



# **Radiocommunications Advisory Guidelines (Managing Interference from Spectrum Licensed Transmitters — 26 GHz Band) 2020**

---

The Australian Communications and Media Authority makes the following guidelines under section 262 of the *Radiocommunications Act 1992*.

Dated: 20 November 2020

Chris Jose  
[signed]  
Member

Linda Caruso  
[signed]  
~~Member~~/General Manager

Australian Communications and Media Authority

---

---

Contents

**PART 1 PRELIMINARY .....3**

1 Name .....3

2 Commencement.....3

3 Authority.....3

4 Definitions .....3

5 References to other instruments.....5

**PART 2 OVERVIEW.....6**

6 Background.....6

7 Purpose.....6

**PART 3 EARTH RECEIVE STATIONS.....7**

8 Background.....7

9 Protection requirements.....7

**PART 4 SPACE RECEIVE STATIONS IN THE 26 GHZ BAND .....8**

10 Background.....8

11 Protection requirements.....8

**PART 5 SERVICES AUTHORISED BY AN AREA-WIDE LICENCE .....12**

12 Background.....12

13 Recommended preliminary coordination procedures .....12

**PART 6 CLASS LICENSED SERVICES.....14**

14 Background.....14

15 Protection requirements.....14

**PART 7 FIXED SERVICES.....15**

16 Background.....15

17 Protection requirements.....15

**SCHEDULE 1 INNER-FOOTPRINT AREAS.....16**

**SCHEDULE 2 OUTER-FOOTPRINT AREAS .....17**

---

## Part 1 Preliminary

### 1 Name

These are the *Radiocommunications Advisory Guidelines (Managing Interference from Spectrum Licensed Transmitters — 26 GHz Band) 2020*.

### 2 Commencement

This instrument commences at the start of the day after the day it is registered on the Federal Register of Legislation.

Note: The Federal Register of Legislation may be accessed free of charge at [www.legislation.gov.au](http://www.legislation.gov.au).

### 3 Authority

This instrument is made under section 262 of the *Radiocommunications Act 1992*.

### 4 Definitions

- (1) In this instrument, unless the contrary intention appears:

**Canberra Deep Space Communications Complex** means the earth station receiver operating in the frequency range 25.5 GHz–27 GHz and located at -35.398335°N, 148.981942°E.

**fixed service** has the same meaning as in the spectrum plan.

**harmful interference** has the meaning given in the spectrum plan.

**in-band** means:

- (a) for a radiocommunications transmitter or radiocommunications receiver operated under a spectrum licence, the frequencies within the frequency band in which operation of those radiocommunications devices is authorised under the licence; and
- (b) for a radiocommunications transmitter or radiocommunications receiver operating under an apparatus licence, the frequencies within the lower frequency limit and the upper frequency limit specified in the licence.

**indoor transmitter** means a radiocommunications transmitter that:

- (a) is in an enclosed space; and
- (b) has, at every point that is 2 metres from the outside surface of the enclosed space, a power flux density that:
  - (i) if the transmitter transmits in the frequency range 27 GHz–27.5 GHz and is located inside an inner-footprint area – is less than or equal to -9 dBW/m<sup>2</sup> per occupied bandwidth;
  - (ii) in any other case – is less than or equal to -7 dBW/m<sup>2</sup> per occupied bandwidth.

**inner-footprint area** means an area described in Schedule 1.

**inter-satellite service** has the same meaning as in the spectrum plan.

**ITU-R Resolution 242 (WRC-19)** means the “ITU-R Resolution 242 Terrestrial component of international mobile telecommunications in the frequency band 24.25-27.5 GHz” published by the ITU.

Note: ITU-R Resolution 242 (WRC-19) is available free of charge on the ITU website at [www.itu.int](http://www.itu.int).

**New Norcia Deep Space Ground Station** means the earth receive station operating in the frequency range 25.5 GHz–27 GHz and located at -31.048236N, 116.191514°E.

**outer-footprint area** means an area described in Schedule 2.

**out-of-band** means:

- (a) for a radiocommunications transmitter or radiocommunications receiver operated under a spectrum licence, the frequencies outside the frequency band in which operation of those radiocommunications devices is authorised under the licence; and
- (b) for a radiocommunications transmitter or radiocommunications receiver operating under an apparatus licence, the frequencies outside the lower frequency limit and upper frequency limit specified in the licence.

**RALI FX 3** means the Radiocommunications Assignment and Licensing Instruction FX 3, *Microwave Fixed Services Frequency Coordination*, published by the ACMA.

