



Various SOLAS-related Rule Amendments 2016

Invitation to Comment

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Invitation to Comment

You are invited to comment on the draft Various SOLAS-related Amendments 2016. The text of the draft rules is set out in this document together with explanatory material.

This invitation is issued to fulfil formal consultation requirements under the Maritime Transport Act 1994 (MTA).

Purpose of the various draft amendments

The proposed amendments make changes to Parts 23, 24B, 25, 40B, 40C, 43, 45 and 53 of the Maritime Rules. The purpose of the amendments is to ensure that New Zealand law reflects changes to the International Convention for the Safety of Life at Sea (SOLAS) which have entered into force or are due to enter into force via the tacit amendment procedure.

The amendments to the Rules will give effect to requirements in SOLAS relating to:

- Operational procedures related to safe navigation;
- Nautical publications;
- Providing a verified gross mass for loaded containers;
- · Radiocommunication equipment; and
- Navigation equipment.

What are the likely benefits for New Zealand arising from the various draft amendments?

The Various SOLAS-related Amendments 2016 are intended to ensure that New Zealand law reflects the latest SOLAS requirements. Non-alignment between New Zealand law and SOLAS creates confusion and additional compliance costs for both the New Zealand fleet and visiting international ships. The amendments will ensure that New Zealand law reflects the obligation to provide a verified gross mass for loaded export containers which enters into force on 1 July 2016.

Summary of changes

The proposed changes to the various Maritime Rules are summarised below.

Part 23: Operating Procedures and Training

Operation of heading and track control systems

Part 23 is to be amended to reflect operational requirements around the use of heading and/or track control systems and steering gear in SOLAS Chapter V Regulation 24. These requirements were previously given effect in Appendix 1 of Part 31A. The amendments are intended to reduce the likelihood of collisions and groundings as a result of over reliance on heading and/or track control systems. The amendments will also lessen the risk of watchkeepers being unfamiliar with the procedure for changing over from heading or track control to manual steering.

Illustrated table of life-saving signals

Also to be included in Part 23 is a requirement that SOLAS ships be provided with an illustrated table showing the life-saving signals found in Volume III of the IAMSAR Manual and the International Code of Signals. This must be available to the officer of the watch at all times. The signals must be used by ships or persons in distress when communicating with: life-saving stations; maritime rescue units; or aircraft engaged in search and rescue operations. The amendments will give effect to Regulation 29 of Chapter V.

Recording navigational activities

A new Subrule 23.45(5) is to be inserted requiring the master of a SOLAS ship to record navigational activities and incidents which are of importance to the safety of navigation in the logbook. The logbook entry must contain sufficient detail to restore a complete record of the voyage in accordance with the *Guidelines for recording events related to navigation* (resolution A.916(22)).

Voyage planning

A new rule 23.54A will give effect to Regulation 34 of Chapter V of SOLAS which pertains to voyage planning. This was previously reflected to some extent in Rule 31A.20. Regulation 34 is premised on the fundamental importance of careful voyage planning to safe navigation and the prevention of marine pollution.¹

Ballast water exchange and navigation bridge visibility

Regulation 22 of Chapter V, (which governs navigation bridge visibility), was amended in 2006 to provide that, notwithstanding the requirements in Regulation 22 relating to navigation bridge visibility, ballast water exchange may be undertaken where the master has determined that it is safe to do so. When making a decision that it is safe to exchange ballast water, the master must take into account any increased blind sectors or reduced horizontal fields of vision resulting from the operation. This should ensure that a proper lookout is maintained. The operation must be conducted in accordance with the ship's ballast water management plan. In addition, the commencement and termination of the ballast water exchange must be recorded in the ship's record of navigational activities.

Part 24B: Carriage of Cargoes - Stowage and Securing

Regulation VI of SOLAS has been amended to require a packed CSC container to be provided with a verified gross mass where it is to be carried on an international voyage. The amendments were adopted in 2014 and will enter into force on 1 July 2016. The amended SOLAS text requires shippers to provide a verified gross mass in the shipping documents. This must be obtained using one of the following two methods:

- Weighing the packed container using calibrated and certified equipment; or
- Weighing all packages and cargo items, including the mass of pallets, dunnage and other securing material to be packed in the container and adding the tare mass of the container to the sum of the single masses, using a certified method approved by the competent authority of the State in which packing of the container was completed.

The verified gross mass must be signed by a person authorised to do so by the shipper. It must also be submitted to the port or the master sufficiently in advance of loading to be used in the stowage plan. Where a verified gross mass is not provided, the container shall not be loaded on the ship.

Currently the shipper is required to ensure that the gross mass of the container is in accordance with the gross mass declared on the shipping documents.

Part 24B.4 is to be amended to reflect the changes to Chapter VI. <u>The draft rules should be read in conjunction with the draft advisory circular accompanying this consultation document.</u>

Part 25: Nautical Charts and Publications

Part Objective

Part 25 sets out the requirements for the carriage of nautical charts and publications. The Part Objective is to be amended to reflect the revised numbering in Chapter V of SOLAS.

Volume III of the International Aeronautical and Maritime Search and Rescue Manual

Rule 25.4 is to be amended to require the carriage of Volume III of the International Aeronautical and Maritime Search and Rescue Manual (IAMSAR Manual). The IAMSAR Manual is jointly published by

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¹ MSC 72/10/3, p 2.

the International Maritime Organization (IMO) and the International Civil Aviation Organization. Volume III is entitled 'Mobile Facilities' and is designed to assist ships involved in SAR operations. Matters covered in the IAMSAR Manual Volume III include: the obligation on ships to assist with SAR and their responsibilities; national and regional SAR systems; coordination, including the roles and responsibilities of the on-scene coordinator; instructions for ships responding to distress calls; instructions for responding to onboard emergencies; and SAR related forms.

Electronic Chart Display Information System (ECDIS)

Updates to 25.7 will ensure that Part 25 reflects developments in relation to Electronic Chart Display Information Systems (ECDIS). Amendments to SOLAS that allow for ships to rely on an independent back-up ECDIS instead of paper charts entered into force in 2011. The updated rule will align New Zealand law with international requirements. It will also address the confusion that has existed to date whereby ships with an independent back-up ECDIS are not required to carry paper charts, but are required to do so in New Zealand.

Part 40B: Design, Construction and Equipment – SOLAS Ships

Automatic Identification System (AIS)

40B.33 will be amended to reflect the requirement that AIS undergo annual tests in accordance with Regulation 18.9 of Chapter V of SOLAS.

Bridge design

The bridge design and the design and arrangement of navigational systems and equipment, as well as the bridge procedures will need to comply with Regulation 15 of Chapter V of SOLAS. It is considered essential to safe navigation that the arrangement of the bridge takes into account the human element and the human/technology interface.

Electromagnetic compatibility

All electrical and electronic equipment on the bridge or in the vicinity of the bridge will need to be tested for electromagnetic compatibility in accordance with Regulation 17 of Chapter V of SOLAS. It will need to be installed in such a way that ensures electromagnetic interference does not affect the proper functioning of the navigational systems and equipment. Requirements will also be introduced that prohibit the use of portable electrical and electronic equipment on the bridge where it may affect the proper function of the navigational systems and equipment. This implements Regulation 17 of Chapter V of SOLAS.

Navigation bridge visibility

New ships over 55m or more in length will need to be constructed and arranged so that the navigation bridge visibility complies with Regulation 22 of Chapter V of SOLAS. Ships constructed before this date will need to ensure that where practicable, the ship complies with the requirements of Regulation 22 where this does not require structural alteration or additional equipment. Regulation 22 is intended to ensure that there is always adequate visibility from the navigation bridge where bridge watches are maintained.

Integrated bridge systems

Part 40B will also be amended to require that integrated bridge systems comply with Regulation 19.6 of Chapter V of SOLAS. Regulation 19.6 requires integrated bridge systems to be arranged so that there are audible and visual alarms following the failure of a sub-system. The alarm must immediately bring the failure to the attention of the officer in charge of the navigational watch. It must also be possible to operate each other individual item of equipment or part of the system separately. This became a mandatory requirement in July 2002.

