.27 $-0.91$	$\begin{bmatrix} 3.10 \\ 3.27 \end{bmatrix}$	-0.29  +0.32	$\begin{vmatrix} 2.44 \\ 2.14 \end{vmatrix}$	$\begin{vmatrix} -1.27 \\ -2.25 \end{vmatrix}$	1.40	-1.74 -2.50 -1.94 -2.48 -1.09	4.86 3.77	+1.32 +0.31	1. 49 2. 41	-2.39 $-1.73$	4.87	+0.23 $-0.04$	2. 43 1. 89	$-1.94 \\ -2.95$	5.05 6.94	+1.68 +3.78	2. 15 1. 93	-0.74 -1.07	$\frac{2.11}{2.57}$	-0.45 -0.03	2.66	-0.71 $-0.82$	34. 79 35. 87	-7.7
Bell Boyds Cambridge (near) Charlotte Hall Cheltenham Chestertown Chewsville Clear Spring Coleman College Park Conowingo Dam Crisfield Cumberland	2. 26 2. 36	-0.68	2.14 3.01	-0.52	$\frac{2.76}{3.05}$	-0.36 $-0.96$	1.95 2.02	-1.09	3.25 4.89	+0.26 +1.55	2.14	-1.92 -0.23	5. 25 9. 69	$^{+1.75}_{\pm 5.45}$	4.23	+0.24 $-4.64$	5. 74 6. 91	+3.12 +3.88	1, 66 2, 42	-1.11 $-0.89$	2, 21 3, 22	+0.20 +0.61	2.62	-0.23	36. 21 46. 33	-0.8
Charlotte Hall	2.43	-0.63	2.99	-0.25	*2.80	-0.36	*1.50	-2.28	*5. 55 5. 48	+1.64	5.54	+1.83	8.81	+4.55	4. 42	-0.16	6.73	+3.32	1.80	-1.10	3.34	+1.05	2.28	-0.61	48. 19	+7.0
Chestertown	2.36	-1.10	2. 71	-0.44	2.80	-0.80	1.69	-1.61	4.28	+0.90	4. 32	+0.48	6.01	+1.17	2.65	-2.33	7.40	+4.28	2.32	-0.49	2.94	+0.28	2.80	-0.62	42. 28	-0.
Clear Spring	1.15	-1.69 $-1.57$	2. 32	-1.26 $-0.43$	*2. 9t	-0. 62 -0. 46	2.01	-1. 16 -1. 45	4.79	+1.59	3. 93	-0.10	3.84	-0.08	5.75	+2.12	3. 22	+0.14	1.00	-1.00	2.90	+0.85	3, 89	#1.27	36, 56	-0
Coleman	$\begin{bmatrix} 2.40 \\ 2.70 \end{bmatrix}$	-0.95 -0.53	$\begin{vmatrix} 2.69 \\ 3.28 \end{vmatrix}$	-0.34	2, 62 2, 32	-0.89 -1.18	2. 29 1. 59	-1.15 $-1.83$	3.80 3.80	+0.46 +0.27	3. 11 1. 77	-0.59 -2.25	6. 60 4. 63	+2.03[ $+0.71]$	2. 48 4. 34	-2.35[ $-0.07[$	6. 81 5. 44	+3.45 +2.23	2.02	-0.86 $-1.19$	2.55 1.58	+0.01 $-0.82$	3. 54 - 2. 30 -	-0.01 -0.90	40. 91 35. 26	-1.1 $-5.0$
Conowingo Dam Crisfield Crisfield Cumberland Darlington Dundalk Easton Elkton Emmitsburg Fallston Ferry Landing Frederick Friendsville Frostburg Georgetown Grantsville Great Falls Hancock (Tonoloway) Huntingtown Keedysville La Plata Laurel Luke Luke	2.01	-0.26	2.48	0 -0 27	2. 28	+0.24	1.79	-1 87	3.27	-0.64	7.46	+3 24	9.72	 10 89	2.63	-3 64	7.42 9.25	+6.64	1.92 2.68	-0 33	2.00	+0.26	3. 28	-1 42	46. 26 53. 78	+12.5
Cumberland	1.92	-0.76	1.04	-1.30	2. 58	-0.44	1. 29	-1.80	3. 45	+0.12	2. 22	-1.90	6. 86	+3.78	2. 15	-1.65	2.97	+0.34	0.95	-1.59	2. 47	+6.52	2.14	-0.57	30.04	-5.
