

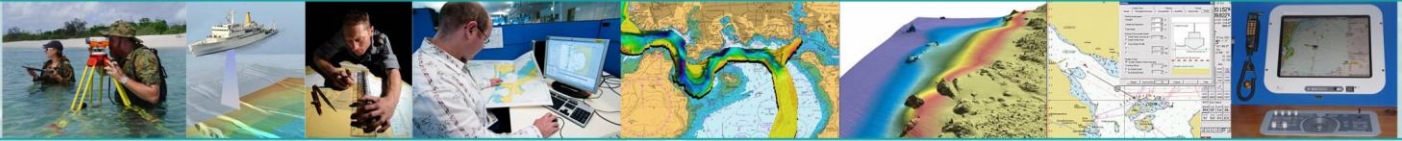
**9<sup>TH</sup> MEETING  
OF THE CROWDSOURCED BATHYMETRY WORKING GROUP  
VIRTUAL VIDEO CONFERENCE  
30 June - 2 July**

Contribution to the IHO Work Programme 2020	
Task 3.6.4	Develop general guidelines on the use and collection of Crowdsourced Bathymetry (CSB)

The Crowdsourced Bathymetry Working Group (CSBWG) has been tasked by the Inter-Regional Coordination Committee (IRCC) to develop the IHO publication B-12 that provides guidance on the collection and use of Crowdsourced Bathymetry (CSB) and to investigate ways to increase participation in data gathering activities. IHO Publication B-12, Edition 2.0.2 - *Guidance on Crowdsourced Bathymetry*, provides guidelines and advice on various considerations that should be taken into account when collecting CSB data for inclusion in the global bathymetric data set which is maintained in the IHO Data Centre for Digital Bathymetry (DCDB).

Due to the ongoing global travel restrictions, the working group held its 9<sup>th</sup> meeting from 30 June to 2 July 2020 as a remote Video Tele Conference (VTC) instead of the planned meeting in Stavanger, Norway. The three sessions were chaired by the CSBWG Chair, Ms Jennifer Jencks (USA, Director of the DCDB). The sessions were attended by 43 participants from ten Member States (Canada, Croatia, Denmark, France, Italy, Netherlands, Norway, Portugal, UK and USA) and observers and expert contributors from Nippon Foundation-GEBCO Seabed 2030 Project, Center for Coastal and Ocean Mapping/Joint Hydrographic Center – University of New Hampshire (CCOM/JHC - UNH), Fugro, Da Gama Maritime Ltd, Environmental Systems Research Institute, Inc. (ESRI), FLIR Systems AB, SevenCs/ChartWorld, Electronic Chart Centre (ECC) AS, NAVICO/C-Map, Centre Interdisciplinaire de Développement en Cartographie des Océans (CIDCO), Sea-ID, Ground Maritime Aerospace Technologies (GMATEK), Inc., Japan Agency for Marine-Earth Science and Technology (JAMSTEC), World Ocean Council (WOC), Farsounder INC., ONE Data Technology Co., Ltd and TeamSurv. Assistant Director David Wyatt (Secretary) represented the IHO Secretariat.

The 43 participants reviewed and approved the report of the CSBWG8 meeting and received a general progress brief from the Chair. This was followed by a brief on current development work in the DCDB and other related CSB projects and activities. The briefings covered improvements to the DCDB pipeline and data viewer, as well as

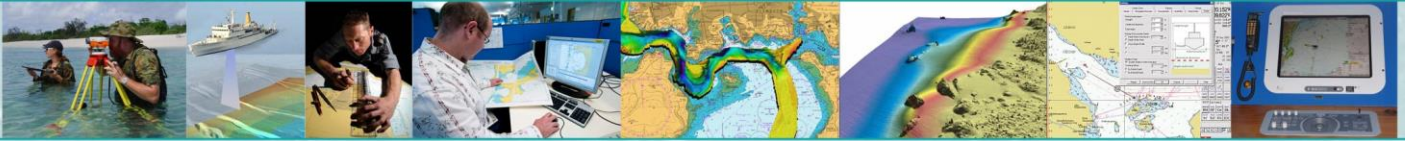


ongoing work with MacGregor/Carnival Cruise Lines to extract bathymetric data from their voyage data recorder systems. The newly developed geographic filter application in the DCDB, which suppresses embargoed data from public availability, was also described.

The participants also received a briefing on the data logger project undertaken by students at the University of New Hampshire, USA, to study the performance of a number of different data loggers to determine the most suitable for use in a particular region. The brief included details of a logger built and operated by the students, for which they had developed associated software for data management. Briefings were provided by C-Map/NAVICO, CIDCO of Canada, FarSounder, JAMSTEC and TeamSurv covering their activities. C-Map/NAVICO provided details on their 'Social Map' initiative and how they process the resultant crowd data to generate contour maps; the approach to increase engagement to complete areas of sparse or no data was provided, including a proposed reward scheme for contributors to complete designated 'survey lots', as well as new data types such as seabed texture, vegetation type, navigation aids, shoals and obstructions. CIDCO provided details on their projects in northern Canada, in particular a number of lessons learned, which are of relevance to all CSB community focused projects globally. All these briefings generated numerous questions and a wide ranging discussion, much of it conducted on the GoToMeeting 'Chat Log' facility.

The remainder of the first session and session two were focused on improving the CSB messaging and coordination with associated projects, in particular IHO-IOC GEBCO Project, the Nippon Foundation-GEBCO Seabed 2030 Project and the WOC activities. The Director Seabed 2030 provided a comprehensive update on the next stage of the project, including details on a number of new initiatives. Rogier Broekman (NLD and Chair Data Quality Working Group) provided on short brief on relevant data quality issues, including work on data uncertainty of CSB data and thus it's potential for inclusion in official Hydrographic Office products. Details of the development of tools to compare CSB data with official published data were provided by the Canadian Hydrographic Service and ECC, in addition Sea-ID provided the access link to a wiki, in which articles, papers and images related to CSB would be stored and made generally available.

Session three focused on ways to improve the CSB outreach strategy, ways to increase contributions from selected maritime sectors and progressing the proposal to identify sector and regional ambassadors to encourage participation from the maritime industry as well as to explain and increase coastal state support for the provision of data into the public domain. A number of industry sectors were identified and individuals to draft relevant communications material were agreed. The proposed draft guidance,



developed by Sea-ID, for inclusion in B-12 on the roles, resources and responsibilities of a Trusted Node was discussed as well as the ongoing translation of B-12 into French by Shom. It was highlighted that close cooperation should be developed between CSBWG, GEBCO and Seabed 2030 on all aspects of communications and outreach, it was also noted that the Communications and Public Relations Officer at the IHO Secretariat should be included in these activities.

Global travel conditions allowing, it is planned to hold the 10<sup>th</sup> CSBWG meeting in Stavanger, Norway, from 12 to 16 April 2021, which will include a one day stakeholder workshop.



Some of the 43 participants connected for the CSBWG9 remote meeting.