

ASSEMBLY
30th session
Agenda item 9

A 30/Res.1116
6 December 2017
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Resolution A.1116(30)

**Adopted on 5 December 2017
(Agenda item 9)**

ESCAPE ROUTE SIGNS AND EQUIPMENT LOCATION MARKINGS

THE ASSEMBLY,

RECALLING Article 15(j) of the Convention on the International Maritime Organization concerning the functions of the Assembly in relation to regulations and guidelines concerning maritime safety and the prevention and control of marine pollution from ships,

BEARING IN MIND the requirements of regulations II-2/15.2.4 (Fire control plans), II-2/13.3.2.5.1 (Marking of escape routes), II-2/13.7 (Additional requirements for ro-ro passenger ships), III/9 (Operating instructions), III/11 (Survival craft muster and embarkation arrangements) and III/20.10 (Marking of stowage locations) of the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended,

RECALLING resolutions A.760(18) on *Symbols related to life-saving appliances and arrangements*, as amended by resolution MSC.82(70), and A.952(23) on *Graphical symbols for shipboard fire control plans*,

RECOGNIZING the need for uniform international symbols to indicate the location of emergency equipment as well as muster stations and that the Assembly had urged Contracting Governments to ensure that the symbols annexed to the aforementioned Assembly resolutions were used, where appropriate,

HAVING NOTED that, through the *Shipboard escape route signs and emergency equipment location markings* (MSC.1/Circ.1553), Contracting Governments had been invited to bring standard ISO 24409-2:2014, which generally conforms to the corresponding symbols set out in the annex to resolution A.760(18) on *Symbols related to life-saving appliances and arrangements*, as amended, and in the annex to resolution A.952(23) on *Graphical symbols for fire control plans*, to the attention of ship designers, shipbuilders, shipowners, ship operators, ship masters, shore-based firefighting personnel and other parties concerned, so that they might use it, on a voluntary basis, for shipboard signage, in compliance with the relevant requirements of SOLAS chapters II-2 and III, pending the adoption of the revised resolution,

HAVING CONSIDERED the recommendations made by the Maritime Safety Committee, at its ninety-eighth session,

1 ADOPTS the *Escape route signs and equipment location markings*, set out in the annex to the present resolution;

2 URGES Contracting Governments to bring the aforementioned escape route signs and equipment location markings to the attention of shipbuilders, shipowners, ship operators, shipmasters, shore-based firefighting personnel and other parties concerned with the safety of life at sea for their use within the framework of SOLAS chapters II-2 and III;

3 REQUESTS the Maritime Safety Committee to keep this resolution under review and to amend it as necessary;

4 INVITES Contracting Governments to note that these escape route signs and equipment location markings should take effect on ships constructed on or after 1 January 2019 or ships which undergo repairs, alterations, modifications and outfitting within the scope of SOLAS chapters II-2 and/or III, as applicable, on or after 1 January 2019, and that they should be used, as appropriate, in combination with resolution A.952(23) for the preparation of the shipboard fire control plans required by SOLAS regulation II-2/15.2.4.

Annex¹

ESCAPE ROUTE SIGNS AND EQUIPMENT LOCATION MARKINGS

IMPORTANT – The colours represented in this annex can be neither viewed on screen nor printed as true representations. Although the signs and symbols in this annex have been reproduced to correspond (with an acceptable tolerance as judged by the naked eye) to the requirements of standard ISO 3864-4, it is not intended that the signs and symbols shown in this annex be used for colour matching.

For a definitive version of all safety symbols in this annex, please consult standard ISO 7010 and the ISO Online Browsing Platform (<http://www.iso.org/obp/ui/>). For a definitive version of all fire control symbols in this annex, please consult standard ISO 17631. These are the source documents from which to create safety and fire control plans signs.

1 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3864 (all parts), *Graphical symbols – Safety colours and safety signs*

ISO 7010, *Graphical symbols – Safety colours and safety signs – Registered safety signs*

ISO 17631, *Ships and marine technology – Shipboard plans for fire protection, life-saving appliances and means of escape*

ISO 17724, *Graphical symbols – Vocabulary*

ISO 24409-1, *Ships and marine technology – Design, location, and use of shipboard safety signs, safety-related signs, safety notices and safety markings – Part 1: Design principles*

2 Terms and definitions

For the purposes of this document, the terms and definitions given in standards ISO 17724, ISO 24409-1, and the following apply.

