

CLIMATOLOGICAL DATA

VIRGINIA SECTION

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RICHMOND, VA., YEAR 1931

No. 13

GENERAL SUMMARY

The year was warmer and drier than usual, but the amount of cloudiness, and the number of days with precipitation, were near the normal. Considering the State as a whole, it was the warmest year since the beginning of state-wide records in 1891, with the exception of 1921, when the average annual temperature was 0.6° higher. The average temperature for the year was above the normal at all stations. However, maximum temperatures were not excessively high, the highest being only 104° on July 1st and 30th, as compared with 109°, on July 20, 1930. Minima were not so low as usual, the lowest being -2°, on January 16th. The lowest temperature of record in Virginia was -29°, on February 10, 1899. The average temperatures for the State were above the normal in all months except March, April, and May. March was unusually cold, but November and December were the warmest of record.

Considering the State as a whole, the average annual precipitation has been less only six times in the last 40 years. The driest year of record was 1930, when the average for the State was only 24.86 inches. This unprecedented drought continued, and not until March, 1931, did the amount of precipitation approach the normal. Springs and deep wells began to flow generally near the end of March, and the flow of streams approximated the normal early in April. There was a large deficiency in rainfall in June, October, and November; the latter month being almost the driest November of record. The snowfall averaged less than 25 percent of the normal.

Notwithstanding the desiccated condition of the soil at the beginning of the year, and the deficient precipitation later, conditions were mostly favorable for agriculture and there was a good yield of most crops. The supply of food and feeds was abundant. In most sections the corn crop was the best ever grown. Peaches were a very heavy crop.

Notes on damaging hail, wind, and rain storms appeared in the January, March, April, May, June, and July issues of this bulletin.

MONTHLY STATE DATA, 1931

Month	Temperature			Precipitation			Number of days			
	Mean	Highest	Lowest	Average	Greatest 24-hour	Average snow-fall	Rainy	Clear	Partly cloudy	Cloudy
January	38.0	73	-2	1.57	1.81	1.6	5	16	7	8
February	40.2	74	6	1.87	1.50	0.2	7	13	6	9
March	40.7	69	15	3.56	1.90	1.6	11	8	9	14
April	53.6	90	22	3.55	2.20	0.5	10	14	7	9
May	53.5	97	30	5.13	2.60	T.	13	12	10	9
June	72.3	103	34	3.24	3.75	0.0	8	16	9	5
July	78.2	104	45	5.28	3.22	0.0	13	14	12	5
August	78.8	102	41	6.04	5.71	0.0	14	12	10	9
September	72.8	91	30	2.47	2.70	0.0	6	19	8	3
October	60.3	93	18	1.10	2.02	T.	4	16	8	8
November	53.8	87	14	0.65	1.25	T.	4	16	8	8
December	46.1	82	14	2.94	1.93	0.4	9	11	8	12

KILLING FROSTS, 1931

Stations	Last in spring	First in autumn	Stations	Last in spring	First in autumn
<i>Tidewater Virginia</i>			<i>Middle Virginia Con't.</i>		
Cape Henry	Mar. 13	Dec. 3	New Canton	Apr. 13	Oct. 18
Christchurch	Mar. 24	Dec. 3	Pedlar Dam	Apr. 12	Oct. 30
Dahlgren	Mar. 21	Nov. 5	Powhatan	Mar. 24	Oct. 18
Diamond Springs	Apr. 13	Nov. 8	Quantico	Mar. 24	Nov. 7
Hopewell	Apr. 13	Nov. 6	Randolph		Oct. 18
Langley Field	Mar. 21	Dec. 8	Rocky Mount	Apr. 13	Oct. 19
Norfolk	Mar. 13	Dec. 3	Stuart	Mar. 22	Oct. 18
Onley	Apr. 13	Nov. 6	Washington	Mar. 21	Nov. 7
Richmond	Mar. 24	Nov. 3			
Runnymede	Apr. 13		<i>Great Valley</i>		
Tappahannock	Apr. 13	Nov. 2	Blacksburg	Apr. 23	Oct. 18
Wallaceton	Apr. 17	Nov. 7	Buchanan	Apr. 3	Oct. 28
Williamsburg	Apr. 13	Nov. 7	Burkes Garden	Apr. 30	Sept. 29
			Catawba Sanatorium	Apr. 7	Oct. 19
<i>Middle Virginia</i>			Clifton Forge	Apr. 30	Oct. 18
Callville	Apr. 28	Oct. 27	Dale Enterprise	Apr. 30	Oct. 19
Charlottesville	Mar. 31	Nov. 7	Deerfield	May 24	Oct. 17
Chatham	Apr. 28	Oct. 18	Emory	Apr. 12	Oct. 18
Clarkson	Apr. 13	Nov. 7	Hot Springs	Apr. 30	Oct. 18
Clarksville	Apr. 13	Oct. 19	Lexington	Apr. 6	Oct. 19
Columbia	Apr. 13	Oct. 19	Mendota		Oct. 18
Culpeper	Apr. 30	Nov. 3	North River Dam		Oct. 14
Danville	Mar. 21	Oct. 18	Pennington Gap		Oct. 28
Farmville	Apr. 8	Oct. 18	Radford		Oct. 19
Fredericksburg	Apr. 3	Nov. 7	Roanoke	Apr. 3	Oct. 19
Halifax	Apr. 8	Oct. 17	Saltville	Apr. 1	Oct. 18
Kenbridge		Nov. 3	Staunton	Apr. 7	Oct. 19
Lincoln	Mar. 26	Nov. 7	Winchester	Apr. 30	Oct. 19
Lynchburg	Mar. 21	Nov. 3	Woodstock	May 4	Oct. 19
Martinsville	Mar. 12	Oct. 19	Wytheville	Mar. 21	Oct. 18
Mineral	May 5	Oct. 18			
Mount Weather	Apr. 27	Oct. 3			