Dundalk	2.26	1.25	2.67	-0.99	2. 64	0.04	1.56	~1.41	4.65	-0.09	1.54	+2.10	6.24	+ 5, 51	3.56	-2.00	5. 37	+0.02	1.62	-1.12	2. 43	0.23	2.73	+0.17	37. 25	+1.4
Elkton	2.55	-0.59 $-1.20$	3.62	1+0.76	2.06	-0.05	2.04	~1.76 -1.49	2.89	+3.24 -0.77	4.36 9.32	+0.34	6.51	+7.36 +2.48	6. 17	-4.16	7. 15	+4.00 $+4.76$	2.67 1.74	-0.61 $-1.67$	$\frac{2.39}{3.43}$	+0.67	$\frac{2.95}{2.75}$	-0.21 -0.09	49.34 50.97	+8.9 +6.9
Emmitsburg	1.89 $2.27$	-1.52 $-1.30$	1. 92 2. 45	2 - 1.18 - 0.66	2.71	-1.27	1.92	-1.60	$\begin{vmatrix} 4.72 \\ 3.05 \end{vmatrix}$	+0.80 -0.24	*2.90 3.90	$\begin{bmatrix} -1.71 \\ -0.20 \end{bmatrix}$	*6.00 7.51	+1.89 +3.35	*2.10 3.91	$ \begin{array}{r} -2.34 \\ -1.27 \end{array} $	5. 17: 7. 00:	+1.69 +3.35	$\frac{1.76}{2.17}$	-1.76 $-1.25$	$\frac{4.11}{2.17}$	+1.42 -0.58	$\frac{3.84}{2.47}$	+0.58 $-1.13$	39.04 40.94	-5.0 -3.
Ferry Landing	2.01	-1.31	2.52	2-0.29	2. 28	-1.16	1.34	-2.38	4. 92 5. 06	+1.59	3, 74	-0.51	7.39	+2.44	2.06	-2.94	7.18	+3.84	2.26	-0.73	2.57	+0.18	2.42	-0.68	40, 69	-1.5 -1.5
Friendsville	2.87	-0.71	3.9	+1.12	4.6	+0.50	2. 91	-0.58	5.62	+1.87	4. 19	-0.52	6.70	+2.36	3.02	-0.96	4.45	+1.66	1. 23	-1.73	3. 28	+0.77	2. 12	-1.53	44.97	+2.
Georgetown	$\begin{bmatrix} 1.56 \\ 2.33 \end{bmatrix}$	1. 85	2. 62	[2]	2. 15	5	1.46	-2.32	$\begin{array}{ c c c c } 4.92 \\ 4.23 \end{array}$	+1.09	5. 33	-0.91	7.03	+0.42	3.09	2.60	7. 40	-0.63	1. 92	-2.27	2. 14 3. 31	-0.24	2.81	-0.58	29. 67 43. 34	11. 8
Grantsville	2, 59 2, 29	-1.00 $-0.81$	*3, 65 2, 51	0 + 0.53 0 - 0.05	*3, 80 2, 38	-0.18  -0.83	*3, 00 1, 95	-0.77 $-1.27$	5. 10 4. 20	+1.05 +0.99	*4.20 1.92	-0.25 $-1.98$	7, 04 3, 98	+3.01 $+0.04$	1.65 4.45	-2.62 $+0.33$	3. 41 4. 28	$+0.60 \\ +1.00$	1, 43 *1, 91	-1.51 -0.96	$\frac{2.93}{2.79}$	+0.23   +0.68	2.72 3.07	-0.81 -0.07	41.52 35.73	-1.7 $-2.9$
Hancock (City)	1.08	-1.47	0.90	-1.38	2.62 2.59	-0.48	1.13	-2.30 -2.22	5, 02 4, 44	+1.84	2.33	-2.49	4.33	+1.03	1.15	-2.59	3.70	+0.87	1.73	-1.43	2. 13	+0.17	3.36 3.27	+0.65 +0.56	29, 48	—7. 9 —7. 9
Huntingtown. Keedysville La Plata Laurel Luke	2, 25	2.01	2. 92	2	2, 26		1.27	-1.37 $-1.79$ $-2.26$	6. 26	1 5	4.64	0.07	8.95		1. 26		7.70	10.25	2.38		3. 15	1 40	2.29	10.00	45. 33	
La Plata	2.97	-0.25	3.1	+0.51	2, 9	-0.42	1.82	-1.79	5.36	+1.98	5.00	+0.96	9. 79	+5.22	1.76	-2.64	6.07	+2.95	1.91	-1.03	3. 32	+1.03	2. 71	-0.90	46. 78	+6.
