Australian Telecommunications Alliance

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AUSTRALIAN TELECOMMUNICATIONS ALLIANCE SATELLITE SERVICES WORKING GROUP SUBMISSION

To: Australian Communications and Media Authority

Re: Draft Five-year spectrum outlook 2026–31 and 2026–27 work program

3 May 2026

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1. AUSTRALIAN TELECOMMUNICATIONS ALLIANCE

The Australian Telecommunications Alliance (ATA) is the peak body of the Australian telecommunications industry. We are the trusted voice at the intersection of industry, government, regulators, and consumers. Through collaboration and leadership, we shape initiatives that grow the Australian telecommunications industry, enhance connectivity for all Australians, and foster the highest standards of business behaviour. For more details, visit www.austelco.org.au.

For questions on this submission, please contact Mike Johns, m.johns@austelco.org.au.

2. EXECUTIVE SUMMARY

2.1.1 The Australian Telecommunications Alliance (ATA) Satellite Services Working Group (SSWG) welcomes the opportunity to contribute to the *Draft Five-year spectrum outlook 2026–31 and 2026–27 work program* in relation to the 2 GHz Mobile-Satellite Service (MSS) bands, the Q/V band, higher-power 6 GHz band RLAN and the spectrum pricing review in the 520 MHz to 5 GHz bands.

2.1.2 The SSWG considers that the 2 GHz MSS bands represent a significant opportunity to support emerging direct-to-device (D2D) satellite services, which are expected to complement terrestrial mobile networks and improve connectivity outcomes across Australia.

2.1.3 The D2D services have progressed beyond conceptual development and are entering early commercial deployment. Spectrum planning decisions made under FYSO will therefore have a direct impact on near-term service availability and long-term market structure.

2.1.4 To maximise public benefit of the 2 GHz MSS bands, the SSWG recommends that ACMA:

- support at least two MSS operators in the band (for example, allocations of 2×10 MHz and 2×15 MHz);
- ensure that allocation decisions are based on public interest and demonstrated service capability to implement in a timely manner an Australia wide D2D service using an appropriate ITU-R filing as a prerequisite to being considered for license/authorization; and
- avoid inefficient reservation of spectrum, including the 2 × 5 MHz set-aside for low-power applications.

2.1.5 This approach in the 2 GHz MSS bands will promote competition, ensure efficient use of spectrum, and support national connectivity objectives, including improved service availability in regional and remote areas.

2.1.6 The SSWG supports ACMA's plan during 2026-27 to review in consultation with satellite stakeholders the Q/V band interim arrangements, to provide greater certainty for gateway earth stations.

2.1.7 In relation to the ACMA's consideration of higher-power 6 GHz band RLANs, the SSWG:

- supports standard power RLAN with Automated Frequency Coordination (AFC) technology operating outdoors in the lower 6 GHz band (5925 – 6425 MHz), and

- does not support the introduction of standard power RLAN for outdoor use in the 6425 – 6585 MHz frequency band, even with the use of AFC, as this poses a significant risk of harmful interference to safety-of-life services provided by SSWG members.

2.1.8 As an input to the ACMA pricing review, the SSWG is of the opinion that ACMA's apparatus licence taxes on Space and Earth station licences (both transmit and receive) in the 520 MHz to 5 GHz frequency range are significantly higher than other international jurisdictions.

2.1.9 This submission does not necessarily represent the views of Free TV.

3. 2 GHZ MSS (1980–2010 MHZ AND 2170–2200 MHZ)

3.1 INTRODUCTION

3.1.1 The ATA SSWG represents a cross-section of industry stakeholders with an interest in satellite and hybrid terrestrial-satellite communications services.

3.1.2 The SSWG notes the increasing role of MSS in supporting next-generation connectivity solutions, particularly through integration with terrestrial mobile networks. The 2 GHz MSS bands are well suited to enabling these services, including direct-to-device connectivity using standard mobile handsets.

3.1.3 The SSWG supports a regulatory framework that enables efficient, flexible, and forward-looking use of the band, consistent with the objectives of ACMA.

3.1.4 The SSWG understands the delay in making this allocation and the difficult and evolving environment the ACMA finds itself in. The SSWG hopes ACMA will take this opportunity to reflect on the major differences between its proposed approach and the views of industry, specifically;

- allocating satellite spectrum by auction, and
- setting aside 2 x 5 MHz to protect Television Outside Broadcast (TVOB) receivers.

3.1.5 On the latter point, and without repeating previous submissions, the SSWG believes that setting aside 2 x 5 MHz for low power, low data rate applications so as to protect TVOB is a sub-optimal use of that spectrum for reasons which include:

- most contemporary television 'outside broadcast' is via MNO terrestrial networks.
- new and emerging satellite technologies provide alternatives where terrestrial networks are not available.
- a fixed 2 x 5 MHz set-aside may unintentionally constrain the development of alternative technologies.

