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2024 Weather in Review: Richmond National Battlefield Park

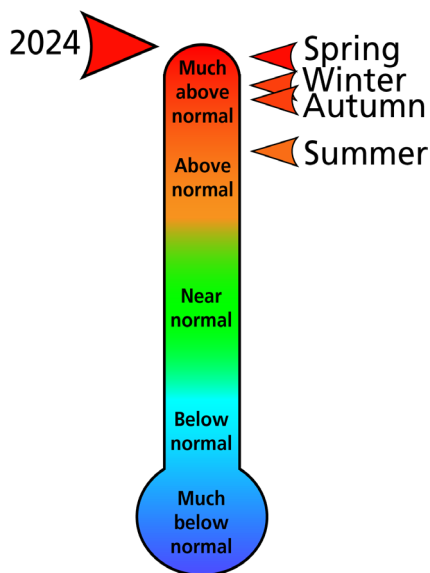
In all, 2024 was a record-setting year for the park; it was the warmest year every recorded (since 1895). In contrast, total precipitation for the year was near normal. Data indicate that over the long term, annual average temperature and annual total precipitation have both increased in the counties surrounding the park (+0.1°F per decade and +0.34 inches per decade, respectively).

This brief provides county-scale weather data averaged from all of the counties surrounding the park, including data from 1895–2024 (i.e., period of record). These counties include Caroline, Chesterfield, Hanover, and Henrico counties, VA. Data and analyses herein are courtesy of the National Oceanic and Atmospheric Administration's (NOAA) Climate at a Glance Program.

Temperature

In total, 2024 was the warmest year ever recorded at the park with all seasons being above normal (Figure 1). In addition, every month had higher than normal temperatures with February, March, and November being particularly warm (Table 1).

Table 1. Average monthly, average annual, and departures from long-term average temperatures. Departures from average are based on a comparison of 2024 average temperatures to relevant averages from 1895–2023. Data are available at <https://www.ncdc.noaa.gov/cag/county/time-series>.



Month/ Year	Average temperature (°F)	Departure from average (°F)
January	39.8	+3.1
February	43.4	+4.7
March	51.8	+4.9
April	59.7	+3.4
May	68.6	+3.0
June	76.9	+3.4
July	79.8	+2.3
August	76.8	+0.9
September	70.2	+0.6
October	60.3	+2.1
November	53.0	+5.2
December	40.5	+1.5
2024	60.1	+2.9

Figure 1. Seasonal and annual temperature rankings. An arrow at the top of the figure would represent the warmest year/season on record (since 1895); at the bottom, the coldest year/season on record. Winter = Jan–Mar, Spring = Apr–June, Summer = July–Sept, Autumn = Oct–Dec. Data are available at <https://www.ncdc.noaa.gov/cag/county/rankings>.

Precipitation

The year 2024 was near-normal for total precipitation (i.e., 53rd wettest on record), though the winter was wet and the spring and autumn were particularly dry (Figure 2). In all, 45 inches of precipitation fell, about 1.5 inches more than the long-term average (Table 2).

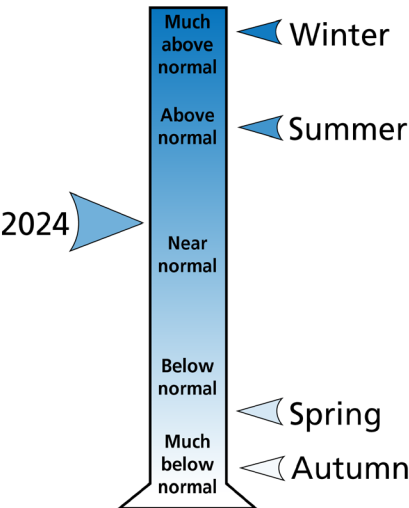


Figure 2. Seasonal and annual precipitation rankings. An arrow at the top of the figure would represent the wettest year/season on record (since 1895); at the bottom, the driest year/season on record. Winter = Jan–Mar, Spring = Apr–June, Summer = July–Sept, Autumn = Oct–Dec. Data are available at <https://www.ncdc.noaa.gov/cag/county/rankings>.

