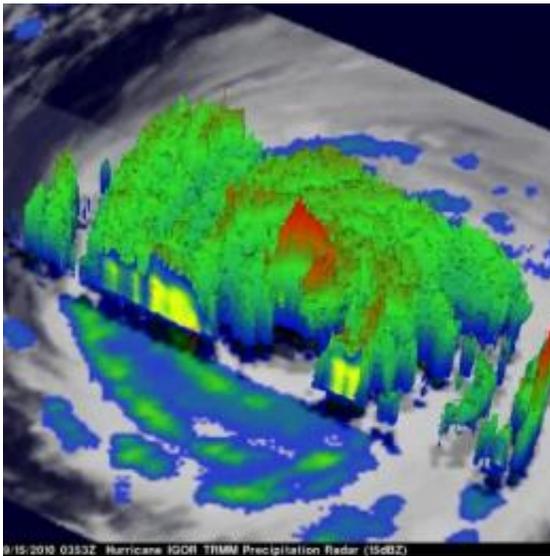


NASA's 3-D look into Hurricane Igor's heavy rainfall

September 16 2010



This 3-D image of Igor's cloud heights and rainfall from NASA and JAXA's Tropical Rainfall Measuring Mission satellite data shows a large area of heavy rainfall (falling at about 2 inches per hour) shown here in red on Sept. 15 at 0353 UTC. The yellow and green areas indicate moderate rainfall between .78 to 1.57 inches per hour. The image reveals that Igor's eye was still very distinct but the southwestern portion of the eye wall had eroded. Credit: NASA/SSAI, Hal Pierce

NASA's Tropical Rainfall Measuring Mission (TRMM) satellite has provided a 3-D look at the power "under the hood" (of clouds) in powerful Category 4 Hurricane Igor as it heads toward Bermuda. In the meantime, Igor is creating dangerous surf in the eastern Atlantic, and it

will affect the U.S. East coast later today. Igor is an extremely dangerous category four hurricane on the Saffir-Simpson hurricane wind scale today, Sept. 16, and he is expected to remain a large and powerful hurricane over the next several days.

The TRMM satellite, operated by NASA and the Japanese Space Agency covers the tropics daily, and provides two dimensional views of rainfall rates within a tropical cyclone. TRMM data are also used to give forecasters a 3 dimensional look at a storm's cloud heights and rainfall, which are extremely helpful in forecasting. The National Hurricane Center in Miami, Fla. who does the forecasting for [tropical cyclones](#) utilizes TRMM data in their forecasts.

A 3-D image was created by Hal Pierce at NASA's Goddard Space Flight Center, Greenbelt, Md. using data from TRMM's Precipitation Radar (PR) instrument on Sept. 15 at 0353 UTC (Sept. 14 at 11:53 p.m. EDT). The image revealed towering clouds, or "hot towers" over 15 kilometers (9 miles) high. Those high hot towers are an indication of a strong storm.

The 3-D image also showed that Igor's eye was still very distinct but the southwestern portion of the eye wall had eroded. In addition, the image showed a large area of heavy rainfall, falling at about 2 inches per hour. For more information about how TRMM looks at rainfall, visit NASA's TRMM website at: trmm.gsfc.nasa.gov/. TRMM is a joint mission between NASA and the Japanese space agency JAXA.

At 5 a.m. EDT on Sept. 16, Igor's winds had increased back up to 145 mph. It was located about 440 miles east-northeast of the Northern Leeward Islands, which is about 955 miles south-southeast of Bermuda. Igor's center was near 20.5 North and 56.8 West. Igor's estimated minimum central pressure is 929 millibars. Igor is moving toward the west-northwest near 7 mph and a turn toward the northwest and an

increase in forward speed are expected over the next couple of days, according to the National Hurricane Center. Igor continues to be a huge hurricane. Hurricane winds extend out 70 miles from his center, and tropical storm force winds extend out 275 from his center, about the same distance as they were on Sept. 15.

Because Igor is so powerful and so large, he's generating large swells at sea that are currently affecting the Leeward Islands, Puerto Rico and the Virgin Islands. Those large swells and dangerous surf are expected in the Bahamas today and through the weekend. Igor's dangerous surf will also reach the East Coast of the United States later today and last through the weekend. That means trouble for beachgoers as these swells cause heavy surf and rip tides.

When [Hurricane](#) Earl brushed the U.S. East Coast in the first week of September it created the same surf conditions expected with Igor. Over a weekend as Earl lingered, more than 100 people were rescued off of the Delaware, Maryland and New Jersey beaches because of deadly rip tides.

Provided by NASA's Goddard Space Flight Center

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