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Electronic record books for ships – Technical specifications and operational requirements (ISO 21745:2019)

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ISO 21745:2019(E)**Foreword**

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 8, *Ships and marine technology*, Subcommittee SC 11, *Intermodal and Short Sea Shipping*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document was developed in response to maritime industry demand and International Maritime Organization (IMO) request for a standard providing requirements for the design and testing of electronic record books on ships. The industry momentum towards paperless systems enhances the need of such a standard with technical and operational requirements for electronic record books.

Electronic record books for ships — Technical specifications and operational requirements

1 Scope

This document specifies the minimum technical and operational requirements for electronic record books (ELRB) to be used on ships.

It aims at providing manufacturers, operators, maritime administrations and owners with a technical background for the replacement of paper logbooks.

2 Normative references

The following documents are referred to in the text in such a way that some or all their content constitute 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, *Maritime navigation and radiocommunication equipment and systems — General requirements — Methods of testing and required results*

IEC 61162-1:2016, *Single talker and multiple listeners*

IEC 61162-2:2016, *Single talker and multiple listeners, high-speed transmission*

IEC 61162-450, *Multiple talkers and multiple listeners — Ethernet interconnection*

IEC 61162-460, *Multiple talkers and multiple listeners — Ethernet interconnection — Safety and Security*

IEC 62923:2018, *Maritime navigation and radiocommunication equipment and systems — Bridge alert management*

IMO Resolution MSC 302(87), *Adoption of performance standards for Bridge Alert Management*

IMO Resolution MSC 333(90), *Adoption of revised performance standards for shipborne voyage data recorders (VDRs)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1

administration

government of the State under whose authority the ship is operating

Note 1 to entry: With respect to fixed or floating platforms engaged in exploration and exploitation of the sea-bed and subsoil thereof adjacent to the coast over which the coastal State exercises sovereign rights for the purposes of exploration and exploitation of their natural resources, the administration is the government of the coastal State concerned.