Note: RALI FX 3 is available free of charge on the ACMA website: [www.acma.gov.au](http://www.acma.gov.au).

**RALI MS 46** means the Radiocommunications Assignment and Licensing Instruction MS 46, *Licensing and coordination procedures for area-wide apparatus licensed services in the 26/28 GHz bands*, published by the ACMA.

Note: RALI MS 46 is available free of charge on the ACMA website: [www.acma.gov.au](http://www.acma.gov.au).

**Recommendation ITU-R P.452** means the ITU-R Recommendation “P.452 Prediction procedure for the evaluation of interference between stations on the surface of the Earth at frequencies above about 0.1 GHz” published by the ITU.

Note: Recommendation ITU-R P.452 is available free of charge on the ITU website at [www.itu.int](http://www.itu.int).

**Recommendation ITU-R SA.509** means the ITU-R Recommendation “SA.509 Space research earth station and radio astronomy reference antenna radiation pattern use in interference calculations, including coordination procedures, for frequencies less than 30 GHz” published by the ITU.

Note: Recommendation ITU-R SA.509 is available free of charge on the ITU website at [www.itu.int](http://www.itu.int).

**Subsection 145(4) Determination** means the *Radiocommunications (Unacceptable Levels of Interference – 26 GHz Band) Determination 2020*.

**terrestrial radiocommunication** has the same meaning as in the spectrum plan.

**unwanted emission**, in relation to the operation of a radiocommunications transmitter authorised by a spectrum licence, means an emission outside the upper or lower frequency limits for the licence.

Note: A number of other expressions used in this instrument are defined in the Act, including the following:

- ACMA;
- apparatus licence;
- class licence;
- frequency band;
- interference;
- radiocommunications receiver;
- radiocommunications transmitter;

- Register;
- spectrum licence; and
- spectrum plan.

(2) Unless the contrary intention appears, terms used in this instrument that are defined in the Subsection 145(4) Determination have the same meaning as in that determination.

Note: The following terms that are used in this instrument are defined in the Subsection 145(4) Determination:

- 26 GHz band;
- Act;
- active antenna system or AAS;
- ASMG;
- fixed transmitter;
- HCIS identifier;
- hierarchical cell identification scheme or HCIS;
- ITU;
- ITU-R;
- Radio Regulations;
- true mean power.

(3) Unless the contrary intention appears, terms used in this instrument that are defined in the *Radiocommunications (Interpretation) Determination 2015* have the same meaning as in that determination.

Note: The following terms that are used in this instrument are defined in Schedule 1 to the *Radiocommunications (Interpretation) Determination 2015*:

- area-wide licence;
- earth receive station;
- fixed-satellite service; and
- space receive station.

## 5 References to other instruments

In this instrument, unless the contrary intention appears:

- a reference to any other legislative instrument is a reference to that other legislative instrument as in force from time to time; and
- a reference to any other kind of instrument or writing is a reference to that other instrument or writing as in force or existing from time to time.

Note 1: For references to Commonwealth Acts, see section 10 of the *Acts Interpretation Act 1901*; and see also subsection 13(1) of the *Legislation Act 2003* for the application of the *Acts Interpretation Act 1901* to legislative instruments.

Note 2: All Commonwealth Acts and legislative instruments are registered on the Federal Register of Legislation, and accessible free of charge at [www.legislation.gov.au](http://www.legislation.gov.au).

Note 3: See section 314A of the Act.

---

## Part 2 Overview

### 6 Background

- (1) The Minister has declared that the 26 GHz band in defined geographic areas is to be made available for spectrum licensing, by making the *Radiocommunications (Spectrum Re-allocation – 26 GHz Band) Declaration 2019*. Radiocommunications receivers of apparatus licensed and class licensed services may operate in and adjacent to this frequency band. These receivers may suffer interference from unwanted emissions and blocking caused by a radiocommunications transmitter operating under a spectrum licence in the 26 GHz band.
- (2) Unwanted emissions are by-products of a radiocommunications transmitter's emissions and include broadband noise, harmonics, intermodulation products, transient signals and other spurious signals. Blocking occurs when a high level off-tune signal overloads a radiocommunications receiver's front-end and causes a degradation in the quality of the wanted output signal. Intermodulation products can be generated in-band in the input stages of receivers in the presence of two or more high level signals at the receiver input.