COMPARATIVE ANNUAL DATA FOR THE STATE

Year	Mean temperature	Highest	Lowest	Average precipitation	Average snow-fall	No. of rainy days	No. of clear days	No. of partly cloudy days	No. of cloudy days
NORMALS OR EXTREMES	55.8	109	-29	41.67	17.0	103	162	102	101
1892	54.8	106	-8	49.01		95	163	101	102
1893	55.1	104	-26	46.83	23.1	108	156	100	103
1894	57.0	106	-11	35.97	17.0	88	166	104	95
1895	54.6	107	-18	38.09	38.8	94	174	103	88
1896	56.4	105	-10	42.89	12.3	93	163	106	97
1897	56.0	103	-15	40.81	11.8	92	171	99	95
1898	56.5	105	-9	44.80	8.7	108	162	101	102
1899	56.4	106	-29	43.18	36.7	98	176	95	94
1900	57.0	107	-8	39.33	18.6	86	181	91	93
1901	55.3	106	-14	50.17	9.5	100	167	94	104
1902	55.6	108	0	51.42	14.9	95	170	97	98
1903	55.1	105	-13	44.85	8.4	95	172	89	104
1904	53.8	100	-14	36.18	24.9	95	170	101	95
1905	54.8	98	-15	43.58	18.5	111	155	112	98
1906	56.3	102	-2	49.56	15.2	124	143	120	102
1907	54.3	97	-16	44.19	17.4	115	159	115	91
1908	55.4	102	-20	45.21	30.0	110	162	108	96
1909	55.5	102	-5	39.81	12.9	101	171	104	90
1910	54.7	102	-9	41.37	20.3	112	151	116	98
1911	56.8	104	0	41.50	9.2	115	149	110	106
1912	54.5	100	-25	39.19	24.6	103	165	106	95
1913	57.2	102	-3	42.75	4.0	100	178	98	89
1914	55.0	103	-17	37.17	39.8	101	168	100	97
1915	55.8	101	-5	39.72	13.5	97	180	116	89
1916	55.8	102	-11	39.36	18.6	103	165	106	95
1917	53.3	103	-27	40.82	23.7	114	158	107	100
1918	55.3	108	-22	44.43	24.7	105	169	97	109
1919	56.8	103	-16	41.66	7.4	102	161	99	105
1920	54.8	99	-9	46.30	7.1	106	162	89	115
1921	58.4	104	-12	34.94	13.8	97	161	102	102
1922	57.1	100	-13	44.72	24.8	110	145	107	113
1923	56.2	103	-1	40.84	10.3	104	168	96	101
1924	54.5	107	-12	47.41	12.8	105	165	90	111
1925	56.5	103	-14	32.55	9.5	98	160	99	106
1926	55.5	107	-6	41.60	16.6	112	157	97	111
1927	56.5	104	-7	41.95	10.4	113	148	103	114
1928	55.8	103	-5	42.99	9.2	110	151	112	103
1929	56.1	99	-8	45.92	16.7	115	155	97	113
1930	56.8	109	-13	24.86	23.4	86	165	99	101
1931	57.8	104	-2	37.99	3.7	105	163	106	96