Luke	$\begin{bmatrix} 2.58 \\ 1.25 \end{bmatrix}$	-0.77	2.48 1.32	$\frac{9}{2} - 0.26$	$\begin{bmatrix} 1.96 \\ 2.49 \end{bmatrix}$	(-1, 71)	1.35	-2.26	3.48 5.40	+0.04	$\frac{1.49}{3.21}$	-2.65	$\frac{4.95}{3.97}$	+0.77	3.46 1.75	-1.43	5. 29 3. 07	+2.04	1. 62	-1.31	$\frac{1.62}{2.30}$	-0.84	2.31 1.64	-1.10	32. 60 29. 31	—9.
Maryland Line	12.26	-1.11 $-1.59$	2.82	2 -0.21 0 -1.50	$\begin{vmatrix} 2.36 \\ 3.26 \end{vmatrix}$	-1.60	1.80	-3.03 -1.14 -1.78	3, 60	+0.14 $+0.20$	2.55 3.59	-1.70 $-0.55$	6.65 8.38	+3.45 +3.40	1, 80, 3, 05	-3.71 -2.15	5 19	+1.60	9 11	-0 Q1	9 00	LO 21	9 86	1-0 oc	42 971	-9
Millington	2. 60 1. 45	-0.86	3. 36	+0.18	2.49	-1.35	1.74	-1.78	3. 95 3. 73	+0.72	6.81	+3.24	7. 15 4 63	+2.43	5.00	+0.18	7.97	+4.58	2.09 0.64	0. 94	3.58	+0.93	3.24	-0.43	49.97	+6.8
Oakland	2. 24	-1.55	3.4	+0.19	3.96	-0.04	3.03	-0.89	7.11	+2.74	4.17	-0.61	9.38	+4.72	2, 68	-1.60	2, 86	-0.21	1.03	-2.27	4.00	+1.18	1.99	-1.93	45.92	-0.2
Oxford	$\begin{vmatrix} 2.24 \\ 2.22 \end{vmatrix}$		2. 18	9 3	2.1	3	1.79		3.17		2.90		5. 74		4.01		4. 94		$\frac{2.19}{2.28}$		2. 92		2.87		37. 15	
Perryville	$\begin{bmatrix} 1.81 \\ 1.38 \end{bmatrix}$	-1.08	$3.24 \\ 1.13$	$\frac{1}{5}$	$\begin{bmatrix} 2.00 \\ 2.48 \end{bmatrix}$	-0.70	1.29 $1.22$	-2.83	3. 57 5. 01	+1.80	4, 21 2, 72	-0. 92	8.05 5.02	+2.50	3, 01 1, 86	-i. 97	7.55 4.30	+1.60	1.72 $1.50$	-2.04	1.99 2.62	+0.75	2. 72 3. 53	+1.20	$\frac{41.21}{32.79}$	-2.
Pleasant Hill	2.25	-1.41	2.39	-0.59	2. 23	3 - 1.30	1.95	-2.15	4. 10 3. 50	+0.39	2.94	-1.09	5.18 $12.36$	+1.57 +8.21	2, 75	-1.93 $-2.03$	6.41 $9.72$	+2.73 +6.82	2.59	-1, 10 -0, 39	2 99	-1.10	3.11	+0.37	37. 80 56. 50	-5.1
Ridgely	2.64	-0.44	3. 28	+0.49	2. 18	-1.31	1.63	-1.69	5.72	+2.40	5.06	+1.27	10. 79	+6.42	1.79	-3.13	6.54	+3.42	1.72	-1.26	3. 22	+0.62	2.62	-0.64	47.19	+6.
Salisbury	3.57	+0.25	*2.60	-0.63	4.00	+0.12	2. 10	-1.14	3.15	+0.03	5. 30	+1.58	9.75	+5.79	2. 45	-2.78	8.78	+5.35	3.70	+0.50	3.20	+0.59	2.40	-1.02	51.00	+8.
Snow Hill	$\frac{2.12}{3.90}$	+0.70	3.38	0.19	3.60	+0.12	2. 20	-0.72 -0.92	2, 10	-0.57	7.80	+0.82 +4.59	11.20	+3.19 $+7.60$	0.80	-3, 96	8, 20	+5.40	3. 90	-2.86	2.90	+0.55	2.40	-1.00 -1.35	45. (0) 52. 00	+12.
