In order to facilitate Earth science data access, the NASA Goddard Earth Sciences Data Information Services Center (GES DISC) has developed a web tool prototype, the Hurricane Data Analysis Tool (HDAT). The tool is designed to provide a set of online visualization and analysis tools for remote sensing data related to hurricane studies. Users can have full access to remote data and generate 2-D or time-series plots and animation without downloading any software and data.

HDAT includes data from the NASA Tropical Rainfall Measuring Mission (TRMM), the NASA Quick Scatterometer (QuikSCAT) and NCEP Reanalysis, and the GES DISC archives TRMM data. The daily global rainfall product derived from the 3-hourly multi-satellite precipitation product (SBA2 V3) is available in HDAT. The TRMM Microwave Imager (TMI) sea surface temperature from the Remote Sensing Systems, the NCEP/CPC half-hourly, 4-km Global (60ºN - 60ºS) IR Dataset.

The GES DISC archives TRMM data and provides various products for different regions and purposes. The merged IR product, also known as the NCEP/CPC half-hourly, 4-km Global (60ºN - 60ºS) IR Dataset, is one of TRMM ancillary datasets. They are globally-merged pixel-resolution IR brightness temperature data (equivalent blackbody temperatures), merged from all available geostationary satellites (GOES-10, METEOSAT-8, JERS, and GMS). The GES DISC has collected over 10 years of the data beginning from February of 2000. The high temporal resolution (every 30 minutes) dataset not only provides additional background information to TRMM and other satellite missions, but also allows users to use a wide range of meteorological phenomena from space, such as hurricanes, typhoons, tropical cyclones, mesoscale convection system, etc.

Basic functions include selection of area of interest and time, single imagery, overlay of two different products, animation, and a time-lapse capability and different image size outputs. Users can save an animation as a file (animated gif) and import it in other presentation software, such as Microsoft PowerPoint. Since the tool can directly access the real data, more features and functionality can be added in the future.

Data:
- SST (0.25 x 0.25 degree) and daily precipitation (0.25 x 0.25 degree, derived from 3B42 V6) from TRMM TMI
- Ocean surface wind (reduced from the original 0.25 x 0.25 degree to 1.0 x 1.0 degree for better visualization) from TRMM and QuikSCAT analyses of Katrina.
- Global surface wind (reduced from the original 0.25 x 0.25 degree to 1.0 x 1.0 degree for better visualization) from QuikSCAT
- NCEP Reanalysis 1-degree, 6-hourly sea level pressure, and winds of 850-hPa, 700-hPa and 200-hPa.
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Tool Description:
All maps and plots in the tool are generated by using a widely used community software, the Grid Analysis and Display System (GADS).

Functions:
- Area Plot: Generates a latitude-longitude map for a region of interest.
- Time Plot: Generates a time-series plot for a region of interest.

Select Data Products
Select Plot Type
Select a Region
Select Time