

# Pre-Season Forecast Update for North Atlantic Hurricane Activity in 2026

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**TSR slightly lowers its forecast from early April and predicts North Atlantic hurricane activity in 2026 will be 50% below the 1991-2020 30-year norm.**

## Summary

The TSR (Tropical Storm Risk) pre-season forecast update for North Atlantic hurricane activity in 2026 anticipates a season with activity around 50% 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 (10°-20°N, 60°-20°W) and the forecast July-September Caribbean trade wind anomaly over the region 7.5°-17.5°N, 100°-30°W 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.

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

		ACE Index	Intense Hurricanes	Hurricanes	Tropical Storms
<b>TSR Forecast</b>	2026	55	1	4	11
<b>30-yr Climate Norm</b>	1991-2020	122	3.2	7.2	14.4
<b>10-yr Climate Norm</b>	2016-2025	149	3.9	8.2	18.1
<b>Forecast Skill at this Lead</b>	2016-2025	2%	8%	13%	0%

The forecast tercile probabilities (1991-2020 data) for the 2026 North Atlantic hurricane season ACE index are as follows: only a 4% probability of being upper tercile (>156)), a 31% likelihood of being middle tercile (75 to 156)) and a 65% chance of being lower tercile (<75)).

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

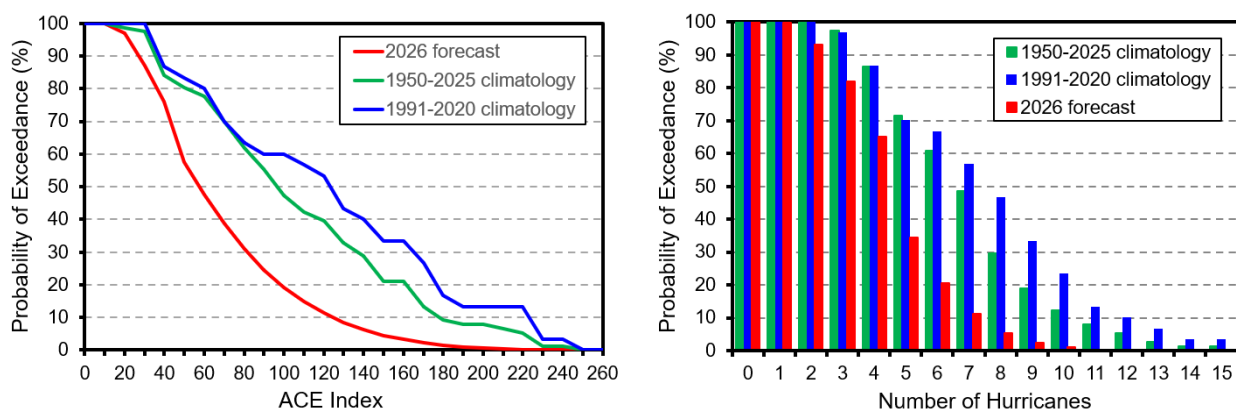
		U.S. ACE Index	Hurricanes	Tropical Storms
<b>TSR Forecast</b>	2026	1.2	1.0	3.0
<b>30-yr Climate Norm</b>	1991-2020	2.7	1.6	3.8
<b>10-yr Climate Norm</b>	2016-2025	3.9	2.5	4.8
<b>Forecast Skill at this Lead</b>	2016-2025	0%	12%	15%

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 2026 U.S. ACE index are as follows: an 18% probability of being upper tercile (>3.19)), a 34% likelihood of being middle tercile (1.18 to 3.19)) and a 48% chance of being lower tercile (<1.18)).

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

See [Section 3](#) in the Supplementary Information for the motivation behind the probability of exceedance chart. Figure 1 displays our pre-season 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 pre-season and two climatology PoE curves.

## 2. Factors Influencing the Pre-Season 2026 TSR Forecast

**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 warmer than the 1991-2020 climatology. We anticipate MDR sea surface temperatures to have a small or moderate 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:** An El Niño event is currently developing and is forecast to be of moderate or strong intensity 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 predicts mixed 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:** The available seasonal dynamical forecast models are predicting above-normal sea level pressure anomalies across the tropical Atlantic and Caribbean through summer and autumn 2026, although there is considerable uncertainty in the magnitude of the anomalies. We anticipate sea level pressure anomalies are likely to be higher than normal and have a suppressing effect on the 2026 Atlantic hurricane season.

Below-normal precipitation and above-normal sea level pressure anomalies imply more frequent periods of subsiding air across the tropical Atlantic and Caribbean, which is unfavourable for deep convection and tropical cyclone development.

## 3. Analogue Years

**Current and Forecast ENSO State:** The current ENSO state is warm neutral with a moderate or strong El Niño currently developing and persist through summer and autumn 2026. Years which transitioned from neutral or weak El Niño in late spring to a moderate or strong El Niño through the upcoming hurricane season were 1951, 1957, 1963, 1965, 1972, 1982, 1997, 2002, 2015 and 2023. Seven out of these ten years had an ACE index well below the 1991-2020 climatology and three of these years saw an ACE below what is forecast for the 2026 Atlantic hurricane season at this lead time.

**TSR hindcasts for MDR SST and trade wind anomalies:** There are no years since 1950 where the TSR hindcasts were for warmer than average MDR SSTs and stronger than normal trade winds. The closest analogues to 2026 are 1997 and 2015 in which TSR was predicting neutral or slightly cooler than average MDR SSTs, with stronger than normal trade winds due to a predicted strong El Niño through the upcoming summer and autumn. Both years saw hurricane activity well below the 1991-2020 climatology with an ACE index of 41 (1997) and 63 (2015).

The analogue years are consistent with the prediction for a below-average hurricane season in 2026. As far as landfalling impacts are concerned, the forecast below-normal level of Atlantic hurricane activity implies a reduced climatological likelihood of destructive hurricane impacts compared to average or active seasons. However, seasonal activity levels are only weakly related to landfall impacts, the possibility of a high-impact hurricane cannot be excluded, and even quiet seasons have occasionally produced destructive landfalls.

## 4. Confidence and Uncertainties

There is good 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 reasonable confidence that sea surface temperatures in the tropical Atlantic will be warmer than the 1991-2020 climatology. Sea surface temperatures in the MDR warmed through the first half of May and have since cooled to slightly below the 1991-2020 climatology. The TSR statistical model predicts slightly warmer than average MDR SSTs and most of the available dynamical seasonal models predict warmer than average MDR SSTs through summer 2026. Whilst there is reasonable confidence in warmer than average MDR SSTs, there remains considerable uncertainty in how warm they will be relative to climatology.

**ENSO:** There is good confidence for El Niño conditions to be in place through summer and autumn. An El Niño event is currently developing and the IRI suite of models are all predicting a moderate or strong El Niño, with both the UK Met Office and the ECMWF model ensembles are predicting a strong El Niño to high probability.

**Trade Wind Speed:** There is good 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 expected to have a strong influence on the trade wind speed.

**Spring NAO:** Due to the anticipated moderate or strong El Niño conditions being in place through summer and autumn 2026, we anticipate the spring NAO to have limited 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 pre-season forecast for North Atlantic hurricane activity is low to moderate (see [section 4a](#) in the Supplementary Information).

## 5. Next North Atlantic Seasonal Forecast

The next TSR forecast update for the 2026 North Atlantic hurricane season will be issued on the 7th July.

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

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	28-May-26	55	11	4	1
	09-Apr-26	66	12	5	1
	11-Dec-25	125	14	7	3
CSU Forecast	09-Apr-26	90	13	6	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	28-May-26	1.2	3	1
	09-Apr-26	1.4	3	1