2.1 *Fire control signs*

Signs for specialists, used to identify and locate fire control equipment, not designed according to the rules for safety signs.

Note 1 to entry: These signs are related to the symbols in standard ISO 17631; see 3.1 h) below.

¹ This annex is based on the standard ISO 24409-2:2014.

2.2 *Image content*

Written description of the elements of a graphical symbol or safety sign and their relative disposition.

[ISO 17724:2003, 38]

2.3 *Referent*

Idea or object that a graphical symbol is intended to represent.

[ISO 17724: 2003, 61]

2.4 *Safety sign*

Sign giving a general safety message, obtained by a combination of a colour and geometric shape and which, by the addition of a graphical symbol, gives a particular safety message.

3 **Categorization of shipboard signs**

3.1 *Signs in this standard are categorized according to their function as follows:*



















- a) **MES** – means of escape signs which provide escape route identification.
- b) **EES** – emergency equipment signs which provide use and location of first aid facilities and portable safety equipment.
- c) **LSS** – life-saving systems and appliances signs which provide use and location of life-saving systems and appliances.
- d) **FES** – fire-fighting equipment signs which provide use and location of fire-fighting equipment.
- e) **PSS** – prohibition signs which provide prohibited actions.
- f) **WSS** – hazard warning signs which provide identification of hazards to avoid.
- g) **MSS** – mandatory action signs which provide mandatory notices and instructions.

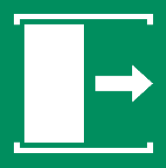
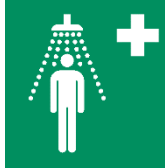



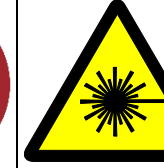

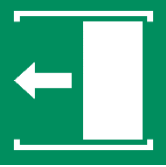

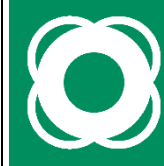



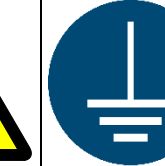


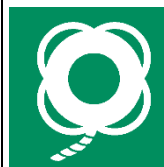



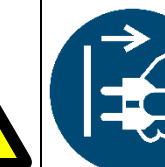
NOTE The PSS, WSS and MSS categories are based on the P, W and M categories of standard ISO 7010.








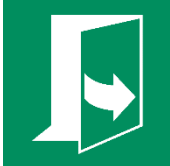












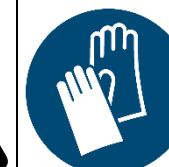
- h) **SIS** – safety and operating instructions for trained personnel.







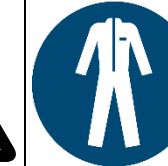






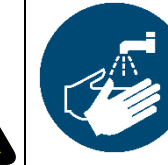
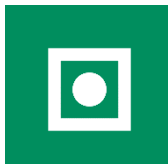



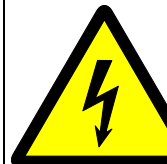





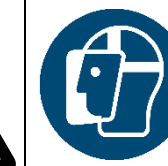
3.2 Table 1 summarizes the standardized shipboard safety signs used in workplaces and public areas in terms of functional category, referent number, referent, graphical symbol as well as geometric shape and colour.

















