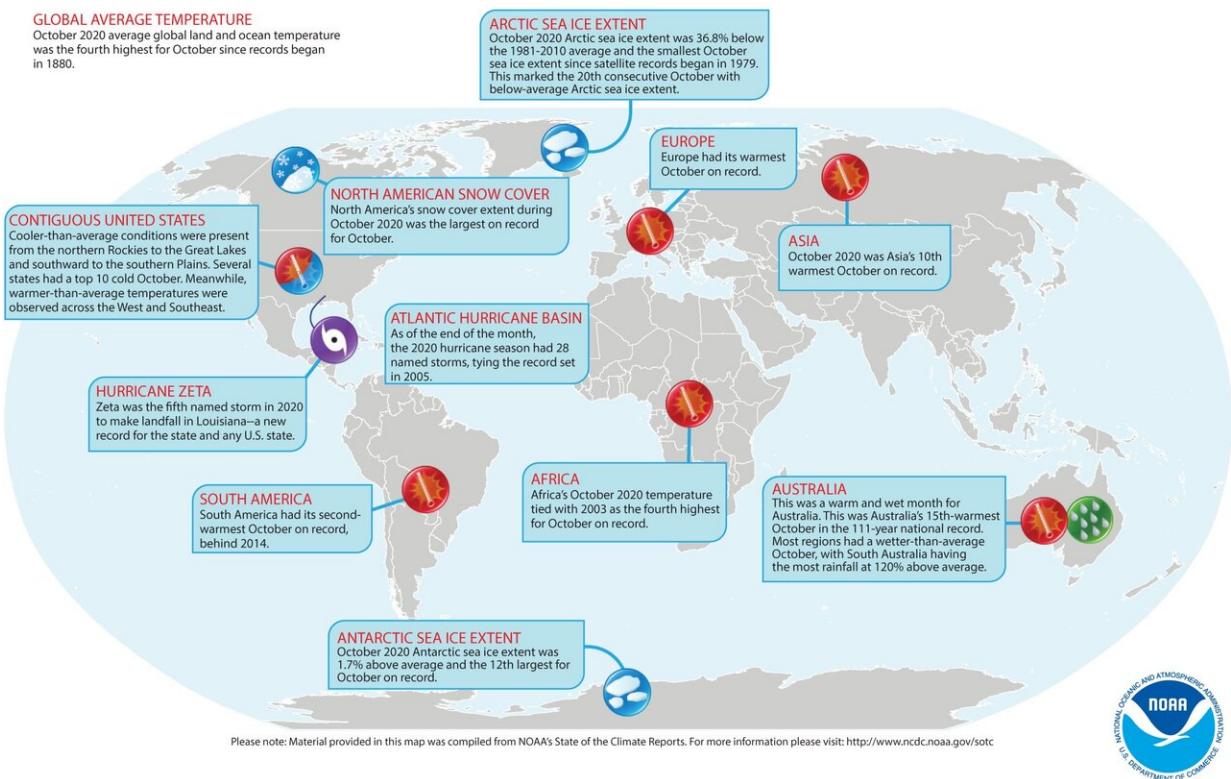


# Remarkably warm October fuels march toward second-hottest year

November 16 2020, by John Bateman

## Selected Significant Climate Anomalies and Events: October 2020



An annotated map of the globe showing notable climate and weather events that occurred during October 2020. Credit: NOAA Headquarters

Earth endured exceptional heat last month with October 2020 ranking fourth-hottest October on record.

The year to date (January through October) ranked second-hottest for the globe as Arctic sea ice coverage shrank to historic lows for the month, according to scientists at NOAA's National Centers for Environmental Information (NCEI).

Below are more highlights from NOAA's latest monthly global climate report:

## **Climate by the numbers**

### **October 2020**

The average global land and ocean surface [temperature](#) for October 2020 was 1.53 degrees F (0.85 of a degree C) above the 20th-century average and the fourth-highest October temperature in the 141-year record.

The 10 warmest Octobers have occurred since 2005, and the seven warmest have all occurred in the last seven years (2014–2020).

Europe had its warmest October on record, which surpassed its previous record set in 2001. South America had its second-warmest October since regional records began in 1910.

### **Year to date (YTD) | January through October**

The year-to-date global land and [ocean surface temperature](#) was 1.80 degrees F—a full 1.00 degree C—above the 20th-century average, making for the second-warmest YTD on record. This was 0.05 of a degree F (0.03 of a degree C) shy of tying the record set in 2016.

Europe and Asia had their warmest YTD period on record, while South America and the Caribbean region had their second warmest.

According to a statistical analysis [offsite link](#) done by NCEI scientists, 2020 is very likely to rank among the three-warmest years on record.

More notable climate events in this report:

- Arctic sea ice set a new record low: October's Arctic sea ice coverage was 36.8% below the 1981–2010 average, the smallest October extent on record. This surpassed the previous October record-low coverage—set just last year—by 173,700 square miles.
- Heat records were set around the world: Record-warm October temperatures were observed in parts of the northern and western Pacific Ocean; southern North America; South America; eastern Europe; the northern Middle East; eastern Mediterranean Sea; southern Asia; and in small areas across the Indian and Atlantic oceans. No land or [ocean](#) areas had record-cold October temperatures.
- October snow cover was abundant: Despite the global warmth, the Northern Hemisphere's snow cover last month was the 10th-largest October extent in the 53-year record. North America's snow cover was the largest on [record](#) for October.

**More information:** The report is available online:  
[www.ncei.noaa.gov/news/global-climate-202010](http://www.ncei.noaa.gov/news/global-climate-202010)

Provided by NOAA Headquarters

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