

U. S. Department of Agriculture
WEATHER BUREAU
Charles F. Marvin, Chief

Annual
Meteorological
Summary

WITH COMPARATIVE DATA

---1921---

RICHMOND, VIRGINIA

BY
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LOCAL OFFICE, U. S. WEATHER BUREAU
RICHMOND, VA., JAN. 27, 1922

Annual Meteorological Summary, 1921.

MONTH.	TEMPERATURE.						PRECIPITATION.				WIND.				NUMBER OF DAYS.																			
	Mean.			Extremes.			Total.	Maximum in 24 hours.		Relative humidity percent	Percentage of Sunshine.	Average hourly velocity.	Prevailing direction.	Maximum.			Winds 40 miles per hour or more.	Clear.	Partly cloudy.	Cloudy.	Precipitation. (0.1 in. or more.)	Thunderstorms.	Dense fog.	Snow.	Max. temp.		Min. temp.							
	Maximum.	Minimum.	Monthly.	Maximum.	Date.	Minimum.		Date.	Maximum in					Date.	Velocity.	Direction.									Date.	and below.	and above.	and below.	and below.					
January.....	46	31	40	56	32	15	15	21	1.80	2.66	9-10	74	40	8.9	SW	34	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
February.....	51	33	43	72	14	25	21	21	3.53	1.44	19-20	82	44	8.9	SW	34	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
March.....	56	46	51	88	28	29	29	29	2.13	1.96	9	82	53	8.9	SW	34	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
April.....	71	49	60	88	35	33	11	11	4.65	1.71	16-17	82	56	8.9	SW	34	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
May.....	77	54	65	84	45	45	2	2	3.36	1.83	3-4	74	44	8.9	SW	34	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
June.....	85	76	80	98	52	3	3	3	2.45	1.86	29-30	74	44	8.9	SW	34	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
July.....	85	77	81	97	62	23	23	15	2.36	1.02	15	79	74	8.9	SW	34	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
August.....	83	65	77	101	54	27	27	3-4	2.51	1.31	11	77	79	8.9	SW	34	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
September.....	74	66	70	98	57	26	26	11	2.51	1.47	11	74	76	8.9	SW	34	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
October.....	72	47	60	93	25	33	14	14	1.86	1.47	30-31	81	78	8.9	SW	34	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
November.....	62	42	52	79	19	26	13	13	2.97	1.64	20	81	54	8.9	SW	34	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
December.....	50	32	41	67	74	17	22	22	3.02	1.94	23	81	54	8.9	SW	34	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Year.....	71	50	60	101	41	15	19	30.59	2.65	1.0	75	61	7.9	ne	40	W.	23	122	115	128	110	45	8	8	6	47	56	0	0	0	0			

RICHMOND, VIRGINIA

Miscellaneous Extremes And Averages.

MONTH	Temperature 1896-1921.				Precipitation, 1871-1921.				Average percentage of Sunshine, 1903-1921.
	Warmest Month.		Coldest Month.		Wettest Month.		Driest Month.		
	Mean.	Year.	Mean.	Year.	Amount.	Year.	Amount.	Year.	
January	48.5	1896	28.0	1918	5.81	1918	0.55	1876	51
February	49.0	1896	31.2	1905	8.72	1873	0.55	1901	56
March	57.6	1911	39.5	1895	8.78	1891	1.10	1915	59
April	65.3	1891	50.1	1907	8.59	1899	1.06	1880	61
May	74.6	1896	60.6	1920	9.63	1849	0.60	1911	66
June	78.8	1895	68.4	1907	8.73	1916	1.29	1877	64
July	82.3	1897	72.8	1896	14.01	1850	0.57	1911	67
August	82.9	1900	73.0	1890	10.40	1908	0.45	1896	63
September	78.8	1881	68.2	1917	10.41	1898	0.15	1844	66
October	67.2	1919	52.7	1880	8.51	1890	0.11	1874	64
November	54.8	1902	42.2	1830	6.69	1920	0.11	1830	65
December	51.1	1899	39.0	1917	7.10	1905	0.57	1839	49
Year	82.9	1900	28.0	1918	14.01	1839	0.11	1874 Nov 1890	60

Extremes of Temperature.

