INTERNATIONAL STANDARD

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Second edition
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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

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FOREWORD

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6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61174 has been prepared by IEC technical committee 80: Maritime navigation and radiocommunication equipment and systems.

This second edition of IEC 61174 cancels and replaces the first edition published in 1998, of which it constitutes a technical revision.

The text of this standard is based on the following documents:

FDIS	Report on voting
80/308/FDIS	80/316/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 3.

Annexes A, B, C, D, E, F, G, H, I and J form an integral part of this standard.

The committee has decided that the contents of this publication will remain unchanged until June 2004. At this date, the publication will be

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- withdrawn;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

INTRODUCTION

For this second edition of this International Standard, the maintenance team completed the following tasks:

a) developed minimum operational and performance requirements for the RCDS mode of operation in accordance with appendix 7 of the IMO performance standards as amended by IMO resolution MSC.86, importing much of the text from appendix 7 to produce an unambiguous and user-friendly annex H to this standard;

b) developed separate tests for back-up arrangements as defined by appendix 6 of the IMO performance standards (see annex G);

c) clarified the colour tolerance requirements and created allowances for the separate testing of monitors;

d) performed an extensive review of the standard to ensure proper referencing and language throughout.

Technical committee 80 recognizes that there is further work to be accomplished in this standard, and a future revision is anticipated within 12 to 18 months, to incorporate some critical hydrographic considerations including the RNC test data set, several S-57 definitions and tests and harmonisation of the navigation related symbols.

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

1 Scope

This International Standard specifies the performance requirements, methods of testing and required test results of equipment conforming to performance standards not inferior to those adopted by the IMO in resolution A.817 as amended by annex 5 to IMO resolution MSC.64 and annex 4 to IMO resolution MSC.86.

This standard is based upon the performance standards of IMO resolution A.817, and is also associated with IMO resolution A.694 and IEC 60945. Reference is made, where appropriate, to IMO resolution A.817, and all subclauses whose wording is identical to that in the resolution are printed in italics.

In association with the above IMO resolution A.817, are the International Hydrographic Organization (IHO) special publications S-52, S-57 and S-61. This standard has included extracts from the above publications where they are applicable to this equipment. Where reference is made, all subclauses whose wording is identical to that in the publications, are printed in italics.

The requirements of this standard are not intended to prevent the use of new techniques in equipment and systems, provided the facilities offered are not inferior to those stated.

2 Normative references

The following normative documents contain provisions, which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60872-1: *Maritime navigation and radiocommunication equipment and systems – Radar plotting aids – Part 1: Automatic radar plotting aids (ARPA) – Methods of testing and required test results*

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

IEC 61162 (all parts), *Maritime navigation and radiocommunication equipment and systems – Digital interfaces*

ISO 9000 (all parts), *Quality management and quality assurance standards*

IMO Convention for safety of life at sea (SOLAS) 1997 (as amended)

IMO A.424:1979, *Performance standards for gyro-compasses*

IMO A.694:1991, *General requirements for shipborne radio equipment forming part of the global maritime distress and safety system (GMDSS) and for electronic navigational aids*

IMO A.817:1995, *Performance standards for electronic chart display and information systems (ECDIS)*

IMO A.821:1995, *Performance standards for gyro-compasses for high-speed craft*

IMO A.823:1995, *Performance standards for automatic radar plotting aids (ARPAs)*

IMO A.824:1995, *Performance standards for devices to indicate speed and distance*

IMO MSC.64(67):1996, Annex 4 – *Performance standards for radar equipment*

IMO MSC.64(67):1996, Annex 5 – *Amendment to IMO A.817*

IMO MSC.86(70):1998, Annex 4 – *Amendments to IMO A.817*

IHO S-52:1996, *Specifications for chart content and display aspects of ECDIS*

IHO S-52, appendix 1:1996, *Guidance on updating the electronic navigational chart*

IHO S-52, appendix 2:1997 (as amended), *Colour and symbol specifications for ECDIS*

IHO S-52, appendix 3:1997, *Glossary of ECDIS-related terms*

IHO S-52, appendix 4: *Test data set for use with IEC 61174*

IHO S-57:1996 (as amended), *Transfer standard for digital hydrographic data*

IHO S-61:1999, *Product specification for raster navigational charts (RNC)*