NASA IMERG data Hurricane Sandra's heavy rainfall

December 1 2015, by Harold F. Pierce

Hurricane Sandra fizzled in the southern Gulf of California before moving ashore but on its journey north it was close enough to drop more than 2 feet of rainfall along part of the coast of western Mexico. Data from NASA's Integrated Multi-satellitE Retrievals for GPM (IMERG) were used to estimate the amount of rainfall that hurricane Sandra produced during the period from November 23-29, 2015.

Sandra remained well off the western Mexican coast during the most dangerous period from November 25 to 27, 2015 as a powerful hurricane with sustained winds of up to 130 knots (150 mph). An analysis created at NASA's Goddard Space Flight Center in Greenbelt, Maryland showed that much of Sandra's rainfall occurred over the open waters of the Eastern Pacific. The analysis indicates that moisture flowing from Hurricane Sandra also caused heavy rainfall totals of over 700 mm (28 inches) in an area northeast of Puerto Vallarta, Mexico.

The Integrated Multi-satellitE Retrievals for GPM (IMERG) creates a merged precipitation product from the GPM constellation of satellites. These satellites include DMSPs from the U.S. Department of Defense, GCOM-W from the Japan Aerospace Exploration Agency (JAXA), Megha-Tropiques from the Centre National D'etudies Spatiales (CNES) and Indian Space Research Organization (ISRO), NOAA series from the National Oceanic and Atmospheric Administration (NOAA), Suomi-NPP from NOAA-NASA, and MetOps from the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT). All of the instruments (radiometers) onboard the constellation partners are

intercalibrated with information from the GPM Core Observatory's GPM Microwave Imager (GMI) and Dual-frequency Precipitation Radar (DPR).

Provided by NASA's Goddard Space Flight Center