

IHO File No. S3/8151/S-58

CIRCULAR LETTER 60/2026 26 October 2026
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ADOPTION OF IHO PUBLICATIONS

S-58 EDITION 9.0.0 - ENC VALIDATION CHECKS

References: a) IHO Resolution 2/2007 - *Procedures for making changes to IHO Technical Standards and Specifications*.

b) IHO CL 43/2026 dated 10 August 2026 –*Call for approval of S-58 Edition 9.0.0*

Dear Hydrographer,

1. In accordance with reference A, the adoption of a new edition of Publication S-58, endorsed by HSSC at its 18th meeting, was proposed through Reference B.
2. The IHO Secretariat thanks the forty-six Member States who responded to Reference B: Algeria, Angola, Argentina, Australia, Belgium, Brazil, Chile, China, Colombia, Denmark, Ecuador, Estonia, Fiji, France, Germany, Greece, India, Indonesia, Iran (Islamic Republic of), Ireland, Italy, Japan, Lebanon, Lithuania, Malaysia, Mauritius, Mexico, Netherlands, New Zealand, Norway, Oman, Peru, Philippines, Poland, Saudi Arabia, Slovenia, Spain, Sri Lanka, Sweden, Thailand, Tunisia, Türkiye, Ukraine, United Kingdom, United States of America and Venezuela.
3. All forty-six Member States supported the adoption of the proposed Edition. Respectively Nine Member States submitted comments in addition to their vote. All comments received are provided in Annex A to this Circular Letter with responses from the relevant Working Group (ENCWG), the HSSC Chair and IHO Secretariat.
4. When the Reference was issued, there were 104 Member States of the IHO with two States suspended. In accordance with the provisions of the Convention on the IHO as amended, the minimum number of affirmative votes required is thirty-five (35). As a result, the abovementioned proposed Edition has been adopted and will be made available (English versions only) on the IHO website > Publications > [Standards and Specifications](#).
5. The IHO Secretariat and the HSSC Chair would like to congratulate the ENCWG Chair Team and thank all those who were involved in the development of this new S-58 Edition.

On behalf of the Secretary-General

Yours sincerely,



John NYBERG

Director

Annex: Responses to Member States' comments to IHO CL 43/2026 from the ENCWG, the HSSC Chair and IHO Secretariat (in English only).

**MEMBER STATES' RESPONSES TO IHO CL 43/2026 AND COMMENTS
FROM THE ENCWG CHAIR, the HSSC CHAIR and IHO SECRETARIAT**

S-122-Marine Protected Areas, Ed. 2.0.0	PRODUCT SPECIFICATIONS
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COLOMBIA (Vote for adoption = YES)

The proposed changes contribute to strengthening quality control for ENC's by establishing clear and consistent validation criteria and correcting redundancies in the previous version.

Comments by the ENCWG Chair, the HSSC Chair and IHO Secretariat:

The ENCWG Chair, HSSC Chair and IHO Secretariat thank Colombia for their comments.

DENMARK (Vote for adoption = YES)

DENMARK supports the endorsement of the Edition 9.0.0 of Publication S-58, but provides the following comments:

1. Check 509: Recommend that the entry for RESARE in the 'Check description' entry be amended to read:-'RESARE: CATREA and RESTRN'
2. Check 1669: Recommend amending the table as follows:-Amend table as follows:-

add a new row with the following values VALSOU 'not present': WATLEV '7': QUASOU 'not Present' : HEIGHT 'unknown' : TECSOU SOUACC 'not Present'

delete the current row containing the values| |VALSOU 'Unknown': WATLEV '7': QUASOU 'not Present' : HEIGHT 'not present' : TECSOU SOUACC 'not Present'
3. Check 1785: Recommend that the 'Check description' entry be amended to read:-

'For each feature object where CONDTN is Equal to 4 (wingless) AND CATLMK does not contain the value 18 (windmill) AND does not contain the value 19 (windmotor).
4. Check 1811: Recommend that the 'Check solution' entry be amended to read:-

'Remove incorrect conflicting value of CATBRG and/or recapture fixed and opening sections as separate BRIDGE feature objects.'
5. Check 1811 Propose amending and renumbering check 502 to 502a and adding new check 502b

502a	If the EN file size is greater than 5 Megabytes.	The EN file is larger than 5Mb in size.	Ensure that the cell is not larger than 5Mb.	2.2	E
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502b	If the ER file size is greater than 50 Kilobytes.	The ER file is larger than 50Kb in size.	Ensure that the cell is not larger than 50Kb.	Appendix B.1, Annex A (2.6)	E
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6. Github issue #77 The current wording of Check 509 results in error message when either CATREA or RESTRN are set to 'unknown' whereas it should only be triggered if both attributes are set to unknown

