

## Development of the Ocean GeoPortal



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**The Ocean GeoPortal will encompass the geo-referenced portion of NMNH's 33 million marine specimens from eight of the museum's divisions (Invertebrate Zoology, Fish, Mammals, Amphibians and Reptiles, Minerals, Botany, and Paleobiology). These large data sets may be combined for display and analysis (based on fields of taxonomy, location, depth, collector, ship, expedition, etc) with environmental data sets from our partners at NOAA, in addition to any world-wide or site-specific data sets from our collaborators (NASA, USGS, Woods Hole Oceanographic Institute, Scripps, Monterey Bay Research Institute, National Geographic Society, New England Aquarium, other Smithsonian research units and other academic institutions with marine programs). We plan to provide extensive data bases for outside scientists to harvest spatial data through the GIS Portal Toolkit (GPTK) software. Through customization of the GeoPortal, we also plan to provide educational materials developed by collaborators, including static and interactive maps for K-12 and the general public to access and learn, as well as incorporating on-line lessons and virtual field trips into a customized version of GPTK. Below are a number of links to marine-related mapping, GIS and FTP websites. If you know of any FTP or websites to add, please let me know.**

Note: T\* = Marine-Based spatial tools

**U.S. Government agencies:**

**Geospatial One Stop – Oceans and Coasts**

[http://gos2.geodata.gov/wps/portal/gos/kcxml/04\\_Sj9SPykssy0xPLMnMz0vM0Y\\_QjzKL9443cnIFSYGyf6kehCFhhCJpY-EDETR1d9X4\\_83FR9b\\_0A\\_YLc0NCIckdFAOiYKYU!/delta/base64xml/L3dJdyEvUUd3QndNQSEvNEIVRS82X0tfNEFF](http://gos2.geodata.gov/wps/portal/gos/kcxml/04_Sj9SPykssy0xPLMnMz0vM0Y_QjzKL9443cnIFSYGyf6kehCFhhCJpY-EDETR1d9X4_83FR9b_0A_YLc0NCIckdFAOiYKYU!/delta/base64xml/L3dJdyEvUUd3QndNQSEvNEIVRS82X0tfNEFF)

**NOAA:**

**NOAA Central Library Wind & Sea**

<http://www.lib.noaa.gov/docs/wind/windandsea.html>

**NOAA NOS Data Explorer**

<http://oceanservice.noaa.gov/dataexplorer/>

**NOAA Ocean Explorer**

<http://oceanexplorer.noaa.gov/>

**NOAA Ocean Explorer Cruises: Interactive Multi-date Multi-theme Atlas**

[http://www.ncddc.noaa.gov/website/google\\_maps/mapsOE.htm](http://www.ncddc.noaa.gov/website/google_maps/mapsOE.htm)

**NOAA Ocean Exploration Digital Atlas (Arctic, Gulf of Mexico, N. Atlantic, South Atlantic Bight of the N. Atlantic)**

<http://www.ncddc.noaa.gov/ocean-exploration/digitalatlas>

**NOAA Ocean Explorer West Coast Observations**

[http://www.ncddc.noaa.gov/website/NMSP\\_WCO/viewer.htm](http://www.ncddc.noaa.gov/website/NMSP_WCO/viewer.htm)

**NOAA SIMoN Interactive Maps – California Coast Marine Habitat Viewer**

[http://www.ncddc.noaa.gov/website/NMSP\\_MBNMS\\_Habitat/viewer.htm](http://www.ncddc.noaa.gov/website/NMSP_MBNMS_Habitat/viewer.htm)

**NOAA Ocean Portal**

<http://www.noaa.gov/ocean.html>

**NOAA Northern Gulf of Mexico Imagery & Information**

<http://www.csc.noaa.gov/products/gulfmex/startup.htm>

**NOAA NCDDC NESDIS Interactive Map Services**

<http://www.ncddc.noaa.gov/ncddc/maps>

**NOAA Alaska Fisheries Data and Maps**

<http://www.fakr.noaa.gov/maps/default.htm>

**NOAA Benthic Habitat Spatial Data – U.S. mainland**

<http://www.csc.noaa.gov/benthic/data/data.htm>

**NOAA Benthic Habitat Mapping of Hawaii**

[http://ccma.nos.noaa.gov/ecosystems/coralreef/main8hi\\_mapping.html](http://ccma.nos.noaa.gov/ecosystems/coralreef/main8hi_mapping.html)

**NOAA Biochemical Atlas of the Sea of Okhotsk**

[http://www.nodc.noaa.gov/OC5/okhotsk/ok\\_index.html](http://www.nodc.noaa.gov/OC5/okhotsk/ok_index.html)

**NOAA Biogeographic Assessment of the Channel Islands National Marine Sanctuary – spatial data, grids, and models**

<http://ccma.nos.noaa.gov/products/biogeography/cinms/data.html>

**NOAA Biological Atlas of the Arctic Seas 2000**

<http://www.nodc.noaa.gov/OC5/BARPLANK/start.html>

**NOAA Shallow Water Benthic Habitats of the U.S. Pacific Territories**

[http://ccma.nos.noaa.gov/products/biogeography/us\\_pac\\_terr/index.htm](http://ccma.nos.noaa.gov/products/biogeography/us_pac_terr/index.htm)

NOAA Benthic Habitats of Puerto Rico and the Virgin Islands  
<http://ccma.nos.noaa.gov/products/biogeography/benthic/welcome.html>

NOAA Habitat Digitizer Extension for ArcGIS  
T\* <http://www.ccma.nos.noaa.gov/products/biogeography/digitizer/welcome.html>

NOAA Biological Atlas of the Arctic Seas 2000  
<http://www.nodc.noaa.gov/OC5/BARPLANK/start.html>

NOAA Climatic Atlas of the Sea of Azov 2006  
<http://www.nodc.noaa.gov/OC5/AZOV2006/start.html>

NOAA Climatic Atlas of the Barents Sea 1998  
<http://www.nodc.noaa.gov/OC5/barsea/barindex1.html>

NOAA Coastal Center for Monitoring and Assessment (CCMA)-Biogeography  
<http://ccma.nos.noaa.gov/products/biogeography/welcome.html>

NOAA CCMA Caribbean Coral Reef Ecosystem Monitoring  
[http://www.ccma.nos.noaa.gov/ecosystems/coralreef/reef\\_fish.html](http://www.ccma.nos.noaa.gov/ecosystems/coralreef/reef_fish.html)

NOAA CCMA Estuarine Living Marine Resources – databases & imagery  
<http://ccma.nos.noaa.gov/ecosystems/estuaries/elmr.html>

NOAA Coastal Risk Atlas  
<http://www.ncddc.noaa.gov/cra/gislibrary/>

NOAA CCMA Seafloor Characterization of the US Caribbean  
[http://ccma.nos.noaa.gov/products/biogeography/usvi\\_nps/data.html](http://ccma.nos.noaa.gov/products/biogeography/usvi_nps/data.html)

NOAA Coastal Services Benthic Habitat Mapping  
<http://www.csc.noaa.gov/benthic/data/data.htm>

NOAA Coastal Services Chesapeake Bay Oyster Larvae Tracker (CBOLT/GeoFish)  
[http://ekman.csc.noaa.gov/CBOLT\\_Input/viewer.html](http://ekman.csc.noaa.gov/CBOLT_Input/viewer.html) (tool and viewer)

NOAA Coastal Services Coastal Change Analysis Program (C-CAP)  
<http://www.csc.noaa.gov/crs/lca/ccap.html>

NOAA Coastal Services – Coastal Inundation Visualization Tool (Oregon)  
T\* [http://maps.csc.noaa.gov/CSP\\_PNW/viewer.html](http://maps.csc.noaa.gov/CSP_PNW/viewer.html)

NOAA Coastal Services Historical Shoreline Data  
<http://www.csc.noaa.gov/shoreline/data.html>

NOAA Coastal Services Hurricane Tracker  
<http://maps.csc.noaa.gov/hurricanes/viewer.html>

NOAA Coastal Services Legislative Atlas  
<http://www.csc.noaa.gov/legislativeatlas/>

NOAA Coastal Services On-Line Mapping  
<http://www.csc.noaa.gov/bins/mapping.html>

NOAA Coastal Services Nonpoint Source Pollution and Erosion Comparison Tool  
T\* <http://www.csc.noaa.gov/crs/cwq/nspect.html>

NOAA Coastal Services – Protecting Our Ports & Harbors (Oregon)  
[http://www.csc.noaa.gov/products/tsunamis/htm/cascadia/e\\_port.htm](http://www.csc.noaa.gov/products/tsunamis/htm/cascadia/e_port.htm)

NOAA Coastal Services SouthEast GEOgraphic Fishery-Independent Survey & Historical (SEAGEOFISH) Database  
<http://ekman.csc.noaa.gov/seageofish/viewer.html>

Coral Reef Information Systems  
<http://coris.noaa.gov/metadata/map-search/viewer.htm>  
[http://www8.nos.noaa.gov/bigeo\\_public/query\\_main.aspx](http://www8.nos.noaa.gov/bigeo_public/query_main.aspx)

[http://www.ccma.nos.noaa.gov/ecosystems/coralreef/reef\\_fish.html](http://www.ccma.nos.noaa.gov/ecosystems/coralreef/reef_fish.html)

<http://www.pifsc.noaa.gov/cred/>

NOAA Digital Maritime Limits and EEZ

<http://nauticalcharts.noaa.gov/csdl/mbound.htm>

NOAA El Niño Theme Page

<http://www.pmel.noaa.gov/tao/elnino/nino-home.html>

NOAA Expendable Bathythermograph Data

<http://www.aoml.noaa.gov/phod/trinanes/SEAS/>

NOAA Florida Keys National Marine Sanctuary

[http://floridakeys.noaa.gov/research\\_monitoring/map.html](http://floridakeys.noaa.gov/research_monitoring/map.html)

NOAA Global Drifter Data Assembly Center

<http://www.aoml.noaa.gov/phod/dac/dacdata.html>

NOAA General NOAA Oil Modeling Environment (GNOME)

<http://response.restoration.noaa.gov/gnome>

T\* <http://response.restoration.noaa.gov/gnometoolkit>

NOAA GODAE High Resolution Sea Surface Temperature Project

<http://ghrsst.nodc.noaa.gov/>

NOAA Gulf of Mexico Marine Debris Project

<http://gulfofmexico.marinedebris.noaa.gov/>

NOAA Harmful Algal Bloom Mapping System & Observing System

<http://www.csc.noaa.gov/crs/habf/habmaps.html>

[http://www.ncddc.noaa.gov/website/habsos\\_gom/viewer.htm](http://www.ncddc.noaa.gov/website/habsos_gom/viewer.htm)

NOAA History of the Arctic Exploration 2003

<http://www.nodc.noaa.gov/OC5/HISTORY/start.html>

NOAA Hydrothermal Vents Research Program

<http://pmel.noaa.gov/vents/data/index.html>

NOAA Large Marine Ecosystems of the World Portal (portal toolkit)

<http://www.lme.noaa.gov/Portal/>

NOAA Marine Protected Areas of the U.S.

