RULES

FOR THE EQUIPMENT OF SEA GOING SHIPS

ND No. 2-020101-171-E

RULE CHANGE NOTICE

ENTERS INTO FORCE:

01.01.2024

St. Petersburg
2023

RULES FOR THE EQUIPMENT OF SEA-GOING SHIPS

The present Rule Change Notice to the Rules for the Equipment of Sea-Going Ships (hereinafter — RCN) has been approved in accordance with the established approval procedure and contains information on amendments and additions, except for editorial amendments. RCN amendments come into force on 1 January 2024.

REVISION HISTORY

PART II. LIFE-SAVING APPLIANCES

Paras/Chapters/Sections	Item(s)/Type(s) of supervision and their particulars	Information on amendments	Remarks/References
Para 2.1.1 (deleted)	Ships to which SOLAS 74 as amended does not apply Radio equipment for life-saving appliances	Requirements have been deleted. Paras 2.1.2 — 2.1.4 have been renumbered 2.1.1 — 2.1.3	IMO Resolution MSC.496(105)

PART V. NAVIGATIONAL EQUIPMENT

Paras/Chapters/Sections	Item(s)/Type(s) of supervision and their particulars	Information on amendments	Remarks/References
Para 2.2.1 and 2.2.3	Self-propelled ships Sources of power Emergency sources of power	Requirements for the power supply of navigational equipment from emergency sources of electrical power have been replaced by the reference to Part XI "Electrical Equipment" of the Rules for the Classification and Construction of Sea-Going Ships	
Appendix 1	Navigational equipment Integrated navigation systems ECDIS Radar equipment	References to the requirements for presentation of navigation information have been updated	IMO resolution MSC.466(101); IEC 62288, Ed. 3.0 (2021-12)
	Navigational equipment Meteorological complex	The name of equipment has been changed	

Paras/Chapters/Sections	Item(s)/Type(s) of supervision and their particulars	Information on amendments	Remarks/References
Appendix 2	Navigational equipment Meteorological complex	Requirements for the hydrographic sensors have been deleted; requirements for the accuracy of the measured parameters have been amended	

PART II. LIFE-SAVING APPLIANCES

2 REQUIREMENTS FOR ALL TYPES OF SHIPS

2.1 COMMUNICATIONS

Para 2.1.1 is deleted. **Paras 2.1.2 — 2.1.4** are renumbered **2.1.1 — 2.1.3**, accordingly.

PART V. NAVIGATIONAL EQUIPMENT

2 NAVIGATIONAL EQUIPMENT OF SELF-PROPELLED SEA-GOING SHIPS

2.2 SOURCES OF POWER

Para 2.2.1 is replaced by the following text:

"**2.2.1** ~~Navigational equipment installed on board ship shall be provided with power supply from the main and emergency sources of electrical power.~~There shall be available at all times, while the ship is at sea, a supply of electrical energy sufficient to operate the navigational equipment.

~~It is recommended to provide a continuous power supply device on board to ensure operational integrity of navigational equipment and safety of navigational information in case the main and emergency sources of electrical power are out of order or for the time required to change over from the main source of electrical power to the emergency source or vice versa. In this case, audible alarm and visual indication shall be provided at the position from which the ship is normally navigated to indicate the change-over to the source of continuous power supply. It shall not be possible to disable this alarm and indication. Both the alarm condition and indication shall reset automatically when the ship's supply has been restored. Provision shall be made for the manual acknowledgement of audible alarm.~~".

Para 2.2.3 is replaced by the following text:

"**2.2.3** ~~The switchboard of navigational equipment shall be supplied from the main switchboard and emergency switchboard (if any) (refer also to Part XI "Electrical Equipment" of the Rules for the Classification and Construction of Sea-Going Ships).~~The conditions of power supply of the navigational equipment from emergency sources of electrical power in the event of failure of the main sources of electrical power shall be regulated by Part XI "Electrical Equipment" of the Rules for the Classification and Construction of Sea-Going Ships.

It is recommended to provide a continuous power supply device on board to ensure operational integrity of navigational equipment and safety of navigational information in case the main and emergency sources of electrical power are out of order or for the time required to change over from the main source of electrical power to the emergency source or vice versa. In this case, audible alarm and visual indication shall be provided at the position from which the ship is normally navigated to indicate the change-over to the source of continuous power supply. It shall not be possible to disable this alarm and indication. Both the alarm condition and indication shall reset automatically when the ship's supply has been restored. Provision shall be made for the manual acknowledgement of audible alarm.".