So the SSWG strongly suggests revisiting this decision given the alternative delivery and protection measures available.

3.2 ROLE OF MSS IN SUPPORTING NATIONAL CONNECTIVITY OBJECTIVES

3.2.1 The SSWG considers that MSS can play a complementary role in addressing persistent coverage gaps in regional, remote, and maritime areas where terrestrial deployment remains challenging.

3.2.2 D2D MSS services have the potential to:

- extend mobile coverage (and vis-à-vis the broadband experience) beyond the terrestrial footprint to cover the whole country and littoral zones;
- enhance network resilience during outages and natural disasters; and
- support access to essential services, including emergency communications.

3.2.3 These capabilities are aligned with broader Australian Government objectives relating to universal connectivity and digital inclusion.

3.3 CONTRIBUTION TO DIGITAL INCLUSION AND CLOSING THE GAP

3.3.1 The SSWG notes the relevance of MSS in supporting digital inclusion outcomes under the National Agreement on Closing the Gap, particularly Target 17.

3.3.2 Improved mobile connectivity in remote and very remote areas is a key enabler of:

- access to healthcare, education, and government services;
- economic participation; and
- community safety.

3.3.3 The SSWG considers that enabling MSS use in the 2 GHz bands will support these outcomes by providing scalable and cost-effective coverage extensions.

3.4 TECHNOLOGY MATURITY AND MARKET READINESS

3.4.1 The SSWG observes that D2D MSS technologies have advanced significantly in recent years, with multiple operators demonstrating:

- direct connectivity to standard mobile devices;
- support for voice, messaging, and data services; and
- integration with terrestrial mobile networks.

3.4.2 These developments indicate that D2D MSS services are entering early commercial deployment, rather than remaining at a purely experimental stage.

3.4.3 This has important implications for spectrum planning, as demand for MSS spectrum in the 2 GHz bands is strong and the services offered are highly valued.

3.5 ITU FILINGS AND DOMESTIC SPECTRUM ALLOCATION

3.5.1 The SSWG emphasises that ownership or control of an ITU filing should not be determinative in Australian spectrum allocation decisions, however it should be noted that such a filing is necessary to fulfil international obligations and interference managed operational certainty and should be considered a pre-requisite in the national licensing process.

3.5.2 Consistent with the *Radiocommunications Act 1992* and ACMA's established position:

- ITU filings do not confer domestic licensing rights in Australia;
- spectrum allocation must be determined under Australian law; and
- domestic decisions should be based on public interest considerations, including efficiency, competition, and service outcomes.

3.5.3 The SSWG considers that the ACMA completely relying on international filing positions as a basis for domestic allocation would be inconsistent with Australia's regulatory framework.

3.6 COMPETITION AND MARKET STRUCTURE

3.6.1 The SSWG considers that the 2 GHz MSS bands should support a competitive, multi-operator market structure.

3.6.2 A framework that enables at least two MSS operators (for example, 2×10 MHz and 2×15 MHz allocations) would:

- promote competition in service offerings and pricing;
- provide flexibility for mobile network operators;
- enhance resilience through infrastructure diversity; and
- encourage ongoing innovation.

3.6.3 Conversely, a single-operator outcome may limit competition and reduce long-term public benefit.

3.6.4 A final consideration here is qualification to participate in an allocation. The SSWG contends this should only be open to bona fide MSS operators with a demonstrated record of being able to provide MSS services.

3.7 RESERVATION OF SPECTRUM FOR LOW-POWER APPLICATIONS

3.7.1 As discussed earlier, the SSWG notes ACMA's proposal to reserve 2 × 5 MHz for low-power, low-data-rate applications to facilitate coexistence with TVOB services.

3.7.2 While recognising the need to protect incumbent services, the SSWG considers that:

- TVOB operations are typically localised and intermittent;
- they are most often carried on terrestrial networks;
- new and emerging satellite technologies provide simple platforms for future outside broadcast services;

- coexistence can be effectively managed through technical measures (such as PFD limits, coordination, and beamforming); and
- a static reservation of spectrum may result in inefficient use of the band.

3.7.3 The SSWG therefore recommends a flexible, technology-neutral approach that relies on technical coexistence mechanisms rather than pre-allocating spectrum by application type.

3.7.4 The SSWG also notes that with all the new and emerging platforms available for outside broadcast, the future of the TVOB spectrum could be reviewed.