### 7 Purpose

- (1) This instrument has been made to guide the management of these types of interference to licensed radiocommunications receivers operating in the following circumstances:
  - (a) earth receive stations operating in the frequency range 25.5 GHz–27 GHz (Part 3 of this instrument);
  - (b) space receive stations operating in the 26 GHz band (Part 4 of this instrument);
  - (c) services authorised by an area-wide licence operating in and adjacent to the 26 GHz band (Part 5 of this instrument);
  - (d) class licensed services in the 26 GHz band (Part 6 of this instrument); and
  - (e) fixed services operating in the frequency range 27.5 GHz–29.5 GHz (Part 7 of this instrument).
- (2) As radio waves propagate in different ways because of factors such as frequency, terrain, atmospheric conditions and topography, there are a number of ways to predict path loss. ITU-R Recommendation P.1144 “Guide to the application of the propagation methods of Radiocommunications Study Group 3” provides a guide on the application of various propagation methods developed internationally by the ITU-R. It advises users on the most appropriate methods for particular applications as well as the limits, required input information, and output for each of these methods. It is recommended that the most recent version of propagation models defined by the ITU-R should be considered when modelling propagation in the 26 GHz band.

Note 1: The ITU-R Recommendation P.1144 “Guide to the application of the propagation methods of Radiocommunications Study Group 3” is available, free of charge, on the ITU’s website: [www.itu.int](http://www.itu.int).

Note 2: The use of other published propagation methods applicable to the 26 GHz band may also be suitable.
- (3) The ACMA will take this instrument into account in determining whether interference has occurred from a radiocommunications transmitter operating under a 26 GHz band spectrum licence to a radiocommunications transmitter operating under another licence, in the absence of separate criteria agreed between affected licensees.
- (4) This instrument does not prevent a licensee negotiating other protection arrangements with another licensee.

## Part 3 Earth receive stations

### 8 Background

As at the date this instrument was made, there are two earth receive stations which operate in the frequency range 25.5 GHz–27 GHz. These are the Canberra Deep Space Communications Complex and the New Norcia Deep Space Ground Station.

### 9 Protection requirements

- (1) Radiocommunications transmitters operated under a spectrum licence in the 26 GHz band, other than transmitters exempt from registration in accordance with Statutory Condition 4(a) or 4(b) of Licence Schedule 3 of the licence, (**relevant transmitters**) must protect the Canberra Deep Space Communications Complex and the New Norcia Deep Space Ground Station in accordance with subsection (2).
- (2) Subject to subsections (3), (4) and (5), emissions from all relevant transmitters operating under a single 26 GHz band spectrum licence must not exceed an aggregate level of -156 dBW/MHz (minus 156 dBW/MHZ) for 0.001% of the time in any 24 hour period, at the input of the receiver.
- (3) In the application of subsection (2), only relevant transmitters located less than or equal to 200 km from either the Canberra Deep Space Communications Complex or the New Norcia Deep Space Ground Station need to be considered.
- (4) The earth receive station antenna pattern to be used in calculations for the purpose of subsection (2) is the ‘*multiple entry interference*’ pattern defined in Recommendation ITU-R SA.509 with a minimum elevation above the horizon of:
  - (a) for the Canberra Deep Space Communications Complex, the greater of:
    - (i) 6 degrees; or
    - (ii) the angle between the horizontal plane and the line-of-sight to the highest terrain in the direction of each relevant transmitter plus 0.5 degrees;
  - (b) for the New Norcia Deep Space Ground Station, the greater of:
    - (i) 5 degrees; or
    - (ii) the angle between the horizontal plane and the line-of-sight to the highest terrain in the direction of each relevant transmitter plus 0.5 degrees.

Note 1: The minimum elevation angles in subsection 9(4) assumes that the earth receive station antennas will never be directed less than 0.5 degrees above the surrounding terrain.

Note 2: Recommendation ITU-R SA.509 is available, free of charge, from the ITU website: [www.itu.int](http://www.itu.int).

Note 3: Other earth receive station antenna parameters may be recorded in the Register.

- (5) In the application of subsection (2), the propagation model in Recommendation ITU-R P.452 is to be used.

Note: Recommendation ITU-R P.452 is available, free of charge, from the ITU website: [www.itu.int](http://www.itu.int).

## Part 4 Space receive stations in the 26 GHz band

### 10 Background

- (1) Both Article 5 of the ITU-R Radio Regulations and the spectrum plan provide allocations for the fixed satellite service (**FSS**) and inter-satellite service (**ISS**) in parts of the 26 GHz band on a co-primary basis with terrestrial radiocommunications services. The potential interference path is from 26 GHz band spectrum licensed devices into FSS and ISS space receive stations.
- (2) ITU-R Resolution 242 (WRC-19) resolves that administrations shall apply a number of conditions on IMT base station deployments in the frequency range 24.25 GHz–27.5 GHz to protect space receive stations.
- (3) In Australia, FSS gateway uplinks operate at frequencies which overlap the 27 GHz–27.5 GHz frequency range and, at the time this instrument was made, are licensed at 10 locations across Australia.
- (4) Section 11 contains provisions to manage coexistence between radiocommunications transmitters operated under a 26 GHz band spectrum licence and space receive stations.

