

# What's New

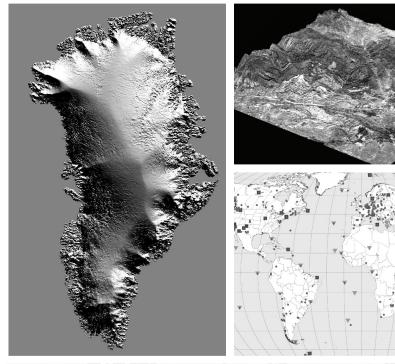
NASA EOSDIS Data Centers

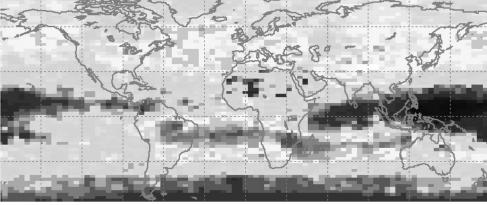
Data

Tools and Services

Outreach Products & Announcements

Data Center Information





NASA Earth Observing System Data and Information System (EOSDIS) data centers provide a wide variety of interdisciplinary Earth system science data, information, services, and tools to a diverse group of users, ranging from scientists and policy makers to applications and educational communities. NASA's unique view of Earth from space enables us to study and advance our understanding of the planet's interrelated processes.

For more information about the EOSDIS data centers see: http://nasadaacs.eos.nasa.gov. For more information about science at NASA see: http://science.hq.nasa.gov

Data What's New NASA EOSDIS Data Centers

### **ATMOSPHERE**

Aura Ozone Mapping Instrument (OMI), Microwave Limb Sounder (MLS) and High Resolution Dynamics Limb Sounder (HIRDLS)

http://disc.gsfc.nasa.gov/Aura http://acdisc.gsfc.nasa.gov

- » OMI Level- 2 Total Ozone product (including aerosol index and effective surface reflectivity parameters); NO<sub>2</sub> (total and tropospheric columns); BrO, SO<sub>2</sub>, HCHO, and OCIO total columns; aerosol extinction and absorption optical depth; and cloud products (pressure and fraction).
- » MLS Level-1 Radiance and Level-2 Atmospheric Composition products (O<sub>3</sub>, BrO, CIO, HCI, HOCI, OH, HO<sub>2</sub>, HCN, CO, HNO<sub>3</sub>, N<sub>2</sub>O, and SO<sub>2</sub>; Temperature, Water Vapor, Humidity, and Geopotential Height).

### Tropical Rainfall Measuring Mission (TRMM) Global Precipitation Climatology Project (GPCP) Merged Products

http://disc.sci.gsfc.nasa.gov/precipitation

Provides two final products, the combined satellite-gauge precipitation estimate and the combined satellite-gauge precipitation error estimate. The complete data set, which includes the input and intermediate data files, contains a suite of 27 products providing monthly, global gridded values of precipitation totals and supporting information for the 22-year period January 1979—January 2004.

# Tropical Cloud Systems and Processes (TCSP) Research Experiment

http://tcsp.nsstc.nasa.gov

Studies the dynamics and thermodynamics of precipitating cloud systems, including tropical cyclones, over the tropical eastern Pacific. Geophysical parameters measured by the TCSP data sets include ocean products, brightness temperatures (Tb), infrared and visible radiances, and radar reflectivity.

# Cloud-Aerosol Lidar and Infrared Pathfinder Satellite Observations (CALIPSO)

http://eosweb.larc.nasa.gov/PRODOCS/calipso/table\_calipso.html

» Lidar Level-1B measurement of attenuated backscatter; Lidar Level-2 Cloud and Aerosol Layer Products and Vertical Feature Mask are being reprocessed to Version 2. Additional parameters are being added to the Lidar Level-2 data. A complete list of additional parameters is available from the Lidar Level-2 Data Quality Statement. » Lidar Level-2 Cloud and Aerosol Profile Data Products are now available.

### International Satellite Cloud Climatology Project (ISCCP)

http://eosweb.larc.nasa.gov/PRODOCS/isccp/table\_isccp.html

With the recent addition of data for November 2005 to December 2006, the Atmospheric Science Data Center (ASDC) at NASA Langley Research Center announces the availability of 23 years of International Satellite Cloud Climatology Project (ISCCP) data products, covering July of 1983 through June of 2006. Data are available for the following data sets during this period:

B3 NATIVE: 3 hourly data with 30 km resolution DX NATIVE: 3 hourly data with 30 km resolution

TOVS NATIVE: daily and monthly data on a 2.5° equal area grid D1 NATIVE & HDF: 3 hourly data on a 2.5° equal area grid

D2 NATIVE & HDF: monthly and monthly 3 hourly data on a  $\,$  2.5  $^{\circ}$ 

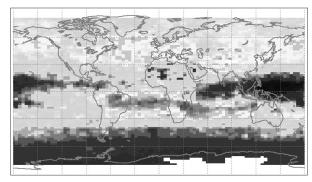
equal area grid

ICESNOW NATIVE: 5 day interval data on a 112 km equal area grid

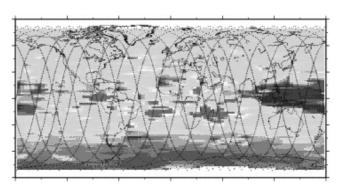
### **Tropospheric Emission Spectrometer (TES)**

http://eosweb.larc.nasa.gov/PRODOCS/tes/table\_tes.html

- » Level-3 products provide daily and monthly global survey data for several chemical species and atmospheric temperature, horizontally interpolated (daily) or averaged (monthly) onto uniform global latitude/longitude grids at selected pressure levels. Browse images for the Level-3 and associated Level-2 data are available with these new Level-3 products.
- » Level-2 data reprocessing to Version 3 is complete. This release includes new water vapor and HDO limb global survey products and a summary product for both global surveys and special observations. The summary product combines species and temperature data along with most fields from the Ancillary data product into a single file.



