

# **June – November 2020 Atlantic Hurricane Season Outlooks**

## **ABOVE NORMAL**

compiled by CIMH  
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# 2020 Hurricane Season Forecasts

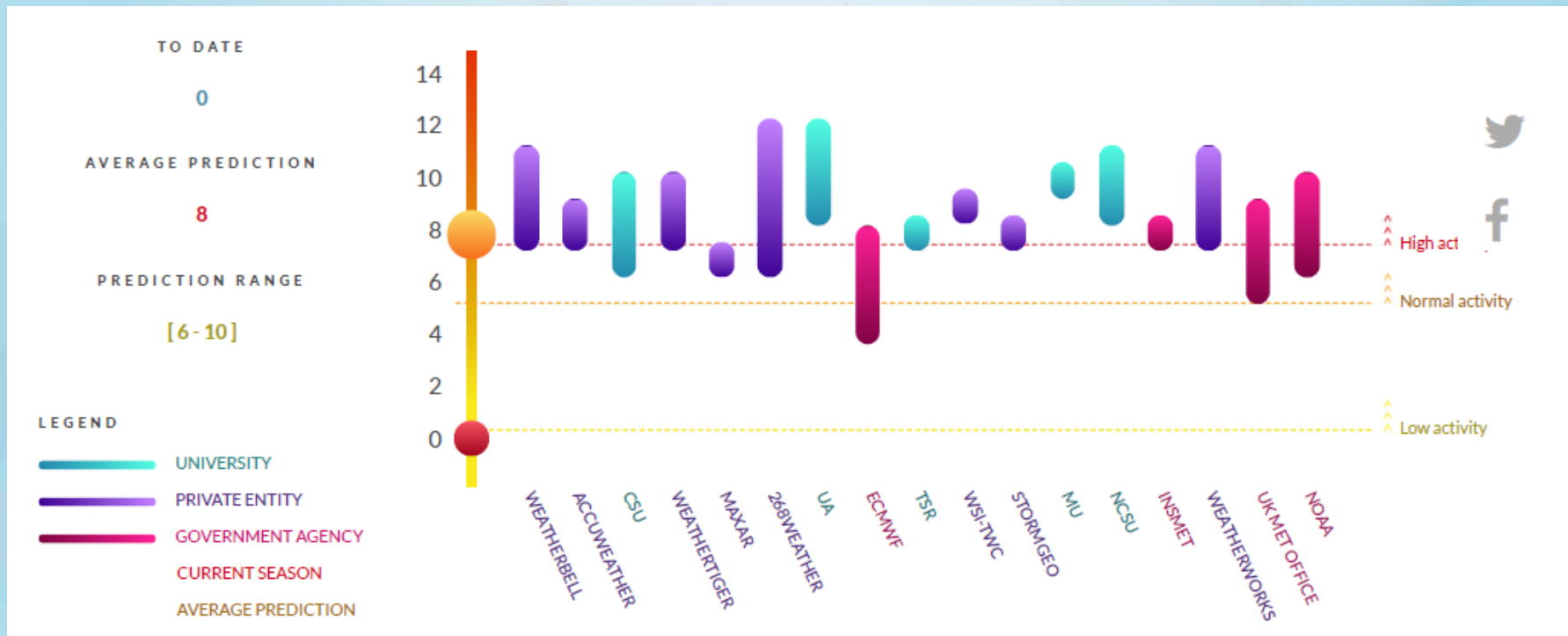
Forecast Parameter and 1981-2010 Climatology (in parentheses)	CSU 02 <sup>nd</sup> April 2020	Tropical Storm Risk 05 <sup>th</sup> April 2020	Weather Channel 16 <sup>th</sup> April 2020	NOAA Climate Prediction Center 21 <sup>st</sup> May 2020 (70% confidence range)
Named Storms (NS) (12)	<b>16</b>	<b>16</b>	<b>18</b>	<b>13-19</b>
Hurricanes (H) (5.9)	<b>8</b>	<b>8</b>	<b>9</b>	<b>6-10</b>
Intense Hurricanes (IH) (2.3)	<b>4</b>	<b>3</b>	<b>4</b>	<b>3-6</b>
Accumulated Cyclone Energy (ACE) (Median = 100)	<b>150</b>	<b>130</b>		<b>110-190</b>

