



University of Missouri – Atlantic Ocean Basin Tropical Forecast 2022

Predicted (19 April) / As of 14 December 2022

	Predicted	Observed	Difference
<i>Number of Named Storms:</i>	21	14	+50%
<i>Tropical Storms:</i>	13	6	+116%
<i>Category 1-2:</i>	4	6	-33%
<i>Category 3-5:</i>	4	2	+100%
 <i>Regional (where they will form):</i>			
<i>West Atlantic (to 45° W):</i>	10	6	+67%
<i>East Atlantic (to 45° W):</i>	5	3	+67%
<i>Gulf of Mexico:</i>	3	1	+200%
<i>Caribbean:</i>	3	4	-25%

In 2021 – 2022, we are coming off a La Niña three-peat. During this season, the majority of forecast models are projecting the Eastern Tropical Pacific to remain in cool-neutral to near neutral with respect to sea-surface temperatures (SSTs). Previous research has suggested a reasonable correlation towards an average to above-average number of Atlantic-based storms during this projected ENSO state. This is predominantly due to a combination of eastern/central Atlantic-based subtropical shear, and this year the QBO may be not so favourable to development in the Atlantic since it’s in the easterly phase, but it may be working its way back to westerly late in the year. In addition, based on 30 to 60-day evolution of the Intraseasonal Oscillation (ISO) (aka MJO), the MJO is strengthening a bit currently and is projected to continue moving forward. Based on the current near 40-day cycle, this projection would land more conducive MJO impacts towards Africa and the North Atlantic during early July, mid-to-late August, and late September if one projects out along the same path MJO has taken. However, depending upon the ongoing intensity of these projected MJO convective event rates of propagation, it may be less or more of a factor even during peak-season times. We referenced climatological research from a few different analog platforms. Most of these tropical analogues suggested that 2021, 2011, 2008, 2000, and 1999 are favourable analogues. We were particularly impressed with 2021 as the long range forecasts for our area in 2022 are comparable to 2021. Thus, development will likely occur across the western and eastern Atlantic regions. Forecast issued by: Alex Nixon, James Gasch, Sarah Weaver, Veli Yavuz, Joe Renken, and Anthony R. Lupo