TES Level-3 daily and monthly browse image plots for ozone volume mixing ratio at 681.3 hPa.



The daily product browse image set also includes a browse image for the associated Level-2 data (not shown). Images courtesy of NASA/JPL/TES team.

#### Clouds and the Earth's Radiant Energy System (CERES)

http://eosweb.larc.nasa.gov/PRODOCS/ceres/table\_ceres.html

Synoptic Radiative Fluxes and Clouds (SYN), Monthly Regional Radiative Fluxes and Clouds (AVG), and Monthly Zonal and Global Radiative Fluxes and Clouds (ZAVG) are now available for Terra. These data include UVA and UVB measurements. These data are available for March 2000 through September 2004.

### **Surface Radiation Budget (SRB)**

http://eosweb.larc.nasa.gov/PRODOCS/srb/table\_srb.html

Release 2.81 data products are now available for the Shortwave 3 hourly, daily, monthly, and 3 hourly monthly averages. These data are available for July 1, 1983 through June 30, 2005.

#### Multi-angle Imaging SpectroRadiometer (MISR)

http://eosweb.larc.nasa.gov/PRODOCS/misr/data.html

First Look products are now available for MISR Level-2 and Level-3 data. This product is initial data processed with a priori boundary conditions. Once actual conditions are obtained (about 3 months), the data are reprocessed to current product.

#### **CRYOSPHERE**

#### **MODIS Version 5 Snow and Sea Ice Products**

http://nsidc.org/data/modis

Version 5 (V005) of the MODIS/Terra and MODIS/Aqua snow and sea ice products contains many improvements over the previous versions. These improvements include the addition of fractional snow cover to MOD10\_Level-2 and MOD10A, a conservative cloud mask used for all products, monthly snow products available in the Climate Modeling Grid (CMG) format, removal of sea ice by IST and combined sea ice fields, and HDF compression for all products.

### GLAS/ICESat Laser Altimetry Digital Elevation Models (DEMs) of Antarctica and Greenland

http://nsidc.org/data/nsidc-0304.html http://nsidc.org/data/nsidc-0305.html

These two new DEMs of Antarctica and Greenland were derived from GLAS/ICESat laser altimetry profile data and provide new surface elevation grids of the ice sheets and coastal areas, with greater latitudinal extent and fewer slope-related effects than radar altimetry. These DEM data sets were generated from the first seven operational periods (from February 2003 through June 2005) of the GLAS instrument. They are provided on polar stereographic grids at 500 m grid spacing for Antarctica and 1 km grid spacing for Greenland.

GLAS/ICESat 1 km Laser Altimetry Digital Elevation Model of Greenland. This DEM of Greenland is derived from GLAS/ICESat laser altimetry profile data and provides new surface elevation grids of the ice sheets and coastal areas. For more information on this DEM, please visit http://nsidc.org/data/nsidc-0305.html.



### **HUMAN DIMENSIONS**

### **Human Appropriation of Net Primary Productivity (HANPP)**

http://sedac.ciesin.columbia.edu/es/hanpp.html

How does the spatial distribution of human consumption of carbon (as embodied in food, fiber, and wood products) compare to the ability of land-based ecosystems to produce it? Research led by NASA scientists attempted to address this question by comparing satellite-derived maps of net primary productivity (NPP) with human appropriation of carbon, which is partly derived from SEDAC's Gridded Population of the World data set. The resulting global spatial distribution of NPP, HANPP, and HANPP as a percentage of local NPP data are available for downloading in raster GRID and GeoTIFF formats. In addition, tabular data by country on total estimated consumption of NPP in the form of food, paper, wood, and fiber can be accessed.

#### Population Landscape, and Climate Estimates, v2

http://sedac.ciesin.columbia.edu/place/

Version two of the Population, Landscape, and Climate Estimates data set, PLACE II, has been released as part of SEDAC's National Aggregates of Geospatial Data Collection. The aim is to provide country-level measures of spatial characteristics of 228 nations to researchers for whom national aggregates are more useful than GIS data. PLACE II estimates the number of people (head counts and percentages) and the land area (square kilometers and percentages) represented within each class of a number of demographic, physical, biological, and climatic variables for each country around the world, for the years 1990 and 2000. These variables include biomes, climate zones, coastal proximity zones, elevation zones, and population density zones.

#### Last of the Wild, v2

http://sedac.ciesin.columbia.edu/wildareas/

The Last of the Wild, v2 depicts human influence on terrestrial ecosystems using data sets compiled circa 2005. The data collection includes the Human Influence Index (HII) grids, Human Footprint grids, and the Last of the Wild vector data. The data sets are available in global and continental scales. Global data are available in the geographic coordinate system at 30 arcsec grid cell size and Interrupted Goode Homolosine Projection at 1 km grid cell size. Continental level data is only available in the geographic coordinate system. Data are also available in ASCII (.asc) and ArcInfo Grids. The Last of the Wild vector data are available only in shapefile format.

