

**13th Meeting of IHO HYDROGRAPHIC COMMITTEE
ON ANTARCTICA (HCA)
Cadiz, Spain, 3 – 5 December 2013**

GEBCO Report 2013

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HCA13-08.4.1A

Introduction

The 2013 IHO/IOC GEBCO conference was held at the Istituto di Scienze Marine, Consiglio Nazionale delle Ricerche in Venice, Italy on 7 – 11 October 2013. The meetings were attended by more than 60 participants coming from 24 countries. During GEBCO 2013 the two GEBCO Sub-Committees TSCOM (Technical Sub-Committee on Ocean Mapping) and SCRUM (Sub-Committee on Regional Undersea Mapping) organized workshops and meetings on 7 and 9 October 2013. The IHO/IOC GEBCO Science Day was held on 8 October 2013 during which 17 oral presentations were given going along with 14 poster displays. The conference was co-sponsored by hydrographic software and hardware companies(<http://www.gebco.de>).

Meeting of the GEBCO Guiding Committee (GGC)

The GGC-Meeting took place on 11th October 2013. Major topics given below were reported and discussed by GGC Members.

1. GEBCO Organizational Matters

- a. New GEBCO Guiding Committee Chair
 - i. Chair: Vice Admiral Shin Tani, Chief Hydrographer of Japan, Japan Coast Guard,
 - ii. Vice Chair: Prof Martin Jakobsson, Head, Dept. of Geological Sciences, Stockholm University, Sweden
- b. New GEBCO Guiding Committee Members
 - i. Vice Admiral Shin Tani, Chief Hydrographer of Japan, Japan Coast Guard
 - ii. Dr. Bruce Goleby, Geoscience, Australia
 - iii. Captain PeushPawsey, National Hydrographic Office, India
 - iv. Mr. Chrétien Ngouanet, University of Dschang, Cameroon
- c. New Technical Sub-Committee for Ocean Mapping (TSCOM) Chairs
 - i. Chair: Dr. Karen Marks, NOAA Laboratory for Satellite Altimetry, USA
 - ii. Vice Chair: Dr. Bruce Goleby, Geoscience, Australia
- d. Sub-Committee on Regional Undersea Mapping (SCRUM) Chairs
 - i. Chair: Prof Martin Jakobsson, Head, Dept. of Geological Sciences, Stockholm University, Sweden
 - ii. Vice Chair: Pauline Weatherall, British Oceanographic Data Center, Liverpool, UK

2. Report of the IHB

- i. Director Mustafa Iptes (Directing Committee) and Assistant Director David Wyatt (Professional Staff) of the IHB are in charge of GEBCO matters. Both attended the Meeting.
- ii. The 5th Extraordinary International Hydrographic Conference will be held 06-10 Oct 2014 in Monaco.
- iii. 'Crowd-sourced' bathymetry" is being proposed for the IHO DCDB.

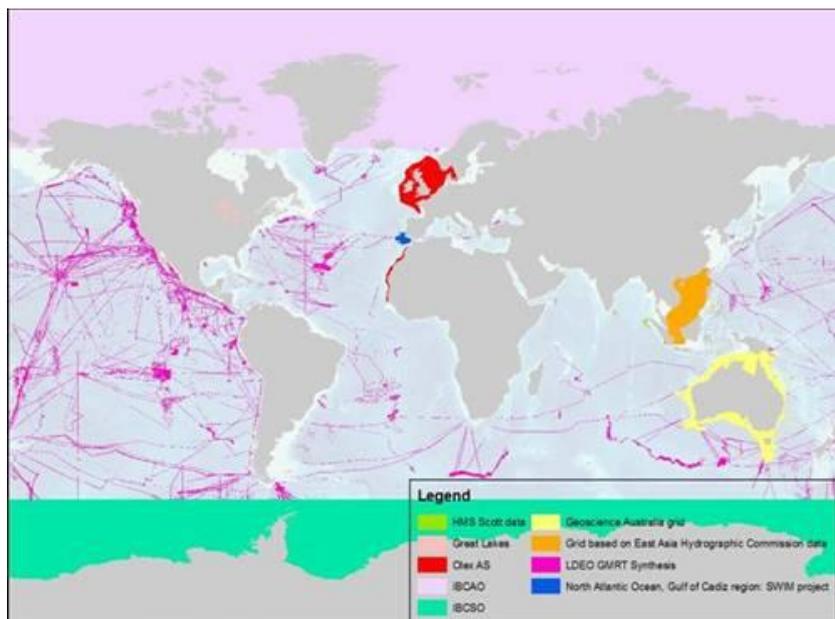
3. Report of the IOC

- i. New assignment of an IOC staff member to liaise with GEBCO: Mr. Osamu Miyaki, Japan, video message from the IOC Executive Secretary for GEBCO
- ii. GEBCO attended 27th IOC-GA in Paris, endorsement of SCRUM
- iii. The IOC 50th Anniversary International Indian Ocean Expedition Initiative could be coordinated with GEBCO's Indian Ocean Mapping Project

