

Virtually certain 2023 will be warmest year on record: US agency

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Aerial view of stranded boats and floating boats at Puraquequara Lake in Manaus, Amazonas State, Brazil, taken on October 6, 2023.

Following another month of record-breaking temperatures throughout the globe in September, the year 2023 is all but certain to be the warmest on record, a US agency said Friday.

The unwelcome news comes as world leaders prepare to meet for crunch talks in Dubai in late November where phasing out [fossil fuels](#), the main driver of human-caused climate change, will be top of the agenda.

"There is a greater than 99 percent probability that 2023 will rank as the [warmest year](#) on record," said the US National Oceanic and Atmospheric Administration in its monthly update.

The calculation was based on data gathered through September and on simulations of possible outcomes based on the historical record, from 1975 to present.

"September 2023 was the fourth month in a row of record-warm global temperatures," said NOAA chief scientist Sarah Kapnick in a statement.

"Not only was it the warmest September on record, it was far and away the most atypically warm month of any in NOAA's 174 years of climate keeping. To put it another way, September 2023 was warmer than the average July from 2001-2010."

Significant climate anomalies and events included Storm Daniel, which brought [strong winds](#) and unprecedented rainfall to eastern Libya, triggering widespread destruction including burst dams that killed more than 10,000 people.

An extratropical cyclone dumped more than 300 millimeters (12 inches) of rain in 24 hours over Brazilian states, triggering landslides and flooding that killed 30.

The average global temperature for September was 2.59 degrees F (1.44 degrees C) above the 20th-century average of 59.0F (15.0C), according to the NOAA data. It was 0.83F (0.46C) above the previous record from September 2020.

Holding long term warming to 1.5C above pre-industrial levels is seen as essential to avoid the most catastrophic consequences of climate change.

Africa, Europe, North America and South America each had their warmest September on record; Asia had its second-warmest, while Oceania had its third warmest, according to the NOAA data.

In the poles, Antarctica had its warmest September, while the Arctic saw its second warmest.

September 2023 also set a record for the lowest global September sea ice extent on record.

The oceans too experienced record-high monthly global ocean surface temperatures for the sixth consecutive month.

Despite increasing [extreme weather events](#) and record-shattering global temperatures, [greenhouse gas emissions](#) continue to rise and fossil fuels remain subsidized to the tune of \$7 trillion annually.

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