



## EARTH SYSTEM SCIENCE

## Data and Services

## OCEAN Data Set Reference Sheet

December 2009

Physical Properties	Data Center	<b>Selected Data Sets and Data Collections</b> <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: <a href="http://nasadaacs.eos.nasa.gov">http://nasadaacs.eos.nasa.gov</a></i>
<b>Surface Temperature</b> SST	<b>LaRC ASDC</b> <a href="http://eosweb.larc.nasa.gov">http://eosweb.larc.nasa.gov</a>	<ul style="list-style-type: none"> <li>• First ISCCP Regional Experiment (FIRE) data sets</li> </ul>
	<b>GES DISC</b> <a href="http://disc.sci.gsfc.nasa.gov">http://disc.sci.gsfc.nasa.gov</a>	<ul style="list-style-type: none"> <li>• Ocean Color Radiometry Visualization and Analysis, through Giovanni tool</li> </ul>
	<b>GHRC DAAC</b> <a href="http://ghrc.nsstc.nasa.gov">http://ghrc.nsstc.nasa.gov</a>	<ul style="list-style-type: none"> <li>• TRMM Microwave Imager (TMI) Wentz Ocean Products (SST under all cloud conditions, plus surface wind speed and other atmospheric parameters)</li> <li>• Advanced Microwave Sounding Unit-A (AMSU-A) Swath from NOAA-15, NOAA-16, NOAA-17</li> </ul>
	<b>NSIDC DAAC</b> <a href="http://nsidc.org/daac">http://nsidc.org/daac</a>	<ul style="list-style-type: none"> <li>• AMSR-E/Aqua Daily, Weekly, and Monthly L3 Global Ascending/Descending .25x.25 deg Ocean Grids</li> <li>• AMSR-E/Aqua L2B Global Swath Ocean Products derived from Wentz Algorithm</li> </ul>
	<b>OceanColor Web</b> <a href="http://oceancolor.gsfc.nasa.gov/">http://oceancolor.gsfc.nasa.gov/</a>	<ul style="list-style-type: none"> <li>• MODIS/Terra and MODIS/Aqua Level-2 Standard SST Product</li> <li>• MODIS/Terra and MODIS/Aqua Level-3 Binned SST Products [daily, 8-day, monthly, monthly climatology, seasonal, seasonal climatology, and yearly files]</li> <li>• MODIS/Terra and MODIS/Aqua Level-3 Standard Mapped SST Products [daily, 8-day, monthly, monthly climatology, seasonal, seasonal climatology, and yearly files]</li> </ul>
<b>Ocean Surface Topography</b> Height, waves, sea level, tide models	<b>LaRC ASDC</b> <a href="http://eosweb.larc.nasa.gov">http://eosweb.larc.nasa.gov</a>	<ul style="list-style-type: none"> <li>• First ISCCP Regional Experiment (FIRE) data sets</li> </ul>
	<b>NSIDC DAAC</b> <a href="http://nsidc.org/daac">http://nsidc.org/daac</a>	<ul style="list-style-type: none"> <li>• GLAS/ICESat L2 Global Ocean Altimetry Data</li> </ul>
	<b>PO.DAAC</b> <a href="http://podaac.jpl.nasa.gov">http://podaac.jpl.nasa.gov</a>	<ul style="list-style-type: none"> <li>• Jason-1 Sea Surface Height Anomaly Products (Along-Track and Along-Track Gridded)</li> <li>• Jason-1 OSDR (Operation Sensor Data Record)</li> <li>• Jason-1 IGDR (Interim Geophysical Data Record)</li> <li>• Jason-1 Geophysical Data Record (GDR)</li> <li>• TOPEX/POSEIDON Sea Surface Height Anomaly Products (Along-Track and Along-Track Gridded)</li> <li>• TOPEX/POSEIDON Altimeter Merged Geophysical Data Record (MGDR) Generation B</li> <li>• Monthly Steric Sea Level from Jason-1 and GRACE</li> <li>• GRACE Dynamic Ocean Topography</li> <li>• OSTM/Jason-2 Near Real Time SSHA</li> </ul>
<b>Ocean Circulation</b>	<b>PO.DAAC</b> <a href="http://podaac.jpl.nasa.gov">http://podaac.jpl.nasa.gov</a>	<ul style="list-style-type: none"> <li>• OSCAR - Ocean Surface Current</li> <li>• ECCO2 - Ocean Circulation and Climate</li> </ul>