Climatological Data for the Year 1931

Stations	Counties	Elevation, feet	Temperature, degrees Fahrenheit						Precipitation						Number of rainy days	Sky			Prevailing direction of wind	
			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 clear days	Number of partly cloudy days		Number of cloudy days
Tidewater Virginia																				
Cape Henry	Princess Anne	20	58	60.2	98	July 30	22	Jan. 16	58	36.89	6.47	July	0.21	Nov.	0.4	104	133	131	101	sw.
Christ Church	Middlesex	87	8	59.7	100	June 22	11	Jan. 2*	8	43.27	6.51	Aug.	0.35	Nov.	2.0	98	89	154	122	sw.
Bahlgren	King George	18	12	58.5	99	July 1	11	Jan. 2	12	34.73	7.57	July	0.43	Nov.	3.5	118	89	154	122	sw.
Diamond Springs†	Princess Anne	25	23	61.9	98	Aug. 11	16	Jan. 16	23	42.51	7.01	May	0.38	Nov.	0.0	80	206	112	47	sw.
Emporia	Greensville	100	41	60.8	99	July 16*	7	Jan. 16	1	39.94	7.92	May	0.33	Nov.	3.0	83				sw.
Hopewell	Prince George	40	41	60.8	99	July 16*	7	Jan. 16	43	41.05	8.78	Aug.	0.32	Nov.	1.5	96	127	154	84	sw.
Langley Field	Elizabeth City	10	40	59.8	97	July 30	18	Jan. 16	44	34.19	7.81	Aug.	0.36	Nov.	0.1	101	125	125	115	sw.
Norfolk	Norfolk	91	61	61.4	97	Aug. 4	20	Jan. 16	61	32.00	5.13	June	0.29	Nov.	2.5	103	142	106	117	s.
Onley	Accomac	40	13	59.0	99	July 30	15	Jan. 16	14	35.97	7.60	Aug.	0.57	Nov.	1.5	93	138	135	92	nw.
Richmond	Henrico	170	52	59.5	100	July 30	10	Jan. 16	60	41.73	11.42	Aug.	0.24	Nov.	2.5	108	185	114	116	sw.
Tappahannock	Essex	25							1	46.33†	10.50	Aug.	0.60	Nov.	T.					
Wallacetown	Richmond	15							5	51.82	11.37	July	0.09	Oct.	1.0	95				w.
Williamsburg	James City	70	37	60.2	99	July 30	5	Jan. 16	31	44.95	7.56	Aug.	0.22	Nov.	5.0	109	199	63	103	sw.
Means and extremes				59.9	100	Jan. 22*	5	Jan. 16		40.67	11.42	Aug.	0.09	Oct.	1.8	99	144	121	100	sw.
Middle Virginia																				
Callaville	Brunswick	250	36	58.4	99	July 30	-2	Jan. 16	37	44.55	9.92	Aug.	0.40	Nov.	3.0	68	244	78	43	w.
Charlottesville (near)	Albemarle	854	39	59.3	97	July 1*	15	Jan. 22	56	44.97	7.79	July	0.31	Nov.	4.3	123	143	82	135	n.
Chatham	Pittsylvania	852	8	59.4	104	July 30	9	Jan. 16	8	35.16	6.74	Aug.	0.32	Nov.	4.3	93	216	98	51	w.
Clarendon	Arlington	200							7	35.46	9.08	Aug.	0.95	Nov.	3.1	121				nw.
Clarksville	Mecklenburg	286	14	58.0	98	July 16	6	Jan. 16	41	39.89	10.64	Aug.	0.36	Nov.	5.5	99	275	0	90	e.
Columbia	Fluvanna	246	30	58.8	100	July 29	8	Jan. 16	33	38.23†	7.23	May	0.50	Nov.	2.5					w.
Culpeper	Culpeper	400	23	57.3	96	July 1*	11	Jan. 2	24	35.99	6.13	May	1.33	Oct.	1.0	114				s.
Danville	Pittsylvania	590	16	61.2	101	June 21*	9	Jan. 16	41	40.83	8.67	Aug.	0.53	Nov.	3.5	98	165	121	79	sw.
Farmville	Prince Edward	450	11	59.3	99	July 16*	5	Jan. 16	11	44.09	7.92	May	0.15	Nov.	1.5	107	180	115	90	sw.
Fredericksburg (near)	Spottsylvania	75	41	58.5	97	July 1*	10	Jan. 16	39	35.16	6.32	July	0.45	Nov.	0.5	97	185	106	74	sw.
Halifax	Halifax	425	1						1	37.66	7.38	Aug.	0.22	Nov.	3.0	98	226	56	84	s.
Lincoln †	Loudoun	500	30	58.3	104	July 1	13	Jan. 2*	30	37.61	5.13	July	0.63	Nov.	2.0	95	154	100	101	s.
Lynchburg	Campbell	681	62	59.2	99	July 31	15	Jan. 16	62	33.63	5.93	May	0.45	Nov.	5.7	116	156	106	103	w.
Manassas (near)	Prince William	156							1	32.79†	6.72	Aug.	1.30	Feb.	T.					sw.
Martinsville	Henry	1,014							1	43.44	8.41	Aug.	0.20	Nov.	4.7	98	211	124	30	w.
Mineral (near)	Louisiana	250	16	57.6	101	Sept. 22	7	Jan. 16	16	35.77	6.57	May	0.36	Nov.	0	99				s.
Mount Weather †	Loudoun	1,725	27	53.0	93	July 1*	12	Jan. 16*	28	34.21	5.63	Aug.	0.66	Oct.	3.0	96	63	139	163	w.
New Canton	Buckingham	800	36	57.8	97	July 1	5	Jan. 16	38	35.52	6.76	May	0.60	Nov.	5.5	105	169	131	65	sw.
