



Boats lie on the dried shipyard on the Po river in Torricella, Italy. The UN says climate change is 'out of control' as world breaks temperature records. Photograph: Luca Bruno/AP

## UN says climate change 'out of control' after likely hottest week on record

**After record breaking days on Monday and Tuesday, unofficial analysis shows the world may have seen its hottest seven days in a row**

*Guardian staff and agencies*

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The UN secretary general has said that “climate change is out of control”, as an unofficial analysis of data showed that average world temperatures in the seven days to Wednesday were the hottest week on record.

“If we persist in delaying key measures that are needed, I think we are moving into a catastrophic situation, as the last two records in temperature demonstrates,” António Guterres said, referring to the world temperature records broken on Monday and Tuesday.

The average global air temperature was 17.18C (62.9F) on Tuesday, according to data collated by the US National Centers for Environmental Prediction (NCEP), surpassing the record 17.01C reached on Monday.

For the seven-day period ending Wednesday, the daily average temperature was .04C (.08F), higher than any week in 44 years of record-keeping, according to the University of Maine's Climate Reanalyzer data.



Will El Niño on top of global heating create the perfect climate storm?

That metric showed that Earth's average temperature on Wednesday remained at the record high of 17.18C.

Climate Reanalyzer uses data from the NCEP climate forecast system to provide a time series of daily mean two-metre air temperature, based on readings from surface, air balloon and satellite observations.

The US National Oceanic and Atmospheric Administration (NOAA), whose figures are considered the gold standard in climate data, said on Thursday it could not validate the unofficial numbers.

It noted that the reanalyzer uses model output data, which it called “not suitable” as substitutes for actual temperatures and climate records. The NOAA monitors global temperatures and records on a monthly and an annual basis, not daily.

“We recognise that we are in a warm period due to climate change, and combined with El Niño and hot summer conditions, we’re seeing record warm surface temperatures being recorded at many locations across the globe,” the NOAA said.

Nevertheless, scientists agree they indicate climate change is reaching uncharted territory and that the increased heat from anthropogenic global heating combined with the **return of El Niño** would lead to more record-breaking temperatures.

The UN confirmed the return of El Niño, a sporadic weather pattern, on Tuesday. The last major El Niño was in 2016, which remains the hottest year on record.

“Chances are that the month of July will be the warmest ever, and with it the hottest month ever ... ‘ever’ meaning since the Eemian [interglacial period], which is indeed some 120,000 years ago,” Dr Karsten Haustein, a research fellow in atmospheric radiation at Leipzig University, said.

Various parts of the world have been experiencing heatwaves and on Thursday the EU’s climate monitoring service said the world had experienced its hottest June on record last month.

The southern US has been sweltering under an **intense heat dome** in recent weeks, including on the national 4 July holiday on Tuesday. In parts of China, an **enduring heatwave** has continued, with temperatures reaching above 35C.

Overall, one of the largest contributors to this week’s heat records is an exceptionally mild winter in the Antarctic. Parts of the continent and nearby ocean were 10-20C (18-36F) higher than averages from 1979 to 2000.

“Temperatures have been unusual over the ocean and especially around the Antarctic this week, because wind fronts over the Southern Ocean are strong pushing warm air deeper south,” said Raghu Murtugudde, professor of atmospheric, oceanic and earth system science at the University of Maryland and visiting faculty at the Indian Institute of Technology, Mumbai.

Chari Vijayaraghavan, a polar explorer and educator who has visited the Arctic and Antarctic regularly for the past 10 years, said global warming is obvious at both poles and threatens the region’s wildlife as well as driving ice melt that raises sea levels.

“Warming climates might lead to increasing risks of diseases such as the avian flu spreading in the Antarctic that will have devastating consequences for penguins and other fauna in the region,” Vijayaraghavan said.