<b>Phytoplankton &amp; Dissolved Organic Matter</b>	<b>OceanColor Web</b> <a href="http://oceancolor.gsfc.nasa.gov/">http://oceancolor.gsfc.nasa.gov/</a>	<ul style="list-style-type: none"> <li>• MODIS/Aqua Level-2 Standard Ocean Color Product [normalized water-leaving radiances at 6 visible wavelengths, chlorophyll-a concentration, diffuse attenuation coefficient plus parameters related to aerosol corrections]</li> <li>• SeaWiFS Level-2 Standard Ocean Color Product [remote-sensing reflectances, particulate inorganic carbon (PIC), particulate organic carbon (POC)]</li> <li>• OCTS Level-2 Standard Ocean Color Product [same geophysical parameter set]</li> <li>• CZCS Level-2 Standard Ocean Color Product [same geophysical parameter set, with 4 visible wavelengths]</li> <li>• MODIS/Aqua, SeaWiFS, OCTS, and CZCS Level-3 Binned Ocean Color Products [All Level-2 parameters in daily, 8-day, monthly, monthly climatology, seasonal, and yearly products, plus seasonal climatology for MODIS/Aqua]</li> <li>• MODIS/Aqua, SeaWiFS, OCTS, and CZCS Level-3 Standard Mapped Image Ocean Color Products [Chlorophyll-a, the normalized water-leaving radiance closest to 550 nm for each instrument, diffuse attenuation coefficient (except for CZCS), aerosol optical depth, and angstrom coefficient, separately available for all temporal resolutions corresponding to the Level-3 Binned Products, plus 32-day rolling products for MODIS/Aqua and SeaWiFS]</li> <li>• MODIS/Terra Level-3 Ocean Color Products [A limited set starting from January 2007 of Level-3 Binned and Mapped Image Products]</li> <li>• SeaWiFS Level-3 PAR Binned and Mapped Image Products [Photosynthetically Active Radiation reaching the ocean surface, available in daily, 8-day, monthly, seasonal, and yearly files]</li> <li>• MODIS/Aqua Merged Chlorophyll (Combined MODIS-SeaWiFS data daily, 8-day, monthly, seasonal, and yearly products, plus a rolling 32-day composite)</li> </ul>
	<b>GES DISC</b> <a href="http://disc.sci.gsfc.nasa.gov">http://disc.sci.gsfc.nasa.gov</a>	<ul style="list-style-type: none"> <li>• Ocean Color Radiometry Visualization and Analysis, through Giovanni tool</li> </ul>
<b>Surface Wind Fields</b>	<b>LaRC ASDC</b> <a href="http://eosweb.larc.nasa.gov">http://eosweb.larc.nasa.gov</a>	<ul style="list-style-type: none"> <li>• First ISCCP Regional Experiment (FIRE) data sets</li> <li>• Surface meteorology and Solar Energy (SSE) data set</li> </ul>
	<b>GHRC DAAC</b> <a href="http://ghrc.nsstc.nasa.gov">http://ghrc.nsstc.nasa.gov</a>	<ul style="list-style-type: none"> <li>• MSFC SSM/I Tb and Product Grids from DMSP F13, F14, and F15</li> <li>• MSFC SSM/I Tb and Product Swaths from DMSP F13, F14, and F15</li> <li>• TRMM Microwave Imager (TMI) Wentz Ocean Products (with other atmospheric parameters plus SST under all cloud conditions)</li> </ul>
