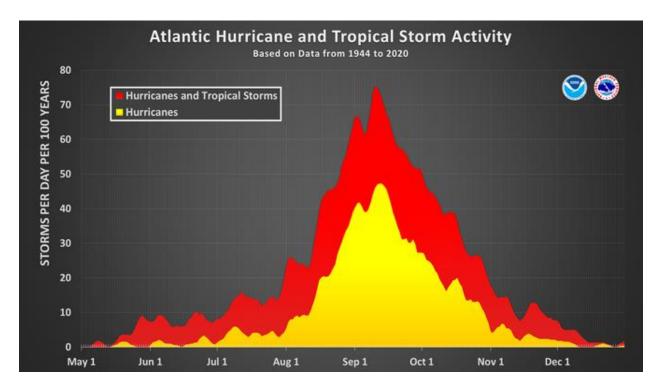
## Hurricane History in June



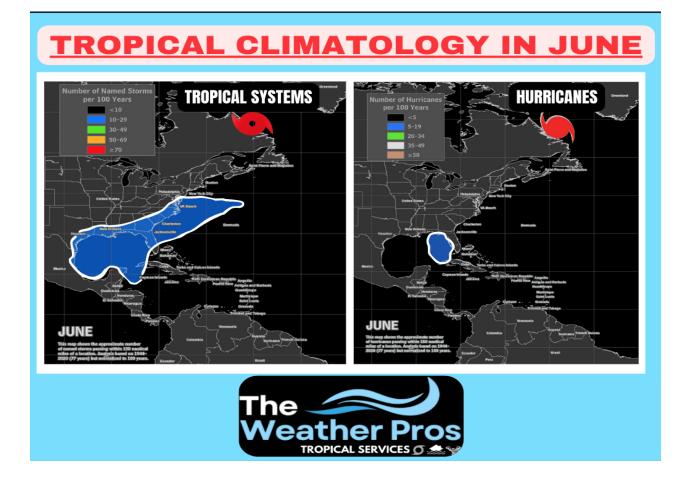
Source: National Hurricane Center/NOAA

June 1<sup>st</sup> is the official start of hurricane season. We've seen tropical development in the Atlantic like the sub-tropics even prior to the start of the season, but usually it's quite rare since historically it's not an active month. In fact, since modern recording began just shy of 50% of June's during a hurricane season has not recorded a single named storm.

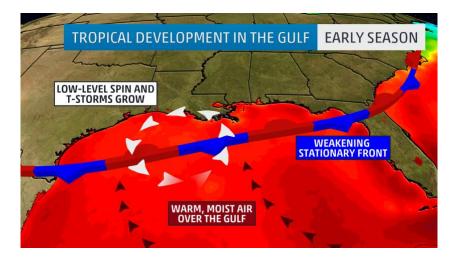
Hurricanes needed favorable ingredients to form including sufficient warmer waters, lower vertical wind shear, and higher moisture in the atmosphere. Since it's still early in the season as seasons change still coming out of Spring, we tend to still see the previous season's tendencies.

This includes cooler lingering ocean waters, or patterns that carry drier air with unfavorable stronger winds southward from very late season cold fronts. In fact, a cold front technically could spur sub-tropical development given the right environment, but the main point is that it's quite a "battle" for hurricanes to form.

## June Tropical Development: The Main Zones



Considering that it's still technically the official start of the season, we'll identify where hurricanes do form during the month of June. The areas to watch for are the western Caribbean, Gulf of America, or the western Atlantic just off the East Coast. These areas still can provide just enough "heat" with the right conditions for tropical development (i.e. like a cold front that can cause rotation and act as an area of upward motion). This is illustrated well down in the image below!



Source: The Weather Channel

Statistically, it's been over 30 years since the U.S. has seen a landfalling hurricane in the month of June. Since 1950, there are three hurricanes that were recorded that did end up impacting the U.S. These include Agnes (1972), Alma (1966), Audrey (1957), and Bonnie (1986). We can see the tracks of these hurricanes below courtesy of NOAA. Out of all *major* hurricanes (Category 3 and higher), it's extremely rare and in fact June only accounts for 1% of all majors since 1951.



However, it's a bit different in terms of tropical named storms. We've in fact seen several notable tropical storms over the past 5 years since 2020. Tropical storm's Cristobal and Dolly formed in June. Cristobal impacted Louisiana and Alabama making landfall with heavy rain and flash flooding. Dolly formed off the coast of the U.S. as a subtropical depression.

Tropical storm Bill (2021) formed 100 miles off the coast of VA causing rough seas, but it was the 2<sup>nd</sup> named storm of the season. Tropical storm Claudette formed on June 17<sup>th</sup> and made landfall on the 18<sup>th</sup> made landfall across southeast Louisiana with heavy rain and tornadoes. We also had Danny and Elsa during the same year as Danny was a short-lived tropical depression that made landfall across Georgia with minor impacts. Elsa formed into hurricane that formed end of June and caused damage across Florida and into Georgia and South Carolina.

In 2022, we had tropical storm Alex that was the first named storm of the hurricane season that impacted Cuba and South Florida causing mudslides in Cuba with mainly flooding elsewhere. In 2023, we saw a system develop on May 30<sup>th</sup> with it being coined a tropical depression right at the start of the season on June 1<sup>st</sup> yielding heavy rainfall across Florida.

These are just the more recent named tropical storms that had formed. While hurricanes statistically are quite rare, tropical named storms can form under the right conditions and have a better probability to form. As we approach the start of the season, it's best to remain prepared and proactive since we're nearing the season swiftly!