

Extended Range Forecast for North Atlantic Hurricane Activity in 2026

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TSR predicts that North Atlantic hurricane activity in 2026 will be close to the 1991-2020 30-year norm. This outlook has large uncertainties.

The TSR (Tropical Storm Risk) extended range forecast for North Atlantic hurricane activity in 2026 anticipates a season with activity close to the 1991-2020 climatology. The forecast spans the period from 1st June to 30th November 2026 and employs data through to the end of November 2025. 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 warmer than average, leading to an enhancement of Atlantic hurricane activity, and the latter is predicted to be slightly weaker than normal due to predicted warm neutral ENSO conditions and above-average sea surface temperatures in the Caribbean Sea. This forecast has high uncertainty due to the possibility of El Niño conditions developing and persisting through summer and autumn 2026. We express the forecast uncertainty in terms of probability of exceedance for Accumulated Cyclone Energy (ACE) and for hurricane numbers.

1. TSR Extended Range North Atlantic Seasonal Hurricane Forecast

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	125	3	7	14
76-yr Climate Norm	1950-2025	107	2.7	6.5	12.4
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%	2%	2%	0%

The forecast tercile probabilities (1991-2020 data) for the 2026 North Atlantic hurricane season ACE index are as follows: a 32% probability of being upper tercile (>156)), a 49% likelihood of being middle tercile (75 to 156)) and a 19% chance of being lower tercile (<75)).

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

See [Section 3](#) in the Supplementary Information for the 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.

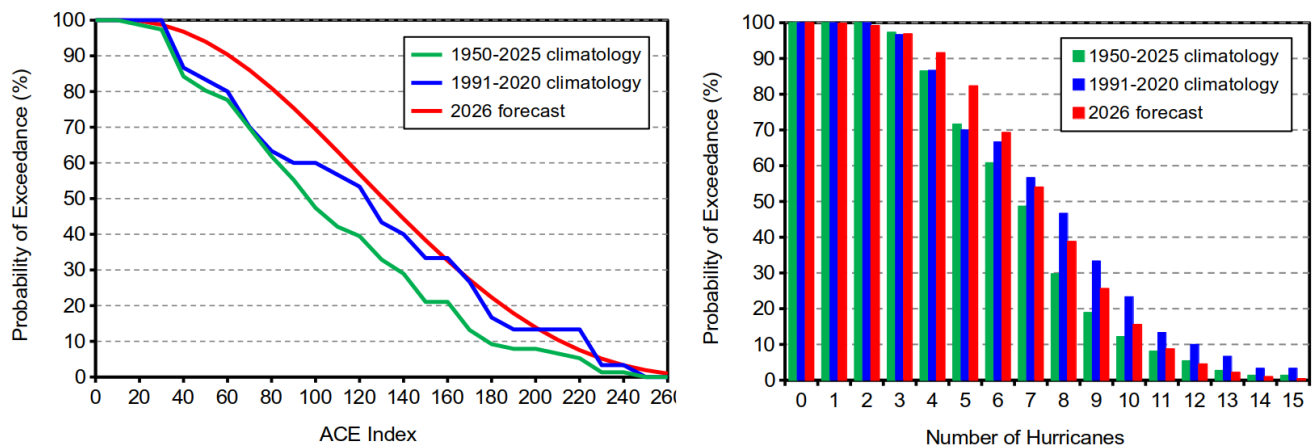


Figure 1: Reference: Saunders, M. A., Klotzbach, P. J., Lea, A. S. R., Schreck, C. J., & Bell, M. M. (2020). Quantifying the probability and causes of the surprisingly active 2018 North Atlantic hurricane season. *Earth and Space Science*, 7, e2019EA000852. <https://doi.org/10.1029/2019EA000852>

2. Factors Influencing the Extended Range TSR Forecasts

Atlantic MDR and Caribbean Sea SST: August-September sea surface temperatures in the tropical North Atlantic (region 10°N–20°N, 20°W–60°W) and the Caribbean Sea are forecast to be warmer than normal. The current forecast is for $0.3 \pm 0.34^\circ\text{C}$ warmer than normal (1991-2020 climatology) for both regions. Warmer than normal waters provide additional heat and moisture to help power the development of more storms within the hurricane main development region.

