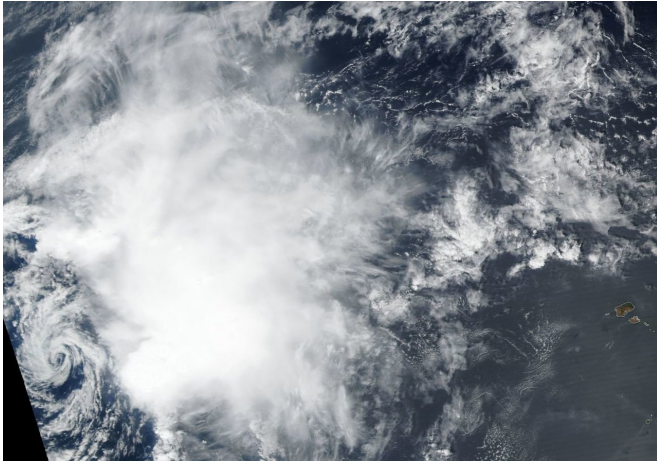


Satellite finds wind shear battering Tropical Storm Nadine

12 October 2018



NASA-NOAA's Suomi NPP satellite passed over the Eastern Atlantic Ocean and captured a visible image of Tropical Storm Nadine. Nadine appeared devoid of rainfall except in the northeastern quadrant. Clouds around the center appeared as a wispy swirl. Credit: NASA Worldview, Earth Observing System Data and Information System (EOSDIS)/NOAA

Tropical cyclones are like rotating cylinders of winds. Each level needs to be stacked on top each other vertically in order for the storm to maintain strength or intensify. Wind shear occurs when winds at different levels of the atmosphere push against the rotating cylinder of winds, weakening the rotation by pushing it apart at different levels.

At 11 a.m. EDT (1500 UTC), the center of Tropical Storm Nadine was located near latitude 16.0 degrees north and longitude 36.2 degrees west. Nadine is moving toward the west-northwest near 8 mph (13 kph). A west-northwestward to westward motion with an increase in forward speed is expected through the weekend. Maximum sustained winds have decreased to near 45 mph (75 kph) with higher gusts. Weakening is forecast during the next couple of days, and Nadine is expected to dissipate by Sunday.

Provided by NASA's Goddard Space Flight Center

Tropical Storm Nadine continues to be battered by vertical wind shear, winds that can tear a tropical cyclone apart. NASA-NOAA's Suomi NPP satellite captured a visible image that showed the bulk of Nadine's clouds were pushed northeast of the center.

Suomi NPP passed over Nadine on Oct. 11 and the Visible Infrared Imaging Radiometer Suite (VIIRS) instrument provided a [visible image](#) of the storm. The VIIRS image showed that Nadine appeared devoid of rainfall except in the northeastern quadrant. Southwesterly wind shear had pushed the bulk of clouds and showers east of its center. Clouds around the center appeared as a wispy swirl.

In general, [wind shear](#) is a measure of how the speed and direction of winds change with altitude.

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