

[Daily news](#)

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Climate change made the sweltering 2018 heatwave 30 times more likely



Hot northern summers are here to stay

Guy Corbishley / Alamy Stock Photo

Climate change made this year's [northern hemisphere summer heatwave](#) around 30 times more likely than it would be under natural conditions, the UK's Met Office has said.

This summer was the equal warmest in a series dating back to 1910, along with 2006, 2003 and 1976, with temperatures reaching a peak on 27 July when 35.6°C was recorded at Felsham, Suffolk.

The UK now has around a 12 per cent chance of summer average temperatures being

as high as they were in 2018, whereas they would have less than 0.5 per cent chance of happening in a “natural” climate, the Met Office said.

The study comes after climate projections published last week in which the Met Office said that, by mid century, there will be a 50 per cent chance of summers as hot as 2018’s heatwave, [making the sweltering conditions the norm](#).

Soaring summer temperatures and dry weather this year hit crops and livestock, affected water supplies, transport networks, people’s health and the natural environment, and led to numerous wildfires.

“Our provisional study compared computer models based on today’s climate with those of the natural climate we would have had without human-induced emissions,” said the Met Office’s Peter Stott. “This rapidly increasing chance results from the increase in concentrations of carbon dioxide and other greenhouse gases in the atmosphere.”

The Met Office is announcing the findings at the UN climate talks in Poland, where countries are meeting to finalise the rules of how the Paris Agreement on tackling global warming will work and to build momentum towards increasing ambition on efforts to cut greenhouse gas emissions.

[Analysis](#)

6 July 2018

Record heatwaves are here to stay – welcome to our warming world



Scotland has seen high temperatures

Arch White/Alamy Live News

By Michael Le Page

Why are we seeing record heat across the northern hemisphere? Because the planet is getting hotter. And we ain't seen nothing yet – it's going to get a lot hotter still.

Scotland hit 33.2°C on 28 June, for instance, passing the previous record of 32.9°C set in August 2003 – though the Met Office says this reading may actually be due to [heat from the engine of a nearby vehicle](#). And in Oman on 26 June, [the temperature never dropped below 42.6°C](#), even at night. That's the highest minimum temperature ever recorded.

More heat records tumbling is exactly what we expect to see on a warming planet. By contrast, in an unchanging climate, there should be fewer and fewer records broken over time.

However, talk of a heatwave across the entire northern hemisphere is misleading, as parts of the hemisphere are cooler than the recent average for this time of year.

