

U. S. DEPARTMENT OF COMMERCE  
WEATHER BUREAU

# LOCAL CLIMATOLOGICAL DATA

WITH COMPARATIVE DATA

1956

RICHMOND, VIRGINIA



## NARRATIVE CLIMATOLOGICAL SUMMARY

Richmond is located in East Central Virginia at the head of navigation on the James River and along a line separating the Coastal Plains (Tidewater Virginia) from the Piedmont. The Blue Ridge Mountains lie about 90 miles to the west and the Chesapeake Bay 60 miles to the east. Elevations range from a few feet above sea level along the river to a little over 300 feet in parts of the west section of the city.

The climate might be classed as modified continental. Summers are warm and humid and winters generally mild. The mountains to the west act as a partial barrier to outbreaks of cold, continental air in winter, the coldest air being delayed long enough to be modified, then further warmed as it subsides in its approach to Richmond. Because of proximity to open waters of the Chesapeake Bay and the Atlantic Ocean, they contribute to the warm and humid summers and mild winters. The coldest weather normally occurs in late December and in January, when low temperatures usually average in the upper twenties and the high temperature in the upper forties. Temperatures seldom lower to zero. The record lowest temperature of minus degrees was recorded at the Airport in January 1940. The record high temperature of 107 occurred in August 1918.

Precipitation is rather uniformly distributed throughout the year. However, dry periods lasting several weeks do occur, especially in autumn when long periods of pleasant, mild weather are most common. There is considerable variability in total monthly amounts from year to year so that no one month can be depended upon to be normal. Snow has been recorded during seven of the twelve months. Falls of four inches or more occur on an average of once a year. Snow usually remains on the ground only 1 or 2 days at a time but on one occasion it remained 20 days (January 19

to February 7, 1918.) Ice storms (freezing rain or glaze) are not uncommon in winter but they are seldom severe enough to do any considerable damage. Notable exceptions were the spectacular glaze storms of December 15-17, 1905, and January 27-28, 1943, when heavy damage was done to trees and transmission lines of all kinds.

The James River reaches tidewater at Richmond where flooding has occurred in every month of the year, most frequently in March (28 times in the past 61 years), and only twice in July. Hurricanes and less severe storms of tropical origin have been responsible for most of the flooding during the summer and early fall months. In recent years, three hurricanes brought more than normal rainfall to Richmond within a six-weeks period in 1955. The most noteworthy of these were Hurricanes Connie and Diane that brought heavy rains five days apart which sent the James River out of its banks at Richmond, during August 18th through August 20th.

Damaging storms occur mainly from snow and freezing rain in winter and from hurricanes, tornadoes and severe thunderstorms at other seasons. Damage may be from wind, flooding or rain or from any combination of these. Three tornadoes have been observed in Richmond, the latest, July 20, 1956. The highest wind recorded has been 68 mph with a peak gust of 79 mph at the time of Hurricane Hazel, October 15, 1954.

The dates of the last freeze in spring and of the first in autumn mark the limits of the growing season for most crops. The average growing season is 216 days. May 9, 1956, has been the latest date in spring when a temperature of 32 degrees or lower was recorded; October 9, 1935, has been the earliest date in autumn.



