

IHO File No. S3/0302

**CIRCULAR LETTER 19/2020**  
**25 May 2020**

**ADOPTION OF EDITION 6.0.0 OF PUBLICATION C-51**  
**“MANUAL ON TECHNICAL ASPECTS OF THE UNITED NATIONS CONVENTION ON**  
**THE LAW OF THE SEA – 1982”**

Reference A : IHO CL 61/2019 dated 9 December - *Call for the approval of new edition 6.0.0 of Publication C-51 “Manual on Technical Aspects of the United Nations Convention on the Law of the Sea – 1982”.*

Dear Hydrographer,

1. The approval of Member States of the new edition 6.0.0 of Publication C-51 – *Manual on Technical Aspects of the United Nations Convention on the Law of the Sea – 1982* – was requested by Reference Circular Letter.
2. The Secretariat would like to thank the following 33 Member States that replied to Reference A: Argentina, Australia, Bangladesh, Belgium, Brazil, Chile, Colombia, Croatia, Cyprus, Estonia, Fiji, France, Greece, India, Ireland, Italy, Japan, Malta, Mauritius, Mexico, Norway, Poland, Portugal, Republic of Korea, Romania, Saudi Arabia, Singapore, South Africa, Spain, Sweden, Ukraine, United Kingdom and United States of America,.
3. In reply to Reference A, 32 Member States voted to approve the proposed new edition of Publication C-51 and one voted against. Six Member States offered comments in addition to their vote. These comments, as well as those offered by the IAG Executive Council, and the outcome of their review by the Chair of ABLOS and the Secretariat are provided in Annex A to this Circular Letter.
4. When Reference A was issued, there were 93 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, Edition 6.0.0 of Publication C-51 has been adopted by the IHO and the IAG, through its Executive Council.
5. At the 26<sup>th</sup> ABLOS Business Meeting, held in Monaco in October 2019, the need for a wider review and revision of the manual was acknowledged. At the 27<sup>th</sup> ABLOS Business Meeting later this year, the ABLOS will commence a holistic review of the entire manual, including contents and format, with the objective of producing an Edition 7.0.0. In addition to the appointed members and appointed observers of the ABLOS, the Chair has requested input and contributions from IHO Member States in this process. The ABLOS has established an Editorial Board under the leadership of Mr Grant Boyes ([Grant.Boyes@ga.gov.au](mailto:Grant.Boyes@ga.gov.au)), to whom all contributions and offers of assistance should be directed.

6. The final text of the edition 6.0.0 of Publication C-51 is available on the IHO website > Standards & Publications > Capacity Building Publications > C-51. French and Spanish translations will be available and uploaded to the IHO website in the near future.

On behalf of the Secretary-General  
Yours sincerely,



Abri KAMPFER  
Director

Annex A: Member States' responses to IHO CL 61/2019 and comments from the Chair of the ABLOS and the Secretariat.

Distribution List:

IHO Member States  
IAG Executive Council

Copy to: ABLOS Chair/Vice-Chair

## Comments by Member States with Chair ABLOS and IHO Secretariat replies

### Colombia

I am sending you attached hereto the Voting Form duly completed by the Republic of Colombia, concerning the IHO Publication C-51, dealing with the updating of the "MANUAL ON TECHNICAL ASPECTS OF THE UN CONVENTION ON THE LAW OF THE SEA, 1982". That is why we consider that the purpose of such document is to ensure the maximum international standardization of the technical aspects related to UNCLOS. In this regard, although it refers to the Convention, its contents is that of the technical concepts of hydrography, geodesy, cartography and geography, to which refer some of its provisions, that are mostly customary, in addition to the fact that the contents of the Manual is equally relevant to the same matters dealt outside CONVEMAR. Therefore, we find no objection to its approval or adoption. Yours faithfully, --- Cordial Saludo Me permito remitir la Papeleta de Aprobación por parte de la República de Colombia a la Publicación de la OHI C-51, la cual trata sobre la actualización del "MANUAL SOBRE LOS ASPECTOS TÉCNICOS DE LA CONVENCION DE LAS NACIONES UNIDAS SOBRE EL DERECHO DEL MAR, 1982", Por lo anterior, se considera que el objeto del documento es garantizar la máxima normalización internacional de los aspectos técnicos relacionados con UNCLOS. En ese sentido, si bien hace referencia a la Convención, su contenido es el de los conceptos técnicos de hidrografía, geodesia, cartografía y geografía a los que hacen referencia algunas de sus disposiciones, que son mayormente consuetudinarias, en adición al hecho que el contenido del Manual es igualmente relevante para las mismas materias de que trata fuera de CONVEMAR. Por lo anterior no encontramos ninguna objeción en su aprobación o adopción. Atentamente,