Month.	TEMPERATURE.					
	Max.	Year.	Day.	Min.	Year.	Day.
January	78	1907	7	-4	1918	4
February	76	1918	28	-3	1899	10
March	94	1907	29	14	1916	4
April	96	1915	27	24	1919	2
May	95	1914	27	38	1911	3
June	100	1914	12	46	1913	10
July	100	1911	7	54	1919	1
August	107	1918	6	53	1919	27
September	104	1899	6	41	1914	29
October	94	1919	10	28	1917	31
November	84	1901	23	19	1901	29
December	70	1912	6	-2	1917	30
Annual	107	1918	Aug. 6	-3	1899	Feb. 10

Extremes of Precipitation and Wind.

Month.	PRECIPITATION (24 hours).			WIND (Velocity).			
	Max.	Year.	Day.	Max.	Dir.	Year.	Day.
January	2.66	1921	9-10	61	SW	1913	3
February	3.39	1920	3-4	61	SW	1909	10
March	3.59	1903	21-22	54	S	1913	27
April	5.33	1910	17-18	52	NW	1909	3
May	2.39	1907	6-7	53	S	1902	1
June	3.26	1918	25-26	60	NW	1917	24
July	3.59	1902	30	45	S	1906	22
August	3.20	1908	19	55	NW	1915	7
September	3.21	1907	22-23	45	NW	1911	12
October	2.95	1906	21-22	52	NW	1917	5
November	2.77	1902	18	46	S	1905*	20
December	2.52	1909	12-13	53	S	1907	23
Annual	5.33	1910	Apr. 17, 18	61	SW	1902†	Feb. 10

*Also Jan. 3, 1913. †Also SW. 1916. 23rd; 1918. 18th. †Also 1897. ††Also 1919. 1st.

Daily Maximum Temperature, 1921.

Day of month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	55	38	61	56	55	83	87	87	95	75	67	66
2	55	46	74	64	65	75	90	101	98	78	58	61
3	49	52	60	77	52	83	93	83	92	77	55	60
4	57	56	48	77	52	83	95	82	94	65	62	44
5	65	60	67	76	53	74	91	82	83	66	62	43
6	50	58	75	78	53	77	88	90	92	76	57	44
7	55	65	80	67	73	76	93	95	84	79	70	52
8	56	54	71	77	77	76	97	86	85	79	53	43
9	43	47	74	80	79	79	94	86	89	69	51	42
10	39	46	61	61	81	74	91	89	85	82	51	54
11	45	54	63	51	67	89	90	93	91	83	56	54
12	41	42	70	62	72	80	84	92	87	65	51	58
13	30	30	71	76	76	91	80	96	87	66	49	52
14	38	72	69	72	80	80	88	93	86	68	56	47
15	42	53	67	76	73	82	87	79	91	71	62	44
16	48	71	80	79	64	87	84	80	87	74	58	45
17	48	68	65	70	71	95	86	82	94	76	77	63
18	39	51	60	52	76	77	88	94	90	74	75	62
19	26	38	60	64	76	84	90	92	80	78	79	44
20	49	36	80	73	79	84	90	98	81	67	70	51
21	50	32	87	77	83	88	86	87	84	68	56	57
22	69	46	67	76	87	94	77	83	86	77	67	37
23	60	50	58	72	89	93	85	85	90	79	58	48
24	48	43	61	82	62	96	88	83	89	75	75	67
25	33	41	79	88	70	86	94	82	91	83	62	61
26	31	49	84	88	77	93	91	82	75	59	61	35
27	41	46	85	62	71	95	93	80	72	66	65	50
28	49	60	81	62	86	98	95	77	89	72	62	43
29	53	56	45	60	83	69	94	94	91	69	55	47
30	63	56	56	66	71	90	91	98	86	65	63	34
31	51	64	64	66	78	78	97	98	71	71	47	47
Means.....	48.6	51.0	69.0	71.0	72.0	86.3	80.9	88.2	87.2	72.0	61.6	49.9

Bo d-faced figures indicate highest temperature for each month.