**AVERAGE TEMPERATURE**

**TOTAL PRECIPITATION**

RICHMOND, VIRGINIA  
BYRD FIELD  
1956

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	An. 1.
1910	39.0	39.4	53.9	58.4	63.8	70.3	77.8	74.6	71.8	61.0	42.5	34.1	57.2
1911	41.8	41.0	44.6	52.4	69.7	75.0	77.7	72.5	69.7	59.2	45.0	43.2	58.5
1912	28.9	35.0	44.9	59.6	67.0	72.2	77.6	76.4	73.0	60.2	48.2	43.2	57.2
1913	46.7	40.0	52.0	57.8	66.6	73.8	79.0	75.2	69.0	60.2	50.2	42.2	59.4
1914	41.8	35.0	41.8	56.0	68.6	75.8	76.9	77.6	68.2	61.8	48.0	35.7	57.3
1915	39.4	43.7	40.6	59.9	66.0	72.0	78.0	76.2	72.4	61.3	49.2	37.7	58.0
1916	44.0	38.8	44.6	52.4	68.9	71.7	77.5	76.1	68.2	60.2	48.5	38.8	57.7
1917	39.8	37.6	46.6	57.4	81.2	73.6	76.8	75.8	65.2	54.8	44.4	30.0	55.3
1918	28.0	41.2	47.4	54.7	70.4	74.1	73.8	78.3	65.6	62.2	47.8	43.2	57.3
1919	40.6	39.8	49.5	56.6	66.1	73.2	77.6	75.0	71.3	67.2	48.8	35.9	58.5
1920	34.2	35.5	48.2	55.2	60.8	72.4	75.4	75.2	71.0	62.0	47.2	41.0	56.5
1921	39.9	42.0	57.6	60.1	63.1	74.8	80.0	76.6	76.8	59.5	51.6	41.0	60.2
1922	35.0	41.9	49.4	58.6	67.2	75.0	77.6	73.3	70.6	60.8	49.0	42.3	58.4
1923	40.1	37.0	48.0	55.8	64.4	76.0	76.4	75.2	70.8	57.7	46.8	47.6	58.0
1924	38.0	38.2	45.6	54.0	62.8	72.8	75.2	76.4	65.8	58.6	48.8	40.5	56.4
1925	36.6	47.4	48.9	59.2	62.0	77.9	79.6	74.3	75.4	55.1	46.7	38.6	58.5
1926	37.8	41.8	43.0	54.5	65.7	71.4	77.6	78.0	71.2	60.2	46.4	37.8	57.1
1927	37.9	45.9	50.2	53.8	66.2	69.4	76.0	71.3	70.6	61.4	53.1	41.0	58.1
1928	38.9	40.4	47.4	54.2	61.4	72.8	78.4	78.0	65.8	61.4	50.4	41.0	57.7
1929	38.8	38.2	52.8	60.2	65.8	73.1	77.0	75.1	71.2	58.0	49.8	41.4	58.4
1930	39.6	45.3	46.4	55.6	68.8	74.2	79.8	76.1	76.8	57.2	48.1	36.8	58.7
1931	39.7	41.5	42.3	54.4	63.8	73.8	80.4	75.7	74.4	62.3	55.9	47.8	59.5
