



## EARTH SYSTEM SCIENCE

## Data and Services

## OCEAN Data Set Reference Sheet

September 2014

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="https://earthdata.nasa.gov">https://earthdata.nasa.gov</a></i>
<b>Gravity</b> <b>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>• 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> <li>• Station positions and velocities from GNSS, SLR, VLBI and DORIS ground networks</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> <a href="https://eosweb.larc.nasa.gov">https://eosweb.larc.nasa.gov</a>	<ul style="list-style-type: none"> <li>• First ISCCP Regional Experiment (FIRE) data sets</li> </ul>
<b>Multi-Parameter Data Collections</b>	<b>GHRC DAAC</b> <a href="http://ghrc.nsstc.nasa.gov">http://ghrc.nsstc.nasa.gov</a>	<ul style="list-style-type: none"> <li>• Advanced Microwave Sounding Unit-A (AMSU-A) Swath from NOAA-15, NOAA-16, NOAA-17</li> <li>• RSS SSMI/SSMIS Ocean Product Grids Daily, 3-Day, Weekly, and Monthly netCDF from DMSP F8, F10, F11, F13, F14, F15, and F17</li> <li>• TRMM Microwave Imager (TMI) Wentz Ocean Products (Cloud liquid water, atmospheric water vapor, precipitation rate, wind speeds, and SSTs)</li> </ul>
	<b>LaRC ASDC</b> <a href="https://eosweb.larc.nasa.gov">https://eosweb.larc.nasa.gov</a>	<ul style="list-style-type: none"> <li>• CLAMS data sets</li> <li>• First ISCCP Regional Experiment (FIRE) data sets</li> <li>• Global Tropospheric Experiment (GTE) 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>• AMSR-E/Aqua Daily, Weekly, and Monthly L3 Global Ascending/Descending .25 x .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>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 (1 degree and 1/3 degree spatial resolution)</li> </ul>
<b>Ocean Surface Topography</b> Height, waves, sea level, tide models	<b>LaRC ASDC</b> <a href="https://eosweb.larc.nasa.gov">https://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>• Global Mean Sea Level Trend from Integrated Multi-Mission Ocean Altimeters TOPEX/Poseidon Jason-1 and OSTM/Jason-2</li> <li>• GRACE Dynamic Ocean Topography</li> <li>• Integrated Multi-Mission Ocean Altimeter Data for Climate Research</li> <li>• Jason-1 Geophysical Data Record (GDR)</li> <li>• Jason-1 Sea Surface Height Anomaly Products</li> <li>• OSTM/Jason-2 Near Real Time SSHA</li> <li>• Reconstructed Sea Level</li> <li>• SARAL NRT Value-added Operational GDR SSHA</li> <li>• TOPEX/POSEIDON Altimeter Merged Geophysical Data Record (MGDR) Generation B</li> <li>• TOPEX/POSEIDON Sea Surface Height Anomaly Products</li> </ul>
<b>Phytoplankton &amp; Dissolved Organic Matter</b>	<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>• 8-day Data Product Visualization, NOBM Assimilated Monthly and Daily Global Data, through Giovanni tool</li> <li>• Ocean Color Radiometry Visualization and Analysis, through Giovanni tool</li> </ul>