Pedlar Dam†	Amherst	600							4	40.03†	7.93	Aug.	10.77	Nov.						
Powhatan	Powhatan	100							9	37.50	6.46	May	0.35	Nov.	2.3	101	126	64	175	sw.
Quantico	Prince William	20	30	57.6	99	July 1	9	Jan. 2	27	32.57	6.79	July	0.54	Nov.	0.6	116	98	157	110	nw.
Randolph	Charlotte	834							27	42.08	11.79	Aug.	0.27	Nov.	0.4	111	220	41	104	sw.
Rocky Mount	Franklin	1,132	32		99	June 20	12	Jan. 2	38	38.40	8.34	Aug.	0.04	Nov.	3.5	90	199	37	129	sw.
Stuart	Patrick	1,188	9	59.0	99	June 21	14	Jan. 2	9	37.69	6.98	Aug.	0.15	Nov.	1.0	91	152	108	45	nw.
Washington, D. C.	Patrick	112	61	58.2	99	June 20	16	Jan. 16	61	33.51	5.92	Aug.	1.01	Nov.	1.0	121	126	115	124	nw.
Means and extremes				58.3	104	July 1*	-2	Jan. 16		37.47	11.79	Aug.	0.04	Nov.	2.6	103	173	97	95	sw.
The Great Valley																				
Afton	Nelson	1,750							1	39.23†	8.88	Aug.	0.26	Nov.						
Balcony Fall	Rockbridge	725							1	42.32	8.83	Aug.	1.02	Oct.	2.0	90	248	55	62	w.
Blacksburg	Montgomery	2,100	40	54.7	95	July 1	3	Jan. 2	40	39.49	7.28	Aug.	0.47	Nov.	3.2	117	185	40	140	sw.
Buchanan	Botetourt	820	14	57.9	101	July 1	3	Jan. 2	31	41.29	11.22	Aug.	0.58	Nov.	3.0	103	129	164	72	
Burkes Garden	Tazewell	3,250	35	51.6	94	June 22	-1	Jan. 2	36	39.25	7.49	July	0.85	Oct.	2.0	84				w.
Catawba Sanatorium	Roanoke	2,100	20	55.8	94	July 1*	10	Jan. 16	21	38.66	6.80	Aug.	0.61	Nov.	9.5	84	230	103	82	
Clifton Forge	Alleghany	1,055							1	32.98†	4.65	May	0.68	Nov.						
Dale Enterprise	Rockingham	1,350	52	56.0	99	July 1*	7	Jan. 2	52	33.16	7.70	July	0.19	Nov.	6.2	123	139	126	100	s.
Damascus	Washington	1,928							5	40.02	8.54	July	0.95	Oct.	6.0	107	146	135	84	de.
Dante	Russell	2,000	14	55.6	95	June 20*	8	Jan. 2*	15	48.30	9.49	July	1.46	Oct.	6.3	141	124	120	121	
Deerfield	Augusta	1,700							5	33.42†	7.75	July	0.46	Oct.	4.0					w.
Emory	Washington	2,112	5	54.3	94	July 2	1	Jan. 2	5	45.29	8.54	July	1.12	Oct.	10.0	151	147	155	63	w.
Glenlyn	Giles	1,600							18	43.09	7.62	Aug.	1.28	Nov.	5.9	127				
Hot Springs	Bath	2,195	37	52.8	91	June 20*	6	Jan. 2	40	39.55	7.53	Aug.	0.53	Oct.	14.7	119	161	131	73	
Ivanhoe	Wythe	2,100							25	35.06	5.63	Aug.	0.18	Nov.	9.7	78				
Lexington	Rockbridge	1,060	62	55.9	95	July 30	0	Jan. 2	60	33.04	6.79	Aug.	0.77	Nov.	2.0	110	212	80	73	
Mendota	Washington	1,350							27	43.61	7.45	Aug.	1.20	Jan.	3.0	137				
Monterey	Highland	3,200							1	35.89	6.60	Aug.	0.27	Jan.		98				
North River	Agusta	1,918							1	35.43	5.37	Aug.	0.50	Oct.	6.5	93	189	138	38	w.
Radford	Montgomery	1,800							26	34.45	6.41	Aug.	0.13	Nov.	4.0	93				
Riverton	Warren	500							28	28.23	5.73	May	0.55	Nov.		55				
Roanoke	Roanoke	907	25	59.0	101	June 20*	11	Jan. 2	28	41.82	10.01	Aug.	0.16	Nov.	3.0	101	129	148	88	w.
Saltville	Smyth	1,770	10	55.7	97	July 1*	9	Jan. 1*	10	36.62	6.62	July	1.09	June	3.2	140	175	57	133	sw.
Speers Ferry	Scott	1,221							36	41.46	9.04	July	0.82	June	5.1	124	182	35	148	sw.
Staunton	Augusta	1,480	40	56.6	96	July 1*	16	Jan. 22	46	30.86	5.20	May	0.46	Nov.	4.7	108	141	153	71	w.
Winchester	Frederick	667	26	56.6	99	July 1	10	Jan. 2*	24	36.32	7.29	July	0.38	Nov.	4.4	96	160	124	81	w.
Woodstock	Shenandoah	927	34	57.1	102	July 1	8	Jan. 2	40	27.44	5.10	Aug.	0.34	Nov.	0.5	106	95	78	192	w.
Wytheville	Wythe	2,304	29	54.1	94	July 2	9	Jan. 2	58	33.31	5.68	July	0.50	Nov.	21.2	135	116	123	126	w.
Means and extremes				55.6	102	July 1	-1	Jan. 2		37.26	11.22	Aug.	0.13	Nov.	5.8	109	162	109	94	w.
State means and extremes				57.8	104	July 1*	-2	Jan. 16		37.99	11.79	Aug.	0.04	Nov.	3.7	105	163	106	96	sw.

