

15 November 2024

██████████
Acting Manager
Wireless Broadband Section
Australian Communications and Media Authority

Dear ██████████

RE: Remaking the Fixed Licence LCD and revised arrangements for the 3.4–4 GHz band

The Communications Alliance Satellite Services Working Group (SSWG) welcomes the opportunity to provide comments on ACMA's *Remaking the Fixed Licence LCD and revised arrangements for the 3.4–4 GHz band* consultation.

Please note that this submission does not necessarily represent the views of nbn, who will be making their own submission.

Loss of access to important C-band spectrum in Australia

Within the SSWG, the C-band's interests are in relation to the Fixed Satellite Service (FSS) which has a primary allocation in the 3600 – 4200 MHz band and secondary allocation in the 3400 – 3600 MHz band in Australia. These organisations have for many years operated GSO satellites and/or provided satellite services in the standard C-band (3700 – 4200 MHz) to enable vital and reliable communication within Australia and the Asia Pacific, especially in tropical and oceanic areas. Some of these organisations operate C-band Earth stations in metropolitan and other areas of Australia to support the maritime, energy, defence, telecommunications and government sectors.

In response to Australian Government policy, ACMA has provided exclusive access to IMT (4G/5G) services in the 3400 – 3800 MHz band in metropolitan and 3400 – 3750 MHz in regional areas through spectrum licences, resulting in FSS services being pushed out of these bands. In the 3800 – 3950 MHz band with the introduction of Wireless Broadband (WBB) and in the 3950 – 4000 MHz band with the introduction of Highly Localised Wireless Broadband (HL WBB), ACMA will allow earth station receiver to share the band through Receive-only Area-Wide Licences (AWL Rx). The decision by ACMA to require AWL Rx licensees to license sufficient geographical area and bandwidth to provide interference protection from current and future WBB transmitters means that the cost of these AWL Rx is financially not viable¹.

The SSWG and individual satellite organisations represented in this response have raised their deep concern many times with ACMA that satellite services have been systematically pushed out of the 3800 – 4000 MHz band in metro and regional areas.

The Australian Government has already legislated the introduction of IMT and WBB in the 3400 – 3950 MHz bands in metro and regional areas and therefore the remaining comments focus on the 3950 – 4000 MHz band in metro and regional areas which is the subject of this consultation.

¹ Example costs of AWL Rxs were provided in the [CA SSWG response to ACMA allocation of AWL in 3.8 GHz band](#), 1 August 2023

Preferential treatment of HL WBB in 3950 – 4000 MHz

The SSWG is concerned that despite Fixed Satellite Service (FSS) holding the majority of the total assignments in metro and regional areas in the 3950 – 4000 MHz band², their concerns as raised in the Technical Liaison Group (TLG) have not been acted on as seen in the current consultation document and associated technical and regulatory documents.

The Point to Multipoint System (PMPS) licence type is proposed by ACMA for HL WBB, due to the excessive cost and unwarranted spectrum denial if the AWL licence type was adopted. While these same concerns were raised by SSWG members within the TLG regarding licensing Earth Receive stations using AWL Rx in the 3950 – 4000 MHz band³, ACMA staff claimed that an irrevocable decision has been made to use AWL Rx licences for Earth Receive stations in this band. The only conclusion that can be made is that the decision has been made to block or at least restrict new FSS earth station (ES) assignments in this band by using the AWL Rx licence methodology. AWL Rx licences for ES are inappropriate both in terms of pricing and technical implementation. Licensing FSS ES receivers using the current site-based Apparatus Licence (AL) methodology would enable a more spectrum-efficient arrangement and allow more FSS ES receivers to continue to operate without adversely affecting HL WBB deployment. The SSWG would encourage ACMA to continue to use the current AL methodology for licensing Earth Receive stations in the 3950 – 4000 MHz band⁴.

HL WBB unwanted emission limits and protection of Earth Receive stations

The SSWG repeat their support for the HL WBB base stations to comply with the local area BS unwanted emission limits described in Table 6.6.4.2.4-1 of 3GPP TS 38.104. As commented by ACMA, this limit may provide greater compatibility with adjacent band HL WBB, AWL and 3.4 GHz band SL services including FSS ES receivers that are sensitive to out-of-band emissions.

Members of the SSWG⁵ identified that out-of-band (OOB) emissions into the FSS low-noise block downconverter (LNB) operating band is the major mechanism for causing interference to ES receivers, rather than the overloading of the receiver, since filters cannot be applied to the receive carrier frequencies of the LNB. The final TLG document recognised the potential for interference from HL WBB OOB emissions into FSS ES receivers and proposed that HL WBB licensees be required to protect earth receive licences on a first-in-time coordinated basis to a level of –128.6 dBm/MHz as required for incumbent earth stations under earth receive licences⁶. This should be incorporated into the RALI MS 50 (Frequency coordination and licensing procedures for HL WBB PMPS licences in the 3950 – 4000 MHz band).

Further discussion

The members of the SSWG are happy to discuss these proposals further directly with ACMA with the view that they be considered and adopted as part of the introduction of HL WBB services in the 3950 – 4000 MHz band currently used by FSS ES receivers and PTP links.

² The ACMA's Register of Radiocommunications Licences (RRL) shows that 65% of the total assignments in the band are licensed for FSS earth stations (as of 11 November 2024).

³ Joint satellite response to TLG paper v1.0, 'Arrangements for highly localised WBB in the 3400-3475 MHz and 3950-4000 MHz bands', 16 Feb. 2024

⁴ Further details can be found in the joint TLG submission 'Comments on FSS and WBB coexistence framework in 3.7-4.2 GHz' dated 9 Feb. 2022.

⁵ [CA SSWG submission to the ACMA 'Area-wide apparatus licences in the 3.8 GHz band in metropolitan and regional Australia - Licensing, allocation process, technical framework and pricing arrangements Consultation Paper'](#), 1 August 2023

⁶ Refer to subsection 4.3(3) of the Radiocommunications Advisory Guidelines (Managing Interference from Spectrum Licensed Transmitters — 3.4 GHz Band) 2015).

If you have any questions with respect to this submission, please contact [REDACTED] at Communications Alliance on [REDACTED].

Yours sincerely,

[REDACTED]

Luke Coleman
Chief Executive Officer

Communications Alliance

Communications Alliance is the primary communications industry body in Australia. Its membership is drawn from a wide cross-section of the communications industry, including carriers, carriage and internet service providers, content providers, platform providers, equipment vendors, IT companies, consultants and business groups.

Its vision is to be the most influential association in Australian communications, co-operatively initiating programs that promote sustainable industry development, innovation and growth, while generating positive outcomes for customers and society.

The prime mission of Communications Alliance is to create a co-operative stakeholder environment that allows the industry to take the lead on initiatives which grow the Australian communications industry, enhance the connectivity of all Australians and foster the highest standards of business behaviour.

For more details about Communications Alliance, see
<http://www.commsalliance.com.au>.