



BSI Standards Publication

Maritime navigation and radiocommunication equipment and systems — Presentation of navigation-related information on shipborne navigational displays — General requirements, methods of testing and required test results

This is a preview of BS EN IEC 62288:2022+A1:2024. [Click here to purchase the full version from the ANSI store.](#)

National foreword

This British Standard is the UK implementation of EN IEC 62288:2022+A1:2024. It is identical to IEC 62288:2021, incorporating amendment 1:2024. It supersedes BS EN IEC 62288:2022, which will be withdrawn on 31 December 2027.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to IEC text carry the number of the IEC amendment. For example, text altered by IEC amendment 1 is indicated by **A1** ~~A1~~.

The UK participation in its preparation was entrusted to Technical Committee EPL/80, Maritime navigation and radiocommunication equipment and systems.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Date	Text affected
31 December 2024	Implementation of IEC amendment 1:2024 with CENELEC endorsement A1:2024

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December 2024

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Supersedes EN 62288:2014 and all of its amendments
and corrigenda (if any)

English Version

Maritime navigation and radiocommunication equipment and
systems - Presentation of navigation-related information on
shipborne navigational displays - General requirements,
methods of testing and required test results
(IEC 62288:2021)

Matériels et systèmes de navigation et de
radiocommunication maritimes - Présentation des
informations relatives à la navigation sur des affichages de
navigation de bord - Exigences générales, méthodes
d'essai et résultats d'essai exigés
(IEC 62288:2021)

Navigations- und Funkkommunikationsgeräte und -systeme
für die Seeschifffahrt - Darstellung von
navigationsbezogenen Informationen auf
Navigationsanzeigen für Schiffe - Allgemeine
Anforderungen, Prüfverfahren und geforderte
Prüfergebnisse
(IEC 62288:2021)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

The text of document 80/1013/FDIS, future edition 3 of IEC 62288, prepared by IEC/TC 80 "Maritime navigation and radiocommunication equipment and systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62288:2022.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2022-10-24 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2025-01-24 document have to be withdrawn

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The text of the International Standard IEC 62288:2021 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

61162 (series)	E Harmonized as EN IEC 61162-460 (series)
61924-2	E Harmonized as EN IEC 61924-2
61993-2	E Harmonized as EN IEC 61993-2
62065	E Harmonized as EN 62065

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European foreword to Amendment 1

The text of document 80/1117/CDV, future edition 3 of IEC 62288/AMD1, prepared by TC 80 "Maritime navigation and radiocommunication equipment and systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62288:2022/A1:2024.

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(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication		D
60945	Time navigation and communication equipment and systems - General requirements - Methods of testing and required test results	60945
61174	Time navigation and communication equipment and systems - Electronic chart display and information system (ECDIS) - Operational and performance requirements, methods of testing and required test results	61174
61966-4	Media systems and equipment - Part 4: Equipment using liquid crystal display panels	61966-4
62388	Time navigation and communication equipment and systems - Shipborne radar - Performance requirements, methods of testing and required test results	62388
62923-1	Time navigation and communication equipment and systems - Bridge alert management - Part 1: Operational performance requirements, methods of testing and required test results	IEC 62923-1
3-52	Recommendations for chart content and display aspects of ECDIS Seafarers' Training, Certification and Document of Compliance (STCW Code)	

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	radio equipment forming part of the global maritime distress and safety system (GMDSS) and for electronic navigational aids	
IMO MSC.191(78)	Performance standards for the presentation of navigation-related information on shipborne navigational displays	-
IMO MSC.192(78)	Performance standards for radio equipment	-
IMO MSC.232(82)	Revised performance standards for electronic chart display and information systems (ECDIS)	-
IMO SN.1/Circ.24	Guidelines for the presentation of navigation related symbols, text and abbreviations	-
+ Corr.1		-
IMO SN.1/Circ.28	Guidance on the use of AIS at specific messages	--
IMO MSC.302(87)	Performance standards for Bridge Management (BAM)	-
IMO MSC.1/Circ.100	Guidelines for the standardization of user interface design for navigational equipment	-
IMO A.1021(26)	Code on Alerts and Indications	-
VESA-2001-6	Flat Panel Display Measurement Method (FPDM)	-