Table 1 — Summary of safety signs for shipboard use














CATEGORY						
MES	EES	LSS	FES	PSS	WSS	MSS
Means of Escape Signs	Emergency Equipment Signs	Lifesaving Signs	Fire-fighting Equipment Signs	Prohibition Signs	Warning Signs	Mandatory Signs
 MES001 (ISO 7010-E032) Shipboard assembly station	 EES001 (ISO 7010-E003) First Aid	 LSS001 (ISO 7010-E036) Lifeboat	 FES001 (ISO 7010-F001) Fire extinguisher	 PSS001 (ISO 7010-P001) General prohibition	 WSS001 (ISO 7010-W001) General warning	 MSS001 (ISO 7010-M001) General Mandatory action
 MES002 (ISO 7010-E001) Emergency exit (left hand)	 EES002 (ISO 7010-E004) Emergency telephone	 LSS002 (ISO 7010-E037) Rescue boat	 FES002 (ISO 7010-F002) Fire hose reel	 PSS002 (ISO 7010-P002) No smoking	 WSS002 (ISO 7010-W002) Warning: Explosive material	 MSS002 (ISO 7010-M002) Refer to instruction manual or booklet
 MES003 (ISO 7010-E002) Emergency exit (right hand)	 EES003 (ISO 7010-E011) Eyewash station	 LSS003 (ISO 7010-E038) Liferaft	 FES003 (ISO 7010-F004) Collection of firefighting equipment	 PSS003 (ISO 7010-P003) No open flame; fire, open ignition source and smoking prohibited	 WSS003 (ISO 7010-W003) Warning: Radioactive material or ionizing radiation	 MSS003 (ISO 7010-M003) Wear ear protection





CATEGORY						
MES	EES	LSS	FES	PSS	WSS	MSS
 MES004 (ISO 7010-E033) Door slides right to open	 EES004 (ISO 7010-E012) Safety shower	 LSS004 (ISO 7010-E039) Davit-launched liferaft	 FES004 (ISO 7010-F005) Fire alarm call point	 PSS004 (ISO 7010-P004) No thoroughfare	 WSS004 (ISO 7010-W004) Warning: Laser beam	 MSS004 (ISO 7010-M004) Wear eye protection
 MES005 (ISO 7010-E034) Door slides left to open	 EES005 (ISO 7010-E013) Stretcher	 LSS005 (ISO 7010-E040) Lifebuoy	 FES005 (ISO 7010-F008) Fixed fire extinguishing battery	 PSS005 (ISO 7010-P005) Not drinking water	 WSS005 (ISO 7010-W005) Warning: Non-ionizing radiation	 MSS005 (ISO 7010-M005) Connect an earth terminal to the ground
 MES 006 (ISO 7010-E018) Turn anti-clockwise to open	 EES006 (ISO 7010-E027) Medical grab bag	 LSS006 (ISO 7010-E041) Lifebuoy with line	 FES006 (ISO 7010-F009) Wheeled fire extinguisher	 PSS006 (ISO 7010-P006) No access for fork lift trucks and other industrial vehicles	 WSS006 (ISO 7010-W006) Warning: Magnetic field	 MSS006 (ISO 7010-M006) Disconnect mains plug from electrical outlet

CATEGORY						
MES	EES	LSS	FES	PSS	WSS	MSS
 <p>MES007 (ISO 7010-E019) Turn clockwise to open</p>	 <p>EES007 (ISO 7010-E028) Oxygen resuscitator</p>	 <p>LSS007 (ISO 7010-E042) Lifebuoy with light</p>	 <p>FES007 (ISO 7010-F010) Portable foam applicator unit</p>	 <p>PSS007 (ISO 7010-P007) No access for people with active implanted cardiac devices</p>	 <p>WSS007 (ISO 7010-W007) Warning: Floor level obstacle</p>	 <p>MSS007 (ISO 7010-M007) Opaque eye protection must be worn</p>
 <p>MES008 (ISO 7010-E057) Door opens by pulling on left-hand side</p>	 <p>EES008 (ISO 7010-E029) Emergency escape breathing device</p>	 <p>LSS008 (ISO 7010-E043) Lifebuoy with line & light</p>	 <p>FES008 (ISO 7010-F011) Water fog applicator</p>	 <p>PSS008 (ISO 7010-P008) No metallic articles or watches</p>	 <p>WSS008 (ISO 7010-W008) Warning: Drop (fall)</p>	 <p>MSS008 (ISO 7010-M008) Wear safety footwear</p>
 <p>MES009 (ISO 7010-E058) Door opens by pulling on the right-hand side</p>	 <p>EES009 (ISO 7010-E009) Doctor</p>	 <p>LSS008.1 Lifebuoy with light and smoke</p>	 <p>FES009 (ISO 7010-F012) Fixed fire extinguishing installation</p>	 <p>PSS009 (ISO 7010-P010) Do not touch</p>	 <p>WSS009 (ISO 7010-W009) Warning: Biological hazard</p>	 <p>MSS009 (ISO 7010-M009) Wear protective gloves</p>