ECDIS

ECDIS became mandatory for most types of SOLAS ship from July 2012 onwards, depending on the type of ship, size, and date of build. Due to the lapse in timing between the adoption of the amendments and implementation in New Zealand law, most New Zealand SOLAS ships

constructed on or after 1 January 2017 will need to be fitted with ECDIS. Relevant ships constructed before this date will need to do so no later than the first survey on or after 1 January 2017. The exception is existing cargo ships other than tankers of between 10,000 and 50,000 gross tonnage to which the SOLAS dates will apply. The owner of a ship will need to ensure that the ECDIS complies with the relevant IMO performance standards. Research has shown that ECDIS has the potential to significantly reduce the risk of grounding. The amendments to 40B to require the mandatory carriage of ECDIS should be read in conjunction with the amendments to Rule 25.7.

Bridge Navigational Watch Alarm Systems (BNWAS)

SOLAS Chapter V Regulation 19 was amended in 2009 to require ships to be fitted with a Bridge Navigational Watch Alarm System (BNWAS). This requirement will be reflected in Part 40B. BNWAS are designed to maintain the alertness of crew performing watchkeeping duties. The requirement to carry BNWAS was introduced following concerns around fatigue among bridge crew. BNWAS may also address the issue of crew performing a watch becoming distracted by other tasks due to the reduced size of bridge teams. BNWAS alerts other crew to a lack of action on the bridge. Alerted crew can then respond as appropriate. This minimises the likelihood of an incident resulting from fatigue or other incapacity.

Amendments to SOLAS to require the carriage of BNWAS were proposed by the Bahamas and Denmark following the collision of the *Karen Danielsen* with the Great Belt Bridge in Denmark in 2005.³ In this case, the ship was fitted with a simple bridge alarm that had been turned off. Analysis by the Danish Maritime Authority of a number of collisions and groundings showed that a properly functioning BNWAS would have prevented many accidents.

Heading and track control systems

Ships of 10,000 gross tonnage or more will need to be fitted with a heading or track control system or other means to automatically control and keep to a heading and/or straight track. The requirement for a heading or track control system is found in Regulation 19.2.8.2 and became mandatory on 1 July 2002.

Automatic tracking aid

Ships will also need to be fitted with an automatic tracking aid to automatically plot the range and bearing of other targets to determine collision risk in accordance with SOLAS Chapter V Regulation 19.2.5.5. Ships of 3,000 gross tonnage or more will need to be fitted with a second automatic tracking aid which will need to be functionally independent of the other automatic tracking aid.

Long-range Identification and Tracking (LRIT)

Part 40B will also be amended to require the owner of a ship to ensure that it is fitted with a Long-range Identification and Tracking (LRIT) system to automatically transmit long-range identification and tracking information in accordance with regulation 19-1 of Chapter V of SOLAS. The information is collected to support maritime security. The information allows states to identify and track ships in order to assess the security risk posed by a ship before its arrival on the coast. LRIT became mandatory internationally for all SOLAS ships on 1 July 2009 (depending on the date of build and area of operation).

Voyage Data Recorders (VDRs)

Voyage Data Recorders (VDRs) have been a mandatory requirement for most SOLAS ships for quite some time. VDRs record data that can then be used to identify the chain of events leading to an incident. The information collected assists investigations into the causes of casualties. In addition to supporting state investigations into casualties, VDR information may be used to support ship operators with ensuring the continuous improvement of ships' systems and equipment. Simplified Voyage Data Recorders (S-VDRs) may be installed on non-passenger ships

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² NAV 54/14/2

³ MSC 81/23/2

constructed before 1 July 2002. VDRs and S-VDRs are the maritime equivalent of aviation "black boxes". The VDR must be tested annually in order to ensure the ongoing accuracy, duration and recoverability of the data.

Alternative modes of operation

Amendments to Part 40B will also require that where navigational aids and equipment offer alternative modes of operation, that this equipment indicates the actual mode in use in accordance with SOLAS Chapter V Regulation 19.5.

Foreign ships

Part 40B will be amended to require foreign ships to comply with the design, equipment and maintenance requirements of SOLAS Chapter V regulations 15, 16, 17, 18 19, 19-1, 20 and 22.

Part 40C: Design, Construction and Equipment – Non-Passenger ships that are not SOLAS Ships

Ship identification number

Amendments to SOLAS were adopted in 2002 requiring ships of 300 gross tonnage or more engaged on international voyages to obtain a unique identification number (an IMO Number). This was to be permanently and visibly marked on the ship's hull or superstructure. The requirements were to be complied with not later than the first scheduled dry-docking after 1 July 2004. Currently New Zealand law only requires ships to which Part 40B applies to obtain an IMO number. This has the effect of excluding non-passenger ships of 300 gross tonnage or more that proceed on an international voyage from the requirement.

BNWAS

Part 40C is to be amended to require the carriage of BNWAS on non-passenger ships over 500 gross tonnage not engaged on international voyages, and non-passenger ships over 150 gross tonnage engaged on international voyages. BNWAS are designed to mitigate the effects of fatigue by sounding an automatic alarm should a watchkeeper fall asleep, otherwise become incapacitated, or where there is a prolonged absence from the bridge.

In 2010 the *Anatoki* grounded in Golden Bay, with reports that the watchkeeper had fallen asleep on duty. The TAIC report on the grounding found that had the *Anatoki* been fitted with a bridge alarm, the mate may have been alerted in time to prevent the ship grounding.⁴

AIS

Ships carrying AIS are able to transmit an AIS signal which enables other ships and shore based facilities with access to AIS to identify the ship including its name, IMO number, ship type, and call sign. Mandatory requirements for the carriage of AIS were adopted in December 2002 via Regulation 19.2.4 of SOLAS Chapter V. Part 40B was amended in April 2004 to require all New Zealand passenger ships and cargo ships over 500gt that undertake an international voyage, and all New Zealand ships of 45 m or more in length operating beyond restricted limits to carry AIS. This does not, however, reflect the full extent of the SOLAS application provisions which also require that AIS be installed on ships over 300 gross tonnage engaged on international voyages, and ships over 500 gross tonnage not engaged on international voyages.

Part 40C will be amended to extend the requirement to carry AIS to ships of 300 gross tonnage or more than undertake an international voyage, and non-passenger ships of 500 gross tonnage or more that do not undertake international voyages. This will extend the New Zealand requirements to the full extent required by SOLAS, taking into account the discretion given to administrations in Regulation 1 of Chapter V. This will also fulfil the TAIC recommendation following the collision between the *Anatoki* and *Lodestar Forest* in 2008, that Maritime NZ:

http://www.taic.org.nz/ReportsandSafetyRecs/MarineReports/tabid/87/ctl/Detail/mid/484/InvNumber/2010-202/Page/0/language/en-US/Default.aspx

"address the safety issue whereby large commercial vessels above the internationally accepted size for the carriage of AIS are operating into and around busy New Zealand ports without AIS fitted, potentially compromising the effectiveness of traffic management systems and other measures to prevent collisions between vessels."⁵

The new rule will also reflect the requirement that AIS undergo annual tests in accordance with Regulation 18.9 of Chapter V of SOLAS.

LRIT

Part 40C will also be amended to require the owner of a ship of more than 300 gross tonnage that proceeds on an international voyage to ensure that it is fitted with LRIT in accordance with regulation 19-1 of Chapter V of SOLAS. LRIT information is collected to support maritime security. The information allows states to identify and track ships in order to assess the security risk posed by a ship before its arrival on the coast. Internationally, LRIT became mandatory on 1 July 2009 (depending on the date of build and area of operation).

Part 43: Radio

The references to performance standards for Emergency Group Call (EGC) equipment and survival craft portable two-way VHF radiotelephones are to be updated. The *Revised Performance Standards for Enhanced Group Call (EGC) Equipment* (Resolution MSC.306(87)) are intended to apply to equipment installed on or after 1 July 2012. The newer standards revise the performance standards found in A.664(16) which is referred to in Rule 43.25.