#### LAND

# The Large-Scale Biosphere-Atmosphere Experiment in Amazonia (LBA)

http://daac.ornl.gov/LBA/lba.html

The LBA was an international research initiative conducted from 1995–2006 and led by Brazil. The project focused on understanding how tropical forest conversion, regrowth, and selective logging influence carbon storage, nutrient dynamics, trace gas fluxes, and the prospect for sustainable land use in Amazonia. Seven new data sets are available: Forest structure measurements for GLAS validation SANTAREM 2004; land use and land cover time series Ji-Parana Basin 1986-2001; ASTER and MODIS fire comparison 2003–2004, characterization of vegetation fire dynamics 2001–2003, and soil water pressure and flow measurements under tree crops in Brazil; and LANDSAT TM 1986–1994 and orthorectified LANDSAT ETM+ Data 1999–2001 for Legal Amazon.

#### **Regional and Global Data**

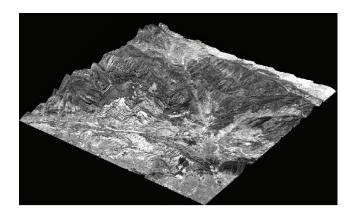
http://daac.ornl.gov/tem.shtml

The Oak Ridge National Laboratory (ORNL) Distributed Active Archive Center (DAAC) compiles, archives, and distributes regional and global data (RGD) to improve the understanding of the structure and function of various ecosystems. Two new regional and global data sets have been released: Characteristics of African Savanna Biomes for determining woody cover, and version 2.1 of a global fire emissions database.

# ASTER Shortwave Infrared (SWIR) Crosstalk-Corrected Products

http://lpdaac.usgs.gov/aster/ast\_07xts.asp http://lpdaac.usgs.gov/aster/ast\_09xts.asp

A new suite of higher-level on-demand ASTER Level-2 Surface Reflectance SWIR, and Level-2 Surface Radiance SWIR crosstalk-corrected products have been released. The crosstalk problem involves incident light reflecting off the ASTER Band 4 detector and being projected onto other SWIR detectors (VNIR retrieved products are not affected). These products contain atmospherically corrected shortwave infrared data and include both the VNIR reflectance and radiance products along with the SWIR crosstalk-corrected products. The LP DAAC continues to offer the original suite of SWIR crosstalk-uncorrected radiance and reflectance products.



To emphasize topography, this Orthorectified ASTER image is overlaid on the DEM image of the northwestern part of Los Angeles County with a backdrop of the Tehachapi Mountains. The image is vertically exaggerated at five times. In the lower right is the northwestern end of the San Fernando Valley with Santa Clarita to its north. In the middle right is Castaic Lake with Interstate-5 trending northwest to southeast. Image acquired 8/7/2004. Courtesy of Land Processes Distributed Active Archive Center (LP DAAC), United States Geological Survey (USGS) Center for Earth Resources Observation and Science (EROS).

### Southern African Regional Science Initiative (SAFARI) 2000

http://daac.ornl.gov/S2K/safari.html

The SAFARI 2000 project was an international regional science initiative conducted from 1992–2000 to develop a better understanding of the Earth—atmosphere—human system in Southern Africa. Six new data sets have been released including: Continental land surface temperature maps for 1995–2000; Dry season 2000 solar spectral flux radiometer data, instrument measurements of pollution in the troposphere (MOPITT) of carbon monoxide, aerosol fatty acid, and stable isotope data for Mongu; and MODIS subsets of airborne simulator data, albedo, and land cover data.

#### **Model Archive**

http://daac.ornl.gov/model\_intro.shtml

The ORNL DAAC currently archives and distributes the following model products: three benchmark model versions—BIOME-BCG, Integrated Biosphere Simulator (IBIS), and Land Surface Model (LSM); CENTURY—Version 4 (VEMAP); two PNet model products; two models used in published research results associated with specific model implementations—BIOME-BCG (Law et al.) and BIOME-BGC; Mapped Atmosphere-Plant-Soil System (MAPSS Version 1.0); and TransCom3 Annual Mean carbon dioxide flux estimates from atmospheric inversions.

# Advanced Spaceborne Thermal Emission Radiometer (ASTER) Level-3 Orthorectified Imagery

http://lpdaac.usgs.gov/aster/asterdataprod.asp

Beginning March 7, 2007, the LP DAAC offers a new suite of ASTER Level-3 on-demand Orthorectified Image products. An orthorectified image is similar to a map with near-vertical views for every location. These products are generated using ASTER Level-1A data and a DEM derived from the same data. Two product suites are planned for release: 1. AST140TH is the short name of the ASTER on-demand Level-3 Orthorectified product, which includes 15 orthorectified ASTER Level-1B calibrated radiance images, 1 per each band, including Band 3B. 2. AST14DMO is the short name of the ASTER on-demand product composed of both the Level-3 DEM and Orthorectified Image product. The distributed product is a zipped multi-file containing both a DEM, and 15 orthorectified Level-1B calibrated radiance images, 1 per each band.