1932	49.8	46.2	43.9	55.0	65.1	74.1	79.1	78.8	72.2	60.4	46.8	42.4	59.5
1933	45.6	41.2	46.4	56.8	70.1	75.8	76.2	76.6	74.4	58.7	47.4	43.2	59.4
1934	42.4	29.0	43.4	56.8	67.0	78.1	80.6	76.0	72.3	58.0	51.1	39.6	57.9
1935	36.1	39.6	52.2	53.7	63.8	74.4	77.6	76.2	68.6	59.9	52.4	33.3	57.3
1936	33.0	34.6	52.4	54.0	68.6	74.2	79.9	79.0	73.6	61.8	47.6	41.4	58.3
1937	46.4	39.3	44.7	56.4	66.8	76.4	77.0	77.6	66.8	56.4	47.8	40.0	58.0
1938	38.2	44.8	53.2	59.7	65.6	72.0	77.1	79.0	69.0	59.2	52.0	40.8	59.2
1939	42.3	45.5	48.4	56.8	67.8	77.0	76.2	77.8	72.8	60.6	46.6	41.4	59.5
1940	27.3	39.9	44.6	63.6	66.0	75.4	78.6	74.4	67.9	57.8	49.5	44.4	56.4
1941	37.0	36.1	42.0	51.2	68.6	74.8	78.0	73.6	67.0	51.4	43.9	39.9	59.3
1942	36.8	36.8	49.2	60.2	70.7	75.8	80.0	75.4	72.0	61.2	50.8	37.7	58.9
1943	40.4	42.2	47.6	54.2	62.2	72.9	78.4	78.8	69.2	58.2	48.6	39.4	58.9
1944	39.8	41.2	45.5	56.7	71.8	76.9	78.4	75.7	71.8	58.8	48.9	37.0	58.5
1945	35.0	41.8	58.6	61.3	64.2	75.6	76.6	75.6	74.4	59.2	51.1	34.6	59.7
1946	39.0	42.7	54.9	62.2	66.5	73.3	75.8	73.4	71.0	62.2	54.2	44.7	59.0
1947	45.2	34.2	41.4	58.2	67.4	72.9	75.6	79.4	71.2	64.6	47.0	39.4	58.0
1948	32.2	40.9	51.4	58.3	65.7	75.1	78.6	78.6	69.6	57.8	54.5	43.8	58.7
1949	46.4	47.8	49.2	56.6	66.6	75.4	80.2	77.0	68.2	63.6	50.6	43.9	60.5
1950	50.7	41.8	45.3	55.6	65.6	74.0	76.2	75.3	68.4	62.1	48.0	37.4	58.3
1951	41.4	42.4	47.2	56.9	65.3	74.4	78.8	76.4	70.5	62.4	45.5	43.1	58.7
1952	43.5	43.1	47.2	58.8	65.8	78.0	80.5	76.8	70.1	56.3	50.5	40.6	59.3
1953	42.9	43.4	48.3	58.0	71.5	75.2	79.9	77.3	70.0	60.7	48.5	42.5	59.9
1954	38.0	44.9	47.0	61.2	63.0	74.6	78.6	76.8	74.4	62.3	46.1	38.2	58.9
1955	35.8	40.1	50.2	60.8	67.2	70.1	81.3	78.7	70.6	59.5	46.4	34.8	58.0
1956	36.0	43.0	46.3	55.5	65.0	74.7	77.8	76.5	67.9	60.9	47.6	48.9	58.3

