22 May 2019

The Manager
Strategy and Transition Section
Spectrum Review Implementation Branch
Australian Communications and Media Authority
PO Box Q500
Queen Victoria Building NSW 1230

ACMA REF: IFC 10/2019

Our REF: 2015/418

**Draft five-year spectrum outlook 2019-23**

To whom it may concern

The Australian Maritime Safety Authority (AMSA) thanks the Australian Communications and Media Authority (ACMA) for this opportunity to comment on Issue for Comment (IFC) 10/2019: Draft five-year spectrum outlook 2019−23 (FYSO).

Use of radiofrequency spectrum by search and rescue, and the maritime community, varies widely, with AMSA responsible for aspects related to SOLAS (International Convention for the Safety of Life at Sea, 1974) vessels, the Global Maritime Distress and Safety System (GMDSS), COSPAS-SARSAT and the domestic commercial vessel (DCV) fleet. In addition, AMSA contributes to, and often leads internationally, on maritime radio communication matters related to recreational vessels.

**The maritime VHF channel plan**

The FYSO identifies only one maritime-specific work item to finalise changes to the maritime VHF channel plan (maritime plan) following public consultation completed in February 2019. These changes reflect and implement the outcomes of International Telecommunication Union (ITU) World Radiocommunication Conference (WRC) 2012 and 2015.

Ongoing stakeholder engagement is flagged on potential conversion of a number of duplex channels to simplex in the maritime plan.

Through inputs to the maritime plan consultation and other conversations, AMSA has been made aware of potential congestion scenarios in the maritime band, particularly in metropolitan areas and during major events. The affected radio networks are primarily operated by volunteer, State or Territory maritime agencies.

Whilst AMSA does not support extensive conversion of duplex channels to simplex, continued review of the maritime band within a broader context of long-term reform should be undertaken.

**The future of Appendix 18**

Appendix **18** of the ITU Radio Regulations already supports digital modulation for information dissemination and calling through the Automatic Identification System (AIS) and Digital Selective Calling (DSC). Finalisation of updates to the maritime plan will implement the outcomes of WRC-15 for terrestrial VHF Data Exchange (VDE).

Further modification of the maritime plan contained in Appendix **18** is on the agenda for WRC-19. Those changes may permit the maritime-mobile satellite service (MMSS) to support a satellite component of the VDE system – this is currently being trialled in the Australian environment.

In addition, the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) has proposed to the International Maritime Organisation (IMO) that it recommend to the ITU a future agenda item (for WRC-23) to study the conversion of all channels in Appendix **18** of the Radio Regulations to digital modulation by 2030, including channel 16. Australia should support future work to digitise the maritime plan.

**Search and rescue**

AMSA provides search and rescue (SAR) to anyone in distress, no matter where they are in the Australian SAR region, whether they be travelling by boat, aircraft, vehicle or on foot. This is a statutory obligation under the *Australian Maritime Safety Authority Act 1990*. AMSA also maintains a register (https://beacons.amsa.gov.au/) of beacon and maritime mobile service identities (MMSI) which helps in identify and locating anyone in distress and managing inadvertent or malicious activation.

Of the approximately 7000 incidents per year, most are by a 406 MHz distress beacon, commercial satellite communication (e.g. SPOT devices) or communication through the GMDSS (by HF voice or DSC, or satellite communications).

Evolution of the COSPAS-SARSAT 406 MHz detection system is occurring, with a move away from low-earth and geostationary orbit systems, to hosted payloads on medium-earth systems that improves coverage and availability. New capability, known as return link service (RLS), is coming on line this year to provide confirmation to (RLS-capable) beacon users that their distress alert has been received. Further, almost all beacons on the market are now fitted with a global-navigation satellite service (GNSS) receiver that improves geo-location capability.

Despite the advancements in system capability, AMSA is concerned that inadvertent and malicious activation of 406 MHz distress beacons is increasing. A significant proportion of inadvertent activation occurs due to incorrect disposal. This is of particular concern given that AMSA (and other agencies) respond to every distress alert on the assumption it is real distress – this can become a costly and time-consuming exercise.

AMSA maintains a comprehensive website on the benefits of the 406 MHz distress beacon system, including how individuals should respond to an inadvertent activation, and we use our social media and trade show presence to deliver our messaging.

Notwithstanding, the legislation and resourcing required for investigating and prosecuting inadvertent or malicious activation of distress beacons is not robust enough. AMSA has no responsibility in this area; however, AMSA is motivated to work with the ACMA and Department of Communications and the Arts (DoCA) to identify solutions, including mandating 406 MHz distress beacon registration through amendments to existing legislation, increased use of social media, point of sale flyers and marketing, and advertising through traditional mediums.

**Licensing and authorisation arrangements**

The FYSO proposes a number of activities planned in the medium-term to review the design and authorisation arrangements for some licence types within the current framework. AMSA requests that the ACMA prioritise this review, and work with AMSA to develop solutions that improve access to maritime spectrum, and ease the burden on maritime operators, both from a financial and authorisation perspective where possible.

The point of contact within AMSA for any further enquiries is Stuart Shepard, Senior Advisor, Maritime Communications, on +61 2 6279 5703 or stuart.shepard@amsa.gov.au.

Yours sincerely

**Brad Groves**
**GENERAL MANAGER**
**STANDARDS**

Level 5, 82 Northbourne Avenue, Braddon ACT 2612
GPO Box 2181, Canberra ACT 2601
p +61 2 6279 5050
e brad.groves@amsa.gov.au