The Revised Performance Standards for Survival Craft Two-Way VHF Radiotelephone Apparatus (Resolution MSC.149(77)) are intended to apply to equipment installed on or after 1 July 2005. Due to the delay in implementation, the performance standards will apply to equipment installed on or after 1 July 2016.

Appendix 1.4 of Part 43 is also to be amended to require satellite Emergency Position Indicating Radio Beacons (EPIRBs) to be tested and maintained in accordance with regulation 15.9 of Chapter IV of SOLAS.

Part 45: Navigational Equipment

Gyro-compasses

A new subrule is to be added to Rule 45.8 requiring gyro-compasses fitted after 1 January 2017 to be able to transmit heading information for input to other equipment. This is required by Regulation 19.2.5.1 of Chapter V of SOLAS.

Performance standards for radar equipment

Rule 45.10 is to be updated to refer to the *Recommendation on Performance Standards for Radar Equipment* (Annex 4 of Resolution MSC.64(67) and the *Revised Performance Standards for Radar Equipment* (Resolution MSC.192(79)). Currently Rule 45.10 refers only to Resolution A.222(VII) for radars installed before 1 September 1984, and to Resolution A.477(XII) for radars installed after 1 September 1984. Updating these references will ensure that radars installed on or after 1 January 2017 comply with the most up-to-date performance standards.

Transmitting heading devices

Rule 45.10 will also be amended to require that a properly adjusted transmitting heading device is fitted to the ship in accordance with SOLAS Chapter V Regulation 19.2.3.5. This must be able to transmit heading information for input to radar equipment, plotting equipment (45.11), and devices that indicate speed and distance (45.14).

⁵ http://www.taic.org.nz/ReportsandSafetyRecs/MarineReports/tabid/87/ctl/Detail/mid/484/InvNumber/2008-202/language/en-US/Default.aspx?SkinSrc=%5BG%5Dskins%2FtaicMarine%2Fskin marine

Rudder angle indicator and propeller revolution indicator

Rule 45.15 is to be updated to refer to IMO Resolution A.1021(26).

Radio Direction Finding Equipment and Positioning Equipment

The reference to Radio Direction Finding Equipment is to be removed in Rule 45.17. SOLAS Chapter V Regulation 19.1.2.1 provides that the radio-direction finding apparatus required by SOLAS before 1 July 2002 shall no longer be required on or after the first survey following this date.

Rule 45.17 is to be replaced with requirements for positioning receiving systems required by SOLAS Chapter V Regulation 19.2.1.6. Ships will need to be fitted with a receiver for a global satellite system or a terrestrial radionavigation system, or other means suitable for use at all times throughout the intended voyage to establish and update the ship's position by automatic means.

Back-up systems

A new Rule 45.18A will be inserted to require SOLAS ships to have appropriate back-up systems where applicable for the various items of navigation equipment required.

Part 53: Pilot Transfer Arrangements and Ship-Helicopter Transfers

Assembly Resolution A.1045(27) was adopted in November 2011 and revokes Assembly Resolution A.889(21). The Part Objective will be amended to reflect this change. References to mechanical pilot hoists will also be deleted as these are now prohibited.

Who is affected by the draft rules?

New Rules 23.13A, 23.13B, 23.23A and 23.23B apply to New Zealand SOLAS ships as defined in Part 23.⁶ Amendments to Rule 23.31 apply to visiting foreign flagged ships when at a New Zealand port of offshore terminal (this excludes fishing vessels). New Rules 23.48(6) and 23.54(5) apply to both New Zealand SOLAS ships and foreign ships to which Rule 25.4 apply. New Rule 23.54A applies to all New Zealand commercial ships.

Amendments to Part 24B will apply to shippers, ports, and the masters and operators of container ships engaged on international voyages.

Changes to Rule 25.4 will apply to ships engaged on voyages in the unlimited area and visiting international ships that are not fishing vessels. The amendments to Rule 25.7 apply to ships carrying ECDIS.

Amendments to Part 40B apply to all ships to which that Part applies, except where otherwise specified.

Amendments to Part 40C in relation to obtaining an IMO number apply to non-passenger ships of more than 300 gross tonnage that proceed on an international voyage. The requirement to carry a BNWAS will apply to non-passenger ships of more than 150 gross tonnage that undertake international voyages, and non-passenger ships of more than 500 gross tonnage that do not undertake international voyages. Amendments to require the carriage of AIS will apply to non-passenger ships of more than 300 gross tonnage undertaking international voyages, and 500 gross tonnage or over not engaged on international voyages. The carriage of LRIT will apply to ships of more than 300 gross tonnage that proceed on an international voyage.

⁶ The Part 23 definition of "SOLAS ship" includes: all passenger ship operating in the unlimited area; all non-passenger ships of 500 tons gross tonnage or over operating in the unlimited area; and all passenger ships and non-passenger ships of 45 metres or more in length operating outside restricted limits.

Changes to Part 43 apply to all ships required to carry Enhanced Group Call (EGC) equipment, survival craft portable two-way VHF radiotelephones, and satellite Emergency Position Indicating Radio Beacons (EPIRBs).

Part 45 amendments will apply to New Zealand ships that are: SOLAS ships; passenger ships of 45 metres or more in length that proceed beyond restricted limits; non-passenger ships of 45 metres or more in length that proceed beyond restricted limits; or self-propelled mobile offshore drilling units of 500 gross tonnage or more.

Changes to Part 53 apply to New Zealand ships engaged on voyages in the course of which a pilot may be required, or any foreign ship in New Zealand waters where a pilot is required or is likely to be engaged.

Entry into force

Amendments to SOLAS to require containers to have a verified gross mass enter into force on 1 July 2016. It is anticipated that the proposed rules will enter into force on this date.

Making submissions

The deadline for making comments on the Various SOLAS-related Amendments 2016 is 5 p.m. Friday 11 March. Your comments must be received by this date. You may make comments by:

- email to rules.coordinator@maritimenz.govt.nz;
- ordinary post to PO Box 25620, Wellington 6146;
- fax to (04) 494 8901; or
- delivery to Maritime New Zealand, level 11, 1 Grey Street, Wellington.

Submissions are public information

Please indicate clearly if your comments are commercially sensitive, or if, for some other reason, you consider they should not be disclosed. If your submission is subject to an Official Information Act (OIA) request, Maritime NZ will consider your confidentiality request in accordance with the grounds for withholding information set out in the OIA.

We will acknowledge all submissions that we receive and once the rule is finalised you will receive a summary of the full consultation.

Subject to the provisions of the Privacy Act and the OIA, you may view the submissions made by other people at the Wellington office of Maritime New Zealand between 8.30 am and 4.30 pm on weekdays (except statutory holidays). Please arrange this beforehand by calling 0508 22 55 22 and asking for the Manager, Domestic and International Policy.

Appendix 1:

1 Part 23: Operating Procedures and Training

Part objective

- 1.1 In the Part objective in Part 23, in the bullet point list after the first paragraph, in the first bullet point, replace "musters" with "muster".
- 1.2 In the Part objective in Part 23, in the bullet point list after the first paragraph, after the last bullet point item "ship's routeing", insert a semi-colon ";".
- 1.3 In the Part objective in Part 23, in the bullet point list after the first paragraph, after the last bullet point, insert the following bullet points:
 - "• reporting systems;
 - daily reporting;
 - records of navigational activities;
 - safe navigation and avoidance of dangerous situations;
 - stability.".
- 1.4 In the Part objective in Part 23, replace the last paragraph with:

"Maritime Rules are disallowable instruments under the Legislation Act 2012. Under that Act, the rules are required to be tabled in the House of Representatives. The House of Representatives may, by resolution, disallow any rules. The Regulations Review Committee is the select committee responsible for considering rules under that Act.".

23.2 - Definitions

1.5 In rule 23.2, after the definition of "Foreign ship", insert:

"IMO Resolution A.916(22) means the resolution adopted by the International Maritime Organization Assembly, titled *Guidelines for recording events related to navigation*."

