



EARTH SYSTEM SCIENCE

Data and Services

CRYOSPHERE *Data Set Reference Sheet*

December 2015

Physical Properties	Data Center	Selected Data Sets and Data Collections <i>Complete data set listings available through each individual data center. For more information about NASA's Earth Observing System Data and Information System (EOSDIS) data centers, see: https://earthdata.nasa.gov</i>
Frozen Ground	NSIDC DAAC http://nsidc.org/daac	<ul style="list-style-type: none"> • MEaSUREs Global Record of Daily Landscape Freeze/Thaw Status, Version 03
Gravity Gravity Field Models, Measurements	CDDIS http://cddis.gsfc.nasa.gov	<ul style="list-style-type: none"> • Ground Network/Satellite Measurements: Daily, hourly, and sub-hourly code and phase observations from GNSS ground network; Daily and hourly files of round trip time of flight from satellite laser ranging (SLR) ground network; Time-tagged range-rate measurements from DORIS ground network • Daily and weekly precision satellite orbits derived from GNSS, SLR, and DORIS ground network observations. Note: Precise satellite orbits are required for higher level products. • Station positions and velocities from GNSS, SLR, VLBI and DORIS ground networks
	PO.DAAC http://podaac.jpl.nasa.gov	<ul style="list-style-type: none"> • GRACE Level 2 Monthly Gravity Field Estimates • Surface Mass Density Changes from GRACE (monthly mass grids of water equivalent thickness)
Land Ice Ice sheet topography, ice sheet volume change, glacier change	ASDC DAAC https://eosweb.larc.nasa.gov	<ul style="list-style-type: none"> • International Satellite Cloud Climatology Project (ISCCP) D1, D2, and ICESNOW data products • Multi-angle Imaging SpectroRadiometer (MISR) Level 1B2 Ellipsoid Data, Level 1B2 Terrain Data, Level 2 Surface Parameters, and Level 3 Component Global Land (daily, monthly, quarterly, and yearly) Products
	ASF DAAC http://www.asf.alaska.edu	<ul style="list-style-type: none"> • AMM-1 and MAMM SAR Image Mosaics of Antarctica 100m (RADARSAT-1) • ASF Data Pool of processed SAR data and images (Sentinel-1A, SMAP, Radiometrically Terrain Corrected Products, Seasat, ALOS-1 PALSAR, JERS-1, RADARSAT-1, ERS-1, ERS-2, UAVSAR, AIRSAR, AirMOSS) • Custom SAR Interferograms (ERS-1, ERS-2, JERS-1, PALSAR, RADARSAT-1) • International Polar Year SAR Datasets • UAVSAR Repeat Pass Interferometric products
	LP DAAC https://lpdaac.usgs.gov	<ul style="list-style-type: none"> • ASTER Digital Elevation Model • ASTER L1B Registered Radiance at the Sensor • ASTER Level 3 Global Digital Elevation Model (GDEM) 1 Arc-Second
	NSIDC DAAC http://nsidc.org/daac	<ul style="list-style-type: none"> • Antarctic 1 km DEM from Combined ERS-1 Radar and ICESat Laser Satellite Altimetry • Antarctic 5-km DEM from ERS-1 Altimetry • Antarctic Ice Velocity Data • Digital SAR Mosaic and Elevation Map of the Greenland Ice Sheet • GLAS/ICESat 1 km Laser Altimetry Digital Elevation Model of Greenland • GLAS/ICESat 500 m Laser Altimetry Digital Elevation Model of Antarctica • GLAS/ICESat L1B Global Elevation Data • GLAS/ICESat L2 Global Antarctic and Greenland Ice Sheet Altimetry Data • GLIMS Glacier Database • Greenland 5 km DEM, Ice Thickness, and Bedrock Elevation Grids • Greenland Ice Sheet Melt Characteristics Derived from Passive Microwave Data • IceBridge Aircraft Data Sets (a large collection of data sets bridging the ICESat-1 and ICESat-2 missions) • IceBridge ATM L1B Elevation and Return Strength • Images of Antarctic Ice Shelves [from AVHRR and MODIS] • MEaSUREs Antarctic Grounding Line from Differential Satellite Radar Interferometry • MEaSUREs Greenland Ice Velocity Map from InSAR Data • MEaSUREs InSAR-Based Antarctica Velocity Map • MODIS Mosaic of Antarctica (MOA) Image Map • Program for Arctic Regional Climate Assessment (PARCA) Data • Radarsat Antarctic Mapping Project Digital Elevation Model Version 2 • RAMP AMM-1 SAR Image Mosaic of Antarctica