RECORD  
MEAN  
TEMP  
MAX  
MIN

39.2	39.9	48.1	56.8	68.5	74.2	78.2	76.5	70.9	60.1	49.0	40.2	58.3
48.1	49.5	58.6	67.8	77.4	84.2	87.8	85.8	80.6	70.7	59.1	49.0	68.2
30.3	30.3	37.6	45.8	55.6	64.1	68.5	67.1	61.1	49.5	38.8	31.3	48.3

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1910	3.38	2.38	1.42	8.74	2.67	5.67	6.40	2.90	1.07	5.03	0.98	2.50	43.14
1911	3.65	2.20	2.15	4.00	6.00	2.83	0.57	7.26	1.85	3.61	4.33	3.95	37.00
1912	2.34	3.76	8.18	2.17	4.59	2.50	1.25	1.49	4.20	0.58	1.73	2.84	35.63
1913	2.53	1.51	3.53	2.54	4.80	3.78	3.65	4.59	3.20	3.95	1.49	2.17	37.74
1914	3.65	3.27	3.66	1.28	2.50	2.76	3.00	2.42	1.47	1.67	2.20	4.95	32.83
1915	5.41	3.92	1.10	1.68	3.00	3.77	2.42	7.34	1.99	3.27	0.63	1.93	36.46
1916	1.51	3.68	1.67	1.94	4.74	8.72	5.39	1.55	2.01	1.44	0.31	3.40	37.26
1917	2.98	2.28	5.97	2.56	4.59	5.31	6.28	2.74	4.62	3.78	0.44	1.72	43.27
1918	5.81	0.91	3.98	8.02	3.30	5.36	1.05	2.76	3.55	0.59	1.26	4.79	41.38
1919	3.64	2.22	3.51	3.25	5.19	3.90	9.92	2.62	0.54	1.71	1.31	2.80	40.11
1920	2.02	6.67	3.11	2.96	3.06	6.34	6.05	8.69	2.71	0.66	6.69	1.37	50.83
1921	3.80	3.52	2.13	4.65	3.89	1.49	2.36	0.61	0.95	1.20	2.97	3.02	50.59
1922	4.58	3.81	7.01	2.01	3.27	6.42	8.48	7.78	0.66	3.68	0.86	3.14	31.70
1923	4.61	3.09	5.88	3.96	1.16	2.09	10.87	6.41	4.25	2.16	2.20	2.28	48.96
1924	2.98	2.34	4.00	5.11	7.36	4.85	2.33	3.05	9.58	0.78	1.61	3.40	47.39
1925	5.42	0.90	2.47	2.33	2.15	2.24	2.32	2.55	0.93	4.67	1.55	3.89	31.42
1926	3.30	3.60	2.66	2.01	1.59	2.19	7.17	5.24	1.46	0.81	3.63	4.56	37.52
1927	0.70	2.87	1.95	3.47	3.30	3.12	1.10	7.19	4.01	2.02	1.61	5.02	44.36
1928	2.23	1.84	2.71	6.86	1.99	7.19	1.95	8.05	7.01	0.40	1.20	1.46	42.89
1929	1.53	5.19	3.96	3.50	4.00	3.02	2.16	2.41	2.41	6.99	3.34	2.70	41.21
1930	4.25	1.21	1.07	3.19	2.71	5.18	4.51	2.35	1.37	1.31	1.63	2.48	31.76
1931	1.88	2.60	2.94	3.97	5.64	2.98	4.47	11.42	1.92	1.15	0.24	2.52	41.73
1932	5.64	1.66	6.21	1.69	4.17	3.17	1.66	1.36	0.75	6.58	3.50	4.84	41.23
1933	3.95	2.73	2.15	4.02	4.84	1.63	4.59	8.84	1.05	0.72	1.17	3.14	38.73
1934	1.63	5.34	4.36	2.10	4.83	3.65	3.22	3.22	5.92	0.82	3.34	2.32	40.75
1935	4.41	2.13	4.00	4.40	3.81	6.22	5.64	3.68	9.23	1.73	3.19	2.12	50.56
1936	7.76	3.92	3.83	2.68	0.45	3.88	3.18	2.90	1.43	1.68	0.92	4.34	36.97
1937	10.08	2.42	1.66	6.02	1.64	6.02	6.00	9.85	2.61	6.34	2.44	4.00	55.98
1938	2.96	1.89	3.57	2.80	4.66	9.28	9.71	2.44	3.85	1.58	3.61	2.61	48.96
1939	2.64	3.87	4.39	3.00	1.80	4.98	4.33	5.84	1.56	4.33	2.41	1.50	40.66
1940	3.09	2.81	2.09	5.19	4.65	3.78	3.52	11.08	1.55	2.02	4.58	1.56	45.92
1941	2.32	1.14	2.43	3.23	1.88	2.08	3.51	3.86	2.20	0.75	0.46	2.66	28.82
1942	4.33	1.11	1.15	0.52	3.57	4.75	4.31	5.73	3.05	7.38	1.23	3.05	44.18
1943	3.19	1.93	4.49	2.16	3.17	4.07	5.08	0.80	3.60	2.11	1.70	2.17	34.41
1944	2.90	5.40	5.67	3.32	1.12	1.29	5.51	5.16	3.74	1.76	3.77	2.14	41.78
1945	2.22	3.28	1.39	2.90	5.35	1.43	16.08	2.67	6.44	1.06	3.12	5.78	51.72
1946	2.29	2.52	2.39	3.07	7.59	4.14	8.43	3.15	1.80	2.15	1.78	3.08	42.39
1947	3.86	2.01	2.30	2.20	3.47	4.49	2.87	2.52	7.03	1.81	5.17	1.47	39.20
1948	4.89	6.21	4.98	4.60	5.47	1.95	5.79	6.38	3.05	3.27	5.43	4.29	52.51
1949	3.25	2.50	2.34	2.31	6.11	4.65	2.65	8.56	3.46	5.36	2.24	1.84	46.87
1950	2.51												