Section and State averages are computed from monthly means. Estimated and incomplete data not considered in means.

All other records are used in determining section and division means, but the mean departures from normal temperature and precipitation are based only on records from stations that have 10 or more years of observation.

Reference letters, *, †, appearing in the tables indicate number of days missing: for example, * represents two days, etc.

Monthly and Annual Precipitation for the Year 1931, with Departures from the Normal

	January		February		March		April		May		June		July		August		September		October		November		December		Annual	
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
Tidewater																										
Cape Henry	1.62	-1.53	2.32	-0.91	4.14	+0.27	3.49	+0.19	3.75	+0.18	3.43	-0.53	6.47	+1.10	6.14	+1.28	2.70	-0.16	0.57	-2.44	0.21	-2.15	2.05	-1.39	36.89	-6.09
Christchurch	1.69	-1.20	1.20	-0.90	3.90	-0.11	4.11	-0.27	5.54	-0.37	3.71	-0.53	6.47	+1.10	6.14	+1.28	2.70	-0.16	0.57	-2.44	0.21	-2.15	2.05	-1.39	36.89	-6.09
Dahlgren	1.33	-1.55	1.21	-1.46	3.09	-0.11	2.55	-1.27	4.52	+1.80	2.44	-1.15	7.57	+3.31	6.19	+0.73	2.71	-0.14	1.02	-1.16	0.43	-1.99	1.72	-0.87	34.78	-8.86
Diamond Springs	3.09	+0.62	2.62	-0.68	4.48	+0.91	4.49	+1.12	7.01	+2.07	4.48	-0.49	4.13	-1.24	5.99	+1.67	2.84	-1.00	0.70	-2.29	0.33	-2.00	2.30	-1.93	42.51	-2.24
Emporia	1.52	-0.59	3.59	-0.27	2.67	-0.11	3.29	-0.27	7.92	-0.27	1.98	-0.53	2.59	-0.88	7.88	-0.41	3.92	-0.99	1.54	-0.33	0.33	-0.93	2.71	-0.88	39.94	-3.01
Hopewell	0.89	-2.08	1.15	-2.40	3.24	-1.11	4.26	+0.77	6.18	+2.02	5.65	+1.24	3.79	-0.88	8.78	+4.41	2.73	-0.99	1.65	-1.18	0.32	-1.93	2.41	-0.88	41.05	-3.01
Langley Field	1.11	-1.62	1.46	-2.20	2.00	-1.89	2.72	-0.52	6.14	+2.57	2.49	-1.61	3.98	-0.71	7.81	+3.78	2.72	-0.43	1.23	-0.57	0.36	-1.85	2.26	-0.84	34.19	-5.89
Norfolk	1.57	-1.53	1.70	-1.52	2.74	-1.03	3.24	+0.01	4.62	+0.81	5.13	+0.91	4.56	-1.19	4.25	-0.97	1.45	-1.78	0.74	-2.30	0.29	-1.87	1.71	-1.63	32.00	-12.99
Onley	1.97	-1.06	1.64	-2.24	5.90	+2.02	3.70	+0.28	4.51	+1.44	2.27	-0.91	2.77	-1.76	7.60	+3.21	2.70	-0.04	0.59	-2.01	0.57	-1.77	1.75	-1.92	35.97	-4.76
Richmond	1.88	-1.33	2.60	-0.57	2.94	-0.74	3.97	+0.48	5.64	+1.85	2.98	-0.92	4.47	-0.26	11.42	+7.00	1.92	-1.33	1.15	-1.73	0.24	-1.97	2.52	-0.77	41.73	-4.29
Runnymede (near)	1.68	-1.72	1.52	-2.47	4.39	-0.25	5.05	+1.13	7.22	+3.10	5.81	-0.53	5.86	-0.88	10.50	-0.50	1.87	-0.99	2.39	-0.60	0.60	-1.85	1.85	-0.88	46.33	-3.01
Tappahannock	1.56	-1.20	2.72	-0.33	3.12	-0.25	2.39	-0.52	4.66	-0.33	5.81	-0.53	5.86	-0.88	10.50	-0.50	1.87	-0.99	2.39	-0.60	0.60	-1.85	1.85	-0.88	46.33	-3.01
Wallaceton (near)	1.87	-1.20	2.53	-0.48	4.38	-0.25	4.77	-0.52	4.96	-0.33	5.81	-0.53	5.86	-0.88	10.50	-0.50	1.87	-0.99	2.39	-0.60	0.60	-1.85	1.85	-0.88	46.33	-3.01
Williamsburg	1.98	-1.46	1.53	-1.79	4.12	+0.13	4.69	+0.96	5.76	+2.10	4.81	+0.17	6.35	-0.84	7.56	+2.41	4.79	+1.69	2.20	-0.60	0.22	-1.95	1.94	-1.83	44.95	-1.01
Means	1.70	-1.33	1.98	-1.62	3.65	-0.18	3.77	+0.32	5.60	+1.89	3.77	-0.37	5.12	-0.27	7.67	+2.61	3.35	-0.46	1.39	-1.59	0.36	-1.94	2.31	-1.34	40.67	-4.28
Middle Virginia																										
Bedford	1.38	-2.16	1.92	-1.70	4.95	+0.50	4.27	+0.64	5.26	+4.39	4.17	-0.07	1.73	-2.14	7.20	+2.90	1.34	-1.95	1.04	-2.08	0.39	-1.86	3.84	+0.82	44.55	-1.71
Callawille	1.81	-1.61	2.05	-0.89	4.86	+1.37	2.75	-0.63	5.32	+3.14	5.52	+0.37	7.79	+3.29	6.16	+1.60	2.96	-0.67	0.66	-2.76	0.31	-2.25	2.78	-0.40	44.97	+0.56
Chatham	1.53	-1.11	1.51	-0.25	2.25	-0.33	3.91	-0.73	4.48	-0.33	6.36	-0.33	3.33	-0.33	6.74	-0.99	0.99	-0.51	0.51	-0.32	0.32	-0.32	2.07	-0.32	35.16	-0.32
Clarendon	1.53	-1.11	1.51	-0.25	2.25	-0.33	3.91	-0.73	4.48	-0.33	6.36	-0.33	3.33	-0.33	6.74	-0.99	0.99	-0.51	0.51	-0.32	0.32	-0.32	2.07	-0.32	35.16	-0.32
