Modeling and Assimilation Data and Information Services Center (MDISC) at the GES DISC

Dana Ostrenga

Adnet Systems, Inc/NASA GSFC Code 610.2

Dr. Peter Smith

NASA GSFC Code 610.2

The Modern Era Retrospective-analysis for Research and Applications (MERRA) dataset is a NASA satellite era, 30 year (1979 - present), reanalysis using the Goddard Earth Observing System Data Assimilation System, Version 5 (GEOS-5). The project, run out of NASA's Global Modeling and Assimilation Office at Goddard Space Flight Center, provides the science and application communities with a state-of-the-art global analysis with emphasis on improved estimates of the hydrological cycle over a broad range of weather and climate time scales. The MERRA products are archived and distributed by the Goddard Earth Sciences Data and Information Services Center (GES DISC) through its Modeling DISC Web (MDISC) portal. Multiple data access methods and services are available for MERRA data through MDISC: (1) Mirador offers a quick, comprehensive search of MERRA and all GES DISC archived data holdings, allowing searches on keywords, location names or latitude/longitude box, and date/time, with responses within a few seconds. (2) Giovanni is a GES DISC developed Web application that provides data visualization and analysis online. Giovanni features popular visualizations such as latitude-longitude maps, animations, cross sections, profiles, time series, etc. and some basic statistical analysis functions such as scatter plots and correlation coefficient maps. Users are able to download results in several different formats, including Google Earth. (3) On-the-fly parameter subsetting of data within a spatial/temporal window is provided through a simple "select and click" Web page. (4) MERRA data are also available via OPeNDAP, GrADS Data Server (GDS) and can be converted to netCDF "on the fly" (5) Simple Subset Wizard. Detailed MERRA data access information is available at the MDISC portal: http://disc.gsfc.nasa.gov/MDISC. An additional data set, MERRA Innovative Observation Dataset, that is planned to be released to the public and made available through the MDISC project will be presented; as well as the restricted data set, GEOS 5.7.2, that are provided to mission support teams and other science communities.

Corresponding Author:
Name: Dr. Peter Smith
Organization: NASA GSFC Code 610.2
Address: Code 610.2, Building 32, Rm S130-E
NASA Goddard Space Flight Center
Greenbelt, MD USA 20771

Email Address: Dana.Ostrenga@nasa.gov