GEBCO 100 m Grid Pilot

Suzanne Carbotte (Lamont-Doherty Earth Observatory)

GMRT

-Multi-resolution gridded synthesis

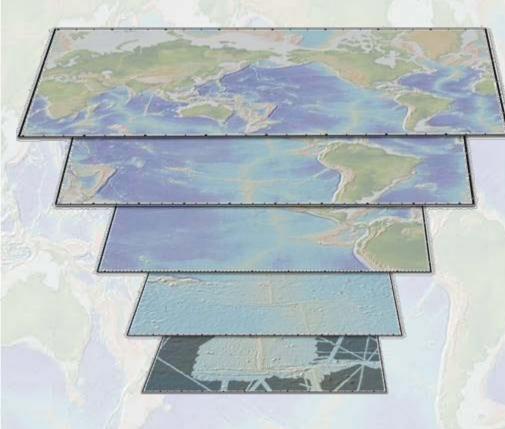
-9 resolution levels to 100 m
-Dynamically maintained
-Includes: ASTER, NED,
GEBCO, IBCAO, BEDMAP
-MB Swath data

-Contributed grids

-Provides attribution to data sources and contributing scientists



Global Multi-Resolution Topography Synthesis (GMRT)



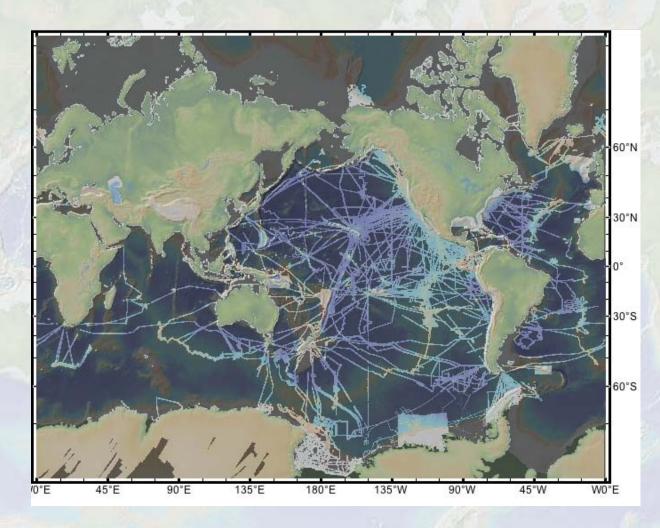
GEBCO

100m swath data and grids

GMRT History

- Ridge Multibeam Synthesis Project [1992]
- Compilation expanded to include US funded data from Southern Ocean [2003]
- Expanded to include public domain data from throughout global oceans [2004 –ongoing]
- Provided 100 m compilation to Googlepublished [spring 2011]
- GEBCO Annual Meeting 2010- Proposed GEBCO100 concept

Motivation for "GEBCO100"



A global synthesis of multibeam data to full native resolution is of high value for science use

Current synthesis is primarily US acquired data

Desire to partner with GEBCO for addition of international data.

GEBCO 100m Proposal

- 1. Lamont contribute its existing 100m gridded multibeam swath compilation as GEBCO 100m synthesis.
- 2. GEBCO100 served from GEBCO site
- Lamont serve as Data Assembly Center for new 100m data sets contributed by the International Community with review by GEBCO Editorial Board
- 4. Lamont export synthesis to BODC for incorporation into GEBCO 30 arc sec synthesis

Development Needs

- 1 Workflow for incorporating GEBCO100 m tile set into GEBCO 08 product
- 2 Workflow for adding new 100 m datasets to the GEBCO1003 Plan for Access to GEBCO100

Primary Issues

Data Flow & Licensing

Editorial Process

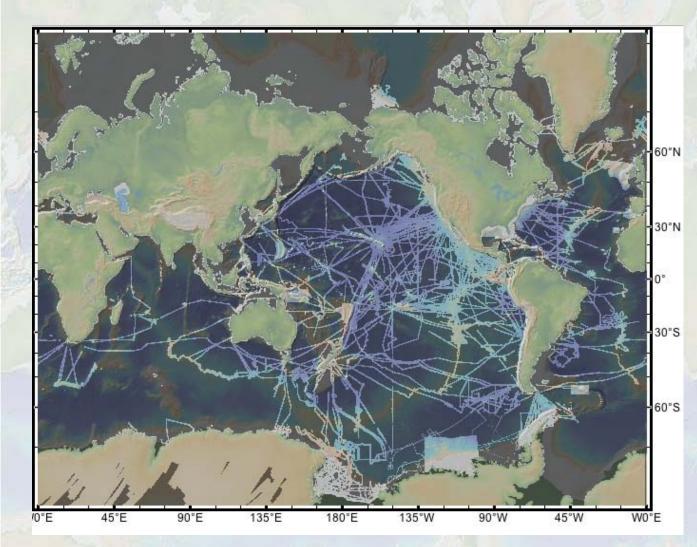
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- 1 Workflow for incorporating GEBCO100 m tile set into GEBCO 08 product
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Progress

- GEBCO Data Flow Meeting
- Export 400 m tiles of existing GMRT to BODC for adding to GEBCO 08
- Provide 400 m tile set for use in a GEBCO Data Store
- Provide Attribution kml with metadata

Added New Content



•70 cruises processed in 2011

• totals =569 cruises

•5.1% of global ocean

• ~ 3.3 million miles

Next Steps

- Build GEBCO100 Prototype WebSite and present to GCC for approval (Lamont)
- Establish licensing agreements/protocols (GCC)
 - Copy right claims can not be made by data contributors for the synthesized products

 Continue workflow development for addition of new data into GEBCO_08 including GEBCO Editorial review process (March meeting follow up -TSCOM/iSCRUM)