APPENDIX 1

LIST OF NORMATIVE DOCUMENTS APPLICABLE IN THE PERFORMANCE OF WORK ON TYPE APPROVAL OF SHIPBORNE NAVIGATIONAL EQUIPMENT

Code 05070000MK is replaced by the following text:

"

05070000MK	Integrated navigation system	MSC.36(63)-(1994 HSC Code) 13 MSC.97(73)-(2000 HSC Code) 13 A.694(17) MSC.191(79) MSC.466(101) MSC.252(83) MSC.452(99) MSC.302(87)	IEC 60945 series: - IEC 60945, Ed. 4.0/Cor.1 (2008-04) - GOST R IEC 60945-2007 IEC 61924-2, Ed. 2.0 (2021-02) IEC 62288, Ed. ~~2.0 (2014-07)~~ 3.0 (2021-12) IEC 61162 series: - IEC 61162-1, Ed. 5.0 (2016-08) - IEC 61162-2, Ed. 1.0 (1998-09) - IEC 61162-3, Ed. 1.2 (2014-07) - IEC 61162-450, Ed. 2.0 (2018-05) IEC 62923-1, Ed. 1.0 (2018-08) IEC 62923-2, Ed. 1.0 (2018-08)

".

Code 05130000MK is replaced by the following text:

"

05130000MK	Electronic chart display and information system (ECDIS) V/19.2.10	SOLAS-74, Reg. V/19.2.1.4 MSC.36(63)-(1994 HSC Code) 13 MSC.97(73)-(2000 HSC Code) 13 A.694(17) MSC.232(82) MSC.191(79) MSC.466(101) MSC.1/Circ.1503. Rev.1	IEC 60945 series: - IEC 60945, Ed. 4.0/Cor.1 (2008-04) - GOST R IEC 60945-2007 IEC 61174, Ed. 4.0 (2015) IEC 62288, Ed. ~~2.0 (2014-07)~~ 3.0 (2021-12) IEC 61162 series: - IEC 61162-1, Ed. 5.0 (2016-08) - IEC 61162-2, Ed. 1.0 (1998-09) - IEC 61162-3, Ed. 1.2 (2014-07) - IEC 61162-450, Ed. 2.0 (2018-05)

".

Code 05140210MK is replaced by the following text:

"

05140210MK	Radar equipment for ships less than 500 gt (CAT 3) V/19.2.3.2	SOLAS-74, Reg. V/19.2.3.2 A.694(17) MSC.192(79) MSC.191(79) MSC.466(101) ITU-R M.1177-4 (2011)	IEC 60945 series: - IEC 60945, Ed. 4.0/Cor.1 (2008-04) - GOST R IEC 60945-2007 IEC 62388, Ed. 2.0 (2013-06) IEC 62288, Ed. ~~2.0 (2014-07)~~ 3.0 (2021-12) IEC 61162 series: - IEC 61162-1, Ed. 5.0 (2016-08) - IEC 61162-2, Ed. 1.0 (1998-09) - IEC 61162-3, Ed. 1.2 (2014-07) - IEC 61162-450, Ed. 2.0 (2018-05)

".

Code 05140220MK is replaced by the following text:

"

05140220MK	Radar equipment for ships less than 10 000 gt (CAT 2) V/19.2.7.1	SOLAS-74, Reg. V/19.2.7.1 A.694(17) MSC.192(79) MSC.191(79) MSC.466(101) ITU-R M.1177-4 (2011)	IEC 60945 series: - IEC 60945, Ed. 4.0/Cor.1 (2008-04) - GOST R IEC 60945-2007 IEC 62388, Ed. 2.0 (2013-06) IEC 62288, Ed. ~~2.0 (2014-07)~~ 3.0 (2021-12) IEC 61162 series: - IEC 61162-1, Ed. 5.0 (2016-08) - IEC 61162-2, Ed. 1.0 (1998-09) - IEC 61162-3, Ed. 1.2 (2014-07) - IEC 61162-450, Ed. 2.0 (2018-05)

".

