National Aeronautics and Space Administration

NASA Climate Model Data Services (CDS) Building Capacity and Advancing Research and Applications

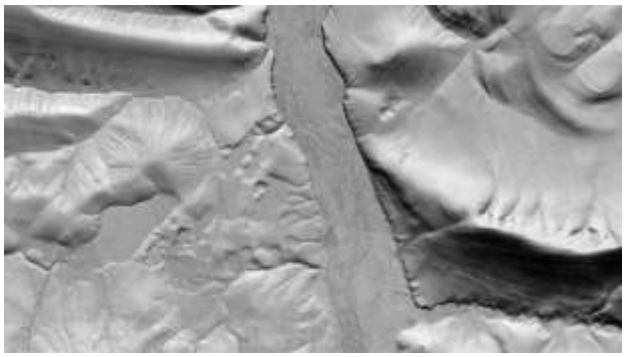
NASA Utilizes Data Agreement with the National Geospatial Intelligence Agency (NGA) to Obtain High Resolution Image Data for Scientific Use

NASA scientists now have the benefit of using high-resolution data from the National Geospatial Intelligence Agency's (NGA) license agreement with DigitalGlobe Satellite Communications Service in accessing data for scientific research. The Climate Model Data Services is working with partner organizations, such as the Polar Geospatial Center (PGC) and DigitalGlobe, to transfer high resolution satellite data to the Advanced Data Analytics PlaTform (ADAPT) computer system. NASA research scientists on ADAPT now have access to this data for their scientific studies. One popular and large project, called the Arctic Boreal Vulnerability Experiment (ABoVE), is utilizing this data for Arctic research.

Data from six different satellites; Worldview-1, Worldview-2, Ikonos, Quickbird, Geoeye-1, and now Worldview-3, are available to users with more data arriving every day. Data resolution is greater than 0.5m.

As of today the CDS high-resolution data system has collected nearly 600 TB of data with the capability to expand the dataset into Petabytes by the time all data is transferred from DigitalGlobe and University of Minnesota Polar Geospatial Center (PGC). The data are available to NASA researchers at no cost, however there may be processing and storage costs for NGA data not already in ADAPT system.

Many NASA science projects are already benefiting from this new high-resolution imagery, such as the "Head in the Clouds" project, which is examining vegetation in the Africa Sub Saharan. Other interested projects are are related to ecosystems, disasters, agriculture, water resources, and food security. NASA is utilizing ESRI's ArcGIS products to manage the data, as well as to provide a tool for users to perform data analysis and create scientific data products, such as digital elevation models.



Shaded relieve image from a 4m digital elevation model on the north slope of Alaska (Courtesy PGC)

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