

IHO Programme 2 “Hydrographic Services and Standards”
2.1 – General

PUBLICATION OF NAUTICAL DOCUMENTS BY PRIVATE PUBLISHERS	1/1982 as amended	IHC 15	A1.18
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It is resolved that the reproduction of charts and nautical publications by private publishers should generally occur in accordance with the following principles. It is recognized that Member States may wish to enter into other arrangements between themselves:

- a) No hydrographic service may grant permission for the reproduction, either complete or In part, of charts or nautical publications published by it, if the area or part in question includes data collected by other hydrographic services.
- b) The copyright on the data belongs to the hydrographic service which is the originator of the data included in a chart or nautical publication.
- c) Requests from private publishers should be passed to the originating hydrographic service.
- d) A caveat referring to the publisher's copyright laws should be exhibited on charts and publications. If national laws do not enable the publishing Hydrographic Office to withhold consent from private publishers, then the caveat should specify the requirement to obtain the permission of other Hydrographic Offices as in (b) above.
- e) Suggested wording for the caveat:

"This chart contains original data of the (name of the originating hydrographic service). Reproduction of any kind, even in the form of extracts, is authorized only with the permission of the (name of the originating hydrographic service)".

[See also 7/1919 \(A3.4\)](#)

PRINCIPLES AND PROCEDURES FOR MAKING CHANGES TO IHO TECHNICAL STANDARDS AND SPECIFICATIONS	2/2007	69/2014	A1.21
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1. Scope

1.1 These principles and procedures are intended to be applied to all proposals for changes to IHO technical standards and for new work items that will require significant resources to resolve or will potentially impact on those who need to apply the standards. They are not intended for IHO publications, catalogues or supporting documentation of a guidance, general or non-technical nature.

1.2 Any reference to “standards” in these principles and procedures follows the ISO/IEC definitions for *standard* and *guide* and may therefore also include some IHO “specifications” and “guidelines” as appropriate².

² ISO/IEC Directives, Part 2 - Rules for the Structure and Drafting of International Standards defines a standard as

... a document, established by consensus and approved by a recognized body, that provides for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context.

The ISO defines a guide as

... a document giving orientation, advice or recommendations on non normative matters relating to international standardization.

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IHO Product Specifications are considered to be standards. A list of IHO technical standards that should follow the processes described in this Resolution is provided as Appendix 1 to this Resolution.

2. Principles

2.1 Improvements to technical standards can only occur by change. However, significant change can lead to problems such as incompatibility between systems, high updating costs, market monopoly, dissatisfied users, or increased risks to safety of navigation. The following guiding principles have been developed to avoid these circumstances.

2.1.1 Before approval is granted, any proposed changes to existing standards should be assessed from a technical and commercial perspective, also taking into account any other relevant factors.

2.1.2 Where possible, assessment should involve not only IHO Member States but all relevant parties such as international organisations, maritime administrations, equipment manufacturers, data distributors, users and other professional organisations. These are the stakeholders.

2.1.3 As far as practicable, any change to standards or systems should be “backwards compatible”, or the existing version must be supported for a specified time.

2.1.4 If changes are required for the basis of product enhancement rather than for safety of navigation, then the previously approved system must be allowed to continue to be used at sea for a sufficient time to allow changes to be implemented on board.

2.1.5 If not already specified by an external or higher IHO authority, the timeline for making changes should be defined, where appropriate.

2.1.6 In exceptional cases (for example, those affecting safety of navigation), it may be necessary to make recommendations for immediate change to standards and systems to the relevant authorities. This may be achieved through shortening the normal time frames for submission and consideration of proposals.

