LongName	Description
ASTER Global Digital Elevation Model	"The Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER) Global Digital Elevation Model (GDEM) is a product of the Japanese Ministry of Economy, Trade, and Industry (METI) and the United States National Aeronautics and Space Administration (NASA). It covers land surfaces between 83 degrees north and south latitude and all land areas. Since 2001, three-dimensional pairs have been used to create the GDEM. Version 1 was released in June 2009 and Version 2 in October 2011. Improvements were made to the digital elevation model in Version 2, including the addition of 260,000 new stereo pairs processed by the ASTER Science Project Team, and the use of an additional band for stereo correlation to increase the automated processing of the entire ASTER Level 1A archive. Stereo correlation is used to produce over 1 trillion elevation measurements. Data voids, which are regions where no stereo data were available for pixels, will cause irregular elevation values and anomalous artifacts in the data. Additional quality control data are averaged to create final pixel values, and residual anomalies are corrected before synthesizing the GDEM tiles. The GDEM is delivered in 1 degree by 1 degree tiles in GeoTIFF format. There are 22,702 tiles comprised of 16 bit DEMs. There are 4 bit QA files for each tile. Each pixel in the QA file contains a value that indicates the number of scenes used to calculate the corresponding pixel in the GDEM for that latitude, longitude. The data are posted on a 1 arc second (approximately 30 m at the equator) grid at latitude/longitude coordinates. The horizontal datum is WGS84 and the vertical datum is geoid/EGM96. The GDEM's RMSE (root mean square error) of 20 meters is based on independent validation assessments. The GDEM's vertical accuracy specification is 20 meters at the 95% confidence level. Users are advised that the products will also contain anomalies and artifacts that will reduce it's usability for certain applications. Water bodies are flat and consistent, and coastlines are generally well defined. Land areas with low and wetter terrain are also relatively flat and consistent, and are generally well defined. Areas on the land in the 9SEG data set release (data: 2009-06-29, Data Set Id: GDEMV2_Aug2011_Grid, Global Between 83° and 83° Latitude) that are covered by water bodies are set to a value of -32767. Areas on land in the 9SEG data set release (data: 2009-06-29, Data Set Id: GDEMV2_Aug2011_Grid, Global Between 83° and 83° Latitude) that are covered by water bodies are set to a value of -32768. Participants: Geographic Satellite Data Models: ASDMA-ASDMA Resolution: 1 second (30 m horizontal posting at the equator)"
Elevation Datasets in Alaska	"Intermap's IDEM products are 3D raster datasets with elevations captured at 5-meter postings or every 5 meters on the ground. The IDEM is delivered in 10 kilometer by 10 kilometer tiles in GeoTIFF format with a horizontal datum of NAD83 and a vertical datum of NAVD88. The geoid model used is GEOID09. The horizontal accuracy specification is 2.5 meters at the 95% confidence level. The vertical accuracy specification is 1 meter at the 95% confidence level. Accuracy statements are based on unobstructed areas of moderately sloped terrain. Intermap's IDEM products are 3D raster datasets with elevations captured at 5-meter postings or every 5 meters on the ground. The IDEM is delivered in 10 kilometer by 10 kilometer tiles in GeoTIFF format with a horizontal datum of NAD83 and a vertical datum of NAVD88. The geoid model used is GEOID09. The horizontal accuracy specification is 2.5 meters at the 95% confidence level. The vertical accuracy specification is 1 meter at the 95% confidence level. Accuracy statements are based on unobstructed areas of moderately sloped terrain. Participants: Intermap Technologies Inc."
Fractional open water cover for the Northern domain & pan-Arctic Regional Climate Model	"This data set provides land surface fractional ocean water (flat meadow dynamics) over the Arctic. Several independent datasets were used to produce the land surface fractional ocean water. The first data were developed using high frequency (HF) band brightness temperatures (TBs) from the Advanced Microwave Scanning Radiometer-EOS (AMSR-E) and the Special Sensor Microwave Imager/Sounder (SSMIS) and a dynamic tie-point algorithm. The second data were developed using Synthetic Aperture Radar (SAR) Wide Ocean Observation Imaging (spotlight) observations. The data are at 10-day temporal fidelity and 5 km spatial resolution."
Circumpolar Vegetation Maps (CAVM Team) - Global Change Study	"Land surface phenology (LSP) and vegetation growth of the circumpolar north are changing in response to environmental variability. The Land Surface Phenology and Growth Trends (LSPGT) Circumpolar Arctic Vegetation Monitoring Using Time Series of Integrated Surface Wetness (ISW) and Normalized Difference Vegetation Index (NDVI) data set, specifically designed for the entire circumpolar Arctic, was developed to study LSP and growth trends. The data set was derived from the 1982-2010 Global Inventory Modeling and Mapping Studies (GIMMS) NDVI3g and the 1982-2009 Polar Pathfinder-Extended (PP-E) ISW. The LSPGT data set includes 5 LSP parameters and 2 growth trends."
