

Earth begins 2017 with near-record warm temperatures

By **Jason Samenow** March 21 at 10:17 AM

2016 was the planet's undisputed warmest year on record. Because of a cyclical cooling of the oceans, few expected temperatures in 2017 to follow its superheated course.

But 2017 has started off plenty toasty, ranking second warmest in recorded history, according to [data released by the National Oceanic and Atmospheric Administration last Friday](#). And you can't rule out it catching up to 2016.

NOAA said the planet's temperature in February was 1.76 degrees above the 20th-century average, 0.3 degrees below the record warm February in 2016.

"Warmer- to much-warmer-than-average conditions were present across much of the world's land surfaces, with the most notable warm temperature departures from average across much of the contiguous U.S., southeastern Canada, and across much of central and eastern Russia," NOAA's report said.

North America had its warmest February since 2000 and its fourth warmest on record, NOAA added.

Arctic temperatures have been especially warm in recent months. In fact, they ranked highest in recorded history for the period between December and February according to [Berkeley Earth](#), a nonprofit group that analyzes temperature data.

Even so, the warmth to start 2017 is somewhat less intense than 2016 for the globe overall because of the absence of a strong El Niño event. Such events tend to raise ocean temperatures in the eastern and central tropical Pacific Ocean and, by extension, air temperatures around the world. In early 2016, one of the strongest El Niños on record nudged global temperatures to all-time highs.

During the summer and into the fall of 2016, the El Niño was gradually replaced by a La Niña event and ocean and air temperatures leveled off some.

But La Niña was declared dead in February and tropical Pacific Ocean temperatures are rising again. Air temperatures have begun to increase in response. NOAA said the February 2017 global temperature anomaly, or difference from normal, was the highest since April 2016.

If Pacific Ocean temperatures continue to warm and an El Niño event re-develops, this will translate into an even warmer atmosphere. It would then be possible for 2017 to give 2016 a run for its money for the warmest year on record.

Robert Rhode, lead scientist for Berkeley Earth, said the increasing temperature anomalies to start 2017 put it in a strong position to outrank 2016 as warmest year. “Our simple statistical model is suggesting a roughly 65 percent chance of 2017 being warmer than 2016,” he posted to [Twitter](#).

The chance is only 12 percent, countered Gavin Schmidt, a climate scientist at NASA who directs the Goddard Institute for Space Studies. “Month-to-month we’re significantly colder than last year [at the same time],” he said.

Deke Arndt, who runs NOAA’s climate monitoring branch, said it is too early in the year to make a firm prediction about where 2017 will rank. “There are a lot of what-ifs,” he said. “But I do think it’s going to be one of the warmest years.”

Schmidt and Arndt both said they think too much emphasis is placed on a given year’s exact rank. “Comparing one year to another is interesting and provides some insights, but it doesn’t really confirm or refute anything that looking at the whole record does,” Arndt said.

If you’re overweight and gain or lose a few pounds compared to the previous year, Arndt explained, it means very little. But if you’re 30 pounds heavier than you were a decade ago, “in a bigger picture that’s what’s more important”, he said.

The near-record warm February fits neatly into the long-term trend toward higher temperatures. According to Climate Central, a nonprofit science communications firm based in Princeton, N.J., the rate of February temperature increase has doubled since 1980. It said 15 of the 20 warmest Februaries on record have occurred since 2000 and none before 1983.

Every one of the last 41 Februaries have been warmer than the 20th-century average, NOAA said.

In independent analyses of February’s global surface temperature data, [NASA](#) and [Berkeley Earth](#) also found the month ranked second warmest on record.

Jason is the Washington Post’s weather editor and Capital Weather Gang's chief meteorologist. He earned a master's degree in atmospheric science, and spent 10 years as a climate change science analyst for the U.S. government. He holds the Digital Seal of Approval from the National Weather Association.

🐦 Follow @capitalweather