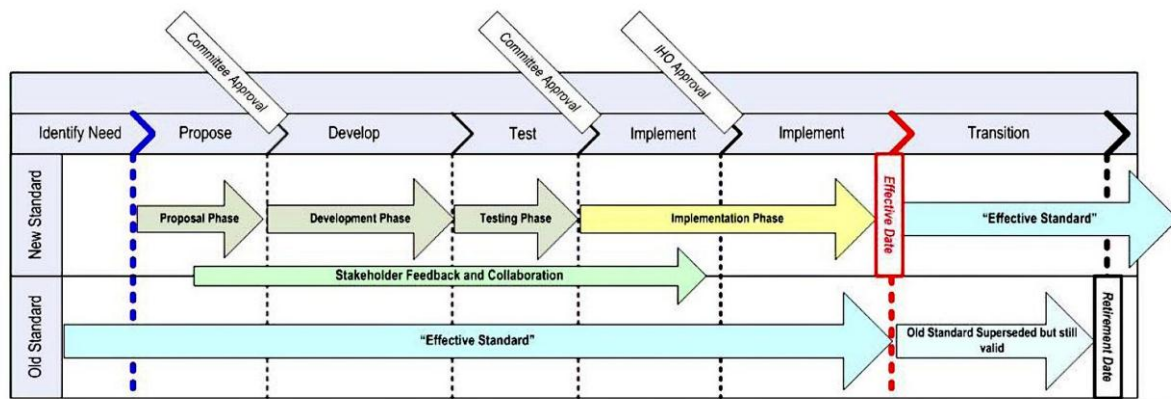
2.1.7 The principles of a recognized project management system should be followed.

2.1.8 All interested parties should be encouraged to continuously improve IHO technical standards. Constructive feedback should therefore be provided for all rejected proposals.

3. Procedures - General

3.1 Standardised procedures help to ensure that any proposed changes to IHO standards are properly assessed and implemented. These procedures should remain simple to encourage their use.

3.2 The following diagram illustrates the typical life cycle of an IHO standard:



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3.2.1 Changes to IHO standards are classified at one of three different levels: *new edition*, *revision*, or *clarification* (see paragraph. 5.1). In each case, the development, consultation and approval process will be slightly different, ranging from a very comprehensive regime for *new editions*, to approval at the level of a subordinate body for *clarifications*. *New editions* and *revisions* are considered to be “significant changes” for the purposes of review, consultation and approval.

3.2.2 The relevant Committee (HSSC or IRCC) should consider all proposals to develop *new editions* and *revisions* to standards before work begins.

- The Committee should consider the impact on relevant *stakeholders* when assessing a proposal and planning any subsequent work. This assessment should systematically include a risk and feasibility analysis, and an estimate of the resources needed for the implementation of a new or revised standard or its development, including within Member States Hydrographic Services.

- If rejected, feedback should be provided to the proposal originator giving the reasons for rejection.

3.2.3 After the Committee has endorsed proposals and established a work priority, the IHB will incorporate tasks into the relevant work programmes.

3.2.4 Relevant stakeholders should be notified by the IHB of the timetable for new work items and be invited to comment and participate as appropriate. The notification should include a summary forecast of:

- the potential changes,
- the documents affected,
- the likely action list for relevant stakeholders,
- the timetable for implementation, and
- the proposed effective date of the new or revised standard.

3.2.5 The IHB should maintain an on-line register of IHO stakeholders. The register should be used to inform and seek input from stakeholders concerning any proposed changes to IHO standards.

3.2.6 The relevant subordinate bodies should provide the Committee with progress reports on a regular basis and after each milestone during the development and testing phases. These should be made available to stakeholders by the IHB.

3.2.7 At the successful completion of the development and testing phases for new standards and proposed changes to existing standards, the Committee should review the work done in terms of its impact on relevant stakeholders and whether the appropriate non-IHO stakeholder consultation process has been achieved.

3.2.8 After endorsement by the Committee, the new or changed standard should be submitted to Member States by the IHB for approval of the content, and confirmation of the “*effective date*”.

3.2.9 At the “*effective date*”, the new or changed standard becomes the effective standard. A “*superseded*” standard should normally remain available concurrently with the revised standard for a suitable transition period.

3.2.10 A “*superseded*” standard may be “*retired*” as an available standard when it is no longer appropriate for use, subject to the approval of the Member States.

3.2.11 Subordinate bodies may assess and authorise *clarifications* to standards and associated references, subject to seeking input from relevant stakeholders.

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4. Urgent Revisions

4.1 The introduction of revisions to existing standards is intentionally a thorough process, in order to allow for appropriate levels of development, testing and consultation. However, there may be instances where more urgent action is required, especially where there are serious implications to safety of navigation. In such cases, a “fast-track” approval and implementation process may be needed. This should only occur in exceptional circumstances and in consultation with Member States. Any such fast-tracked revisions still require the approval of Member States before they can enter into force.

