

## Trackline Marine Geophysics

The National Geophysical Data Center's (NGDC) Marine Trackline Geophysics database using GEODAS software contains bathymetric (including an inventory of multibeam bathymetry), magnetic, gravity, and shot-point navigation data collected during marine cruises from 1953 to the present. Coverage is worldwide. Data sources include both U.S. and foreign oceanographic institutions and government agencies. These data are presently available on a 2 CD-ROM dataset.

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

## Seismics

NGDC maintains a large quantity of multichannel and single-channel, seismic-reflection profiles. These are fully searchable with GEODAS as part of the Marine Trackline Geophysics database. Data are available in a variety of formats from 35-mm microfilm, jpeg images, and SEG-Y format.

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

The background image on the title page of this pamphlet is from global seafloor topography measured and estimated from gravity data.

## Sediment Thickness

A digital total-sediment-thickness database for the world's oceans and marginal seas is being compiled by NGDC. The data are gridded with a spacing of 5' x 5'. Sediment-thickness data were compiled from three principal sources: previously published isopach maps; ocean drilling results, both ODP and DSDP; and seismic reflection profiles archived at NGDC. Other seismic data and isopach maps also used are available as part of the IOC's Geological/Geophysical Atlas of the Pacific (GAPA) project. The distribution of sediments in the oceans is controlled by five primary factors:

- 1) Age of the underlying crust
- 2) Tectonic history of the ocean crust
- 3) Structural trends in basement
- 4) Nature and location of sediment sources, and
- 5) The nature of the sedimentary processes delivering sediments to depocenters

The data values are in meters and represent the depth to acoustic basement. It should be noted that acoustic basement might not actually represent the base of the sediments. These data are intended to provide a minimum value for the thickness of the sediment in a particular geographic region.

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

## Coastline

Our coastline/shoreline data consist of the GSHHS - a *Global Self-consistent, Hierarchical, High-resolution Shoreline Database*, NOAA's Medium Resolution Digital Vector Shoreline Database, and NOAA's Coastal Services Center High-resolution Shoreline Database. These data are accessed with the Coastline Extractor software online that allows you to extract coastline segments bounded by a specified latitude/longitude range and then plots the results and generates a custom output file.

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

## Aeromagnetics

Airborne magnetic data include high-altitude, vector data and regional magnetic anomaly surveys and grids collected over land and sea. These data support Earth crustal field studies and modeling of the main magnetic field. In addition, NGDC provides an online inventory of some U.S. high-density, trackline surveys. These data have been reprocessed by the U.S. Geological Survey and are available from the USGS Web.

<http://www.ngdc.noaa.gov/seg/potfld/aromag.shtml>



# New Upcoming Data Streams

## Sidescan

In late 2002, NGDC began the archival of digital sidescan sonar data acquired during the National Ocean Service (NOS) hydrographic survey operations. The data consist of detailed bottom imagery of coastal regions and harbors. Since August 2002, over 1.5 terabytes have been submitted for the archive. Archival and access procedures to handle this emerging high-volume data stream are under development.

## Shallow Water Multibeam Bathymetric Data

NGDC is formulating plans to archive and provide access to raw and semi-processed, high-resolution, shallow-water, multibeam soundings acquired during the NOS hydrographic survey operations. These data will consist of all soundings derived during the course of shallow-water, multibeam surveys, prior to review and editing for survey verification. These data will augment the existing NOS Hydrographic Survey Database by providing a higher resolution and greater density dataset that has been subject to fewer quality control checks.

US Department of Commerce  
National Oceanic & Atmospheric Administration (NOAA)  
National Environmental Satellite, Data & Information Service  
National Geophysical Data Center



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### NGDC Online Store and products:

<http://www.ngdc.noaa.gov/products/>

### Marine Geophysical Data ordering information:

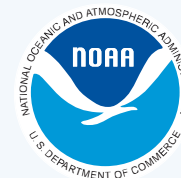
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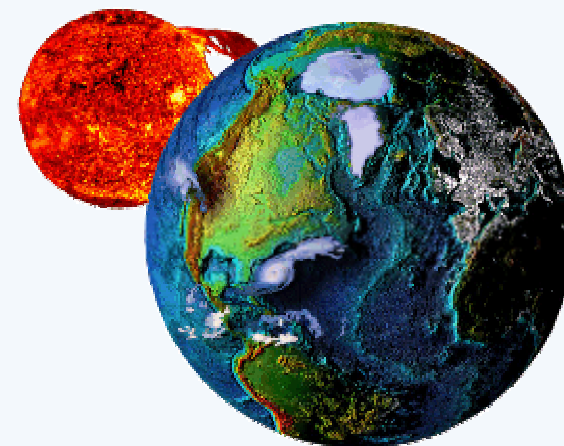
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<http://www.ngdc.noaa.gov/mgg/geodas/trackline.html>

NOAA Satellites and Information  
<http://www.nesdis.noaa.gov>



# Marine Geophysical Data



available from the  
**National Geophysical  
Data Center**

