July ends 13-month streak of global heat records as El Nino ebbs, but experts warn against relief

August 8 2024, by Alexa St. John

People cool off at a cooling mist spot on July 4, 2024, in Tokyo. Credit: AP Photo/Shuji Kajiyama, File

Earth's string of 13 straight months with a new average heat record came

to an end this past July as the natural El Niño climate pattern ebbed, the European climate agency Copernicus announced Wednesday.

But July 2024 's average heat just missed surpassing the July of a year ago, and scientists said the end of the record-breaking streak changes nothing about the threat posed by climate change.

"The overall context hasn't changed," Copernicus deputy director Samantha Burgess said in a statement. "Our climate continues to warm."

Human-caused climate change drives extreme weather events that are wreaking havoc around the globe, with several examples just in recent weeks. In Cape Town, South Africa, thousands were displaced by torrential rain, gale-force winds, flooding and more. A fatal landslide hit Indonesia's Sulawesi island. Beryl left a massive path of destruction as it set the record for the earliest Category 4 hurricane. And Japanese authorities said more than 120 people died in record heat in Tokyo.

Those hot temperatures have been especially merciless.

The globe for July 2024 averaged 62.4 degrees Fahrenheit (16.91 degrees Celsius), which is 1.2 degrees (0.68 Celsius) above the 30-year average for the month, according to Copernicus. Temperatures were a small fraction lower than the same period last year.

It is the second-warmest July and second-warmest of any month recorded in the agency's records, behind only July 2023. The Earth also had its two hottest days on record, on July 22 and July 23, each averaging about 62.9 degrees Fahrenheit (17.16 degrees Celsius).

During July, the world was 1.48 degrees Celsius (2.7 degrees Fahrenheit) warmer, by Copernicus' measurement, than pre-industrial times. That's close to the warming limit that nearly all the countries in the world

agreed to in the 2015 Paris climate agreement: 1.5 degrees.

Polar bears cool down in ice that was brought to their enclosure on a hot and sunny day at the Prague zoo, Czech Republic, Wednesday, July 10, 2024. Credit: AP Photo/Petr David Josek

El Niño—which naturally warms the Pacific Ocean and changes weather across the globe—spurred the 13 months of record heat, said Copernicus senior climate scientist Julien Nicolas. That has come to a close, hence July's slight easing of temperatures. La Niña conditions—natural cooling—aren't expected until later in the year.

But there's still a general trend of warming.

"The global picture is not that much different from where we were a year ago," Nicolas said in an interview.

