

20/09/2023



AMTA Submission

Australian Communications & Media Authority

Review of the 1.5 GHz band—Extended MSS L-band options paper



About AMTA

The Australian Mobile Telecommunications Association (AMTA) is the peak industry body representing Australia's mobile telecommunications industry. Its mission is to promote an environmentally, socially and economically responsible, successful and sustainable mobile telecommunications industry in Australia, with members including the mobile network operators and service providers, handset manufacturers, network equipment suppliers, retail outlets and other suppliers to the industry. For more details about AMTA, see <http://www.amta.org.au>.



Introduction

AMTA welcomes the opportunity to provide comments on the ACMA’s *“Review of the 1.5 GHz band—Extended mobile satellite service (MSS) L-band options paper”* (“the options paper”). In general, we agree with the content of the options paper, including the ACMA’s preferred planning option, Option 2—introduction of MSS in the “Extended L-band” (i.e. 1518-1525 MHz and 1668-1675 MHz). Our main interest is in ensuring that potential future wide area wireless broadband (WA WBB) services below 1518 MHz are not unduly constrained, and that the value of that spectrum is maximised.

AMTA views on the 1.5 GHz Band

We maintain the views expressed in our response to IFC 16/2022, including but not limited to:

1. that approximately 800 MHz of additional mid-band spectrum will be required for IMT by 2030 (now 700 MHz noting the 3.7 GHz band re-allocation and auction);
2. that noting the incumbency issues in the 4 GHz and 6 GHz ranges¹, the 1427-1518 MHz could perform a key role in satisfying the growth in demand in the medium- to long-term;
3. that the highest value use of the band 1427-1518 MHz remains WA WBB;
4. arrangements supporting WA WBB in the band 1427-1518 MHz should support 3GPP-compliant equipment and leverage international device ecosystems—this means that licensing arrangements—particularly emission limits—should not demand performance that is more stringent than what’s required for 3GPP, or at least align with regulatory limits adopted in other regions e.g. Europe.

We recognise and appreciate the ACMA’s agreement to delay the broader, holistic review of the 1.5 GHz Band until Q3 2024, to allow international developments (including licensing arrangements and equipment availability) to develop further. We note that there is already momentum internationally (Europe, Japan) supporting allocation and the development of a device ecosystem for WBB services in the 1427-1518 MHz band.

We note that the level of competing demand for 1.5 GHz means that co-existence considerations will be important to maximising the efficient use of this spectrum. We welcome statements that the ACMA will consider arrangements, including the outcomes of international studies, that promote co-existence between MSS and any future WBB services across the band².

¹ Furthermore, we note that only a portion of the potential additional IMT spectrum in the 3.x GHz range (3.3-3.4 GHz and 3.7-4.2 GHz) has been made available for WA WBB.

² Options paper, p.16-17

Response to ACMA questions

1. Comment is sought on the proposed desirable planning outcomes for the review of the extended MSS L-band.

AMTA supports the ACMA's desirable planning outcomes (DPO), and in particular we strongly support DPO #3: *"Consider necessary regulatory measures for new MSS use in the extended MSS L band to enable coexistence with incumbent and possible future in-band and adjacent band services (such as WBB). This is so the introduction of MSS before options for other services are considered does not unduly limit or constrain future replanning of the broader 1.5 GHz band."*

This DPO #3 is necessary to maximise the public benefit derived from the use of the spectrum by allowing introduction of MSS in the Extended L-band while also maximising the utility of the band below 1518 MHz for current and future terrestrial services.

2. Comment is sought on the options identified. Do you have any alternative options to propose?

We support Option 2 and agree that this strikes the right balance between increasing the utility of the spectrum by allowing MSS to access the band, while supporting continued operations in the band.

3. Comment is sought on the ACMA's assessment of options.

It follows that we agree with the ACMA's assessment of options.

4. Comment is sought on the ACMA's preliminary preferred approach, including the proposed draft amendments to the Radiocommunications (Communication with Space Object) Class Licence 2015 and associated licence application and allocation process.

Where the ACMA is supporting the entry of MSS to the Extended L-band, we agree that the combined class- and apparatus-licensing approach is the appropriate approach for licensing, noting that this is the approach currently adopted for existing arrangements supporting MSS in the adjacent L-band segments of 1525-1559 MHz and 1610-1660.5 MHz.

Furthermore:

- We agree that it is crucial for the ACMA to—at a minimum—include performance requirements for MSS earth station receivers, that define the minimum adjacent-channel selectivity (ACS) and blocking requirements necessary to facilitate adjacent-band coexistence with WA WBB services below 1518 MHz.

- We strongly support the ACMA’s suggestion that advisory notes be added to future Space licences in 1518-1525 MHz and to the relevant Business Operating Procedures (BOP)³ flagging the future review, including the ACMA’s intention to define a date for the implementation of better performing MSS receivers, including more stringent blocking levels.
- The purpose of these advisory notes should be to dissuade—and if necessary invalidate—claims by MSS licensees above 1518 MHz that they need to continue operating poorly-performing receiver equipment because they have already deployed it and seek to recover return-on-investment (ROI) or allow the equipment lifecycle to play out. Early deployment of receiver equipment with frequency selectivity not conducive of adjacent-band coexistence cannot be accepted by the ACMA as a valid excuse.

Additional comments on Option 2

We also note that the ACMA intends to investigate *“the application of planning arrangements to reduce the risk of interference (such as the use of guard bands and additional restrictions on service deployments around ports and airports).”*

Regarding guard bands, we point to our previous comments in response to the May 2022 consultation, that the guard band below 1518 MHz should be no larger than 1 MHz. If a 3 MHz guard band needs to be implemented, then the additional 2 MHz should be applied above 1518 MHz. **For this reason, we propose that the ACMA does not accept any applications for Space licences in 1518-1520 MHz; this restriction can be implemented in the BOP.** There is a precedent for this already, whereby *“the ACMA has a policy of not issuing space receive licences in the frequency range 2009-2010 MHz”*, with a view to protecting Television Outside Broadcasting (TOB) services above 2010 MHz.

Regarding *“additional restrictions on service deployments around ports and airports”*, we assume this is referring to WBB service deployments. While we don’t—at this early stage and without further detail—object to such a proposal outright, we believe it’s important to provide a clear explanation of how such measures are in the long-term public interest, especially considering that ports and airports can often be located in or very close to the centres of major cities where demand for WBB capacity can be the highest. Such an assessment may explain, for example, how any restriction to additional capacity that could be provided by 1.5 GHz WBB may be outweighed by the benefits of providing MSS connectivity to ships and aircraft during take-off, landing and docking stages of travel.

³ ACMA, August 2022, Business operating procedure—Submission and processing of applications for space and space receive apparatus licences.

Australian Mobile
Telecommunications Association

PO Box 1507, North Sydney, NSW 2059

50 Berry St, Suite 504, Level 5, North Sydney NSW 2060

www.amta.org.au