<http://gis.mpa.gov/website/mma/viewer.htm>

NOAA Monterey Bay National Marine Sanctuary Maps

<http://montereybay.noaa.gov/intro/maps.html>

NOAA National Marine Fisheries Service GIS

<http://www.nmfs.noaa.gov/gis/>

NOAA National Marine Sanctuaries Library of GIS & Google Data

[http://sanctuaries.noaa.gov/library/imast\\_gis.html](http://sanctuaries.noaa.gov/library/imast_gis.html)

NOAA nowCOAST GIS server

<http://nowcoast.noaa.gov/>

NOAA National Climate Data Center GIS Portal

<http://gis.ncdc.noaa.gov/aimstools/gis.jsp>

NOAA Nautical Charts and Electronic Navigational Charts

<http://nauticalcharts.noaa.gov/> and

<http://ocs-spatial.ncd.noaa.gov/encdirect/viewer.htm?>

<http://nauticalcharts.noaa.gov/mcd/Raster/Index.htm>

NOAA VDatum Transformation Tool

T\* <http://nauticalcharts.noaa.gov/csdl/vdatum.htm>

NOAA Coastal Map & Charted Vector Shoreline

[http://nauticalcharts.noaa.gov/csdl/ctp/cv\\_intro.htm](http://nauticalcharts.noaa.gov/csdl/ctp/cv_intro.htm)

NOAA Automated Wreck and Obstruction Information System

<http://chartmaker.ncd.noaa.gov/hsd/awois/contus/awois.htm>

NOAA Historical Map and Chart Image Catalog

<http://historicals.ncd.noaa.gov/historical/histmap.asp>

NOAA North Pacific Ocean Theme Page

<http://www.pmel.noaa.gov/np/>

NOAA Observing System Monitoring Center

<http://osmc.noaa.gov:8180/OSMC2/OSMC/OSMCRequest.html>

NOAA Ocean and Weather Data Navigator

<http://dapper.pmel.noaa.gov/dchart/>

NOAA Ocean Surface Current Analysis – Real Time (OSCAR)

<http://www.oscar.noaa.gov/datadisplay/index.html>

NOAA Pacific Islands geographic Information System Project

<http://www.csc.noaa.gov/islandsgis/resources.html>

NOAA Environmental Sensitivity Index (ESI) Maps and Data

<http://response.restoration.noaa.gov/esi>

NOAA Pacific Marine Environmental Lab

<http://www.pmel.noaa.gov/> and <http://www.pmel.noaa.gov/np/>

NOAA PMEL OceanGIS tool

T\* <http://www.pmel.noaa.gov/vrl/OceanGIS/>

NOAA NWS Probabilistic Hurricane Storm Surge Tool

T\* <http://www.weather.gov/mdl/psurge/>

NOAA Interactive Sea Grant College Map

<http://www.seagrant.noaa.gov/colleges/index.html>

Stellar Sea Lion Protection Measures & Additional Restricted Groundfish Areas

<http://www.fakr.noaa.gov/maps/sslmapviewer.htm>

NOAA Ship Tracker

<http://shiptracker.noaa.gov/default.aspx>

NOAA Shoreline Data

<http://www.csc.noaa.gov/shoreline/digital.html>

[http://geodesy.noaa.gov/newsys\\_ims/shoreline/index.cfm](http://geodesy.noaa.gov/newsys_ims/shoreline/index.cfm)

NOAA Subtidal Habitat Mapping Project – San Francisco Bay

<http://mapping.orr.noaa.gov/website/portal/subtidal/geographicdata.html>

NOAA Tagging Of Pacific Pelagics (TOPP)

[http://las.pfeg.noaa.gov/TOPP\\_recent/index.html](http://las.pfeg.noaa.gov/TOPP_recent/index.html)

NOAA Tides and Currents

<http://tidesandcurrents.noaa.gov/>

NOAA Tropical Atmosphere Ocean Project

<http://www.pmel.noaa.gov/tao/>

NOAA Water Level Station Data by State and Territory

<http://tidesonline.nos.noaa.gov/geographic.html>

NOAA World Ocean Circulation Experiment - Global Data Resource

<http://woce.nodc.noaa.gov/wdiu/>

NOAA World Data Center for Paleoclimatology

<http://www.ncdc.noaa.gov/paleo/data.html>

NOAA World Ocean Database & World Ocean Atlas Series Map & Data Access

<http://www.nodc.noaa.gov/OC5/indprod.html>

NOAA World Ocean Database 2001 – Plankton

[http://www.nodc.noaa.gov/OC5/WOA01/plankton\\_intro.html](http://www.nodc.noaa.gov/OC5/WOA01/plankton_intro.html)

NOAA World Ocean Database 2005 – Plankton & Environmental Variables

[http://www.nodc.noaa.gov/OC5/WOD05/pr\\_wod05.html](http://www.nodc.noaa.gov/OC5/WOD05/pr_wod05.html)

NOAA World Ocean Database 2005 – Objective Analyses & Statistics

<http://www.nodc.noaa.gov/OC5/WOA05/woa05data.html>

NOAA World Ocean Database 2005 – Select & Search

<http://www.nodc.noaa.gov/OC5/SELECT/dbsearch/dbsearch.html>

NOAA Ichthyoplankton Information System

<http://access.afsc.noaa.gov/ichthyo/index.cfm>

NOAA/NMFS – Coastal Oceanic Plankton Ecology Production & Observation Database

<http://www.st.nmfs.noaa.gov/plankton>

NGDC Age of the Ocean Floor

<http://www.ngdc.noaa.gov/mgg/fliers/96mgg04.html>

NGDC Bathymetric and Fishing Maps

[http://www.ngdc.noaa.gov/mgg/bathymetry/maps/nos\\_intro.html](http://www.ngdc.noaa.gov/mgg/bathymetry/maps/nos_intro.html)

<http://map.ngdc.noaa.gov/website/mgg/fishmap/viewer.htm>

NGDC Bathymetry and Topography

<http://www.ngdc.noaa.gov/mgg/bathymetry/relief.html>

<http://www.ngdc.noaa.gov/mgg/fliers/97mgg03.html>

NGDC Coastline Extractor

<http://rimmer.ngdc.noaa.gov/mgg/coast/getcoast.html>

NGDC Great Lakes Bathymetry

<http://map.ngdc.noaa.gov/website/mgg/greatlakesbathy/viewer.htm>

NGDC Hydrographic Survey Data

[http://map.ngdc.noaa.gov/website/mgg/nos\\_hydro/viewer.htm](http://map.ngdc.noaa.gov/website/mgg/nos_hydro/viewer.htm)

NGDC Interactive Map Services

<http://www.ngdc.noaa.gov/maps/interactivemaps.html>

NGDC International Bathymetric Chart of the Arctic Ocean (IBCAO)

<http://www.ngdc.noaa.gov/mgg/bathymetry/arctic/arctic.html>

NGDC International Bathymetric Chart of the Caribbean Sea & the Gulf of Mexico

<http://www.ngdc.noaa.gov/mgg/ibcca/>

NGDC Marine & Lacustrine Geologic Samples (Curator's Index)

[http://map.ngdc.noaa.gov/website/mgg/sample\\_index/viewer.htm](http://map.ngdc.noaa.gov/website/mgg/sample_index/viewer.htm)

NGDC Marine Geology Data

<http://www.ngdc.noaa.gov/mgg/geology/geology.html>

NGDC Marine Geology and Geophysics – Images, Animations & Bathymetry

<http://www.ngdc.noaa.gov/mgg/image/>

<http://www.ngdc.noaa.gov/mgg/global/seltopo.html>

NGDC Marine Trackline Geophysics

<http://map.ngdc.noaa.gov/website/mgg/trackline/viewer.htm>

NGDC Multibeam Bathymetry, Grids and 3D Images

<http://www.ngdc.noaa.gov/mgg/bathymetry/multibeam.html>

**NGDC National Observing System Architecture (NOSA) IMS site**

<http://map.ngdc.noaa.gov/website/nosa/viewer.htm>

**NGDC Surficial Sediment Composition**

<http://map.ngdc.noaa.gov/website/mgg/deck41/viewer.htm>

**NGDC Total Sediment Thickness of the World's Oceans**

<http://www.ngdc.noaa.gov/mgg/sedthick/sedthick.html>

**NGDC Tsunami Inundation Gridding Project**

<http://www.ngdc.noaa.gov/mgg/inundation/>

**NASA:**

**AMSR-E/Aqua Sea Surface Temperature**

<http://nsidc.org/data/amsre/index.html>

**Earth Observing System Clearinghouse (ECHO)**

<http://www.echo.nasa.gov/>

**Global Change Master Directory Portal – Oceans**

<http://gcmd.nasa.gov/KeywordSearch/Keywords.do?Portal=GCMD&KeywordPath=Parameters%7COCEANS&MetadataType=0&homepg>

**and**

<http://gcmd.gsfc.nasa.gov/KeywordSearch/Keywords.do?Portal=wdc&KeywordPath=Parameters%7COCEANS&MetadataType=0&lbnode=gcmd3>

**Global Change Master Directory Portal – Global Ocean Observing System (GOOS)**

<http://gcmd.nasa.gov/KeywordSearch/Home.do?Portal=goos&MetadataType=0>

**Global Change Master Directory Portal – Gulf of Maine Ocean Data Partnership**

<http://gcmd.gsfc.nasa.gov/KeywordSearch/Keywords.do?Portal=gomodp&KeywordPath=Parameters%7COCEANS&MetadataType=0&lbnode=gcmd3>

