April Forecast Update for North Atlantic Hurricane Activity in 2026

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TSR lowers its forecast and predicts North Atlantic hurricane activity in 2026 will be around 40% below the 1991-2020 30-year norm.

Summary: The TSR (Tropical Storm Risk) April forecast update for North Atlantic hurricane activity in 2026 anticipates a season with activity around 40% below the 1991-2020 climatology. The forecast spans the period from 1st June to 30th November 2026 and employs data through to the end of March 2026. TSR uses the forecast August-September sea surface temperatures in the Atlantic Main Development Region (10º-20ºN, 60º-20ºW) and the forecast July-September Caribbean trade wind anomaly over the region 7.5º-17.5ºN, 100º-30ºW as predictors. The former is forecast to be slightly warmer than average and the latter is predicted to be stronger than normal due to a predicted moderate or strong El Niño through summer and autumn 2026. The forecast has lowered considerably from the extended range forecast issued in December, primarily due to much higher confidence in the development of at least a moderate El Niño through spring and into summer 2026.

1. TSR April 2026 North Atlantic Seasonal Hurricane Forecasts

Further information on the TSR statistical prediction models and adjustments that are used to generate the forecasts below can be found in Section 2 of Supplementary Information.

1.1 Forecast North Atlantic ACE Index and System Numbers in 2026:

		ACE Index	Intense Hurricanes	Hurricanes	Tropical Storms
TSR Forecast	2026	66	1	5	12
30-yr Climate Norm	1991-2020	122	3.2	7.2	14.4
10-yr Climate Norm	2016-2025	149	3.9	8.2	18.1
Forecast Skill at this Lead	2003-2025	0%	3%	0%	0%

The forecast tercile probabilities (1991-2020 data) for the 2026 North Atlantic hurricane season ACE index are as follows: only a 3% probability of being upper tercile (>156)), a 24% likelihood of being middle tercile (75 to 156)) and a 73% chance of being lower tercile (<75)).

1.2 Forecast US ACE Index and US Landfalling Numbers in 2026:

		U.S. ACE Index	Hurricanes	Tropical Storms
TSR Forecast	2026	1.4	1.0	3.0
30-yr Climate Norm	1991-2020	2.7	1.6	3.8
10-yr Climate Norm	2016-2025	3.9	2.5	4.8
Forecast Skill at this Lead	2003-2025	0%	4%	11%

U.S. landfalling intense hurricanes are not forecast since we have no skill at any lead.

The forecast tercile probabilities (1991-2020 data) for the U.S. ACE index in 2026 are as follows: only a 14% probability of being upper tercile (>3.19), a 33% likelihood of being middle tercile (1.18 to 3.19) and a 53% chance of being lower tercile (<1.18).

1.3 Forecast Probability of Exceedance Plots for the North Atlantic Hurricane Season in 2026:

See Section 3 in the Supplementary Information for motivation behind probability of exceedance charts. Figure 1 displays our April forecast PoE plots for the 2026 North Atlantic hurricane season. The forecast PoE curves are computed using the method described in section 3 of Saunders et al. (2020) while the climatology PoE curves are computed directly from observations. The two forecast PoE plots specify the current chance that a given ACE index and/or hurricane total will be reached in 2026 and how these chances differ to climatology.