CATEGORY						
MES	EES	LSS	FES	PSS	WSS	MSS
 <p>MES 010 (ISO 7010-E023) Push door on the right-hand side to open</p>	 <p>EES010 (ISO 7010-E010) Automated external heart defibrillator</p>	 <p>LSS009 (ISO 7010-E044) Lifejacket</p>	 <p>FES010 (ISO 7010-F013) Fixed fire extinguishing bottle</p>	 <p>PSS010 (ISO 7010-P011) Do not extinguish with water</p>	 <p>WSS010 (ISO 7010-W010) Warning: Low temperature</p>	 <p>MSS010 (ISO 7010-M010) Wear protective clothing</p>
 <p>MES 011 (ISO 7010-E022) Push door on the left-hand side to open</p>	 <p>EES011 Safety Equipment</p>	 <p>LSS010 (ISO 7010-E045) Child's lifejacket</p>	 <p>FES011 (ISO 7010-F014) Remote release station</p>	 <p>PSS011 (ISO 7010-P013) No activated mobile phones</p>	 <p>WSS011 (ISO 7010-W011) Warning: Slippery surface</p>	 <p>MSS011 (ISO 7010-M011) Wash your hands</p>
	 <p>EES012 (ISO 7010-E031) Shipboard general alarm</p>	 <p>LSS011 (ISO 7010-E046) Infant's lifejacket</p>	 <p>FES012 (ISO 7010-F015) Fire monitor</p>	 <p>PSS012 (ISO 7010-P014) No access for people with metallic implants</p>	 <p>WSS012 (ISO 7010-W012) Warning: Electricity</p>	 <p>MSS012 (ISO 7010-M012) Use handrail</p>
	 <p>EES013 (ISO 7010-E008) Break to obtain access</p>	 <p>LSS012 (ISO 7010-E047) Search and rescue transponder</p>		 <p>PSS013 (ISO 7010-P015) No reaching in</p>	 <p>WSS013 (ISO 7010-W013) Warning: Guard dog</p>	 <p>MSS013 (ISO 7010-M013) Wear a face shield</p>











CATEGORY						
MES	EES	LSS	FES	PSS	WSS	MSS
		 <p>LSS013 (ISO 7010-E048) Survival craft distress signal</p>		 <p>PSS014 (ISO 7010-P017) No pushing</p>	 <p>WSS014 (ISO 7010-W014) Warning: Forklift trucks and other industrial vehicles</p>	 <p>MSS014 (ISO 7010-M014) Wear head protection</p>
		 <p>LSS014 (ISO 7010-E049) Rocket parachute flare</p>		 <p>PSS015 (ISO 7010-P018) No sitting</p>	 <p>WSS015 (ISO 7010-W015) Warning: Overhead load</p>	 <p>MSS015 (ISO 7010-M015) Wear high visibility clothing</p>
		 <p>LSS015 (ISO 7010-E050) Line-throwing appliance</p>		 <p>PSS016 (ISO 7010-P019) No stepping on surface</p>	 <p>WSS016 (ISO 7010-W016) Warning: Toxic material</p>	 <p>MSS016 (ISO 7010-M016) Wear a mask</p>
		 <p>LSS016 (ISO 7010-E051) Two-way VHF radio-telephone apparatus</p>		 <p>PSS017 (ISO 7010-P020) Do not use lift in the event of fire</p>	 <p>WSS017 (ISO 7010-W017) Warning: Hot surface</p>	 <p>MSS017 (ISO 7010-M017) Wear respiratory protection</p>

CATEGORY						
MES	EES	LSS	FES	PSS	WSS	MSS
		 LSS017 (ISO 7010-E052) Emergency position indicating radio beacon		 PSS018 (ISO 7010-P021) No dogs	 WSS018 (ISO 7010-W018) Warning: Automatic start-up	 MSS018 (ISO 7010-M018) Wear a safety harness
		 LSS018 (ISO 7010-E053) Embarkation ladder		 PSS019 (ISO 7010-P022) No eating or drinking	 WSS019 (ISO 7010-W019) Warning: Crushing	 MSS019 (ISO 7010-M019) Wear a welding mask
		 LSS019 (ISO 7010-E054) Marine evacuation slide		 PSS020 (ISO 7010-P023) Do not obstruct	 WSS020 (ISO 7010-W020) Warning: Overhead obstacle	
		 LSS020 (ISO 7010-E055) Marine evacuation chute		 PSS021 (ISO 7010-P024) Do not walk or stand here		