#### **OCEANS**

# The GODAE High Resolution Sea Surface Temperature Pilot Project (GHRSST-PP)

http://ghrsst.jpl.nasa.gov http://www.ghrsst-pp.org

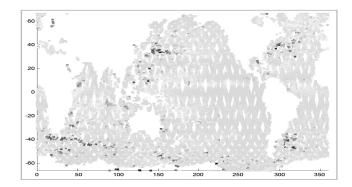
The GHRSST-PP now offers more blended SST products including four unique globally merged Level-4 products produced daily at various spatial resolutions ranging from 6–28 km. One of these products, the AVHRR\_OI produced by the NOAA NCDC, has a time series that begins in 1985. Other global Level-4 examples include the European OSTIA and ODYSSEA products. Regionally blended products at higher resolution are also available for the Mediterranean and Baltic Sea. New Level-2P products include data from the AVHRR/3 sensor on the European MetOp-A platform. All products are available through ftp://podaac.jpl.nasa.gov/GHRSST. Historical Level-2P data that are 30 days or older can be found at the GHRSST Long Term Stewardship and Reanalysis Facility (LTSRF) at http://ghrsst.nodc.noaa.gov.

In Spring 2008, PO.DAAC will assume responsibility for the Operation of the GHRSST Data Assembly Center.

### **Jason Data for Ocean Surface Topography Measurements**

http://podaac.jpl.nasa.gov/DATA\_PRODUCT/OST/index.html

Jason, a follow-on mission to the highly successful TOPEX/PO-SEIDON mission, provides an extended continuous time series of high-accuracy measurements of the ocean surface topography. Jason-1 GDR version C will be released late spring 2008. Existing cycles will be reprocessed and future cycles will be available as version C. Some of the improved algorithms include sea state bias, tides, and rain flagging.



Sea Surface Height Anomalies from Jason-1 cycle 210 (Sept. 18–28, 2007)

#### SeaWiFS Data Analysis System (SeaDAS) 5.1.6 Released

http://oceancolor.gsfc.nasa.gov/seadas/

SeaDAS is a comprehensive image analysis package for the processing, display, analysis, and quality control of ocean color data. Supported sensors are MODIS, SeaWiFS, OCTS, and CZCS. Key features include a variety of data processing, visualization, and projection capabilities with a selection of data input and output formats.

The new release:

- » Extends support to Intel Macintosh OS X platforms including OS X 10.5 (Leopard).
- » Support for Linux Fedora Cores 6, 4, 2; CentOS 4.4, and Solaris 2.8.
- » Provides full support for processing and display of MODIS 250 m and 500 m high-resolution data.

#### **Real Time Mission Monitor (RTMM)**

http://rtmm.nsstc.nasa.gov/

The Arctic Research of the Composition of the Troposphere from Aircraft and Satellites (ARCTAS) will take place as two 3-week aircraft deployments, in spring and summer 2008. The RTMM will provide simultaneous aircraft tracking for all three aircraft during the ARCTAS experiments. During ARCTAS, the NASA DC-8, P-3, and B-200 will fly missions at various altitudes and tracks. RTMM will facilitate mission planning by providing satellite overpass projections and atmospheric model forecasts. During missions, RTMM integrates satellite

imagery, aircraft state information, and surface data sets into a single easy-to-use visualization package. Post-mission playbacks enable the scientist to review the completed flight missions. The spring science flights are scheduled for April 1–22, 2008.



## MapReady Remote Sensing Tool Kit Alaska Satellite Facility (ASF)

http://www.asf.alaska.edu/softwaretools

- » Accepts CEOS, STF, GeoTIFF, and ASF format data.
- » Able to geocode data using a variety of projections.
- » Enables users to terrain correct SAR data.
- » Contains metadata viewer.
- » Includes software for image visualization.
- » Creates browse imagery.
- » Enables users to export data to GeoTIFF format for use in GIS programs.

#### New GHRC Web Site Release

http://ghrc.nsstc.nasa.gov/

The GHRC has released a new Web site and a new version of their data order and tracking system, HyDRO.

#### **ASF SAR Training Processor**

http://www.asf.alaska.edu/softwaretools/



- » Enables user to follow the steps as a SAR image is processed from Level-0 raw data to a Level-1 image via the range-Doppler technique.
- » Writes images at each processing stage, giving user visibility into the intermediate steps of the process.
- » Enables user to modify various parameters, as well as steps that are performed to visualize the impact of each on the final product.

# MODIS Land Product Subsets (Collection 5, Data Visualization/Acquisition)

http://daac.ornl.gov/MODIS/modis.html

Web-based tool to obtain data for global field sites or flux towers, which allows users to choose sites by country, continent, network, or land use classification. Site selections can be made with Google-Earth, MODIS-WebGIS, and pick lists. Selected sites can be viewed for a single composite period or as a time-series for the MODIS period, then downloaded in ASCII format. GeoTIFF images can be selected, viewed, and downloaded with MODIS-WebGIS.

# GES-DISC Interactive Online Visualization and Analysis Infrastructure (Giovanni)

http://disc.gsfc.nasa.gov/techlab/giovanni/

- » Web interface that performs interactive data analysis online without having to download any data.
- » Currently supports interfaces for AIRS, MLS, TOMS & OMI, MODIS, Ocean Color, TRMM, and UARS/HALOE, and Agriculture.
- » A new Web Service for the MODIS interface enables direct access of user-specified spatial and parameter subsetted daily Level-3 data.