# Comparing 2020 CSU Atlantic Hurricane Season outlook to 2017

Forecast Parameter and 1981-2010 Average (in parentheses)	Issue Date 2 April 2020	2017 Obs.
Named Storms (NS) (12.1)	16	17
Named Storm Days (NSD) (59.4)	80	91.25
Hurricanes (H) (6.4)	8	10
Hurricane Days (HD) (24.2)	35	51.25
Major Hurricanes (MH) (2.7)	4	6
Major Hurricane Days (MHD) (6.2)	9	19.25
Accumulated Cyclone Energy (ACE) (106)	150	226
Net Tropical Cyclone Activity (NTC) (116%)	160	231

2017	6 April	Update 1 June	Update 5 July	Update 4 August	Obs.
Hurricanes	4	6	8	8	10
Named Storms	11	14	15	16	17
Hurricane Days	16	25	35	35	51.25
Named Storm Days	50	60	70	70	91.25
Major Hurricanes	2	2	3	3	6
Major Hurricane Days	4	5	7	7	19.25
Accumulated Cyclone Energy	75	100	135	135	226
Net Tropical Cyclone Activity	85	110	140	140	231

# Overview of forecasted number of Atlantic Hurricanes in 2020 (as of May 2020)



# Caribbean Landfall probabilities

## ► CSU:

- **58% probability for at least one major hurricane** (Cat 3, 4 or 5),  
**89% probability for at least one hurricane** (all categories)  
tracking into the Caribbean (10-20°N, 60-88°W).  
1901-2000 average probability for major hurricanes is 42%, for all  
hurricanes 75%.

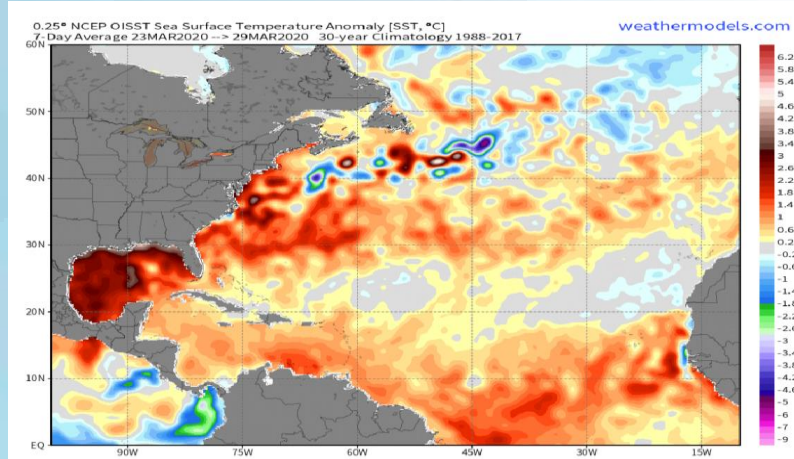
## ► TSR:

- Possibly 11 named storms, 6 hurricanes and **3 major hurricanes**  
tracking through the Caribbean Sea and Gulf of Mexico

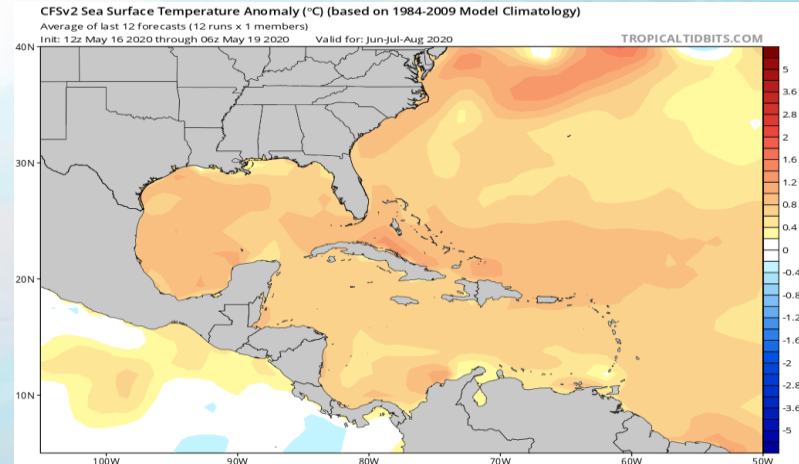


# Unusually Warm sea surface temperatures (SSTs) in the Main Development Region for hurricanes → typical of an active season

