



Eisenhower National Historic Site and Gettysburg National Military Park: 2017 Weather in Review

In 2017, two weather stations were selected to report the weather of Eisenhower National Historic Site (NHS) and Gettysburg National Military Park (NMP). The parks are located in the Lower Susquehanna climate division of Pennsylvania. This brief provides a summary of 2017 weather conditions.

Highlights — 2017 was characterized by:

- *warmer than normal temperatures — in all, 2017 was the 7th warmest year in 123 years of records;*
- *normal annual rainfall totals resulting in the 58th wettest year since 1895;*
- *a growing season 6 weeks longer than average.*

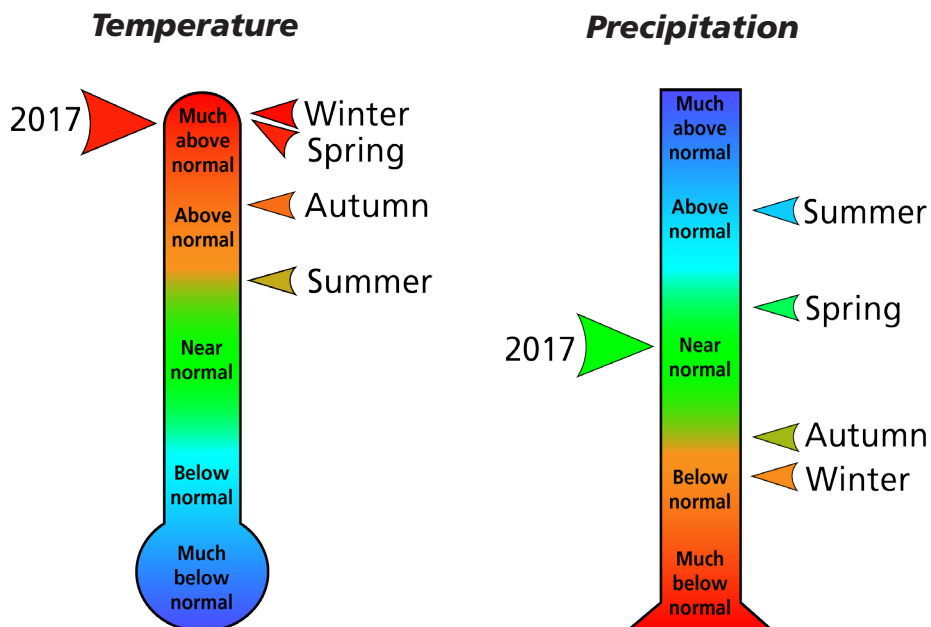
How does 2017 average temperatures and total precipitation in the Lower Susquehanna compare to the past?

Temperature and precipitation records collected since 1895 can be used to compare current climate conditions with those of the past. To do so, climate periods (e.g. seasons or years) can be ranked in order from the warmest to the coldest or the wettest to the driest. The figures below show these rankings over 123 years for Lower Susquehanna climate division of Pennsylvania. The figures show how each season (and the year) ranks compared to the prior 123 seasons/years. A rank at the top of the figure would indicate the warmest or wettest season/year on record, and at the bottom, the coldest or driest on record.

2017 Temperature Ranking Statistics: It was the 5th warmest winter on record, the 6th warmest spring, the 26th warmest autumn, and the 43rd warmest summer since 1895. In all, 2017 was the 7th warmest year on record.

2017 Precipitation Ranking Statistics: It was the 27th wettest summer, the 50th wettest spring, the 45th driest autumn, and the 36th driest winter since 1895. In all, 2017 was the 58th wettest year on record.

Source: [National Oceanic and Atmospheric Administration](#), 2018.



Temperature: Almost all of the temperature metrics calculated from stations around Eisenhower NHS and Gettysburg NMP indicate that 2017 was a warm year. Several months of the year had much higher than average temperatures. February was particularly warm with temperatures almost 9.0°F (4.9°C) above normal. For the year, the Biglerville station reported average annual temperatures 2.1°F (1.1°C) above normal. Average annual maximum and average annual minimum temperatures were also above average at Biglerville. Even so, there were 3 fewer hot days (days with maximum temperatures > 90°F (32°C)) compared to normal (18 days vs. long-term average of 21 days). Given the warm conditions in the spring and fall, and with relatively few sub-freezing days (100 days vs. long-term average of 130 days), the growing season was 6 weeks longer than normal at Biglerville. Overall, all of the seasons ranked warmer than average, and the winter of 2017 was the 5th warmest ever recorded. In all, 2017 was the 7th warmest year in the Lower Susquehanna since 1895.

Precipitation: In total, the year's precipitation was very near to long-term averages, and the year ranked as the 58th wettest on record. Biglerville ultimately recorded 38.1 inches (968 mm) of precipitation over the year. December was one of the driest months with only 30% of normal rainfall. In contrast, October had 199% of normal precipitation. The wettest day of the year occurred on May 6th with 2.7 inches (68 mm) of rain. The longest dry spell occurred from mid-September through early-October with a period of 30 days without any precipitation. The number of heavy precipitation days (days with ≥1.0 in (25 mm) rain) was normal. The year finished with slightly less than normal total snowfall (21.5 inches (54.6 cm) vs. a long-term average of 25.9 inches (65.8 cm)). Dry conditions during the end of 2016 resulted in moderate to severe drought conditions for the first 4 months of 2017.

For the full 2017 Eisenhower National Historic Site and Gettysburg National Military Park weather report, see Wofford (2018) as cited below.

Climate Change - Bird communities are expected to change at Eisenhower NHS and Gettysburg NHP

National Park Service and National Audubon Society scientists recently studied the potential effects of climate change on seasonal bird communities in national parks. They predict that major changes in bird communities may occur at Eisenhower NHS and Gettysburg NMP by 2050. Under a high-emissions scenario, 18 new bird species may colonize Eisenhower NHS in summer and 35 in the winter season. At Gettysburg NMP, 16 new species may colonize the park in summer and 33 in winter. Despite the large number of potential colonizing species, other birds may find future park climates inhospitable. By mid-century, the climate at Eisenhower NHS may become unsuitable for 17 species of birds that currently reside there in summer and 5 species that currently overwinter. At Gettysburg NMP, 21 species in summer and 6 species in winter may be seasonally extirpated.

It is important to note that this study only assessed the possible impact of changing climate conditions and not potential changes in habitat or other ecosystem factors. Individual species may not respond as expected. Therefore, projections noted above should be interpreted as primarily revealing potential trends in species richness. For more information on park specific results, visit <https://www.nps.gov/subjects/climatechange/birdsinparks.htm>.



By 2050, under a high-emissions scenario, the summer climate at Eisenhower NHS and Gettysburg NMP is expected to become unsuitable for cedar waxwings. It's possible that in a few decades cedar waxwings won't be found in either of these parks during summer months.

Citations and Credits

Wofford, J.E.B. 2018. Weather of Eisenhower National Historic Site and Gettysburg National Military Park: Mid-Atlantic Network summary report for 2017. Natural Resource Data Series NPS/MIDN/NRDS—2018/1166. National Park Service, Fort Collins, CO. Available here: <https://irma.nps.gov/DataStore/Reference/Profile/2253203>

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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