**Global Hydrology resource Center Data Pool**

<http://datapool.nsstc.nasa.gov/>

<http://ghrc.msfc.nasa.gov/>

**Goddard Earth Science Information Center**

<http://daac.gsfc.nasa.gov/>

**Hurricane Portal**

<http://disc.sci.gsfc.nasa.gov/hurricane/>

**Jason-1 – Ocean Surface Topography from Space**

<http://jason-1.jpl.nasa.gov/science/data.html>

**JPL Our Ocean Portal**

<http://ourocean.jpl.nasa.gov/>

**Langley Atmospheric Sciences Data Center**

<http://edg.larc.nasa.gov/~imswww/imswelcome/index.html>

<http://eosweb.larc.nasa.gov>

**Measuring Ocean Winds from Space, and Polar Ice at JPL (QuikSCAT)**

<http://winds.jpl.nasa.gov>

<http://winds.jpl.nasa.gov/imagesAnim/quikscat.cfm>

<http://winds.jpl.nasa.gov/imagesAnim/index.cfm>

**Ocean Circulation projects at JPL**

<http://science.jpl.nasa.gov/projects/ECCO/>

<http://ecco2.jpl.nasa.gov/>



**Ocean Color Homepage:**

<http://oceancolor.gsfc.nasa.gov/>

**Physical Oceanography at Jet Propulsion Laboratory**

<http://podaac.jpl.nasa.gov/>

<http://poet.jpl.nasa.gov>

<http://www.sealevel.jpl.nasa.gov>

**Phytoplankton and Ocean Color on Satellite Imagery**

<http://phytoplankton.gsfc.nasa.gov/phytoimages/satellite.php>

**Polar Ice at Goddard Space Flight Center with IceSat**

<http://icesat.gsfc.nasa.gov/list.php>

**SVS Animation of 2007 North Polar Ice Cover**

<http://svs.gsfc.nasa.gov/vis/a000000/a003400/a003466/index.html>

**Remote sensing of Coral Reefs with SeaWiFS and other Data Sets**

<http://oceancolor.gsfc.nasa.gov/cgi/reefs.pl>

**Wallops Coastal Data Acquisition and Archive Center (CODAAC) with AIS, CODAR, MODIS, and OASIS data**

<http://coastal.wff.nasa.gov/>

**Wallops CODAAC Google Earth Data Browser**

[http://coastal.wff.nasa.gov/index.php?module=pagemaster&PAGE\\_user\\_op=view\\_page&PAGE\\_id=21&MMN\\_position=22:22](http://coastal.wff.nasa.gov/index.php?module=pagemaster&PAGE_user_op=view_page&PAGE_id=21&MMN_position=22:22)

**Army Corps of Engineers – Spatial Data Branch – National Coastal Data Bank**

<http://gis.sam.usace.army.mil/>

**Primary Habitat Information System – Gulf of Mexico**

<http://phins.sam.usace.army.mil/>

**Environmental Protection Agency (EPA):**

**Wetlands, Oceans and Watersheds (WOW) databases and mapping**

<http://www.epa.gov/owow/data.html>

**T\* AQUATOX – A Simulation Model for Aquatic Systems**

<http://www.epa.gov/waterscience/models/aquatox/>

**Fish and Wildlife Service (FWS) - North Pacific Seabird Colony Database**

<http://164.159.151.40/northpacificseabirds/colonies/viewer.htm>

**FWS National Wetlands Inventory – Digital Data and Mapping**

<http://wetlandsfws.er.usgs.gov/>

**Minerals Management Service (MMS):**

**Cadastral Data: National, Alaska, Atlantic, Gulf of Mexico, & Pacific regions**

<http://www.mms.gov/ld/maps.htm>

**National Geospatial-Intelligence Agency (NGA):**

**NGA Digital Nautical Charts**

<http://www.nga.mil/portal/site/dnc/>

**NGA Raster Roam**



[http://geoengine.nga.mil/geospatial/SW\\_TOOLS/NIMAMUSE/webinter/rast\\_roam.html](http://geoengine.nga.mil/geospatial/SW_TOOLS/NIMAMUSE/webinter/rast_roam.html)

National Office for Integrated and Sustained Ocean Observations

<http://www.ocean.us/>

Naval Research Lab/Stennis Space Center – Projects and Products

<http://www7300.nrlssc.navy.mil/?P=Home>

Oak Ridge National Laboratory – Global Ocean Data Analysis Project (GLODAP)

<http://cdiac.esd.ornl.gov/oceans/glodap/atlas/i09s.html>

USGS:

Bering and Chukchi Sea Bathymetry

<http://alaska.usgs.gov/science/biology/walrus/bering/bathy/chukbath.html>

<http://alaska.usgs.gov/science/biology/walrus/bering/bathy/nosbath.html>

Center Core and Sample Locations (ArcIMS & kml for Google Earth)

[http://coastalmap.marine.usgs.gov/ArcIMS/website/sedsamples/whsc\\_sed\\_archive\\_2006/viewer.htm](http://coastalmap.marine.usgs.gov/ArcIMS/website/sedsamples/whsc_sed_archive_2006/viewer.htm)

<http://woodshole.er.usgs.gov/operations/ia/samples.php>

Circumpolar Geologic Maps and Viewer of the Arctic

<http://pubs.usgs.gov/of/1997/ofr-97-470/OF97-470J/>

[http://certmapper.cr.usgs.gov/website/worldmaps/viewer.htm?Service=WorldArctic&OVMap=WorldArctic\\_overview&extent=auto](http://certmapper.cr.usgs.gov/website/worldmaps/viewer.htm?Service=WorldArctic&OVMap=WorldArctic_overview&extent=auto)

Coastal-Change and Glaciers of Antarctica

<http://pubs.usgs.gov/imap/2600/D/> ; <http://pubs.usgs.gov/imap/2600/E/>

<http://pubs.usgs.gov/imap/2600/F/> ; <http://pubs.usgs.gov/imap/2600/G/>

Coastal Classification Mapping

<http://coastal.er.usgs.gov/coastal-classification/>

Coastal and Marine Geology Program home

<http://coastalmap.marine.usgs.gov/> and <http://walrus.wr.usgs.gov/infobank/>

Coastal and Marine Geology Program internet map server

<http://coastalmap.marine.usgs.gov/regional/contusa/index.html>

Coastal Vulnerability to Sea level Rise

<http://pubs.usgs.gov/dds/dds68/htmldocs/data.htm>

East-Coast Sediment Analysis: Procedures, Database, and GIS Data

<http://woodshole.er.usgs.gov/openfile/of2005-1001/htmldocs/datacatalog.htm>

USGS/NPS/NASA Experimental Airborne Advanced Research Lidar (EAARL)

<http://lidar.cr.usgs.gov/eaarl/html/data.htm>

Multibeam Bathymetry and Backscatter Data: San Francisco

[http://wrgis.wr.usgs.gov/dds/dds-55/pacmaps/sf\\_data.htm](http://wrgis.wr.usgs.gov/dds/dds-55/pacmaps/sf_data.htm)

Nearshore Benthic Habitat GIS for the Channel Islands National Marine Sanctuary and Southern California State Fisheries Reserves

<http://pubs.usgs.gov/of/2005/1170/catalog.html>

Multibeam Bathymetry and Backscatter Data: Northeastern Channel Islands Region, Southern California

<http://pubs.usgs.gov/of/2005/1153/ci-data.html>

**Southern California Bathymetry and Backscatter Data: San Diego Margin**

[http://wrgis.wr.usgs.gov/dds/dds-55/pacmaps/sd\\_data.htm](http://wrgis.wr.usgs.gov/dds/dds-55/pacmaps/sd_data.htm)

**Multibeam Mapping of the Los Angeles, California Margin**

<http://geopubs.wr.usgs.gov/open-file/of02-162/data.html>

**Predicted Seafloor Facies of Central Santa Monica Bay, California**

<http://pubs.usgs.gov/of/2004/1081/data.html>

**Sidescan-Sonar Imagery and Surficial Geologic Interpretation of the Sea Floor off Bridgeport and Branford, Connecticut**

<http://woodshole.er.usgs.gov/openfile/of2005-1162/html/catalog.html>

[http://pubs.usgs.gov/of/2004/1003/htmldocs/data\\_catalog.htm](http://pubs.usgs.gov/of/2004/1003/htmldocs/data_catalog.htm)

**The Gulf of the Farallones: Sidescan-Sonar Imagery**

<http://pubs.usgs.gov/of/2004/1082/html/META.htm#downloadfiles>

**US EEZ GLORIA mapping program – East Coast, Gulf of Mexico, & West Coast**

<http://coastalmap.marine.usgs.gov/ArcIMS/website/USA/eastcoast/atlanticcoast/viewer.htm>

<http://coastalmap.marine.usgs.gov/ArcIMS/website/USA/GoMex/gloria/viewer.htm>

<http://pubs.usgs.gov/of/2000/of00-019/htmldocs/data.htm>

<http://coastalmap.marine.usgs.gov/ArcIMS/Website/usa/westcoast/pacificcoast/viewer.htm>

**Multibeam Mapping of Selected Areas around the Hawaiian Islands**

[http://wrgis.wr.usgs.gov/dds/dds-55/pacmaps/bi\\_data.htm](http://wrgis.wr.usgs.gov/dds/dds-55/pacmaps/bi_data.htm)

[http://wrgis.wr.usgs.gov/dds/dds-55/pacmaps/ki\\_data.htm](http://wrgis.wr.usgs.gov/dds/dds-55/pacmaps/ki_data.htm)

[http://wrgis.wr.usgs.gov/dds/dds-55/pacmaps/mi\\_data.htm](http://wrgis.wr.usgs.gov/dds/dds-55/pacmaps/mi_data.htm)

[http://wrgis.wr.usgs.gov/dds/dds-55/pacmaps/ou\\_data.htm](http://wrgis.wr.usgs.gov/dds/dds-55/pacmaps/ou_data.htm)

