

EXPLANATORY STATEMENT

Approved by the Australian Communications and Media Authority

Radiocommunications Act 1992

Radiocommunications Advisory Guidelines (Managing Interference from Spectrum Licensed Transmitters – 3.4 GHz Band) Variation 2023 (No. 2)

Authority

The Australian Communications and Media Authority (**the ACMA**) has made the *Radiocommunications Advisory Guidelines (Managing Interference from Spectrum Licensed Transmitters – 3.4 GHz Band) Variation 2023 (No. 2) (Tx RAG Variation)* under section 262 of the *Radiocommunications Act 1992 (the Act)* and subsection 33(3) of the *Acts Interpretation Act 1901 (the AIA)*.

Section 262 of the Act provides that the ACMA may make written advisory guidelines about any aspect of radiocommunication or radio emission.

Subsection 33(3) of the AIA relevantly provides that where an Act confers a power to make a legislative instrument, the power shall be construed as including a power exercisable in the like manner and subject to like conditions (if any) to repeal, rescind, revoke, amend or vary any such instrument.

Purpose and operation of the instrument

The purpose of the Tx RAG Variation is to amend the *Radiocommunications Advisory Guidelines (Managing Interference from Spectrum Licensed Transmitters – 3.4 GHz Band) 2015 (Tx RAG)*. The Tx RAG apply in relation to spectrum licences (**3.4 GHz spectrum licences**) that authorise the operation of radiocommunications transmitters in a part of the spectrum between 3.4 GHz and 3.8 GHz (**3.4 GHz band**).

A spectrum licence permits a licensee, subject to specified conditions, to operate radiocommunications devices within a particular spectrum space, defined by a frequency band and a geographic area. Interference occurring between adjacent spectrum licences consists of in-band interference, across the geographic boundaries, and out-of-band interference, across the frequency boundaries. Interference can also occur between spectrum licensed services and services operating under apparatus and class licensing arrangements.

The Act provides a number of means by which the ACMA may manage interference resulting from the operation of a radiocommunications transmitter under a spectrum licence, including the ability to make advisory guidelines under section 262 of the Act.

In preparing the Tx RAG Variation, the ACMA has been guided by the object of the Act, which requires the ACMA to promote the long-term public interest derived from the use of the spectrum, including by facilitating the efficient planning, allocation and use of the spectrum and supporting the communications policy objectives of the Commonwealth Government. Under section 28C of the Act, the ACMA is also required to have regard to any relevant Ministerial policy statements, in the performance of the ACMA's spectrum management functions or the exercise of the ACMA's spectrum management powers.

The *Radiocommunications (Ministerial Policy Statement – 3.4–4.0 GHz) Instrument 2022 (3.4–4.0 GHz Statement)* specifies certain Commonwealth Government communications policy objectives that apply in the ACMA's performance of its spectrum management functions, and exercise of its

spectrum management powers, in relation to the 3.4–4.0 GHz band. The 3.4 GHz band falls within the 3.4–4.0 GHz band, and accordingly the ACMA has had regard to the 3.4–4.0 GHz statement in preparing the Tx RAG Variation.

The Tx RAG form part of a set of legal instruments made by the ACMA that comprise the technical framework applicable to spectrum licences in the 3.4 GHz band.

The purpose of the Tx RAG is to provide guidance to assist in managing the potential for interference to particular radiocommunications receivers, operating under apparatus or class licences, from interference caused by radiocommunications transmitters operating under spectrum licences in the 3.4 GHz band (**3.4 GHz transmitters**). The Tx RAG also provide guidance on managing interference across the geographic areas of spectrum licences issued in the 3.4 GHz band.

Operators of spectrum, class or apparatus licensed services should use the Tx RAG in the planning of services or in the resolution of interference. The ACMA will also take the Tx RAG into account when determining whether a 3.4 GHz transmitter is causing interference into a radiocommunications receiver that is operating in accordance with its licence conditions.

The Tx RAG does not limit the actions of a spectrum licensee in negotiating operating or protection arrangements with another licensee. The Act does not prescribe any consequences for failing to comply with the Tx RAG.

The purpose of Tx RAG Variation is to amend the Tx RAG to:

- set out interference management arrangements between 3.4 GHz transmitters and earth receive stations operated under the proposed new area-wide receive licences (**AWL rx**) between 3.75 GHz and 4 GHz.
- provide for a stricter radiofrequency (**RF**) filter that applies outside the spectrum space of an AWL rx or an earth receive licence, for the purposes of working out whether the protection criteria for an earth receive station operated under such a licence are being met by a 3.4 GHz transmitter.

A provision-by-provision description of the Tx RAG Variation is set out in the notes at **Attachment A**.

