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The Manager
Spectrum Licensing Policy Section
Australian Communications and Media Authority
PO Box 13112 Law Courts
Melbourne VIC 8010

Our reference: 2015/418

AMSA response to VHF maritime mobile channel arrangements

To whom it may concern,

The Australian Maritime Safety Authority (AMSA) welcomes the opportunity to provide feedback on *Proposed changes to VHF maritime mobile channel arrangements*.

Background

AMSA is the Australian Flag State, Port and Coastal State Authority, which is governed by *inter alia* the International Maritime Organization (IMO) *International Convention for the Safety of Life at Sea* (SOLAS), as amended. We provide search and rescue to anyone in distress, no matter where they are in the Australian search and rescue region, whether they be travelling by boat, aircraft, vehicle or on foot. In addition, AMSA is responsible for the assignment of maritime mobile-service identities (MMSI).

AMSA contributes to, and often leads internationally, on maritime radiocommunication matters at the International Telecommunication Union (ITU) because of our extensive use of radiofrequency spectrum, but also in support of the broader search and rescue and maritime communities. This community includes SOLAS ships and domestic commercial vessels (DCV) implementing the Global Maritime Distress and Safety System (GMDSS) and recreational vessel owners.

AMSA led the development of Australia's position to World Radiocommunication Conference 2019 (WRC-19) and responded to implementation of its outcomes during the ACMA's consultation (IFC 27/2020) on the development of updates to the *Australian Radiofrequency Spectrum Plan* (ARSP). Based on the decisions of WRC-19, consistent with Australia's position taken to the Conference, AMSA supported including the outcomes of agenda items 1.8 and 1.9.2 of WRC-19 in the ARSP:

- identification of the frequency band 495 – 505 kHz for use by the international NAVDAT system,
- identification in Article **5** of the Radio Regulations a new primary allocation to the maritime mobile-satellite service in the band 1 621.35 – 1 626.50 MHz supporting Iridium Global Maritime Distress and Safety System (GMDSS) services which were included in Appendix **15** of the Radio Regulations, and
- identification in Appendix **18** of the Radio Regulation a new secondary allocation to the maritime mobile-satellite service in the frequency bands 157.1875 – 157.3375 MHz and 161.7875 – 161.9375 MHz for non-geostationary satellite systems to enable a new VHF data exchange system (VDES).



Consultation questions

1. What are your views on our proposal to amend the Maritime Ship Licence LCD to replace references to 'Inmarsat' with 'recognised mobile satellite service'?

During its work programme to modernise the GMDSS by modifying Chapter IV 'Radiocommunications' of the *International Convention for the Safety of Life at Sea (SOLAS)*, and its work programme to recognise the Iridium mobile-satellite communications systems, the IMO introduced the term *recognised mobile satellite service* to refer to all mobile satellite communication systems which are recognised¹ by the IMO.

As part of changes to its regulatory instrument, AMSA amended the definitions in *Marine Order 27 (Safety of navigation and radio equipment) 2016*², to introduce the term *recognised mobile satellite service* to replace references to Inmarsat (unless specifically required).

In this regard, the BeiDou Message Service System (BDMSS) has been recognised by the IMO³. It is now required to complete several outstanding tasks prior to commencing GMDSS operations, including identification in Appendix 15 of the Radio Regulations. Consequential changes may be required to the instruments identified by this consultation to include the operating frequencies of the BDMSS if they are captured in Appendix 15 of the Radio Regulations as an outcome to World Radiocommunication Conference (WRC) 2023.

AMSA supports replacing references to Inmarsat, where it is being used to refer to the outcome of the IMO's recognition processes, with *recognised mobile satellite service*. Further detail is provided in our comments to the *Radiocommunications (Maritime Licensing) Amendment Instrument 2024 (No. 1)*.

2. What are your views on our proposal to authorise the operation of AMRDs under the Maritime 27 MHz and VHF Class Licence and regulate their operation under the Maritime Ship Licence LCD?

AMSA supports the authorisation of autonomous maritime radio devices (AMRD) operating in the frequency band 156-162.05 MHz, subject to it not compromising the integrity of the GMDSS and the operation of the automatic identification system (AIS) on 161.975 MHz (AIS 1) and 162.025 MHz (AIS 2), or VHF digital selective calling (DSC) on 156.525 MHz.

The recognition of AMRD Group A stations by the IMO and International Telecommunication Union (ITU) was based on identification of devices which have the sole purpose of enhancing the safety of navigation, especially those using AIS and/or VHF DSC. There are: man-overboard devices (MOB) and mobile aids to navigation (MAtoN).

All other devices are categorised as AMRD Group B.

¹ Resolution A.1001(25), 'Criteria for the provision of mobile satellite communication systems in the Global Maritime Distress and Safety System (GMDSS)'.

