University of Arizona (UA) Forecasts an Active Hurricane Season
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6/16/2021

The University of Arizona (UA) forecasting team updated their April prediction and still forecast an active year in most categories. The updates are as follows:

	2021 June Prediction	70% Probability Range	2021 April Prediction	Median Since 1980
Hurricanes	6	4 to 8	8	7
Major Hurricanes	4	3 to 5	4	2
Named Storms	19	16 to 22	18	13
ACE	183	143 to 222	137	103

Our total predicted tropical activity is well above the median since 1980 in most categories with the exception being for hurricanes.

March/April/May tropical sea surface temperatures are the most significant factor in our June model. Temperatures are a little above average which is part of the reason why our hurricane prediction is close to average. Compared to last year and 2017, which were two hyperactive years, temperatures are noticeably cooler.

We factor in the El Niño Southern Oscillation (ENSO), represented by the Multivariate ENSO Index (MEI), differently for our hurricane model versus the other models. For June 2021, according to the MEI, ENSO has been on the cool side and latest projections are raising the potential for us to drop into a La Niña later on this fall to 50%. However, for the first half of hurricane season we are expected to be in ENSO-neutral conditions. This is another reason why we are predicting a relatively average year for hurricane numbers but active for the other categories as the other models lean more into the possibility of La Niña conditions.

The Atlantic zonal pseudo-wind stress (PSU) similarly sends mixed messages for hurricanes vs the other categories. This variable will slightly temper the hurricane outlook and slightly enhance the other categories as PSU is highly negative further north where we analyze for hurricane potential and closer to 0 where we look for major hurricanes/ACE/named storms.

Our average errors for our hurricane outlooks since we first started issuing predictions in 2014 has stayed very close to what we reported in both Davis et al. 2015 and Davis and Zeng 2019. For hurricanes, our average prediction error is 1.9 hurricanes. Since 2017, when we started issuing forecasts for ACE and major hurricanes, our average error has been 28.0 units and 0.5 major hurricanes. For named storms, for which we started issuing predictions in 2019, our average error has been 7.5 named storms. This number is so high because we only have two years of errors and 2020 was a record-breaking year.

Reference: Kyle Davis, Xubin Zeng, and Elizabeth A. Ritchie, 2015: A New Statistical Model for Predicting Seasonal North Atlantic Hurricane Activity. Wea. Forecasting, 30, 730–741, doi: 10.1175/WAF-D-14-00156.1

Davis, K. and X. Zeng, 2019: Seasonal Prediction of North Atlantic Accumulated Cyclone Energy and Major Hurricane Activity. Wea. Forecasting, 34, 221–232,https://doi.org/10.1175/WAF-D-18-0125.1

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