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CONTENTS

FOREWORD.....	9
INTRODUCTION to Amendment 1	11
1 Scope.....	12
2 Normative references	12
3 Terms, definitions and abbreviated terms	13
3.1 Terms and definitions.....	13
3.2 Abbreviated terms.....	20
4 General requirements for all displays on the bridge of a ship	20
4.1 Relationship to IMO standards	20
4.2 Application of IEC 60945.....	22
4.2.1 Remark.....	22
4.2.2 General requirements	22
4.3 Arrangement of information.....	22
4.3.1 Consistency of layout and logical grouping	22
4.3.2 Consistent presentation of information.....	23
4.3.3 Separation of operational display area.....	23
4.4 Readability.....	23
4.4.1 Readability under all ambient light conditions	23
4.4.2 Legibility of alphanumeric data and text.....	26
4.4.3 Presentation of text and icons.....	26
4.5 Colours and intensity	27
4.5.1 Discrimination of colours – Requirement.....	27
4.5.2 Methods of test and required results	28
4.6 Symbols.....	28
4.6.1 Operational information	28
4.6.2 Electronic chart information	29
4.7 Colour coding	30
4.7.1 Colour coding for discrimination.....	30
4.7.2 Colour coding of information	30
4.7.3 Colour coding in combination with other attributes	30
4.7.4 Flashing of information	30
4.8 Integrity marking.....	31
4.8.1 Indication of source, validity and integrity status	31
4.8.2 Colour coding of validity and integrity	31
4.8.3 Indication of presentation failure	31
4.9 Alerts and indications.....	32
4.9.1 Operational status	32
4.9.2 List of alerts.....	32
4.9.3 Alert related information from multiple sources	32
4.9.4 Speech output for alarms and warnings	32
4.10 Presentation mode.....	32
4.10.1 Requirement.....	32
4.10.2 Methods of test and required results	33
4.11 User manuals, instructions and reference guides	33
4.11.1 Requirement.....	33
4.11.2 Methods of test and required results	33
5 Presentation of operational information	33

This is a preview of BS EN IEC 62288:2022+A1:2024. [Click here to purchase the full version from the ANSI store.](#)

5.1	Application	33
5.2	Presentation of own ship information	33
5.2.1	Graphical representation of own ship – Requirement	33
5.2.2	Methods of test and required results	34
5.3	Presentation of chart information	34
5.3.1	Alteration of chart information	34
5.3.2	Colours and symbols for charted information	34
5.4	Presentation of radar information	35
5.4.1	Radar video images	35
5.4.2	Target trails	36
5.5	Presentation of target information	36
5.5.1	Providing target information	36
5.5.2	Consistent user interface for target information	37
5.5.3	Indication of exceeding target capacity	37
5.5.4	Presentation of repeated AIS reports	38
5.5.5	Filtering sleeping AIS targets	39
5.5.6	Activation of AIS targets	39
5.5.7	Graphical presentation of targets	40
5.5.8	Target selection	41
5.5.9	Indication of target derivation	42
5.5.10	Presentation of tracked radar target information	42
5.5.11	Presentation of reported AIS target information	43
5.5.12	Continual update of target information	44
5.5.13	Own ship's AIS information	44
5.5.14	Obscuring the operational display area	45
5.6	Operational alerts	45
5.6.1	Alert status	45
5.6.2	CPA/TCPA alarms	45
5.6.3	Acquisition/activation zones warnings	46
5.6.4	Lost target warnings	46
5.7	AIS and radar target association	47
5.7.1	Requirement	47
5.7.2	Methods of test and required results	47
5.8	AIS presentation user selectors and their status indications	48
5.8.1	Requirement	48
5.8.2	Methods of test and required results	49
5.9	Trial manoeuvre	50
5.9.1	Requirement	50
5.9.2	Methods of test and required results	50
5.10	Measurement	50
5.10.1	Measurement from own ship	50
5.10.2	Bearing and range measurements	50
5.11	Navigation tools	51
5.11.1	General requirements	51
5.11.2	Range rings	51
5.11.3	Variable range marker (VRM)	51
5.11.4	Bearing scale	52
5.11.5	Electronic bearing line (EBL)	53
5.11.6	Parallel index lines (PI)	54

This is a preview of BS EN IEC 62288:2022+A1:2024. [Click here to purchase the full version from the ANSI store.](#)