5. Procedures - Specific

5.1 *New Editions, Revisions and Clarifications*

New Edition

New Editions of standards introduce significant changes. *New Editions* enable new concepts, such as the ability to support new functions or applications, or the introduction of new constructs or data types, to be introduced. *New Editions* are likely to have a significant impact on either existing users or future users of the revised standard. It follows that a full consultative process that provides an opportunity for input from as many stakeholders as possible is required. Proposed changes to a standard should be evaluated and tested wherever practicable. The approval of Member States is required before any *New Edition* of a standard can enter into force. All cumulative *clarifications* and *revisions* must be included with the release of an approved *New Edition* of a standard.

Revision

Revisions are defined as substantive semantic changes to a standard. Typically, *revisions* change existing specifications to correct factual errors; introduce necessary changes that have become evident as a result of practical experience or changing circumstances; or add new specifications within an existing section. *Revisions* could have an impact on either existing users or future users of a revised standard. It follows that a full consultative process that provides an opportunity for input from as many stakeholders as possible is required. Proposed changes to a standard should be evaluated and tested wherever practicable. The approval of Member States is required before any *revisions* to a standard can enter into force. All cumulative *clarifications* must be included with the release of approved corrections revisions.

A *revision* shall not be classified as a *clarification* in order to bypass the appropriate consultation processes.

Clarification

Clarifications are non-substantive changes to a standard. Typically, *clarifications*: remove ambiguity; correct grammatical and spelling errors; amend or update cross references; insert improved graphics in spelling, punctuation and grammar. A clarification must not cause any substantive semantic change to a standard. *Clarifications* are the responsibility of the relevant subordinate body and may be delegated to the responsible editor.