CATEGORY						
MES	EES	LSS	FES	PSS	WSS	MSS
		 <p>LSS021 (ISO 7010-E056) Survival clothing</p>			 <p>WSS021 (ISO 7010-W021) Warning: Flammable material</p>	
		 <p>LSS022 (ISO 7010-E035) Liferaft Knife</p>			 <p>WSS022 (ISO 7010-W022) Warning: Sharp element</p>	


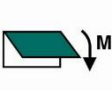





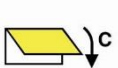

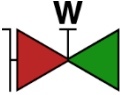
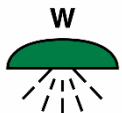





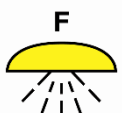
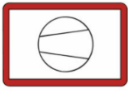




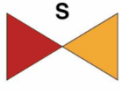
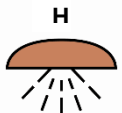

3.3 Signs in table 2 may be displayed together to form a sequence of critical mandatory actions to safely launch a lifeboat, rescue boat, or liferaft.


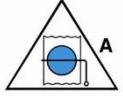



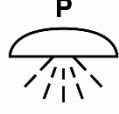
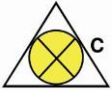



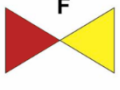
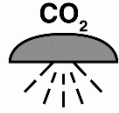
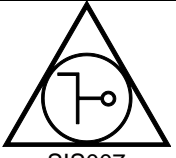
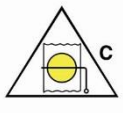
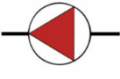
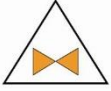

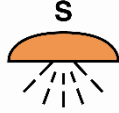



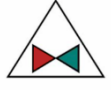
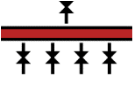

Table 2 — Summary of mandatory action signs for launching lifesaving equipment

 <p>MSS022 (ISO 7010-M020) Fasten safety belts</p>	 <p>MSS023 (ISO 7010-M037) Close and secure hatches in launch sequence</p>	 <p>MSS024 (ISO 7010-M038) Start engine in launch sequence</p>	 <p>MSS025 (ISO 7010-M039) Lower lifeboat to the water in launch sequence</p>	 <p>MSS026 (ISO 7010-M040) Lower liferaft to the water in launch sequence</p>
 <p>MSS027 (ISO 7010-M041) Lower rescue boat to the water in launch sequence</p>	 <p>MSS028 (ISO 7010-M042) Release falls in launch sequence</p>	 <p>MSS029 (ISO 7010-M043) Start water spray in launch sequence</p>	 <p>MSS030 (ISO 7010-M044) Start air supply in launch sequence</p>	 <p>MSS031 (ISO 7010-M045) Release lifeboat gripes in launch sequence</p>

3.4 Table 3 summarizes the SIS catalogue primarily adapted from resolution A.952(23) and standard ISO 17631 with the exception of the SIS signs listed in paragraph 3.1. Table 3 summarizes the standardized shipboard fire control plan signs used in workplaces and public areas to assist trained persons in the operation and management of shipboard fire control systems. The standardized symbols used in these signs are in accordance with the symbols found in the standard ISO 17631.