Daily Minimum Temperatures, 1921.

Day of month	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	35	31	38	37	46	54	71	68	72	53	51	42
2	48	31	38	34	45	56	70	70	72	46	47	48
3	39	33	44	41	46	52	72	67	71	61	42	42
4	29	27	35	46	46	63	71	63	71	49	35	33
5	33	33	33	52	47	57	72	72	60	45	40	30
6	32	40	52	54	46	52	73	66	71	43	33	32
7	27	34	52	52	46	55	70	68	68	47	44	33
8	43	40	56	51	50	60	72	72	65	43	44	36
9	32	37	61	58	49	60	72	66	65	36	46	29
10	32	37	49	35	53	56	71	61	66	46	40	28
11	30	38	35	63	58	62	73	69	66	48	35	36
12	29	31	44	36	58	71	72	73	67	44	33	37
13	21	28	53	46	63	67	70	74	66	37	33	34
14	30	40	48	51	59	68	72	69	61	33	41	32
15	32	30	52	61	61	60	71	61	66	40	40	29
16	28	40	51	62	49	59	70	56	68	54	39	28
17	27	51	43	52	46	60	65	61	67	50	49	33
18	30	27	45	44	48	67	60	73	75	51	62	38
19	27	27	41	40	52	60	73	67	62	54	61	34
20	21	30	59	45	54	55	72	67	57	51	42	30
21	37	25	67	53	56	57	68	85	67	43	42	26
22	48	27	44	58	62	63	68	58	66	34	34	17
23	44	29	34	59	62	72	69	59	61	48	39	25
24	32	29	44	48	53	70	67	60	63	45	46	48
25	25	26	54	58	52	76	60	57	67	52	37	32
26	21	27	59	54	63	71	68	68	64	44	34	28
27	26	36	61	55	59	72	70	54	63	44	48	31
28	25	40	40	34	62	71	72	63	66	53	42	28
29	29	28	55	66	66	71	72	71	65	48	37	28
30	41	30	30	53	62	71	72	70	66	56	37	21
31	35	47	47	53	59	71	72	70	66	56	37	26
Mean.....	31.2	35.0	46.2	49.2	54.1	63.3	70.2	65.0	66.4	47.9	41.5	32.0

Bo d-faced figures indicate lowest temperature for each month.

Monthly and Annual Precipitation.