Clarksburg	1.82	-1.79	1.55	-1.69	2.94	-0.85	3.70	+0.33	5.10	+1.11	4.55	+0.36	2.77	-1.65	10.64	+6.21	1.68	-1.44	1.09	-0.99	1.69	-0.36	3.79	+0.52	39.89	-2.39
Columbia	1.88	-1.89	3.12	+0.25	4.89	+1.30	3.34	-0.11	7.23	+3.79	2.06	-2.02	4.7	+1.25	2.87	-1.77	1.95	-1.10	0.70	-2.50	0.50	-1.80	4.22	+1.06	38.23	-3.54
Culpeper	1.81	-1.61	2.24	-0.24	3.55	+0.76	2.65	-0.56	6.13	+2.32	2.02	-2.70	5.22	+1.69	4.82	+0.61	3.04	-0.20	1.33	-1.33	1.47	-0.90	1.71	-1.26	35.99	-3.42
Danville	1.56	-1.87	1.37	-1.90	3.39	-0.14	4.65	+1.85	5.93	+2.33	3.81	-0.10	3.25	-0.95	8.67	+4.23	2.88	-0.18	0.63	-2.19	0.53	-1.80	4.16	+0.89	40.83	-0.30
Farmville	2.12	-0.93	2.15	-0.64	3.76	-0.21	3.94	+1.20	7.92	+4.02	4.05	-0.34	6.11	+2.03	5.89	+1.35	3.98	+1.74	0.50	-3.42	0.15	-1.87	3.52	+0.37	44.09	+3.30
Fredericksburg (near)	1.81	-1.59	1.27	-1.63	3.55	-0.06	2.16	-1.39	4.21	+0.39	2.59	-1.84	6.32	+2.08	5.46	+0.70	4.26	+1.13	1.14	-1.98	0.45	-1.69	1.94	-1.07	35.16	-6.95
Halifax	1.71	-1.20	2.36	-0.26	2.86	-0.33	3.64	-0.33	5.66	-0.33	3.95	-0.33	3.65	-0.33	7.38	-0.33	2.51	-0.33	0.23	-0.33	0.22	-0.33	3.49	-0.33	37.66	-0.33
Kenbridge	1.50	-1.61	1.62	-0.77	4.31	+1.26	3.79	-0.52	4.46	+1.01	4.44	-0.45	5.13	+1.81	4.93	+0.83	3.73	+1.11	1.16	-1.90	0.63	-1.59	1.91	-0.92	37.61	-1.74
Lincoln	1.48	-1.95	1.81	-1.34	3.75	+0.21	3.11	+0.16	5.93	+2.30	2.49	-1.36	5.37	+1.16	5.16	+1.38	0.73	-2.58	0.67	-2.48	0.45	-1.88	2.74	-0.52	33.63	-6.90
Lynchburg	1.69	-1.30	2.92	-0.33	3.11	-0.33	3.11	-0.33	2.77	-0.33	1.68	-0.33	5.01	-0.33	6.72	-0.33	2.30	-0.33	2.18	-0.33	1.41	-0.33	1.70	-0.33	32.79	-0.33
Manassas (near)	1.69	-1.30	2.92	-0.33	3.11	-0.33	3.11	-0.33	2.77	-0.33	1.68	-0.33	5.01	-0.33	6.72	-0.33	2.30	-0.33	2.18	-0.33	1.41	-0.33	1.70	-0.33	32.79	-0.33
Martinsville	1.69	-1.30	2.92	-0.33	3.11	-0.33	3.11	-0.33	2.77	-0.33	1.68	-0.33	5.01	-0.33	6.72	-0.33	2.30	-0.33	2.18	-0.33	1.41	-0.33	1.70	-0.33	32.79	-0.33
Mineral (near)	1.75	-1.82	1.61	-0.70	3.17	-0.94	2.50	-1.05	6.57	+3.22	2.80	-1.11	5.20	+0.73	5.63	+1.17	2.76	+0.04	1.04	-1.58	0.36	-1.91	2.38	-0.29	35.77	-4.24
Mount Weather	2.03	-1.09	1.93	-0.14	4.88	+2.24	2.64	-0.63	2.61	-1.11	3.01	-1.75	4.24	+0.26	5.63	+1.02	3.33	+0.39	0.66	-3.14	1.30	-1.09	1.95	-0.69	34.21	-5.73
New Canton	1.73	-1.89	1.98	-1.08	4.31	+0.28	3.38	+0.21	6.76	+3.45	2.59	-1.06	5.77	+1.87	3.62	-1.13	1.29	-1.89	0.81	-2.25	0.60	-1.72	2.68	-0.43	35.52	-5.64
Orange	2.03	-1.09	1.93	-0.14	4.88	+2.24	2.64	-0.63	2.61	-1.11	3.01	-1.75	4.24	+0.26	5.63	+1.02	3.33	+0.39	0.66	-3.14	1.30	-1.09	1.95	-0.69	34.21	-5.73
Pedlar Dam	2.03	-1.09	1.93	-0.14	4.88	+2.24	2.64	-0.63	2.61	-1.11	3.01	-1.75	4.24	+0.26	5.63	+1.02	3.33	+0.39	0.66	-3.14	1.30	-1.09	1.95	-0.69	34.21	-5.73
Powhatan	1.49	-2.10	1.55	-0.33	3.37	-0.33	3.37	-0.33	3.37	-0.33	1.80	-0.33	2.30	-0.33	6.39	-0.33	2.30	-0.33	0.63	-0.33	0.35	-0.33	3.29	-0.33	37.50	-0.33
Quantico	1.73	-1.42	1.23	-1.33	2.69	-0.76	2.03	-0.89	3.80	+0.71	0.70	-3.15	6.79	+2.90	6.62	+1.97	2.78	-0.19	1.83	-0.84	0.54	-1.48	1.83	-0.84	32.57	-5.33
Randolph	1.95	-1.77	2.07	-1.03	3.07	-0.65	4.51	+1.82	5.40	+1.70	4.72	+1.10	1.99	-2.61	11.79	+7.71	2.19	-0.63	0.94	-1.86	0.27	-1.90	3.18	-0.18	42.08	+1.60
Rocky Mount	1.76	-1.65	0.81	-2.55	4.90	+0.89	4.32	+0.89	3.74	-0.02	3.83	-0.74	6.41	+1.46	8.34	+4.00	1.86	-1.72	0.79	-2.80	0.04	-2.54	1.60	-2.04	38.40	-6.82
Stuart	1.76	-1.65	0.81	-2.55	4.90	+0.89	4.32	+0.89	3.74	-0.02	3.83	-0.74	6.41	+1.46	8.34	+4.00	1.86	-1.72	0.79	-2.80	0.04	-2.54	1.60	-2.04	38.40	-6.82
Washington, D.C.	1.56	-1.99	1.36	-1.91	3.50	-0.25	2.87	-0.40	4.84	+1.14	2.12	-2.01	4.23	-0.48	5.92	+1.91	2.79	-0.45	1.28	-1.66	1.01	-1.36	2.03	-1.29	33.51	-8.65
Means	1.71	-1.68	1.77	-1.13	3.85																					