4. OTHER BANDS AND TOPICS COVERED BY THE DRAFT FYSO 2026-31 AND 2026–27 ANNUAL WORK PROGRAM

4.1 Q/V BANDS

4.1.1 The SSWG thanks the ACMA for implementing an interim licensing process[1] for satellite gateways in the Q/V-bands (37.5–43.5 GHz, 47.2–48.2 GHz, 48.2–50.2 GHz, and 50.4–52.4 GHz). Noting there are firm and imminent plans to operate satellites feeder links in these bands in Australia, the SSWG supports ACMA's plan during 2026-27 to review in consultation with satellite stakeholders the Q/V band interim arrangements currently recorded in Spectrum Embargo 80, to provide greater certainty for gateway earth stations.

4.2 CONSIDERATION OF HIGHER-POWER 6 GHZ BAND RLAN

4.2.1 The SSWG notes ACMA's plan during 2026-27 to monitor developments internationally of Automated Frequency Coordination (AFC) technologies, and other potential approaches, that may facilitate spectrum-sharing between higher-power RLAN devices and other uses in the frequency range 5925–6585 MHz.

4.2.2 The SSWG would continue to support standard power RLAN with AFC operating outdoors in the lower 6 GHz band (5925 – 6425 MHz) with conditions as per the recommendations in Section 3.4 of the 'ATA SSWG submission on AFC-assisted spectrum sharing in the 6 GHz band[2]. This would provide 500 MHz of RLAN bandwidth for this application. This demarcation is consistent with Ofcom's recent decision for RLANs in this frequency range.

4.2.3 However, introduction of standard power RLAN for outdoor use in the 6425 – 6585 MHz frequency band, even with the use of AFC, poses a significant risk of harmful interference to safety-of-life services provided by SSWG members with sensitive GSO satellite receivers used by feeder uplinks in that band. These services require absolute protection from interference and timely elimination of interference. GSO satellite receivers have a view of about one-third of the Earth's surface, consequently, an AFC system designed for operation within Australia may not account for the

[1] ACMA Spectrum Embargo 80, Attachment 2.
[2] https://www.austelco.org.au/wp-content/uploads/2026/02/ATA-SSWG-Submission---ACMAs-consultation-on-AFC-assisted-spectrum-sharing-in-the-6-GHz-band.pdf

aggregate interference caused by the high density of standard-power outdoor devices deployed across the entire visibility of the satellite.

4.3 SPECTRUM PRICING REVIEW - 520 MHZ TO 5 GHZ

4.3.1 The SSWG notes ACMA's plan to commence consultation on the 520 MHz to 5 GHz band pricing review in Q2 2026. The SSWG is of the opinion that ACMA's apparatus licence taxes on Space and Earth station licences (both transmit and receive) in this frequency range are significantly higher than other international jurisdictions.

4.3.2 The SSWG would like to remind ACMA of the research carried out by Plum Consulting to conduct an international comparison of licensing fees for ACMA in 2016[3] . ACMA subsequently reviewed taxation arrangements for satellite services and compared Plum's findings with the 2020 Australia earth licence fees by population density area and in three common FSS frequency bands (C, Ku and Ka-band)[4]. It was evident that Australia had significantly higher fees than all of the other countries surveyed. While ACMA's first tranche of pricing reforms addressed the Ku and Ka-band fees, and to some extent the C-band uplink (5000 to 8500 MHz) fees, the high fees for the bands below 5 GHz now need to be addressed. The SSWG would also refer ACMA to the ATA SSWG's submission on Radiocommunications pricing consultation paper – '2.69 GHz to 5 GHz band pricing review, and proposed 2026 updates to apparatus licence taxes.'

5. CONCLUSION

5.1.1 The SSWG considers that the 2 GHz MSS bands present a significant opportunity to support emerging D2D satellite services and improve connectivity outcomes across Australia.

5.1.2 To maximise public benefit of the 2 GHz MSS bands, ACMA should adopt a framework that:

- enables multiple MSS operators;
- supports efficient and flexible use of the full band; and
- allocates spectrum through a framework that prioritises shared use, public interest and demonstrated service capability to implement a suitable service offering in a timely manner.

5.1.3 Such an approach in the 2 GHz MSS bands will promote competition, innovation, and resilience, while supporting national connectivity and digital inclusion objectives.

5.1.4 The SSWG members stand ready to assist the ACMA in reviewing the Q/V band interim arrangements to provide greater certainty for gateway earth stations.

The SSWG appreciates the opportunity to present these issues for ACMA's consideration in finalising their FYSO 2026-31 and Work Plan for 2026-27.

Ends

[3] Review of licence fees in the Australian 17.3-51.4 GHz band - Plum Consulting
[4] See Attachment E to ACMA, IFC 19-2016, Review of Taxation Arrangements for Satellite Services Consultation Paper (Aug. 2016)

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