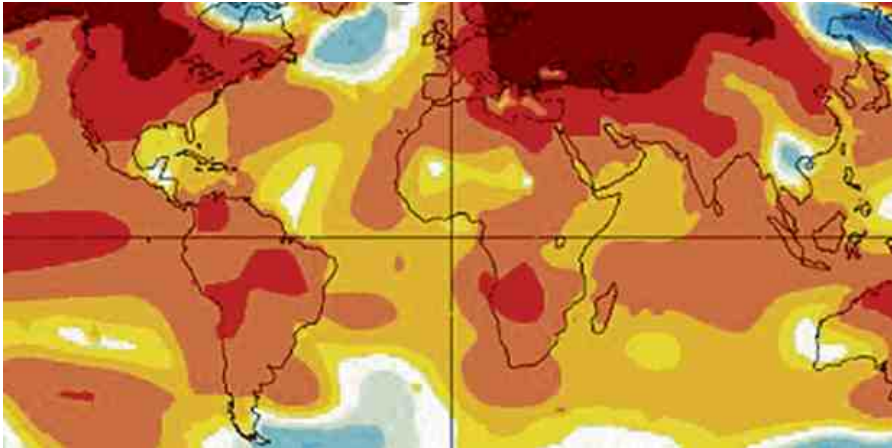


Feeling the heat: February warmest month in recorded history

5:53 PM Sunday Mar 20, 2016



It's the 10th consecutive month to set a new record, and it puts 2016 on course to set a third straight annual record. Photo / NASA
Humanity's experiment with planetary warming has reached a new level of extremes.

Last month was the hottest February in 137 years of record keeping, according to data released on Friday by the National Oceanic and Atmospheric Administration.

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It was a big month, not only the hottest February but the most unusual warmth for any month on record. Unprecedented temperatures in the Arctic, averaging 4.5C above normal, melted away layers of ice to record-low levels.

The heat helped prolong the longest planet-wide coral bleaching event. These grim milestones coincide with the biggest recorded jump in carbon dioxide, the most important greenhouse gas.

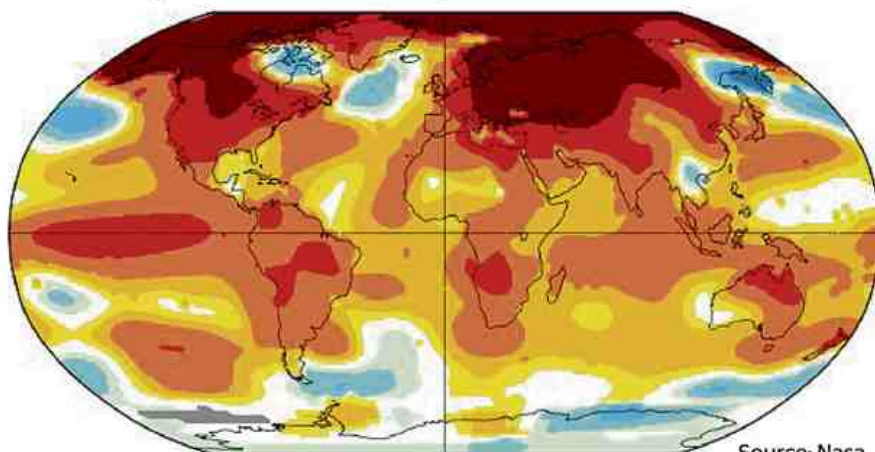
To be sure, some of this is the result of a monster El Nino weather pattern lingering in the Pacific Ocean. But the broader trend is clear: We live on a planet that is warming rapidly, with no end in sight.

Since 1980, the world has set a new annual temperature record roughly every three years, and 15 of the hottest 16 years ever measured are in the 21st century.

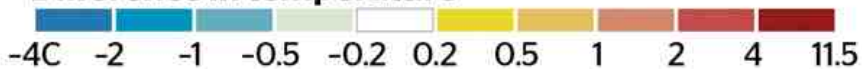
The El Nino that started last year produced some of the hottest temperatures ever witnessed across great swaths of the equatorial Pacific.

FEELING THE HEAT

The difference between the average temperature in February 2016 and the average for February 1951-1980



Difference in temperature



By some measures, this may now be the most extreme El Nino on record. It has triggered powerful typhoons, spoiled harvests in Africa, and contributed to vast fires in Indonesia. In California, El Nino precipitation is replenishing the snowpack and beginning to refill drought-ravished reservoirs.

Results from the world's top monitoring agencies vary slightly, but NASA, NOAA, and the Japan Meteorological Agency all agree that February was unprecedented. Its heat

was experienced differently around the world, though few regions escaped it entirely.

The most extreme heat swept the Arctic, where ice levels were at the lowest on record for this time of year.

The heat in the Arctic is especially worrisome, as the region provides a powerful feedback loop for global warming. As the ice melts, it reflects less of the sun's warming rays back into space.

The permafrost also serves as a giant repository for carbon, which is released as carbon dioxide and methane as the ice melts. Melting ice is therefore both a result of current global warming and a trigger for future warming.

While El Nino conditions have peaked, they're still strong and may continue to a lesser extent through June, according to the US Climate Prediction Centre.

Then it's pretty much a coin toss whether the Pacific returns to more neutral temperatures or even a cooler La Nina pattern. Either way, the planetary warming trend continues.