# Atmospheric Composition Data and Information Services Center (ACDISC)

http://acdisc.gsfc.nasa.gov/

- » Online Portal to the Atmospheric Composition (AC) specific data holdings.
- » Serves as easy access archive and distribution system employing data analysis and visualization, data mining, and other user requested techniques.
- » Provides convenient access to AC data and information from multiple platforms ranging from heritage TOMS and UARS data sets, to the most recent data (e.g., SORCE, AIRS Aura OMI, MLS, and HIRDLS), as well as AC data sets residing at other remote archive sites.

#### Mirador

http://g0dup05u.ecs.nasa.gov/OPS/mirador/

- » Simplified Web interface for searching, browsing, and ordering Earth science data at NASA Goddard Earth Sciences Data and Information Services Center (GES DISC).
- » Features include (quick response, data file hit estimator, Gazetteer, and interactive shopping cart. Available data include: AIRS, Aura (MLS, OMI), TOMS, TRMM, and UARS.

#### **ENTRI Conference of Party Decision Search Tool**

http://sedac.ciesin.columbia.edu/gsametasearch/cop\_start.jsp

In response to the need to keep track of the many decision documents approved by the Parties to multilateral environmental agreements, SEDAC has produced a Conference of Party (COP) Decision Search Tool as an add-on to its Environmental Treaties and Resource Indicators (ENTRI) project. Powered by a Google Search Appliance, the tool includes controlled metadata (coding of each decision document) to enable advanced searches by date, COP number, or title of document.

The collection includes more than 2,100 decision documents for the following agreements: Convention on the Control of Transboundary

Movements of Hazardous Wastes and their Disposal (Basel), Convention on Biological Diversity (CBD), Convention on International Trade in Endangered Species (CITES), Convention on Migratory Species (CMS), the Ramsar Convention on Wetlands of International Importance (Ramsar), UN Convention to Combat Desertification (CCD), UN Framework Convention on Climate Change (FCCC), Kyoto Protocol to the United Nations Framework Convention on Climate Change (Kyoto 1997), Vienna Convention to Protect the Ozone Layer (Vienna), and the Montreal Protocol of the Vienna Convention (Montreal).



Detailed image of southeastern Africa and Madagascar showing input data into the PLACE II data set. Elevation data (left) is combined with SEDAC's Gridded Population of the World (GPW v3) population density data (right) to estimate population and percent of a country's population living within a series of elevation zones. On this map, for example, more than 10% of Mozambique's population lives at or below 10 m above sea level.

#### **Hurricane Portal**

http://disc.gsfc.nasa.gov/hurricane

Designed for viewing and studying hurricanes by utilizing various measurements by the NASA remote-sensing instruments. The portal consists of four main components: 1) Current Conditions (in preselected regions and updated daily)—the latest maps and profiles from NASA satellites, such as, TRMM, AIRS, etc.; 2) Event based—the latest maps and profiles for an active tropical storm or hurricane; 3) Science focus—Examples/stories describing the data usage in hurricane monitoring and research; and 4) Archives—maps and profiles from past tropical storms and hurricanes.

#### **Hurricane Archive**

http://daac.gsfc.nasa.gov/hurricane/gallery.shtml

Provides data information, data sets, animations, maps, and profiles from past tropical storms and hurricanes.

#### **Hurricane Viewer**

http://disc.gsfc.nasa.gov/hurricane/

Application for animating hurricane path, their varying levels of intensity and atmospheric information occurring at the time of the event. Available as a beta (experimental) version, with additional features and animation options to be added.

#### Multi-angle Imaging SpectroRadiometer (MISR) Toolkit

http://eosweb.larc.nasa.gov/PRODOCS/misr/tools/misr\_toolkit.html

- » The MISR Toolkit (Mtk) is a simplified programming interface to access MISR Level-1B2, Level-2, and ancillary data products. It is of a collection of callable routines that can be used at the command line or incorporated into larger software tools and applications. The routines handle the original MISR format and the conventional format available as output from the MISR Order and Customization Tool.
- » Mtk is an interface built upon HDF-EOS that understands MISR data products, which makes it very easy to extract and utilize MISR data. Reading a parameter requires the user to simply specify a file, grid, field, and a geographic region-of-interest; the concept of MISR "blocks" is handled internally, and data are presented to the user as a data plane (a flat array of values). Geolocation information is easily accessible for the data plane without the use of ancillary data sets. Any appropriate scaling factors or packed data sets are easily handled as well.
- » Features include: specifying regions by geographic bounding box, geographic location and extent, or the MISR path and block range; mapping between path, orbit, block, time range, and geographic location; automatically stitching, unpacking and unscaling MISR data; performing coordinate conversions between lat/lon, SOM x/y, block/line/sample and line/sample of a data plane, which means geolocation can be computed instantly without referring to an ancillary data set lookup.

#### **Land Processes Data Pool**

http://lpdaac.usgs.gov/datapool/datapool.asp

- » Provides online access to land processes data archive where users can obtain selected LP DAAC data products.
- » Land processes data products from both the NASA Terra and Aqua satellite platforms at no charge.
  - New features allow access to MODIS land products via product type, tile, and map selections.
  - Separate methods are offered for tile grid products and climate modeling grid products.

# Data Format Conversion Tool HDF-EOS to GeoTIFF (HEG) works with AMSR-E data

http://nsidc.org/data/data\_pool

- » Now available for the AMSR-E Level-2A Brightness Temperatures, the Level-2B Ocean Products, and the Level-3 Ocean Grids through the Data Pool Web access.
- » The HEG converter enables format conversions and projection changes. Options dependent on the data set, but typically include conversion to GeoTIFF and reprojection to geographic, UTM, and other projections. Provides spatial and band subsetting.