**Interpolation of Reconnaissance Multibeam Bathymetry from North-Central Long Island Sound**

<http://woodshole.er.usgs.gov/pubs/of2005-1145/html/catalog.html>

**Georeferenced Sea-Floor Mapping in Long Island Sound**

<http://pubs.usgs.gov/of/2000/of00-304/htmldocs/data.htm>

**Northern Gulf of Mexico Continental Slope – Selected Geophysical & Core Data**

<http://woodshole.er.usgs.gov/pubs/of2005-1071/htmldocs/catalog.htm>

**Multibeam Mapping of Selected Areas of the Outer Continental Shelf, Northwestern Gulf of Mexico**

<http://geopubs.wr.usgs.gov/open-file/of02-411/data.html>

**Bathymetry and Acoustic Backscatter of the Mid and Outer Continental Shelf, Head of De Soto Canyon, Northeastern Gulf of Mexico**

<http://geopubs.wr.usgs.gov/open-file/of03-007/data.html>

**Multibeam Mapping of the West Florida Shelf, Gulf of Mexico**

<http://geopubs.wr.usgs.gov/open-file/of02-005/site/data.html>

**Bathymetry, Sidescan Sonar Image, Surface Sediments, and Surficial Geological Map of the Inner Shelf off Sarasota, Florida**

<http://pubs.usgs.gov/of/1999/of99-396/htmldocs/data.htm>

**Multibeam Mapping of the Pinnacles Region, Gulf of Mexico**

<http://geopubs.wr.usgs.gov/open-file/of02-006/site/data.html>

**Marine Realms Information Bank**

<http://mrib.usgs.gov/>

**Surficial Sediment Data from the Gulf of Maine, Georges Bank, and Vicinity**

<http://pubs.usgs.gov/of/2003/of03-001/htmldocs/data.htm>

**Digital Bathymetry for the Gulf of Maine**

<http://pubs.usgs.gov/of/1998/of98-801/bathy/data.htm>

**Seafloor Image Maps – Stellwagen Bank**

<http://woodshole.er.usgs.gov/pubs/sim2840/>

**Massachusetts Bay and Stellwagen Bank – Multibeam Data**

[http://woodshole.er.usgs.gov/pubs/ds-99/webpages/title\\_page.html](http://woodshole.er.usgs.gov/pubs/ds-99/webpages/title_page.html)

**Massachusetts - Geological Interpretation of Bathymetric and Backscatter Imagery of the Sea Floor Off Eastern Cape Cod**

[http://woodshole.er.usgs.gov/pubs/of2005-1048/htmldocs/data\\_catalog.htm](http://woodshole.er.usgs.gov/pubs/of2005-1048/htmldocs/data_catalog.htm)

**Massachusetts – Elizabeth Islands – Multibeam and Sidescan Sonar Bathymetric Imagery**

<http://woodshole.er.usgs.gov/pubs/of2006-1357/html/catalog.html>

**National assessment of Shoreline Change**

<http://pubs.usgs.gov/of/2006/1251/#gis>

**National Seafloor Mapping**

<http://walrus.wr.usgs.gov/pacmaps/>

**North Pacific Pelagic Seabird Database**

<http://www.absc.usgs.gov/research/NPPSD/index.htm>

**Oceanographic Analyst Download**

T\* <http://www.absc.usgs.gov/glba/gistools/download-list/register-form.php>

**Seafloor Animations of the Puerto Rico Trench**

<http://woodshole.er.usgs.gov/project-pages/caribbean/movie3.html>

**Multibeam Mapping of the Major Deltas of Southern Puget Sound, Washington**

<http://geopubs.wr.usgs.gov/open-file/of01-266/html/data.htm>

**usSEABED - Atlantic Coast Offshore Surficial Sediment Data Release**

<http://pubs.usgs.gov/ds/2005/118/>

**usSEABED – Gulf of Mexico & Caribbean Offshore Surficial Sediment Data Release**

<http://pubs.usgs.gov/ds/2006/146/>

**usSEABED – Pacific Coast Offshore Surficial Sediment Data Release**

<http://pubs.usgs.gov/ds/2006/182/>

## **United Nations:**

**UN Atlas of the Oceans**

<http://www.oceansatlas.org/index.jsp>

**Access Regional Fisheries Bodies official web sites by map**

[http://www.oceansatlas.org/unatlas\\_gifs/offsiteframe.jsp?url=http%3A%2F%2Fwww.fao.org%2Ffishery%2Frfb%2Fsearch&ctn=figis2940&kot=web-sites](http://www.oceansatlas.org/unatlas_gifs/offsiteframe.jsp?url=http%3A%2F%2Fwww.fao.org%2Ffishery%2Frfb%2Fsearch&ctn=figis2940&kot=web-sites)

**UN - Global Digital Sea Ice Data Bank (GDSIDB)**

[http://www.aari.nw.ru/gdsidb/gdsidb\\_2.html](http://www.aari.nw.ru/gdsidb/gdsidb_2.html)

**UNEP Arctic Environmental Atlas**

<http://maps.grida.no/arctic/>

**UNEP Baltic GIS, Maps and Statistical Database**

<http://www.grida.no/baltic/index.htm>

**UNEP East Africa Coastal Resource Database and Atlas**

<http://www.unep.org/eafatlas/>

**UNEP Geo Data Portal**

<http://geodata.grid.unep.ch/>

UNEP Global Regional Assessment of Marine Environment Database

<http://www.unep-wcmc.org/GRAMED/dataPortal.cfm>

UNEP GRID Arendal – maps and Graphics

<http://maps.grida.no/go/collection/in-dead-water-climate-change-pollution-over-harvest-and-invasive-species-in-the-world-s-fishing-grounds>

UNEP Shelf Program

<http://maps.continentalshef.org/viewer.htm>

UNEP WCMC IPIECA iMAPS -Caspian, Black, Mediterranean, & Caribbean Seas

<http://ims.wcmc.org.uk/IPIECA2/regions.html>

UNEP WCMC Interactive Maps & World Atlases of Biodiversity

<http://www.unep-wcmc.org/#>

African-European Waterbird Migration Routes

<http://bure.unep-wcmc.org/imaps/AEWA/viewer.htm?Title=AEWA>

Black Sea

<http://ipieca.unep-wcmc.org/imaps/ipieca/blacksea/viewer.htm>

Caribbean Sea

<http://ipieca.unep-wcmc.org/imaps/ipieca/caribbean/viewer.htm>

Caspian Sea

<http://ipieca.unep-wcmc.org/imaps/ipieca/caspian/viewer.htm>

Cold Water Coral Reefs

<http://bure.unep-wcmc.org/marine/coldcoral/viewer.htm>

Coral Disease Mapping

<http://www.unep-wcmc.org/GIS/coraldis/searchMap.cfm>

Mangroves

<http://bure.unep-wcmc.org/imaps/marine/mangroves/viewer.htm>

Marine Turtles of the Indian Ocean

<http://bure.unep-wcmc.org/imaps/indturtles/viewer.htm>

Mediterranean Sea

<http://ipieca.unep-wcmc.org/imaps/ipieca/mediterranean/viewer.htm>

Seagrass

<http://bure.unep-wcmc.org/imaps/marine/seagrass/viewer.htm>

World Database on Protected Areas

<http://sea.unep-wcmc.org/wdbpa/>

UNESCO Ocean Observations Panel for Climate

<http://ioc3.unesco.org/oopc/index.php>

UNESCO African Ocean Portal

<http://portal.unesco.org/africanoceans/>

UNESCO Portal Oceanico

[http://portal.unesco.org/portaloceanico/ev.php?URL\\_ID=1&URL\\_DO=do\\_root&URL\\_SECTION=201&reload=1190647167](http://portal.unesco.org/portaloceanico/ev.php?URL_ID=1&URL_DO=do_root&URL_SECTION=201&reload=1190647167)

**Non-Governmental Organizations:**

African Marine Atlas:

<http://www.africanmarineatlas.net/>

**Arctic Research Mapping Application**

<http://www.armac.org/>

**Carolinas Coastal Ocean Observing and Prediction System (CaroCOOPS)**

[http://carocoops.org/carocoops\\_website/index.php](http://carocoops.org/carocoops_website/index.php)

**CaroCOOPS Near Real-Time Ocean Observing Data, Overlays and Placemarks for Google Earth**

<http://bbs.keyhole.com/ubb/showflat.php/Cat/0/Number/335650/an/0/page/0/vc/1>

**Census of Marine Life International Portal**

<http://www.coml.org/>

**Cephbase – Spatial Data on Cephalopods**

<http://www.cephbase.utmb.edu/biogeo/biogeo.cfm>

**Coral Reef database (reefbase)**

[http://www.reefbase.org/gis\\_maps/maps.aspx?](http://www.reefbase.org/gis_maps/maps.aspx?)

<http://reefgis.reefbase.org/mapper.asp>

**Coral Reef Research: Coral Geographic (under construction)**

[http://coralreefresearch.org/html/crr\\_cg.htm](http://coralreefresearch.org/html/crr_cg.htm)

**Earth and Space Research – Polar Tide Models**

[http://www.esr.org/ptm\\_index.html](http://www.esr.org/ptm_index.html)

**Ecosystem-Based Management Tools for Marine Managers**

T\*<http://www.marineebm.org/>

**Encyclopedia of Life**

<http://www.eol.org>

**European Ocean Biogeographic Information System (MarBEF)**

<http://www.marbef.org/data/eurobissearch.php?dataproducer=8>

**European Global Ocean Observing System (EuroGOOS) Sustained, Efficient Production of Required information Services (SEPRISE) Interactive Maps & Google Earth Files**

<http://www.eurogoos.org/sepdemo/>

**Fish & Wildlife Research Institute (Florida): Marine Resource GIS (MRGIS) Internet Map Service (IMS), Tampa Bay Estuary Imagery System, Coastal Resource Information System, Research Projects of the Big Cypress Watersheds, South Atlantic Habitat and Ecosystem**

[http://www.floridamarine.org/features/category\\_main.asp?id=2224](http://www.floridamarine.org/features/category_main.asp?id=2224)

**FishBase Global Information System on Fish**

<http://www.fishbase.org/home.htm>

Florida Fish and Wildlife Conservation Commission Marine Resources GIS

<http://ocean.floridamarine.org/mrgis/viewer.htm>

Florida FWCC– Coastal Resource Information System

<http://ocean.floridamarine.org/bw/>

Florida FWCC – Gap Analysis Aquatic Interactive Map Service

<http://ocean.floridamarine.org/GAME/Viewer.htm>

Florida FWCC– South Atlantic Habitat & Ecosystem IMS

[http://ocean.floridamarine.org/efh\\_coral/ims/viewer.htm](http://ocean.floridamarine.org/efh_coral/ims/viewer.htm)