Code 05140230MK is replaced by the following text:

"

05140230MK	Radar equipment for ships of 10 000 gt and upwards (CAT 1) V/19.2.8.1	SOLAS-74, Reg. V/19.2.8.1 A.694(17) MSC.192(79) MSC.191(79) MSC.466(101) ITU-R M.1177-4 (2011)	IEC 60945 series: - IEC 60945, Ed. 4.0/Cor.1 (2008-04) - GOST R IEC 60945-2007 IEC 62388, Ed. 2.0 (2013-06) IEC 62288, Ed. ~~2.0 (2014-07)~~ 3.0 (2021-12) IEC 61162 series: - IEC 61162-1, Ed. 5.0 (2016-08) - IEC 61162-2, Ed. 1.0 (1998-09) - IEC 61162-3, Ed. 1.2 (2014-07) - IEC 61162-450, Ed. 2.0 (2018-05)

".

Code 05140231MK is replaced by the following text:

"

05140231MK	Radar equipment for high speed craft (CAT 1H, CAT 2H) V/19.2.8.1 V/19.2.3.2 HSC Code (2000) 13.5	MSC.36(63)-(1994 HSC Code) 13 MSC.97(73)-(2000 HSC Code) 13 A.694(17) MSC.192(79) MSC.191(79) MSC.466(101) ITU-R M.1177-4 (2011)	IEC 60945 series: - IEC 60945, Ed. 4.0/Cor.1 (2008-04) - GOST R IEC 60945-2007 IEC 62388, Ed. 2.0 (2013-06) IEC 62288, Ed. ~~2.0 (2014-07)~~ 3.0 (2021-12) IEC 61162 series: - IEC 61162-1, Ed. 5.0 (2016-08) - IEC 61162-2, Ed. 1.0 (1998-09) - IEC 61162-3, Ed. 1.2 (2014-07) - IEC 61162-450, Ed. 2.0 (2018-05)

".

Code 05140232MK is replaced by the following text:

"

05140232MK	Chart radar equipment (CAT 1C, CAT 2C)	A.694(17) MSC.192(79) MSC.191(79) MSC.466(101) ITU-R M.1177-4 (2011)	IEC 60945 series: - IEC 60945, Ed. 4.0/Cor.1 (2008-04) - GOST R IEC 60945-2007 IEC 62388, Ed. 2.0 (2013-06) IEC 62288, Ed. ~~2.0 (2014-07)~~ 3.0 (2021-12) IEC 61174, Ed. 4.0 (2015-08) IEC 61162 series: - IEC 61162-1, Ed. 5.0 (2016-08) - IEC 61162-2, Ed. 1.0 (1998-09) - IEC 61162-3, Ed. 1.2 (2014-07) - IEC 61162-450, Ed. 2.0 (2018-05)

".

Code 05140233MK is replaced by the following text:

"

05140233MK	Chart radar equipment for high speed craft (CAT1HC, CAT2HC)	MSC.36(63)-(1994 HSC Code) 13 MSC.97(73)-(2000 HSC Code) 13 A.694(17) MSC.192(79) MSC.191(79) MSC.466(101) ITU-R M.1177-4 (2011)	IEC 60945 series: - IEC 60945, Ed. 4.0/Cor.1 (2008-04) - GOST R IEC 60945-2007 IEC 62388, Ed. 2.0 (2014-02) IEC 62288, Ed. ~~2.0 (2014-07)~~ 3.0 (2021-12) IEC 61174, Ed. 4.0 (2015-08) IEC 61162 series: - IEC 61162-1, Ed. 5.0 (2016-08) - IEC 61162-2, Ed. 1.0 (1998-09) - IEC 61162-3, Ed. 1.2 (2014-07) - IEC 61162-450, Ed. 2.0 (2018-05)

".

Code 05220000 is replaced by the following text:

"

05220000	~~Hydrometeorological~~ Meteorological complex	A.694(17) Appendix 2, ~~p.~~Section 1	IEC 60945 series: - IEC 60945, Ed. 4.0/Cor.1 (2008-04) - GOST R IEC 60945-2007 IEC 61162 series: - IEC 61162-1, Ed. 5.0 (2016-08) - IEC 61162-2, Ed. 1.0 (1998-09) - IEC 61162-3, Ed. 1.2 (2014-07) - IEC 61162-450, Ed. 2.0 (2018-05)

".