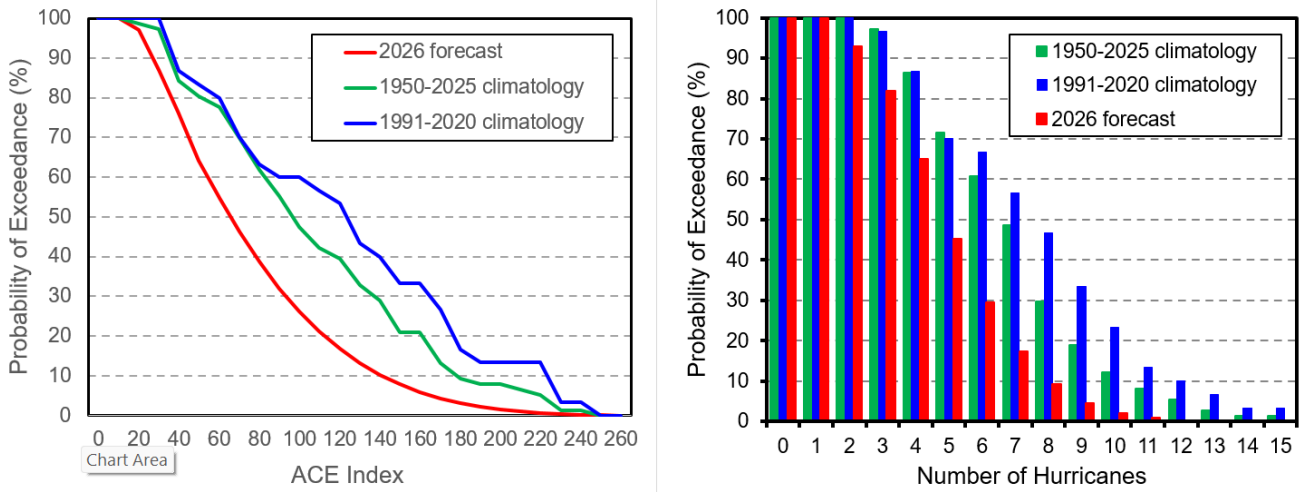

Figure 1. Forecast probability of exceedance (PoE) plots for the North Atlantic ACE index in 2026 (left panel) and for the number of North Atlantic hurricanes in 2026 (right panel). Each plot displays three sets of PoE data comprising the TSR forecast PoE curve issued early April and two climatology PoE curves.

2. Factors Influencing the April 2026 TSR Forecasts

Atlantic MDR SST: August-September sea surface temperatures in the tropical North Atlantic (region 10°N–20°N, 20°W–60°W) are forecast to be slightly warmer than the 1991-2020 climatology. We anticipate MDR sea surface temperatures to have a small enhancing effect on the 2026 Atlantic hurricane season.

Trade Wind Speed: The July-September forecast trade wind at 925mb height over the Caribbean Sea and tropical North Atlantic (region 7.5°N–17.5°N, 30°W–100°W) is forecast to be stronger than the 1991-2020 climatology. We anticipate trade wind speed to have a strong suppressing effect on the 2026 Atlantic hurricane season.

ENSO: A moderate or strong El Niño is anticipated to develop and persist through summer and autumn 2026. We anticipate ENSO to have a significant suppressing effect on the 2026 Atlantic hurricane season.

Aug-Oct Precipitation Anomaly: The majority of the available seasonal dynamical forecast models are predicting below-normal precipitation anomalies across the tropical Atlantic and Caribbean Sea, although one model is predicting wetter than average conditions in these regions. Below normal precipitation anomalies imply the tropical Atlantic will be less favourable than normal for deep convection, which will have a suppressing effect on the 2026 Atlantic hurricane season.

Aug-Oct Mean Sea Level Pressure Anomaly: There is signifincant variablility in the forecast for mean sea level pressure anomaly across the tropical north Atlantic and Caribbean Sea across the available seasonal dynamical models. There are currently no indications as to whether sea level pressure anomaly will be above or below normal and thus what influence it will likely have on the 2026 Atlantic hurricane season.

Analogue Years:

Current and Forecast ENSO State: The current ENSO state is neutral with cold neutral conditions present towards the end of 2025 and a moderate or strong El Niño predicted to develop and persist through summer and autumn 2026. Years which transitioned from cold neutral or La Niña to a moderate or strong El Niño during the upcoming hurricane season were 1951, 1957, 1963, 1965, 1972, 1997, 2002 and 2023. The ACE index across these years varied from 36 (1972) to 146 (2023), although the August-September MDR and Caribbean sea surface temperatures in 2023 were much higher than is predicted this year. Three of these years were in the lower tercile of ACE index over the period 1950-2025 and no years were in the upper tercile.