5.11.7	Offset measurement of range and bearing	55
5.11.8	User cursor.....	56
5.12	AIS data link message processing capacity.....	57
5.12.1	General	57
5.12.2	Requirements	57
5.12.3	Methods of test and required results	57
5.13	AIS data report	57
5.13.1	General	57
5.13.2	AIS data report capacity	57
5.13.3	AIS data report display	58
5.13.4	Graphical presentation of AIS AtoN dimensions	61
5.14	AIS locating device	61
5.14.1	General	61
5.14.2	AIS locating device capacity	62
5.14.3	AIS locating device display	62
5.15	AIS ASM	64
5.15.1	General	64
5.15.2	Categories.....	65
5.15.3	AIS ASM capacity	67
5.15.4	AIS ASM display.....	69
5.16	Presentation of AIS synthetic target.....	71
5.16.1	Requirement.....	71
5.16.2	Methods of test and required results.....	72
5.17	Presentation of association of DSC received call with a displayed AIS object.....	73
5.17.1	Requirement.....	73
5.17.2	Methods of test and required results.....	73
5.18	AIS ASM information extending reported AIS target information.....	74
5.19	Received AIS safety related messages	75
5.19.1	Requirements	75
5.19.2	Methods of test and required results	76
5.20	Sent AIS safety related messages.....	77
5.20.1	Requirements	77
5.20.2	Methods of test and required results	77
6	INS, radar and chart displays	77
6.1	General.....	77
6.1.1	Application.....	77
6.1.2	Multifunction displays	77
6.1.3	Simultaneous display of radar and chart data	78
6.1.4	Range scales.....	78
6.1.5	Operational display area.....	79
6.1.6	Motion display modes	79
6.1.7	Orientation modes	79
6.1.8	Off-centring	80
6.1.9	Stabilisation modes	80
6.2	Radar displays.....	81
6.2.1	Application.....	81
6.2.2	Radar video image.....	81
6.2.3	Brightness of radar information.....	82
6.2.4	Display of chart information on radar	82

This is a preview of BS EN IEC 62288:2022+A1:2024. [Click here to purchase the full version from the ANSI store.](#)

6.2.5	Priority of radar information	83
6.2.6	Display of map graphics	83
6.3	Chart displays	84
6.3.1	Application	84
6.3.2	Display of chart information	84
6.3.3	IMO ECDIS display categories	85
6.3.4	Adding or removing information from the display	85
6.3.5	Safety contour	86
6.3.6	Safety depth	86
6.3.7	Chart scale	86
6.3.8	Display of radar and target information	87
6.3.9	Display of additional information	87
6.4	Composite task-oriented presentations	88
6.4.1	User-configured presentations	88
6.4.2	Information associated with the task-at-hand	88
6.5	Single and simple operator actions	88
6.5.1	Applicability	88
6.5.2	Requirement	89
6.5.3	Methods of test and required results	89
6.6	User and default settings	89
6.6.1	General	89
6.6.2	User-settings	89
6.6.3	Default settings	90
7	Physical requirements	90
7.1	General	90
7.2	Display adjustment	90
7.2.1	Contrast and brightness	90
7.2.2	Magnetic interference	91
7.2.3	Temporal stability	91
7.2.4	Physical controls and status indicators	92
7.3	Screen size	92
7.3.1	Requirement	92
7.3.2	Method of test and required results	93
7.4	Multicoloured display equipment	93
7.4.1	Requirement	93
7.4.2	Method of test and required results	93
7.5	Screen resolution	94
7.5.1	Requirement	94
7.5.2	Method of test and required results	94
7.6	Screen viewing angle	94
7.6.1	Requirement	94
7.6.2	Methods of test and required results	94
Annex A (normative)	Presentation colours and symbols	95
A.1	Overview	95
A.2	Purpose	95
A.3	Use	95
A.4	Application	95
A.5	Navigation-related symbols	95

This is a preview of BS EN IEC 62288:2022+A1:2024. [Click here to purchase the full version from the ANSI store.](#)