1.6 In rule 23.2, after the definition of "Ship", insert:

"SOLAS means the International Convention for the Safety of Life at Sea 1974:".

23.3 - Definitions relating to section 1

1.7 In rule 23.3, delete the definition of "SOLAS".

New rules 23.13A and 23.13B

1.8 In Part 23, insert the following rules after rule 23.13:

"23.13A Use of heading and/or track control systems

- (1) The master of a passenger ship that is both a New Zealand ship and a SOLAS ship must ensure that, when heading and/or track control systems are in use, it is possible to establish manual control of the ship's steering immediately in conditions of—
 - (a) high traffic density; or
 - (b) restricted visibility; or
 - (c) all other hazardous navigational situations.
- (2) The master must ensure that a qualified helmsperson is available to the officer in charge of the navigational watch to take over steering control where the conditions listed in subrule (1)(a), (b), or (c) are present.
- (3) The master must ensure that the change over from automatic to manual steering and from manual steering to automatic steering is made—
 - (a) by the officer in charge of the navigational watch; or

- (b) under the supervision of the officer in charge of the navigational watch.
- (4) The owner and the master must ensure that the manual steering is tested—
 - (a) after prolonged use of heading and/or track control systems; and
 - (b) before entering areas where navigation requires special caution.

23.13B Operation of steering gear

The master of a passenger ship that is both a New Zealand ship and a SOLAS ship navigating in an area that requires special caution must ensure that the ship has more than one steering gear power unit in operation when such units are capable of simultaneous operation.".

New rules 23.23A and 23.23B

1.9 In Part 23, insert the following rules after rule 23.23:

"23.23A Use of heading and/or track control systems

- (1) The master of a non-passenger ship that is both a New Zealand ship and a SOLAS ship must ensure that when heading and/or track control systems are in use, that it is possible to establish manual control of the ship's steering immediately in conditions of—
 - (a) high traffic density; or
 - (b) restricted visibility; or
 - (c) all other hazardous navigational situations.
- (2) The master must ensure that a qualified helmsperson is available to the officer in charge of the navigational watch to take over steering control where the conditions listed in subrule (1)(a), (b), or (c) are present.
- (3) The master must ensure that the change over from automatic to manual steering and from manual steering to automatic steering is made—
 - (a) by the officer in charge of the navigational watch; or
 - (b) under the supervision of the officer in charge of the navigational watch.
- (4) The owner and the master must ensure that the manual steering is tested—
 - (a) after prolonged use of heading and/or track control systems; and
 - (b) before entering areas where navigation requires special caution.

23.23B Operation of steering gear

The master of a non-passenger ship that is both a New Zealand ship and a SOLAS ship navigating in an area that requires special caution must ensure that the ship has more than one steering gear power unit in operation if the units are capable of simultaneous operation.".

Rule 23.31 Foreign ships at a New Zealand port or offshore terminal

1.10 In rule 23.31, in subrule (b), replace "Regulations 7, 26" with "Regulations 7, 24, 25, 26".

Rule 23.48 Distress signals

- 1.11 In rule 23.48, insert after subrule (5):
 - "(6) The owner and the master of a SOLAS ship to which rule 25.4 applies must ensure that an illustrated table, describing the life-saving signals set out in the publications specified in rules 25.4(1)(b)(vi) and 25.4(2), is provided on the ship that is—
 - (a) available to the officer of the watch at all times; and
 - (b) used when in distress to communicate with any of the following:

- (a) life-saving stations:
- (b) maritime rescue units:
- (c) aircraft engaged in search and rescue operations.".

<u>Section 4 - Ship's routeing, speed near ice, reporting systems, and daily reporting</u>

1.12 In Part 23, before rule 23.50, replace the heading for Section 4, with:

"Section 4 — Ship's routeing, speed near ice, reporting systems, daily reporting, records of navigational activities, and safe navigation and avoidance of dangerous situations".

23.54 Ship's daily reporting

1.13 In 23.54, replace the heading for rule 23.54 with:

"23.54 Ships' daily reporting and records of navigational activities".

- 1.14 In rule 23.54, insert after subrule (4):
 - "(5) The master of a ship to which this rule applies that is a SOLAS ship must record, in the logbook, navigational activities and incidents—
 - (a) that are of importance to the safety of navigation; and
 - (b) in sufficient detail to restore a complete record of the voyage in accordance with IMO Resolution A.916(22).".

New rules 23.54A and 23.54B

1.15 In Part 23, insert the following rules after rule 23.54:

"23.54A Safe navigation, avoidance of dangerous situations, and navigation bridge visibility

The master of a ship must ensure that before a voyage commences, the voyage has been planned in accordance with Regulation 34 of Chapter V of SOLAS.

23.54B Ballast water exchange

The owner and master of a ship must ensure that ballast water exchange is undertaken in accordance with Regulation 22.4 of Chapter V of SOLAS.".

2 Part 24B: Carriage of Cargoes — Stowage and Securing

Rule 24B.2 Definitions

2.1 In rule 24B.2, insert the following definitions in the appropriate alphabetical order:

"CSC means Convention for Safe Containers:

CSC container has the same meaning as the term "container":

mark of verification has the same meaning as Regulation 2 of the Weights and Measures Regulations 1999:

scale interval has the same meaning as Regulation 2 of the Weights and Measures Regulations 1999:

terminal representative means a person acting on behalf of another person engaged in the business of providing wharfage, dock, stowage, warehouse, or other cargo handling services in connection with a ship:

trade approved equipment means a weighing or measuring instrument that has a 'certificate of approval' and is stamped with a 'mark of verification' and issued with a current 'certificate of accuracy' in accordance with the Weights and Measures Act 1987 and Regulations made under that Act:".

24B.4 Cargo information

- 2.2 In rule 24B.4, delete subrule (4).
- 2.3 In rule 24B.4, insert, after subrule (3):
 - "(4) The shipper must ensure that, in the case of cargo carried in a CSC container to be carried on an international voyage, (excluding containers carried on a chassis or a trailer, when such containers are driven on or off a ro-ro ship engaged in a short international voyage), the gross mass required under subrule (1)(a)(ii) is verified by either—
 - (a) weighing the packed container using trade approved equipment that has a scale interval no greater than is acceptable to the Director; or
 - (b) weighing all packages and cargo items including the mass of pallets, dunnage, and other securing material to be packed in the container and adding the tare mass of the container to the sum of the single masses, using a method acceptable to the Director. ⁷
 - (5) The shipper shall ensure that the verified gross mass stated in the shipping document⁸ is:
 - (a) signed by a person duly authorised by the shipper; and
 - (b) submitted to the master or the master's representative and to the port representative sufficiently in advance, as required by the master and the shipping company, to be used in the preparation of the ship stowage plan.
 - (6) If the shipping document does not contain the verified gross mass, or the master or the master's representative and the port representative do not have the verified gross mass of the packed container, it shall not be loaded onto the ship.
 - (7) The master of a ship must not accept cargo on board if the master is not satisfied that it can be transported safely.
 - (8) For the purposes of subrule (4)—
 - (a) **gross mass** means the combined mass of a container's tare mass and the masses of all packages and cargo items, including pallets, dunnage and

⁷ Refer to the Advisory Circular for methods considered to be an acceptable means of compliance.

⁸ This document may be presented by means of EDP or EDI transmission techniques. The signature may be an electronic signature or may be replaced by the name, in capitals, of the person duly authorised to sign the document by the shipper.

other packing material and securing materials packed into the container; and

- (b) **short international voyage** means, in relation to a ro-ro ship, an international voyage in which—
 - (i) the ship is not more than 200 miles from a port or place in which the passengers and crew could be placed in safety; and
 - (ii) neither the distance between the last port of call in the country in which the voyage begins to the final port of destination, nor the return voyage, exceed 600 miles; and
 - (iii) the final port of destination is the last port of call of the voyage before the ship commences its return voyage to the country in which the voyage began.
- (9) For the purposes of subrules (5) and (6) **verified gross mass** means gross mass that has been verified in accordance with subrule (4).".

