



Consultation Feedback Report

Marine Order 27 (Safety of navigation and radio equipment) Amendment Order 2019

Outline

The Australian Maritime Safety Authority (AMSA) has amended *Marine Order 27 (Safety of navigation and radio equipment) 2019*, which is now available on the AMSA website. The commencement date of the Amendment Order is 1 January 2020.

The new Marine Order addresses the following:

- Gives effect to IMO resolution MSC.436(99), ending Inmarsat's monopoly on the provision of mobile satellite services within the Global Maritime Distress and Safety System (GMDSS). References to Inmarsat have been replaced, where appropriate, with 'recognised mobile satellite service' to give effect to MSC.436(99) as of 1 January 2020.
- Revises Schedule 2 to include amending IMO resolutions.
- Minor corrections to GMDSS frequencies at Schedule 4.

Consultation Feedback

A copy of the draft Order was placed on the AMSA website for public comment for four weeks commencing 4th September 2019 and closing on 2nd October 2019. It was also emailed to some 160 stakeholders including vessel traffic management service providers, pilotage providers, ship operators, recognised organisations, training organisations, industry peak bodies and various government departments and agencies, including the Australian Communications and Media Authority.

The comments received during the public consultation and AMSA's responses are summarised below.

Marine Order 27 – General

Comment	<p>The proposed changes are supported, but I offer the following comments for consideration. It is also understood that there will be a need for a further amendment to Marine Order 27 following WRC-19 this year, since it is expected that new MSI frequencies for NAVDAT (HF) may be added to Appendix 15 of the ITU Radio Regulations (RR) under WRC-19 Agenda item 1.8 (Issue A), and amendment to Appendix 15 and/or other provisions in some form to cope with Iridium as a provider of a GMDSS satellite service under WRC-19 Agenda item 1.8 (Issue B).</p> <p>Inmarsat frequency range corrections (Schedule 4, item A.6 of table) [9]</p> <p>The proposed changes are supported in that they will be consistent with RR Appendix 15. The intention of inserting the frequency range for Inmarsat terminals appeared first in Issue 4 of MO27 in December 2009. The intention then was to capture the full frequency range of type-approved GMDSS satellite terminals (which were not mentioned at all), such as Inmarsat B (now defunct) and Inmarsat Fleet Broadband terminals (i.e. Ship transmit: 1626.5 to 1660.5 MHz and Receive: 1525.0 to 1559.0 MHz).</p> <p>It is noted that in the ACMA's Maritime Class Licence¹ and Maritime Ship Station² licences both specify a slightly different frequency range (Ship transmit: 1626.5 to 1646.5 MHz and Receive: 1530 to 1545 MHz) and the proposed MO27 Inmarsat frequency range of 1626.5 to 1645.5 MHz and 1530 to 1544 MHz (i.e. the upper transmit range is 1.5 MHz higher in the two ACMA instruments). The ACMA instruments do not apply to foreign vessels.</p> <p>Section 24 Other equipment</p> <p>1. For completeness regarding celestial navigation as an alternative navigation method, I suggest inserting the words 'chronometer', 'nautical' and 'reduction' to read as below:</p> <p>(1) ... <i>Examples of equipment: a sextant, chronometer, nautical an almanac, sight reduction tables, a correctly adjusted magnetic compass.</i></p> <p>2. Schedule 2 (table) - Additional references to IMO instruments</p> <p>For completeness, since SARTs, AIS-SARTs, EPIRBs and hand-held VHF radiotelephone apparatus are mentioned in this Marine Order, but consideration might be given to inserting the additional relevant IMO Performance standards, which appear not currently captured in Schedule 2:</p> <p>A.810(19) and MSC.56(66) and MSC.120(74) Performance standards for float-free satellite emergency position-indicating radio beacons operating in 406 MHz</p> <p>A.809(19) and MSC.247(83) Performance standards for survival craft radar transponders for use in search and rescue</p> <p>Note: A.809(19) is mentioned in Marine Order 26 (Equipment – lifesaving) 2014.</p> <p>MSC.246(83) Performance standards for survival craft AIS search and rescue transmitters (AIS-SART) for use in search and rescue operations</p> <p>MSC.809(19) Performance standards for survival craft two-way VHF radio telephone apparatus</p>
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MSC.80(70) Performance standards for survival craft on-scene (aeronautical) two-way VHF radiotelephone equipment

Further,

A.811(19) Performance standards for a shipborne integrated radiocommunication system (IRCS) when used in the GMDSS

A.662(16) Performance standards for float-free release and activation arrangements for emergency radio equipment

3. Comments on application to foreign vessels of ARPANSA RPS No.3

The fact that foreign vessels are supposedly to this Marine Order 27 could create issues in some respects, in that it is quite possible that foreign vessels are unaware of the need to comply with ARPANSA standard (RPS No.3) about radiofrequency energy from GMDSS radio equipment.

Application of RPS No.3 to ships is problematic, and a ship which is fully IMO-compliant and its equipment fully IMO-compliant with the relevant testing standards would probably fail against the ARPANSA standard since RPS No.3 provides no specific guidance on equipment or users aboard ships.