4. Report of the GEBCO Digital Atlas Manager

- a. The global 30 arcsec grid is being updated. New grid include:
 - i. IBCSOv1 and Olex (data from fisheries) for the NW European shelf regions
 - ii. EMODnet (European waters) – (www.emodnet-hydrography.eu)
 - iii. Baltic Sea Bathymetry Database (<http://data.bshc.pro>)
 - iv. Grid for part of the North Pacific region (from Japan)

Publication of the new grid is anticipated at the end of January 2014 and will be called *GEBCO_2014*.



5. Report of the Technical Sub-Committee for Ocean Mapping (TSCOM)

- i. GEBCO has compiled a technical reference manual, the *IHO-IOC GEBCO Cook Book* on how to build bathymetric grids. It is a living document with growing interest. It will be continually updated with new contributions. The current version is dated on June 2013 http://ibis.grdl.noaa.gov/SAT/GEBCO_Cookbook/index.php.
- ii. Areas of emphasis for the coming year are: GEBCO's global 30 arc second grid. Further important issues are: Outreach, Metadata, Crowd Sourcing bathymetric data, Vertical Datum.

b. Opportunities and Challenges Ahead

Following topics which are of interest for GEBCO were discussed in sub-groups:

- i. Coast lines, definitions, sources, quality
- ii. Vertical Datum
- iii. Mining shallow water soundings
- iv. Variable sized grids
- v. Meta data, confidence limit, and quality assessment
- vi. Data exchange and ingestion of data
- vii. GEBCO as a "one-stop-shop" for bathymetry
- viii. Education and outreach
- ix. to demonstrate that ENC's provide valuable input to GEBCO

6. Report of the Sub-Committee on Regional Undersea Mapping (SCRUM)

- a. SCRUM was endorsed by IHO (2012) and IOC (2013) and is a GEBCO sub-committee.

The working program of SCRUM includes:

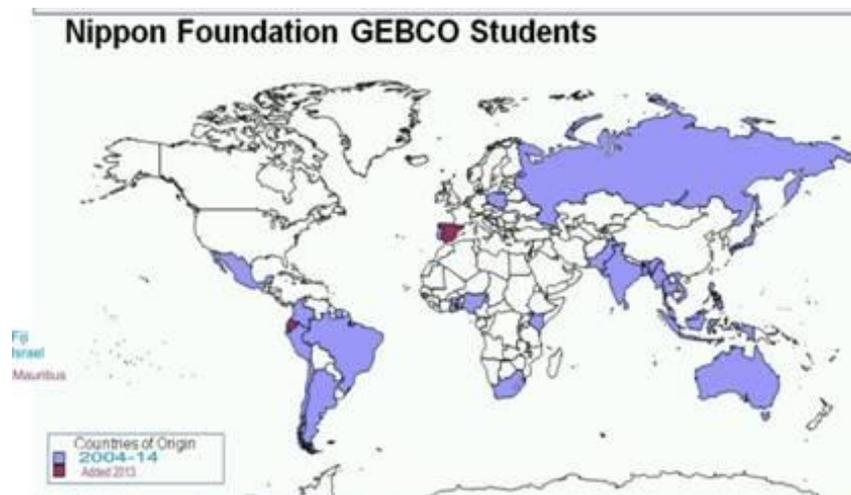
- i. International Bathymetric Chart of the Arctic Ocean (IBACO) v3.0 www.ibcao.org
- ii. International Bathymetric Chart of the Southern Ocean (IBCSO) v1.0 www.ibcso.org
- iii. Indian Ocean Regional Mapping Project (under development)
- iv. Baltic Sea Regional Map (under development)
- v. Updated global grid, GEBCO_08 www.gebco.net
- vi. Updated GEBCO World Map (printed & digital)

