IHO File No. S3/8151/S-100

ADOPTION OF EDITION 2.0.0 OF IHO PUBLICATION S-102 "BATHYMETRIC SURFACE PRODUCT SPECIFICATION"

Reference:

A.   IHO CL 35/2019 dated 09 July - *Call for Approval of New Edition 2.0.0 of Publication S-102 - Bathymetric Surface Product Specification.*

Dear Hydrographer,

1.   The approval of Member States of Edition 2.0.0 of IHO Publication S-102 – *Bathymetric Surface Product Specification* – was requested by Reference A.

2.   The Secretariat would like to thank the following 48 Member States that replied to the Circular Letter: Algeria, Argentina, Australia, Belgium, Brazil, Canada, Chile, Croatia, Cyprus, Denmark, Ecuador, Estonia, Finland, France, Germany, Greece, Guatemala, Iceland, Ireland, Italy, Japan, Malaysia, Malta, Mauritius, Morocco, Netherlands, Nigeria, Norway, Oman, Peru, Poland, Portugal, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Singapore, Slovenia, South Africa, Spain, Sweden, Thailand, Tunisia, Turkey, Ukraine, United Kingdom, United States of America, Venezuela (Bolivarian Republic of).

3.   All 48 Member States approved the proposed new edition of the S-102 Product Specification. Four Member States offered comments in addition to their vote. These comments and the outcome of their review by the Chairs of the S-100WG and S-102PT are provided in Annex A to this Circular Letter.

4.   When Reference A was issued, there were 91 Member States of the IHO with three States suspended. In accordance with the provisions of the Convention on the IHO, the minimum number of affirmative votes required is 30. As a result, the new edition of the S-102 Product Specification has been adopted.

5.   A link to the S-102 Product Specification documents is available on the IHO website http://iho.int > Standards & Publications > S-102 - Bathymetric Surface Product Specification.

On behalf of the Secretary-General
Yours sincerely,

Abri KAMPFER
Director

Annex A: Member State's responses to IHO CL 35/2019 and comments from the Chairs of the S-100WG and S-102PT.

MEMBER STATES' RESPONSES TO IHO CL 35/2019 AND COMMENTS FROM THE CHAIRS OF THE S-100WG AND S-102PT

ADOPTION OF EDITION 2.0.0 OF IHO PUBLICATION S-102 "BATHYMETRIC SURFACE PRODUCT SPECIFICATION"

Canada (Vote = YES)

Canada approves the proposed Edition 2.0.0 of the Publication S-102 -Bathymetric Surface Product Specification. Canada recognizes the need for this Edition to provide some stability for data producers, system manufacturers, and services providers. However, as sea trials and other implementations continue, issues are arising that will likely require further modifications to the specification. All parties using this specification should be encouraged to report any of the issues they find to the S-102 Project Team.

Comment from S-100WG and S-102PT Chairs:
The S100WG and the S-102 Project Team note this comment and encourage interested parties to report any issues.

France (Vote = YES) – Original comment in French

1. The paragraph at 9. Portrayal at Annex E 102 as a navigation product for use in ECDIS is not fully considered. The portrayal catalogue is not implemented. The interaction of S-102 products on ECDIS S-100 should be developed, knowing that it is necessary for rapid and safe identification by seafarers - this is most critical to navigation.

2. The certification and the assurance of the correctness for the functioning of ECDIS are based on different normative and regulatory documents and, in particular, on the establishment of test data and rules for validation of products interacting with ECDIS. These two elements are a prerequisite for the use of S-102 products in future ECDIS S-100 (see action HSSC9 / 16).

Comment from S-100WG and S-102PT Chairs:
The comments by France have been noted and will be incorporated into the S-102 Project Teams Work Plan as S-102 moves towards progressing S-102 to S-100 Readiness Level 5 for full operation into an ECDIS.

Netherlands (Vote = YES)

1. Cover page: (Editorial) Logo www.iho.in. The last T is missing from ".int".

2. Page 7 (Abstract): Text "The Bathymetric Surface Product consists of a set of values organized to form a regular grid coverage, with associated metadata, for an area of the sea, river, lake or other navigable water". Suggest to delete "navigable" and replace with "body of" ("or other body of water"). Reasons: Not navigable waters are part of charts (primary use) and datasets (secondary use) as well; in order to decide whether waters are navigable, all data is needed to start with; and the product may be used for any body of water (e.g. a crater lake).

3. Page 29 (Specification): Reference is made to website: https://www.hdf5group.org. The link to hdf5group.org does not work.

4. Page 85 (F-2, first paragraph): Text "The first and last two values in the array are stored as a 4-byte integers the remaining value is stored as a 4-byte floating point. The total size of each node with therefore is 20 bytes". Sentence seems disrupted. Full stop behind "integers"? New sentence beginning with "the remaining value"? Last sentence; delete "with"?

Comment from S-100WG and S-102PT Chairs:
All comments accepted and amendments made as suggested. For comment 3, the correct link is www.HDFgroup.org.

United States of America (Vote = YES)

1. Tables 10.1, 10.2.2 and 10.2.5: Feature and Group names references should use "." instead of "_" for the separator.
- References to BathymetryCoverage_## should be changed to refer to BathymetryCoverage.##.
- References to TrackingListCoverage_## should be changed to refer to TrackingListCoverage.##.
- References to Group_### should be changed to refer to Group.###.

2. Table 10.1: S-102 specific metadata is missing from this table. Add the S-102 metadata to the Level 4 Content attached to Group.001.

3. Table 10.2: H5T_FLOAT is not a valid datatype. Change H5T_FLOAT to H5T_NATIVE_FLOAT.

4. Table 12.7.1: Some integrators are having issues with the creation and updating of complex attributes. After discussion among integrators, we decided that complex attributes should be deconstructed into separate attributes. Therefore, split all complex attributes, such as boundingBox, into individual parts. (Requires changes to S-100).

5. Table 12.6: S100_ExchangeCatlogue attributes "dataReplacement" and "replacedData" were accidentally removed. These attributes are needed to support new edition/cancelation/replacement mechanisms currently being tested by S-100WG. Add "dataReplacement" and "replacedData" back into S102_ExchangeCatalogue.

6. Annex A, clause A-2:
- The features for S-102 no longer contain the leading "S102_". Remove the leading "S102_" from BathymetryCoverage and TrackingListCoverage in Annex A-2.
- It should be TrackingListCoverage not TrackingList. Add "Coverage" after TrackingList.

7. Annex B: A dump of the HDF structure would be more informative to implementers that graphics in Annex B. Replace the graphics with a structural dump created by a program such as h5dump.

8: Annex B, clause B-1.2: TrackingList is misspelled. There is no "l" after the "k". Replace TracklingListCoverage with TrackingListCoverage.

Comment from S-100WG and S-102PT Chairs:
All comments accepted and amendments made as suggested. However, for comment 4 it is noted that changes will be required to S-100 before any changes can be made to S-102; therefore this comment is noted pending changes to S-100.