Monthly and Annual Mean Temperatures for the Year 1931, with Departures from the Normal

Stations	January		February		March		April		May		June		July		August		September		October		November		December		Annual	
	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
Tidewater																										
Cape Henry	41.4	+1.3	41.4	+0.1	42.8	-3.8	53.6	-1.0	63.9	-0.3	72.0	-0.9	79.1	+1.5	77.2	+0.3	76.4	+4.6	64.8	+2.8	57.6	+5.5	51.8	+8.0	60.2	+1.5
Christchurch	39.6	.....	41.0	.....	41.6	.....	55.6	.....	64.8	.....	72.8	.....	80.8	.....	76.8	.....	75.0	.....	62.6	.....	56.8	.....	49.2	.....	59.7	.....
Dahlgren	37.0	+1.9	39.3	+1.4	41.1	-5.1	53.9	-0.3	64.4	+2.7	73.4	+1.5	79.8	+3.6	75.8	+2.0	74.2	+5.0	62.6	+5.2	54.0	+7.1	46.4	+8.2	58.5	+2.8
Diamond Springs	44.0	+1.6	44.7	+2.0	46.6	-3.4	57.7	-0.3	65.7	-0.1	73.6	0.0	79.8	+2.4	77.8	+1.3	75.8	+4.4	64.1	+1.5	57.7	+5.8	54.1	+10.5	61.9	+2.1
Hopewell	41.0	+1.6	42.7	+2.9	43.7	-5.2	56.7	-0.8	67.0	-1.1	75.2	+1.8	81.2	+5.2	77.2	0.0	75.8	+3.8	63.0	+3.2	56.0	+7.0	49.5	+8.9	60.8	+2.3
Langley Field	41.0	+0.4	41.0	+0.5	42.6	-5.7	54.1	-2.1	64.1	-1.7	72.6	-1.9	79.4	+0.7	77.0	-0.4	75.8	+3.7	63.6	+2.6	56.6	+6.3	50.0	+7.7	59.8	+0.8
Norfolk	42.4	+1.8	43.8	+1.1	44.2	-4.0	56.0	-0.8	66.0	-0.2	73.8	-0.6	80.6	+1.9	77.8	+0.4	76.4	+4.8	65.2	+2.7	59.0	+7.6	51.9	+8.8	61.4	+2.0
Onley	38.7	+0.7	40.3	+0.2	41.3	-3.8	52.8	-1.0	63.8	+1.5	72.8	+0.4	80.0	+2.4	77.0	+1.5	75.0	+4.9	62.4	+1.8	55.5	+5.2	48.4	+7.3	59.0	+1.8
Richmond	39.6	+1.6	41.5	+1.9	42.3	-4.9	54.4	-2.2	65.5	-1.0	73.8	-0.3	80.4	+1.9	75.7	-0.8	74.4	+3.9	62.3	+2.7	55.9	+7.6	47.8	+8.0	59.5	+1.5
Runnymede (near)	39.2	-0.5	41.7	+2.1	41.8	-6.8	53.4	-3.1	63.4	-2.4	73.1	.....	79.3	.....	76.0	.....	.....	.....	60.6	.....	52.3	.....	46.2	.....	.....	.....
Tappahannock	37.1	.....	38.8	.....	40.2	.....	53.7	.....	64.8	.....	73.1	.....	79.3	.....	76.0	.....	.....	.....	60.6	.....	52.3	.....	46.2	.....	.....	.....
Williamsburg	41.1	+0.9	43.4	+2.6	43.3	-5.6	55.4	-1.7	64.6	-0.4	73.9	+1.1	80.4	+3.6	76.6	+1.1	75.2	+5.3	62.6	+2.6	56.2	+7.7	49.8	+8.9	60.2	+2.2
Means	40.2	+1.1	41.6	+1.5	42.7	-4.8	54.6	-1.3	64.8	-0.3	73.4	+0.1	80.1	+2.6	76.8	+0.6	75.5	+4.5	63.1	+2.8	56.1	+6.6	49.6	+8.5	59.9	+1.8
Middle Virginia																										
Callaville	38.4	-0.4	38.4	-0.5	40.0	-8.8	52.8	-3.7	64.0	-1.5	72.8	-0.1	80.1	+3.2	75.8	+0.1	74.1	+3.9	63.2	+4.1	54.0	+5.5	47.7	+7.6	58.4	+0.8
Charlottesville (near)	38.6	+2.6	40.6	+3.9	40.7	-5.8	55.6	-0.5	65.8	+0.1	74.1	+1.6	79.2	+2.8	74.9	+0.3	75.2	+6.1	63.4	+4.9	57.3	+9.5	46.7	+8.7	59.3	+2.8
Chatham	40.4	.....	42.3	.....	42.8	.....	54.6	.....	65.0	.....	75.2	.....	80.4	.....	74.4	.....	74.1	.....	61.6	.....	54.6	.....	47.8	.....	59.4	.....
Clarksville	36.6	+0.1	40.6	-0.2	42.8	-5.3	54.5	-2.0	64.8	+0.1	74.4	+1.2	80.5	+4.1	73.8	-1.3	72.9	+3.4	58.8	+0.3	51.8	+4.8	44.7	+5.6	58.0	+0.9
Columbia	38.4	+1.1	40.0	+2.9	42.6	-4.4	54.3	-1.0	65.2	+0.4	74.2	+2.4	80.6	+4.8	76.1	+1.9	74.0	+5.5	61.3	+3.6	53.8	+7.3	45.2	+7.5	58.8	+2.7
Culpeper	36.5	+2.8	39.3	+3.8	40.3	-4.8	53.6	-1.2	64.0	+0.1	72.0	+0.7	78.0	+2.8	73.8	+0.6	72.8	+5.3	59.9	+3.8	52.8	+8.0	44.3	+8.6	57.3	+2.5
Danville	41.4	+2.5	44.0	+1.6	44.5	-6.7	57.0	-2.2	66.8	-0.6	77.1	+1.0	82.6	+3.3	76.8	-1.0	76.1	+3.7	63.2	+2.3	55.8	+6.2	49.0	+7.6	61.2	+1.5
Farmville	39.9	+2.5	42.0	+5.8	42.7	-4.3	54.5	-0.9	65.2	-1.7	73.9	-0.8	80.7	+1.3	75.0	-2.0	74.0	+3.4	61.2	+2.0	54.5	+7.9	47.8	+10.9	59.3	+2.0
Fredericksburg (near)	37.8	+1.5	40.0	+3.8	41.8	-4.9	54.6	-0.6	64.8	-0.1	73.0	+0.7	78.8	+2.2	75.0	+0.1	73.8	+4.6	61.4	+3.5	54.5	+7.4	46.4	+8.9	58.5	+2.3
Kenbridge	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lincoln	37.8	+5.8	38.6	+5.9	40.4	-2.7	53.2	-0.4	64.2	+0.3	74.8	+3.4	81.7	+5.5	75.8	+1.8	74.2	+5.7	61.2	+4.2	54.4	+9.3	43.2	+9.0	58.3	+4.0
