

Warming Earth heading for hottest year on record (Update)

October 20 2014, by Seth Borenstein

This Oct. 2, 2014, file photo shows women shading themselves from the hot sun in the Chinatown section of downtown Los Angeles. It sounds like a broken record, but last month again set a new mark for global heat. And meteorologists say Earth is now on pace to tie the hottest year ever recorded, or more likely break it. (AP Photo/ Nick Ut, File)

Earth is on pace to tie or even break the mark for the hottest year on record, U.S. meteorologists say.

That's because global heat records have kept falling in 2014, with September the latest example.

The National Oceanic and Atmospheric Administration announced Monday that last month the globe averaged 60.3 degrees Fahrenheit (15.7 degrees Celsius). That was the hottest September in 135 years of record keeping.

It was the fourth monthly record set this year, along with May, June and August.

NASA, which measures temperatures slightly differently, had already determined that September was record-warm.

The first nine months of 2014 have a global average temperature of 58.72 degrees (14.7 degrees Celsius), tying with 1998 for the warmest first nine months on record, according to NOAA's National Climatic Data Center.

"It's pretty likely" that 2014 will break the record for hottest year, said NOAA climate scientist Jessica Blunden.

The reason involves El Nino, a warming of the tropical Pacific Ocean that affects weather worldwide. In 1998, the year started off super-hot because of an El Nino. But then that El Nino disappeared and temperatures moderated slightly toward the end of the year.

This year has no El Nino yet, but forecasts for the rest of the year show a strong chance that one will show up, and that weather will be warmer than normal, Blunden said.

This, Sept. 15, 2014, file photo taken with a fisheye lens, shows beach goers cooling off during the Southern California heat wave, in Huntington Beach, Calif. It sounds like a broken record, but last month again set a new mark for global heat. And meteorologists say Earth is now on pace to tie the hottest year ever recorded, or more likely break it. (AP Photo/Chris Carlson, File)

If 2014 breaks the record for hottest year, that also should sound familiar: 1995, 1997, 1998, 2005 and 2010 all broke NOAA records for the hottest years since records started being kept in 1880.

"This is one of many indicators that climate change has not stopped and that it continues to be one of the most important issues facing humanity," said University of Illinois climate scientist Donald Wuebbles.

Some people, mostly non-scientists, have been claiming that the world has not warmed in 18 years, but "no one's told the globe that," Blunden said. She said NOAA records show no pause in warming.

The record-breaking heat goes back to the end of last year—November 2013 broke a record. So the 12 months from October 2013 to September 2014 are the hottest 12-month period on record, Blunden said. Earth hasn't set a monthly record for cold since December 1916, but all monthly heat records have been set after 1997.

September also marks the fifth month in a row that Earth's oceans broke monthly heat records, Blunden said.

The U.S. as a whole was warmer than normal for September, but the month was only the 25th warmest on record.

While parts of the U.S. Midwest, Russia and central Africa were slightly cool in September, it was especially hotter than normal in the U.S. West, Australia, Europe, northwestern Africa, central South America and parts of Asia. California and Nevada set records for the hottest September.

If Earth sets a record for heat in 2014 it probably won't last, said Jeff Masters, meteorology director for the private firm Weather Underground. If there is an El Nino, Masters said, "next year could well bring Earth's hottest year on record, accompanied by unprecedented regional heat waves and droughts."

More information: NOAA's global analysis for September:
www.ncdc.noaa.gov/sotc/global/2014/9

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