Annex B (normative) Guidelines for the presentation of navigation-related terminology and abbreviations	131
B.1 Overview.....	131
B.2 Purpose	131
B.3 Use of these guidelines.....	131
B.4 Application	131
B.5 Navigation related terminology and abbreviations	131
Annex C (informative) Guidance on display and dialogue design in IMO MSC/Circ.982.....	138
C.1 Overview.....	138
C.2 General.....	138
C.3 Requirements in IMO MSC/Circ.982 related to the display design	138
Annex D (informative) Guidance on testing	140
D.1 Methods of test	140
D.1.1 General	140
D.1.2 Observation	140
D.1.3 Inspection of documented evidence	140
D.1.4 Measurement.....	141
D.1.5 Analytical evaluation.....	141
D.2 Application of IEC 60945.....	141
D.2.1 Display equipment category.....	141
D.2.2 Technical performance	141
D.2.3 Pre-conditioning for environmental tests	142
D.2.4 Methods of test applied for IEC 60945	142
D.3 Compliance with requirements	143
D.4 Simulation.....	144
D.5 Electronic chart data	144
Annex E (normative) Operational controls and logical grouping.....	145
E.1 Overview.....	145
E.2 Logical grouping of data and control functions	145
E.3 Navigation related terminology and icons for common function controls (hot keys and shortcuts).....	147
Annex F (normative) Icons for presentation of the state of an alert.....	161
Annex G (normative) Testing for colours, intensity and flicker	162
G.1 Testing for colours and intensity	162
G.1.1 General	162
G.1.2 Test personnel.....	163
G.1.3 Method of test.....	163
G.2 Testing for flicker	164
G.2.1 Overview	164
G.2.2 Analytic model.....	164
G.2.3 Decision criteria.....	166
Annex H (normative) Single and simple operator actions	168
H.1 General.....	168
H.2 Tables for single and simple operator actions	168
Annex I (normative) Default settings	170
I.1 General.....	170
I.2 ECDIS default settings.....	170
I.3 Radar default settings.....	172

This is a preview of BS EN IEC 62288:2022+A1:2024. [Click here to purchase the full version from the ANSI store.](#)

Annex J (normative) Implementation details of AIS ASM	173
J.1 General.....	173
J.2 AIS ASM	173
Annex K (informative) Overview of AIS Messages	182
K.1 General.....	182
K.2 Use case guidance on AIS ASM.....	184
Annex L (informative) Overview of the use AIS AtoN status field bits	185
Bibliography.....	186
Table 1 – Ambient light conditions	24
Table 2 – Operational status of indications	32
Table 3 – User selectors for AIS presentation	48
Table 4 – AIS status indications.....	49
Table 5 – AIS data report capacity	58
Table 6 – AIS locating devices capacity	62
Table 7 – AIS ASM object capacity	67
Table 8 – Extended reported AIS target information from AIS ASM	74
Table A.1 – Own ship symbols	96
Table A.2 – Radar and AIS symbols.....	100
Table A.3 – Navigation symbols.....	116
Table A.4 – Navigation tools	121
Table A.5 – Other symbols.....	122
Table A.6 – Example of possible colour scheme	130
Table B.1 – List of standard terms and abbreviations.....	132
Table B.2 – List of standard units of measurement and abbreviations	137
Table C.1 – Paragraphs in MSC/Circ.982 associated with IEC 60945 requirements	138
Table C.2 – Other paragraphs in MSC/Circ.982 related to display design.....	139
Table C.3 – Other paragraphs in MSC/Circ.982 partially related to display design	139
Table D.1 – Methods of test applied for IEC 60945	142
Table E.1 – Logical grouping for radar, ECDIS and INS applications (based on MSC.1/Circ.1609).....	146
Table E.2 – Examples of logical grouping for voluntary implementation.....	147
Table E.3 – General controls	148
Table E.4 – General navigation functions (based on MSC.1/Circ.1609).....	149
Table E.5 – Radar specific controls.....	152
Table E.6 – Control of chart display functions (based on MSC.1/Circ.1609)	153
Table E.7 – Control of chart functionality (based on MSC.1/Circ.1609)	158
Table E.8 – Database functions (based on MSC.1/Circ.1609)	158
Table E.9 – Route plan and monitoring functions (based on MSC.1/Circ.1609)	159
Table E.10 – Groups of functions (based on MSC.1/Circ.1609).....	159
Table G.1 – Values of predicted energy and special coefficients	167
Table H.1 – Access to functions, as defined before June 2019 (based on MSC.1/Circ.1609).....	168
Table H.2 – Access to functions (based on MSC.1/Circ.1609).....	169

This is a preview of BS EN IEC 62288:2022+A1:2024. [Click here to purchase the full version from the ANSI store.](#)

