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# Ships and marine technology — Shipboard plans for fire control, damage control, life-saving appliances and means of escape

*Navires et technologie maritime — Plans de sécurité à bord du navire, des moyens de lutte contre l'incendie, des engins de sauvetage et des moyens d'évacuation*

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# 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).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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 1, *Maritime safety*.

This second edition cancels and replaces the first edition (ISO 17631:2002), which has been technically revised. It also incorporates the amendment ISO 17631:2002/Amd 1:2010 and the Technical Corrigendum ISO 17631:2002/Cor 1:2002.

The main changes are as follows:

— symbols have been revised to bring them in accordance with IMO A.1116 (30)[9] and ISO 24409-2;

— information for damage control plans have been added;

— bibliography updated and normative reference added.

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.


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# Introduction

This document has been developed taking into account the existing International Maritime Organization (IMO) guidance on the subject as listed in the bibliography. It is intended to supplement IMO requirements and recommendations for arrangement of shipboard plans used on commercial vessels complying with the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended.

The symbols in Annex A generally conform to the corresponding symbols given in IMO Resolutions A.952 (23) [8] and A.1116 (30)[9], but, as far as the symbols for fire control plans are concerned, it was deemed necessary to carry out the following changes:

a) with the aim of rendering them more comprehensible to people on board and to shoreside fire-fighting personnel, who may be called to operate onboard, a small number of symbols [e.g. emergency equipment, muster and embarkation stations contained in IMO Resolution A.760 (18) [7] or IMO Resolution A.952 (23)] have been modified in order to harmonize them with ISO 24409-2 and with ISO 7010; and

b) damage control plan symbols have been introduced.

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# Ships and marine technology — Shipboard plans for fire control, damage control, life-saving appliances and means of escape

## 1 Scope

This document specifies the content, type, design, layout and usage of shipboard and marine installation plans made available and displayed for fire control appliances and arrangements, damage control, lifesaving appliances and arrangements, and means of escape. It also specifies graphical symbols and illustrations used in such plans.

It does not include signs and mimic signs that provide instructions for safe escape for general safety information.

## 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.

International Convention for the Safety of Life at Sea (SOLAS), 1974

## 3 Terms and definitions

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

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

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

**3.1**
**booklet**
compilation of shipboard plans

**3.2**
**bulkhead deck**
uppermost deck up to which the main bulkheads and the ship's shell are carried watertight

**3.3**
**competent authority**
administration whose flag the ship is entitled to fly, or an organization authorized by an Administration, to perform functions required by this document

**3.4**
**cross-flooding device**
**equalization device**
combination of ducts and pipes installed on ships to give means of equalization of the water in case of asymmetric damage condition

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**3.5**
**damage control plan**
plan for the guidance of the officers in charge of the ship, showing the boundaries of the watertight compartments, the openings therein with relevant means of closure and position of any controls thereof, and the arrangements for the correction of any list due to flooding

Note 1 to entry: It is specified in SOLAS 74 (as amended), Chapter II-1.

**3.6**
**escape plan**
plan displaying general safety information of a ship, illustrating the escape routes and relevant means of escape and assembly stations

**3.7**
**fire locker**
locker containing fire-fighter outfits, portable fire-fighting equipment and relevant spare parts

**3.8**
**fire control plan**
plan, plans, or booklets containing information on fire-protection appliances and structural fire protection, for the guidance of the officer in charge of the ship and the firefighting team

Note 1 to entry: It is specified in SOLAS 74 (as amended), Chapter II-2.

**3.9**
**fire-protection appliance**
fixed fire-fighting system and portable equipment for use or activation in case of fire

Note 1 to entry: It is specified in SOLAS 74 (as amended), Chapter II-2.

**3.10**
**graphical symbol**
visually perceptible figure which is used for the purpose of transmitting information independent of the medium of language

**3.11**
**illustration**
use of line drawings for the depiction of a vessel's general arrangement

**3.12**
**lifesaving appliance**
system or appliance serving the purpose of saving the life of any person, in an emergency at sea when the ship must be abandoned or persons at sea must be rescued

Note 1 to entry: Lifesaving appliances are addressed by SOLAS 74 (as amended), Chapter III.

**3.13**
**main vertical zone**
**MVZ**
sections in which the hull, superstructures and deckhouses are divided by "A" class divisions

Note 1 to entry: MVZ characteristics are specified in SOLAS 74 (as amended), Chapter II-2.

**3.14**
**means of escape**
routes and additional aids so that persons on-board can safely and swiftly escape to the lifeboat and liferaft embarkation deck


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**3.15**
**mimic sign**
sign which indicates the "you are here" position and incorporates a safety notice listing appropriate actions to be taken in an emergency

Note 1 to entry: "Mimic sign" has the same meaning as "simple mimic plan" also referred to in SOLAS regulation II-2/13.7.2.2; the cabin placard referred to in IMO Resolution A.752 (18); and the emergency instruction notices described by IMO MSC/Circ.699.

**3.16**
**primary escape route**
safest and protected route to the assembly station

Note 1 to entry: It complies with SOLAS 74, regulation II-2/13.

**3.17**
**secondary escape route**
alternate means of escape for use in cases where the *primary escape route* (3.16) is not available due to fire, smoke or flooding conditions

**3.18**
**storm cover for windows**
protective cover for ship's windows for use in case of extreme weather or sea conditions

**3.19**
**structural fire protection**
passive fire protection, including details of the fire divisions of the ship

**3.20**
**watertight**
capability of preventing the passage of water through the structure, in any direction, under the head of water likely to occur in intact and damaged conditions

**3.21**
**watertight appliance**
appliance having watertight characteristics to prevent the passage of water into the spaces or units

**3.22**
**weather-deck**
uppermost continuous deck exposed to the weather

**3.23**
**weather-tight appliance**
appliance designed to prevent the penetration of water into the ship in any sea conditions

# 4 Preparation of plans

## 4.1 General

**4.1.1** The structure and execution of the plans is the result of a thorough evaluation of the regulatory compliance requirements, as well as an assessment of the relevant facilities for fire control, damage control, escape and embarkation on lifesaving appliances.

**4.1.2** The number and types of plans to be carried on board a particular ship must meet the requirements of the competent authority.

**4.1.3** In general, except for damage control plans, no illustration in any plan shall be made to a scale smaller than 1:200 with minimum line point size of 4,5 for main vertical zone divisions, 2,25 for A and B class and watertight divisions, and 0,75 for other lines. Large plans may be subdivided for clarity.

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