*Reply: The Chair and Secretariat thank Colombia for these comments.*

### France

\* Le paragraphe 3.6.2 (chapitre 3) préconise d'utiliser le "km<sup>2</sup>" comme unité de surface et de le privilégier au "M<sup>2</sup>", ce qui correspond à la pratique courante. Or la figure 3.8 du paragraphe 3.9.6 utilise le "M<sup>2</sup>" pour exprimer la surface de différence entre les deux lignes. Dans un souci de cohérence avec la recommandation du paragraphe 3.6.2, il serait souhaitable de convertir cette surface en "km<sup>2</sup>". \*\* Merci \*

*Reply: The Chair and Secretariat thank France for these comments and observations. The figure 3.8 will be amended to 7100 km<sup>2</sup> as recommend.*

### Portugal

## APPENDIX 1

### GLOSSARY

- ) Figures have poor resolution and some of them have an "old" aspect. Nowadays, it is possible to create figures with better aspect and more elucidative.
- ) ALL definitions must be in accordance with definitions of other publications, like B-6 and S-32. This appendix should have only the specific terms of this publication or terms when a juridical definition could be different from the scientific definition.

**Recommendation: Coherence between different publications is needed.**

- **Some examples in the next pages.**

**CHART AND NAUTICAL CHART**

CHART Definition: A special-purpose map generally designed for navigation or other particular purposes.

- This definition is not the correct definition for neither a chart nor a nautical chart, according to other publications.

**(from S-32)**

Nautical Chart - a CHART specifically designed to meet the requirements of marine navigation, showing depths of water, nature of bottom, elevations, configuration and characteristics of coast, dangers and aids to navigation. Also called marine chart, hydrographic chart, or **simply CHART**.

**(from SOLAS chapter V, probably the best definition)**

Nautical chart is a special-purpose map, or a specially compiled database from which such a map is derived, that is issued officially by or on the authority of a Government, authorized Hydrographic Office or other relevant government institution and is designed to meet the requirements of marine navigation.

**CONTINENTAL RISE**

A submarine feature which is that part of the continental margin lying between the continental slope and the deep ocean floor; simply called the Rise in the Convention.

- In this edition the concept "***The slope may not be uniform or abrupt, and may locally take the form of terraces. The gradients are usually greater than 1.5E***" disappear. Why?

**(from B6)** A broad elevation that generally rises gently and smoothly from the surrounding relief.

**CONTINENTAL SLOPE**

That part of the continental margin that lies between the shelf and the rise. Simply called the slope in Art. 76(3).

- The previous edition had a reference to the gradient: "***The slope may not be uniform or abrupt, and may locally take the form of terraces. The gradients are usually greater than 1.5E.***"

**(from B6)** The sloping region that deepens from a SHELF to the point where there is a general decrease in gradient.

**DEEP OCEAN FLOOR**

See the Convention, see also seabed and subsoil:

occurrence of the term: Preamble 6; Art 1(1); 76(3)

- **The reference** to the preamble and to the art.1 **IS NOT correct**. The context of this definition is very different.

This citation must be deleted and did not exist in previous edition.

**ELLIPSOID, Geoide, Geodetic data, datum and other terminology geodesic:**

**Recommendation:** Definitions must be coherent with scientific definitions. Simplification of definitions could increase ambiguous interpretations

## **ISOBATH**

A line representing the horizontal contour of the seabed at a given depth.

**Suggestion:** A depth curve is a line connecting points of equal water depth

## **LATITUDE**

Angular distance from a primary great circle or plane. One of the coordinates used to describe a position, the other being longitude.

**Suggestion:** The angle which the NORMAL at a point on the SPHEROID makes with the plane of the GEODETIC EQUATOR.

## **LONGITUDE**

Angular distance along a primary great circle, from the adopted reference point. One of the coordinates used to describe a position, the other being latitude.