<p><b>Phytoplankton &amp; Dissolved Organic Matter</b> (continued)</p>	<p><b>OceanColor Web</b> <a href="http://oceancolor.gsfc.nasa.gov">http://oceancolor.gsfc.nasa.gov</a></p>	<ul style="list-style-type: none"> <li>• CZCS Level-2 Standard Ocean Color Product [same geophysical parameter set, with 4 visible wavelengths]</li> <li>• MODIS/Aqua Level-2 Standard Ocean Color Product [normalized water-leaving radiances at 10 visible wavelengths, chlorophyll-a concentration, diffuse attenuation coefficient plus parameters related to aerosol corrections]</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> <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>• OCTS Level-2 Standard Ocean Color Product [same geophysical parameter set]</li> <li>• SeaWiFS Level-2 Standard Ocean Color Product [remote-sensing reflectances, particulate inorganic carbon (PIC), particulate organic carbon (POC)]</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> </ul>
<p><b>Precipitable Water</b></p>	<p><b>GHRC DAAC</b> <a href="http://ghrc.nsstc.nasa.gov">http://ghrc.nsstc.nasa.gov</a></p>	<ul style="list-style-type: none"> <li>• RSS Monthly 1-deg Microwave Total Precipitable Water netCDF</li> </ul>
<p><b>Salinity</b> Level 2 as well as level 3 mapped daily, 7 day, and monthly files. Also Wind Speed from Scatterometer</p>	<p><b>PO.DAAC</b> <a href="http://podaac.jpl.nasa.gov">http://podaac.jpl.nasa.gov</a></p>	<p><b>Sea Surface Salinity (Global Ocean)</b></p> <ul style="list-style-type: none"> <li>• Aquarius Level 2 Sea Surface Salinity and Wind Speed</li> <li>• Aquarius Level 3 Sea Surface Salinity &amp; SST-adjusted Sea Surface Salinity 7Day Mapped</li> <li>• Aquarius Level 3 Sea Surface Salinity &amp; SST-adjusted Sea Surface Salinity Annual Mapped</li> <li>• Aquarius Level 3 Sea Surface Salinity &amp; SST-adjusted Sea Surface Salinity Daily Mapped</li> <li>• Aquarius Level 3 Sea Surface Salinity &amp; SST-adjusted Sea Surface Salinity Monthly Mapped</li> <li>• Aquarius Level 3 Sea Surface Salinity &amp; SST-adjusted Sea Surface Salinity Seasonally Mapped</li> <li>• Aquarius Level 3 Wind Speed 7 Day Mapped</li> <li>• Aquarius Level 3 Wind Speed Annual Mapped</li> <li>• Aquarius Level 3 Wind Speed Daily Mapped</li> <li>• Aquarius Level 3 Wind Speed Monthly Mapped</li> <li>• Aquarius Level 3 Wind Speed Seasonally Mapped</li> <li>• CAP Level 2 Sea Surface Salinity and Wind Speed</li> <li>• CAP Level 3 Sea Surface Salinity &amp; rain-corrected Sea Surface Salinity Monthly Mapped</li> <li>• CAP Level 3 Sea Surface Salinity &amp; rain-corrected Sea Surface Salinity rolling-7 Day Mapped</li> <li>• CAP Level 3 Wind Speed rolling 7-Day Mapped</li> <li>• CAP Level 3 Wind Speed rolling Monthly Mapped</li> </ul>
<p><b>Sea Ice</b> See also the "Cryosphere Data Set Reference Sheet"</p>	<p><b>ASF SAR DAAC</b> <a href="http://www.asf.alaska.edu">http://www.asf.alaska.edu</a></p>	<ul style="list-style-type: none"> <li>• AMM-1 and MAMM SAR Image Mosaics of Antarctica 100m (RADARSAT-1)</li> <li>• Arctic MEaSURES sea ice dynamics products (RADARSAT-1)</li> <li>• ASF Data Pool of processed SAR data and images (Seasat, PALSAR, JERS-1, RADARSAT-1, ERS-1, ERS-2, UAVSAR, AIRSAR, AirMOSS)</li> <li>• International Polar Year SAR Datasets</li> </ul>
	<p><b>LaRC ASDC</b> <a href="https://eosweb.larc.nasa.gov">https://eosweb.larc.nasa.gov</a></p>	<ul style="list-style-type: none"> <li>• First ISCCP Regional Experiment (FIRE) data sets</li> <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> </ul>
	<p><b>NSIDC DAAC</b> <a href="http://nsidc.org/daac">http://nsidc.org/daac</a></p>	<ul style="list-style-type: none"> <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>• AMSR-E/Aqua Daily L3 6.25 km Sea Ice Drift Polar Grids</li> <li>• Bootstrap Sea Ice Concentrations from Nimbus-7 SMMR and DMSP SSM/I</li> <li>• DMSP SSM/I Daily and Monthly Polar Gridded Sea Ice Concentrations</li> <li>• GLAS/ICESat L2 Sea Ice Altimetry Data</li> <li>• IceBridge Aircraft Data Sets (a large collection of data sets bridging the ICESat-1 and ICESat-2 missions)</li> <li>• Icebridge Sea Ice Freeboard, Snow Depth and Thickness</li> <li>• MODIS/Aqua Sea Ice Extent 5-Min L2 Swath 1km Data</li> <li>• MODIS/Aqua Sea Ice Extent and IST Daily L3 Global 1km &amp; 4km EASE-Grid Data for Day and Night</li> <li>• MODIS/Terra 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>• Near Real-Time DMSP SSM/I Daily Polar Gridded Sea Ice Concentrations</li> <li>• Near Real-Time SSM/I EASE-Grid Daily Global Ice Concentration and Snow Extent</li> <li>• Polar Pathfinder Daily 25 km EASE-Grid Sea Ice Motion Vectors</li> <li>• Sea Ice Concentrations from Nimbus-7 SMMR and DMSP SSM/I Passive Microwave Data</li> <li>• Sea Ice Trends and Climatologies from SMMR and SSM/I</li> <li>• Snow Melt Onset Over Arctic Sea Ice from SMMR and SSM/I Brightness Temperatures</li> </ul>