The Tx RAG Variation is a disallowable legislative instrument under the *Legislation Act 2003* (**the LA**). The Tx RAG is subject to the sunset provisions in Part 4 of Chapter 3 of the LA.

Documents incorporated by reference

Subsection 314A(2) of the Act provides that an instrument under the Act may make provision in relation to a matter by applying, adopting or incorporating (with or without modifications) matter contained in any other instrument or writing as in force or existing at a particular time, or from time to time.

The Tx RAG Variation amends the Tx RAG to incorporate the following documents, as existing from time to time:

- ITU-R Recommendation P.452, published by the Radiocommunications Sector of the International Telecommunication Union (**ITU-R**) and available, free of charge, at www.itu.int;
- ITU-R Recommendation S.465, published by the ITU-R and available, free of charge, at www.itu.int.

The Tx RAG Variation amends the Tx RAG to refer to the *Radiocommunications (Interpretation) Determination 2015*, but does not incorporate it by reference. That instrument is available, free of charge, from the Federal Register of Legislation at www.legislation.gov.au.

Consultation

Before the Tx RAG Variation was made, the ACMA was satisfied that consultation was undertaken to the extent appropriate and reasonably practicable, in accordance with section 17 of the LA.

A draft version of the Tx RAG variation was released for public consultation from 20 June 2023 to 1 August 2023. This was part of a broader consultation on the draft licensing, allocation and technical framework for the allocation of area-wide licences (AWL) and AWL rx in the part of the spectrum from 3.8 GHz to 3.95 GHz in metropolitan areas, and from 3.75 GHz to 3.95 GHz in regional areas (**3.8 GHz band**).

The ACMA received 12 responses to the public consultation. Nine of the responses commented on the proposed changes to the Tx RAG.

Some respondents were concerned that AWL rx would not be appropriate to use for earth receive stations. A key issue raised was that the protection arrangements proposed for AWL rx would require operators of earth receive stations to have an AWL rx that covers, and pay receiver licence tax calculated by reference to, the spectrum space associated with both the frequencies and geographic area required for operation of the earth receive station and the frequency range and geographic area necessary to prevent interference being caused to the earth receive station by other licensed radiocommunications devices. The ACMA considered that, while the changes proposed to the Tx RAG would facilitate the issue of AWL rx for earth receive stations, and would set out the ACMA's expectations in relation to interference protection for such earth receive stations:

- although the ACMA has had regard to these submissions, they related to the rate of tax, which is set by other instruments, rather than with the proposals for the Tx RAG; and
- operators of earth receive stations can specify in an application for an AWL rx the spectrum space they wish the licence to cover, on the basis of their own analysis of the risk of interference, meaning that they have some level of control over the spectrum space to be covered by the AWL rx and, therefore, the amount of tax payable in relation to that AWL rx.

The ACMA did not make any changes to the Tx RAG Variation on the basis of these submissions.

Some respondents also wanted to change how the proposed stricter RF filter is applied to earth receive stations authorised under AWL rx and existing site-based licences. This included delaying the application of the stricter RF filter's introduction by up to two years from what was proposed, to allow operators time to source and install custom RF filters. As no AWL rx have yet been issued for such earth receive stations, the ACMA decided not to make this change. However, in relation to earth receive stations authorised under existing site-based licences, see below.

Several respondents supported the proposed changes to the TX RAG but also proposed some additional modifications (**the additional modifications**), including:

- limiting protection of earth receive stations to those with their details recorded on the Register of Radiocommunications Licences (**the Register**);
- modification of the wording related to the receiver overload mechanisms in new subsection 4.5(2) of the Tx RAG to remove ambiguities on how it is applied;
- delaying the application of the proposed stricter RF filter to site-based earth receive licences from 16 July 2027 onwards.

After considering submissions, the ACMA included the additional modifications into the Tx RAG Variation.

Regulatory impact assessment

An assessment of the proposal to vary the technical framework instruments, including the Tx RAG, was conducted by the Office of Impact Analysis (OIA), based on information provided by the ACMA, for the purposes of determining whether a Regulation Impact Statement (RIS) would be required. OIA advised that a RIS would not be required because the proposed regulatory change is minor or machinery in nature –reference number OIA23-05294.

Statement of compatibility with human rights

Subsection 9(1) of the *Human Rights (Parliamentary Scrutiny) Act 2011* requires the rule maker in relation to a legislative instrument to which section 42 of the LA applies (disallowance), to cause a statement of compatibility with human rights to be prepared in respect of that legislative instrument.

The statement of compatibility set out below has been prepared to meet that requirement.

Overview of the instrument

Section 262 of the Act permits the ACMA to make advisory guidelines about any aspect of radiocommunication or radio emissions.

