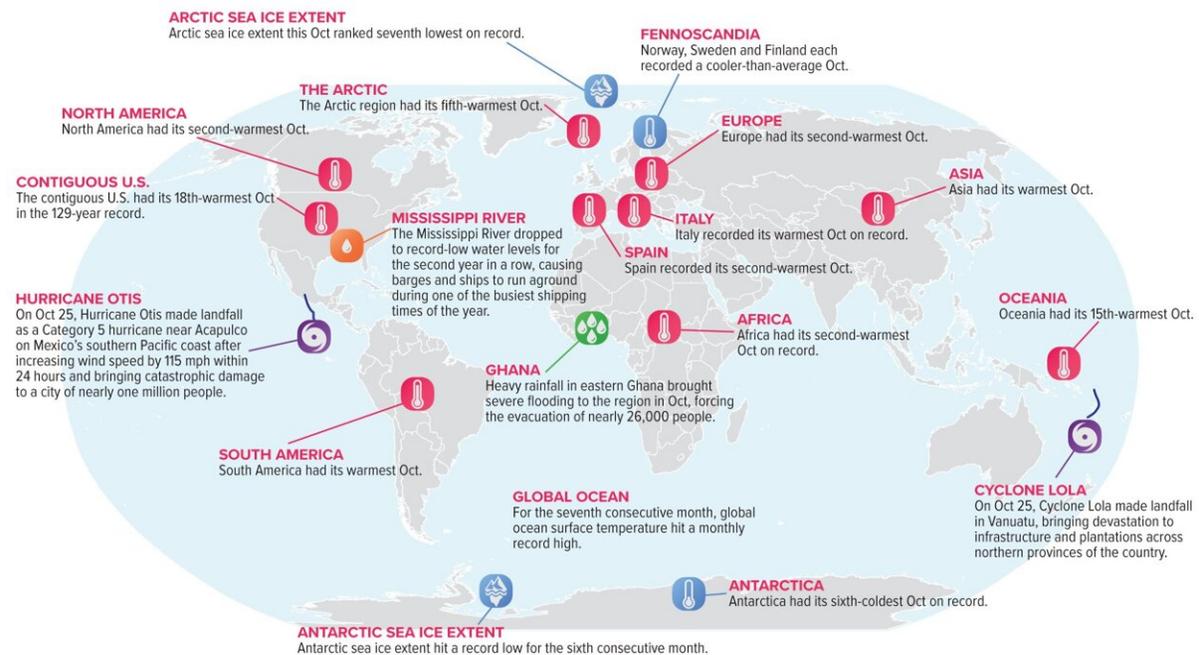


The planet just had its warmest October on record

November 16 2023, by John Bateman

Selected Significant Climate Anomalies and Events: October 2023

GLOBAL AVERAGE TEMPERATURE
Oct 2023 average global surface temperature ranked highest for Oct since global records began in 1850.



Please note: Material provided in this map was compiled from NOAA's State of the Climate Reports. For more information please visit: <https://www.ncei.noaa.gov/access/monitoring/monthly-report/global/>

A map of the world plotted with some of the most significant climate events that occurred during October 2023. Credit: NOAA/NCEI

The planet added another record-breaking month to 2023, with October

ranking as the warmest October in the 174-year global climate record.

Last month was also 2023's fifth month in a row of record-warm global temperatures, according to scientists from NOAA's National Centers for Environmental Information.

Below are more highlights from NOAA's October global [climate](#) report:

Climate by the numbers

October 2023

The average global [temperature](#) for October was 2.41°F (1.34°C) above the 20th-century average of 57.1°F (14.0°C), ranking as the world's warmest October on record. This was 0.43 of a degree F (0.24 of a degree C) above the previous record from October 2015. For the seventh-consecutive month, global ocean surface temperature also set a record high.

Looking regionally, Asia and South America had their warmest Octobers on record, while Africa, Europe and North America each had their second-warmest Octobers.

Last month was the 47th-consecutive October and the 536th-consecutive month with [global temperatures](#) above the 20th-century average. The past 10 Octobers (2014–2023) have all been the warmest Octobers in NOAA's global climate record.

The year to date (YTD, January through October 2023)

The YTD average global surface temperature ranked as the warmest

such period on record at 2.03 degrees F (1.13°C) above the 20th-century average.

According to [NCEI's Global Annual Temperature Outlook](#), there is a greater than 99% chance that 2023 will rank as the warmest year on record for the world.

Other notable climate events from October 2023

Last month set a record for lowest global October sea ice extent. The record was set primarily due to a record-low sea ice extent (coverage) in the Antarctic, which saw its sixth-consecutive month with record-low sea ice extent. Globally, October sea ice extent was 380,000 square miles less than the previous record low from October 2016. The Arctic sea ice extent for October 2023 ranked as the seventh smallest in the satellite [record](#).

Fifteen named [tropical cyclones](#) occurred across the globe. October 2023 saw 15 named tropical systems form around the world, which was above the 1991–2020 average of 12. Nine of those reached tropical cyclone strength (sustained winds of 74 mph or higher), and seven reached major tropical cyclone strength (sustained winds of 111 mph or higher). Both Super Typhoon Bolaven in the West Pacific and Hurricane Otis in the East Pacific reached Category 5 strength (sustained winds of 157 mph or higher).

Provided by NOAA Headquarters

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