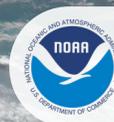




THE ATMOSPHERIC RESERVOIR

Examining the Atmosphere and Atmospheric Resource Management



Hurricanes Franklin and Idalia August 29, 2023 10:10 am 1410 UTC GOES West

A BUSY HURRICANE SEASON FORECASTED

By Mark D. Schneider

There are many factors that go into forecasting hurricanes and it's looking like the current June 1st through November 30th season could be a busy one. As of early April, Colorado State University's (CSU) annual hurricane forecast is calling for 23 named storms and 11 hurricanes, with five hurricanes reaching major category. This is the most active CSU hurricane forecast in the three decades since they began providing them.

Several major considerations are taken when forecasting hurricanes and these can include El Niño/La Niña patterns, water temperatures, and using the past conditions (climatology) to predict the future. The equatorial Pacific, where the El Niño Southern Oscillation occurs, is currently transitioning from a strong El Niño event to "neutral" conditions. By late this summer, the development of La Niña is likely, and these conditions can contribute to the formation of tropical storms because they provide a favorable, low windshear environment. When looking at water temperatures in the Atlantic Ocean, late May recorded the hottest water

temperatures ever measured (during that time of year) from the Caribbean to the Coast of Africa. The significance of these warm waters goes deeper (pun intended). In fact, the depth of the current warm waters in the Atlantic is unusual and can provide the heat content needed to strengthen and maintain tropical storms.

Lastly, when you take all the environmental conditions from the "preseason" period of January through March leading up to the hurricane forecast and compare them to a climatology of previous hurricane preseasons, 2024 again shows signs of being an extremely active season.

North Dakota is landlocked and rarely experiences effects from hurricanes. Occasionally, a small amount of additional moisture left over from hurricanes can be transported northward to our state, but this doesn't have large-scale impacts. Some North Dakotans will visit places like Florida and the Caribbean in the coming months, however, and would be wise to keep an eye out for these tropical storms.

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