3 Part 25: Nautical Charts and Publications

Part objective

3.1 In the Part objective in Part 25, replace the third sentence with:

"Part 25 ensures that New Zealand continues to meet its obligations under Chapter V, Regulation 21 (International Code of Signals and IAMSAR Manual) and Regulation 27 (Nautical Charts and Nautical Publications), of the International Convention for the Safety of Life at Sea, 1974, (SOLAS)."

3.2 In the Part objective in Part 25, after the current paragraph, insert the following paragraph:

"Maritime Rules are disallowable instruments under the Legislation Act 2012. Under that Act, the rules are required to be tabled in the House of Representatives. The House of Representatives may, by resolution, disallow any rules. The Regulations Review Committee is the select committee responsible for considering rules under that Act.".

25.2 Definitions

3.3 In rule 25.2, after the definition of "foreign ship", insert:

"IAMSAR Manual means the International Aeronautical and Maritime Search and Rescue Manual specified in Regulation 21 of Chapter V of SOLAS:

"IMO Resolution A.817(19) means the resolution adopted by the International Maritime Organization Assembly, titled Recommendation on performance standards for electronic chart display and information systems (ECDIS):"

"IMO Resolution MSC.232(82) means the resolution adopted by the International Maritime Organization Assembly, titled *Revised performance standards for electronic chart display and information systems (ECDIS):*".

3.4 In rule 25.2, after the definition of "ship", insert:

"SOLAS means the International Convention for the Safety of Life at Sea 1974:".

Rule 25.4 Unlimited area

3.5 In rule 25.4, replace rule 25.4 with:

"25.4 Unlimited area

- (1) The owner and the master of any vessel that operates in the unlimited area must ensure that the following charts, publications, and tables are carried on the vessel—
 - (a) nautical charts; and
 - (b) the following nautical publications:
 - (i) tide tables:
 - (ii) lists of lights:
 - (iii) sailing directions:
 - (iv) notices to mariners:
 - (v) an astronomical almanac:
 - (vi) the International Code of Signals; and
 - (c) mathematical tables for the calculation of astronomical observations.
- (2) The owner and the master of any vessel that is not a fishing vessel and that operates in the unlimited area must ensure that the IAMSAR Manual is carried on the vessel.

(3) The owner and the master must ensure that the charts, publications, and tables required to be carried under subrules (1) and (2) comply with rules 25.7 and 25.8, as applicable.".

Rule 25.7 Nautical charts

- 3.6 In rule 25.7, amend subrule (1)(c)(i) by inserting, after "Resolution A.817(19)" and before the semi-colon ";", the following:
 - "or the Revised Performance Standards for Electronic Chart Display and Information Systems (ECDIS) adopted by the International Maritime Organization by Maritime Safety Committee Resolution MSC.232(82)".
- 3.7 In rule 25.7, amend subrule (c)(ii) by inserting, after "charts" and before the semi-colon ";", the following:

"or have an independent back-up Electronic Chart Display and Information System that meets the requirements of *Performance Standards for Electronic Chart Display and Information Systems (ECDIS)* adopted by the International Maritime Organization by Assembly Resolution A.817(19), or the *Revised Performance Standards for Electronic Chart Display and Information Systems (ECDIS)* adopted by the International Maritime Organization by Maritime Safety Committee Resolution MSC.232(82)".

4 Part 40B: Design, Construction and Equipment — SOLAS Ships

Part objective

- 4.1 In the Part objective in Part 40B, in the first paragraph, insert, after "radiocommunication requirements" and before "of SOLAS 74", the following:
 - "and certain navigation equipment requirements".
- 4.2 In the Part objective in Part 40B, replace the last paragraph with:

"Maritime Rules are disallowable instruments under the Legislation Act 2012. Under that Act, the rules are required to be tabled in the House of Representatives. The House of Representatives may, by resolution, disallow any rules. The Regulations Review Committee is the select committee responsible for considering rules under that Act.".

Rule 40B.2 Definitions

- 4.3 In rule 40B.2, before the definition of "bulk carrier", insert:
 - "BNWAS means Bridge Navigational Watch Alarm System:".
- 4.4 In rule 40B.2, after the definition of "Director", insert:
 - "ECDIS means Electronic Chart Display and Information System:".
- 4.5 In rule 40B.2, after the definition of "fire protection", insert:
 - "first survey means the initial survey, the first annual survey, the first periodical survey, or the first renewal survey whichever is due first after the date specified in the relevant rule:".
- 4.6 In rule 40B.2, after the definition of "IMO", insert:
 - "IMO Resolution A.813(19) means the resolution adopted by the International Maritime Organization Assembly, titled *General requirements for electromagnetic compatibility (EMC) for all electrical and electronic ship's equipment:*"
 - "IMO Resolution A.817(19) means the resolution adopted by the International Maritime Organization Assembly, titled *Recommendation on performance* standards for electronic chart display and information systems (ECDIS):
 - "IMO Resolution MSC.232(82) means the resolution adopted by the International Maritime Organization Assembly, titled Revised performance standards for electronic chart display and information systems (ECDIS):"

"IMO Resolution MSC.128(75) means the resolution adopted by the International Maritime Organization Assembly, titled *Performance standards for a bridge navigational watch alarm system (BNWAS)*:

"IMO Resolution MSC.333(90) means the resolution adopted by the International Maritime Organization Assembly, titled *Recommendation on performance standards for voyage data recorders (VDRs)*:

"IMO Resolution A.861(20) means the resolution adopted by the International Maritime Organization Assembly, titled *Performance standards for voyage data recorders (VDRs)*:

"IMO Resolution MSC.163(78) means the resolution adopted by the International Maritime Organization Assembly, titled *Performance standards for simplified voyage data recorders (S-VDRs):"*.

4.7 In rule 40B.2, after the definition of "restricted limits", insert:

"ro-ro cargo spaces mean spaces not normally subdivided in any way and extending to either a substantial length or the entire length of the ship in which goods (packaged or in bulk, in or on rail or road cars, vehicles (including road or rail tankers), trailers, containers, pallets, demountable tanks or in or on similar stowage units or other receptacles) can be loaded and unloaded normally in a horizontal direction:

ro-ro passenger ship means a passenger ship with ro-ro cargo spaces or special category spaces:

S-VDR means simplified VDR:".

4.8 In rule 40B.2, after the definition of "SOLAS", insert:

"special category spaces means those enclosed spaces above or below the bulkhead deck intended for the carriage of motor vehicles with fuel in their tanks for their own propulsion, into and from which such vehicles can be driven and to which passengers have access:".

- 4.9 In rule 40B.2, at the end of the definition of "territorial sea of New Zealand", replace the full-stop (".") with a colon (":").
- 4.10 In rule 40B.2, after the definition of "territorial sea of New Zealand", insert:

VDR means voyage data recorder and, where specified in a particular rule, also includes an S-VDR.".

Rule 40B.23 Ship requirements

4.11 In rule 40B.23, in subrule (1)(b), replace "regulations 6, 7 and 13" with "6, 7, 13, and 18".

Heading after rule 40B.32

4.12 Below the end of rule 40B.32 and above rule 40B.33, replace the heading "Automatic identification system" with "Navigation and special measures to enhance maritime safety".

Rule 40B.33 Automatic identification system

- 4.13 In rule 40B.33, in subrule (1), delete "(as amended in December 2002)".
- 4.14 In rule 40B.33, insert after subrule (3):
 - "(4) The automatic identification system must be tested annually in accordance with regulation 18.9 of Chapter V of SOLAS.".

Heading after rule 40B.33

4.15 Below the end of rule 40B.33 and above rule 40B.34, insert the heading "**Special** measures to enhance navigation safety".

Heading and new rules after rule 40B.37

4.16 Below the end of rule 40B.37, insert:

"Navigation equipment

40B.38 Application

- (1) Rules 40B.39 to 40B.52 inclusive apply to a New Zealand ship that is required by rule 40B.3 to comply with this Part.
- (2) Rule 40B.53 applies to a foreign ship that is required by rule 40B.3(1)(d), (e), or (f) to comply with this Part.