<b>Sea Ice</b> (continued)	<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 and Local-Time-of-Day Browse Images of SeaWinds on QuikSCAT and ADEOS-II Sigma-0 Measurements</li> <li>• BYU Daily Browse Images of NSCAT Sigma-0 Measurements</li> <li>• BYU Enhanced Resolution Images of ERS, NSCAT, and Seasat Sigma-0 Measurements</li> <li>• BYU Enhanced Resolution Images of SeaWinds on QuikSCAT and ADEOS-II Sigma-0 Measurements</li> <li>• SeaWinds on QuikSCAT Arctic Sea Ice Age Classification (BYU/SCP)</li> </ul>
<b>Sea Surface Temperature</b> SST	<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>• Advanced Microwave Sounding Unit-A (AMSU-A) Swath from NOAA-15, NOAA-16, NOAA-17</li> <li>• TRMM Microwave Imager (TMI) Wentz Ocean Products (SST under all cloud conditions, plus surface wind speed and other atmospheric parameters)</li> </ul>
	<b>LaRC ASDC</b> <a href="https://eosweb.larc.nasa.gov">https://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>• AMSR-E/Aqua Daily, Weekly, and Monthly L3 Global Ascending/Descending .25 x .25 deg Ocean Grids</li> <li>• AMSR-E/Aqua L2B Global Swath Ocean Products derived from Wentz Algorithm</li> <li>• IPAB Antarctic Drifting Buoy Data</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>PO.DAAC</b> <a href="http://podaac.jpl.nasa.gov">http://podaac.jpl.nasa.gov</a>	<ul style="list-style-type: none"> <li>• AVHRR Oceans Pathfinder 4km Global SST</li> <li>• GOES L3 6km Near-Real-Time SST (NOAA/NESDIS)</li> <li>• Group for High Resolution Sea Surface Temperature (GHRSSST) L2P, L3 and L4 SST datasets from VIIRS, AMSR-E, AMSR2, MODIS, AVHRR, AATSR, TMI, GOES, SEVIRI, MTSAT-1R, MTSAT-2 and WindSat</li> <li>• MEaSUREs/GHRSSST Global 1 km Level 4 Multiscale Ultrahigh Resolution (MUR) SST</li> <li>• MODIS Aqua and Terra Global Level 3 Mapped Thermal and Mid-IR SST</li> <li>• NAVOCEANO AVHRR MCSST Level 2 9km Global Data</li> <li>• NAVOCEANO AVHRR MCSST Level 2 HRPT/LAC Data</li> <li>• NCEP Reynolds Extended Reconstructed Sea Surface Temperatures SST</li> <li>• NCEP Reynolds Optimally Interpolated SST</li> </ul>
<b>Surface Wind Fields</b>	<b>ASF SAR DAAC</b> <a href="http://www.asf.alaska.edu">http://www.asf.alaska.edu</a>	<ul style="list-style-type: none"> <li>• ASF Data Pool of processed SAR data and images (Seasat, PALSAR, JERS-1, RADARSAT-1, ERS-1, ERS-2, UAVSAR, AIRSAR, AirMOSS)</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 (with other atmospheric parameters plus SST under all cloud conditions)</li> </ul>
	<b>LaRC ASDC</b> <a href="https://eosweb.larc.nasa.gov">https://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>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 .25 x .25 deg Ocean Grids</li> <li>• AMSR-E/Aqua L2B Global Swath Ocean Products derived from Wentz Algorithm</li> <li>• Polar Pathfinder Daily 25 km EASE-Grid Sea Ice Motion Vectors</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>• Advanced Scatterometer (ASCAT) on MetOp-A and MetOp-B Level 2 Near-Real-Time Ocean Vector Winds (at 12.5 and 25 km pixel resolution)</li> <li>• AMSR-E, SSM/I, and TMI Derived Global Ocean Wind Vectors</li> <li>• BYU Daily Browse Images of NSCAT, QuikSCAT, and SeaWinds Sigma-0 Measurements</li> <li>• Cross-Calibrated Multi-Platform (CCMP) Ocean Surface Wind Vector Analyses</li> <li>• Nimbus-7 SMMR Ocean Wind Speed</li> <li>• NSCAT Global 25km Sigma-0 and Ocean Winds</li> <li>• NSCAT Science Product, Levels 1.7, 2, 3</li> <li>• Oceansat-2 Scatterometer (OSCAT) Level 2B Wind Vectors at 12.5 km resolution</li> <li>• QuikSCAT Coastal High Resolution Wind Vectors for the U.S. West Coast Region</li> <li>• Seasat Scatterometer Products</li> <li>• SeaWinds on ADEOS-II and QuikSCAT Level 2B Wind Vectors (at 12.5 and 25 km pixel resolution)</li> <li>• SeaWinds on ADEOS-II and QuikSCAT Level 3 Wind Vectors</li> <li>• WindSat Level 3 Global Ocean Wind Vectors</li> </ul>

- ASF SAR DAAC** Alaska Satellite Facility (ASF) Synthetic Aperture Radar (SAR) DAAC
- CDDIS** Crustal Dynamics Data Information System
- GES DISC** Goddard Space Flight Center (GSFC) Earth Sciences Data and Information Services Center (DISC)
- GHRC DAAC** Global Hydrology Resource Center DAAC
- LaRC ASDC** Langley Research Center (LaRC) Atmospheric Science Data Center (ASDC)
- NSIDC DAAC** National Snow and Ice Data Center DAAC
- OceanColor Web** Ocean Biology Processing Group
- PO.DAAC** Physical Oceanography DAAC

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