² <https://www.amsa.gov.au/about/regulations-and-standards/marine-order-27-safety-navigation-and-radio-equipment>

³ Resolution MSC.529(106), 'Statement of recognition of maritime mobile satellite services provided by CTTIC through BDMSS', [https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/MSCResolution/5/529/529\(106\).pdf](https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/MSCResolution/5/529/529(106).pdf), adopted 7 November 2022.



AMRD Group A MOB devices (Class M)

The MOB classified as an AMRD Group A operates on 161.975 MHz (AIS 1), 162.025 MHz (AIS 2) and VHF DSC on 156.525 MHz. AMSA supports the ACMA's observation that the operation of this device is authorised under the *Radiocommunications (Emergency Locating Devices) Class Licence 2016*.

Based on the drafting instructions provided through the consultation, AMSA is of the view that there are no changes required to the instruments to authorise MOB classified as an AMRD Group A. However, a note could be included to recognise AMRD Group A MOB (Class M) operations are authorised through the *Radiocommunications (Emergency Locating Devices) Class Licence 2016*. Further detail is provided in our comments to the *Radiocommunications (Maritime Licensing) Amendment Instrument 2024 (No. 1)*.

AMRD Group A MAToN

AMSA is the competent authority in Australia for management and coordination of non-shipborne AIS transmissions. AMSA is consulted prior to the ACMA authorising non-shipborne AIS transmission. Further, many of the non-shipborne use cases for AIS must only be operated by the jurisdiction of an administration – this includes MAToN.

As noted in the consultation paper, AMSA will investigate options to authorise use of MAToN devices in Australia and provide its findings to ACMA when available. We will consult with search and rescue authorities, ports and State marine authorities. To date, AMSA has not been approached to operationalise these devices.

AMRD Group B

The establishment of a framework to support AMRD Group B stations was required due to the increasing prevalence of devices using AIS and VHF DSC which did not enhance the safety of navigation. By making available a specific VHF maritime frequency (channel 2006 on 160.900 MHz), and technical and operational framework for the authorisation of these devices, the IMO and ITU hope to eliminate devices using the AIS and VHF DSC frequencies which do not enhance the safety of navigation. An incomplete categorisation of use cases or type of application for AMRD Group B is provided in Table 8 of Recommendation ITU-R M.2135.

It should be noted that an AMRD is a station in the maritime mobile service, which is mobile, operates at sea and transmits independently of a ship station or a coast station. Noting this, AMSA question whether amendments to *Radiocommunications Licence Conditions (Maritime Ship Licence) Determination 2015* are required to authorise AMRD Group B in Australia. Further detail is provided in our comments to the *Radiocommunications (Maritime Licensing) Amendment Instrument 2024 (No. 1)*.

3. Are there other scenarios where AMRD Group A stations could be used that would be consistent with the IMO's designation for MOB purposes?

It is critical that the Australian regulatory framework does not authorise devices as AMRD Group A outside the scope of MOB (Class M) or MAToN. If there are other purposes which are identified in the future with the sole purpose of enhancing the safety of navigation, they need to be brought to the attention of the IMO or ITU so they can be assessed.



4. For what purposes are AMRD Group B stations being used? Please provide examples and information on how they operate.

AMSA is not aware of any AMRD Group B devices available for sale, or in operational use, especially in Australia.

5. Are there purposes, other than those described in ITU-R M.2135-1, that AMRD Group B stations could be used for? Please provide examples and information on how they would operate.

AMRD Group B devices are permitted to use AIS technology as detailed in Annex 3, or technology other than AIS as detailed in Annex 4⁴, of Recommendation ITU-R M.2135, respectively. However, AMRD Group B use is limited to channel 2006 (160.900 MHz) in accordance with footnote *r*) in Appendix 18 of the Radio Regulations.

AMRD Group B do not enhance the safety of navigation (i.e., do not concern the navigation of the vessel or do not complement vessel traffic safety in waterways).

Table 8 of Recommendation ITU-R M.2135 provides an incomplete categorisation of AMRD Group B use cases or type of application. The ACMA has not proposed to require authorisation of AMRD Group B devices limited to the purposes in Table 8 of Recommendation ITU-R M.2135; therefore, AMSA would propose use or type of application remain flexible, so long as the requirements in footnote *r*) of Appendix 18 of the Radio Regulations are met.

6. What are your views on our proposed changes to enable a new VDES satellite component?

AMSA supports the Australian regulatory framework authorising the use of all elements of the VDES. WRC-15 authorised the terrestrial segment on a primary basis and WRC-19 authorised the satellite segment on a secondary basis.

Whilst the IMO has not authorised VDES as a carriage requirement for SOLAS vessels, it has a work program to incorporate VDES into Chapter V of SOLAS (carriage requirements for shipborne navigational systems and equipment) and possibly for VDES to be incorporated in Chapter IV of SOLAS as a GMDSS system. The outcome of these elements will be known mid-2024 following the 11th session of the Navigation, Communication and Search and Rescue Sub-Committee (NCSR).

