IHO Standards

Standardisation of hydrographic methods and the provision of information is a fundamental part of achieving the IHO objectives. The Organization began developing standards and guidelines intended for use by the wide community of professionals with responsibilities in the fields of hydrography, nautical cartography, safety of navigation and related matters.

The objectives of the International Hydrographic Organization (IHO) are:
- the co-ordination of the activities of national hydrographic offices (HOs)
- the greatest possible uniformity in nautical charts and documents
- the adoption of reliable and efficient methods of carrying out and exploiting hydrographic surveys
- the development of the sciences in the field of hydrography and the techniques employed in descriptive oceanography.

IHO standards are compiled and maintained by various Working Groups made up of volunteer representatives from IHO Member States (usually from HOs), together with expert contributors representing industry and the various other stakeholder groups. Standards must be authorised by a majority of IHO Member States before they can enter into force. The following IHO standards are among the most important.

S-44 – Standard for Hydrographic Surveys
S-44 sets out the standards required for the execution of hydrographic surveys for the collection of data primarily intended for the compilation of nautical charts to be used for the safety of surface navigation and the protection of the marine environment.

M-5 and M-8 – Standards for Education and Training
M-5 and M-8 are maintained by the FIG/IHO/ICA International Advisory Board and set out the minimum standards required for international recognition of training courses in hydrographic surveying (M-5) and nautical cartography (M-8). The standards also provide the procedures for submission of documentation and a complete model syllabus.

S-32 – Hydrographic Dictionary
A permanent working group maintains the IHO Hydrographic Dictionary (S-32), which now contains almost 7,000 definitions of words and terms used in hydrography and associated activities.

M-12 and M-3 – Standards for Nautical Publications
M-12 provides a structure for the publication of List of Lights and Fog Signals. M-3 is the consolidated Resolutions of the IHO. M-3 contains detailed guidance on the composition of nautical publications such as Sailing Directions.

M-4 and M-11 – Standards for Paper Charts
M-4 provides the chart specifications for the compilation and presentation of nautical charts issued by charting authorities such as HOs, together with agreed symbols and abbreviations. M-11 provides specific regulations for the co-ordination and production of INT charts.

S-52, S-57, S-61, S-63 – Standards for Electronic Charts
S-57 describes the data standard to be used for the exchange of digital hydrographic data generally. The product specification for electronic navigational charts (ENCs) is described in an Annex to S-57. S-63 provides the standard for data protection (encryption) of ENCs, while S-52 provides specifications and guidance regarding the issuing of ENCs, their display in an electronic chart display and information system (ECDIS) and their updating. S-61 defines the minimum requirements for a raster navigational chart (RNC) to be used in the Raster Chart Display System (RCDS) Mode of Operation, as described in the IMO Performance Standards for ECDIS.

The full list and availability of IHO standards is at the webpage below.