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 slightly weaker than normal, although there is high uncertainty at this lead time. Weaker than normal trade winds during July-September in the tropical north Atlantic are associated with higher cyclonic vorticity and decreased vertical wind shear over the hurricane main development region. This in turn increases hurricane frequency and intensity.

ENSO: Based on the International Research Institute for Climate and Society (IRI) model projections, the current weak La Niña conditions are expected to return to neutral through winter and spring 2026, with the majority of available models predicting warm-neutral conditions to develop by summer 2026. A minority of available models predict weak El Niño conditions to develop and persist through summer 2026. Warm-neutral or weak El Niño conditions will likely have a small suppressing effect on the 2026 North Atlantic hurricane season through increasing vertical wind shear across the Caribbean Sea and tropical North Atlantic.

Analogue Years: The November 2025 sea surface temperature pattern globally combined with the current and forecast summer ENSO state is most comparable to 2011 and 2017. Most of these years had La Niña conditions in place at this time and transitioned into warm neutral or marginal El Niño conditions by the following summer. The ACE Index during the following two hurricane seasons was 133 and 129, similar to the TSR December 2025 forecast. Whilst 2018 saw two very destructive U.S. landfalling hurricanes, it is impossible to say anything about the destruction potential of the 2026 hurricane season.

3. Confidence and Uncertainties

Forecast skill at this lead time is historically low, and there are large uncertainties in the extended range forecast for North Atlantic hurricane activity in 2026. These uncertainties are described below:

Atlantic MDR SST: There is reasonable confidence that sea surface temperatures in the tropical Atlantic will be warmer than average which is an enhancing effect for hurricane activity; however, historically, forecast skill is low at this lead time. The available climate models (accessed via Tropical Tidbits¹) and the TSR statistical prediction model are predicting warmer than average sea surface temperatures in the Atlantic main development region (10°-20°N, 60°-20°W) and Caribbean Sea through August-September 2026.

ENSO: There is limited confidence for warm-neutral ENSO conditions to be in place through summer and autumn due to the historically low skill in predicting the summer ENSO state prior to mid-Spring. A minority of available forecast models from IRI² predict weak El Niño conditions to develop by early summer 2026. There is moderate confidence that La Niña conditions will not be in place through the summer and autumn.

Trade Wind Speed: There is limited confidence that Atlantic and Caribbean Sea trade wind speed will be slightly weaker than normal through the upcoming summer, as historically there is high uncertainty in predicting July-September trade wind speed at this lead time. At present, indications are that the trade wind speed will have a near-neutral or small enhancing effect; however, if El Niño conditions develop through spring and early summer, the trade wind speed may become inhibiting for hurricane activity.

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. It is not possible to predict the April-June NAO at this lead time with any confidence; therefore, this factor has not been included in our extended range forecast.

Intra-seasonal factors: Other factors which are impossible to predict, such as the strength and frequency of Saharan air outbreaks, large-scale subsidence and the frequency of tropical upper tropospheric troughs (TUTT) across the tropical Atlantic (all 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 December extended range forecast for North Atlantic hurricane activity is low (see [Section 4a](#) in the Supplementary Information).

Further Information and Next Forecast

Further information about the TSR forecasts and their verifications may be obtained from the TSR website <https://www.tropicalstormrisk.com>. We anticipate that the first TSR forecast update for the 2026 North Atlantic hurricane season will be issued on Tuesday 7th April 2026.

¹ <https://www.tropicaltidbits.com/analysis/>

² https://iri.columbia.edu/our-expertise/climate/forecasts/enso/current/?enso_tab=enso-sst_table