Table 2. Monthly and annual total precipitation and departure from long-term averages. Departures from average are based on a comparison of 2024 precipitation to relevant averages from 1895–2023. Data are available at <https://www.ncdc.noaa.gov/cag/county/time-series>.

Month/Year	Total precipitation (in.)	Departure from average (in.)
January	6.12	+2.81
February	2.79	–0.15
March	6.85	+3.15
April	2.16	–1.18
May	5.04	+1.13
June	0.99	–3.01
July	6.42	+1.94
August	5.41	+0.75
September	4.26	+0.52
October	1.02	–2.30
November	2.13	–0.76
December	1.81	–1.46
2024	45.00	+1.45

Temperature and Precipitation (1895–2024)

Data for counties surrounding the park indicate that annual average temperature has increased approximately +0.1°F per decade and annual total precipitation has increased approximately +0.34 inches per decade since 1895 (Figure 3).

National Park Service scientists have forecast future changes in climate too. Models estimate that by 2100, annual average temperature at the park will increase by 2.7–8.5°F (from a best-case to worst-case scenario, respectively). Annual total precipitation is expected to increase by 8–13% (see [Gonzalez et al., 2018](#) for details).

Data in this brief are preliminary and were retrieved from NOAA on 01/07/25.

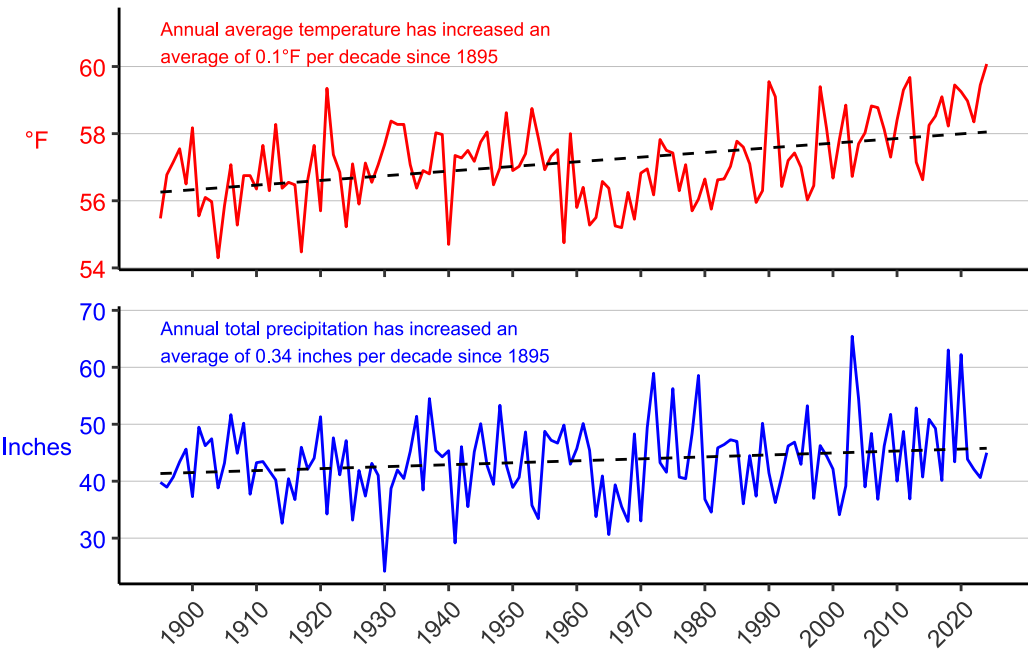


Figure 3. Annual average temperature (°F) and annual total precipitation (in.) from 1895–2024 for counties surrounding the park. Dashed lines represent linear estimates of change. Data are available at <https://www.ncdc.noaa.gov/cag/county/time-series>.