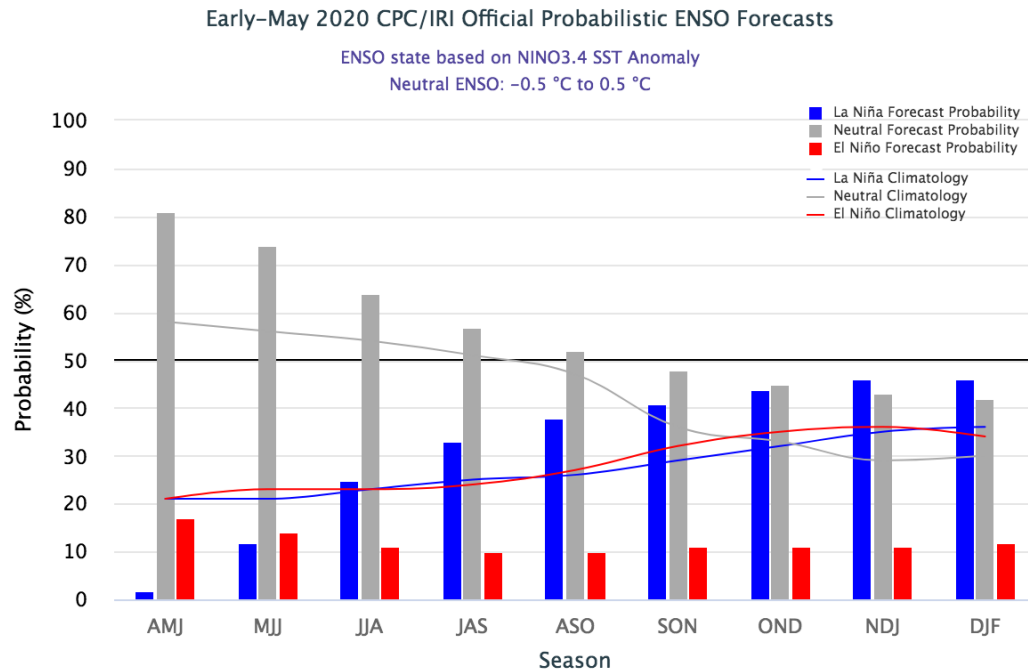
**Observations** of May SST anomalies  
(source: NOAA/NCEP)



**Forecast** SST Anomalies for  
August through October 2020  
(source: NOAA/NCEP)



# Possible **La Niña** conditions by October might boost Hurricane Season activity



Source: NOAA CPC / IRI – ENSO: Recent Evolution, Current Status and Predictions

# CSU Outlook – drivers of hurricane season activity in 2020 (simplified)

Predictor	2020 Forecast Value	Impact on 2020 TC Activity
1 – <b>Heat (Fuel source):</b> Tropical North Atlantic SST (Jan to Mar)	+2.2 SD	Enhance
2 – <b>Wind shear (limiting cloud growth and deep convection):</b> Upper level westerly winds (Jan to Mar)	+0.2 SD	Suppress
3 – <b>ENSO (affecting wind shear and stability of the atmosphere over the Caribbean):</b> Tropical Southwest Pacific SST (Feb to Mar)	-1.4 SD	Enhance