	<b>NSIDC DAAC</b> <a href="http://nsidc.org/daac">http://nsidc.org/daac</a>	<ul style="list-style-type: none"> <li>• AMSR-E/Aqua Daily, Weekly, and Monthly L3 Global Ascending/Descending .25x.25 deg Ocean Grids</li> <li>• AMSR-E/Aqua L2B Global Swath Ocean Products derived from Wentz Algorithm</li> </ul>
	<b>PO.DAAC</b> <a href="http://podaac.jpl.nasa.gov">http://podaac.jpl.nasa.gov</a>	<ul style="list-style-type: none"> <li>• BYU Daily Browse Images of NSCAT Sigma-0 Measurements</li> <li>• BYU Daily Browse Images of QuikSCAT Sigma-0 Measurements</li> <li>• BYU Daily Browse Images of SeaWinds Sigma-0 Measurements</li> <li>• SeaWinds on QuikSCAT Level 2B and Level 3 Ocean Wind Vectors</li> <li>• SeaWinds on ADEOS-II Level 2B and Level 3 Ocean Wind Vectors</li> <li>• SeaWinds on ADEOS-II Level 2B and Level 3 Winds with AMSR Corrections</li> <li>• SeaWinds on ADEOS-II Level 2B and Level 3 Winds with AMSR</li> <li>• NSCAT Science Product, Levels 1.7, 2, 3</li> <li>• NSCAT Global 25km Sigma-0 and Ocean Winds</li> <li>• Seasat Scatterometer Products</li> <li>• SSM/I Derived Global Ocean Surface Wind Components</li> <li>• Cross-Calibrated Multi-Platform (CCMP) Ocean Surface Wind Vector</li> <li>• Nimbus-7 SMMR Ocean Wind Speed</li> <li>• Cross-Calibrated Multi-Platform (CCMP) Ocean Surface Wind Velocity Product</li> </ul>
<b>Multi-Parameter Data Collections</b>	<b>LaRC ASDC</b> <a href="http://eosweb.larc.nasa.gov">http://eosweb.larc.nasa.gov</a>	<ul style="list-style-type: none"> <li>• First ISCCP Regional Experiment (FIRE) data sets</li> <li>• CLAMS data sets</li> <li>• Global Tropospheric Experiment (GTE) data sets</li> </ul>
	<b>GHRC DAAC</b> <a href="http://ghrc.nsstc.nasa.gov">http://ghrc.nsstc.nasa.gov</a>	<ul style="list-style-type: none"> <li>• TRMM Microwave Imager (TMI) Wentz Ocean Products (Cloud liquid water, atmospheric water vapor, precipitation rate, wind speeds, and SSTs)</li> <li>• Advanced Microwave Sounding Unit-A (AMSU-A) Swath from NOAA-15, NOAA-16, NOAA-17</li> </ul>
	<b>NSIDC DAAC</b> <a href="http://nsidc.org/daac">http://nsidc.org/daac</a>	<ul style="list-style-type: none"> <li>• AMSR-E/Aqua Daily, Weekly, and Monthly L3 Global Ascending/Descending .25x.25 deg Ocean Grids</li> <li>• AMSR-E/Aqua L2B Global Swath Ocean Products derived from Wentz Algorithm</li> <li>• GLAS/ICESat L2 Global Ocean Altimetry Data</li> </ul>
<b>Gravity Gravity Field Models, Measurements</b>	<b>CDDIS</b> <a href="http://cddis.gsfc.nasa.gov">http://cddis.gsfc.nasa.gov</a>	<ul style="list-style-type: none"> <li>• 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</li> <li>• Station positions and velocities from GNSS, SLR, VLBI and DORIS ground networks</li> <li>• 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.</li> </ul>
	<b>PO.DAAC</b> <a href="http://podaac.jpl.nasa.gov">http://podaac.jpl.nasa.gov</a>	<ul style="list-style-type: none"> <li>• GRACE Level 2 Monthly Gravity Field Estimates</li> <li>• Surface Mass Density Changes from GRACE (monthly mass grids of water equivalent thickness)</li> </ul>