### 11 Protection requirements

- (1) Licensees who hold a 26 GHz band spectrum licence are to adhere to the provisions detailed in *resolves* 2.1 and 2.2 of ITU-R Resolution 242 (WRC-19) for deployments in the frequency range 25.1 GHz–27.5 GHz.

Note: In *resolves* 2.2 of ITU-R Resolution 242 (WRC-19), the term ‘*the direction of maximum radiation of any antenna*’, in relation to separation from the geostationary-satellite orbit, is taken to mean the maximum radiation from an antenna when the antenna is being electronically steered.

#### *Operation in the 25.1 GHz to 27 GHz frequency range*

- (2) A radiocommunications transmitter operated under a spectrum licence in the 26 GHz band that is:
  - (a) not an indoor transmitter;
  - (b) operating in the frequency range 25.1 GHz–27 GHz; and
  - (c) operating with a total radiated power greater than 40 dBm/200 MHz;
 must not:
  - (d) be connected to an antenna which has its highest gain directed above the horizontal plane when the antenna is not being electrically steered;
  - (e) direct its antenna beam via electrical steering to an elevation angle above the horizontal plane; or
  - (f) operate with a radiated maximum true mean power, measured over the specified bandwidth and in the direction of the geostationary orbit, exceeding the limits set out in Table 1;

where:

*el* is the angle above the horizontal plane at which the radiated maximum true mean power limit in Table 1 applies.



**Table 1: Radiated maximum true mean power towards the geostationary orbit, for specified elevation angles above the horizontal plane – 25.1 GHz to 27 GHz**

Elevation angle above the horizontal plane (el)	Radiated maximum true mean power (dBm EIRP)	Specified Bandwidth
5 degrees $\leq el < 90$ degrees	60	200 MHz

*Operation in the 27 GHz to 27.5 GHz frequency range outside both inner-footprint and outer-footprint areas*

- (3) A radiocommunications transmitter operated under a spectrum licence in the 26 GHz band that is:

- (a) not an indoor transmitter;
- (b) operating in the frequency range 27 GHz–27.5 GHz;
- (c) not located inside an inner-footprint area or outer-footprint area; and
- (d) operating with a total radiated power greater than 40 dBm/200 MHz;

must not:

- (e) be connected to an antenna which has its highest gain directed above the horizontal plane when the antenna is not being electrically steered;
- (f) direct its antenna beam via electrical steering to an elevation angle above the horizontal plane; or
- (g) operate with a radiated maximum true mean power, measured over the specified bandwidth and in the direction of the geostationary orbit, exceeding the limits set out in Table 2;

where:

*el* is the angle above the horizontal plane at which the radiated maximum true mean power limit in Table 2 applies.

**Table 2: Radiated maximum true mean power towards the geostationary orbit, for specified elevation angles above the horizontal plane – 27 GHz to 27.5 GHz, outside both inner-footprint areas and outer-footprint areas**

Elevation angle above the horizontal plane (el)	Radiated maximum true mean power (dBm EIRP)	Specified Bandwidth
5 degrees $\leq el < 15$ degrees	60	200 MHz
15 degrees $\leq el < 25$ degrees	49	200 MHz
25 degrees $\leq el < 40$ degrees	$49 - 0.43(el - 25)$	200 MHz
40 degrees $\leq el \leq 90$ degrees	42.5	200 MHz

*Operation in the 27 GHz to 27.5 GHz frequency range inside outer-footprint areas*

- (4) A radiocommunications transmitter operated under a spectrum licence in the 26 GHz band that is:

- (a) not an indoor transmitter;
- (b) operating in the frequency range 27 GHz–27.5 GHz;
- (c) located inside an outer-footprint area; and
- (d) operating with a total radiated power greater than 37 dBm/200 MHz;

must not:

- (e) be connected to an antenna which has its highest gain directed above the horizontal plane when the antenna is not being electrically steered;
- (f) direct its antenna beam via electrical steering to an elevation angle above the horizontal plane; or

- (g) operate with a radiated maximum true mean power measured over the specified bandwidth and in the direction of the geostationary orbit, exceeding the limits set out in Table 3;

where:

$el$  is the angle above the horizontal plane at which the radiated maximum true mean power limit in Table 3 applies.