# 2020 Atlantic Tropical Cyclone Names\*

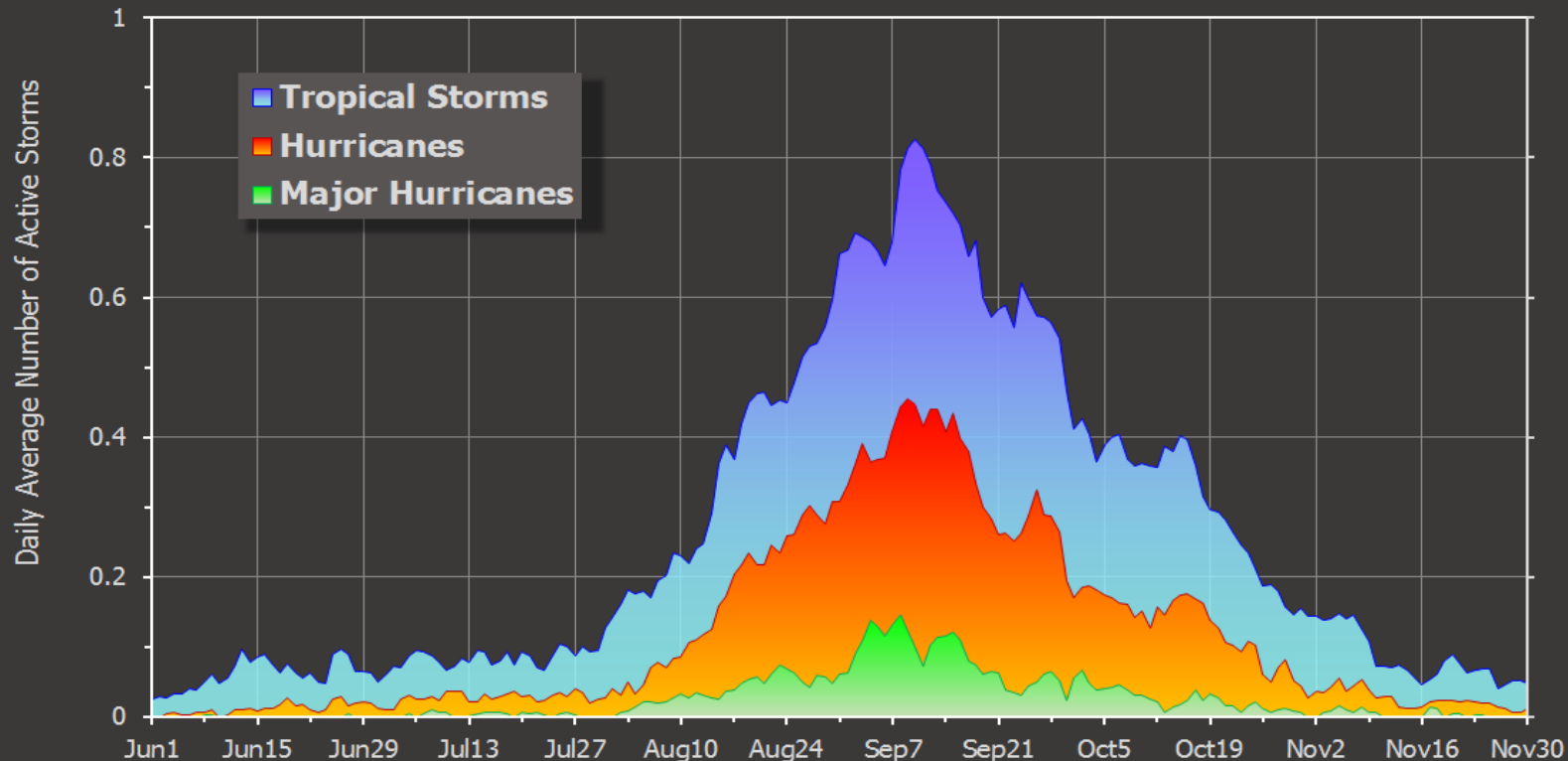
~~Arthur~~  
Bertha  
Cristobal  
Dolly  
Edouard  
Fay  
Gonzalo