40B.39 Bridge design, systems, equipment, and procedures

The owner of a ship must ensure that the bridge design, the design and arrangement of navigational systems and equipment, and bridge procedures comply with regulation 15 of Chapter V of SOLAS.

40B.40 Maintenance of equipment

- (1) The owner and master of a ship to which rules 40B.33 and 40B.45 to 40B.50 apply must ensure that the equipment—
 - (a) is in good working order and condition; and
 - (b) is fit in all respects for its intended use; and
 - (c) meets the applicable performance standards of Chapter V of SOLAS.
- (2) The owner and master of a ship to which rules 40B.33 and 40B.45 to 40B.50 apply must ensure that the ship is provided with—
 - special tools and other items necessary for the maintenance of the equipment; and
 - (b) spare parts likely to be required during any intended voyage; and
 - (c) adequate information and instructions on the use and maintenance of all such equipment are provided on the ship in printed form in English.
- (3) Compliance with rules 40B.39(1) and (2) is not required where there is a defect in the equipment and either—
 - (a) maintenance is being carried out; or
 - (b) maintenance is not practicable given the location of the ship—

provided that suitable arrangements are made by the master to take the inoperative equipment into account in planning and executing a safe voyage to a port where repairs can take place.

(4) The owner and master of a ship must ensure that the navigational equipment and systems are installed, tested, and maintained so as to minimise the risk of malfunction.

40B.41 Electromagnetic compatibility

- (1) The owner and master of a ship constructed on or after 1 January 2017 must ensure that all electrical and electronic equipment on the bridge or in the vicinity of the bridge is tested for electromagnetic compatibility, in accordance with IMO Resolution A.813(19).
- (2) The owner of a ship must ensure that electrical and electronic equipment is installed so that electromagnetic interference does not affect the proper function of navigational systems and equipment.
- (3) The owner and master of a ship must ensure that portable electrical and electronic equipment is not operated on the bridge if it may affect the proper function of navigational systems and equipment.

40B.42 Navigation bridge visibility

- (1) The owner of a ship of 55m or more in length constructed on or after 1 January 2017 must ensure that the ship complies with the navigation bridge visibility requirements of regulation 22 of Chapter V of SOLAS.
- (2) The owner of a ship of 55m or more in length constructed before 1 January 2017 must ensure where practicable that the ship complies with the navigation bridge visibility requirements of regulation 22 of Chapter V of SOLAS where this does not require structural alteration or additional equipment.

40B.43 Integrated bridge systems

Integrated bridge systems must comply with regulation 19.6 of Chapter V of SOLAS.

40B.44 Reserved

40B.45 Electronic Chart Display and Information System (ECDIS)

- The owner of any of the following type of ship must ensure that the ship is fitted with an ECDIS as follows:
 - (a) passenger ships of 500 gross tonnage or more constructed on or after 1 January 2017:
 - (b) passenger ships of 500 gross tonnage or more constructed before 1 January 2017 but on or after 25 May 1980, not later than the first survey on or after 1 January 2017:
 - (c) tankers of 3,000 gross tonnage or more constructed on or after 1 January 2017:
 - (d) tankers of 3,000 gross tonnage or more constructed before 1 January 2017 but on or after 25 May 1980, not later than the first survey on or after 1 January 2017:
 - (e) cargo ships other than tankers of 3,000 gross tonnage on more constructed on or after 1 January 2017:
 - (f) cargo ships other than tankers of 3,000 gross tonnage or more and less than 10,000 gross tonnage constructed before 1 January 2017 but on or after 1 July 2014, not later than the first survey on or after 1 January 2017:
 - (g) cargo ships other than tankers of 50,000 gross tonnage or more, constructed before 1 January 2017 but on or after 25 May 1980, not later than the first survey on or after 1 January 2017:
 - (h) cargo ships other than tankers of 20,000 gross tonnage or more but less than 50,000 gross tonnage constructed before 1 January 2017 but on or after 25 May 1980, not later than 1 July 2017:
 - (i) cargo ships other than tankers of 10,000 gross tonnage or more but less than 20,000 gross tonnage constructed before 1 January 2017 but on or after 25 May 1980, not later than the first survey on or after 1 July 2018.
- (2) The owner of a ship must ensure that the ECDIS complies with the performance standards set in—
 - (a) IMO Resolution A.817(19); or
 - (b) IMO Resolution MSC.232(82).
- (3) Subrules (1) and (2) do not apply to a ship that will be permanently taken out of service before the implementation date specified in regulations 19.2.10.5 to 19.2.10.9 of Chapter V of SOLAS.

40B.46 Bridge Navigational Watch Alarm System (BNWAS)

(1) The owner of the following ships must ensure that the ship is fitted with a BNWAS:

- (a) ships constructed on or after 1 January 2017:
- (b) ships constructed before 1 January 2017 but on or after 25 May 1980, not later than the first survey on or after 1 January 2017.
- (2) The owner of a ship must ensure that the BNWAS complies with the performance standards set in IMO Resolution MSC.128(75).
- (3) The master of a ship must ensure that the BNWAS is in operation at all times when the ship is underway.

40B.47 Heading or Track Control System

The owner of the following ships of 10,000 tons gross tonnage or more must ensure that the ship is fitted with a heading or track control system or other means to automatically control and keep to a heading and/or straight track:

- (a) ships constructed on or after 1 January 2017:
- (b) ships constructed before 1 January 2017 but on or after 1 July 2002, not later than the first survey on or after 1 January 2017.

40B.48 Automatic tracking aid

- (1) The owner of a ship constructed on or after 1 July 2002 must ensure that the ship is fitted with an automatic tracking aid to plot automatically the range and bearing of other targets to determine collision risk not later than 1 January 2017.
- (2) The owner of a ship of 3,000 tons gross tonnage or more constructed on or after 1 July 2002 must ensure that the ship is fitted with a second automatic tracking aid to plot automatically the range and bearing of other targets to determine collision risk, which is functionally independent of the equipment required by subrule (1) not later than 1 January 2017.

40B.49 Long-range Identification and Tracking System

- (1) The owner of a ship constructed before 1 January 2017 but on or after 25 May 1980 must ensure that it is fitted with a system to automatically transmit longrange identification and tracking information in accordance with regulation 19-1 of Chapter V of SOLAS not later than the first survey of the radio installation on or after 1 January 2017.
- (2) The owner of a ship constructed on after 1 January 2017 must ensure that it is fitted with a system to automatically transmit long-range identification and tracking information in accordance with regulation 19-1 of Chapter V of SOLAS.

40B.50 Voyage Data Recorder (VDR)

- (1) The owner of any of the following type of ship must ensure the ship is fitted with a VDR:
 - (a) Passenger ships constructed on or after 1 January 2017:
 - (b) Passenger ships constructed before 1 January 2017 but on or after 25 May 1980, not later than the first survey on or after 1 January 2017:
 - (c) Non-passenger ships of 3,000 gross tonnage or more constructed on or after 1 January 2017:
 - (d) Non-passenger ships of 3,000 gross tonnage or more constructed on or after 1 July 2002, not later than the first survey on or after 1 January 2017.
- (2) The owner of a non-passenger ship of 3,000 gross tonnage or more constructed before 1 July 2002 but on or after 25 May 1980 must ensure the ship is fitted with a VDR, which may be an S-VDR, not later than the first survey on or after 1 January 2017.
- (3) A ship referred to in subrule (1) or (2) constructed before 1 July 2002, except a ro-ro passenger ship, does not need to be fitted with a VDR where it can be

demonstrated to the Director's satisfaction that interfacing a VDR with the existing equipment on the ship is unreasonable and impracticable.

- (4) VDRs and S-VDRs must comply with the performance standards in the following resolutions of the IMO—
 - (a) where a VDR is installed, IMO Resolution MSC.333(90); or
 - (b) where a VDR was installed before 1 July 2014, IMO Resolution A.861(20); or
 - (c) where a S-VDR is installed IMO Resolution MSC.163(78).
- (5) The owner and the master of a ship fitted with a VDR must ensure that—
 - the VDR is tested annually in accordance with regulation 18.8 of Chapter V of SOLAS by a testing facility approved for that purpose by the Director; and
 - (b) a copy of the certificate of compliance issued by the testing facility stating the date the VDR is found to be compliant and the performance standard applicable to the VDR must be carried on board at all times.

