

2020 had 102 tropical storms, well above world average, NOAA report says

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Tropical storms in 2020 didn't just break records in the northern Atlantic.

It happened everywhere.

Storm totals exceeded records all over the world, according to an international study from 60 countries detailed in the "State of the Climate in 2020" report released Wednesday. The [annual report](#) is compiled by the National Oceanic and Atmospheric Administration's National Centers for Environmental Information and published by the American Meteorological Society.

In both the Northern and Southern Hemisphere, scientists recorded 102 [tropical storms](#). It's a total far above the 1981–2010 average of 85, according to the study.

In the 2020 Atlantic [hurricane](#) season, scientists observed a total of 30 storms—a [record](#) in its own right breaking the 2005 record of 28, according to the NOAA.

The Atlantic also had seven [major hurricanes](#), or storms with maximum sustained winds greater than 110 mph (Category 3 or higher). One of those major storms was the development of Category 4 Hurricane Iota, which gave meteorologists a surprise last year as Category 4 storms rarely develop in November when waters begin to cool and the season comes to an end.

The year was also historic for the number of landfalling storms observed in the United States, coming in at 12. The previous record was nine.

On the bright side, the northern Pacific did not measure a record amount of [storm](#) formation. However, meteorologists observed the record breaking phenomenon of Super Typhoon Goni, which was the strongest tropical cyclone to make landfall in the history and led to the evacuation of almost one million people in the Philippines, the report showed. Goni had at one point maximum sustained winds of 180 mph. While on land

the storm maintained winds just under 140 mph, according to NASA. About 25 people were reported dead, nearly 400 people were injured and six people were missing as of January, according to a report by the International Red Cross and Red Crescent.

The record tropical season was observed as scientists also recorded 2020 as among the three warmest years on the global surface ever recorded since the mid-1800s, according to the report. Perhaps more alarming, 2020 was among the seven warmest years on record, which all took place in the last seven years. Last year's heat record was accomplished without the presence of the warming effects of El Niño. The only years to beat out 2020 for the warmest record were 2016 and 2019; both of which observed the presence of El Niño.

"New high temperature records were set across the globe," according to the report, which "found that the major indicators of climate change continued to reflect trends consistent with a warming planet."

Another concerning aspect, sea-surface temperature hit a near-record in spite of 2020 having a cooling La Niña influence in the second half of the year.

"The largest anomalies occupied the western and portions of the central North Atlantic, where numerous tropical storms and hurricanes tracked across this region," the report stated.

Sea-surface temperatures are an important indicator for many global phenomenon including hurricane formation. It was one of the factors the NOAA used last year to predict an above-average hurricane season. The NOAA made a similar prediction regarding the 2021 season citing a forecast of high [sea-surface temperatures](#) during the peak of season. However, prior to August, temperatures have been recorded at near normal, said Lauren Gaches, an NOAA spokeswoman.

"It's been varying from week to week, though generally near-normal over any two-week period," she said.

Still hurricane season is ahead of the game in storm production and falling in line with the NOAA's "above-average" prediction as hurricane specialists prepare for the ninth named storm of the [season](#)—that's unusual as letter "I" storms don't typically form before Oct. 4, according to the NOAA records.

The report also addressed other concerning data including broken records of higher sea levels and permafrost. The former was measured as the ninth consecutive year the global average sea level rose to a new record high.

"Global sea level is rising at an average rate of 1.2 in (3.0 cm) per decade due to changes in climate," the report showed. "Melting of glaciers and ice sheets, along with warming oceans, account for the trend in rising global mean sea level."

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