#### ICESat/GLAS Subsetter

http://nsidc.org/data/icesat/order.html

Users of ICESat/GLAS data are now able to spatially subset certain GLAS products. The ordering interface allows the user to choose GLAS product(s) the user is interested in, a time period, and options to enter one or multiple sets of spatial bounding coordinates.

### **ORNL Map Servers**

http://daac.ornl.gov/mapserver.shtml

Web-based GIS tool that enables users to browse, query, and display spatial data using a standard Web browser. Based on ESRI ArcIMS and Minnesota Mapserver technology. Includes a number of land cover, biophysical, elevation, and geopolitical layers, as well as access to other relevant Open Geospatial Consortium (OGC) layers. Users can interrogate map features and extract and download selected map features including map layers (shape files).

» The ORNL DAAC WebGIS supports Web Map Service (WMS) and Web Coverage Service (WCS) OpenGIS protocols.

### **Global Change Master Directory (GCMD)**

http://gcmd.nasa.gov

A directory to discover Earth science data and data-related services, the GCMD database currently holds more than 20,000 Earth science data sets and services covering all aspects of Earth and environmental sciences. Features available on the GCMD Web site with the latest upgrade (MD 9.8) include:

- » Improved the User Comment Form to capture valuable information about "Who are our users?" and specifically what they are looking for, and any comments they may have pertaining to the GCMD.
- » Improved DIF display of spatial coverage, specifically when coverage falls near the poles or global coverage.
- » Improved DIF display where spatial coverage includes altitude/

depth information.

- » Ported all operations software from Oracle to MySQL database.
- » Improved navigation on the Web site. Two new tabs—"Portals" and "About GCMD" replace the tab names "Collaborations" and "Links". "Links" now appear in the small black background top navigation. The Collaborations page is available from the left hand navigation in the "About GCMD" section.
- » Addressed issues with special characters (e.g., international characters, mathematical symbols, etc.) not being stored or displayed properly.
- » Improved the validation process to include automatic link checking. Implemented tools that will identify DIFs and SERFs that have broken links and then subsequently update the metadata with the correct URLs.
- » Improved the Instrument and Platform display to include a direct link to related data.
- » Improved the docBUILDER's authoring tool to assist the user in selecting the appropriate version of metadata to update.

#### **MPEG Movie Output from POET**

http://podaac.jpl.nasa.gov/poet

POET is PO.DAAC's online subset, visualization, and data access tool. In addition to image, GIS, scientific, and raw formats, users can now create and download MPEG movies. This feature is particularly useful for classroom use.

# MODIS Level-1 and Atmospheres Archive and Distribution System (LAADS)

http://ladsweb.nascom.nasa.gov.

Capabilities include parameter subsetting, geographic subsetting, day/night granule search, metadata search, masking, channel subsetting, tile reprojection, order tracking, user push or pull, and a shopping cart. Granule reprojection, GeoTIFF reformatting and mosaicing will be added to this list over the next few months. This is the sole source for MODIS Level-1 and atmospheric data products.

#### Atlas of the Cryosphere

http://nsidc.org/data/atlas/

This National Snow and Ice Data Center Web site allows visitors to explore and dynamically map the Earth's frozen regions. Viewed from a polar perspective, the available scenes include snow cover, sea ice extent and concentration, glaciers, permafrost, and other critical components of the Earth's cryosphere.

#### ORNL MERCURY—Advanced Search Tool

http://mercury.ornl.gov/ornldaac/

Mercury is a Web-based system for searching metadata and retrieving selected data. Data and documentation can reside anywhere on the Internet, including in a data center or, for a project, on the individual data provider's servers. Mercury keeps the central metadata current by updating its database every night. Mercury supports international metadata standards and is compatible with Internet search engines.

#### **THREDDS Data Server Catalog Service**

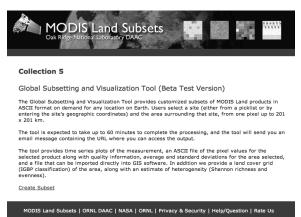
http://daac.ornl.gov/thredds.shtml

The Thematic Real-time Environmental Distributed Data Services Data Server (THREDDS) is a catalog for discovery and use of a limited number of data sets. Our THREDDS Data Server (TDS) reads data sets in various formats, and serves them through OPeNDAP, OGC Web Coverage Service, NetCDF subset, and bulk HTTP file transfer services. The TDS has the ability to aggregate many files into virtual data sets by simplifying user access to large collections of data.

### **MODIS Global Subsetting and Visualization Tool**

http://www.modis.ornl.gov/modis/Global\_Tool.cfm

The ORNL DAAC offers a MODIS Global Subsetting and Visualization tool for Collection 5. This tool provides custom subsets of Moderate Resolution Imaging Spectroradiometer (MODIS) Land products in ASCII format on demand for any location on Earth. Site selection from a pick list or by coordinate definition can be defined from one pixel up to 201 X 201 km. Processing of these custom subsets may take up to 60 minutes to complete, so the tool sends an e-mail notification containing a URL for output delivery upon completion.



