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2021 Weather in Review: Booker T. Washington National Monument

In all, 2021 was much warmer and drier than average. It was the 15th warmest year ever recorded in Franklin County, VA. It was also the 22nd driest year on record.

Data indicate that over the long term, annual average temperature and annual total precipitation have both increased (+0.10 °F per decade and +0.32 inches per decade, respectively).

This brief provides county-scale weather data for Franklin County, VA, including data from 1895–2021 (i.e. period of record). Data and analyses herein are courtesy of the National Oceanic and Atmospheric Administration's (NOAA) Climate at a Glance Program.

Temperature

In total, 2021 was the 15th warmest year at the park since 1895 with three seasons being warmer than normal (Figure 1). Nine months had higher than normal temperatures with March, October, and December all being at least 3.0 °F above long-term averages (Table 1).

Table 1. Average monthly, average annual, and departures from long-term average temperatures. Departures from average are based on a comparison of 2021 average temperatures to relevant averages from 1895-2020. Data are available at <https://www.ncdc.noaa.gov/cag/county/time-series>.

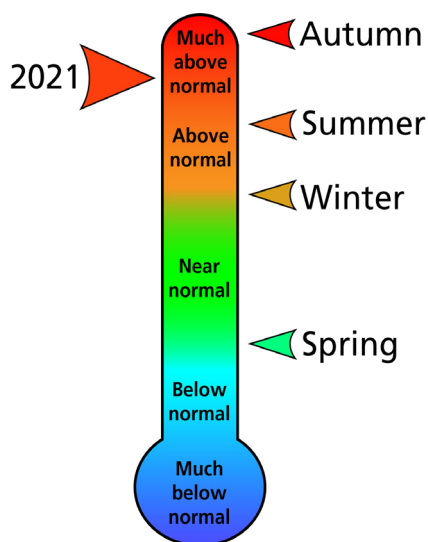


Figure 1. Seasonal and annual temperature rankings. An arrow at the top of the figure would represent the warmest year/season on record (since 1895); at the bottom, the coldest year/season on record. Data are available at <https://www.ncdc.noaa.gov/cag/county/rankings>.

Month/ Year	Average temperature (°F)	Departure from average (°F)
January	37.2	+1.6
February	37.2	-0.4
March	48.6	+3.0
April	55.5	+0.4
May	62.5	-1.4
June	71.6	+0.3
July	75.8	+0.9
August	76.2	+2.7
September	68.2	+0.8
October	62.1	+5.6
November	43.9	-2.2
December	46.0	+8.2
2021	57.1	+1.7

Precipitation

It was a very dry year for the park particularly in the spring and autumn (Figure 2). Over the year, 37.2 inches of precipitation fell, almost 7 inches less than the long-term average (Table 2). In all, it was the 22nd driest year on record.

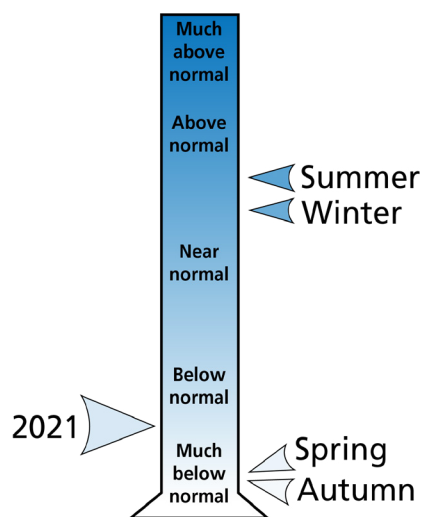


Figure 2. Seasonal and annual precipitation rankings. An arrow at the top of the figure would represent the wettest year/season on record (since 1895); at the bottom, the driest year/season on record. Data are available at <https://www.ncdc.noaa.gov/cag/county/rankings>.

Table 2. Monthly and annual total precipitation and departure from long-term averages. Departures from average are based on a comparison of 2021 precipitation to relevant averages from 1895–2020. Data are available at <https://www.ncdc.noaa.gov/cag/county/time-series>.

Month/Year	Total precipitation (in.)	Departure from average (in.)
January	3.31	+0.03
February	4.53	+1.46
March	3.01	-0.76
April	2.70	-0.78
May	1.78	-2.27
June	2.77	-1.31
July	4.06	-0.30
August	4.81	+0.72
September	5.10	+1.19
October	3.19	-0.42
November	1.13	-1.85
December	0.82	-2.51
2021	37.21	-6.80

Temperature and Precipitation (1895–2021)

Data for Franklin County, VA indicate that annual average temperature has increased approximately +0.10 °F per decade and annual total precipitation has increased approximately +0.32 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 2.9–8.5 °F (from a best-case to worst-case scenario, respectively). Annual total precipitation is expected to increase by 8–14% (see [Gonzalez et al., 2018](#) for details).

Data in this brief are preliminary and were retrieved from NOAA on 01/10/22.

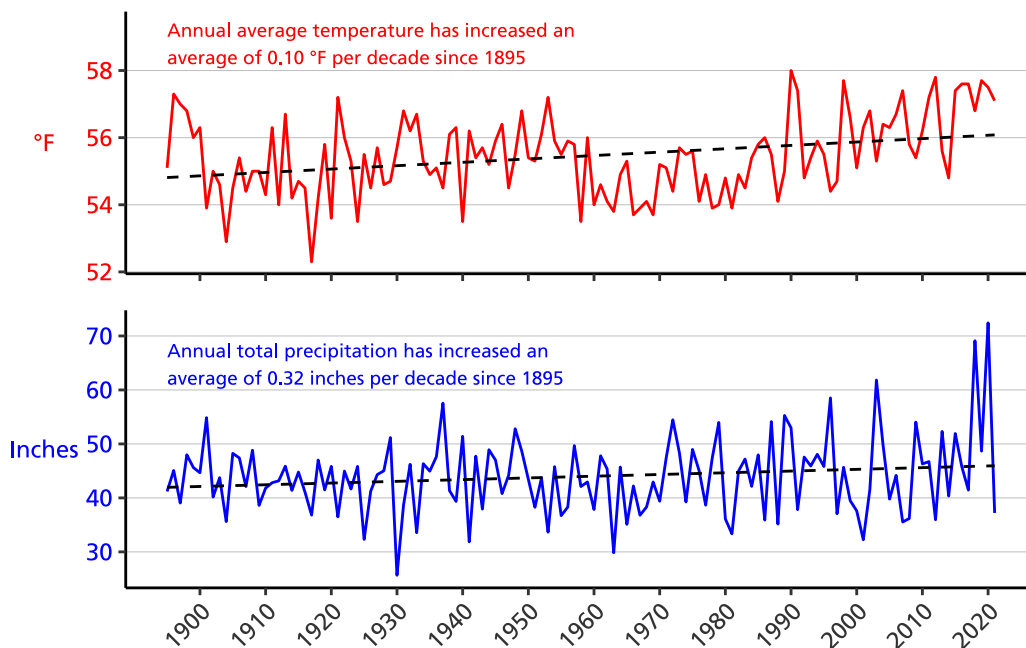


Figure 3. Annual average temperature (°F) and annual total precipitation (in.) from 1895–2021 for Franklin County, VA. Dashed lines represent linear estimates of change. Data are available at <https://www.ncdc.noaa.gov/cag/county/time-series>.

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Parks monitored: Appomattox Court House NHP • Booker T. Washington NM • Eisenhower NHS • Fredericksburg & Spotsylvania NMP • Gettysburg NMP • Hopewell Furnace NHS • Petersburg NB • Richmond NBP • Shenandoah NP • Valley Forge NHP