Florida FWCC– Tampa Bay Estuary Imagery and Data

[http://ocean.floridamarine.org/tbep/imagery\\_main.htm](http://ocean.floridamarine.org/tbep/imagery_main.htm)

Global High Resolution Sea Surface Temperature Pilot Project

<http://www.ghrsst-pp.org/index.htm>

Interactive SST Diagnostics

<http://www.hrdds.net/>

Global Ocean Observing System (GOOS)

<http://www.ioc-goos.org/content/view/91/65/>

Global Observing Systems Information Center Maps

<http://www.gosic.org/ios/G3OS-maps.htm#GOOS%20Maps>

Gulf of Maine Mapping Portal (GoMMap)

<http://www.gommap.org/gommap/index.html>

Gulf of Maine Contaminants Monitoring Program

<http://www.gomoos.org/chameleon/gulfwatch/>

Gulf of Maine Northern Shrimp Interactive & Time series Maps

<http://www.gomoos.org/shrimp/>

Gulf of Maine Ocean Conditions

<http://www.gomoos.org/oceanconditions/>

Gulf of Maine Oceanic Plant Life

<http://www.gomoos.org/oceanbiology/>

Gulf of Maine Regional Habitat Monitoring Mapping Tool

<http://www.gomoos.org/gomc/map/>

Gulf of Maine Wave Forecast (animated)

<http://www.gomoos.org/waveforecasts/>

Inforain: Glacier Bay Ecosystem GIS

T\* <http://www.inforain.org/alaska/glabaycd/>

JCOMM in situ Observing Platform Support Centre (JCOMMOPS)

Argo Information Centre – Global Floats on ArcIMS and Google Earth

<http://argo.jcommops.org/website/Argo/viewer.htm>

<http://wo.jcommops.org/cgi->

[bin/WebObjects/Argo.woa/1/wo/Wo4XrZ7gFni4t8QZ9Ovma0/0.0.35.5.1.0](http://bin/WebObjects/Argo.woa/1/wo/Wo4XrZ7gFni4t8QZ9Ovma0/0.0.35.5.1.0)

**Data Buoy Cooperative Panel download to Google Earth**

<http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/1/wo/tPVJJnXtNUBtU4jyJJZdIw/0.0.96.5.0.2.0.1>

**Living Oceans Society Map Gallery**

<http://www.livingoceans.org/maps/index.shtml>

**MarineBio Marine Species Search Engine with Map Links to OBIS & Google Earth**

<http://www.marinebio.org/all.asp>

**Marine Data Interoperability Project**

<http://www.marinemetadata.org/>

**Marine Environmental Data Action Group (UK)**

[http://www.oceannet.org/medag/data\\_catalogues/uk\\_wave\\_catalogue/wave\\_cat\\_index.html](http://www.oceannet.org/medag/data_catalogues/uk_wave_catalogue/wave_cat_index.html)

**MarineGIS.com list of data links:**

<http://www.marinegis.com/dataen.html>

**Marine Geoscience Data System (MGDS) – Data and Tools**

<http://www.marine-geo.org/>

T\* <http://www.geomapapp.org/>

**MGDS for Google Earth**

<http://www.geomapapp.org/GE/>

**MarineMap – California Marine Life Protection Act Initiative**

<http://marinemap.org/mlpa/>

**MarineMap- DORIS Marine Protected Areas Decision Support Tool**

T\* <http://www.marinemap.org/doris/>

**MarineMap – San Francisco Bay Region Oil Spill Assistance Map**

<http://marinemap.org/sfbay/>

<http://bbs.keyhole.com/ubb/showflat.php/Cat/0/Number/1049195/an/0/page/0>

**Monterey Bay Aquarium Research Institute Bathymetry: Hawaii, Monterey Bay Basin, Santa Barbara Basin, N. California & Oregon Margin, West Coast Seamounts & Ridges**

<http://www.mbari.org/data/mapping/mapping.htm>

**MB System - Mapping the Seafloor: Software for the Processing and Display of Swath Sonar Data**

T\* <http://www.mbari.org/data/mbsystem/index.html>

**ArcNav - an extension for ArcView 3.x developed within MBARI**

T\* <http://www.mbari.org/data/gis/ArcNav.htm>

**National Center for Atmospheric Research – GIS Climate Change Scenarios**

<http://www.gisclimatechange.org/>

**The Nature Conservancy Marine Ecoregional Boundaries via Conservation GeoPortal**



<http://conserveonline.org/workspaces/ecoregional.shapefile/ERlist.xls/view>

**New England Aquarium – GIS Data and Mapping Projects**

<http://www.marinegis.org/>

**Ocean Biogeographic Information System (OBIS)**

<http://www.iobis.org/>

**OceanGlobe Server - International Underwater Exploations**

<http://www.oceanglobe.org>

**OceanMap by Ecotrust**

T\* OceanMap tool not yet available on-line

**Ocean Communities 3E Analysis Network (OCEAN)**

T\* <http://www.ecotrust.org/knowledgesystems/ocean.html>

**Open Integrated Ocean Observing System**

<http://www.openioos.org/index.html>

**Pacific Coast Marine Habitat Program Groundfish EFH Mapper and downloads**

<http://marinehabitat.psmfc.org/interactive-maps.html>

**Pacific Disaster Center:**

<http://www.pdc.org>

**Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO)**

[http://www.piscoweb.org/data/catalog/intertidal\\_snbs](http://www.piscoweb.org/data/catalog/intertidal_snbs)

<http://www.piscoweb.org/research/community/subtidal/sitemap#year=2006>

**Public broadcasting System (PBS) Mapping El Niño**

<http://www.pbs.org/wgbh/nova/elnino/now/mapping.html>

**Reefbase: A Global Information System for Coral Reefs**

[http://www.reefbase.org/gis\\_maps/maps.aspx?](http://www.reefbase.org/gis_maps/maps.aspx?)

**Sanctuary Integrated Monitoring Network (SIMoN) – Seabirds and Shorebirds**

[http://www.mbnms-simon.org/sections/birds/maps\\_graphs.php?sec=ss](http://www.mbnms-simon.org/sections/birds/maps_graphs.php?sec=ss)

**Sea Around Us Project: Countries' EEZ, Large Marine Ecosystems, High Seas Areas, World Oceans (species distributions, biomass and richness, expeditions, catch and values)**

<http://www.seaaroundus.org/default.htm>

**SeaDataNet – Pan-European Data Products and Tools**

<http://www.seadatanet.org/products.htm>

T\* <http://www.seadatanet.org/software.htm>

**Sea Scallop Mapping Pages and Links (it's not limited to scallops)**

<http://www.seascallop.com/>

**SouthEast US Atlantic Coastal Ocean Observing System (SEACOOS)**

<http://www.seacoos.org/>

**System of Industry Metocean Data for the Offshore and Research Communities**

<http://www.simorc.org/simorc/welcome.html>

**World Data Center for Marine Environmental Sciences Spatial Data Search**

<http://www.wdc-mare.org/data/index.php>

**World Wildlife Fund Marine Ecoregions**

<http://www.worldwildlife.org/MEOW/ecoregions.cfm#>

**Commercial:**

**ASA Software - Time Slider for ArcGIS; CoastMap, OilMap, SaRMap for ArcView**

T\* <http://www.asascience.com/software/index.htm>

**AVISO – Observing Ocean Topography & Sea Level Anomalies from Space**

<http://www.aviso.oceanobs.com/>

**CARIS – Marine Cartography and Geodesy Tools**

T\* <http://www.caris.com/>

**COASTMAP – Globally Re-locatable Integrated Coastal Monitoring and Modeling**

T\* <http://www.coastmap.com/about.htm>

**DHI – Marine software; and MIKE Marine and Temporal Analyst for ArcGIS**

T\* <http://www.dhigroup.com/Software/Marine.aspx>

**EASy – Mapping Solution for Marine Resources**

T\* <http://members.cox.net/fjobrien/easy.htm>

**EMIDOI – North Sea Offshore Oil & Gas Concession Map & Database**

<http://www.decomplatform.com/subscriber/welcome.html>

**ESRI – Tracking Analyst for ArcGIS**

T\* <http://www.esri.com/software/arcgis/extensions/trackinganalyst/index.html>

**Magic Instinct Software ‘Google Ocean’ compilation of kml/kmz links**

<http://www.justmagic.com/GM-GE.html>

**Mappamondo GIS - Fishery Analyst extension for ArcGIS**

T\* <http://www.mappamondogis.it/products.htm>

**Marine GIS: Information and links**

<http://www.marinegis.com/index.html>

**North Sea Marine Sand & Gravel Extraction Licenses (MAGIS)**

[http://www.sandandgravel.com/v\\_licensescgi/welcome.asp](http://www.sandandgravel.com/v_licensescgi/welcome.asp)

**PaleoMap Project (animations, images and software)**

<http://www.scotese.com/Default.htm>

**SimCoast: Coastal Zone Management Expert system**

T\* <http://www.discoverysoftware.co.uk/SimCoast.htm>

**Taylor Engineering – Coastal Hydraulics**

T\* [http://www.taylorengineering.com/coast\\_hydraulic/coastal\\_hydra.htm](http://www.taylorengineering.com/coast_hydraulic/coastal_hydra.htm)

**TempBreak – Bottom detail, SSTs, and Waypoints (California, Hawaii & Baja)**

<http://www.tempbreak.com/>

**Vis5D+ (open source freeware)**

T\* <http://vis5d.sourceforge.net/index.html>

**VIT: Software for Fisheries Analysis by the MEFISTO Consortium**

T\* <http://www.mefisto.info/software.htm>

**World Ocean Circulation Experiment (WOCE) Atlas Series**

[http://www.woce.org/atlas\\_webpage/](http://www.woce.org/atlas_webpage/)

and <http://www.ewoce.org/>

**Universities and Academic Institutions:**

**University of Alaska Satellite Facility - Sea Ice**

<http://www.asf.alaska.edu>

**Northern Arizona University – Paleogeographic Globes and Maps**

[http://jan.ucc.nau.edu/~rcb7/global\\_history.html](http://jan.ucc.nau.edu/~rcb7/global_history.html)

