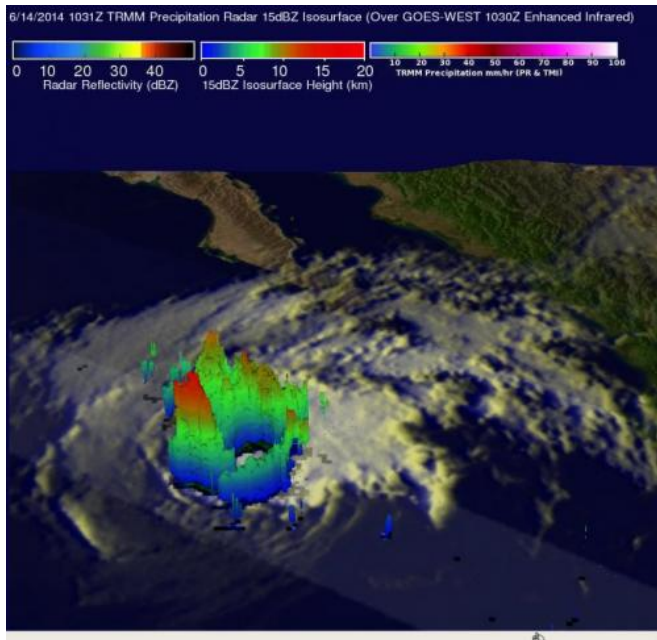


TRMM eyes rainfall in dissipating former Hurricane Cristina

17 June 2014, by Hal Pierce



On June 14, NASA's TRMM satellite found rain falling at a rate of almost 97 mm (about 3.8 inches) per hour in the northwestern side of Cristina's eye wall where thunderstorms reached above 13.5 km (about 8.4 miles). Credit: SSAI/NASA, Hal Pierce

NASA and the Japan Aerospace Exploration Agency's Tropical Rainfall Measuring Mission or TRMM satellite passed over a dissipating former Hurricane Cristina and found it still contained heavy rain as it rapidly weakened.

Hurricane Cristina had sustained winds of over 130 knots (almost 150 mph) on June 12, 2014 making her the second hurricane in the eastern Pacific Ocean this year to reach category four on the Saffir-Simpson hurricane wind scale.

The TRMM satellite had an excellent view of Cristina when it flew over on June 14, 2014 at 1031 UTC (6:31 a.m. EDT). At that time, Cristina

had started weakening and had wind speeds estimated at less than 70 knots (about 80 mph) when TRMM flew overhead. To form a complete picture of the storm, rainfall from TRMM's Microwave Imager (TMI) and Precipitation Radar (PR) instruments were overlaid on an enhanced infrared image of Cristina's clouds taken from NOAA's GOES-West satellite. The images were combined at NASA's Goddard Space Flight Center in Greenbelt, Maryland.

Although Cristina had started a weakening trend TRMM's Precipitation Radar instrument still found rain falling at a rate of almost 97 mm (about 3.8 inches) per hour in the northwestern side of Cristina's eye wall. At Goddard, TRMM's PR data was used to create a 3-D view of the Cristina's rainfall structure. That 3-D image showed powerful thunderstorms in the northwestern side of the storm were reaching heights above 13.5 km (about 8.4 miles). These same TRMM data showed that Cristina's eye wall was broken on the eastern side.

The passage of Cristina over cooler ocean waters and southwesterly wind shear resulted in the once powerful hurricane dissipating to a remnant low pressure area on Sunday, June 15, 2014.

On June 17 at 09:02 a.m. EDT, the National Hurricane Center (NHC) noted that the remnant low pressure center of Cristina continued to spin in the Eastern Pacific, and the circulation center was located near 23 north latitude and 117 west longitude. NHC forecasters noted that the circulation will continue to spin down over the next couple of days and is expected to dissipate by the night time hours on Wednesday, June 18.

Provided by NASA's Goddard Space Flight Center

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