YEAR.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
1871.	2.85	8.61	2.10	4.61	4.30
1872.	1.82	3.25	3.55	2.27	1.77	2.01	1.65	4.95	2.42	5.14	2.22	2.7	1.77
1873.	4.50	8.92	2.05	3.44	8.98	2.21	3.00	0.22	2.50	4.80	3.45	1.7	13.22
1874.	3.33	1.11	3.16	7.02	2.20	2.00	4.10	2.31	2.50	0.11	1.28	2.7	14.51
1875.	2.03	3.70	5.60	3.11	2.67	3.25	2.60	0.50	1.58	1.39	3.70	1.6	11.48
1876.	0.55	0.50	3.71	1.81	3.01	3.75	2.50	2.75	4.42	1.00	2.50	1.1	77.65
1877.	2.45	0.60	3.17	3.38	2.01	1.29	5.22	1.97	2.35	4.27	3.55	1.1	17.71
1878.	3.14	1.25	2.00	3.47	5.12	2.31	1.60	3.65	0.96	5.68	1.91	4.7	5.25
1879.	5.11	1.19	2.28	2.21	1.70	3.20	3.30	7.33	1.29	1.06	0.70	5.7	3.81
1880.	0.65	1.71	5.42	1.06	1.35	2.40	3.61	8.95	3.53	2.14	2.95	3.6	27.45
1881.	2.30	2.32	3.71	3.01	1.15	5.37	3.28	1.75	2.42	3.15	3.55	5.5	37.89
1882.	5.22	2.70	2.54	1.05	4.77	1.66	2.52	4.43	6.59	2.01	0.21	2.7	16.66
1883.	3.53	2.1	2.01	6.45	1.60	2.61	1.75	1.70	6.03	5.13	1.30	1.7	15.83
1884.	2.1	4.87	4.53	1.94	1.51	2.04	4.02	1.49	0.15	0.52	1.61	4.7	14.59
1885.	3.97	2.00	1.19	1.65	5.17	2.80	3.07	1.69	1.20	3.49	2.86	4.7	34.52
1886.	4.15	3.02	4.87	2.57	8.61	5.82	10.61	4.20	3.07	1.45	5.22	2.1	51.10
1887.	1.89	4.10	2.35	2.63	3.50	4.15	0.50	8.27	1.19	4.94	2.49	4.7	16.81
1888.	2.79	2.30	5.25	2.55	6.70	1.80	1.40	4.19	10.41	3.21	3.15	3.7	19.48
1889.	4.77	3.71	3.68	8.89	9.13	7.93	14.07	3.99	5.60	5.15	4.50	6.7	72.62
1890.	1.53	3.35	3.34	2.79	4.69	2.21	4.58	5.51	5.50	0.11	4.7	4.7	10.60
1891.	4.70	5.68	8.78	1.96	5.18	1.12	1.60	4.80	1.24	2.12	1.88	2.7	17.37
1892.	3.90	3.30	3.19	6.77	2.32	3.47	5.11	3.37	3.15	0.83	4.50	1.7	17.70
1893.	3.37	4.98	2.41	3.82	5.15	2.62	3.21	3.43	0.66	5.72	3.22	2.7	17.24
1894.	3.35	4.51	1.21	3.20	6.71	2.77	4.50	5.12	6.48	4.66	1.68	2.7	6.46
1895.	5.25	1.47	4.23	8.31	4.21	2.30	5.01	2.65	0.42	1.69	3.05	2.1	11.14
1896.	2.40	4.55	3.70	1.69	3.05	5.58	8.02	0.45	6.20	0.62	3.16	0.7	10.09
1897.	1.86	6.40	5.11	2.70	2.48	2.31	4.18	1.84	1.03	6.54	3.07	2.7	10.20
1898.	1.05	1.05	3.78	4.83	5.20	2.98	4.15	6.31	2.35	4.59	2.22	3.7	11.65
1899.	2.94	4.72	5.59	2.04	2.14	2.51	4.12	5.61	6.21	4.03	1.10	2.7	13.40
1900.	2.71	4.42	2.80	3.62	2.20	3.08	3.13	3.66	4.93	2.55	2.87	2.7	37.76
1901.	2.80	0.55	3.79	5.20	3.80	2.32	5.06	6.99	3.21	0.79	1.37	8.18	2.05
1902.	3.26	4.84	1.89	3.12	3.42	4.81	0.21	3.10	4.07	4.81	4.83	4.7	19.32
1903.	3.61	5.02	8.14	4.46	3.30	5.73	5.17	3.21	1.60	3.44	1.40	2.2	17.42
1904.	2.31	2.71	3.52	1.57	1.45	4.11	6.25	3.85	3.00	2.80	2.55	3.7	27.84
1905.	2.47	4.14	2.18	3.06	4.09	3.72	3.25	4.01	2.61	1.24	0.51	7.17	15.38
1906.	2.51	2.57	4.78	2.16	3.37	5.14	6.75	8.68	0.55	7.47	0.87	2.7	16.80
1907.	1.22	2.30	2.91	4.87	5.78	6.21	2.01	5.31	6.51	2.30	4.61	4.7	18.48
1908.	4.39	3.92	2.96	2.73	6.71	5.72	4.37	10.40	2.74	2.87	1.25	4.7	18.70
1909.	3.06	2.94	4.13	3.21	3.41	1.59	1.25	4.01	2.19	0.77	0.62	5.7	13.21
1910.	3.38	2.38	1.42	8.74	2.67	5.67	6.40	2.90	1.07	5.03	0.98	2.7	15.14
1911.	3.65	2.20	2.15	4.00	0.60	2.85	0.57	7.26	1.85	3.61	4.33	3.5	17.00
1912.	2.34	3.76	3.18	2.17	4.59	2.50	4.25	1.40	4.20	0.58	1.73	2.7	15.63
1913.	2.53	1.51	3.53	2.51	4.80	3.78	3.65	4.50	3.20	3.95	1.40	2.7	17.74
1914.	3.65	3.27	3.66	1.20	2.50	2.70	3.00	2.42	1.47	1.67	2.20	4.6	12.53
1915.	5.41	3.92	1.10	1.68	3.00	3.77	2.42	7.34	1.99	3.27	0.63	1.05	16.46
1916.	1.51	3.68	1.57	1.91	4.74	8.72	5.30	1.55	2.01	1.44	1.31	2.4	37.26
1917.	2.93	2.28	5.07	2.56	4.59	5.31	0.28	2.74	4.63	3.70	0.44	1.7	13.47
1918.	5.81	0.01	3.08	8.02	3.30	5.30	1.05	2.70	3.55	0.40	1.26	4.7	11.38
1919.	3.61	2.22	3.51	3.75	5.19	3.00	0.02	2.02	0.54	1.71	1.31	2.7	10.11
1920.	2.02	0.67	3.11	2.90	3.66	6.31	6.05	8.60	2.71	0.66	6.69	1.87	50.85
1921.	3.80	3.52	2.13	3.65	3.50	1.40	2.36	0.61	0.95	1.20	2.97	3.02	30.59
Normal	3.02	3.10	3.72	3.45	3.55	3.52	4.42	4.41	3.43	3.32	2.39	3.00	11.63
Means.	3.06	3.15	3.76	3.52	3.84	3.79	4.26	4.47	3.14	3.07	2.22	3.08	11.36