<p>Land Ice Ice sheet topography, ice sheet volume change, glacier change (continued)</p>	<p>PO.DAAC http://podaac.jpl.nasa.gov</p>	<ul style="list-style-type: none"> • BYU Daily Browse Images of NSCAT, QuikSCAT, and SeaWinds Sigma-0 Measurements • BYU Enhanced Resolution Images of Seasat, ERS, and NSCAT Sigma-0 Measurements • BYU Enhanced Resolution Images of SeaWinds on QuikSCAT and ADEOS-II Sigma-0 Measurements • BYU Local-Time-of-Day Browse Images of SeaWinds on QuikSCAT and ADEOS-II Sigma-0 Measurements
<p>Sea Ice Extent, concentration, motion, temperature</p>	<p>ASDC DAAC https://eosweb.larc.nasa.gov</p>	<ul style="list-style-type: none"> • First ISCCP Regional Experiment (FIRE) data sets • ISCCP D1, D2, and ICESNOW Data Products • MISR Level 1B2 Ellipsoid Data
	<p>ASF DAAC http://www.asf.alaska.edu</p>	<ul style="list-style-type: none"> • AMM-1 and MAMM SAR Image Mosaics of Antarctica 100m (RADARSAT-1) • Arctic MEaSURES sea ice dynamics products (RADARSAT-1) • ASF Data Pool of processed SAR data and images (Sentinel-1A, SMAP, Seasat, ALOS-1 PALSAR, JERS-1, RADARSAT-1, ERS-1, ERS-2, UAVSAR, AIRSAR, AirMOSS) • International Polar Year SAR Datasets
	<p>NSIDC DAAC http://nsidc.org/daac</p>	<ul style="list-style-type: none"> • AMSR-E/Aqua Daily L3 12.5 km Brightness Temperatures, Sea Ice Concentration, and Snow Depth Polar Grids • AMSR-E/Aqua Daily L3 25 km Brightness Temperatures & Sea Ice Concentration Polar Grids • AMSR-E/Aqua Daily L3 6.25 km Sea Ice Drift Polar Grids • Bootstrap Sea Ice Concentrations from Nimbus-7 SMMR and DMSP SSM/I • DMSP SSM/I Daily and Monthly Polar Gridded Sea Ice Concentrations • GLAS/ICESat L2 Sea Ice Altimetry Data • IceBridge Aircraft Data Sets (a large collection of data sets bridging the ICESat-1 and ICESat-2 missions) • IceBridge Sea Ice Freeboard, Snow Depth and Thickness • MODIS/Aqua Sea Ice Extent 5-Min L2 Swath 1km Data • MODIS/Aqua Sea Ice Extent and IST Daily L3 Global 1km & 4km EASE-Grid Data for Day and Night • MODIS/Terra Sea Ice Extent 5-Min L2 Swath 1km Data • MODIS/Terra Sea Ice Extent and IST Daily L3 Global 1km & 4km EASE-Grid Data for Day and Night • NASA Scatterometer Climate Pathfinder (SCP) Arctic and Antarctic Ice Extent from QuikSCAT, 1999-2004 • Near-Real-Time DMSP SSM/I-SSMIS Daily Polar Gridded Sea Ice Concentrations • Near-Real-Time SSM/I-SSMIS EASE-Grid Daily Global Ice Concentration and Snow Extent • Polar Pathfinder Daily 25 km EASE-Grid Sea Ice Motion Vectors • Sea Ice Concentrations from Nimbus-7 SMMR and DMSP SSM/I Passive Microwave Data • Sea Ice Trends and Climatologies from SMMR and SSM/I • When the Weather is Uggianaqtug: Inuit Observations of Environmental Change
