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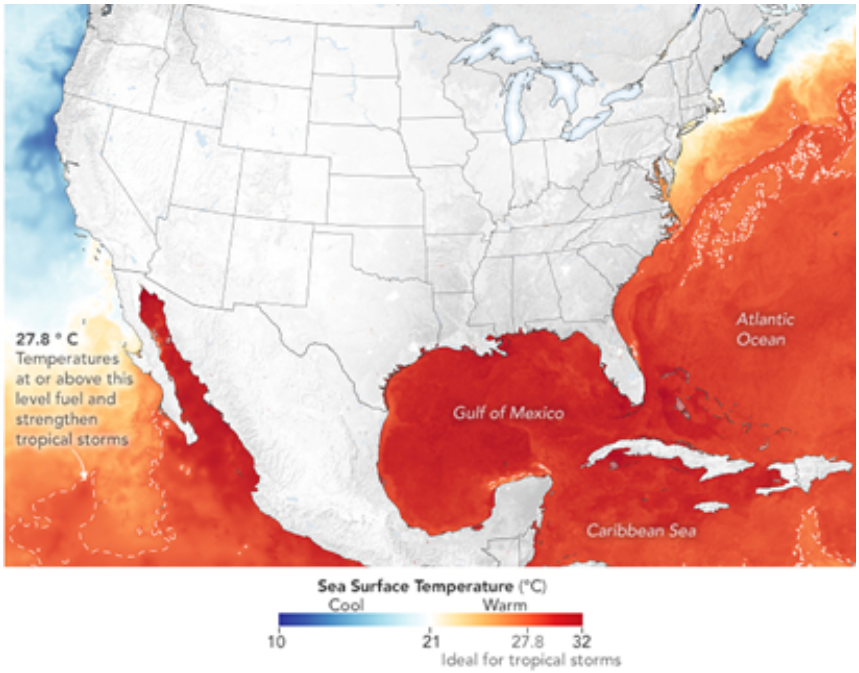
## Peak Atlantic Hurricane Season… and Lake Tahoe?

Sea surface temperatures (SSTs) are one of the factors that influence the development of hurricanes. The temperature of seas around North and Central America are primed to fuel storm development and intensification as we head towards hurricane season.

SSTs are measured by a combination of satellite and ocean instruments. When temperatures are above 27.8° C (82 °F) SSTs are considered warm enough to intensify and sustain hurricanes. The SSTs above that threshold for August 11, 2021, are shown in red on the map below. Note the Gulf Stream— the finger of warm water—running along the U.S. East Coast.




Data for the map are produced by NASA's Jet Propulsion Laboratory (JPL) and these data are crucial to the federal and state agencies' ability to forecast and respond to hurricanes in the United States. Thus, the accuracy of the data is critical.

How does NASA know that the data from aging satellites in space are correct? That is where Lake Tahoe enters the picture. Four NASA/JPL research buoys on Lake Tahoe take continuous, highly accurate thermal infrared measurements of the lake's temperature from a few feet above the water surface. The buoys have been maintained by TERC in collaboration with JPL since the late 1990s. By comparing these "known" measurements with what is recorded by the satellites as they pass over Lake Tahoe, NASA can continuously check on the accuracy of the satellite data.

In case you were worried, the warmest SSTs measured at Lake Tahoe this year has been 10 °F below the threshold for hurricane formation!

Questions? Email tercinfo@ucdavis.edu

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