Bold-faced figures indicate highest and lowest totals.

Daily Precipitation.

Day of month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	0.0	0.0	0.0	.99	.04	0.0	.06	0.0	0.0	0.0	0.0	0.0
2	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.37
3	0.0	0.0	.09	0.0	.86	0.0	0.0	.30	T	.31	0.0	0.0
4	0.0	0.0	0.0	0.0	.77	.04	0.0	.01	.05	0.0	0.0	.18
5	0.0	.02	0.0	0.0	.61	.05	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	T	.05	0.0	0.0	0.0	.12	0.0	0.0	0.0
7	0.0	0.0	0.0	.16	T	0.0	0.0	0.0	T	0.0	0.0	0.0
8	0.0	0.0	T	.59	0.0	0.0	0.0	T	0.0	.22	0.0	.12
9	.42	.98	.96	.03	0.0	0.0	.07	0.0	0.0	0.1	.65	T
10	2.32	.09	0.0	.18	0.0	0.0	.35	0.0	T	0.0	0.0	0.0
11	0.0	T	0.0	0.0	.06	T	0.0	0.0	.36	0.0	0.0	0.0
12	0.0	0.0	.12	0.0	.25	0.0	T	T	.09	0.0	T	.10
13	.06	0.0	0.0	0.0	.65	0.0	0.0	.1	0.0	0.0	0.0	T
14	.97	0.0	.07	T	0.0	0.0	.09	0.0	0.0	0.0	.21	T
15	0.0	0.0	.01	.04	.04	0.0	1.02	T	0.0	0.0	.01	0.0
16	0.0	0.0	0.0	1.59	.13	0.0	0.0	.04	0.0	0.0	.01	0.0
17	0.0	0.0	.15	.12	0.0	.04	0.0	.65	0.0	0.0	.06	.01
18	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	T	0.0	0.0	.27
19	0.0	.12	0.0	0.0	0.0	.01	T	0.0	0.0	0.0	0.0	T
20	T	1.32	0.0	0.0	0.0	0.0	.01	T	0.0	T	1.64	0.0
21	0.0	.10	T	0.0	0.0	0.0	0.0	.25	0.0	0.0	.01	0.0
22	0.0	.08	0.0	T	0.0	0.0	0.0	0.0	.04	0.0	0.0	T
23	.01	T	T	.73	.22	.45	0.0	0.0	0.0	0.0	0.0	.94
24	0.0	0.0	.40	0.0	.03	0.0	0.0	0.0	0.0	0.0	0.0	.01
25	0.0	0.0	0.0	0.0	.13	T	.26	0.0	.02	0.0	0.0	.88
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	T	T	.02	.01	T	0.0	0.0	.02	0.0	.07	0.0
28	0.0	T	.15	0.0	.01	0.0	0.0	.01	0.0	0.0	.31	0.0
29	0.0	T	.01	.14	.04	.03	.46	0.0	.01	0.0	T	.06
30	0.0	T	0.0	0.0	.04	.06	0.0	0.0	T	.31	0.0	0.0
31	T	.17	0.0	0.0	0.0	0.0	0.0	.03	0.0	.36	0.0	0.0
Total	3.80	3.52	2.13	4.65	3.80	1.49	2.36	0.61	0.55	1.20	2.97	3.02