The Tx RAG provides information and guidance to assist with the management of interference to radiocommunications receivers operating under apparatus, class and spectrum licences in or adjacent to the 3.4 GHz band caused by 3.4 GHz transmitters.

The purpose of Tx RAG Variation is to amend the Tx RAG to:

- set out interference management arrangements between 3.4 GHz transmitters and earth receive stations operated under the proposed new AWL rx between 3.75 GHz and 4 GHz.
- provide for a stricter radiofrequency filter that applies outside the spectrum space of an AWL rx or an earth receive licence, for the purposes of working out whether the protection criteria for an earth receive station operated under such a licence is being exceeded by a 3.4 GHz transmitter.

Human rights implications

The ACMA has assessed whether the Tx RAG Variation is compatible with human rights, being the rights and freedoms recognised or declared in the international instruments listed in subsection 3(1) of the *Human Rights (Parliamentary Scrutiny) Act 2011*.

Having considered the likely impact of the Tx RAG Variation and the nature of the applicable rights and freedoms, the ACMA has formed the view that the Tx RAG Variation does not engage any of those rights or freedoms.

Conclusion

The Tx RAG Variation is compatible with human rights as it does not raise any human rights issues.

Notes to the *Radiocommunications Advisory Guidelines (Managing Interference from Spectrum Licensed Transmitters – 3.4 GHz Band) Variation 2023 (No. 2)*

Section 1 Name

This section provides for the Tx RAG Variation to be cited as the *Radiocommunications Advisory Guidelines (Managing Interference from Spectrum Licensed Transmitters – 3.4 GHz Band) Variation 2023 (No. 2)*.

Section 2 Commencement

This section provides for the Tx RAG Variation to commence on the 30th day after the day it is registered on the Federal Register of Legislation.

The Federal Register of Legislation may be accessed free of charge at www.legislation.gov.au.

Section 3 Authority

This section identifies the provision of the Act that authorises the making of the Tx RAG Variation, namely section 262 of the Act.

Section 4 Amendments

This section provides that Schedule 1 amends the Tx RAG.

Schedule 1 – Amendments

Item 1

Item 1 includes a note after subsection 1.5(3) of the Tx RAG pointing to the *Radiocommunications (Interpretation) Determination 2015* for the definitions of area-wide receive licence, earth receive licence and earth receive station.

Item 2

Item 2 replaces the heading of section 4.2 of the Tx RAG with a new heading that indicates the section applies in relation to earth receive licences in the 3.4 GHz to 3.6 GHz frequency band.

Item 3

Item 3 replaces the heading of section 4.3 of the Tx RAG with a new heading that indicates the section applies in relation to earth receive licences in the 3.6 GHz to 4.2 GHz frequency band.

Item 4

Item 4 amends subsection 4.3(1) to ensure the protection requirements set out in section 4.3 only apply to earth receive stations operated under earth receive licences.

Items 5 to 8

Items 5 to 8 amend subsection 4.3(4) of the Tx RAG such that:

- the existing Table 1 in the subsection sets the minimum RF filter that applies before 16 July 2027, in relation to earth receive stations authorised under earth receive licences; and

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- new Table 2 sets the minimum RF filter that applies on and after 16 July 2027, in relation to earth receive stations authorised under earth receive licences.

Item 9

Item 9 inserts a reference to Table 2 into subsection 4.3(4A) of the Tx RAG. This is to ensure the subsection applies to both Table 1 and Table 2.

Item 10

Item 10 inserts a reference to Table 2 into subsection 4.3(5) of the Tx RAG. This is to ensure the subsection applies to both Table 1 and Table 2.

Item 11

Item 11 replaces the heading of section 4.4 of the Tx RAG with a new heading that indicates the section applies in relation to incumbent earth receive licences in the 3.6 GHz to 3.8 GHz frequency band.

Item 12

Item 12 amends subsection 4.4(1) of the Tx RAG to ensure the protection requirements set out in section 4.4 only apply to earth receive stations operated under earth receive licences.

Item 13

Item 13 inserts a new section 4.5 into the Tx RAG. This section sets out the protection requirements that apply to fixed-satellite service earth receive stations operating in the 3.75 GHz to 4 GHz frequency band under an AWL rx.

Under new section 4.5, an earth receive station operating under an AWL rx will be provided protection from receiver overload from 3.4 GHz transmitters where the receiver was included in the Register before the transmitter, and where the receiver is within 100 kilometres of the transmitter. The protection to be provided is set by reference to the total power received from the transmitter at the input of the earth receive station, and assumes a minimum RF filtering level applies in relation to the earth receive station. Section 4.5 also provides further guidance on how to assess interference caused by receiver overload.