

Two NASA satellites spy Alberto, the Atlantic Ocean season's first tropical storm

May 21 2012



On the day Alberto formed, May 19, NASA's TRMM satellite captured a look at the rainfall rates within the first tropical storm of the Atlantic season. TRMM data showed a large area of moderate to heavy rainfall (falling at a rate of 2 inches/50 mm per hour seen in red) with a small area of heavy rainfall located near the center of the forming tropical cyclone. Light to moderate rainfall was falling at a rate between .78 inches and 1.57 inches per hour (20 to 40 mm).
Credit: NASA/TRMM, Hal Pierce

The first tropical storm of the Atlantic Ocean hurricane season formed off the coast of South Carolina on Saturday, May 19, 2012 at 5 p.m. EDT, and NASA satellites were immediately keeping track of it. NASA's TRMM and Aqua satellites have provided a visible look at the compact storm and its rainfall rates.

Tropical Storm Alberto formed 13 days before the official start of hurricane season (June 1) and ramped up quickly. Alberto's [maximum sustained winds](#) jumped to 45 mph after it developed. It was located about 140 miles east-southeast of Charleston, South Carolina, and would then take a southerly track.



The MODIS instrument onboard NASA's Aqua satellite captured this stunning visible image of compact Tropical Storm Alberto off the Georgia coast on May 20 at 18:30 UTC (3:30 p.m. EDT). Credit: NASA/Goddard MODIS Rapid Response Team

On that same day, NASA's [Tropical Rainfall Measuring Mission](#) (TRMM) satellite passed over Alberto. [TRMM data](#) showed a large area of moderate to heavy rainfall with a small area of heavy rainfall located near the center of the forming tropical cyclone. Data from two instruments aboard TRMM provided the [rainfall data](#): the [Microwave Imager](#) (TMI) and [Precipitation Radar](#) (PR) data captured at 12 minutes after midnight EDT.

On Sunday, May 20, Tropical Storm Alberto had strengthened. A

Tropical Storm Watch was posted and later dropped for [Savannah River](#) to South Santee River, South Carolina. At that time, Alberto's maximum winds were near 50 mph. By mid-day, Alberto's center was located near 31.7 North and 79.3 West, about 95 miles south-southeast of Charleston, S.C. Alberto was moving west-southwest at 6 mph. Pressure 998 millibars. By 11 p.m. EDT on Sunday, May 20, Alberto appeared to become less organized and weakened. Alberto's maximum sustained winds dropped to 40 mph (65 kph) and it was centered about 85 miles (135 km) east-northeast of St. Augustine, Florida.

The Moderate Resolution Imaging Spectroradiometer (MODIS) instrument onboard NASA's Aqua satellite captured a stunning visible image of Tropical Storm Alberto off the Georgia coast on May 20 at 18:30 UTC (3:30 p.m. EDT) that showed it is a compact storm with a tight center of circulation.

On Monday, May 21, Tropical Storm Alberto was still moving southeast and is about 100 miles east-southeast of St. Augustine Florida. Alberto is causing dangerous surf conditions, including rip currents along the Georgia, South Carolina and northeast Florida coastlines.

The National Hurricane Center forecast calls for Alberto to remain off-shore from Georgia and South Carolina, and then turn to the east and then to the northeast. Although there is no expected change in the strength of Alberto as it turns, the tropical storm is churning up the waters along the coasts of South Carolina, Georgia and northern Florida, causing rough seas and rip tides.

Provided by NASA's Goddard Space Flight Center

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