Embargo: CSU researchers predicting somewhat below-average Atlantic hurricane season for 2026

By MarComm Staff

Embargo information: Colorado State University's annual spring Atlantic hurricane forecast is now available under embargo until 10 a.m. Eastern on April 9. Reporters may review the report and conduct interviews around it in advance but cannot broadcast or distribute information from it on any platform from it until that time. Multimedia assets, including b-roll, stock interview clips, and still images, are available by request. The report will be officially released during a live web stream from the National Tropical Weather Conference on April 9. Please contact Jennifer Dimas (Jennifer.Dimas@colostate.edu) or Joshua Rhoten (Joshua.Rhoten@colostate.edu) for English and Spanish media inquiries and if you would like to be included in future news releases. The CSU team will also issue forecast updates on June 10, July 8 and Aug. 5, and all information will be stored at tropical.colostate.edu.

Colorado State University hurricane researchers are predicting a somewhat below-average Atlantic hurricane season in their initial 2026 forecast. CSU's Tropical Cyclones, Radar, Atmospheric Modeling, and Software Team within the Department of Atmospheric Science cites the forecast of a robust El Niño as a primary factor for their prediction of 13 named storms (e.g., tropical storms and hurricanes), of which they anticipate six to become hurricanes and two to become major (Category 3+ on the Saffir-Simpson Hurricane Wind Scale) hurricanes. These numbers are below the long-term seasonal average of 14, seven and three, respectively.

El Niño, a recurring climate pattern that is characterized by warmer than normal water in the eastern and central tropical Pacific, tends to increase upper-level westerly winds across the Caribbean into the tropical Atlantic. These winds result in increased vertical wind shear which is unfavorable for Atlantic hurricane formation and intensification. Moderate to strong El Niño events generally have a stronger tropical Atlantic vertical wind shear impact than weak El Niño events.

The tropical Pacific currently has weak La Niña conditions. La Niña is effectively the opposite of El Niño and is characterized by cooler than normal waters in the eastern and central tropical Pacific. However, these conditions are forecast to rapidly transition to El Niño in the next few months. While the intensity of the likely El Niño is uncertain, the CSU team anticipates that a moderate to strong El Niño is most likely by the peak of the Atlantic hurricane season from August–October.

Currently, waters in the western tropical Atlantic are warmer than normal, while they are slightly cooler than normal in the eastern tropical and subtropical Atlantic. Overall, currently observed sea surface temperatures across the tropical and subtropical Atlantic present mixed signals for the upcoming hurricane season. Warmer waters in the western Atlantic would favor above-normal activity, while cooler waters in the eastern tropical and subtropical Atlantic

would favor below-normal activity. A warm Atlantic favors an above-average season, since a hurricane's fuel source is warm ocean water. Additionally, a warm Atlantic leads to lower atmospheric pressure and a more unstable atmosphere. Both conditions favor hurricane formation.

Given the mixed signals in the Atlantic and the potential for a moderate to strong El Niño, the CSU forecast team is predicting a somewhat below-normal 2026 season. The authors do note that their initial April forecast is historically less accurate compared to those that follow in each season due to the considerable changes that can occur in the atmosphere and ocean between April and the peak of the Atlantic hurricane season from August to October.

How many storms will there be in the 2026 Atlantic hurricane season?

The CSU team is predicting 13 named storms during the Atlantic hurricane season, which runs from June 1 to Nov. 30. Of those, researchers forecast six to become hurricanes and two to reach major hurricane strength with sustained winds of 111 miles per hour or greater.

The team bases its forecasts on a statistical model, as well as three models that use a combination of information and predictions of large-scale conditions from the European Centre for Medium-Range Weather Forecasts (ECMWF), the UK Met Office, and the Centro Euro-Mediterraneo sui Cambiamenti Climatici. These models use 25 to 40 years of historical hurricane seasons and evaluate variables such as Atlantic sea surface temperature, sea level pressure, vertical wind shear, the ENSO phenomenon, and other factors. For the first time this year, the CSU team is also utilizing a machine learning-based climate model called the Ai2 Climate Emulator (ACE2), which is run with predicted sea surface temperatures from the ECMWF climate model. While the statistical model calls for a slightly above-average season, all other model guidance, including the new ACE2 model, points towards somewhat below-average activity.

