

U. S. DEPARTMENT OF COMMERCE
WEATHER BUREAU

LOCAL CLIMATOLOGICAL DATA

WITH COMPARATIVE DATA

1964

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. The open waters of the Chesapeake Bay and Atlantic Ocean contribute to the 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 temperatures in the upper forties. Temperatures seldom lower to zero. The record lowest temperature of minus 12 degrees was recorded at the Airport in January 1940. The record high temperature of 107 occurred in August 1918 at Chimborazo Park.

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 21 days (January 23

to February 13, 1948.) Ice storms (freezing rain or glaze) are not uncommon in winter but they are seldom severe enough to do any considerable damage. A notable exception was the spectacular glaze storm of January 27-28, 1943 when heavy damage was done to trees and overhead 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 the Richmond area, 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 8, 1935, has been the earliest date in autumn.

STATION LOCATION

RICHMOND, VIRGINIA
BYRD FIELD
1964

| Location | Occupied from | Occupied to | Airline distance and direction from previous location | Latitude North | Longitude West | Elevation above | | | | | | | | Remarks |
|---|---------------|-------------|---|----------------|----------------|-----------------|----------------------------|------------------|----------------------|--------------|------------------|--------------------------|--------------------|--|
| | | | | | | Sea level | Ground | | | | | | | |
| | | | | | | | Ground at temperature site | Wind instruments | Extreme thermometers | Psychrometer | Telepsychrometer | Tipping bucket rain gage | Weighing rain gage | |
| COOPERATIVE | | | | | | | | | | | | | | |
| 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' | 77° 24' | 196 | | ? | | | | | | Capt. J. C. Shafer, temperatures only. |
| CITY OFFICE | | | | | | | | | | | | | | |
| State Library Building Capitol Square | 9-18-95 | 5-22-97 | 4 mi. S | 37° 32' | 77° 27' | 142 | | | | | | | | Section Center, no observations. |
| Chamber of Commerce Bldg., Ninth & Main Sts. | 5-22-97 | 5-31-00 | 3/8 mi. SW | 37° 32' | 77° 27' | 104 | 107 | 98 | 98 | | 89 | | 89 | Observational Program begun 10-5-97. |
| Times Building 10th & Bank Street | 5-31-00 | 6-30-05 | 1/8 mi. NE | 37° 32' | 77° 27' | 115 | 92 | 82 | 82 | | 76 | | 76 | |
| Mutual Assurance Bldg. 9th and Main Street | 6-30-05 | 1-30-10 | 1/8 mi. SW | | | 104 | 154 | 145 | 145 | | 138 | | 138 | |
| Weather Bureau Building Chimborazo Park 3301 E Broad Street | 1-30-10 | 7- 1-53 | 1-1/2 mi. E | 37° 32' | 77° 25' | 162 | 53 | 11 | 11 | | 3 | a4 | 3 | Climatological observations were continuous at City Office sites 10-5-97 through 6-30-53. Observational program at Airport 7-1-39 to 9-24-42 and after 4-19-46. a - At this site 9-24-42 to 4-19-46. and after 6-1-50. |
| AIRPORT STATION | | | | | | | | | | | | | | |
| WB-CAA Building | 7-15-25 | 9-24-42 | None | 37° 30' | 77° 20' | 158 | # | 5 | 5 | - | - | - | 3 | CAA to 8-3-30. WBAS 8-3-30 to 5-26-35 and 7-14-38 to 9-24-42. # - 40 ft. 8-3-30 to 5-26-35, estimated 40 ft. 5-26-35 to 7-14-38 and estimated 50 ft. to 9-24-42. |
| Army Hangar (Operations Annex) | 9-24-42 | 4-19-46 | 1/2 mi. NNW | 37° 30' | 77° 20' | 156 | 55 | 5 | 5 | - | - | - | 3 | AF operation. |
| Old Airport Administration Building | 4-19-46 | 6- 1-50 | 1/3 mi. SSE | 37° 30' | 77° 20' | 156 | 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' | 77° 20' | 162 | b20 | 6 | 6 | - | 3 | - | 3 | a5 a - Installed 2700 ft. ENE of thermometer site 6-26-59. b - 67 ft. to 1-11-61. |

Sale Price: 15 cents per copy. Checks and money orders should be made payable to the Superintendent of Documents. Remittances and correspondence regarding this publication should be sent to the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.