



# 2024 Atlantic Hurricane Season Prediction Market Bulletin

November 13<sup>th</sup>, 2024

The official Atlantic hurricane season has entered its final month and there have been 11 hurricanes.

The implied probability of at least one hurricane before the end of the month is 70%. Since 1851 only 8 years saw more than 11 hurricanes, although 4 of those were in the last 20 years.

Summary of the forecast implied by recent prices in the CAHM24 prediction market for the number of hurricanes during the 2024 Atlantic hurricane season compared with climatological values for different look-back periods.

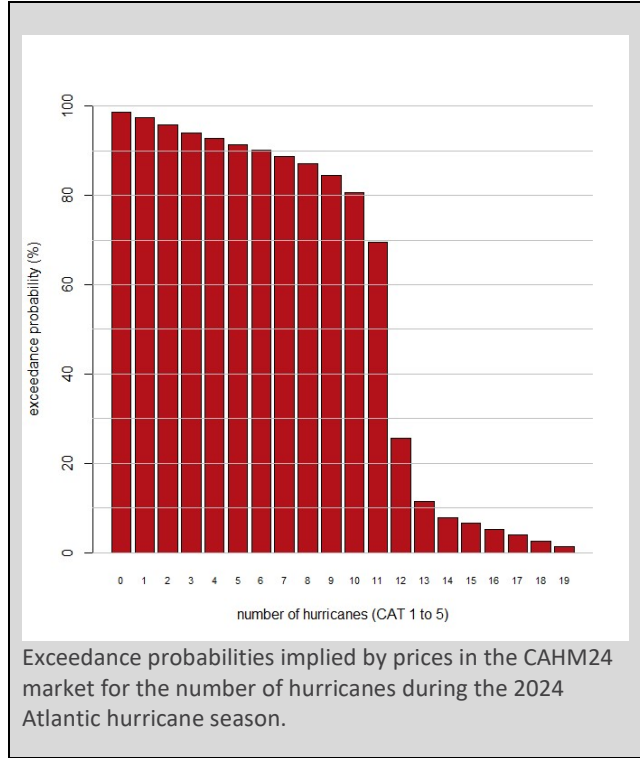
DATE: 2024-11-13					
STATISTIC	CAHM 24	CLIMATE			
		10yrs	20yrs	50yrs	100yrs
MEAN	11.3*	7.7	7.7	6.6	6.1
10 <sup>th</sup> PERCENTILE	7	5.8	3.9	3.0	3.0
MEDIAN	12	7.0	7.0	6.5	6.0
90 <sup>th</sup> PERCENTILE	14	10.4	12.2	10.0	9.1
PROB(> 10)	80%	10%	15%	8%	7%
PROB(> 12)	25%	10%	10%	4%	2%

\*The CAHM24 mean places all probability weight in the  $\geq 20$  'tail' on 20. Hence the mean should be interpreted as " $\geq 11.3$ ".

## Why is the price of <11 not zero?

Given 11 hurricanes have already occurred we would expect the price corresponding to fewer than 11 hurricanes to be very low. This is partly caused by participants continuing to hold contracts that will not pay out, even though the market maker would pay a small, but non-zero, amount for them. This might be because there are currently no other markets in which participants could deploy these credits. Other nuances of the incentive structure might also be contributing.

Optimizing the incentives for participants in climate prediction markets is one of the research goals of CRUCIAL.



## What is CAHM24?

CAHM24 is a prediction market in which participants (individuals and teams) from academia and the private sector, with expertise relevant to seasonal hurricane forecasting, can buy and sell contracts whose pay outs depend on the number of hurricanes that occur during the 2024 Atlantic hurricane season (Jun. 1<sup>st</sup> to Nov. 30<sup>th</sup> 2024). Participants do not pay to take part, instead they are given credits with which to trade but, after the market has been settled, they will receive cash rewards based on the credits they accumulate. CRUCIAL is an initiative to demonstrate how prediction markets, with expert participants, can be used to forecast climate-related risks.

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