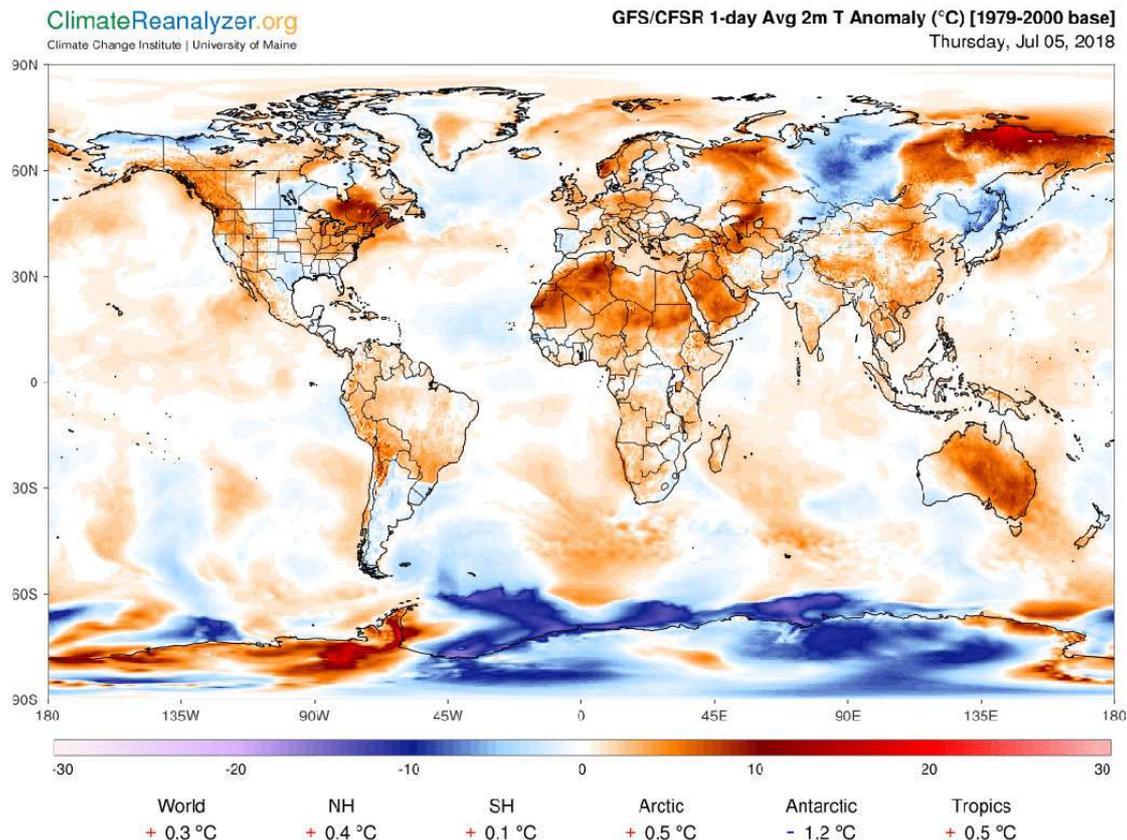
Hotter and hotter

You can see this for yourself by looking at temperature anomalies on [the Climate Reanalyzer website](http://theClimateReanalyzer.org). There you will also see that some of the biggest recent heat anomalies have been in parts of Antarctica, where it's the middle of winter and well below freezing – but much less below freezing than normal.

The thing is, average temperatures are much higher than they used to be. Global average surface temperatures have risen by more than 1°C since preindustrial times and have shot up particularly fast in the last five years or so.

That means when it does get hot, there's a good chance it will be hotter than ever before. What's more, [land areas are warming faster than sea areas](#), as the air over land is drier and heats up faster, and the northern hemisphere is warming faster than the southern hemisphere, as there's more land.

So while there will be local weather-related explanations for each individual heatwave, the main reason for [the record-breaking heat](#) in several parts of the world is global warming.



It's hot out there

Climate Reanalyzer (<http://cci-reanalyzer.org>), Climate Change Institute, University of Maine, USA

Think of these extreme heat events as the height of waves in a bathtub. As you fill

up the bathtub, the waves will get ever higher relative to the bottom of the bath, even if the individual waves themselves are no bigger.

That said, the waves might be getting bigger too. There is growing evidence that [the rapid warming of the Arctic is affecting the jetstream](#) that drives weather patterns across the northern hemisphere, making it more likely for particular conditions to persist for longer. And the longer heat persists, the hotter it can get, as the land and buildings dry out and warm up.

So is this the new normal? Well, it's the normal for a little while. Global temperatures have actually fallen slightly since the strong El Niño of 2016 (a global climate event that sees the oceans release heat into the atmosphere). It is possible they will fall little further in the next year or two, especially if there's a La Niña (the opposite event during which the oceans absorb more heat).

Read more: [Deadly heat: How to survive the world's new temperature extremes](#)

But in the longer term, as the world continues to warm, there will be ever more severe heatwaves and yet more heat records will tumble.

While some might welcome the sunshine, this is serious. [Heatwaves can be deadly](#) for the elderly and vulnerable – more than a dozen deaths are already being blamed on the heat in Canada.

There's also [a limit to how much work we can do in the heat](#). Rising temperatures are [already affecting the global economy by reducing the productivity of workers](#), especially in developing countries. And if we don't manage to limit global warming, [it could get so hot and humid in future heatwaves that people without air conditioning will die](#).

