University of Missouri – Atlantic Ocean Basin Tropical Forecast 2023

Predicted (25 April) / As of 1 November

	Predicted	Observed	Difference
Number of Named Storms:	*15*	*19*	*+4*
Tropical Storms:	*8*	*12*	*+4*
Category 1-2:	*4*	*4*	*0*
Category 3-5:	*3*	*3*	*0*
Regional (where they will form):			
West Atlantic (to 45° W):	*8*	*6*	*-2*
East Atlantic (to 45° W):	*4*	*9*	*+5*
Gulf of Mexico:	*1*	*2*	*+1*
Caribbean:	*2*	*2*	*0*

In 2022 – 2023, we are coming off a La Niña three-peat. During this season, the majority of forecast models are projecting the Eastern Tropical Pacific to warm up a bit and we'll either be warm neutral or full blown El Niño. Previous research has suggested a reasonable correlation towards a below-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 a little more favourable to development in the Atlantic since it's moving toward the easterly phase. 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 2019, 2015, 2014, 2009, 2006, 2002, and 1997 are favourable analogues. All of these years are El Niño and none exceed 15 storms. Additional analogs are some PDO negative analogs (1957, 1965, 1972, 1976, 1986). None of these exceeded 10. We're keeping it high end due to the unknown of whether we go more fully into ENSO before the tropical season is up, and the recent tendency for better satellite data to identify these storms. The forecasters this year are: Sarah Weaver, Joe Renken, and Tony Lupo