



1 September 2023

The Manager  
Wireless Broadband  
Australian Communications and Media Authority  
PO Box 78  
Belconnen ACT 2616

Our reference: 2015/418

### **AMSA response to 1.5 GHz band – extended MSS L-band options**

To whom it may concern,

The Australian Maritime Safety Authority (AMSA) welcomes the opportunity to provide feedback into the consultation on the *Review of the 1.5 GHz band - Extended mobile satellite service (MSS) L-band options paper*.

This submission provides views on maritime considerations to note ahead of further consultation on use of the band 1427-1532 MHz.

### **Proposed changes**

The Australian Communications and Media Authority's (ACMA) has had increased interest in the usage of 1427–1518 MHz, 1518–1525 MHz and 1668–1675 MHz frequency ranges to provide for new services including wireless broadband (WBB) and MSS. The options paper proposes three options for usage in the MSS L-band range with Option 2 being the preferred choice subject to consultation:

Option 1: No changes to the existing planning arrangements for the extended MSS L-band.

Option 2: Implement arrangements to allow MSS operation in the 1518–1525 MHz and 1668–1675 MHz frequency ranges on a no-interference-no-protection basis to incumbent in-band and adjacent band licences and services.

Option 3: Implement arrangements for MSS in the extended MSS L-band (on the same basis as Option 2) and consider relocating some incumbent licences and services.

The consultation is seeking feedback on preferred options to support the use of 1518–1525 MHz and 1668–1675 MHz frequency ranges (extended MSS L-band). A subsequent consultation in 2024 will consider broader changes to the band 1427-1532 MHz.

### **Maritime considerations and impacts**

The potential deployment of International Mobile Telecommunications (IMT) in adjacent bands has the potential to cause interference to maritime and aviation receivers with poor adjacent-channel blocking performance.



Regardless of which option ACMA adopts, the following points require consideration during further ACMA consultation on use of the band 1427-1532 MHz:

1. The Inmarsat constellation operates at 1530-1544 MHz and 1626.5-1645.5 MHz. Inmarsat is an approved Global Maritime Distress and Safety Systems (GMDSS) service under Chapter IV of the International Convention on the Safety of Life at Sea (SOLAS Convention). Being a GMDSS service, it is required to have spectrum protections in place which are articulated in the ITU Radio Regulations.
2. With further consultation proposed on use of the 1427-1532 MHz band, it is possible that currently installed Inmarsat equipment operating in the adjacent 1530-1544 MHz providing GMDSS services could experience interference.
3. The International Maritime Organization (IMO) has amended the performance standards for Inmarsat-C ship earth stations<sup>1</sup> with effect for new installs from 1 January 2024. Equipment under the new standard address's interference blocking requirement for the adjacent band but it will not apply to existing vessels.
4. Due to a manufacturing delay of equipment the IMO<sup>2</sup> has allowed Member States to extend the application date of the new performance standards to 1 January 2028.
5. Based on the life cycle of an Inmarsat terminal (approx. 10 years) and extension in new terminals meeting the new performance standard, it will be approximately 2038 before all vessels with Inmarsat equipment will be capable of providing the appropriate interference blocking capability.
6. ACMA advised in the consultation paper that it may consider mandatory blocking requirements for Inmarsat receivers to permit IMT deployment, which could be prior to 2038.

## Recommendation

AMSA has no view on which of the three options ACMA implements, but the potential GMDSS impacts should be noted ahead of further consultation on the band 1427-1532 MHz.

Please contact Jacinda Sharp, Advisor Maritime Communications, on [jacinda.sharp@amsa.gov.au](mailto:jacinda.sharp@amsa.gov.au) for further information on this submission.

Yours sincerely

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<sup>1</sup> Performance standards for Inmarsat-C ship earth stations capable of transmitting and receiving direct-printing communications - Resolution MSC.513(105)

<sup>2</sup> Delays affecting the availability of new GMDSS equipment - MSC.1/Circ.1676