

TSCOM Report

Submitted by Technical Subcommittee on Ocean Mapping (TSCOM)

SUMMARY

Executive Summary: Update IHO Resolutions

Action to be taken: Approve suggested updates at Annex A

Related documents: GGC33-6.3 IHO Resolutions

1. TSCOM and SCRUM Chairs recommend an interim update as detailed at Annex A:

Update outdated and historic comments
Reviewed for current relevance
2. Final update once CSB and Seabed 2030 Guidelines are in place.

Annex:

- A. Draft amendments to IHO resolutions

IHO Resolutions

The following IHO Resolutions cover topics and issues, in total or part, for which the GEBCO Guiding Committee (GGC) and its subordinate bodies are subject matter experts. It is therefore appropriate for the GGC to task the relevant subordinate body/bodies to review the Resolutions and propose changes and amendments as necessary for GGC34.

In the first instance it is considered this process will be led as indicated below:

3/1929 as amended (*Centralization of oceanic soundings*) - TSCOM;
 3/1932 as amended (*Collecting oceanic soundings*) - TSCOM;
 4/1932 as amended (*Metadata for oceanic soundings*) - TSCOM/SCRUM;
 2/1962 as amended (*Oceanographic observations*) - SCRUM/TSCOM; and
 8/1962 as amended (*Oceanographic information*) - SCRUM/TSCOM.

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| CENTRALIZATION OF OCEANIC SOUNDINGS | 3/1929 as amended | 85/2008 | A5.3 |
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1 Full details of the information required to accompany data, and the criteria for its quality control, are contained in the GEBCO Guidelines (IHO Publication B-7).

2 Data Storage and exchange of data.

- a) Member States are requested to remind institutions and organizations within their own country of the desirability of collecting bathymetric data, whenever possible, in the course of oceanographic missions.
- b) It is recommended that Member States inform the **IHO Secretariat** of any details concerning recent bathymetric data collected by themselves or by other national institutions and organizations, about which they may have been notified. The standard format below should be used for this purpose:
 - i) Country of origin;
 - ii) Institution or authority responsible for the mission;
 - iii) Name of vessel which carried out the soundings;
 - iv) Date (month and year);
 - v) Location (general sea area or significant points along track); and
 - vi) Terms under which data may be obtained (address for requests, method of ordering, price, or whether free on a mutual data exchange basis, etc.).

The **IHO Secretariat** will issue an annual CL requesting such information.

3 All bathymetric data collected should be forwarded by HOs to the IHO Data Centre for Digital Bathymetry (DCDB) **via File Transfer Protocol (FTP), email, or mail (CD, DVD, and hard drive) in the formats below. Other formats will be considered on a case-by-case basis.** The IHO DCDB should be notified of digital data that have been found to be in error; if possible, a corrected version should be submitted as well.

- **Raw sonar data:** MGD77T or the original manufacturer's format
- **Processed data:** BAG, NetCDF, tiff, xyz, sd, asc, etc.
- **Metadata:** XML or text

4 Information concerning Recent Bathymetric Data IHO Publication B-4

At the beginning of each calendar year, the **IHO Secretariat** shall make available an updated version of the online publication B-4 showing all bathymetric data received during the preceding year. These data will be available for download from the IHO DCDB **in the formats provided and listed above.**

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| COLLECTING OCEANIC SOUNDINGS | 3/1932 as amended | 85/2008 | A5.1 |
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1 It is strongly recommended that Hydrographic Offices include in their programmes regular and systematic surveys of ocean areas beyond the continental shelves.

2 It is recommended that when Hydrographic Offices plan oceanic surveys they attach sufficient importance to obtaining data which will be useful not only for navigation purposes but also for promoting knowledge of the morphology of the sea floor **and filling gaps in global ocean survey coverage.**

3 It is recommended that Hydrographic Offices interested in the same oceanic areas arrive at an understanding among themselves regarding a suitable division of their zones of activity and priorities.

4 It is recommended that, as concerns oceanic soundings, Hydrographic Offices work in close cooperation with the oceanographic bodies of their respective countries and use a standard procedure for recording data.

5 It is recommended that ships fitted with MBES or SBES be requested to collect bathymetric soundings and communicate the results of such soundings to the Hydrographic Offices of their respective countries with all information required to enable their accuracy to be estimated. The use of sound velocity calibration in accordance with the guidance set out in the IHO Manual on Hydrography (C-13) is recommended.

6 It is recommended that newly-discovered topographic undersea features should be properly mapped and named following the "Standardization of Undersea Feature Names" IHO-IOC Publication B-6.

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| METADATA FOR OCEANIC SOUNDINGS | 4/1932 as amended | 85/2008 | A5.2 |
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It is resolved that oceanic soundings, together with the metadata and potential additional supplementary information, shall be collected and **exchanged in digital form**.

Metadata should comprise at least information on:

- a) the survey in general as e.g. date, area, equipment used, name of survey platform;
- b) the geodetic reference system used, i.e. horizontal and vertical datum; including ties to WGS 84 if a local datum is used;
- c) calibration procedures and results;
- d) sound velocity;
- e) positioning information e.g. GPS, RT-DGPS, GLONASS, GALILEO;
- f) tidal datum and reduction (if applicable); and
- g) accuracies achieved and the respective confidence levels.

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| OCEANOGRAPHIC OBSERVATIONS | 2/1962 as amended | 59/1991 | A1.3 |
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It is recommended that Member States should make every effort to collect and coordinate the collection of all types of oceanographic data, by their hydrographic services and other of their national institutions. The results of all such observations should be communicated to appropriate national and international Oceanographic Data Centres for maximum utilization by all marine scientific and hydrographic users.

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| OCEANOGRAPHIC INFORMATION | 8/1962 as amended | IHC 16 | C3.13 |
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1 It is recommended that the introductory part of Sailing Directions includes oceanographic information concerning general currents and a brief account of the main characteristics (temperature, salinity, density) of surface water.

2 It is recommended that a reference be made to the relevant oceanographic and tidal atlases, whenever possible.