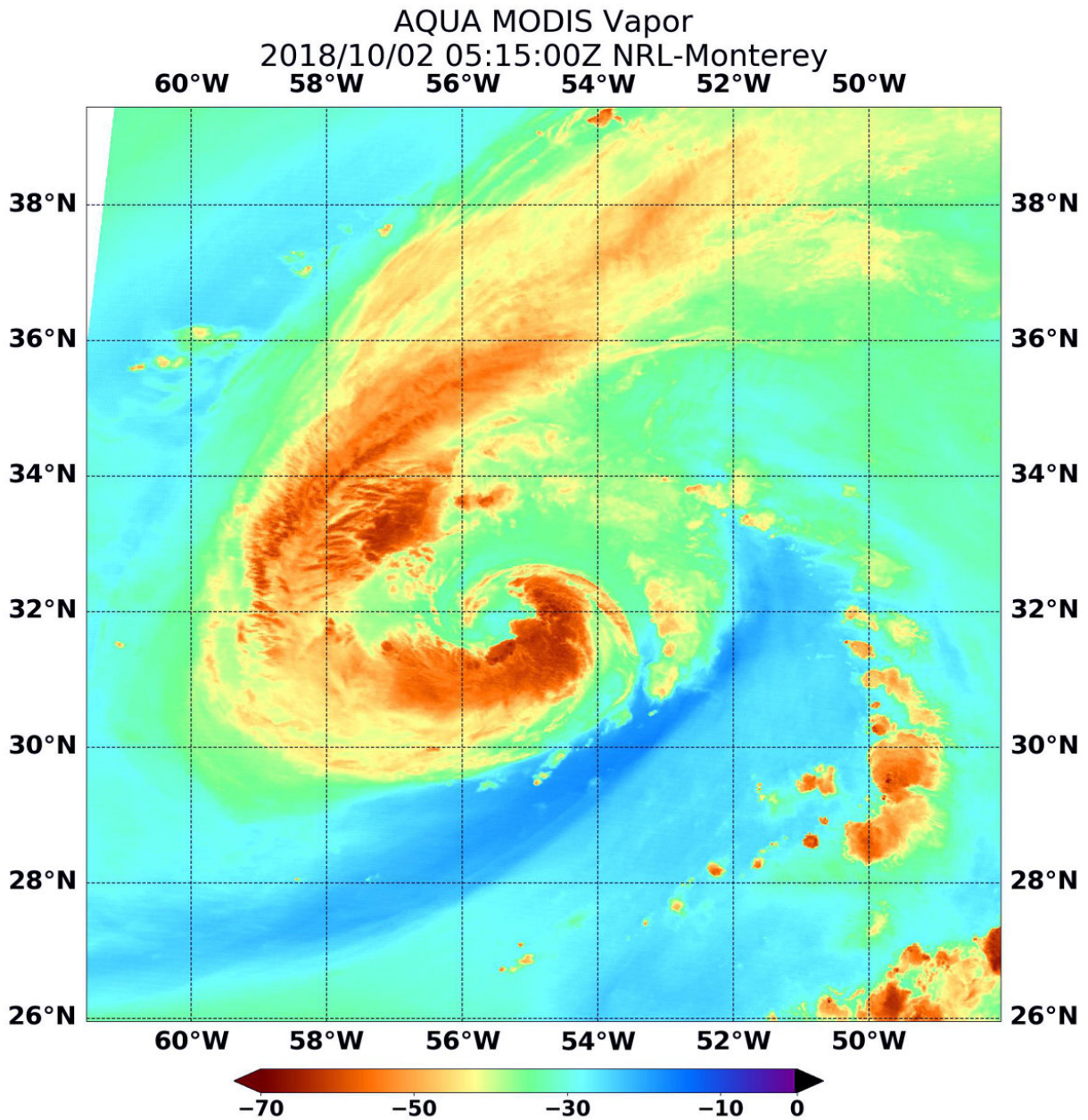


# NASA soaks up Tropical Storm Leslie's water vapor concentration

October 2 2018



NASA's Aqua satellite passed over Tropical Storm Leslie in the Central Atlantic Ocean on Oct. 2 at 1:15 a.m. EDT (0515 UTC). The MODIS instrument showed highest concentrations of water vapor (brown) and coldest cloud top temperatures circled the center with a gap in the north-northeastern quadrant. Credit: NASA/NRL

When NASA's Aqua satellite passed over the Central Atlantic Ocean on Oct. 2 the MODIS instrument aboard analyzed water vapor within Tropical Storm Leslie.

Water vapor analysis of tropical cyclones tells forecasters how much potential a [storm](#) has to develop. Water vapor releases latent heat as it condenses into liquid. That liquid becomes clouds and thunderstorms that make up a tropical cyclone. Temperature is important when trying to understand how strong storms can be. The higher the cloud tops, the colder and the stronger they are.

NASA's Aqua satellite passed over Tropical Storm Leslie in the Central Atlantic Ocean on Oct. 2 at 1:15 a.m. EDT (0515 UTC) and the Moderate Resolution Imaging Spectroradiometer or MODIS instrument gathered [water vapor content](#) and temperature information. The storm continues to have a ragged banded eye.

The MODIS image showed highest concentrations of [water vapor](#) and coldest cloud top temperatures circled the center with the exception of the north-northeastern quadrant. MODIS saw coldest cloud top temperatures were as cold as minus 70 degrees Fahrenheit (minus 56.6 degrees Celsius) in those areas. Storms with cloud top temperatures that cold have the capability to produce heavy rainfall.

Leslie remains far enough from land areas so that there are no warnings or watches in effect. At 11 a.m. EDT (1500 UTC), the center of Tropical Storm Leslie was located near latitude 30.9 degrees north and longitude 56.1 degrees west. That's 520 miles (840 km) east of Bermuda. Leslie is moving toward the southwest near 8 mph (13 kph). Maximum sustained winds remain near 65 mph (100 kph) with higher gusts.

The National Hurricane Center or NHC forecast noted "Gradual strengthening is expected during the next day or two, and Leslie is forecast to become a hurricane tonight or on Wednesday, Oct. 3."

Provided by NASA's Goddard Space Flight Center

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