Farkton (Prettyboy Dam). Perryville. Picardy. Pleasant Hill Princess Anne Ridgely. Rock Hall Salisbury. Sines (Deep Creek). Snow Hill Solomons. State Sanatorium. Stevensville. Takoma Towson. Western Port. Westminster. Woodstock.	$\begin{vmatrix} 2.83 \\ 1.90 \end{vmatrix}$	+0.01 $-1.51$	2.08 1.68	3 - 0.51 3 - 1.20	3, 48 3, 31	3 + 0.16 2 - 0.18	$\begin{bmatrix} 1.39 \\ 1.81 \end{bmatrix}$	-1.59 $-1.71$	4.84	+1.98 +0.53	5.17	+2.05 -1.96	9.57 6.06	+5.44 $+2.04$	$\frac{2,90}{1.78}$	-1.31 -2.58	7.70 4.84	+5.06 +1.24	2. 70 1. 42	+0.31 -2.10	$\begin{bmatrix} 3 & 47 \\ 3 & 80 \end{bmatrix}$	+1.63 +1.21	2.89 4.28	+0.17 +1.12	49.02 38.42	+13. -5.
Stevensville	2, 26	1.80	3.40	$\frac{1}{3} + 0.15$	3.98	-0.16	1.82	-2.65	5.00 3.59	+1.16	4. 01 2. 64	-0.31	5.65	+1.81 $+3.38$	0.98	-4.49	6. 86 5. 43	+4.22	2.18	-1.12	2.78	+0.05	2.54	-0.39	41.44 38 59	$\frac{-2}{-1}$
Towson	2.76	- 0. 68	3, 10	+0.20	2.8	0.64	2.32	1. 20	3. 94	+0.75	3.14	-0.73	5. 92	+1.59	1.71	-3.13	6. 28	+3.13	2. 73	-0.39	2.52	0.17	3.14	-0.16	40.38	1.
Westminster	$\begin{bmatrix} 1.47 \\ 2.12 \end{bmatrix}$	-1.31	1.9	-1.19	3.09	-0.10	$\frac{1.00}{2.13}$	-1.33	4.10	+0.69	2.86	-1.32	4. 83	+0.50	2.43	-2.21 $-2.46$	5.64	+1.94	1.91	-1.62	2.40	+0.65	$\frac{1.72}{3.20}$	-0.73 -0.17	37.14	-6. -5.
Woodstock	2.16	-1.09	2.33	3 -0.39	1, 98	3 1. 39	1.64	1.68	4.48	+1.17	2.97	-1.01	3.75	-0.45	2.04	-2.45	5, 23	+2.04	1.91	-0.96	2.07	0.38	$\begin{vmatrix} 2.73 \end{vmatrix}$	-0.50	33. 24	-7.
Washington (U.S.W.B.)  Delaware	į.		i		1		į.	-1.60		l .	1 1	í I	)						l i						- 1	
Bridgeville	2.95	-0.48	1.84	-1.31	2.6	-1.07	2. 25	-1.05 -1.10 -1.54 -1.53 -1.85	6.78	+3.38	2. 69	-1.19	11.24	+6.31	3.20	—1.44	8, 03	+5.03	2.45	-0.66	2.94	-1-0. 50	2.66	-0.69	49.68	+7.
Delaware City	2. 19	-0.73	2. 2	-0.57	1. 59	1.58	$\hat{2}.04$	-1.10	4.02	+1.08	5.63	+2.08	8. 19	+4.13	5. 89	+1.63	8. 18	+4.92	1.83	-0.91	2.30	-0.09	2. 76	-0.31	46.89	+8.
Dover	$\begin{vmatrix} 2.90 \\ 3.51 \end{vmatrix}$	-0.42 $-0.21$	2.3	0.03 0.03 0.98	3.49	-1.54 -0.74	1.98 2.09	-1.54 $-1.53$	5. 91 4. 79	+1.34	4. 26 3. 28	+0.62 -0.74	9. 82	+5.28	1.36 4.62	6.30 0.30	8, 50	+4.56	2.79	-0.48	3. 72	+0.63 +0.97	2.77	-0.77 $-1.38$	51.51	+6.
Millsboro																										
Odessa. Wilmington	2.12	-0.90	$\frac{2.71}{2.7}$	  -0.84	$\begin{vmatrix} 2.22 \\ 2.2 \end{vmatrix}$	_j.24	1.59 1.91	-1.51 -1.40	3.99 2.87	-0.37	9, 68 9, 56	+5.63	8.59 6.29	+1.25	$\frac{2.96}{2.83}$	-2 06	7. 83 8. 37	+4.83	2.07	-1.46	$\frac{3.22}{2.52}$	-0.37	2.56 3.85	+0.17	49. 54 47. 44	+3.