**University of British Columbia Ecopath with Ecosim (EwE)**

T\* <http://data.fisheries.ubc.ca/ecopath/index.php?name=Download>

**University of California – Moorea Coral Reef Long Term Ecological Resesarch**

<http://mcr.lternet.edu/>

<http://moorea.berkeley.edu/kbase/gis.html>

**University of California-Riverside – INFOMINE – Maps & GIS, Scholarly & Internet Resource Collections**

<http://infomine.ucr.edu/cgi-bin/search?maps>

University of California-Santa Barbara – National Center for Ecological Analysis and Synthesis: Global Map of Human Impacts to Marine Ecosystems  
<http://www.nceas.ucsb.edu/GlobalMarine>

California State University Monterey Bay Mapping Lab Services  
<http://seafloor.csUMB.edu/arcims.htm>

College of Charleston – Project Oceanica Transects Online WebGIS  
<http://maps.cofc.edu/website/tows/viewer.htm>

University of Colorado: National Snow & Ice Data Center:  
<http://www-nsidc.colorado.edu/>  
<http://nsidc.org/data/ewg/>

Columbia University IRI/LDEO Climate Data Library and Map Room  
<http://iridl.ldeo.columbia.edu/>  
Joint WMO/IOC Technical Commission for Oceanography and Marine Meteorology Data Products  
[http://ingrid.ldeo.columbia.edu/SOURCES/.IGOSS/data\\_products.html](http://ingrid.ldeo.columbia.edu/SOURCES/.IGOSS/data_products.html)

University of Connecticut – Focus on the Coast Mapping Station  
<http://www.nemo.uconn.edu/tools/fotc/mapping/mapping.htm>

University of Delaware – Ocean Internal Wave Online Atlas  
<http://atlas.cms.udel.edu/>  
JAVA Applets for Coastal Engineering  
T\* <http://coastal.udel.edu/faculty/rad/>

Duke University Geospatial Ecology Lab  
<http://mgel.env.duke.edu/>  
Marine Geospatial Tools for ArcGIS: Habitat Modeling, Connectivity Modeling, and Marine GeoSpatial Ecology Tools  
T\* <http://mgel.env.duke.edu/tools>  
ArcRstats Multivariate Habitat Modeling Tool  
T\* <http://www.nicholas.duke.edu/geospatial/software/>  
Ocean Biographic Information System SEAMAP  
<http://seamap.env.duke.edu/>  
[http://seamap.env.duke.edu/prod/mapservice/onlinemap/oms\\_main\\_v2.phtml](http://seamap.env.duke.edu/prod/mapservice/onlinemap/oms_main_v2.phtml)  
OBIS SEAMAP tools  
T\* <http://seamap.env.duke.edu/tools/>

University of Exeter – Marine Spatial Ecology Lab – Glover’s Reef GIS  
<http://www.projects.ex.ac.uk/mse/glovers/index.html>

University of Florida – Wetland WebGIS and Geo-database

<http://giswetlands.ifas.ufl.edu/>

Florida State University – COAPS Tropical Pacific Ocean Pseudostress Analyses

<http://www.coaps.fsu.edu/woce/html/pacwinds.htm>

and <http://www.coaps.fsu.edu/RVSMDC/html/winds.shtml>

COAPS Indian Ocean Pseudostress Analyses

<http://www.coaps.fsu.edu/woce/html/ndnwinds.htm>

COAPS Tropical Atlantic Ocean Pseudostress and SST Analyses

<http://www.coaps.fsu.edu/woce/html/servain.htm>

University of Guam – Guam Coastal Atlas

<http://www.uog.edu/marinelab/coastal.atlas/>

Harvard University – Interactive Generic Mapping Tools

<http://www.seismology.harvard.edu/~becker/igmt/>

University of Hawaii Pacific Islands Benthic Habitat Mapping Center:

<http://www.soest.hawaii.edu/pibhmc/index.htm>

University of Hawaii Sea Level Center

<http://ilikai.soest.hawaii.edu/uhslc/data.html>

Generic Mapping Tools

T\* <http://gmt.soest.hawaii.edu/>

Hawaii Coastal Geology Group

<http://www.soest.hawaii.edu/coasts/index.html>

Hawaii Mapping Research Group MR1 Archives

<http://www.soest.hawaii.edu/HMRG/MR1/Archives/index.htm>

Ocean Atlas of Hawaii

<http://radlab.soest.hawaii.edu/atlas/>

University of Kansas Sea Level Rise Maps and GIS Data

[https://www.cresis.ku.edu/research/data/sea\\_level\\_rise/index.html](https://www.cresis.ku.edu/research/data/sea_level_rise/index.html)

Biogeoinformatics of Hexacorals – Tools and Data

<http://www.kgs.ku.edu/Hexacoral/> and

<http://hercules.kgs.ku.edu/hexacoral/anemone2/index.cfm>

Gulf of Maine Biogeographical Information System

<http://netviewer.usc.edu/web/GMBISwebsite/index2.html>

University of Maine Satellite Oceanography Data Lab

[http://wavv.umeoce.maine.edu/sat\\_ims.htm](http://wavv.umeoce.maine.edu/sat_ims.htm)

MARGINS Research Activities: Focus Area Maps

<http://www.nsf-margins.org/ResearchResults.html>

Massachusetts Institute of Technology Gear Mapping Project

<http://web.mit.edu/seagrant/aqua/cfer/GearMapping/>

**University of Massachusetts Marine Ecosystems Dynamic Modeling**  
<http://codfish.smast.umassd.edu/>

**University of Miami Rosenstiel School of Marine & Atmospheric Science  
Ocean Surface Currents – Maps and Animations**  
<http://oceancurrents.rsmas.miami.edu/index.html>

**Organic Biogeochemistry –Plots and Data**  
<http://www.rsmas.miami.edu/groups/biogeochem/Data.html>

**Hybrid Coordinate Ocean Model (HYCOM) Consortium Data and Maps**  
<http://hycom.rsmas.miami.edu/>

**Google Earth with MODIS**  
<http://www.rsmas.miami.edu/>

**Naval Postgraduate School – High resolution Global Ocean Modeling using POP**  
<http://www.oc.nps.navy.mil/navypop/>

**Arctic Modeling Effort (animations)**  
[http://www.oc.nps.navy.mil/sbi/#Vertical\\_AW](http://www.oc.nps.navy.mil/sbi/#Vertical_AW)  
[http://www.oc.nps.navy.mil/~pips3/anim/ice\\_anim.html](http://www.oc.nps.navy.mil/~pips3/anim/ice_anim.html)

**University of New Brunswick Ocean Mapping Group**  
<http://www.omg.unb.ca/omg/>

**University of New Hampshire Center for Coastal and Ocean Mapping, Joint Hydrographic Center, Projects with Data:**  
<http://www.ccom.unh.edu/>

**State University of New York – Stony Brook: Future Coastline Maps**  
<http://www.seagrant.sunysb.edu/Pages/CoastalGISMaps/Coastline-Maps.htm>

**University of North Carolina – Wilmington: Coastal Ocean Research and Monitoring Program**  
<http://www.cormp.org/>

**Oregon State University Davy Jones Locker: Seafloor Mapping, Marine & Coastal GIS – mapping, data and related links:**

<http://dawn-drupal.science.oregonstate.edu/ims>  
<http://marinecoastalgis.net/ims>

**American Samoa Benthic Terrain Viewer**  
<http://scallywag.science.oregonstate.edu/website/AmSamoa/viewer.htm>

**American Samoa Multibeam Survey Data**  
<http://dusk.geo.orst.edu/djl/samoa/>

**Arctic Archive for Geophysical Research: Unlocking Undersea Knowledge**  
<http://jollyroger.science.oregonstate.edu/cgi-bin/mapserv>

**ArcGIS Marine Data Model**  
T\* <http://dusk2.geo.orst.edu/djl/arcgis/index.html>

## Marine GIS Tools

T\* <http://dusk.geo.orst.edu/djl/samoa/tools.html>

## Oregon Coastal Atlas

<http://www.coastalatlus.net/maps/index.php>

## West Coast Marine Habitat Portal (portal toolkit)

<http://extra.coas.oregonstate.edu/Portal/>

## PaCOOS West Coast Marine Habitat

<http://pacoos.coas.oregonstate.edu/MarineHabitatViewer/viewer.aspx>

## University of Rhode Island Large Marine Ecosystems of the World

<http://www.edc.uri.edu/lme/ims.htm>

<http://mapper.edc.uri.edu/website/lmeims/viewer.htm> and

<http://woodsmoke.edc.uri.edu/Portal/>

## Rhode Island Habitat Restoration Site Selection Tools: Salt Marsh and Seagrass Habitats and Anadromous Fish Runs

T\* <http://www.edc.uri.edu/restoration/html/spatial/modlsalt.htm>

## Endeavor Deep Multi-Tiered Survey Data

<http://bobbyorr.gso.uri.edu/%7eedeep/data.html>

## Rutgers University, Institute of Marine & Coastal Sciences, Ocean Primary Productivity Study -Vertically Generalized Production Model (VGPM)

[http://marine.rutgers.edu/opp/swf/Production/results/all2\\_swf.html](http://marine.rutgers.edu/opp/swf/Production/results/all2_swf.html)

<http://marine.rutgers.edu/opp/Production/Production1.html>

## Scripps Joint Environmental Data Analysis Center

[http://jedac.ucsd.edu/DATA\\_IMAGES/index.html](http://jedac.ucsd.edu/DATA_IMAGES/index.html)

## Scripps NEMO Oceanographic Data Server

<http://nemo.ucsd.edu/>

## Scripps Satellite Geodesy (SRTM & Multibeam)

[http://topex.ucsd.edu/WWW\\_html/srtm30\\_plus.html](http://topex.ucsd.edu/WWW_html/srtm30_plus.html)

## Scripps Institute of Oceanography Visualization Center

<http://siovizcenter.ucsd.edu/library.php> <http://siovizcenter.ucsd.edu/projects.php>

## Scripps – San Diego Coastal Ocean Observing System

<http://www.sdcoos.ucsd.edu/>

## Scripps – JAVA Ocean Atlas

T\* <http://odf.ucsd.edu/joa/index.html>

## Smithsonian Institution – Global Volcanism Program

<http://www.volcano.si.edu/>

## University of South Carolina – National Estuarine Research Reserve System – Centralized Data Management Office (Google Earth interface)