APPENDIX 2

ADDITIONAL REQUIREMENTS FOR EQUIPMENT

Section 1 is replaced by the following text:

"1 METEOROLOGICAL COMPLEX

1.1 The ship meteorological complex, depending on the ship's purpose and operational features ~~sensors availability~~, shall be equipped with sensors to provide continuous monitoring ~~of the following parameters~~:

.1 atmospheric pressure within the range of ~~0,9 — 1,1 bar (675 — 825 millimeters of mercury)~~600 — 1070 hPa with an error limit of ~~0,5 millimeter of mercury~~±0,5 hPa;

.2 air temperature within the range of ~~-40 -~~60 °C to ~~+60~~ 55 °C with an error limit of ~~0,5~~ ±1 °C;

.3 relative air humidity ~~with an error limit of ±3 % (measurement shall be made at an ambient air temperature from –20 °C to +50 °C)~~of 30% to 98% within the temperature range of -30 °C to +50 °C;

.4 both the apparent and true wind direction~~s~~ within the range of relative bearings of 0 — 360° with an error limit of ~~5 ~~±10° ~~(with the apparent wind speed 5 m/s and more)~~;

.5 both the apparent and true wind speed within the range of 1 — ~~50~~ 55 m/s with an error limit of ~~±3 % of the current wind speed~~±0,5 m/s at a wind speed of up to 5 m/s, and ±10% at a wind speed of over 5 m/s;

~~**.6** velocity and direction of currents:~~
~~velocity range: 0 — 300 cm/s;~~
~~horizontal accuracy — 1 cm/s;~~
~~vertical accuracy — 2,0 cm/s;~~
~~direction range: 0 — 360°;~~
~~accuracy: ±8°;~~
~~**.7** water temperature:~~
~~range of water temperature measurements depending on an area of navigation:~~
~~from – 3 °C to + 37 °C;~~
~~accuracy: ±0,1 °C;~~
~~**.8** sea state recorded parameters: (maximum wave height, average period, wave steepness);~~

~~If the ship is fitted with a helideck, the following sensors shall be added to the weather station:~~

~~sensor of meteorological visibility range providing the visibility range measurements within the range from 10 to 7500 m and with an accuracy not more than 20 % of the measured value;~~

~~sensor of the cloud base providing measurement of the height to the cloud base within the range from 10 to 8000 m, with a resolution up to 10 m and accuracy not less than ±20 m.~~

1.2 The meteorological complex intended for ships fitted with a helideck shall additionally support the following measurements:

.1 meteorological optical visibility within the range of 20 — 6000 m, with a maximum error limit of ±15% at the visibility below 250 m; ±10% within the visibility range of 250 — 3000 м; ±20% at the visibility above 3000 m;

.2 the cloud base height within the range of 15 — 2000 m, with a maximum error limit of ±10 m at the cloud base height below 100 m; ±10% at the cloud base height above 100 m.

~~**1.2** It shall be possible to interface the ship weather station with the heading control system and log in accordance with the International Standard on Interface of Marine Radio and Navigational Equipment, and within the range from 0 to 50 knots the weather station shall~~

~~provide the calculation and display of true wind speed and direction on the basis of the information supplied from the heading control system and log.~~

1.3 Interfaces shall be provided for entering information in a standardized format (refer to IEC 61162 series) from the EPFS receiver, the heading control system and a log if it is necessary to calculate and display the speed and direction of the true wind.

~~**1.3**~~ **1.4** The readings of the meteorological complex indicator(s) shall be distinct and clearly visible under any lighting conditions at the place of installation.

~~**1.4**~~ **1.5** The meteorological complex shall provide the possibility of sending all the measured parameters to other devices for their processing and recording in a standardized format (refer to IEC 61162 series). ~~Data transfer formats shall comply with the International Standard on Interface of Marine Radio and Navigational Equipment.~~

~~**1.5** The weather station shall provide measurement of parameters and their transfer to other devices at a frequency of not less than 0,5 Hz.~~

~~**1.6** Current values of the measured parameters shall be displayed in digital format with refresh interval not exceeding 15 s.~~

~~**1.7**~~ **1.6** ~~The weather station display shall provide the possibility of graphical representation of the measured parameters, at that the measured values obtained for the last 24 h shall be displayed~~A graphical representation of the measured parameters shall be made possible, and the measured parameters be displayed for at least the last 24 hours of observations.

~~**1.8** The weather station shall provide measurement and display of the measured parameters in digital format in 15 minutes after switching on.~~

~~**1.9**~~ **1.7** In case of malfunction of one or two sensors, the meteorological complex shall remain operative with the failure-free sensors.

~~**1.10**~~ **1.8** The meteorological complex sensors shall be calibrated in compliance with the procedures stipulated in the manufacturer's documentation~~, and the intervals between calibrations shall not exceed two years~~.".

Russian Maritime Register of Shipping

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