5.2 The associated version control numbering to identify changes (*n*) to IHO standards should be as follows:

New Editions denoted as *n.0.0*

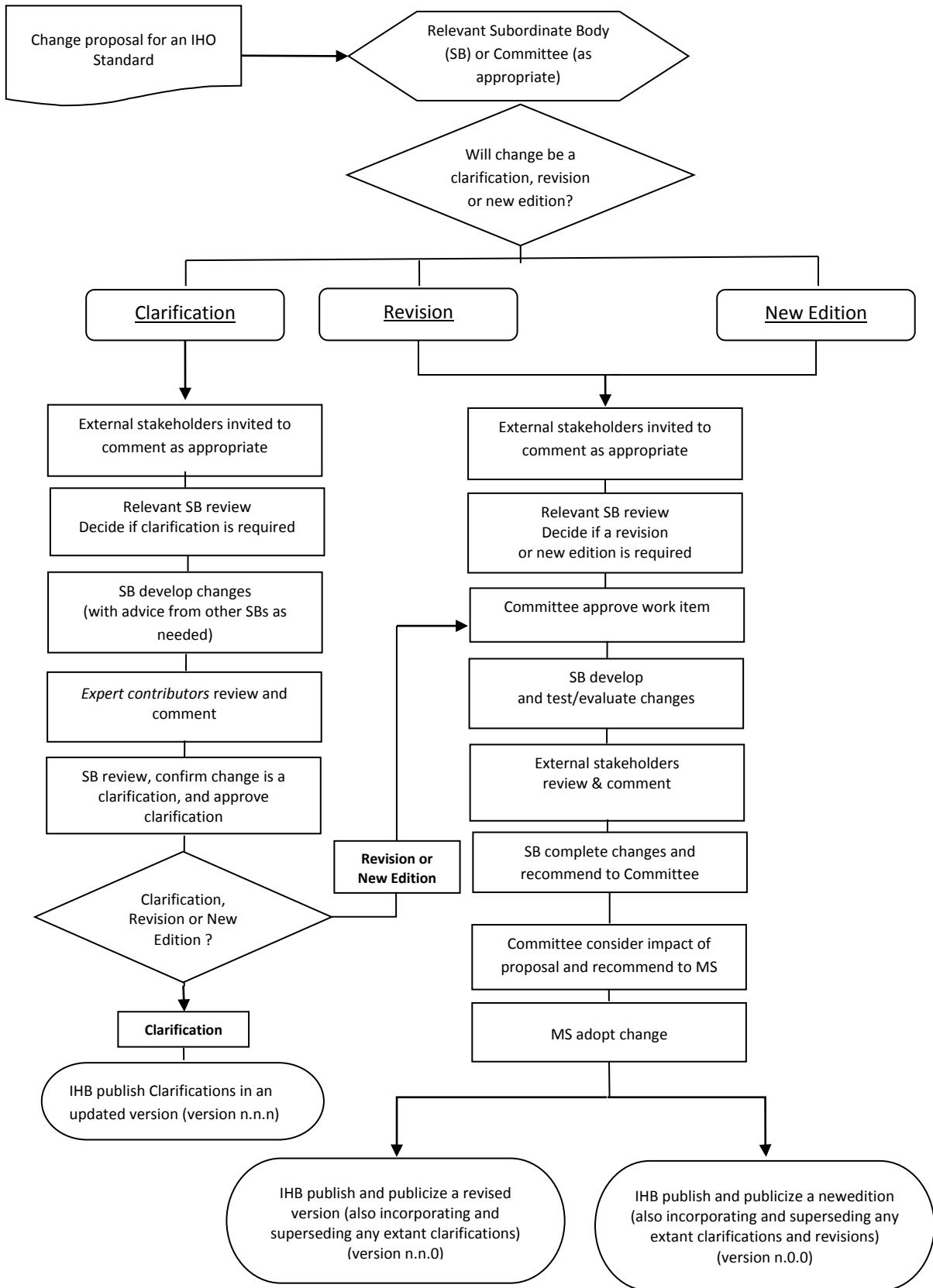
Revisions denoted as *n.n.0*

Clarifications denoted as *n.n.n*

5.3 The following diagram illustrates the development, consultation and approval processes for IHO standards:

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Diagram – Changes to IHO Standards – General Case



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APPENDIX 1

IHO technical standards that should be subject to the terms of Resolution 2/2007

Number	Name	Relevant maintenance body
B-6	Standardization of Undersea Feature Names (Guidelines Proposal Form Terminology)	SCUFN
S-4	Regulations for INT Charts and IHO Chart Specifications	CSPCWG
S-5	Standards of Competence for Hydrographic Surveyors	IBSC
S-8	Standards of Competence for Nautical Cartographers	IBSC
S-11 Part A	Guidance for the Preparation and Maintenance of INT Chart schemes	CSPCWG
S-12	Standardization of List of Lights and Fog Signals	HSSCWG when/ if required
S-23	Limits of Oceans and Seas	WG when/if required
S-32	Hydrographic Dictionary	HDWG
S-32 Appendix 1	Glossary of ECDIS-Related Terms	HDWG
S-44	IHO Standards for Hydrographic Surveys	HSSCWG when/ if required
S-49	Standardization of Mariners' Routeing Guides	CSPCWG
S-52	Specifications for Chart Content and Display Aspects of ECDIS	DIPWG
S-52 Annex A	IHO ECDIS Presentation Library	DIPWG
S-52 Appendix 1	Guidance on Updating the ENC	WG when/if required
S-53	Joint IMO/IHO/WMO Manual on Maritime Safety Information	WWNWS
S-57	IHO Transfer Standard for Digital Hydrographic Data	TSMAD
S-57 Appendix B.1	ENC Product Specification	TSMAD
S-57 Appendix B.1 Annex A	Use of the Object Catalogue for ENC	TSMAD
S-57 Supplementary Information N°3	Supplementary Information for the encoding of S-57 Edition 3.1 ENC Data	TSMAD
S-58	Recommended ENC Validation Checks	TSMAD
S-60	Users Handbook on Datum Transformations involving WGS 84	WG when/if required
S-61	Product Specifications for Raster Navigational Charts (RNC)	WG when/if required
S-63	IHO Data Protection Scheme	DPSWG

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Number	Name	Relevant maintenance body
S-64	Test Data Sets for ECDIS	TSMAD
S-65	ENC Production Guidance	TSMAD
S-66	Facts about Electronic Charting and Carriage Requirements	HSSCWG when / if required
S-99	Operational Procedures for the Organization and Management of the S-100 IHO Geospatial Information Registry	TSMAD
S-100	IHO Universal Hydrographic Data Model Section 9 and other Portrayal related elements of S-100 Quality related elements of S-100	TSMAD DIPWG DQWG
S-102	Bathymetric Surface Product Specification	TSMAD
S-1nn (when adopted)	S-100 based Product Specifications	WG when/if required
C-17	Spatial Data Infrastructures: “The Marine Dimension” - Guidance For Hydrographic Offices	MSDIWG
C-51	A Manual on Technical Aspects of The United Nations Convention on the Law of The Sea - 1982	ABLOS