

**Paper for Consideration by
World Wide ENC Database Working Group**

**Proposal to support the Seabed 2030 global initiative by requesting the RENC's
establish processes for Coastal States to authorize and extract bathymetry data from
ENCs for delivery to the IHO DCDB**

<i>Submitted by:</i>	Germany, New Zealand, Norway, Sweden and USA.
<i>Executive Summary:</i>	Proposal for the RENCs to provide bathymetric data, material and processing support to help the community meet the goals of the IHO-IOC GEBCO Seabed 2030 Project. The RENCs are requested to establish consistent, simplified processes for Coastal States to enable bathymetric data within territorial waters be made available to the IHO DCDB. Additionally, request the RENCs develop methodology to extract bathymetric data and work with IHO-DCDB regarding submission requirements.
<i>Related Documents:</i>	<ul style="list-style-type: none"> a) IHO Circular Letter 11 of 2016 (CL11/2016), Request for Shallow Water Bathymetric Data b) GEBCO-Nippon Foundation draft publication, Seabed 2030 - The Roadmap for Future Ocean Floor Mapping c) Geosciences concept paper, The Nippon Foundation – GEBCO Seabed 2030 Project: The Quest to see the World's Ocean Completely Mapped by 2030
<i>Related Projects:</i>	<ul style="list-style-type: none"> a) IHO-IOC General Bathymetric Chart of the Oceans - GEBCO b) IHO Crowd-Sourced Bathymetry Working Group – CSBWG c) IHO Data Center for Digital Bathymetry – DCDB d) IHO/IOC GEBCO Seabed 2030 Project

Background

The shape and depth of the ocean floor forms one corner stone of the geospatial framework that is needed to effectively manage the marine component of a coastal nation. The bathymetric data is a national and global resource that with broad use, creates opportunities for operational efficiencies, cost savings and reduction of risk to marine navigation. Providing broad access to data, usable to the public, can help fuel entrepreneurship, innovation, and scientific discovery – all of which improve lives and contribute significantly to job creation. The use of ocean depth data includes scientific research, navigation, exploration, fisheries and tourism, to name just a few. Sharing data across regions allows improved understanding of physical characteristics across large ecosystems and economic activities that transcend national boundaries.

The GEBCO Seabed 2030 Project sets the goal of collecting, using and sharing, bathymetric data of the world's oceans. The project seeks to encourage the data collectors and data managers of governmental, academic and private interests to work together to improve the quality of publicly-available grids of the ocean floor. This project is focused on the goal of compiling a high-resolution, openly available, Digital Bathymetric Model (DBM). This DBM should efficiently provide bathymetric information at an improved resolution to end users. The Seabed 2030 project has potential to create partnerships and cooperation between interested parties, significantly improving our understanding of the sea floor and empower sustainable ocean management in the coming century. Seabed 2030 is a global project within the IHO-IOC GEBCO framework with the focused goal of producing the definitive, high-resolution bathymetric map of the entire World Ocean. This ambitious initiative is driven by a strong motivation to empower the world to make policy decisions, to use the ocean sustainably and undertake scientific research based on detailed bathymetric information of the Earth's seabed.

Though some areas of the world are covered by high resolution bathymetric data, this proposal aims to support the Seabed 2030 initiative in making existing data available for areas where GEBCO has little or poor coverage.

The vast majority of IHO MS distribute their ENC's through a RENC for the purpose of standardized, quality assured and controlled ENC distribution to our SOLAS end-users. As a consequence, nearly all ENCs worldwide are available through the RENC system in S-57 format. If IHO MS allow the RENCs to distribute their S-57 bathymetric data (or parts of it) to the IHO DCDB, it would be a significant gesture of high impact. It would be both a large initial data contribution of the IHO to the Seabed 2030 program and, with that, a recognition of the importance of the Seabed 2030 program by the IHO MS. At present, the RENCs do not have tools to automatically extract depth-sounding data from ENCs but can be asked by their members to develop this. The RENCs should cooperate with the IHO DCDB as to the most pragmatic solution.

This proposal requests the RENCs to collaborate to establish consistent, simplified processes for Coastal States to authorize bathymetric data within territorial waters be made available to the IHO DCDB. Additionally, request the RENCs develop methodology to extract bathymetric data and work with IHO-DCDB regarding submission requirements.

If, and only if, permission is granted by a MS, and a pragmatic solution for depth-sounding extraction is developed, RENCs could distribute S-57 bathymetric data to the IHO DCDB for the sole purpose of the GEBCO Seabed 2030 program.

Recommendation

The submitting Member States request the WEND WG and the RENCs, to actively engage with their respective MS and ask them to contribute to the Seabed 2030 program as proposed.

1. Request the RENCs work together to create a common interface/data re-use form that allows nations to identify permissible data re-use parameters.
2. Request the RENCs establish bathymetric extraction routines
3. Request the IHO DCDB work with the RENCs to establish delivery schedules and preferred data submission requirements.
4. IHO DCDB to coordinate with the SeaBed 2030 Regional Mapping Centres as required for use of the data within the GEBCO grid.