<http://cdmo.baruch.sc.edu/QueryPages/googlemap.cfm>

## University of Sydney – GeoSciences – Digital Isochrons of the World's Ocean Floor



[http://www2.geosci.usyd.edu.au/research/marinegeophysics/Resprojects/Agegrid/digit\\_isochrons.html#anchor1](http://www2.geosci.usyd.edu.au/research/marinegeophysics/Resprojects/Agegrid/digit_isochrons.html#anchor1)

**Texas A&M University: Ocean Drilling Program Site Maps**

<http://www-odp.tamu.edu/sitemap/sitemap.html>

**JANUS Database**

<http://www-odp.tamu.edu/database/>

**Ocean Maps**

<http://stommel.tamu.edu/~baum/paleo/ocean-maps.html>

**University of Texas at El Paso – Arctic Research Mapping Application**

<http://www.armap.org>

**Towson University – Chesapeake Bay and Mid-Atlantic from Space**

<http://chesapeake.towson.edu/>

**Virginia Institute of Marine Science Submerged Aquatic Vegetation**

<http://www.vims.edu/bio/sav/savdata.html>

**University of Washington Endeavor Segment, Juan de Fuca Ridge GIS project**

<http://www2.ocean.washington.edu/gis/>

**Joint Institute for the Study of the Atmosphere and Ocean - Atlases**

<http://jisao.washington.edu/atlases.html>

**Polar Science Center Hydrographic Climatology**

<http://psc.apl.washington.edu/Climatology.html>

**UW/NOAA Joint Institute for the Study of the Atmosphere and Ocean - Global Data**

**Archive: Gridded Data**

<http://cses.washington.edu/data/gridded.shtml>

**Arc Marine Data Model**

T\* [http://staff.washington.edu/erehm/mdm/ArcMarineDataModel\\_final.htm](http://staff.washington.edu/erehm/mdm/ArcMarineDataModel_final.htm)

**Woods Hole Oceanographic Institute GIS Applications Browser:**

**Seafloor Data and Observation Visualization Environment (SeaDOVE)**

[http://ortelius.whoi.edu/website/EPR\\_9N/viewer.htm](http://ortelius.whoi.edu/website/EPR_9N/viewer.htm)

**Seafloor Sediment Core (SEDCORE 2000) Data Collection**

<http://ortelius.whoi.edu/website/SC2k/viewer.htm>

**Historical U.S. Lightship & Light Station Data – Meteorological & Hydrographic**

<http://ortelius.whoi.edu/website/WOOS/viewer.htm>

**Upper Ocean Mooring Data Archive**

[http://uop.whoi.edu/archives/map\\_new.html](http://uop.whoi.edu/archives/map_new.html)

**U.S. Joint Global Ocean Flux Study – Data, Models and Static Maps**

[http://usjgofs.whoi.edu/mzweb/syndata.html#Carbon\\_system\\_model](http://usjgofs.whoi.edu/mzweb/syndata.html#Carbon_system_model)

**Biological and Chemical Oceanography Data Management Office – WHOI GLOBEC Data & Map Servers (Georges Bank, Northeast US Consortium, NE Pacific, & Southern Ocean)**

<http://access1.bco-dmo.org/BCO-DMO.php>

**WHOI Multibeam Data Archive and Static Image Gallery**

<http://mbdata.whoi.edu/mbdata.html>

**State Government Agencies:**

California Department of Fish and Game – Central Coast Marine Protected Areas

[http://www.dfg.ca.gov/mrd/mlpa/ccmpas\\_list.html](http://www.dfg.ca.gov/mrd/mlpa/ccmpas_list.html)

New York State Coastal Atlas Online

[http://www.nyswaterfronts.com/maps\\_regions.asp](http://www.nyswaterfronts.com/maps_regions.asp)

Washington State Coastal Atlas

<https://fortress.wa.gov/ecy/coastalatlaser/viewer.htm>

**International:**

**Australia:**

Australian Antarctic Division Atlas – Map Catalogue and Downloadable GIS Data

<http://aad-maps.aad.gov.au/atlas/>

Australian Coastal Atlas

<http://www.environment.gov.au/coasts/atlas/>

Australian Oil Spill Response Atlas

[http://ioc.unesco.org/oceanteacher/OceanTeacher2/02\\_InfTchSciCmm/01\\_CmpTch/03\\_GIS&SDI/04\\_MarineGIS/MarineApps.html](http://ioc.unesco.org/oceanteacher/OceanTeacher2/02_InfTchSciCmm/01_CmpTch/03_GIS&SDI/04_MarineGIS/MarineApps.html)

Bureau of Meteorology Research Centre – Ocean Analyses & Data

[http://www.bom.gov.au/bmrc/ocean/JAFOOS/data\\_products.html](http://www.bom.gov.au/bmrc/ocean/JAFOOS/data_products.html)

CISRO Marine & Atmospheric Research Data Centre

<http://www.marine.csiro.au/datacentre/>

CISRO Global & Regional Animations of Ocean Circulation

<http://www.cmar.csiro.au/currents/>

Directorate of Oceanography & Meteorology – Internet Map & Online Data Service

<http://www.metoc.gov.au/products/data.html>

Geoscience Australia

<http://www.ga.gov.au/map/>

**Belgium:**

Belgium Coastal Atlas (De Kustatlas Online)

<http://www.kustatlas.be/en/>

Belgium Marine Management Atlas

<http://www.mumm.ac.be/EN/Management/Atlas/list.php>

Flanders (Belgium) Marine Institute – BWZee – A Biological Valuation Map for the Belgian Continental Shelf

<http://w2.vliz.be/vmdcdata/bwzee/gmap75.php>

Macrobenthos of the Belgian Continental Shelf

<http://www.vliz.be/vmdcdata/macrobent/search.php>

Marine Sciences Portal for the North Atlantic and Mediterranean

<http://www.dvz.be/Portal/main.htm>

**Canada:**

**Canadian Marine Multibeam Bathymetric Data**

<http://gdr.ess.nrcan.gc.ca/multibath/e/viewer.htm>

**Computer Atlas of the Northwest Atlantic**

<http://www.mar.dfo-mpo.gc.ca/science/ocean/canwa/canwa.htm#top>

**Fisheries & Oceans Canada – Fisheries Management – Pacific Region**

[http://www.pac.dfo-mpo.gc.ca/ops/fm/areas/areamap\\_e.htm](http://www.pac.dfo-mpo.gc.ca/ops/fm/areas/areamap_e.htm)

[http://www.pac.dfo-mpo.gc.ca/recfish/Restricted\\_Areas/RCA/default\\_e.htm](http://www.pac.dfo-mpo.gc.ca/recfish/Restricted_Areas/RCA/default_e.htm)

**Fisheries & Oceans Canada GeoBrowser v5.0**

<http://geoportail-geoportal.gc.ca/publicGeoBrowser/public/BigGeoPortalBrowser.jsp>

**Fisheries & Oceans Canada GeoPortal web map server (public and internal)**

<http://www.charts.gc.ca/pub/en/digitalchart/geoportal.asp>

**Marine Sediments Analysis performed in GEOTOP**

<http://www.unites.uqam.ca/geotop/web2/Data%20base.htm>

**Wave Data Online – idxMap SVG Data**

[http://www.meds-sdmm.dfo-mpo.gc.ca/meds/Databases/WAVE/idxMAP/idxMapQbasic\\_e.asp](http://www.meds-sdmm.dfo-mpo.gc.ca/meds/Databases/WAVE/idxMAP/idxMapQbasic_e.asp)

**Wind & Wave Climate Atlas**

<http://www.meds-sdmm.dfo-mpo.gc.ca/alphapro/WAVE/TDCAtlas/TDCProducts.htm>

**China:**

**Near-East Asian Regional Global Ocean Observing System (NEAR-GOOS)**

<http://near-goos.coi.gov.cn/>

**Denmark:**

**International Council for the Exploration of the Sea (ICES) - fishmap**

<http://www.ices.dk/marineworld/fishmap/ices/>

**ICES Data Downloads**

<http://www.ices.dk/ocean/>

**Europe:**

**Atlas of the European Seas and Oceans**

[http://ec.europa.eu/maritimeaffairs/atlas-seas-oceans\\_en.html](http://ec.europa.eu/maritimeaffairs/atlas-seas-oceans_en.html)

**Mapping European Seabed Habitats (MESH)**

<http://www.searchmesh.net/>

**European Centre for Medium Range Weather Forecasts – Ocean Reanalysis**

<http://www.ecmwf.int/products/forecasts/d/charts/ocean/reanalysis/>

**EU-SEASED Seabed Samples and Cores**

[http://www.eu-seased.net/frameset\\_flash.asp?v0=1](http://www.eu-seased.net/frameset_flash.asp?v0=1)

and [http://www.eu-seased.net/frameset\\_flash.asp?v0=3](http://www.eu-seased.net/frameset_flash.asp?v0=3)

**EU-Seismic Data and Sonar**

[http://www.eu-seased.net/frameset\\_flash.asp?v0=2](http://www.eu-seased.net/frameset_flash.asp?v0=2)

**European Phluke and Fin Image Geo-Locator**

<http://europhlukes.maris2.nl/>

**Global Ocean Thematic Portal**

<http://global.mersea.eu.org/>

**France:**

**Mercator Ocean Web Bulletins and 3D Ocean Maps**

[http://bulletin.mercator-ocean.fr/html/welcome\\_en.jsp](http://bulletin.mercator-ocean.fr/html/welcome_en.jsp)

**French National Oceanographic Data Centre**

[http://www.ifremer.fr/sismer/index\\_UK.htm](http://www.ifremer.fr/sismer/index_UK.htm)

**Ifremer: Mapping of Harmful Events Related to Phytoplankton Blooms in W. Europe and N. America**

<http://www.ifremer.fr/envlit/documentation/dossiers/ciem/aciem-c1.htm>

**Germany:**

**Atlas of Antarctic Sea Ice Drift**

[http://imkhp7.physik.uni-karlsruhe.de/~eisatlas/HTML/eisatlas\\_products.html](http://imkhp7.physik.uni-karlsruhe.de/~eisatlas/HTML/eisatlas_products.html)

**German Oceanographic Data Centre - Marine Environmental Database**

<http://www.bsh.de/en/Marine%20data/Environmental%20protection/MUDAB%20databases/index.jsp>