7. Report of the Sub-Committee on Undersea Feature Naming (SCUFN)

- i. Ref. to HCA13-08.4.1B

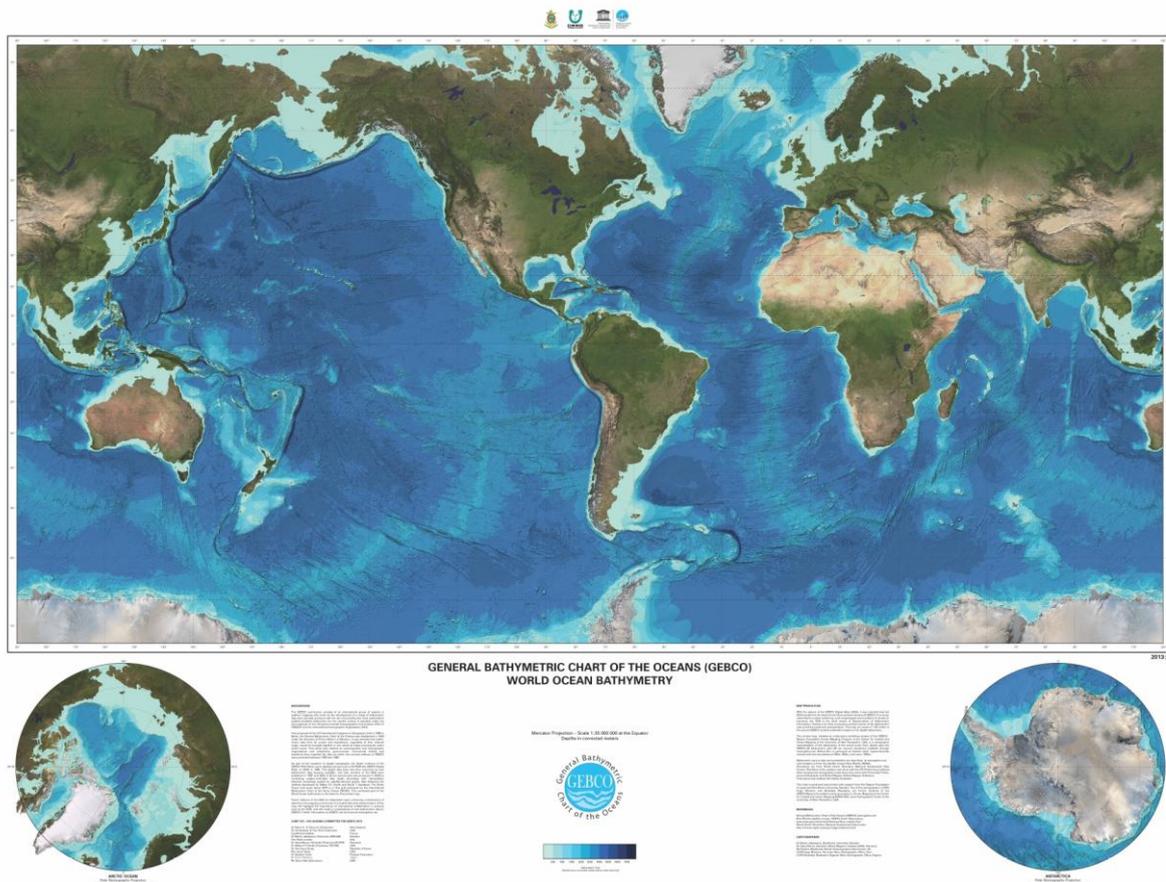
8. Nippon Foundation/GEBCO Training Project

- i. With funding from the Nippon Foundation of Japan, GEBCO has trained a new generation of 'bathymetrists' through a special GEBCO designed and managed course in ocean mapping at the University of New Hampshire (UNH). This programme is in its tenths year. There are now 54 course graduates and actually 6 students currently at UNH from 31 different countries. 40 students coming from IHO-MS and 20 from academia.
- ii. As a result of their training, scholars are active members on GEBCO subcommittees and working groups and increasingly are in influential positions in their national organizations and members of Editorial Boards of the IBC projects.
- iii. The NF/GEBCO course at the UNH is a one-year Master level course. Students are taught theoretical and practical aspects of ocean mapping, work on a team project, spend time at other ocean mapping institutes and participate in a deep sea mapping cruise.
- iv. A celebration of the 10th Anniversary of the Training Project will be conducted in 2014.



9. The GEBCO World Map

- i. The GEBCO World map has now been updated using the new GEBCO_08 grid as the main bathymetric source. The map is available for download from the GEBCO web site http://www.gebco.net/data_and_products/gebco_world_map/.
- ii. Prototypes of GEBCO Globes of different diameters were manufactured based on the GEBCO World Map.



10. Recent and Future Activities

- i. GGC Terms of Reference will be updated this year
- ii. GEBCO as project under the IHO Inter-Regional Coordination Committee (IRCC) will strengthen its organizational and financial structure with support of the IHB
- iii. GEBCO will develop a 2013-14 work-plan as part of the implementation of the GEBCO portion of the 2013-17 IHO work-plan
- iv. The GEBCO Meeting venue in 2014 has not been determined yet,
- v. SCUFN-27 will take place in Monaco in June 2014
- vi. GEBCO Meeting 2015 is scheduled to take place in Kuala Lumpur.