40B.51 Type approval

The owner and master of a ship must ensure that the equipment required by rules 40B.33 and 40B.45 to 40B.50 is of a type approved by the Director.

40B.52 Alternative modes of operation

Where the navigational equipment and systems offer alternative modes of operation the owner and master must ensure that the equipment indicates the actual mode of use.

40B.53 Foreign ships

The owner of a foreign ship must ensure that the ship complies with the design, equipment, maintenance and operational requirements of SOLAS Chapter V regulations 15, 16, 17, 18, 19, 19-1 and 22.".

5 Part 40C: Design, Construction and Equipment — Non-passenger Ships that are not SOLAS Ships

Rule 40C.2 Definitions

5.1 In rule 40C.2, after the definition of "Act", insert:

"BNWAS means bridge navigational watch alarm system:".

5.2 In rule 40C.2, after the definition of "exposed recess", insert:

"first survey means the initial survey, the first annual survey, the first periodical survey, or the first renewal survey whichever is due first after the date specified in the relevant rule:".

5.3 In rule 40C.2, after the definition of "fully decked boat", insert:

"IMO Resolution MSC.128(75) means the resolution adopted by the International Maritime Organization Assembly, titled *Performance standards for a bridge navigational watch alarm system (BNWAS)*:".

Rule 40C.4 Maritime New Zealand number

5.4 In rule 40C.4, replace the heading with:

"Maritime New Zealand number and IMO number".

- 5.5 In rule 40C.4, insert the following rule after rule 40C.4(3):
 - (4) The owner and master of a ship of 300 gross tonnage or more that proceeds on an international voyage must ensure that the ship is permanently marked with the

ship's identification number in accordance with regulation 3 of Chapter XI-1 of SOLAS not later than the first scheduled dry-docking on or after 1 January 2017.

Rule 40C.59

5.6 Immediately before rule 40C.59, replace the heading with:

"Navigation position and equipment".

5.7 In rule 40C.59, replace the heading with:

"Navigation equipment".

New rules 40C.59A, 40C.59B, and 40C.59C

5.8 In Part 40C, insert the following rules after rule 40C.59:

"40C.59A Bridge Navigational Watch Alarm System

- (1) The owner of any of the following type of ship must ensure that the ship is fitted with a BNWAS:
 - (a) non-passenger ships of 150 gross tonnage or more engaged on international voyages to which Part 40B does not apply constructed on or after 1 January 2017:
 - (b) non-passenger ships of 150 tons gross tonnage or more engaged on international voyages to which Part 40B does not apply constructed before 1 January 2017 but on or after 1 July 2002, not later than the first survey on or after 1 January 2017:
 - (c) non-passenger ships of 150 gross tonnage or more engaged on international voyages to which Part 40B does not apply constructed before 1 July 2002 but on or after 25 May 1980, not later than the first survey on or after 1 January 2018:
 - (d) non-passenger ships of 500 gross tonnage or more not engaged on international voyages constructed on or after 1 January 2017:
 - (e) non-passenger ships of 500 gross tonnage or more not engaged on international voyages constructed before 1 January 2017 but on or after 25 May 1980, not later than the first survey on or after 1 January 2017.
- (2) The owner of a ship to which subrule (1) applies must ensure that the BNWAS complies with IMO resolution MSC.128(75).
- (3) The master of a ship fitted with a BNWAS must ensure that the BNWAS is in operation at all times when the ship is underway.

40C.59B Long-Range Identification and Tracking System

- (1) The owner and master of a ship of 300 gross tonnage or more constructed before 1 January 2017 but on or after 25 May 1980 that proceeds on an international voyage must ensure that it is fitted with a system to automatically transmit longrange identification and tracking information in accordance with regulation 19-1 of Chapter V of SOLAS not later than the first survey of the radio installation on or after 1 January 2017.
- (2) The owner and master of a ship of 300 gross tonnage or more constructed after 1 January 2017 that proceeds on an international voyage must ensure that it is fitted with a system to automatically transmit long-range identification and tracking information in accordance with regulation 19-1 of Chapter V of SOLAS.

40C.59C Automatic Identification System

(1) The owner and master of any of the following type of ship must ensure that an automatic identification system is fitted on board the ship in accordance with the requirements of regulation 19 of Chapter V of SOLAS:

- (a) a ship of 300 gross tonnage or more constructed before 1 January 2017 but on or after 25 May 1980 that proceeds on an international voyage, not later than the first survey on or after 1 January 2017:
- (b) a ship of 300 gross tonnage or more constructed on or after 1 January 2017 that proceeds on an international voyage:
- (c) a ship of 500 gross tonnage or more constructed before 1 January 2017 but on or after 25 May 1980 that proceeds beyond restricted limits⁹, not later than the first survey on or after 1 January 2017:
- (d) a ship of 500 gross tonnage or more constructed on or after 1 January 2017 that proceeds beyond restricted limits.
- (2) The master of the ship must ensure that the automatic identification system is in operation at all times.
- (3) The automatic identification system must be tested annually in accordance with regulation 18.9 of Chapter V of SOLAS.".

6 Part 43: Radio

Rule 43.2 Definitions

6.1 In rule 43.2, after the definition of "HF", insert:

"IMO Resolution A.664(16) means the resolution adopted by the International Maritime Organization Assembly, titled *Performance Standards for Enhanced Group Call Equipment*:

"IMO Resolution MSC.306(87) means the resolution adopted by the International Maritime Organization Assembly, titled *Revised Performance Standards for Enhanced Group Call (EGC) Equipment*:

"IMO Resolution A.762(18) means the resolution adopted by the International Maritime Organization Assembly, titled *Performance Standards for Survival Craft Two-Way VHF Radiotelephone Apparatus*:

"IMO Resolution A.809(19) means the resolution adopted by the International Maritime Organization Assembly, titled *Performance Standards for Survival Craft Two-Way VHF Radiotelephone Apparatus*:

"IMO Resolution MSC.149(77) means the resolution adopted by the International Maritime Organization Assembly, titled *Performance Standards for Survival Craft Two-Way VHF Radiotelephone Apparatus:"*.

Rule 43.24 EGC equipment

6.2 Replace rule 43.24 with:

"43.24 EGC equipment

Enhanced group call equipment to be used in the INMARSAT system must comply with the performance standards in subrule (a) or (b) as applicable:

- (a) if installed before 1 July 2016, the standards in IMO Resolution A.664(16):
- (b) if installed on or after 1 July 2016, the standards in IMO Resolution MSC.306(87).".

Rule 43.25 Survival craft two-way VHF radiotelephone

6.3 Replace rule 43.25 with:

"43.25 Survival craft two-way VHF radiotelephone

Survival craft portable two-way VHF radiotelephones must comply with the following standards as applicable:

⁹ If the ship does proceed on an international voyage then it is excluded from Part 40C (refer 40C.3(1))

- (a) if installed before 23 November 1996, the standards in IMO Resolution A.762(18):
- (b) if installed on or after 23 November 1996 but before 1 July 2016, the standards in IMO Resolution A.809(19):
- (c) if installed on or after 1 July 2016, the standards in IMO Resolution MSC.149(77).".

Appendix 1 Radio equipment tests for GMDSS ships

6.4 In Appendix 1 of Part 43, insert after clause 3:

"4. Annually and five yearly

Each satellite EPIRB must be tested and maintained in accordance with regulation 15.9 of Chapter IV of SOLAS.".

7 Part 45: Navigational Equipment

Part objective

7.1 In the Part objective in Part 45, replace the second paragraph with:

"Part 45 incorporates a number of the requirements for shipborne navigational equipment contained in Chapter V of the International Convention for the Safety of Life at Sea 1974 (SOLAS) where these are not otherwise incorporated into Part 40B, and the requirements for similar equipment on non-SOLAS ships. Rule 45.35 sets out the criteria for recognition by the Director of a person as a compass adjuster."