Recommend that the entry for RESARE in the 'Check description' entry be amended to read:-

509	<p>For each feature object listed below where the attribute stated is Unknown:</p> <p>For each feature object listed below where the attribute stated is Unknown: ARCSLN:</p> <p>NATION;</p> <p>ASLXIS: NATION;</p> <p>CONZNE: NATION;</p> <p>COSARE: NATION;</p> <p>CTNARE: INFORM or TXTDSC;</p> <p>CUSZNE: NATION;</p> <p>DEPARE: DRVAL1 and DRVAL2;</p> <p>DEPCNT: VALDCO;</p> <p>DRGARE: DRVAL1;</p> <p>DWRTPT: ORIENT;</p> <p>DWRTCL straight (rhumb) line: ORIENT;</p> <p>EXEZNE: NATION;</p> <p>FSHZNE: NATION;</p> <p>LNDELV: ELEVAT;</p> <p>LIGHTS: CATLIT³</p> <p>M_COVR: CATCOV;</p> <p>M_CSCL: CSCALE;</p> <p>M_NSYS: MARSYS or ORIENT;</p> <p>M_QUAL: CATZOC;</p> <p>M_SDAT: VERDAT;</p> <p>M_VDAT: VERDAT;</p> <p>MAGVAR: VALMAG;</p> <p>NEWOBJ: CLSDEF and CLSNAM;</p> <p>RCTLPT : ORIENT;</p> <p>RESARE: CATREA only present;</p> <p>RESARE: RESTRN only present;</p> <p>RESARE: CATREA and RESTRN present;</p> <p>STSLNE: NATION;</p> <p>SWPARE: DRVAL1;</p> <p>TESARE: NATION;</p> <p>TS_PAD: TS_TSP.</p>	Mandatory attribute has not been populated with a value.	Populate mandatory attributes; in these cases the object is meaningless without this value.	3.5.2 and Supplement No.3 Ch.4 (3.5.2.1)	E
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7. Amend Check 1669 for consistency as follows:

1669	For each OBSTRN feature object where the attribute values do not correspond to the table below.	OBSTRN object with illogical attribute value combinations.	Amend attributes in accordance with the logical values defined in the table.	6.2.2	W
	VALSOU	WATLEV	QUASOU	HEIGHT	TECSOU SOUACC
	not Present	1 OR 2	not Present	Present	not Present
		7	not Present	unknown	not Present
	Unknown	3, 4, 5 OR Unknown	2 OR not Present	not Present	not Present
		7	not Present	not Present	not Present
	< 0	4	1, 3, 4, 6, 8, 9 OR not Present	not Present	Optional
		4	7	not Present	not Present
	0	5	1, 3, 4, 6, 8, 9 OR not Present	not Present	Optional
	> 0	3	1, 3, 4, 6, 8, 9 OR not Present	not Present	Optional
		3	7	not Present	not Present

8. Check 1785 _ Logic of check has been inadvertently reversed during editing for edition 9.0.0. (reported by ESRI)

Amend check 1785 as follows:

1785	For each feature object where CONDTN is Equal to 4 (wingless) AND CATLMK does not contain the value 18 (windmill) AND does not contain the value 19 (windmotor).	Object other than windmill or windmotor with CONDTN = 4 (wingless).	Remove value of CONDTN or use an appropriate LNDMRK object.	Logical consistency	E
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9. Add check solution to Check 1811 as follows:

1811	For each BRIDGE feature object where CATBRG includes the value 1 (fixed bridge) in combination with at least one of:- 2 (opening bridge), 3 (swing bridge), 4 (lifting bridge), 5 (basculer bridge) and 7 (draw bridge).	CATBRG is populated with fixed and opening bridge values.	Remove incorrect conflicting value of CATBRG and/or recapture fixed and opening sections as separate BRIDGE feature objects.	4.8.10 & logical consistency.	E
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10. Amend check 505 as follows:

505	If either M_COVR and M_NSYS or M_QUAL meta objects do not exist within the data set.	Mandatory feature objects are missing.	Include mandatory feature objects M_COVR and M_NSYS. and M_QUAL.	3.4 and MD8 8.Co.6.	C
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11. Remove check 562:

562	Check removed. For each NEWOBJ feature object where INFORM does not commence with the CLSNAM AND contain the CLSDEF of the feature object.	The text in INFORM does not commence with the CLSNAM object or contain the CLSDEF of the NEWOBJ feature object.	Ensure that the text in INFORM commences with the CLSNAM followed by the CLSDEF of the NEWOBJ feature object.	Supplement No.3 Ch.4 (3.3.1) and Appendix B1, Annex A (16)	W
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12. Amend check 1750 as follows:

1750	For each LIGHTS feature object which is a slave to a BOYXXX feature object OR MORFAC feature object where CATMOR = 7 (mooring buoy) AND HEIGHT is Present.	HEIGHT populated for a LIGHTS object which is slave to a buoy object.	Remove HEIGHT from LIGHTS object.	12.8.1	E
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Comments by the ENCWG Chair, the HSSC Chair and IHO Secretariat:

The ENCWG Chair, HSSC Chair and IHO Secretariat thank Denmark for their comments. The late amendments referred to by Denmark in the abovementioned comments 1-12 were reviewed and approved by the ENCWG11 meeting (04-09 October 2026), with editorial amendments as required, and resultant changes have been included in the final published Edition 9.0.0 of S-58.

INDONESIA (Vote for adoption = YES)

Indonesia approve the proposed Edition 9.0.0 of S-58. We believe this new edition will further improve the quality and consistency of S-57 ENC validation, while also supporting the continued development of S-100 standards.

Comments by the ENCWG Chair, the HSSC Chair and IHO Secretariat:

The ENCWG Chair, HSSC Chair and IHO Secretariat thank Indonesia for their comments.

IRAN (ISLAMIC REPUBLIC OF) (Vote for adoption = YES)

It is suggested that the status of the removal of Check 1693 be explicitly specified in the ""Summary proposed Changes for S-58 Edition 9.0.0"" document. Currently, this matter is inconsistent with the original text of the Standard.

Comments by the ENCWG Chair, the HSSC Chair and IHO Secretariat:

The ENCWG Chair, HSSC Chair and IHO Secretariat thank Iran for their comments, noting this omission from the Summary of changes document.

MALAYSIA (Vote for adoption = YES)

Malaysia supports the adoption of S-58 Edition 9.0.0, particularly its improved validation logic to ensure consistent implementation by ENC producers and validation software developers.

Comments by the ENCWG Chair, the HSSC Chair and IHO Secretariat:

The ENCWG Chair, HSSC Chair and IHO Secretariat thank Malaysia for their comments.

PERU (Vote for adoption = YES)

The update reorganizes and introduces new critical validation checks, adjusts attributes related to depth controls (depth contours and bathymetric areas), and removes redundant checks, thereby improving the consistency of the standard. Changes introduced in this new version of S-58 will be reflected in updates (version changes) to the validator software used in our quality control processes.

Comments by the ENCWG Chair, the HSSC Chair and IHO Secretariat:

The ENCWG Chair, HSSC Chair and IHO Secretariat thank Peru for their comments.

SPAIN (Vote for adoption = YES)

Although the draft proposal is approved, it is noted that GitHub Issue #76 has not been included (link: <https://github.com/iho-ohi/ENCWG-S58-ENC-Validation-Checks/issues/76>), which would address the correction of S-58 check 1669. (see DK comment No. 3)

Comments by the ENCWG Chair, the HSSC Chair and IHO Secretariat:

The ENCWG Chair, HSSC Chair and IHO Secretariat thank Spain for their comments. The late amendment referred to by Spain to update Check 1669 in accordance with GitHub Issue #76 was approved by the ENCWG11 meeting (04-09 October 2026) and the resultant change has been included in the final published Edition 9.0.0 of S-58.

THAILAND (Vote for adoption = YES)

HDRTN, Thailand reviewed draft Edition 9.0.0 of S-58 and we support the adoption of this Edition.

Comments by the ENCWG Chair, the HSSC Chair and IHO Secretariat:

The ENCWG Chair, HSSC Chair and IHO Secretariat thank Thailand for their comments.

UNITED KINGDOM (Vote for adoption = YES)

As already stated we are happy to approve but would like some historical issues identified in version 8 fixed if the ENC WG S-58 vice chair agrees.

Comments by the ENCWG Chair, the HSSC Chair and IHO Secretariat:

The ENCWG Chair, HSSC Chair and IHO Secretariat thank United Kingdom for their comments. The issues were reviewed and the changes approved by the ENCWG have been included in the final published Edition 9.0.0 of S-58.