	<p>PO.DAAC http://podaac.jpl.nasa.gov</p>	<ul style="list-style-type: none"> • BYU Daily Browse Images of NSCAT, QuikSCAT, and SeaWinds Sigma-0 Measurements • BYU Enhanced Resolution Images of Seasat, ERS, and NSCAT Sigma-0 Measurements • BYU Enhanced Resolution Images of SeaWinds on QuikSCAT and ADEOS-II Sigma-0 Measurements • BYU Local-Time-of-Day Browse Images of SeaWinds on QuikSCAT and ADEOS-II Sigma-0 Measurements • SeaWinds on QuikSCAT Arctic Sea Ice Age Classification (BYU/SCP)
<p>Snow Cover Extent, water, equivalent, depth</p>	<p>ASDC DAAC https://eosweb.larc.nasa.gov</p>	<ul style="list-style-type: none"> • ISCCP D1, D2, and ICESNOW data products • MISR Level 1B2 Ellipsoid Data and Level 1B2 Terrain Data
	<p>ASF DAAC http://www.asf.alaska.edu</p>	<ul style="list-style-type: none"> • Global snow cover time series animation (MEaSURES Wetlands Extent and Inundated Wetlands Time Series)
	<p>NSIDC DAAC http://nsidc.org/daac</p>	<ul style="list-style-type: none"> • AMSR-E/Aqua Daily, 5-day, and Monthly L3 Global Snow Water Equivalent EASE-Grids • CLPX-Airborne: Airborne GPS Bistatic Radar • CLPX-Ground: Snow Measurements Data • CLPX-Satellite: MODIS Radiances, Reflectances, Snow Cover and Related Grids • Global EASE-Grid 8-day Blended SSM/I and MODIS Snow Cover Data • Global Monthly EASE-Grid Snow Water Equivalent (SWE) Climatology • Historical Soviet Daily Snow Depth Version 2 (HSDSD) • IceBridge Accumulation Radar L1B Geolocated Radar Echo Strength Profiles • IceBridge Sea Ice Freeboard, Snow Depth and Thickness • IceBridge Snow Radar L1B Geolocated Radar Echo Strength Profiles • IMS Daily Northern Hemisphere Snow and Ice Analysis at 4 km and 24 km Resolution • MODIS/Aqua L3 Snow Cover Daily, 8-day, and Monthly Data • MODIS/Aqua Snow Cover 5-Min L2 Swath 500m • MODIS/Terra L3 Snow Cover Daily, 8-day, and Monthly Data • MODIS/Terra Snow Cover 5-Min L2 Swath 500m • Near-Real-Time SSM/I-SSMIS EASE-Grid Daily Global Ice Concentration and Snow Extent • Nimbus-7 SMMR Derived Monthly Global Snow Cover and Snow Depth • Northern Hemisphere EASE-Grid Weekly Snow Cover and Sea Ice Extent Version 3

Snow Cover Extent, water, equivalent, depth (continued)	NSIDC DAAC http://nsidc.org/daac (continued)	<ul style="list-style-type: none"> • Program for Arctic Regional Climate Assessment (PARCA) Data Sets • When the Weather is Uggianaqtuq: Inuit Observations of Environmental Change
	ORNL DAAC http://daac.ornl.gov	<ul style="list-style-type: none"> • BOREAS RSS-08 Snow Maps Derived from Landsat TM Imagery • ISLSCP II Northern Hemisphere Monthly Snow Cover Extent

ASDC DAAC Atmospheric Science Data Center DAAC (ASDC DAAC) at NASA Langley Research Center

ASF DAAC Alaska Satellite Facility DAAC

CDDIS Crustal Dynamics Data Information System

LP DAAC Land Processes DAAC

NSIDC DAAC National Snow and Ice Data Center DAAC

ORNL DAAC Oak Ridge National Laboratory DAAC

PO.DAAC Physical Oceanography DAAC

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