# STATION LOCATION

RICHMOND, VIRGINIA  
BYRD FIELD  
1956

Location	Occupied from	Occupied to	Airline distance and direction from previous location	Latitude	Longitude	Elevation above										REMARKS		
						Sea level		Ground										
						Ground	Actual barometer elevation (H.)	Wind instruments	Extreme thermometers	Psychrometer	Telepsychrometer	Tipping bucket rain gage	Weighing rain gage	8" rain gage				
<b>CITY OFFICE</b>																		
High elevation in East Richmond	1-1880	2-1893				Est. 150			?									W. H. Pleasants, Exact address unknown.
Near Southern RR Bridge	3-1893	3-1895	?			Est. 35			?									A. J. Duesberry, River Observer, Observed Temperatures.
Westbrook Farms	4-1895	10-1897	4 mi. N	27° 36' N	77° 24' W	196			?									Capt. J.C. Shafer, Temperatures only.
State Library Building Capitol Square	9-18-95	5-22-97	4 mi. S	37° 32' N	77° 27' W	142												Section Center, No Observations.
Chamber of Commerce Bldg Ninth & Main Streets	5-22-97	10- 4-97	3/8 mi. SW	37° 32' N	77° 27' W	104												Section Center, No Observations.
Chamber of Commerce Bldg. Ninth & Main Sts.	10- 5-97	5-31-00				143.70	107	98	98		89		89					Observational Program begun 10-5-97.
Times Bldg., 10th & Bank Streets	5-31-00	6-30-05	1/8 mi. NE	37° 32' N	77° 27' W	115	156.90	92	82	82	76		76					
Mutual Assurance Bldg. 9th & Main Streets	6-30-05	1-30-10	1/8 mi. SW			104	214.82	154	145	145	138		138					
Weather Bureau Building Chimborazo Park, 3301 E Broad Street	1-30-10	7- 1-39	1-1/2 mi. E	37° 32' N	77° 25' W	162	169.59	53	11	11	3		3					Observational program at Airport
Weather Bureau Building Chimborazo Park, 3301 E Broad Street	7- 1-39	9-24-42																
Weather Bureau Building Chimborazo Park, 3301 E Broad Street	9-24-42	4-19-46									4							Observations, including Pibals, returned to WBO. Byrd Field occupied by AAF.
Weather Bureau Building Chimborazo Park, 3301 E Broad Street	4-19-46	6- 1-50																
Observational and Pibal Program returned to WBAS, Byrd Field. Climatological Observations only at WBO. Triple register and associated instruments moved to WBAS. Weighing gage returned to WBO. Climatological observations.																		
Weather Bureau Building Chimborazo Park, 3301 E Broad Street	6- 1-50	7- 1-53		37° 32' N	77° 25' W	162		# 53	11		-	4	3					# Wind instruments for display. WBO consolidated with WBAS 7-1-53.
<b>AIRPORT STATION</b>																		
Old WB/CAA Bldg. location	7-15-25	8- 3-30	None	37° 30' N	77° 20' W	*158	163.96	-	-	-	-	-	-	-	-	-	-	Branch service of City Office and CAA cooperating.
WB-CAA Building	8- 3-30	5-26-35	None	37° 30' N	77° 20' W	158	163.96	40	5	5	-	-	-	-	-	-	3	Full WBAS established; closed 1935.
WB-CAA Building	5-27-35	7-14-38	None	37° 30' N	77° 20' W	158	163.96	* 40	5	5	-	-	-	-	-	-	3	Observations by CAA during period WB closed.
WB-CAA Building	7-14-38	9-24-42	None	37° 30' N	77° 20' W	158	163.96	* 50	5	5	-	-	-	-	-	-	3	Reopened same location; closed 1942 because AF had AP.
Army Hangar (Operations Annex)	9-24-42	4-19-46	1/2 mi. NNW	37° 30' N	77° 20' W	156	159.72	55	5	5	-	-	-	-	-	-	3	Army base closed after World War II.
Old Airport Administration Building	4-19-46	6- 1-50	1/3 mi. SSE	37° 30' N	77° 20' W	156	166.85	46	5	5	-	-	-	-	-	-	4	WBAS re-opened in airport terminal building (old).
Byrd Field, New Terminal Building	6- 1-50	Present	4/5 mi. N	37° 30' N	77° 20' W	162	180.24	67	6	6	-	3	-	3				All Airport operations consolidated in new Terminal Building.
* Data doubtful.																		