

11. Data gathering and Management, Maximizing the use of Hydrographic Data

- Docs:*
- IRCC7-11A ToR for Crowd-sourced Bathymetry WG (IHB)*
 - IRCC7-11B Guidance on Access to Bathymetric Data Collected for Commercial or Scientific Purposes (IHB)*
 - IRCC7-11C Update on Risk Assessment Methodology (NZ)*
 - IRCC7-11D Considerations on the development of GEBCO (IHB)*
 - IRCC7-11E Maximising Access to Hydrographic Information (UK)*
 - IRCC7-11F Proposal to add the topic of satellite-derived bathymetry as a standing agenda item at all future IRCC meetings (USA and Canada)*
 - IRCC7-11G A Risk-based Methodology of Assessing the Adequacy of Charting Products in the Arctic Region: Identifying the Survey Priorities of the Future (ARHC)*
 - IRCC7-11H Chart Adequacy Evaluation International Workshop (USA)*

The IHB introduced document IRCC7-11A proposing the ToR for a Crowd-sourced Bathymetry (CSB) Working Group (CSBWG) and presented the concept of the CSB to facilitate the collection of data into the IHO DCDB (hosted by the USA on behalf of the IHO) and how users can then decide the use of the data. This new data will eventually trigger the action of the respective hydrographic service. Data or metadata will be available via a web portal to users with different requirements.

The IHB informed the Committee that DCDB is under a 3-year review programme and highlighted the potential participation from Member States, maritime industry, established commercial CSB programmes. He also stressed that some questions are not yet answered and will need to be addressed by the CSBWG: metadata requirements, determination of uncertainty, common data exchange format, DCDB maintenance costs, privacy, liability and security issues, commercial use of public data amongst others. The meeting agreed on the following decisions and actions:

Decision 38: the IRCC established a Crowd-Sourced Bathymetry Working Group (CSBWG) under the Terms of Reference contained in Annex A to doc. IRCC7-11A.

Action 63: IHB to issue a Circular Letter announcing the establishment of the CSBWG and seeking nominations from Member States (deadline: July 2015).

Action 64: IHB to liaise with the IHO DCDB Director to facilitate the establishment of the CSBWG (deadline: November 2015) – (Post meeting note: a liaison meeting took place on 5 June 2015 at the DCDB in the USA).

Action 65: IHB to update the IRCC section on the IHO website to include the CSBWG (deadline: June 2015).

Action 66: IRCC to review the progress of the CSBWG and its ToR (deadline: IRCC8).

Decision 39: the IRCC appointed the Director of the IHO DCDB as the Chair of the CSBWG.

The IHB then introduced document *IRCC7-11B* on guidance on access to bathymetric data collected for commercial or scientific purposes and proposed a way forward to help the broad hydrographic community to access available data.

In line with the previous paper UK introduced document *IRCC7-11E* on maximizing access to hydrographic information and highlighted the insufficient knowledge of the seabed, the wider uses of hydrographic data, the fact that less than 20% of data collected are made available to hydrographic services, the cost of bathymetric surveys and the increasing engagement of hydrographic services and stakeholders.

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Brazil informed the Committee that there are two national regulations to cope with the surveys done by companies and those by government institutions. The IRCC considered the proposals and following a debate agreed on the following actions:

Decision 40: the IRCC noted the papers concerning access to bathymetric data (docs. IRCC7-11B and 11E) and decided to prepare a relevant supplement or additional chapter, as appropriate, to C-17-Spatial Data Infrastructures: “The Marine Dimension” - Guidance for Hydrographic Offices and to seek examples of national legislation that enable government access to bathymetric data collected for commercial or scientific purposes for inclusion in IHO publication C-16 - National Hydrographic Regulations (see also Action IRCC7-30).

Action 67: MSDIWG to prepare a supplement or additional chapter, as appropriate, to C-17-Spatial Data Infrastructures: “The Marine Dimension” - Guidance for Hydrographic Offices to provide guidance on mechanisms that can be established to improve national access to bathymetric and related hydrographic data originally collected for commercial or scientific purposes. This work should take into account docs. IRCC7-11B and IRCC7-11E (deadline: IRCC8).

Action 68: MSDIWG to submit the draft revision to C-17 resulting from the work under Action 67 to IRCC for review and endorsement prior to any formal adoption by Member States (deadline: IRCC8).

The IHB introduced document IRCC7-11D with considerations on the GEBCO development and the GEBCO store concept and highlighted the potential impact of GEBCO to face the growing acknowledgement and awareness of the relevance and the potential contribution of hydrographic information for the global geospatial data infrastructures. He stressed that in order to make GEBCO effective is necessary a coordinated work with the DCDB for this data store. The IRCC then agreed on the following decision and action:

Decision 41: the IRCC noted the recommendations outlined in paragraphs 15 to 18 of the paper on Considerations on the development of the General Bathymetric Chart of the Oceans (GEBCO) (doc. IRCC7-11D.) and agreed that:

1. the development of the GEBCO Data Store should be coordinated with the current upgrade of the IHO DCDB that is intended to improve support for CSB and ocean mapping data discovery;
2. mechanisms should be developed to promote the collection of bathymetric data from scientific and crowd-sourced cruises and to ensure that the data is made available to GEBCO, accompanied by appropriate metadata, through the IHO DCDB;
3. methods and initiatives to improve the recognition of GEBCO as the "the most authoritative publicly available bathymetry of the world's oceans" in support of global and regional programmes related with Earth observation and monitoring should be identified; and
4. affordable methods to produce geo-referenced raster copies of the repository of GEBCO ocean maps and plotting sheets that are held at the IHB should be further identified and, if appropriate, the relevant specifications should be developed.

Action 69: GEBCO Guiding Committee (GGC) to take into consideration the recommendations in doc. IRCC7-11D in implementing the GEBCO work plan and report progress on those recommendations to IRCC (deadline: IRCC8).

The SWPHC Chair introduced document *IRCC7-11C* on risk assessment on behalf of New Zealand and informed the Committee on the development of the risk assessment methodology developed by the Land Information New Zealand (LINZ) for the Minister of Foreign Affairs and Trading (MFAT) in support of the South West Pacific Region Hydrographic Programme (SWPRHP) and the Pacific Region Navigation Initiative (PRNI). This methodology was validated and used in Vanuatu, Tonga and Cook Islands and will be also in Samoa, Tokelau and Niue. This will be expanded in the future for the New Zealand Exclusive Economic Zone and the Ross Sea Region in Antarctica.

USA introduced document *IRCC7-11F* proposing to include satellite-derived bathymetry (SDB) as a standing agenda item in all future IRCC meetings and stressed the growing importance of SDB as an assessment tool and a non-traditional source of hydrographic data. The Chair informed the Committee that SDB is already a permanent agenda item for IRCC meetings.

The ARHC Vice-Chair introduced document *IRCC7-11G* on a risk-based methodology for assessing the adequacy of charting in the Arctic region and informed the Committee on the preliminary results and benefits of such a methodology. He also stressed that this work is helping the respective hydrographic services in directing their hydrographic assets in the region.

USA introduced document *IRCC7-11H* on a workshop on chart adequacy aimed at providing an overview of the chart adequacy assessment procedure that was developed by NOAA, based on depth, main traffic routes, the last available hydrographic survey in the area, and known discrepancies identified using SDB and other methods. He informed the meeting that the results of the workshop will be reported to IRCC8.

Decision 42: the IRCC noted the other reports under agenda item 11 (docs IRCC7-11A, IRCC7-11C, IRCC7-11D, IRCC7-11F, IRCC7-11G, IRCC7-11H).