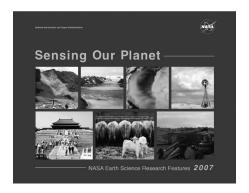
Revision Date: October 12, 2007

Website maintained by the Oak Ridge National Laboratory for the National Aeronautics and Space Administration Tel: +1 (865) 241-3952 or E-mail: gmidaac@orni.gov, webmaster@daac.orni.gov

### Sensing Our Planet NASA Earth Science Research Features 2007

http://nasadaacs.eos.nasa.gov/articles/index.html

A collection of stories that showcase the value of NASA's contributions in Earth system science by highlighting the breadth and depth of interdisciplinary Earth science data. These stories focus on some of the ways that scientists use this data to address real problems in the world, the fascinating science that the data makes possible, and how the data enables readers to understand the Earth as a set of interrelated systems.



#### Ocean Motion & Surface Currents Website

http://podaac.jpl.nasa.gov/ http://oceanmotion.org/

This NASA Physical Oceanography Program Science Office sponsored educational site is now available from the PO.DAAC Home Page. It documents humankind's experiences, observations, and investigations of ocean surface currents and provides a toolbox of satellite data and classroom-ready materials for high school teachers and students to investigate ocean surface currents.

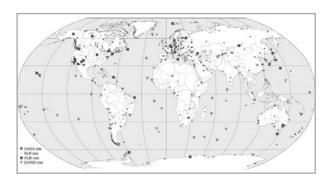


### **ESDIS PROJECT ANNOUNCEMENT**

Crustal Dynamics Data Information System (CDDIS) Joins EOSDIS Data Centers

http://cddis.gsfc.nasa.gov

The CDDIS is a mature data archive and information service supporting the international space geodesy community. For over 25 years, the CDDIS has provided continuous, long term, public access to the data records (mainly GNSS, satellite laser ranging, VLBI, and DORIS from global networks as shown in the figure below) and products derived from these data required for a variety of science observations, including the determination of a global terrestrial reference frame and geodetic studies in plate tectonics, earthquake displacements, volcano monitoring, Earth orientation, and atmospheric angular momentum, among others. The CDDIS serves as one of the primary data centers and core components for the geometric services established under the International Association of Geodesy (IAG), an organization that promotes scientific cooperation and research in geodesy on a global scale. The CDDIS is creating new metadata information for future integration into the EOSDIS and GCMD systems.



### **NSIDC ANNOUNCEMENTS**

AMSR-E/Aqua Level-2A Global Swath Spatially-Resampled Brightness Temperatures (Tb)

http://nsidc.org/data/ae\_I2a.html

AMSR-E Level-2A brightness temperatures are now validated. The product maturity is upgraded to 'validated' after the science software is tested and the algorithm is validated using the official NASA calibration.

#### **ICESat/GLAS Products**

http://nsidc.org/data/icesat

» Release-28 data are now available for several laser time periods (Laser 1: 2003-02-20 to 2003-03-21, Laser 2A: 2003-09-25 to

2003-11-18, Laser 2B: 2004-02-17 to 2004-03-21, Laser 3A: 2004-10-03 to 2004-11-08, Laser 3B: 2005-02-17 to 2005-03-24, Laser 3C: 2005-05-20 to 2005-06-23, Laser 3D: 2005-10-21 to 2005-11-24, Laser 3E: 2006-02-22 to 2006-03-27, Laser 3F: 2006-05-24 to 2006-06-26, Laser 3G: 2006-10-25 to 2006-11-27, and Laser 3H: 2007-03-12 to 2007-04-14). This release includes all products, GLA01-GLA15, though not all products are available for all time periods.

- » Release-28 provides several enhancements, such as improved corrections for saturation effects, improved flags to aid users in data selection, and better descriptions of the altimetry products.
- » Beginning with this release, a YXX pattern for release numbers will be used in file names. The XX still indicates the release number (e.g., 28), but the Y now indicates a calibration level (currently 0 to 4); the higher the Y, the greater the level of calibration. Please see the ICESat/GLAS YXX Release Numbers page (http://nsidc.org/data/icesat/yxx\_release\_numbers.html) for details. For more information about this release, see the ICESat/GLAS Data Releases page (http://nsidc.org/data/icesat/detailed\_disclaimer.html). For ordering options, see the ICESat/GLAS Order Data page (http://nsidc.org/data/icesat/order.html).

#### **AMSR-E Level-2B Reprocessing**

http://nsidc.org/data/amsre

Reprocessing has begun for the AMSR-E/Aqua Level-2B products. Data are being reprocessed to Version 2 from the start of the AMSR-E mission until the date the Version 2 Algorithm was implemented for each product. Level-2B reprocessing includes the following products: Level-2B Global Swath Ocean Products (AE\_Ocean), Level-2B Surface Soil Moisture, Ancillary Parms, and QC EASE-Grids (AE\_Land) Level-2B Global Swath Rain Rate (AE\_Rain).

#### PO.DAAC ANNOUNCEMENTS

PO.DAAC Sandbox (Experimental Data)

The PO.DAAC Sandbox provides an opportunity to present unvetted science products to the user community. The products submitted for distribution by a Principal Investigator will be reviewed by the relevant science team prior to release at the Sandbox. The prospective users are asked to accept the risk inherent to unvetted products when they register and to provide feedback to PO.DAAC on the specific product. Feedback will be forwarded to the provider and used for final review by the relevant science team and the User Working Group prior to transition to the PO.DAAC Standard Data set.

To register for Sandbox access, please visit <a href="http://podaac.jpl.nasa.gov/registration/">http://podaac.jpl.nasa.gov/registration/</a>.