RPS No.3 has the concept of occupational exposure limits and general public exposure limits. Are ship's personnel to be deemed occupational workers? If so, then certain training is required, and I am not aware of any IMO or other guidance on this topic.

Additionally, this Marine Order is concerned about only GMDSS installation(s), whereas ships may have other radio installations used for general communications (although some of these may also be used in an emergency). Any evaluation required by ARPANSA would require cumulative radiofrequency estimations or measurements, and the non-GMDSS equipment is not referenced in this Marine Order.

Even the ACMA's maritime regulations (the 'Class Licence' and the 'Ship Station' Licence) do not concern themselves with radiofrequency energy matters as it is too difficult. It would be interesting to know ARPANSA's views on the applicability of their RPS No.3 to foreign vessels.

As such, I doubt if this requirement would be enforceable by AMSA, wonder if this has ever been tested.

IMO Res. A.694(17), which is referenced in the Marine Order 27 provides only a general requirement regarding the potential hazards of electromagnetic radio-frequency energy:

7.3 All steps should be taken to ensure that electromagnetic radio-frequency energy radiated from equipment shall not be a hazard to personnel.

IMO Resolution A.694(17)

4. Minor editorial suggestions

4.1. Section 4 Definitions

Note beneath Radio Regulations: Delete final 's' in 'Telecommunications' to read 'International Telecommunication Union'

4.2 Section 26 Specific requirements

(8) (i) Delete final 's' in 'Telecommunications' to read 'International Telecommunication Union'

4.3. Schedule 2 IMO Resolutions

IMO Resolution A.694(17) – Correct title by deleting final ‘s’ in systems ‘...systems (GMDSS) ...’

4.4 Schedule 3 GMDSS equipment for vessels to which Chapter IV of SOLAS does not apply

Section 3 Voyages in sea area A4

(b) Insert hyphen between ‘narrow’ and ‘band’ and ‘direct’ and ‘printing’ to read ‘narrow-band direct-printing’

4.5 Section 4 Station frequencies for GMDSS communications

A.3 (heading) - Insert hyphen between ‘narrow’ and ‘band’ and ‘direct’ and ‘printing’ to read ‘narrow-band direct-printing’

B.1 (heading) - Insert hyphen between ‘narrow’ and ‘band’ and ‘direct’ and ‘printing’ to read ‘narrow-band direct-printing’

B.1 (heading) – Delete the word ‘frequencies’ (reason is that it appears superfluous, and it is not used in other headings in this Section).

4.6 Schedule 4 Station Frequencies for GMDSS communications

Suggest clarifying title of this Schedule, by inserting the words ‘distress and safety’ so the title becomes:

Schedule 4 Station Frequencies for GMDSS distress and safety communications

Reason: This will then be consistent Appendix 15 of the ITU Radio Regulations. The reason is that one of the functions of the GMDSS is to provide general communications which may not be on the distress and safety frequencies listed in RR Appendix 15, yet type-approved GMDSS equipment must be capable of operation on many non-GMDSS frequencies identified under the maritime mobile service and maritime mobile-satellite service.

4.7 Schedule 4 Station Frequencies for GMDSS communications (cont’d)

For completeness, and consistency with RR Appendix 15, one could consider inserting the following additional frequencies for GMDSS Distress and Safety communications:

A.4 Air-sea SAR communications radiotelephone

Add ‘121.5 MHz aeronautical distress and urgency’

Add ‘123.1 MHz aeronautical distress and urgency auxiliary’

A.7 Automatic identification system

Add ‘161.975 MHz AIS search and rescue transmitters (AIS 1)’

Add ‘162.025 MHz AIS search and rescue transmitters (AIS 2)’

A.8 Emergency position-indicating radio beacons (EPIRBs)

Add ‘406.0 – 406.1 MHz EPIRBs’

A.9 Search and rescue radar transponders

9 200-9 500 MHz search and rescue radar transponders

5. Further suggestions

5.1 Schedule 4, item A.1 of table [8]

Whilst the proposed clarification text is true, is it also true that some Australian coast stations do not monitor 2182 kHz at all, I suggest the following amendment to the planned text:

	<p>The IMO no longer recommends that 2182 kHz be monitored by international sea going vessels for distress and safety. In Australia, coast stations do not monitor 2182 kHz, or do not monitor 2182 kHz continuously.</p> <p>5.2 Schedule 4, item B.1 of table, heading [10]</p> <p>The proposed text '(not used in Australia)' is true but is only true for MSI. Although is clearly true, it may be presumed that NBDP is not used at all in Australia, which is not true since there still is a requirement for NBDP as a follow-up for HF DSC for distress and safety communications (although this may change when the IMO GMDSS Modernization is fully completed).</p> <p>Accordingly, I suggest a small clarification in the proposed text to read: '... (not used in Australia for MSI)'</p> <p>I trust that these comments may prove useful.</p>
AMSA's response	<p>Thank you for your comments. Your feedback has been noted and editorial corrections have been made based upon your suggestions. AMSA will address the changes proposed for WRC-19 and the issues regarding ARPANSA in the next review of MO27 as appropriate.</p>
Comment	<p>Please note that we have no specific comments.</p>
AMSA's response	<p>Thank you for your submission.</p>