

Temperature records broken across the US as UN warns of continued climate disruption

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A heat wave gripping parts of the nation added an exclamation point to a series of announcements this week about the world's warming climate.

A city water park in Grand Island, Nebraska, doesn't open for another two weeks, but residents could have used it Thursday when the [temperature](#) reached 96 F, 21 degrees above normal for that date.

In Shreveport, Louisiana, on Thursday, the high of 94 F tied a 148-year-old record. That was one of more than 110 temperature records broken or tied across 21 states this week. In Texas, Galveston sweltered, setting or tying records three out of four days.

And it's not just the U.S.

High-temperature records were set this week in Spain and France. Heat waves continued in parts of Pakistan and India, where temperatures as high as 113 to 120 degrees F were reported.

All this heat set the stage for the World Meteorological Organization's 2021 climate summary release on Wednesday, which U.N. Secretary-General António Guterres called "a dismal litany of humanity's failure to tackle climate disruption."

"Sea level rise, ocean heat, [greenhouse gas concentrations](#) and ocean acidification set alarming new records in 2021," Guterres said. The past seven years have been the warmest on record.

Global mean sea level increased last year at more than double the previous rate, reaching a new record high, he said, mainly because of the accelerating loss of ice mass.

The compounded effects of conflict and extreme weather, on top of the COVID-19 pandemic, he said, undermined decades of progress towards improving food security globally.

The report mentioned [severe drought](#) in Canada last year that prompted a

38% drop in the country's wheat production and sent its canola crop production to its lowest since 2007.

Ocean warming, already showing a strong increase over the past 20 years, he said, is penetrating to even deeper levels, with many of the world's oceans experiencing at least one strong marine [heat wave](#) in 2021.

Guterres renewed his calls to phase out [fossil fuels](#) to curb [greenhouse gas emissions](#) heating the planet. "The global energy system is broken and bringing us ever closer to climate catastrophe," he said.

US drought forecast to persist

The news didn't improve for the U.S. on Thursday with the summer 2022 climate outlook from the National Oceanic and Atmospheric Administration. Every state in the continental U.S. faces a probability of a hotter-than-normal summer through August, with drought persisting or expanding in 17 states.

Making matters worse, above-normal temperatures and extended drought in the West will increase the risk of energy shortfalls this summer, the North American Electric Reliability Corporation announced Wednesday in its "summer reliability assessment."

High temperatures contribute to high peak electrical demands, as well as potential increases of forced outages, the nonprofit corporation stated in a news release. The drought coupled with below-normal snowpack could lead to lower than average output from hydro-powered generators in the west, while [drought conditions](#) in the Missouri River Basin could affect output from thermal generators that use the river for cooling.

Dry conditions for the past eight or nine months make it more likely

Texas will see above-normal temperatures in the months ahead, said John Nielsen-Gammon, the Texas state climatologist, who works in the atmospheric science department at Texas A&M University.

When the sun heats plants and evaporates moisture, that can help keep things cool, said Mike Halpert, deputy director of NOAA's Climate Prediction Center. But during a [drought](#), when the ground and plants are dry and hot, it creates a feedback that makes the air even hotter, he said. "Areas that are very dry are likely to have above normal temperatures."

The La Nina pattern of cooler than normal temperatures in the equatorial Pacific contributed in part to that drying effect from November through March but it has little to do with the above-normal temperatures the region is expected to see this summer, Halpert said.

The warming climate, on the other hand, does lend its own tilt toward higher temperatures, he said: "The long-term trends are certainly consistent with climate change."

In Texas, the state's wettest months are typically in May and June, Nielsen-Gammon said, "so things could either turn around or get really bad" in the weeks ahead. He's holding out for improvement as a cold front arrives this weekend.

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