**Suggestion:** The angle between the plane of the GEODETIC MERIDIAN and the plane of an INITIAL MERIDIAN, arbitrarily chosen.

## **NAUTICAL MILE (M)**

**Suggestion: (S-32)** International Nautical Mile - A unit of length equal to 1,852 METRES. This value was approved by the International Hydrographic Conference of 1929 and has been adopted by nearly all maritime states.

## **OCEANIC RIDGES**

**See:** Ridge (B6): An elongated elevation of varying complexity and size, generally having steep sides.

## **PARALLEL OF LATITUDE**

**Suggestion:** A circle (or approximation of a circle) on the surface of the EARTH, parallel to the EQUATOR and connecting points of equal LATITUDE. Also called parallel of latitude.

## **PLATFORM**

In oceanographic terminology, any manmade structure (aircraft, ship, buoy, or tower) from or on which oceanographic instruments are suspended or installed. Structures which are erected on or over the seabed and subsoil for the purpose of exploring for, developing, removing and transporting resources therefrom.

See the Convention: Art 1(1); 1(5)

Reference to art 1(1) is not understandable.

## **REEF**

**See:** Reef (B6) - A shallow elevation composed of consolidated material that may constitute a hazard to surface navigation.

## **SHELF**

**See:** Shelf (B6) The flat or gently sloping region adjacent to a continent or around an island that extends from the low water line to a depth, generally about 200m, where there is a marked increase in downward slope.

*Reply: The Chair and Secretariat thank Portugal for these comments and observations. Some of the definitions in Appendix 1 highlighted by Portugal have been amended as proposed. At the ABLOS Business Meeting 26 in Monaco in October 2019, the need for a wider review and revision of the manual was acknowledged; at the ABLOS Business Meeting 27, the ABLOS will commence a holistic review of the entire manual to produce an Edition 7.0.0, a task for which the input and already considered improvements to figures and edits of the appendix by Portugal would be most welcome.*

### Sweden

Sweden commend the ABLOS editorial group for the revision of chapter 3 and Appendix 1 in C-51. A minor editorial amendment is proposed. In Appendix 1 - 16 Chart Datum it is referred to an International Hydrographic Conference Resolution (A 2.5). SE propose to refer to M-3 IHO Resolution 3/1919 instead.

*Reply: The Chair and Secretariat thank Sweden for these comments and observations, the term CHART DATUM has been amended.*

### United Kingdom

UKHO would be pleased to encourage a new revision addressing: Recent developments in technical law of the sea (jurisdictional, state practice and cross-governmental initiatives); Ease of use for States, official and non-governmental bodies that do not have endemic technical law of the sea support; Retaining access for history and development, geodesy, standards, imagery - perhaps in a different order."

*Reply: The Chair and Secretariat thank United Kingdom for these comments and welcome the considerations for improving the manual and would welcome engagement with ABLOS on this task.*

### USA

The United States commends ABLOS and the HSSC for their efforts to update of C-51, from Edition 5.0 to Edition 6.0.0. Upon receipt of Circular Letter 61/2019, the United States invited experts from the Department of State and various other federal agencies to make and in depth review of the C-51 draft. The overall assessment by these experts is that the Draft Edition 6.0.0 is in need of further improvement to correct ambiguous language and outdated information, and to edit for clarity, readability, and consistency. The United States is prepared to share its initial edits/comments regarding Chapters 1, 3, 4, 5, and 6 with ABLOS. Should IHO decide to postpone publication of Edition 6.0.0 pending ABLOS review of these recommended edits, the United States is committed to working with ABLOS to achieve a timely review and revision to ensure an optimal publication.

*Reply: The Chair and Secretariat thank the USA for these comments and observations. As was discussed at the ABLOS Business Meeting 26 in Monaco in October 2019, the need for a wider review and revision of the manual was acknowledged; however this revision for Edition 6.0.0 was focused on Chapter 3 with minimal amendment to the already approved and adopted text in the remainder of the manual. It would therefore seem inappropriate to reject text which has not been amended and has already received IHO Member State and IAG Executive Council approval. In view of the 32 approvals received, it is intended to adopt this Edition with the understanding that the ABLOS will commence a holistic review of the entire manual to produce an Edition 7.0.0, a task for which the input and already considered edits of the USA would be most welcome.*

### IAG Executive Council

As a general comment, the document is well written, and I read it with great interest. Just some general remarks, which do not seriously affect the current document, but these should be updated latest for the next revision of the Manual, if not here. I leave this to the consideration of Editors.

