

# NASA sees heavy rainfall and high thunderstorms in Tropical Storm Ernesto

August 8 2012



NASA's TRMM satellite had a good look at Tropical Storm Ernesto on Aug. 7, 11:22 a.m. EDT, less than three hours before it was upgraded to a hurricane by the National Hurricane Center. Light to moderate rainfall is seen in the yellow, green and blue areas, where rain was falling between 20 and 40 millimeters (.78 to 1.57 inches) per hour. Heavy rainfall (falling at 2 inches/50 mm per hour) appears in red. Credit: SSAI/NASA, Hal Pierce

NASA's TRMM satellite has been measuring the heavy rainfall in Ernesto, and some of the rainfall totals may reach one foot in Central America. NASA's Aqua satellite spotted a large area of the strong thunderstorms generating that heavy rainfall, wrapped around the storm's center. Ernesto made landfall in the Yucatan and is currently tracking

west over land.

At 11:15 p.m. EDT on Tuesday, August 7, Belize radar indicated Ernesto made landfall along the southern Yucatan coast near Mahahual, Mexico as a category one hurricane with maximum sustained winds near 85 mph (140 kmh).

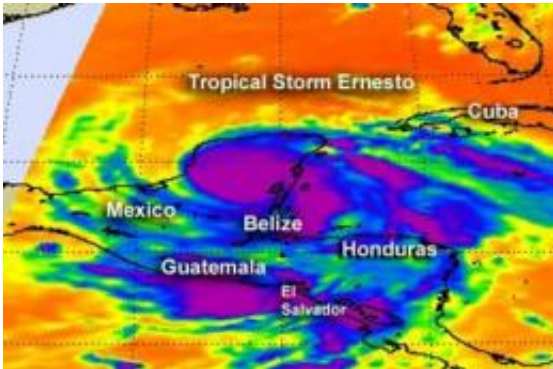
The [Tropical Rainfall](#) Measuring Mission (TRMM) satellite had a good look at [Tropical Storm](#) Ernesto on August 7, 2012 at 1522 UTC (11:22 a.m. EDT), less than three hours before it was upgraded to a hurricane by the National Hurricane Center (NHC). The NHC reported that Hurricane hunter aircraft found Ernesto's maximum winds had increased to 81 mph (70 knots). A [rainfall analysis](#) from TRMM's [Microwave Imager](#) (TMI) and [Precipitation Radar](#) (PR) instruments showed that bands of rainfall in Ernesto, mostly located in the southeastern quadrant of the storm, contained several moderate to heavy convective storms.

Ernesto is expected to produce total rainfall accumulations of 4 to 8 inches with isolated maximum amounts of 12 inches over Belize, northern Guatemala, the Yucatan Peninsula, and the Mexican States of Tabasco and Veracruz.

For a look at Ernesto on August 7 at 12:15 p.m. EDT from the Moderate Resolution Imaging Spectroradiometer instrument onboard NASA's Terra satellite, visit: [lance-modis.eosdis.nasa.gov/cgi...  
2012220.1615.2km.jpg](http://lance-modis.eosdis.nasa.gov/cgi-bin/figure/toggle/2012220.1615.2km.jpg).

NASA's Aqua satellite passed over Tropical Storm Ernesto on August 8 at 3:29 a.m. EDT. The Atmospheric Infrared Sounder (AIRS) instrument captured an infrared image of the cloud temperatures that showed the strongest storms and heaviest [rainfall](#) were wrapped around the storm's center and in a band of thunderstorms extending to the southeast of the center. Those cloud top temperatures were as cold as -63 Fahrenheit (-52

Celsius).



NASA's Aqua satellite passed over Tropical Storm Ernesto on Aug. 8 at 3:29 a.m. EDT. The AIRS instrument captured an infrared image of the cloud temperatures that showed the strongest storms (purple) and heaviest rainfall were wrapped around the storm's center and in a band of thunderstorms extending to the southeast of the center. Credit: NASA JPL, Ed Olsen

At 10 a.m. EDT on August 8, Ernesto's [maximum sustained winds](#) were near 50 mph (85 kmh) and it was 265 miles (425 km) east of Coatzacoalcos, Mexico, near 18.7 North and 90.4 West. The National Hurricane Center expects Ernesto's center to emerge into the extreme southern Bay Of Campeche tonight where it is expected to re-strengthen. Still Watching Two Other Atlantic Areas

In addition to Ernesto, there are still two other areas in the Atlantic Ocean Basin under watch. The first is a low pressure area associated with a tropical wave, that is located in the eastern Atlantic. It is about 700 miles west-southwest of the Cape Verde Islands and has a 30 percent chance of becoming a tropical depression in the next two days, according to the National Hurricane Center.

The second area is that of Florence's remains, located about 450 miles east of the Northern Leeward Islands. The remnants are still producing thunderstorms and showers, although it remains disorganized. The National Hurricane Center gives that low pressure area a "near zero" chance of becoming a tropical depression over the next couple of days.

Provided by NASA's Goddard Space Flight Center

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