

NASA launches hurricane data portal for scientists, educators and application users

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Hurricane 3-Hour Rainfall Animations can be found on the hurricane data page. The NASA Data and Information Services Center (DISC) has created an application for animating a hurricane's path, their varying levels of intensity and atmospheric information occurring at the time of the event. Credit: NASA DISC

Scientists, college students, and applications users seeking satellite data on hurricanes now have a new place to turn -- a web portal created by NASA Goddard Earth Sciences Data and Information Services Center, Greenbelt, Md. The new Hurricane web portal is designed for viewing and studying hurricanes with a variety of measurements from satellite-based NASA instruments.

The Hurricane Web Portal consists of several components. "Current Conditions" on the Overview page and the Image Gallery shows the latest maps and profiles of pre-selected regions updated daily. Event-based data featuring pictures, animations and summaries of current and past tropical storms or hurricanes is another component. The site also features links to various tools. The "Image Gallery" contains archives of past storms and the "Hurricane Viewer" has Flash animations of storms and hurricanes. Finally, the "Science" focus includes examples and stories describing the data used in hurricane monitoring and research.

The NASA Goddard Earth Sciences Data and Information Services Center (GES-DISC) Hurricane Data Portal can be found at: disc.gsfc.nasa.gov/hurricane/index.shtml .

The "Tools" section connects to NASA satellite data easily accessible via an online analysis and visualization software system called Giovanni. Giovanni stands for the GES-DISC Interactive Online Visualization and Analysis Infrastructure. It is the underlying infrastructure for a growing family of Web interfaces that allows users to explore, visualize and analyze Earth sciences data interactively online without having to download any data. For direct links to the Giovanni family of interfaces, go to: giovanni.gsfc.nasa.gov/

Current hurricane-related products available from Giovanni include data from the Atmospheric Infrared Sounder (AIRS) on the Aqua satellite; the Microwave Limb Sounder (MLS) and the Ozone Monitoring Instrument (OMI) on the Aura satellite; the Moderate Resolution Imaging Spectroradiometer (MODIS) on the Aqua and Terra satellites; the Tropical Rainfall Measuring Mission (TRMM) satellite; the Total Ozone Mapping Spectrometer (TOMS); and the Ocean Color Time-Series Project.

Anyone who has just experienced heavy rains would be interested in

TRMM's 3-D precipitation radar images and animations. These are posted in near-real time on the portal alongside links to the TRMM Project archive of previous years of images and animations.

Researchers can order hurricane-related data from the GES DISC Distributed Active Archive Center (DAAC): One method is called "Mirador," which can search for data by date, parameter, instrument, or any keyword. Another ordering mechanism is the Web Hierarchical Ordering Mechanism (WHOM), which allows searching for data for a particular time and area.

The "Image Gallery" section contains an archive of images from 2002-present and Current Tropical Analysis Maps and Profiles from NASA Satellites. The section called "Hurricane Viewer" is an archive of more sophisticated animations showing hurricane paths, intensity, wind speed, and more, with TRMM rainfall accumulation maps in the background.

The "Science Focus" section contains informative historical studies of various storms, grouped by their highest intensity category. It also has web links and other images and animations.

Source: NASA

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