Landsat 4-5 Thematic Mapper™	"The Landsat Thematic Mapper (TM) is a sensor carried onboard Landsats 4 and 5 and has acquired more than 20 years of continuous data. The TM sensor is a multispectral scanning radiometer with a Landsat ETM+ image data consist of eight spectral bands (band designations), with a spatial resolution of 30 meters for bands 1 to 5 and 7 (Visible, near-infrared, and short-wavelength infrared). The resolution for band 6 is 120 meters. The resolution for band 8 (panchromatic) is 15 meters. Each scene contains approximately 3.9 billion pixels (each band is 7,900 samples by 6,950 lines). Approximately 1,900 scenes are required to cover the land area of the world (106 km by 114 km). Systematic Correction Level (L1G) provides both radiometric and geometric corrections, including correction for scan direction and detector alignment errors. The data are resampled to a specified map projection and user-selected output format. The TM product is generated with the understanding the accuracy of the predicted ephemeris that is used for processing. Please be aware that TM over-US scenes are not routinely corrected or registered, which means that the pixels are NOT aligned from one scene to the next. Over-US scenes are corrected and registered only when specifically requested. Geometric accuracy corresponding to geographic control points, which are employed in the geometric correction process, is 50 meters (1.64 pixels) circular error at 90% (CE90) for scenes processed in the United States, accuracy of the precision-corrected product will depend on the availability of local GPS control points and the registration accuracy of the reference image used. Accuracy of the terrain-corrected product will depend on the availability of ground control points and the resolution of the digital elevation model (DEM) used for terrain correction. Terrain-corrected products include the United States, the accuracy of a terrain-corrected product will depend on the availability of ground control points and the resolution of the digital elevation model (DEM) used for terrain correction."
Landsat 7 Enhanced Thematic Mapper Plus (ETM+)	"The Landsat Enhanced Thematic Mapper Plus (ETM+) is a sensor carried onboard the Landsat 7 satellite launched in April 1999. The ETM+ sensor is a multispectral scanning radiometer with a spatial resolution of 30 meters for all bands except panchromatic (band 8), which is 15 meters. Each scene contains approximately 3.9 billion pixels (each band is 7,900 samples by 6,950 lines). Approximately 1,900 scenes are required to cover the land area of the world (106 km by 114 km). The Level 0R data product is unrectified raw data. Reformatting consists of separating the data by detector, correcting for bumper mode roll, and appending ancillary information. Radiometric and geometric calibration coefficients are also appended, but not applied to the Level 0R data. Users are advised that the Level 0R data are not corrected or registered, nor are they geometrically corrected or registered, which means that the pixels are NOT aligned from one scene to the next. The Level 1G product is radiometrically and geometrically corrected for systematic errors using the satellite ephemeris data which was recorded with the downlinked data and Global Positioning System (GPS) correction data. Additionally, the Level 1G product is resampled to a specified map projection and user-selected output format. The ETM+ product is generated with the understanding the accuracy of the predicted ephemeris that is used for processing. Please be aware that ETM+ over-US scenes are not routinely corrected or registered, which means that the pixels are NOT aligned from one scene to the next. Over-US scenes are corrected and registered only when specifically requested. Geometric accuracy corresponding to geographic control points, which are employed in the geometric correction process, is 250 meters (8.2 pixels) circular error at 90% (CE90) for scenes processed in the United States, accuracy of the precision-corrected product will depend on the availability of local GPS control points and the registration accuracy of the reference image used. Accuracy of the terrain-corrected product will depend on the availability of ground control points and the resolution of the digital elevation model (DEM) used for terrain correction. For locations outside the United States, the accuracy of a terrain-corrected product will depend on the availability of ground control points and the resolution of the digital elevation model (DEM) used for terrain correction."
MERRA Chem 3D Mid-Edge Pressure, Instantaneous 3 Hourly (eta coord, 0.5x0.625 deg)	"The Land Surface Hydrology Parameters for Atmospheric Modeling (LSHPAM) data set is a component of the GCM Application. The LSHPAM data set is derived from the Global Land Data Assimilation System (GLDAS) data set and is archived in the HDF-EOS Grid format, based on HDF4."
MERRA 2D IAU Diagnostic, Land (eta coord, 0.5x0.625 deg)	"The MERRA Chem 3D Mid-Edge Pressure, Instantaneous 3 Hourly (eta coord, 0.5x0.625 deg) is a component of the GCM Application. The data set is derived from the GCM during the corrector segment of the IAU cycle. All collections from this group are at reduced horizontal resolution. MERRA or the Modern-Era Retrospective-analysis for Research and Application is a NASA reanalysis for the satellite era (20 years 1979-current) using the Goddard Earth Observing System Data Assimilation System Version 5 (GEOS-5) Data. This data product contains: 3-dimensional mid-edge pressure level data at reduced horizontal resolution, MERRA, or the Modern-Era Retrospective-analysis for Research and Application,