T. Indicates a trace.

Seasonal Snowfall 1898-1921.

Season.	November.	December.	January.	February.	March.	April.	Season.	Greatest 24-hour Snowfall.	Greatest Depth on Ground.
1897-1898	0.0	0.0	3.0	T.	T.	2.0	5.0	3.0	T.
1898-1899	0.0	T.	8.0	20.2	5.0	T.	34.0	7.5	17.7
1899-1900	0.0	2.1	0.3	6.2	5.8	T.	14.4	4.8	4.5
1900-1901	T.	7.2	5.5	1.0	1.4	T.	15.1	7.2	4.2
1901-1902	0.0	1.0	5.0	9.5	0.0	T.	15.8	6.0	3.6
1902-1903	0.0	1.1	0.9	0.2	0.0	0.0	2.2	1.1	0.3
1903-1904	0.4	0.9	10.7	8.4	T.	0.0	20.4	5.2	8.1
1904-1905	1.8	8.5	6.5	2.2	T.	T.	10.0	3.8	5.0
1905-1906	T.	5.3	0.7	7.0	6.4	0.0	15.4	4.3	4.3
1906-1907	1.9	T.	3.1	9.8	6.4	T.	27.5	3.4	3.2
1907-1908	T.	T.	3.2	7.8	2.3	0.0	13.5	3.1	2.4
1908-1909	T.	17.2	0.2	4.1	3.8	0.0	25.3	17.2	10.8
1909-1910	T.	3.3	1.8	0.7	5.9	0.0	11.7	4.0	1.0
1910-1911	0.0	0.7	2.6	T.	4.0	0.0	7.3	2.2	2.4
1911-1912	0.0	T.	8.0	1.7	11.3	0.0	21.0	7.0	5.0
1912-1913	2.0	0.2	0.4	3.1	0.0	0.0	5.7	2.7	2.4
1913-1914	0.0	T.	T.	10.3	5.8	0.2	26.3	7.8	5.0
1914-1915	0.0	5.4	0.2	1.5	0.3	10.0	17.5	10.0	7.1
1915-1916	0.0	0.6	2.6	1.9	4.4	T.	9.5	3.6	3.6
1916-1917	T.	9.1	T.	0.8	T.	T.	9.9	5.3	6.2
1917-1918	T.	15.3	14.4	1.3	0.0	2.7	33.7	9.4	9.4
1918-1919	0.0	T.	T.	0.0	0.0	0.0	T	T	T.
1919-1920	0.0	6.0	T.	3.6	T.	0.0	9.6	6.0	6.0
1920-1921	0.0	0.0	T.	1.0	0.0	T.	1.0	1.0	T.
Means	0.3	3.3	3.2	4.3	3.0	0.6	14.7	17.2	17.7

T. Indicates a trace.

EDWARD A. EVANS,
METEOROLOGIST

James River at Richmond.