**Global Runoff Data Centre (Basins, Rivers & Points with Gauging Stations)**

<http://grdc.bafg.de/servlet/is/14712/?lang=en>

**Hydrographic Atlas of the Southern Ocean**

<http://www.awi-bremerhaven.de/Atlas/SO/Deckblatt.html>

**Guinea:**

**Fishery Atlas of Guinea**

<http://www.fis.com/guinea/atlas.html>

**Iceland:**

**Marine Research Institute Data Library**

[http://www.hafro.is/undir\\_eng.php?ID=1&ID=120](http://www.hafro.is/undir_eng.php?ID=1&ID=120)

**India:**

**Indian National Centre for Ocean Information Services Information Bank**

<http://www.incois.gov.in/Incois/informationbank.jsp>

**Ireland:**

**Marine Data Online**

[http://www.marinedataonline.ie/metadataexplorer\\_MDO/explorer.jsp](http://www.marinedataonline.ie/metadataexplorer_MDO/explorer.jsp)

**Marine Irish Digital Atlas**

<http://mida.ucc.ie/>

**Italy:**

**Marine GIS classes**

<http://www.mappamondogis.it/corsi/corsiMappamondoMarineGIS.pdf>

**Protected Areas Network Design Application for ArcGIS (PANDA)**

T\* [http://www.mappamondogis.it/panda\\_en.htm](http://www.mappamondogis.it/panda_en.htm)

**Oceanographic GIS for Marine Mammal Studies – Mediterranean**

[http://www.unipv.it/webcib/res\\_gis\\_uk.html](http://www.unipv.it/webcib/res_gis_uk.html)

Adricosm Star Ocean GeoPortal

<http://moon.santateresa.enea.it/Star/ocean.htm>

**Japan:**

Japan Meteorological Agency – Observations & Analyzed Ocean Conditions

<http://goos.kishou.go.jp/rtrtdb/jma-products/jmaproducts.html>

Japan Oceanographic Data Center (JODC) On-line Data Service System

<http://www.jodc.go.jp/service.htm>

**Netherlands:**

The Altimetry Atlas

<http://www.deos.tudelft.nl/altim/atlas/>

Simulation Models and Modeling Systems Related to Integrated Coastal Zone Management (COZMO, GEONAMICA, HABIMAP, MANS, RAMCO, STREAM, WADBOS, WINKUST2000, LOV/EE, etc.)

T\*<http://www.netcoast.nl/tools/rikz/toolsoverview.htm>

**United Kingdom:**

Atlas of UK Marine Renewable Energy Resources

<http://www.renewables-atlas.info/>

British Oceanographic Data Centre – Agro Interactive Maps

[http://www.bodc.ac.uk/projects/international/argo/uk\\_floats/interactive\\_map/](http://www.bodc.ac.uk/projects/international/argo/uk_floats/interactive_map/)

[http://www.bodc.ac.uk/projects/international/argo/southern\\_ocean/interactive\\_map/](http://www.bodc.ac.uk/projects/international/argo/southern_ocean/interactive_map/)

GEBCO One Minute Gridded Bathymetry Data

[http://www.bodc.ac.uk/data/online\\_delivery/gebco/](http://www.bodc.ac.uk/data/online_delivery/gebco/)

GEBCO Grid Display Software

T\*[http://www.bodc.ac.uk/products/software\\_products/gebco\\_grid\\_display/](http://www.bodc.ac.uk/products/software_products/gebco_grid_display/)

Coastal Observatory of Liverpool Bay – Monitoring, Modelling, & MapViewer

<http://cobs.pol.ac.uk/>

JNCC Marine Environmental Resource Mapping and Information Database (MERMAID )

<http://www.jncc.gov.uk/mermaid/>

MAGIC Coastal and Marine Resource Atlas

[http://www.magic.gov.uk/website/magic/viewer.htm?startTopic=magcamra\\_gb](http://www.magic.gov.uk/website/magic/viewer.htm?startTopic=magcamra_gb)

Marine Life Information Network for Britain & Ireland (MarLIN)

[http://www.marlin.ac.uk/data\\_access/data\\_access.php?view=map&form=species](http://www.marlin.ac.uk/data_access/data_access.php?view=map&form=species)

National Biodiversity Network (United Kingdom & Ireland)

<http://www.searchnbn.net/>

National Environment Research Council ESSC GODIVA with Google Earth

<http://www.nerc-essc.ac.uk/godiva/>

On-Line GIS to display Maritime Data for the entire UKCS

<http://www.maritimedata.co.uk/default.aspx>

Reading e-Science Centre ESSC GODIVA2 System with Google Earth

<http://lovejoy.nerc-essc.ac.uk:8080/ncWMS/godiva2.html>

UK Digital Energy Atlas & Library (DEAL) Offshore Oil & Gas Information

<http://www.ukdeal.co.uk/gis/DEAL/viewer.htm?Title=DEAL%20Maps>

## **UKSeaMap WebGIS**

<http://www.jncc.gov.uk/page-3663>

## **World-Wide Data Portal Resources:**

**Joint WMO-IOC Technical Commission on Oceanography & Marine Meteorology**

<http://www.jcomm-services.org/JCOMM-EPB.html>

**The Ocean Portal Data Server – IODE/UNESCO**

<http://www.iode.org/oceanportal/browse.php?cat=667>

**World Digital Magnetic Anomaly Map (WDMAM)**

[http://www.agu.org/eos\\_elec/2007/25-263.html](http://www.agu.org/eos_elec/2007/25-263.html) (PDF)

<http://www.gfz-potsdam.de/pb2/pb23/Models/WDMAM/wdmam.html>

<http://www.geomag.us/models/wdmam.html> (PDF, ASCII, & Google formats)

## **Education:**

**Carleton University – Looking into Earth with GIS**

<http://serc.carleton.edu/eet/seismicwave/index.html>

**Spatial Data Relationships in GeoScience Data**

[http://serc.carleton.edu/introgeo/gis/spatial\\_data.html](http://serc.carleton.edu/introgeo/gis/spatial_data.html)

**Teaching with GIS in the GeoSciences**

<http://serc.carleton.edu/introgeo/gis/index.html>

**Center for Image Processing in Education**

<http://www.exploreoceans.org/>

**Exploring Seafloor Topography**

<http://serc.carleton.edu/eet/seafloor/index.html>

**University of South Florida – Ocean Remote Sensing Base for Interactive Teaching and Learning (ORBITaL)**

[http://education.imars.usf.edu/component/option,com\\_frontpage/Itemid,1/](http://education.imars.usf.edu/component/option,com_frontpage/Itemid,1/)

**Food & Agriculture Organization – GIS in Fisheries, Management & Planning**

<http://www.fao.org/docrep/006/y4816e/y4816e00.htm>

**The Globe Program**

<http://viz.globe.gov/viz-bin/map.cgi?l=en&b=g&rg=n&enc=00&nav=1>

**Gravity Recovery and Climate Experiment (GRACE) – Oceans**

<http://www.csr.utexas.edu/grace/education/activities/oceans.html>

**Johns Hopkins University Ocean Currents Student & Teacher Resources**

<http://fermi.jhuapl.edu/student/currents/index.html>

**Marine Conservation Biology Institute:**

**From Sea to Shining Sea: Exploring America's Ocean Realms**  
[http://www.mcbi.org/shining\\_sea/s2ss\\_globe.htm](http://www.mcbi.org/shining_sea/s2ss_globe.htm)

**NASA/JPL Education Class Activities**  
<http://topex-www.jpl.nasa.gov/education/class-activities.html>

**NASA – The Living Ocean Teachers' Resources**  
<http://oceancolor.gsfc.nasa.gov/SeaWiFS/TEACHERS/>  
**NASA – SeaWiFS, MODIS and GOES Animations**  
<http://svs.gsfc.nasa.gov/search/Instrument/SeaWiFS.html>  
<http://svs.gsfc.nasa.gov/search/Instrument/MODIS.html>  
<http://svs.gsfc.nasa.gov/search/Instrument/GOES.html>

**National Geographic Society – Using Maps in Ocean Research**  
<http://www.nationalgeographic.com/xpeditions/lessons/03/g68/seasgis68.html>

**NOAA Education – Home**  
<http://www.education.noaa.gov/>  
**NOAA Ocean Explorer**  
<http://oceanexplorer.noaa.gov/>  
**NOAA Coral Ref. Outreach & Education**  
<http://coralreef.noaa.gov/outreach/welcome.html>  
**NOAA Central Library Wind & Sea – Teachers & Students Corner**  
<http://www.lib.noaa.gov/docs/wind/education.html>

**Ocean.com Learning Website**  
<http://www.ocean.com/index.asp?LocationID=5&CatId=5>

**The Ocean Adventure**  
<http://www.theoceanadventure.com/>

**Ocean Teacher**  
<http://www.oceanteacher.org/index.html>

**ReefGrow - A classroom tool for visualizing the processes controlling coral reef development and demise**  
<http://www.mbari.org/volcanism/Hawaii/HR-ReefGrow.htm>

**Rice University Earth Update Activities**  
<http://earth.rice.edu/activities/earthupdate/activities.html>

**Discovery of Rhode Island Coastal Environments**  
<http://omp.gso.uri.edu/doce2.htm>

**Saguaro – Exploring the Ocean Environment with GIS**  
<http://www.scieds.com/saguaro/etoe.html>



**Service at Sea – K-12 arc Lessons**

<http://serviceatsea.org/teachers/downloads/>

[http://gis.esri.com/industries/education/arclessons/search\\_results.cfm?new=1](http://gis.esri.com/industries/education/arclessons/search_results.cfm?new=1)

**UK Inter -Agency Committee on Marine Science and Technology**

<http://www.marine.gov.uk/Knowledge%20Base%20Resources%20for%20Schools%20.pdf>

**USGS – Exploring the Titanic Using GIS**

<http://education.usgs.gov/common/lessons/titanic.html>

**USGS – Spatial Analysis of North American Hurricanes Using a GIS**

[http://education.usgs.gov/common/lessons/hurricanes\\_av3.pdf](http://education.usgs.gov/common/lessons/hurricanes_av3.pdf)

[http://education.usgs.gov/common/lessons/hurricanes\\_av8.pdf](http://education.usgs.gov/common/lessons/hurricanes_av8.pdf)