"So far, the 2026 hurricane season is exhibiting characteristics similar to the 2006, 2009, 2015 and 2023 seasons," said Phil Klotzbach, a senior research scientist in the Department of Atmospheric Science at CSU and lead author of the report.

"Our analog seasons ranged from well below-average Atlantic hurricane activity to somewhat above average," said Klotzbach. "While the average of our analog seasons is somewhat below normal, the large spread in observed activity in our analog years highlights the high levels of uncertainty that typically are associated with our early April outlook."

The team predicts that 2026 hurricane activity will be about 75% of the average season from 1991–2020. By comparison, 2025's hurricane activity was about 105% of the average season. The most significant hurricane of the 2025 Atlantic hurricane season was Hurricane Melissa, which made landfall as a Category 5 hurricane in Jamaica, resulting in nearly $9 billion in damage and causing 95 fatalities across the Caribbean.

The forecast team also explicitly forecasts the Accumulated Cyclone Energy (ACE) occurring west of 60 degrees west longitude. This is an integrated metric accounting for storm frequency, intensity and duration in the western half of the Atlantic Basin that has proven to be useful. ACE generated west of 60 degrees correlates better with landfalling storms in the Atlantic basin than basinwide ACE, since virtually all hurricane-prone landmasses in the Atlantic Ocean are located west of 60 degrees west.

Generally, a slightly lower percentage of basinwide ACE occurs west of 60 degrees west in El Niño years relative to La Niña years. Since the team anticipates El Niño as the most likely scenario in 2026, the percentage of basinwide ACE occurring west of 60 degrees west is predicted to be somewhat lower in 2026.

The CSU team will issue updates to this forecast on June 10, July 8 and Aug. 5.

This is the 43rd year that CSU has issued an Atlantic forecast. The late Professor Emeritus Bill Gray originated the seasonal forecasts at CSU and launched the report in 1984. He continued to author them until his death in 2016. The authors of this year's forecast are Phil Klotzbach, Professor Michael Bell, Research Scientist Levi Silvers, post-doctoral scientist Juhyun Lee and Ph.D. students Delián Cólon-Burgos and Nicholas Mesa. The CSU-RAMS Team is part of the Department of Atmospheric Science in the Walter Scott, Jr. College of Engineering at CSU; the department is home to one of the top-ranked atmospheric science programs in the world.

The CSU forecast is intended to provide a best estimate of activity in the Atlantic during the upcoming season – not an exact measure.

As always, the researchers caution coastal residents to take proper precautions.

"It takes only one storm near you to make this an active season for you," said Michael Bell.

Hurricane landfalling probability included in 2026 report

The report also includes the following probability of major hurricanes making landfall in 2026:

- 32% for the entire U.S. coastline (average from 1880–2020 is 43%).
- 15% for the U.S. East Coast, including the Florida Peninsula (average from 1880–2020 is 21%).
- 20% for the Gulf Coast from the Florida panhandle westward to Brownsville, Texas (average from 1880–2020 is 27%).

- 35% for the Caribbean (average from 1880–2020 is 47%).

The forecast team also provides probabilities of named storms, hurricanes and major hurricanes tracking within 50 miles of each county or parish along the Gulf and U.S. East Coast, as well as hurricane-prone coastal states, Mexican states, Canadian provinces and countries in Central America and the Caribbean. These probabilities for regions and countries are adjusted based on the current seasonal forecast.

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ATLANTIC BASIN SEASONAL HURRICANE FORECAST FOR 2026

Forecast Parameter and 1991–2020 Average (in parentheses)	Issue Date 9 April 2026
Named Storms (NS) (14.4)	13
Named Storm Days (NSD) (69.4)	55
Hurricanes (H) (7.2)	6
Hurricane Days (HD) (27.0)	20
Major Hurricanes (MH) (3.2)	2
Major Hurricane Days (MHD) (7.4)	5
Accumulated Cyclone Energy (ACE) (123)	90
ACE West of 60°W (73)	50
Net Tropical Cyclone Activity (NTC) (135%)	100