1921.

Average height of water during the year, with departure from the normal.

	Average height.	Dep. from normal.		Average height.	Dep. from normal.
1921.			1921.		
Jan.	2.1	+0.7	July	0.1	-0.8
Feb.	1.1	-0.4	Aug.	-0.4	-0.6
Mar.	1.4	-0.6	Sept.	-0.2	-0.4
Apr.	1.2	+0.5	Oct.	-0.5	-1.0
May	1.4	+0.2	Nov.	+0.2	0.0
June	0.7	0.3	Dec.	+1.2	+0.3

Highest and Lowest Stages of Water Recorded in each month of the year 1921.

	High-est.	Low-est.		High-est.	Low-est.
1921.			1921.		
Jan.	6.8	0.6	July	1.4	-0.4
Feb.	4.1	0.1	Aug.	0.5	-0.6
Mar.	2.5	0.8	Sept.	0.5	-0.6
Apr.	1.8	0.8	Oct.	0.8	0.8
May	2.1	1.0	Nov.	3.8	0.7
June	1.3	0.0	Dec.	2.3	0.3

All data recorded to feet and tenths.

1890-1921.

Highest and Lowest Stages of Water Recorded at Richmond, Va. by months and years—Weather Bureau record only.

	Highest.	Year.	Lowest.	Year.
Jan.	20.5	1907.	-2.0	1900
Feb.	22.0	1899.	-1.7	1901
Mar.	20.5	1899.	-0.8	1901-5
Apr.	14.0	1901.	-1.3	1900
May	19.3	1901.	-1.2	1900
June	14.7	1003-7.	-1.3	1900
July	12.1	1919.	-1.2	1900-1
Aug.	11.1	1908.	-1.2	1900
Sept.	12.5	1895.	-2.8	1899
Oct.	18.7	1900.	-1.4	1904
Nov.	11.2	1900.	-2.8	1899
Dec.	23.2	1901.	-2.8	1899

All data recorded to feet and tenths.

Notable Floods Occurring at Richmond, Va.

O -

October, 1870, 27.0 feet; November, 1877, 28.6 feet; April, 1886, 21.1 feet; July, 1886, 17.2 feet; August, 1889, 22.5 feet; June, 1889, 25.2 feet; January, 1895, 18.2; February, 1899, 22.6; March, 1890, 20.5; May 1901, 19.5; December 1901, 23.2; March 1902, 19.0; October 1906, 18.7; March 1912, 17.8; May 1912, 17.3; March 1913, 17.5; January 1919, 17.2.

MISCELLANEOUS DATA FOR 1921.

Barometric pressure, reduced to sea-level: Mean, 30.03 inches; highest, 30.78 inches, Jan. 10.; lowest, 29.28 inches, December 13.

Temperature. Greatest daily range, 43, Oct. 22; least daily range, 5, Nov. 9; greatest monthly range, 69, Mar.; least monthly range, 25, July.

Precipitation. Longest period without a trace of precipitation, 11 days, Oct. 9 to 19 inclusive.

Greatest number of consecutive days with precipitation, trace or more, 6 days, March 27 to April 1; Aug. 12 to 17, inclusive.

Snow. Greatest snowfall in 24 hours, 1.0 inch, Feb. 21-22; greatest depth of snow on ground, measured at 8 p. m., trace, Jan. 9 and Feb. 21; first snow of winter occurred on Feb. 22; first snow of winter occurred on Jan. 9.

Frost. Last killing frost in spring, April 2, 4 days earlier than the average date; first killing frost in autumn, Nov. 9, 9 days later than the average date.

Thunderstorms. First, Mar., 9; last, Nov. 16.

Hail, none.