Table H.3 – Access to group of functions (based on MSC.1/Circ.1609)	169
Table I.1 – ECDIS settings configured in response to "Default" selection (based on MSC.1/Circ.1609)	170
Table I.2 – Radar control settings configured in response to "Default" selection (based on MSC.1/Circ.1609)	172
Table J.1 – Details of AIS ASM	173
Table K.1 – AIS Messages	182
Table K.2 – AIS ASM Messages	183
Table L.1 – AIS AtoN status field	185

INTERNATIONAL ELECTROTECHNICAL COMMISSION

MARITIME NAVIGATION AND RADIOCOMMUNICATION EQUIPMENT AND SYSTEMS – PRESENTATION OF NAVIGATION-RELATED INFORMATION ON SHIPBORNE NAVIGATIONAL DISPLAYS – GENERAL REQUIREMENTS, METHODS OF TESTING AND REQUIRED TEST RESULTS

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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IEC 62288 has been prepared by IEC technical committee 80: Maritime navigation and radiocommunication equipment and systems. It is an International Standard.

This third edition cancels and replaces the second edition published in 2014. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) Clause 4 has been revised to remove requirements for indications of alerts which are now given in IEC 62923-1;
- b) Clause 5 has been extensively revised to add new requirements for AIS, ASM and DSC presentation together with three new supporting annexes, Annex J, Annex K, Annex L;
- c) Annex A and Annex B have been revised to incorporate changes to IMO circular SN.1/Circ.243;

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- d) Annex E has been revised to incorporate changes to IMO resolution MSC.191(79) and renamed as "Operational controls and logical grouping".
- e) two new annexes have been added, Annex H on operator actions and Annex I on default settings in support of IMO circular MSC.1/Circ.1609.

The text of this International Standard is based on the following documents:

Draft	Report on voting
80/1013/FDIS	80/1017/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

IMPORTANT – The "colour inside" logo on the cover page of this document indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

This is a preview of BS EN IEC 62288:2022+A1:2024. [Click here to purchase the full version from the ANSI store.](#)

INTRODUCTION to Amendment 1

This amendment updates the interpretation of the bit encoding for reporting various cases of AtoN errors or failures to be compliant with the notes available in the IALA R-0126 Ed.2 published in December 2021. The amendment further corrects an inconsistency between Table L.1 of IEC 62288:2021 and Figure 4 section 4.8.4 of IALA Rec.R-0126:2021.

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MARITIME NAVIGATION AND RADIOCOMMUNICATION EQUIPMENT AND SYSTEMS – PRESENTATION OF NAVIGATION-RELATED INFORMATION ON SHIPBORNE NAVIGATIONAL DISPLAYS – GENERAL REQUIREMENTS, METHODS OF TESTING AND REQUIRED TEST RESULTS

1 Scope

This document specifies the general requirements, methods of testing, and required test results, for the presentation of navigation-related information on shipborne navigational displays in support of IMO resolutions MSC.191(79) as amended by MSC.466(101) in June 2019, and where applicable MSC.302(87).

This document also supports the guidelines included in the related IMO Circulars MSC.1/Circ.1609 on the standardization of user interface design for navigation equipment and SN.1/Circ.243 as revised in June 2019 on the presentation of navigation related symbols, terms and abbreviations.

This document also specifies the presentation of AIS data reports and the AIS Application Specific Messages defined for international use in IMO SN.1/Circ.289 and intended to be received by a ship for display onboard.

NOTE All text in this document whose wording is identical to text contained in an IMO document is printed in *italics*. Reference to the document is noted at the beginning of the paragraph. The notation contains a prefix referring to the document and a suffix with the paragraph number from the document (for example, (MSC191/1); (SN243/1), etc.).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60945:2002, *Maritime navigation and radiocommunication equipment and systems – General requirements – Methods of testing and required test results*

IEC 61174, *Maritime navigation and radiocommunication equipment and systems – Electronic chart display and information system (ECDIS) – Operational and performance requirements, methods of testing and required test results*

IEC 61966-4, *Multimedia systems and equipment – Colour measurement and management – Part 4: Equipment using liquid crystal display panels*

IEC 62388, *Maritime navigation and radiocommunication equipment and systems – Shipborne radar – Performance requirements, methods of testing and required test results*

IEC 62923-1, *Maritime navigation and radiocommunication equipment and systems – Bridge alert management – Part 1: Operational and performance requirements, methods of testing and required test results*

IHO S-52, *Specifications for chart content and display aspects of ECDIS*

IMO, *Seafarers' Training, Certification and Watchkeeping Code (STCW Code)*