Lynchburg	40.5	+3.0	42.0	+1.7	42.2	-5.1	55.0	-2.3	65.0	-2.3	74.5	-0.1	80.2	+2.8	74.6	-1.0	73.8	+4.8	61.0	+2.5	54.9	+7.7	47.3	+7.8	59.2	+1.6
Mineral (near)	37.8	+4.4	39.6	+6.0	40.7	-5.9	54.2	0.0	64.6	+2.5	72.2	+2.8	78.0	+3.6	74.8	+1.8	73.6	+6.0	58.6	+3.4	52.3	+7.1	44.2	+7.7	57.6	+3.2
Mount Weather	33.1	+3.0	35.2	+5.7	35.2	-4.1	47.4	-2.0	59.5	+0.3	70.1	+3.4	73.0	+1.9	69.2	-0.1	68.4	+3.9	56.2	+2.5	49.6	+7.6	39.7	+7.6	53.0	+2.5
New Canton	38.9	+2.5	40.1	+2.8	41.4	-5.8	53.6	-2.0	63.5	-1.3	72.0	-0.1	78.0	+1.9	73.6	-0.8	72.8	+2.0	60.2	+2.9	53.6	+9.9	46.0	+8.1	57.8	+1.7
Pedlar Dam	37.1	.....	41.1	.....	40.9	.....	52.4	.....	61.6	.....	70.2	.....	76.1	.....	70.2	.....	.....	.....	59.2	.....	.....	.....	.....	.....	.....	.....
Quantico	35.5	-0.9	40.0	+5.0	40.6	-5.0	53.6	-0.9	64.2	+0.3	72.2	+0.1	78.2	+1.2	74.9	+0.7	73.2	+4.7	61.2	+4.1	53.8	+8.5	44.4	+8.4	57.6	+2.2
Rocky Mount	39.6	+1.9	42.5	+4.4	41.7	-5.7	55.6	-0.5	64.4	-0.5	73.6	+1.6	78.4	+3.2	.....	.....	74.2	+5.2	59.3	+2.3	54.6	+7.1	46.8	+7.9	.....	.....
Stuart	40.6	.....	42.6	.....	42.2	.....	55.1	.....	64.4	.....	74.0	.....	78.1	.....	74.1	.....	73.4	.....	61.5	.....	54.7	.....	47.4	.....	59.0	.....
Washington, D. C.	37.0	+3.6	39.4	+4.1	41.3	-1.3	54.2	+0.9	65.1	+1.4	73.8	+1.1	79.6	+2.9	75.6	+0.6	74.1	+6.0	61.2	+3.8	54.0	+8.8	44.2	+7.6	58.2	+3.3
Means	38.2	+2.2	40.4	+3.5	41.3	-5.1	54.0	-1.2	64.3	-0.2	73.3	+1.2	79.1	+3.0	74.5	+0.1	73.5	+4.6	60.8	+3.1	54.1	+7.7	46.0	+8.1	58.3	+2.2
Great Valley																										
Blacksburg	35.0	+2.1	38.6	+5.3	37.6	-5.4	51.6	+1.9	60.0	0.0	69.5	+1.9	75.3	+4.5	70.4	+0.6	68.9	+4.3	56.2	+2.9	50.4	+7.9	43.0	+8.5	54.7	+2.9
Buchanan	37.4	+2.3	41.2	+0.8	42.2	-6.1	54.5	-1.4	64.4	0.0	72.7	+0.3	79.0	+3.6	73.5	-0.8	71.9	+1.8	59.0	0.0	53.3	+7.0	45.5	+7.1	57.9	+1.2
Burkes Garden	33.0	+1.5	35.9	+4.6	34.4	-6.5	50.0	+2.5	57.9	+1.1	66.5	+2.9	69.8	+3.2	66.2	+0.5	64.6	+4.3	52.5	+2.8	48.4	+8.4	40.0	+7.7	51.6	+2.8
Catawba Sanatorium	37.0	+0.9	39.2	+1.1	38.2	-7.6	52.3	-2.3	61.1	-1.4	70.4	+0.8	75.6	+3.1	70.0	-1.6	70.8	+4.2	58.6	+1.9	52.6	+7.0	43.6	+5.6	55.8	+1.0
Dale Enterprise	35.8	+2.8	38.6	+4.4	38.4	-4.6	51.0	-1.5	61.5	-0.9	69.9	-0.1	75.8	+2.1	71.0	-0.9	71.5	+4.9	59.6	+4.3	54.4	+10.6	45.0	+10.0	56.0	+2.6
Dante	36.2	+1.5	39.4	+0.2	39.4	-6.7	52.0	-2.3	60.2	-0.7	68.6	-0.6	74.4	+3.2	70.8	-0.2	70.6	+3.4	57.8	+1.4	52.4	+7.6	45.2	+7.2	55.6	+1.2
Emory	34.8	.....	38.0	.....	38.4	.....	50.4	.....	59.0	.....	67.6	.....	74.2	.....	70.2	.....	69.1	.....	56.2	.....	50.0	.....	44.0	.....	54.3	.....
Hot Springs	38.4	+1.9	36.0	+4.3	35.6	-6.7	49.8	-0.3	58.8	-0.9	68.2	+1.6	73.4	+4.1	67.6	-0.5	66.0	+3.4	54.2	+1.9	48.8	+6.2	41.3	+7.6	52.8	+4.9
Lexington	35.6	+1.1	39.2	+3.9	39.0	-5.1	52.7	-0.5	60.9	-1.8	70.2	-0.3	77.1	+2.7	71.1	-1.8	70.7	+4.0	56.8	+1.6	51.8	+8.2	45.2	+9.7	55.9	+4.8
Pennington Gap	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Roanoke	40.4	+3.3	42.5	+4.7	42.6	-5.2	55.6	-0.8	65.0	+2.5	74.2	+2.4	80.0	+4.3	74.2	-0.2	72.8	+4.6	60.4	+3.0	54.2	+7.5	46.6	+7.9	59.0	+2.8
Saltville	35.2	.....	39.1	.....	38.8	.....	52.8	.....	61.8	.....	71.1	.....	76.4	.....	72.0	.....	70.4	.....	56.8	.....	50.6	.....	43.8	.....	55.7	.....
Staunton	37.1	+1.7	39.0	+4.1	37.6	-6.9	52.1	-1.3	62.4	-1.1	71.2	+0.6	77.2	+2.9	73.9	-1.1	71.4	+3.8	60.0	+4.0	54.4	+9.0	45.0	+7.9	56.6	+2.0
Winchester	35.2	+4.0	37.0	+2.9	38.5	-4.4	52.2	-1.1	62.7	-0.8	72.0	-0.1	78.4	+2.2	73.5	+2.3	73.0	+5.0	60.1	+3.8	53.1	+8.0	43.0	+7.2	56.6	+2.4
Woodstock	37.8	+4.7	38.4	+5.3	40.2	-3.8	53.7	+1.1	64.8	+1.5	72.8	+2.7	79.0	+4.3	73.7	+0.7	72.6	+4.7	58.0	+1.7	52.2	+7.3	41.9	+5.8	57.1	+3.0
Wytheville	35.2	+2.2																								