TSR hindcasts for MDR SST and trade wind anomalies: Years where the TSR early April hindcasts for MDR ACE and Caribbean/North Atlantic trade wind anomalies were most similar to 2026 are 1957, 1972 and 1976. All three years saw hurricane activity well below the 1991-2020 climatology, although August-September MDR sea surface temperatures were cooler than is forecast for 2026.

The analogue years imply that a below-average hurricane season in 2026 is most likely. As far as landfalling impacts are concerned, some of the years listed above had significant landfalls such as category 4 Audrey in 1957 in Texas and hurricane Flora in 1963 which brought devastating flooding to Cuba due to its slow movement across the island, illustrating that destructive landfalls can occur even during a below-average hurricane season. It is not possible to say anything at this lead time as to the likelihood of an impactful hurricane season in 2026.

3. Confidence and Uncertainties

There is high confidence that the 2026 Atlantic hurricane activity season will be below-normal based on the 1991-2020 climatology although some uncertainties remain. Contributions to uncertainty due to other factors are described below:

Atlantic MDR SST: There is low confidence that sea surface temperatures in the tropical Atlantic will be slightly warmer to the 1991-2020 climatology. The current sea surface temperature spatial pattern across the Atlantic during March implies below-average MDR SST's; however, some of the available dynamical seasonal models are predicting warmer than average MDR SSTs. The 2026 forecast for August-September MDR SSTs represents a blend of these two factors.

ENSO: There is high confidence for El Niño conditions to be in place through summer and autumn. The IRI suite of models are mostly predicting a moderate or strong El Niño and both the UK Met Office and the ECMWF model ensembles are predicting a strong El Niño to high probability. Note that although summer/autumn ENSO conditions tend to be difficult to predict at this lead time due to the spring predictability barrier (ENSO forecast skill is significantly reduced during Spring), confidence in a developing El Niño through spring and summer 2026 is higher than normal at this lead time.

Trade Wind Speed: There is high confidence that the Atlantic and Caribbean Sea trade wind speed will be stronger than the 1991-2020 climatology through the upcoming summer and early autumn. Trade wind speed is influenced by Caribbean Sea surface temperature anomalies and the ENSO state. The predicted El Niño through summer and autumn is likely to have a strong influence on the trade wind speed.

Spring NAO: The sign of the April to June NAO has an inverse correlation with upcoming Atlantic hurricane activity i.e. a positive spring NAO tends to be followed by a less active Atlantic hurricane season through enhancement of trade wind speed leading to cooling of tropical Atlantic SSTs. The spring NAO has less influence on upcoming Atlantic hurricane activity during El Niño or La Niña conditions, therefore we anticipate the spring NAO to have at most a modest influence on the 2026 Atlantic hurricane season.

Intra-seasonal factors: Other factors which are impossible to predict such as the strength and frequency of Saharan air outbreaks, and the frequency of tropical upper tropospheric troughs (TUTT) across the tropical Atlantic (both of which inhibit hurricane activity) are not accounted for. In addition, for a given set of climate factors, a spread in hurricane activity levels can still ensue.

Skill: Historically the skill of the early April forecast for North Atlantic hurricane activity is low (see section 4a in the Supplementary Information.

4. Next TSR Forecast

The next TSR forecast update for the 2026 North Atlantic hurricane season will be a pre-season forecast issued on the 28th May.

5. List of Predictions Issued for the 2026 North Atlantic Hurricane Season

1. Atlantic ACE Index and System Numbers:

Atlantic ACE Index and System Numbers 2026					
		ACE Index	Named Tropical Storms	Hurricanes	Intense Hurricanes
Average Number (1991-2020)		122	14.4	7.2	3.2
Average Number (2016-2025)		149	18.1	8.2	3.9
TSR Forecasts	9 April 2026	66	12	5	1
	11 December 2025	125	14	7	3
CSU Forecast	9 April 2026	90	13	6	2

2. U.S. ACE Index and US Landfalling Numbers:

US Landfalling Numbers 2026				
		ACE Index	Tropical Storms	Hurricanes
Average Number (1991-2020)		2.7	3.8	1.6
Average Number (2016-2025)		3.9	4.8	2.5
TSR Forecast	9 April 2026	1.4	3	1