

Status Report on the MARGINS Data Portal: April, 2010

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The MARGINS database group (www.marine-geo.org/portals/margins) would like to thank the following investigators for contributing since the last newsletter report information and data for a number of MARGINS-funded field programs.

In the PNG area, data is available from the tripartite suite of Melville cruises, VANC13MV-VANC30MV, run in 2003-2004 by Chuck Nittrouer, Andrea Ogston and Miguel Goni. Covering the trades, transition and monsoon seasons, moored tripod data includes ADCP, backscatter, current measurement and pressure data. Also added was sub-bottom profiling data from Melville's Knudsen system, along with sediment coring information and core log data. In that same focus site, sediment core photos and digital core logger data files can be downloaded for the early 2004 cruises, VANC22MV and VANC23MV (PI Neal Driscoll). Additionally, basic cruise information and sediment core photos can be viewed for OK Tedi Mining Company cruise WV1-94 (1994, chief scientist Bob Dalrymple) for which the sediment sample data was used by MARGINS PIs Overeem and Fagherazzi to numerically model the hydrodynamics of deltas.

In the IBM focus site, field program details were added for Fischer/Hilton/Hauri's 2004-2005 volatiles field work, for the Anatahan rapid response effort, and for Adam Kent's 2003 melt inclusion sampling program. Processed swath bathymetry grids from JAMSTEC 2005 cruises aboard Kairei have been added to the GeoMapApp multi-resolution bathymetry DTM: a number of these lie in the IBM region.

The Central America focus site also saw updates. Robert Dull and Sabine Wulf provided details on their 2006 NicLakes sediment coring operations on Lakes Nicaragua and Managua. Peter Lons-

dale released all remaining multibeam data from his 2003 cruises DANA01RR and DANA02RR. Also added was the location of land seismometers used during the airgun shooting operations on the 2008 Langseth TICO-CAVA cruise MGL0804 (PIs Holbrook, van Avendonk, Lizarralde, Cheadle).

For the Gulf of California focus site, information was added for Joann Stock's MARGINS-related 2008 and 2009 terrestrial field sampling activities and for Paul Umhoefer's land-based geological mapping and sample collection fieldwork. All remaining multibeam data collected by Peter Lonsdale in the Gulf of California is now available (cruises DANA07RR, DANA08RR).

Updates for the New Zealand Waipaoa focus site include details of the sediment coring, tripod moorings and CTD data acquisition operations from J.P. Walsh and Reide Corbett's early 2010 Revelle cruise, RR1001. Also added are field details for Tara Kniskern's small-boat coring program in Poverty Bay, along with x-radiograph data files.

In the Red Sea allied site, information on Danny Stockli's 2004-2007 geo- and thermo-chronology rock sampling program is available, as are links to Rob Reilinger's multi-year terrestrial GPS work.

The database record for Casey Moore's Kodiak Islands (Alaska) activities was augmented with details of his 2006 field program there.

Web Page Updates

MARGINS portal web pages (www.marine-geo.org/portals/margins/) include an enhanced Search For Data page. In addition to providing key word searches on scientist name, data and device type, field

program ID, Focus Site, date ranges and geographical bounds, users can search for data associated with specific publications and MARGINS NSF awards. A Google Maps™-based interactive map shows ship survey tracks, stations and samples from MARGINS-funded expeditions within each of the focus sites. Clicking on a track or station invokes a link to the associated data sets and field program information. Statistics on data file downloads are compiled annually and sent to the contributing scientists.

Education and Outreach

In October 2009, the MARGINS database group was represented at the MARGINS education planning meeting held at SERC-Carleton. Attended by nineteen scientists and educators, the workshop focussed upon the structure of an expanded education and outreach component to the GeoPRISMS program (see workshop article on page 14). Undergraduate-level learning modules called MARGINS mini-lessons range from in-class segments to multi-lab units and many make use of GeoMapApp and other database resources. They are available here: <http://serc.carleton.edu/margins/collection.html> Two presentations by the database group in education special sessions at the 2009 Fall AGU meeting concentrated upon the MARGINS mini-lessons project and MARGINS database tools.

MediaBank (<http://media.marine-geo.org>) provides access in a gallery format to a number of MARGINS-related images which include photos of volcanoes, figures from MARGINS PI publications, seismic cross sections and more. The collection was expanded with

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images from the GeoPRISMS draft science plan. Please send additional image contributions.

GeoMapApp and Virtual Ocean

The free map-based data exploration and visualisation tool, GeoMapApp (www.geomapapp.org), saw improved functionality, greater ease-of-use and the addition of new data sets. The inclusion of very high-resolution NASA Aster land elevation data allows stunning base

maps at 10m resolution to be created with GeoMapApp for the entire US landmass, including Hawaii and Alaska. Globally, the NASA Aster data set provides 30m resolution for terrestrial elevations. More grids have been added of JAMSTEC processed multibeam bathymetry in waters around Japan and the western Pacific. New multimedia audio-visual tutorials on the ocean floor drilling interface are available on the GeoMapApp web page.

Virtual Ocean (www.virtualocean.org) offers GeoMapApp capabilities in 3-D and continues to draw new users. A

wide range of built-in data sets is available. As with GeomapApp, data tables can be imported and manipulated, and custom maps can be generated.

The Global Multi-Resolution Topography synthesis (GMRT) which is the base map for GeoMapApp and Virtual Ocean has been updated with multibeam data at regular intervals.

We welcome new contributions of data and information from your MARGINS-funded work: please contact us at www.marine-geo.org/about/contact.php.



MARGINS Database

www.marine-geo.org/margins/

Download data! Get field program information!

Visit the MARGINS database to find information on over seventy MARGINS-funded and related terrestrial and marine field programs in the Focus Sites.

Search for Data (www.marine-geo.org/tools/search/) – search by keyword such as investigator, Focus Site, data type, cruise ID.

GeoMapApp (www.geomapapp.org/) – explore and visualize data. Import grids, spreadsheets, and shape files. Create custom maps and grids. Export grids, images, and data. Connect seamlessly to partner databases including PetDB, SedDB, UNAVCO, IRIS, NGDC.

Virtual Ocean (www.virtualocean.org/) – provides GeoMapApp functionality in 3-D. Import data tables and spreadsheets.

The MARGINS database is a free community resource. For more information about the MARGINS database, please contact info@marine-geo.org or the MARGINS Office.

Source to Sink Systems Around the World and Through Time

Oxnard, California, USA ~24–27 January 2011

Abstract Submission Deadline:

30 September 2010, 2359 Eastern Daylight Time (EDT)

This Chapman conference will substantially expand the results of individual source-to-sink research projects by contrasting diverse dispersal systems. For complete meeting details, including information regarding abstract submission, housing, conveners, and more, please visit:

<http://www.agu.org/meetings/chapman/2011/acall/>