

INTERNATIONAL STANDARD

NORME INTERNATIONALE



Maritime navigation and radiocommunication equipment and systems – Maritime survivor locating devices (man overboard devices) – Minimum requirements, methods of testing and required test results

Matériels et systèmes de navigation et de radiocommunication maritimes – Dispositifs de localisation des survivants en mer (dispositifs en cas d'homme à la mer) – Exigences minimales, méthodes d'essai et résultats d'essai exigés





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IEC Secretariat
3, rue de Varembé
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**MARITIME NAVIGATION AND RADIOTRANSFER EQUIPMENT
AND SYSTEMS – MARITIME SURVIVOR LOCATING DEVICES
(MAN OVERBOARD DEVICES) – MINIMUM REQUIREMENTS,
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Draft	Report on voting
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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.

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MARITIME NAVIGATION AND RADIOTRANSFER EQUIPMENT AND SYSTEMS – MARITIME SURVIVOR LOCATING DEVICES (MAN OVERBOARD DEVICES) – MINIMUM REQUIREMENTS, METHODS OF TESTING AND REQUIRED TEST RESULTS

1 Scope

This document specifies the minimum requirements for aspects related to operation, construction, documentation, methods of testing and required test results for ITU-R M.2135 AMRD Group A man overboard (MOB) devices intended for alerting and locating purposes, as defined by IMO and in accordance with ITU-R M.493 Class-M. This document consists of three modules where the first module, Module A, covers general requirements and aspects. Further Module B covers AIS technologies and Module C covers DSC technologies that are required within MOB equipment.

This document incorporates the technical characteristics included in applicable ITU recommendations. Where applicable, it also takes into account the ITU Radio Regulations. This document takes into account other associated IEC International Standards and existing national standards, as applicable.

This document defines the requirements for coexistence of AIS and DSC technology incorporated within a single equipment. Only when the equipment complies with the three Modules can it be categorised as AMRD Group A equipment and be entitled to operate on channel AIS 1, channel AIS 2 and channel 70.

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 60529, *Degrees of protection provided by enclosures (IP Code)*

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

IEC 61108-1, *Maritime navigation and radiocommunication equipment and systems – Global navigation satellite systems (GNSS) – Part 1: Global positioning system (GPS) – Receiver equipment – Performance standards, methods of testing and required test results*

IEC 61108-2, *Maritime navigation and radiocommunication equipment and systems – Global navigation satellite systems (GNSS) – Part 2: Global navigation satellite system (GLONASS) – Receiver equipment – Performance standards, methods of testing and required test results*

IEC 61108-3, *Maritime navigation and radiocommunication equipment and systems – Global navigation satellite systems (GNSS) – Part 3: Galileo receiver equipment – Performance requirements, methods of testing and required test results*

IEC 61108-5, *Maritime navigation and radiocommunication equipment and systems – Global navigation satellite systems (GNSS) – Part 5: BeiDou navigation satellite system (BDS) – Receiver equipment – Performance equipment – Performance requirements, methods of testing and required test results*

IMO Resolution MSC.81(70), *Revised recommendation on testing of life-saving appliances*

ITU-R M.493-15, *Digital selective-calling system for use in the maritime mobile service*

ITU-R M.1371, *Technical characteristics for an automatic identification system using time division multiple access in the VHF maritime mobile band*

ITU-T Recommendation O.153, *Basic parameters for the measurement of error performance at bit rates below the primary rate*

Manual of Tests and Criteria, 7th Revised Edition (ST/SIG/AC.10/11/Rev.7), as amended, United Nations

3 Terms, definitions and abbreviated terms

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

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

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

3.1 Terms and definitions

3.1.1

freshwater

water having a minimum of salts in solution as contrasted to ocean water which is high in salt concentration

3.1.2

activation

initial triggering of the MOB device

Note 1 to entry: The activation is when both parts of the two-step procedure are performed.

3.1.3

active mode

activated mode, when the equipment transmits in an emergency situation

3.1.4

armed

state enabling the equipment to be activated manually or automatically

3.1.5

buoyant lanyard

floating string suitable for attaching the MOB to the user's personal protective equipment

3.1.6

closed loop

individual transmission to own vessel

3.1.7

default

<value> selected by the equipment software in the absence of any operator input

Note 1 to entry: The term "default" can also apply to an action taken.