- Chapter 2: there are a number of references and links to IAG services and products plus e.g. text on reference frame, datum, GNSS et cetera. Links and text are OK, but those should be updated in the future revisions to reflect the latest available references. Now they are mostly 10+ years old.

- links p.2-10, 2-16, 2-17, 2-27, 6-3, 6-4, 6-6, 6-7, 6-10, 6-11, 6-14, 6-15 cannot be found

[http://www.iho.int/iho\\_pubs/CB/C\\_51\\_ANIMATIONS/Figure2\\_6.ppt](http://www.iho.int/iho_pubs/CB/C_51_ANIMATIONS/Figure2_6.ppt)  
[http://www.iho.int/iho\\_pubs/CB/C\\_51\\_ANIMATIONS/Figure2\\_9.ppt](http://www.iho.int/iho_pubs/CB/C_51_ANIMATIONS/Figure2_9.ppt)  
[http://www.iho.int/iho\\_pubs/CB/C\\_51\\_ANIMATIONS/Figure2\\_10.ppt](http://www.iho.int/iho_pubs/CB/C_51_ANIMATIONS/Figure2_10.ppt)  
[http://www.iho.int/iho\\_pubs/CB/C\\_51\\_ANIMATIONS/Figure2\\_11.ppt](http://www.iho.int/iho_pubs/CB/C_51_ANIMATIONS/Figure2_11.ppt)  
[http://www.iho.int/iho\\_pubs/CB/C\\_51\\_ANIMATIONS/Figure6\\_1.ppt](http://www.iho.int/iho_pubs/CB/C_51_ANIMATIONS/Figure6_1.ppt)  
<http://www.icj-cij.org/docket/files/132/14987.pdf>  
<http://www.pca-cpa.org/upload/files/Final%20Award.pdf>  
[http://www.iho.int/iho\\_pubs/CB/C\\_51\\_ANIMATIONS/Figure6\\_2.ppt](http://www.iho.int/iho_pubs/CB/C_51_ANIMATIONS/Figure6_2.ppt)  
[http://www.iho.int/iho\\_pubs/CB/C\\_51\\_ANIMATIONS/Figure6\\_3.ppt](http://www.iho.int/iho_pubs/CB/C_51_ANIMATIONS/Figure6_3.ppt)  
[http://www.iho.int/iho\\_pubs/CB/C\\_51\\_ANIMATIONS/Figure6\\_4.ppt](http://www.iho.int/iho_pubs/CB/C_51_ANIMATIONS/Figure6_4.ppt)  
<http://www.pca-cpa.org/upload/files/Final%20Award.pdf>  
<https://www.icj-cij.org/files/case-related/68/068-19840321-JUD-01-00-EN.pdf>  
<https://www.icj-cij.org/files/case-related/78/078-19930614-JUD-01-00-EN.pdf>  
[http://www.iho.int/iho\\_pubs/CB/C\\_51\\_ANIMATIONS/Figure6\\_5.ppt](http://www.iho.int/iho_pubs/CB/C_51_ANIMATIONS/Figure6_5.ppt)  
[http://www.iho.int/iho\\_pubs/CB/C\\_51\\_ANIMATIONS/Figure6\\_6.ppt](http://www.iho.int/iho_pubs/CB/C_51_ANIMATIONS/Figure6_6.ppt)

- Perhaps should be added in Ch. 2.4.2 IAG resolution in Prague General Assembly 2015 where IAG Adopted Resolution Definition and Realization of an International Height Reference System (IHRS) with fixing the value of  $W_0$  (<https://office.iag-aig.org/iag-and-iugg-resolutions>) and Montreal 2019 resolution Establishment of the International Height Reference Frame (IHRF).

- Appendix 4-2 Neils ANDERSEN -> Niels ANDERSEN

*Reply: The Chair and Secretariat thank the IAG Executive Council for their comprehensive review of the draft and its co-sponsor approval for publication. The proposed addition in chapter 2 has been included, the animation links have been checked and corrected where identified and the correction highlighted in appendix 4 has been completed. The other more general items have been noted by the Chair and it is planned to address them in the preparation of Edition 7.0.0.*