Wilm'n(Porter Reservoir).																										
For Maryland and Dis-	9 96	-1.03	2. 52	-0.40	2.74	0.80	1.76	-1.69	4. 34	+0.92	3, 95	-0.12	7.00	+2.84	2.61	1. 95	5.80	+2.64	1.75	-1.27 $-0.72$ $-1.04$	2, 77	+0.33	2.84	-0.44	40.34	-0.
For Delaware	5 = -	2 4	0 00	1 0 50																			0 50	0 00		

Determined from surrounding stations.

(Continued from page 50)
snow fell in May and October. Snowfall was very light in January and February; was light in March, April, and December; but was 7 times the normal in November, the greatest of record for that month.
Annual sunshine was normal. August. October, and November were the sunniest months. Sunshine was above normal in December; normal in April; slightly below

normal in June; deficient in January, February, March, May, July, and September. The corn crop was good to excellent. Other crops yielded good, except grains, early potatoes, and tree fruits yielded fair to good and late potatoes in the Allegheny Mountain region and the strawberry, pea, and buckwheat crops yielded poor to fair. Cantaloupes and watermelons were plentiful, but poor to fair in quality.—J.B., \$\tilde{x}\$.

	Annual Mean Temperatures for the Year 1938 w									with Departures from the Normal																
	Jan	uary	Feb	ruary	Ma	rch	April		М	ау	Ju	ne	Ju	ıly	Aug	gust	Septe	mber	Oct	ober	r Novembe		er December		Annual	
Stations	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure .	Temperature	Departure	Temperature	Departure
Maryland Aberdeen Annapolis Baltimore (U.S.W.B.) Bell Boyds Cambridge (near) Charlotte Hall Cheltenham Chestertown Chewsville. Clear Spring Coleman College Park Conowingo Dam Crisfield Cumberland Darlington Dundalk Easton Elkton Emmitsburg Fallston Ferry Landing Frederick Friendsville Great Falls Hancock (Tonoloway) Huntingtown Keedysville La Plata Laurel Laurel Laurel Laurel Latherville Maryland Line Millington Mt. Savage Summit Oakland Oxford. Parkton(PrettyboyDam) Pricardy Princess Anne Ridgely Rock Hall Solomons State Sanatorium Stevensville Takoma Western Port Westminster Woodstock District of Columbia Washington (U.S.W.B.) Delaware Bridgeville Delaware Breakwater Delaware Grey	33. 8 35. 8 32. 8 34. 7 32. 8 34. 7 32. 8	+0.4 +0.4 +0.4 +0.4 +1.4 +0.4	4 39.4 40.4 40.4 40.4 40.4 40.4 40.4 40.4 4	$\begin{array}{c} +5.5\\ 7+4.6.2\\ 7+4.6.2\\ 7+4.6.2\\ 7+4.6.2\\ 7+6.2\\ 1+7.2\\ 1+$	47. 44. 46. 49. 2. 44. 46. 49. 46. 49. 46. 49. 46. 49. 46. 46. 46. 46. 46. 46. 46. 46. 46. 46	+6.6 +5.2 +4.5 +4.7 +3.8 +3.8 +3.8 +3.8 +3.8 +3.8 +4.7 +4.4 +4.7 +4.4 +4.7 +4.4 +4.8 +5.1 +4.4 +4.8 +5.1 +5.2 +5.0 +6.6 +6.6 +6.6 +6.6 +6.6 +6.6 +6.6 +6	3 55. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6.	3 +2.2.   +3.3   +3.3   +3.4   +3.4   +3.5   +1.4   +4.6   +3.5   +4.6   +3.6    +3.6   +3.6   +3.6    +3.6   +3.6    +3.6   +3.6    +3.6   +3.6    +3.6    +3.6	2 61.9 66.0 66.3 63.4 63.2 66.1 66.2 66.1 66.3 66.2 66.3 66.3	$\begin{array}{c} -1.2\\ -0.8\\ -0.5\\ -0.0\\ -0.8\\ -0.5\\ -1.0\\ -0.1\\$	72. 2 72. 2 8 70. 1 4 77. 2 9 70. 8 77. 1 4 68. 8 77. 1 68. 1 70. 1 1 67. 2 9 70. 8 70. 1 1 67. 2 9 70. 8 70. 8 70. 1 1 68. 8 70. 1 1 68. 8 70. 1 1 68. 8 70. 8 70. 8 70. 8 70. 8 71. 6 8 71.	-1111111111.	77. 14. 76. 6. 6. 6. 77. 2. 2. 77. 6. 6. 6. 2. 6. 8. 2. 6. 8. 2. 77. 2. 6. 6. 6. 2. 6. 8. 2. 6. 8. 2. 77. 7. 6. 6. 6. 6. 2. 6. 8. 2. 6. 8. 2. 77. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7	3 -0.	179.6 9.3 9.8 9.6 9.7 76.8 9.7 76.8 9.7 76.8 9.2 77.8 9.2 78.8 9.2	$\begin{array}{c} +2.1\\$	5 68. 66. 4 66. 66. 66. 66. 66. 66. 66. 66.	-0.2   -0.2	2 58.9 £ 6.6 58.9 £ 6.6 56.6 \$ 8 56.6 \$	+0.4 +0.1 +0.8 +0.6 +0.6 +1.8 +1.6 +0.6 -0.3 +1.6 +0.6 -0.3 +1.6 +0.6 -0.6 -0.6 +1.6 +1.6 +1.6 +1.6 +1.6 +1.6 +1.6 +1	7, 49, 42, 42, 49, 8, 49, 8, 44, 8, 5, 47, 6, 6, 6, 48, 6, 2, 2, 48, 8, 8, 49, 8, 8, 44, 8, 8, 44, 8, 8, 44, 8, 8, 44, 8, 8, 8, 44, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8,	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	7 38. 8 36. 2 0 37. 6 6 3 37. 6 6 3 37. 6 6 3 38. 8 6 4 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	$\begin{array}{c} +2.2, \\ +0.4 \\ +0.4 \\ +0.4 \\ +0.4 \\ +0.5 \\ +0.2 \\ +0.5 \\ +0.2 \\ +0.5 \\ +0.2 \\ +0.5 \\ +0.2 \\ +0.5 \\ +0.2 \\ +0.1 \\ +0.2 \\ +0.2 \\ +1.5 \\ -0.1 \\ +0.2 \\ +1.5 \\ -0.1 \\ +0.2 \\ +1.5 \\ -0.1 \\ +0.2 \\ +1.5 \\ -0.1 \\ +0.2 \\ +1.5 \\ -0.1 \\ -0.1 \\ -0.1 \\ -0.2 \\ -0.2 \\ -0.2 \\ -0.2 \\ -0.2 \\ -0.2 \\ -0.2 \\ -0.3 \\ -0.2 \\ -0.3 \\ -0.2 \\ -0.4 \\ -0.4 \\ -$	5 67. 1 3 66. 6 6 7 7 6 6 8 6 7 7 6 6 8 6 6 6 6 6 6 6	+1.3   +2.6   +0.5   +0.6   +0.2   +2.4   +0.6   +1.1   +1.8   +1.7   +1.5   +1.7   +1.5   +1.4   +1.0   +1.4   +1.4
For Maryland and District of Columbia For Delaware	33. 5 35. 0 33. 6	-0.1 .0.0 -0.1	38. 8 39. 6 38. 9	+5.4 +5.0 +5.3	46. 9 46. 9 46. 9	$^{+4.6}_{+3.5}_{+4.5}$	54. 8 55. 3 54. 8	+3.1 +2.5 +3.0	61.3 61.4 61.3	$ \begin{array}{c} -1.0 \\ -1.9 \\ -1.1 \end{array} $	$70.1 \\ 70.8 \\ 70.2$	$ \begin{array}{r} -0.6 \\ -1.0 \\ -0.6 \end{array} $	75. 8 76. 7 75. 9	+0.7 +0.3 +0.6	76. 2 76. 8 76. 3	+3.1 +2.2 +3.0	65. 6 67. 3 65. 8	-1.9 -1.4 -1.9	56. 5 58. 1 56. 7	+0.6 +0.6 +0.6	47. 7 49. 8 47. 9	+2.8 +3.3 +2.8	36. 0 38. 3 36. 3	$+0.8 \\ +1.4 \\ +0.9$		$^{+1.5}_{+1.2}$ $^{+1.4}$

\*Determined from surrounding stations.

ERRATA

February, 1938.—Page 6: Darlington, temperature departure published +4.7, should be +4.9. May, 1938.—Page 18: Takoma, temperature departure published -0.3, should be +0.3. Septemper, 1938.—Page 34: Hancock (Tonoloway), temperature departure published +3.6, should be -3.6.