PO.DAAC is pleased to announce its new improved Web site <a href="http://podaac.jpl.nasa.gov/">http://podaac.jpl.nasa.gov/</a>. This site has been streamlined and easy access to data is a result.

AIRSAR data, formerly distributed through PO.DAAC has been moved to the Alaska Satellite Facility. Researchers interested in obtaining AIRSAR data should now refer to <a href="http://airsar.asf.alaska.edu">http://airsar.asf.alaska.edu</a>.

The PO.DAAC would like to announce the availability of Pathfinder Version 5.0 data for 2006. Files have been placed on the ftp site at <a href="mailto:ttp://podaac.jpl.nasa.gov/pub/sea\_surface\_temperature/avhrr/pathfinder/data\_v5">ttp://podaac.jpl.nasa.gov/pub/sea\_surface\_temperature/avhrr/pathfinder/data\_v5</a>. The 2006 data is also available through the POET interface at <a href="mailto:http://podaac.jpl.nasa.gov/poet/">http://podaac.jpl.nasa.gov/poet/</a>.

#### LP DAAC ANNOUNCEMENT

#### **MODIS V005 Product Announcement**

http://lpdaac.usgs.gov/modis/dataproducts.asp

- » The LP DAAC announces certain MODIS V005 land data products are available beginning on October 25, 2006. The current collection includes acquisitions from February 2000 forward and will grow as data are produced chronologically. Terra and Combined data are available now, and Aqua data are expected to follow in the summer of 2007. All data acquisitions starting January 1, 2007 will be processed as V005 products.
- » Current MODIS V005 land products include the following Terra, Agua, or Combined data types:
  - Surface Reflectance
  - Vegetation Indices
  - Thermal Anomalies/Fire
  - BRDF/Albedo
  - Land Surface Temperature/Emissivity

What's New is produced by:

Earth Science Data and Information System (ESDIS) Project Code 423

JUUU 423

Goddard Space Flight Center

Greenbelt, MD 20771

For more information, please contact: outreach@eos.nasa.gov

#### Alaska Satellite Facility DAAC—ASF DAAC

www.asf.alaska.edu

Synthetic Aperture Radar (SAR) Products, Sea Ice, Polar Processes,

Geophysics

E-mail: asf@eos.nasa.gov Telephone: 301-614-6542

### Crustal Dynamics Data Information System—CDDIS

Space Geodesy

http://cddis.gsfc.nasa.gov

E-mail: Carey.Noll@nasa.gov Telephone: 301-614-6542

#### Global Hydrology Resource Center—GHRC

http://ghrc.nsstc.nasa.gov/

 $\label{prop:continuous} \mbox{Hydrologic Cycle, Severe Weather Interactions, Lightning, Atmospheric}$ 

Convection

E-mail: ghrc@eos.nasa.gov Telephone: 256-961-7932

#### Goddard Earth Sciences Data and Information Services Center—GES DISC

http://disc.gsfc.nasa.gov

Global Precipitation, Solar Irradiance, Atmospheric Composition,

Atmospheric Dynamics, Global Modeling

E-mail: help@daac.gsfc.nasa.gov Telephone: 301-614-5224

#### Land Processes DAAC-LP DAAC

http://LPDAAC.usgs.gov

Surface Reflectance, Land Cover, Vegetation Indices

E-mail: LPDAAC@eos.nasa.gov Telephone: 605-594-6116 Toll free: 866-573-3222

# Level-1 Atmospheres Archive and Distribution System (LADS)—MODAPS

http://ladsweb.nascom.nasa.gov

MODIS Level-1 and Atmosphere Data Products

E-mail: modapsuso@saicmodis.com

Telephone: 866-506-6347

# NASA Langley Research Center Atmospheric Science Data Center—Larc ASDC

http://eosweb.larc.nasa.gov

Radiation Budget, Clouds, Aerosols, Tropospheric Chemistry

E-mail: larc@eos.nasa.gov Telephone: 757-864-8656

#### National Snow and Ice Data Center DAAC—NSIDC DAAC

http://nsidc.org

Snow and Ice, Cryosphere, Climate Interactions, Sea Ice

E-mail: nsidc@nsidc.org Telephone: 303-492-6199

#### Oak Ridge National Laboratory DAAC—ORNL DAAC

http://www.daac.ornl.gov

Biogeochemical Dynamics, Ecological Data, Environmental Processes

E-mail: ornIdaac@ornI.gov Telephone: 865-241-3952

#### Ocean Biology Processing Group

http://oceancolor.gsfc.nasa.gov

Ocean Biology, Sea Surface Temperature, Biogeochemistry

E-mail list: http://oceancolor.gsfc.nasa.gov/staff
Telephone list: http://oceancolor.gsfc.nasa.gov/seadas

• Click on "Support" to access the telephone list.

#### Physical Oceanography DAAC—PO.DAAC

http://podaac.jpl.nasa.gov

Sea Surface Temperature, Ocean Winds, Circulation and Currents,

Topography and Gravity

E-mail: podaac@podaac.jpl.nasa.gov

## Socioeconomic Data and Applications Center—SEDAC

http://sedac.ciesin.columbia.edu

Human Interactions, Land Use, Environmental Sustainability, Geospatial Data, Multilateral Environmental Agreements

E-mail: ciesin.info@ciesin.columbia.edu

Telephone: 845-365-8920

For more information refer to http://outreach.eos.nasa.gov