Regardless, VDES-capable shipborne and non-shipborne equipment is starting to enter the marketplace, particularly replacing AIS-only systems.

AMSA is currently undertaking sea trials of the satellite component to assess its suitability to deliver future maritime digital services. We are also working closely with the international community to develop the necessary systems and architectures to produce and deliver these digital services for the benefit of mariners.

⁴ Technology other than AIS may be implemented only on an experimental basis, and operational use of such devices is not addressed in the Radio Regulations – from Annex 1 of ITU-R M.2135.



AMSA have proposed some changes to the *Radiocommunications (Maritime Licensing) Amendment Instrument 2024 (No. 1)* to implement VDES in Australia to ensure all terrestrial and satellite capabilities are enabled.

Radiocommunications (Maritime Licensing) Amendment Instrument 2024 (No. 1)

AMSA has reviewed the *Radiocommunications (Maritime Licensing) Amendment Instrument 2024 (No. 1)* and has the following overall comments:

1. AMRD Group A MOB (Class M) operations are authorised through the *Radiocommunications (Emergency Locating Devices) Class Licence 2016*. Suggestions, including the use of a footnote referring to that class licence, have been proposed.
2. AMSA has proposed several suggestions and edits to improve readability and ensure the intent of footnote w) of Appendix **18** is captured accurately in proposed amends to the *Radiocommunications (Maritime Ship Station – 27 MHz and VHF) Class Licence 2015* and *Radiocommunications Licence Conditions (Maritime Ship Licence) Determination 2015*.
3. In the *Radiocommunications (Maritime Ship Station – 27 MHz and VHF) Class Licence 2015*, similar treatment for rows 212, 212bis and 213 proposed in the *Radiocommunications Licence Conditions (Maritime Ship Licence) Determination 2015* need to be made. AMRD Group B are operated on channel 2006 with an AIS and non-AIS (i.e., experimental) technology option.
4. In the *Radiocommunications Licence Conditions (Maritime Coast Licence) Determination 2015*, the proposals to authorise coast station access to the VDES in accordance with footnote w) of Appendix **18**. In reviewing these channel assignments, several channels are missing (1024, 1084, 1025 and 1085, 2024, 2084, 2025 and 2085).

We also note that the 'limitations' provided in the class licence and maritime ship licence instruments are not captured in this instrument – this could assist in clarifying the intended operational constraints captured in footnote w) of Appendix **18**. AMSA can work with the ACMA to address this issue if required.

5. What is the intended authorisation arrangement for coast earth station communications as part of the VDES? According to footnote w) in Appendix **18**, channels 26, 86, 1026, 1086, 2026 and 2086 are identified for the satellite component of the VDES. Are these appropriate to be authorised via a coast station licence or an alternative mechanism? AMSA can work with the ACMA to address this issue if required.
6. In the *Radiocommunications Licence Conditions (Maritime Ship Licence) Determination 2015*, the proposal for Schedule 2, Part 12 should use the same table as proposed for Schedule 2, Part 2.11 of the *Radiocommunications (Maritime Ship Station – 27 MHz and VHF) Class Licence 2015*.



Similarly, the use of channels in Schedule 2, Part 12, section 12.1 of the maritime ship licence should use the same as proposed in Schedule 2, Part 2.11, section 2.11.1 of the class licence.

Specific proposals are included in the attachments.

Other matters

Amendments to SOLAS Chapter IV 'Radiocommunications'

AMSA has recently finalised consultation⁵ on changes to *Marine Order 27 (Safety of navigation and radio equipment) 2016* and other consequential instruments to primarily incorporate amendments to SOLAS Chapter IV 'Radiocommunications' from IMO Resolution MSC.496(105). These changes come into effect 1 January 2024.

Reducing regulatory complexity

There is continuing evolution in GMDSS and non-GMDSS technologies which are required to provide ships with the necessary maritime safety information (MSI) and distress alerting capabilities to keep them as safe as possible in domestic and international waters.

AMSA will continue to work closely with the ACMA and industry to reduce complexity in the Australian maritime radiocommunication regulatory framework, particularly given the rapid change in technology being regulated (or not) by both Authorities.

Recommendation

AMSA appreciates the opportunity to provide feedback on the *Proposed changes to VHF maritime mobile channel arrangements*. We recommend ACMA consider the comments made in our response and the suggested revisions to *Radiocommunications (Maritime Licensing) Amendment Instrument 2024 (No. 1)*.

Please contact [REDACTED], Principal Advisor Maritime Communications, on [REDACTED] for further information on this submission.

Yours sincerely

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⁵ <https://www.amsa.gov.au/we-are-seeking-feedback-proposed-changes-marine-order-27>