Table 3 — Summary of shipboard fire control plan signs (SIS) for shipboard use

<p style="text-align: center;">Fire Plan</p> <p style="text-align: center;">SIS001 Fire control plan</p>	<p style="text-align: center;"></p> <p style="text-align: center;">SIS009 Remote control for fire doors</p>	<p style="text-align: center;"></p> <p style="text-align: center;">SIS017 Closing device for ventilation inlet or outlet (machinery spaces)</p>	<p style="text-align: center;"></p> <p style="text-align: center;">SIS025 Emergency fire pump</p>	<p style="text-align: center;"></p> <p style="text-align: center;">SIS033 International shore connection</p>	<p style="text-align: center;"></p> <p style="text-align: center;">SIS041 Inert gas installation</p>	<p style="text-align: center;"></p> <p style="text-align: center;">SIS049 Emergency source of electrical power (battery)</p>
<p style="text-align: center;">Safety Plan</p> <p style="text-align: center;">SIS002 Safety plan</p>	<p style="text-align: center;"></p> <p style="text-align: center;">SIS010 Fire damper (accommodation and service spaces)</p>	<p style="text-align: center;"></p> <p style="text-align: center;">SIS018 Closing device for ventilation inlet or outlet (cargo spaces)</p>	<p style="text-align: center;"></p> <p style="text-align: center;">SIS026 Fuel pump(s) remote shut-off</p>	<p style="text-align: center;"></p> <p style="text-align: center;">SIS034 Fire hydrant</p>	<p style="text-align: center;"></p> <p style="text-align: center;">SIS042 Space or group of spaces protected by a water fire- extinguishing system</p>	<p style="text-align: center;"></p> <p style="text-align: center;">SIS050 Emergency switchboard</p>
<p style="text-align: center;">Fire and Safety Plan</p> <p style="text-align: center;">SIS003 Fire and safety plan</p>	<p style="text-align: center;"></p> <p style="text-align: center;">SIS011 Fire damper (machinery spaces)</p>	<p style="text-align: center;"></p> <p style="text-align: center;">SIS019 Remote control for closing device for ventilation inlet and outlet (accommodation and service space)</p>	<p style="text-align: center;"></p> <p style="text-align: center;">SIS027 Lube oil pump(s) remote shut-off</p>	<p style="text-align: center;"></p> <p style="text-align: center;">SIS035 Fire main section valve</p>	<p style="text-align: center;"></p> <p style="text-align: center;">SIS043 Space or group of spaces protected by a foam fire- extinguishing system</p>	<p style="text-align: center;"></p> <p style="text-align: center;">SIS051 Air compressor for breathing devices</p>
<p style="text-align: center;"></p> <p style="text-align: center;">SIS004 Ventilation remote control or shut-off (accommodation and service spaces)</p>	<p style="text-align: center;"></p> <p style="text-align: center;">SIS012 Fire damper (cargo spaces)</p>	<p style="text-align: center;"></p> <p style="text-align: center;">SIS020 Remote control for closing device for ventilation inlet and outlet</p>	<p style="text-align: center;"></p> <p style="text-align: center;">SIS028 Remote control for bilge pump(s)</p>	<p style="text-align: center;"></p> <p style="text-align: center;">SIS036 Sprinkler- section valve</p>	<p style="text-align: center;"></p> <p style="text-align: center;">SIS044 Space or group of spaces protected by a gas other than CO₂ fire-</p>	<p style="text-align: center;"></p> <p style="text-align: center;">SIS052 Control panel for fire detection and alarm system</p>

		(machinery spaces) 			extinguishing system 
SIS005 Ventilation remote control or shut-off (machinery spaces)	SIS013 Remote control for fire damper (accommodation and service spaces)	SIS021 Remote control for closing device for ventilation inlet and outlet (cargo spaces)	SIS029 Remote control for emergency bilge pump	SIS037 Powder-section valve	SIS045 Space or group of spaces protected by a powder fire-extinguishing system
					
SIS006 Ventilation remote control or shut-off (cargo spaces)	SIS014 Remote control for fire damper (machinery spaces)	SIS022 Remote control for fire pump(s)	SIS030 Remote control for fuel oil valves	SIS038 Foam-section valve	SIS046 Space or group of spaces protected by a CO ₂ fire-extinguishing system
					
SIS007 Remote control for skylight	SIS015 Remote control for fire damper (cargo spaces)	SIS023 Fire pump(s)	SIS031 Remote control for lube oil valves	SIS039 High expansion foam supply trunk (outlet)	SIS047 Space or group of spaces protected by a sprinkler or high-pressure water fire-extinguishing system
					
SIS008 Remote control for watertight doors	SIS016 Closing device for ventilation inlet or outlet (accommodation and service spaces)	SIS024 Remote control for emergency fire pump or fire pump supplied by the emergency source of power	SIS032 Remote control for fire pump valves	SIS040 Water spray system valves	SIS048 Emergency source of electrical power (generator)