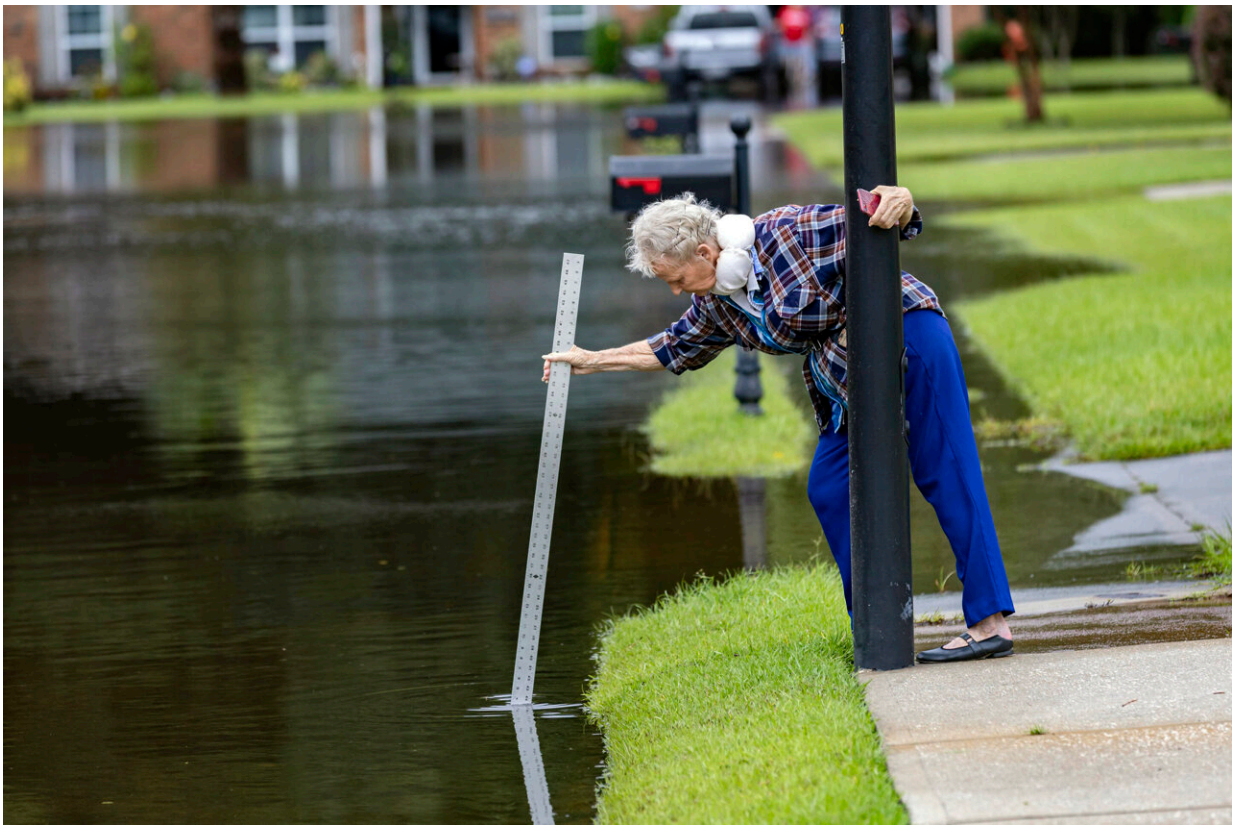
"The fact that the global sea surface temperature is and has been at record or near record levels for the past more than a year now has been an important contributing factor," he said. "The main driving force, driving actor behind this record temperature is also the long-term warming trend that is directly related to buildup of greenhouse gases in the atmosphere."

That includes carbon dioxide from the burning of fossil fuels such as coal, oil and natural gas.

July's temperatures hit certain regions especially hard, including western Canada and the western United States. They baked, with around one-third of the U.S. population under warnings at one point for dangerous and record-breaking heat.

In southern and eastern Europe, the Italian health ministry issued its most severe heat warning for several cities in southern Europe and the Balkans. Greece was forced to close its biggest cultural attraction, the Acropolis, due to excessive temperatures. A majority of France was under heat warnings as the country welcomed the Olympics in late July.

Also affected were most of Africa, the Middle East and Asia, and eastern Antarctica, according to Copernicus. Temperatures in Antarctica were well above average, the scientists say.



A resident measures the depth of the flooded street with storm water from Tropical Storm Debby, Wednesday, Aug. 7, 2024 Pooler, Ga. Credit: AP Photo/Stephen B. Morton

"Things are going to continue to get worse because we haven't stopped doing the thing that's making them worse," said Gavin Schmidt, climatologist and director of the Goddard Institute for Space Studies, who wasn't part of the report.

Schmidt noted that different methodologies or calculations could produce slightly different results, including that July may have even continued the streak. The primary takeaway, he said, "Even if the record-breaking streak comes to an end, the forces that are pushing the temperatures higher, they're not stopping.

"Does it matter that July is a record or not a record? No, because the thing that matters, the thing that is impacting everybody," Schmidt added, "is the fact that the temperatures this year and last year are still much, much warmer than they were in the 1980s, than they were pre-industrial. And we're seeing the impacts of that change."

People across the globe shouldn't see relief in July's numbers, the experts say.

"There's been a lot of attention given to this 13-month streak of global records," said Copernicus' Nicolas. "But the consequences of climate change have been seen for many years. This started before June 2023, and they won't end because this streak of records is ending."

Citation: July ends 13-month streak of global heat records as El Nino ebbs, but experts warn against relief (2024, August 8) retrieved 8 August 2024 from https://phys.org/news/2024-08-july-month-streak-global-el.html