Hanna  
Isaias  
Josephine  
Kyle  
Laura  
Marco  
Nana

Omar  
Paulette  
Rene  
Sally  
Teddy  
Vicky  
Wilfred

\*Names provided by the World Meteorological Organization

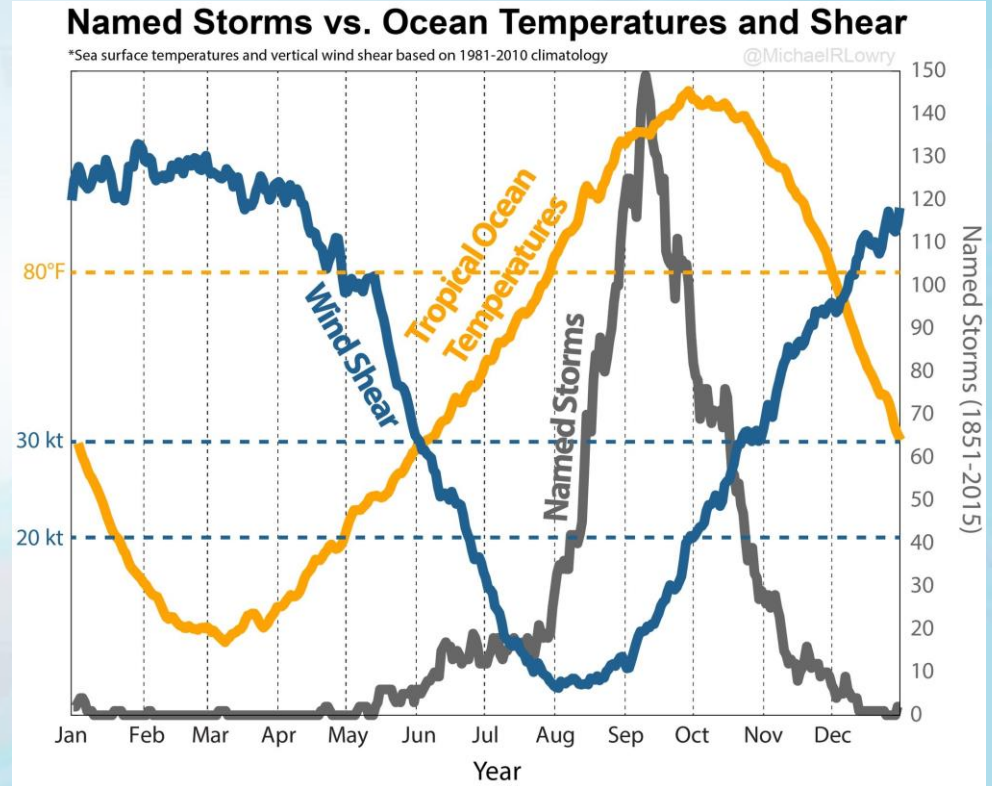
## Atlantic Tropical Cyclone Climatology (1851-2013)



Basin-wide TC activity historically **peaks on 10 September**

# Could we make useful predictions of parts of the season?

- ▶ The peak of the season is from August to October  
➔ what will this period bring?
- ▶ CariCOF predicts 2 three-month periods each month  
➔ What could June to August and September to November look like?



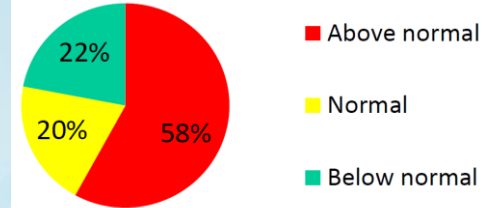


# 2020 Atlantic Hurricane Season Activity

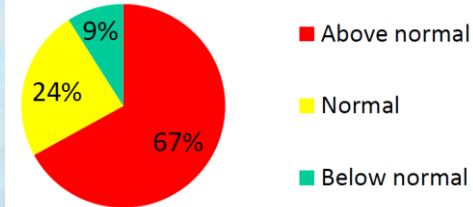
## CIMH Experimental forecasts

Period	1981-2010	Forecast	Range	Confidence level
<b>Number of Named Storms</b>				
Entire season	12	<b>17</b>	8-21	High
First half (JJA)	4	<b>6</b>	2-10	Medium
Peak season (ASO)	9.5	<b>13</b>	6-15	Medium
Second half (SON)	7	<b>9</b>	5-12	Medium
<b>Accumulated Cyclone Energy (ACE)</b>				
Entire season	92	<b>136</b>	65-185	low to medium
JJA 2020	25	<b>37</b>	9-77	low
ASO 2020	77	<b>102</b>	58-164	low to medium
SON 2020	65	<b>94</b>	42-138	low to medium

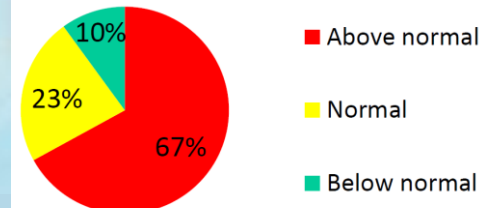
First half (June to August)



Peak (August to October)



Second half (September to October)



## NOTE

- ▶ Authorities and interests are advised to constantly monitor weather advisories issued by the National Meteorological Services.
- ▶ They should also constantly monitor other information provided by the Caribbean Disaster Emergency Management Agency (<http://cdema.org/>) and the US National Hurricane Center (<https://www.nhc.noaa.gov/>).
- ▶ All persons and entities should abide by any official advisories issued by the National Meteorological Service in their country.

## DISCLAIMER

- ▶ CIMH is providing special weather interpretation of the current and forecasted tropical weather affecting the Caribbean region.
- ▶ CIMH is not an official forecasting authority.