7.2 In the Part objective in Part 45, replace the last paragraph with:

"Maritime Rules are disallowable instruments under the Legislation Act 2012. Under that Act, the rules are required to be tabled in the House of Representatives. The House of Representatives may, by resolution, disallow any rules. The Regulations Review Committee is the select committee responsible for considering rules under that Act.".

Rule 45.2 Definitions

7.3 In rule 45.2, after the definition of "equipment", insert:

"first survey means the initial survey, the first annual survey, the first periodical survey, or the first renewal survey whichever is due first after the date specified in the relevant rule:".

7.4 In rule 45.2, after the definition of "Foreign ship", insert:

"IMO Resolution MSC.64(67), annex 4 means the resolution adopted by the International Maritime Organization Assembly, titled *Recommendation on Performance Standards for Radar Equipment*:

IMO Resolution MSC.192(79) means the resolution adopted by the International Maritime Organization Assembly, titled *Adoption of the Revised Performance Standards for Radar Equipment*:

IMO Resolution MSC.116(73) means the resolution adopted by the International Maritime Organization Assembly, titled *Recommendations on Performance Standards for Marine Transmitting Heading Devices (THDs)*:

IMO Resolution A.1021(26) means the resolution adopted by the International Maritime Organization Assembly, titled *Code on Alerts and Indicators*:

IMO Resolution A.526(13) means the resolution adopted by the International Maritime Organization Assembly, titled *Performance Standards for Rate-of-turn indicators*:

IMO Resolution A.1046(27) means the resolution adopted by the International Maritime Organization Assembly, titled *Recommendation on Worldwide Radionavigation System*:

IMO Resolution A.818(19) means the resolution adopted by the International Maritime Organization Assembly, titled *Recommendation on performance* standards for shipborne Loran-C and Chayka receivers:

IMO Resolution A.819(19) means the resolution adopted by the International Maritime Organization Assembly, and as amended by resolution MSC.112(73), titled *Recommendation on performance standards for shipborne global positioning system receiver equipment*:

IMO Resolution MSC.53(66) means the resolution adopted by the International Maritime Organization Assembly, and as amended by resolution MSC.113(73), titled *Recommendation on performance standards for shipborne GLONASS receiver equipment*:

IMO Resolution MSC.64(67), annex 2 means the resolution adopted by the International Maritime Organization Assembly, and as amended by resolution MSC.114(73), titled *Recommendation on performance standards for shipborne DGPS and DGLONASS maritime radio beacon receiver equipment*:

IMO Resolution MSC.74(69), annex 1 means the resolution adopted by the International Maritime Organization Assembly, and as amended by resolution MSC.115(73), titled *Recommendation on performance standards for combined GPS/ GLONASS receiver equipment:*".

7.5 In rule 45.2, after the definition of "Ship", insert:

"SOLAS means the International Convention for the Safety of Life at Sea 1974:".

Footnote 1

- 7.6 In Part 45, replace footnote 1 in relation to rule 45.5(1) with:
 - "1 Part 25 of the Maritime Rules requires vessels operating in the unlimited area to carry nautical charts and nautical publications necessary for the calculation of the ship's position.".

Rule 45.8 Gyro-compasses

- 7.7 In rule 45.8, insert after subrule (3):
 - "(4) The owner and master of a ship must ensure that gyro-compasses fitted after 1 January 2017 transmit heading information for input to other equipment as required by Regulation 19.2.5.1 of Chapter V of SOLAS.".

Rule 45.10 Radar installations

- 7.8 In rule 45.10, insert after subrule (5):
 - "(6) The owner and master of a ship must ensure that radar installations fitted to the ship on or after 1 January 2017 meet the requirements of IMO Resolution MSC.64(67) Annex 4 and Maritime Safety Committee Resolution MSC.192(79).
 - (7) The owner and master of a ship constructed on or after 1 January 2017 or, for an existing ship, not later than the first survey on or after 1 January 2017, must ensure that a properly adjusted transmitting heading device—
 - (a) is fitted to the ship that transmits heading information for input to the equipment referred to in rule 45.10 (1), (2), or (3), rule 45.11 and rule 45.14; and
 - (b) complies with International Maritime Organization Maritime Safety Committee Resolution MSC.116(73).".

Rule 45.15 Rudder angle indicator and propeller revolution indicator

7.9 In rule 45.15, in subrule (3), replace "International Maritime Organization Assembly Resolution A.694(17)" with:

"The owner and the master of a ship must ensure that the indicators referred to in rule 45.15(2) and fitted to that ship meet the requirements of IMO Resolution A.1021(26))".

Rule 45.16 Rate-of-turn indicator

- 7.10 In rule 45.16, replace the rule with:
 - "(a) A ship of 100,000 tons gross tonnage or more that is constructed on or after 1 September 1984 but before 1 July 2002 must be fitted with a rate-of-turn indicator that meets the requirements of IMO Resolution A.526(13).
 - (b) A ship of 50,000 gross tonnage or more that is constructed on or after 1 July 2002 must be fitted with a rate-of-turn indicator that meets the requirements of IMO Resolution A.526(13) not later than 1 January 2017.".

Rule 45.17 Radio direction-finding equipment

7.11 In rule 45.17, replace the heading for rule 45.17 with:

"45.17 Positioning receiving systems".

- 7.12 In rule 45.17, replace the rule with:
 - "(1) Rule 45.17 applies—
 - in relation to a ship constructed on or after 1 January 2017, as at its date of construction; and
 - (b) in relation to a ship constructed before 1 January 2017 but after 25 May 1980, as at the first survey of the ship occurring on or after 1 January 2017.
 - (2) The owner and master of a ship must ensure that the ship is fitted with a receiver for a global satellite system or a terrestrial radionavigation system, or other means suitable for use at all times throughout the intended voyage to establish and update the ship's position by automatic means.
 - (3) The owner and master of a ship must ensure that the global satellite system or terrestrial radionavigation system meets the standards applicable to the ship in the following resolutions of the International Maritime Organization:
 - (a) IMO Resolution A.1046(27):
 - (b) IMO Resolution A.818(19):
 - (c) IMO Resolution A.819(19):
 - (d) IMO Resolution MSC.53(66):
 - (e) IMO Resolution MSC.64(67), annex 2:
 - (f) IMO Resolution MSC.74(69), annex 1.".

Footnote 3

7.13 In Part 45, replace footnote 3 with "Footnote 3 is reserved".

New rule 45.18A

7.14 In Part 45, insert the following rule after rule 45.18:

"45.18A Back-up arrangements

The owner and the master of a ship to which rules 45.7 to 45.18 apply must ensure that the ship has associated back-up arrangements in accordance with Regulation 19 of Chapter V of SOLAS.".

8 Part 53: Pilot Transfer Arrangements and Ship-Helicopter Pilot Transfers

Part objective

8.1 In the Part objective in Part 53, in the second paragraph, replace "resolution A.889(21)" with "resolution A.1045(27)".

Rule 53.2 Definitions

8.2 In rule 53.2, replace the definition of "pilot transfer arrangement or transfer arrangement" with:

"pilot transfer arrangement or transfer arrangement means-

- (a) a pilot ladder; and
- (b) an accommodation ladder used in conjunction with a pilot ladder; and
- (c) any other arrangement equivalent to those specified in paragraphs (a) and (b) that is approved in accordance with rule 53.5(1):".

Rule 53.4 Duties in respect of pilot transfer arrangement

- 8.3 In rule 53.4, replace subrule (f) with:
 - "(f) Reserved".
- 8.4 In rule 53.4, replace subrule (i) with:
 - (i) there is adequate means for communication between—
 - (i) the operator; and
 - (ii) the officer designated in accordance with rule 53.4(g); and".
- 8.5 In rule 53.21, in subrule (1), replace "the head of the accommodation ladder, or the head of the mechanical pilot hoist," with:

"or the head of the accommodation ladder,".