<b>Heat Flux</b>	<b>LaRC ASDC</b> http://eosweb.larc.nasa.gov	<ul style="list-style-type: none"> <li>• First ISCCP Regional Experiment (FIRE) data sets</li> </ul>
	<b>PO.DAAC</b> http://podaac.jpl.nasa.gov	<ul style="list-style-type: none"> <li>• SMMR, GOES-W VISSR Tropical Pacific Surface Thermal Forcing Parameters</li> <li>• SSM/I Derived Global Heat and Momentum Fluxes</li> </ul>
<b>Sea Ice</b> See also the "Cryosphere Data Set Reference Sheet"	<b>ASF SDC</b> http://www.asf.alaska.edu	<ul style="list-style-type: none"> <li>• RADARSAT-1, ERS-1, ERS-2, JERS-1 and PALSAR SAR images</li> <li>• ERS-1 Ice Motion Vectors</li> <li>• RGPS Ice Motion and Thickness</li> </ul>
	<b>LaRC ASDC</b> http://eosweb.larc.nasa.gov	<ul style="list-style-type: none"> <li>• International Satellite Cloud Climatology Project (ISCCP) D1, D2, and ICESNOW data products</li> <li>• Multi-angle Imaging SpectroRadiometer (MISR) Level 1B2 Ellipsoid Data</li> <li>• First ISCCP Regional Experiment (FIRE) data sets</li> </ul>
	<b>NSIDC DAAC</b> http://nsidc.org/daac	<ul style="list-style-type: none"> <li>• Bootstrap Sea Ice Concentrations from Nimbus-7 SMMR and DMSP SSM/I</li> <li>• Sea Ice Concentrations from Nimbus-7 SMMR and DMSP SSM/I Passive Microwave Data</li> <li>• DMSP SSM/I Daily and Monthly Polar Gridded Sea Ice Concentrations</li> <li>• Near Real-Time SSM/I EASE-Grid Daily Global Ice Concentration and Snow Extent</li> <li>• Near Real-Time DMSP SSM/I Daily Polar Gridded Sea Ice Concentrations</li> <li>• Sea Ice Trends and Climatologies from SMMR and SSM/I</li> <li>• AVHRR Polar Pathfinder Twice-Daily 5, and 25 km EASE-Grid Composites</li> <li>• GLAS/ICESat L2 Sea Ice Altimetry Data</li> <li>• AMSR-E/Aqua Daily L3 12.5 km Brightness Temperatures, Sea Ice Concentration, and Snow Depth Polar Grids</li> <li>• AMSR-E/Aqua Daily L3 25 km Brightness Temperatures &amp; Sea Ice Concentration Polar Grids</li> <li>• Polar Pathfinder Daily 25 km EASE-Grid Sea Ice Motion Vectors</li> <li>• Snow Melt Onset Over Arctic Sea Ice from SMMR and SSM/I Brightness Temperatures</li> <li>• MODIS/Terra Sea Ice Extent 5-Min L2 Swath 1km Data</li> <li>• MODIS/Aqua Sea Ice Extent 5-Min L2 Swath 1km Data</li> <li>• MODIS/Terra Sea Ice Extent and IST Daily L3 Global 1km &amp; 4km EASE-Grid Data for Day and Night</li> <li>• MODIS/Aqua Sea Ice Extent and IST Daily L3 Global 1km &amp; 4km EASE-Grid Data for Day and Night</li> </ul>
	<b>PO.DAAC</b> http://podaac.jpl.nasa.gov	<ul style="list-style-type: none"> <li>• BYU Daily Browse Images of NSCAT Sigma-0 Measurements</li> <li>• BYU Daily Browse Images of QuikSCAT Sigma-0 Measurements</li> <li>• BYU Daily Browse Images of SeaWinds Sigma-0 Measurements</li> <li>• BYU Enhanced Resolution Images of Seasat Sigma-0 Measurements</li> <li>• BYU Enhanced Resolution Images of ERS Sigma-0 Measurements</li> <li>• BYU Enhanced Resolution Images of NSCAT Sigma-0 Measurements</li> </ul>
<b>Atmospheric Moisture (Oceanic Only)</b> See also the "Atmosphere Data Set Reference Sheet"	<b>LaRC ASDC</b> http://eosweb.larc.nasa.gov	<ul style="list-style-type: none"> <li>• First ISCCP Regional Experiment (FIRE) data sets</li> <li>• Chesapeake Lighthouse and Aircraft Measurements for Satellites (CLAMS) (CLAMS_CERES_CHESLIGHT_SONDE)</li> <li>• NASA Water Vapor Project (NVAP) data sets</li> </ul>
	<b>GHRC DAAC</b> http://ghrc.nsstc.nasa.gov	<ul style="list-style-type: none"> <li>• MSFC SSM/I Tb and Product Grids from DMSP F13, F14, and F15</li> <li>• MSFC SSM/I Tb and Product Swaths from DMSP F13, F14, and F15</li> </ul>
	<b>NSIDC DAAC</b> http://nsidc.org/daac	<ul style="list-style-type: none"> <li>• AMSR-E/Aqua Daily, Weekly, and Monthly L3 Global Ascending/Descending .25x.25 deg Ocean Grids</li> <li>• AMSR-E/Aqua L2B Global Swath Ocean Products derived from Wentz Algorithm</li> </ul>
	<b>PO.DAAC</b> http://podaac.jpl.nasa.gov	<ul style="list-style-type: none"> <li>• SSM/I Pathfinder Atmospheric Moisture Level 2 and Level 3</li> <li>• Nimbus-7 SMMR Water Vapor and Columnar Liquid Water</li> </ul>

**LaRC ASDC** Langley Research Center (LaRC) Atmospheric Science Data Center (ASDC)

**ASF SDC** Alaska Satellite Facility (ASF) Synthetic Aperture Radar Data Center (SDC)

**CDDIS** Crustal Dynamics Data Information System

**GES DISC** Goddard Space Flight Center (GSFC) Earth Sciences Data and Information Services Center (DISC)

**NSIDC DAAC** National Snow and Ice Data Center DAAC

**OceanColor Web** Ocean Biology Processing Group

**PO.DAAC** Physical Oceanography DAAC

**GHRC DAAC** Global Hydrology Resource Center

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