**Table 3: Radiated maximum true mean power towards the geostationary orbit, for specified elevation angles above the horizontal plane – 27 GHz to 27.5 GHz, inside an outer-footprint area**

Elevation angle above the horizontal plane ( $el$ )	Radiated maximum true mean power (dBm EIRP)	Specified Bandwidth
15 degrees $\leq el < 25$ degrees	39	200 MHz
25 degrees $\leq el < 40$ degrees	$39 - 0.43(el - 25)$	200 MHz
40 degrees $\leq el \leq 90$ degrees	32.5	200 MHz

*Operation in the 27 GHz to 27.5 GHz frequency range inside inner-footprint areas*

- (5) A radiocommunications transmitter operated under a spectrum licence in the 26 GHz band that is:

- (a) not an indoor transmitter;
- (b) operating in the frequency range 27 GHz–27.5 GHz;
- (c) located inside an inner-footprint area; and
- (d) operating with a total radiated power greater than 25 dBm/200 MHz;

must not:

- (e) be connected to an antenna which has its highest gain directed above the horizontal plane when the antenna is not being electrically steered;
- (f) direct its antenna beam via electrical steering to an elevation angle above the horizontal plane; or
- (g) operate with a radiated maximum true mean power measured over the specified bandwidth and in the direction of the geostationary orbit, exceeding the limits set out in Table 4;

where:

$el$  is the angle above the horizontal plane at which the radiated maximum true mean power limit in Table 4 applies.

**Table 4: Radiated maximum true mean power towards the geostationary orbit, for specified elevation angles above the horizontal plane – 27 GHz to 27.5 GHz inside an inner-footprint area**

Elevation angle above the horizontal plane ( $el$ )	Radiated maximum true mean power (dBm EIRP)	Specified Bandwidth
15 degrees $\leq el < 25$ degrees	34	200 MHz
25 degrees $\leq el < 40$ degrees	$34 - 0.43(el - 25)$	200 MHz
40 degrees $\leq el \leq 90$ degrees	27.5	200 MHz

- (6) A radiocommunications transmitter operated under a spectrum licence in the 26 GHz band that is:

- (a) a base station;
- (b) not an indoor transmitter;
- (c) operating in the frequency range 27 GHz–27.5 GHz;
- (d) located inside an inner-footprint area; and
- (e) operating with a total radiated power less than or equal to 25 dBm/200 MHz;

must not:

- (f) be connected to an antenna which has its highest gain directed above the horizontal plane when the antenna is not being electrically steered; or
  - (g) direct its antenna beam via electrical steering to an elevation angle greater than 5 degrees above the horizontal plane for more than 5 percent (whether or not consecutive) of the time in any 24 hour period.
- (7) A radiocommunications transmitter operated under a spectrum licence in the 26 GHz band that is:
- (a) not a base station;
  - (b) a fixed transmitter;
  - (c) not an indoor transmitter;
  - (d) operating in the frequency range 27 GHz–27.5 GHz;
  - (e) directing its antenna beam to an elevation angle greater than or equal to 11 degrees above the horizontal plane; and
  - (f) located inside an inner-footprint area;

must not:

- (g) direct its antenna beam to within:
  - (i) 1.5 degrees of the geostationary orbit if it is connected to an antenna with a gain of greater than or equal to 34.7 dBi; or
  - (ii) 25 degrees of the geostationary orbit if it is connected to an antenna with a gain of less than 34.7 dBi.

## Part 5 Services authorised by an area-wide licence

### 12 Background

- (1) Area-wide licences authorise the operation of radiocommunications devices in the frequency ranges 24.7 GHz–25.1 GHz and 27.5 GHz–30 GHz Australia wide, and in the 26 GHz band outside of the geographic areas subject to 26 GHz band spectrum licensing. Frequency assignment instructions and technical arrangements for area-wide licences are set out in RALI MS 46.
- (2) Radiocommunications transmitters operated under a spectrum licence in the 26 GHz band have the potential to cause interference to adjacent-area and adjacent-band area-wide licensed receivers.
- (3) The device boundary criterion, as defined in the Subsection 145(4) Determination, is the primary mechanism for managing interference across geographical boundaries. However, at times it may be necessary for licensees operating radiocommunications transmitters in the 26 GHz band to negotiate with area-wide licensees when deploying services in order to avoid harmful interference.
- (4) The primary mechanism for managing interference across frequency boundaries is adherence to the unwanted emissions limits defined in the 26 GHz band spectrum licence. However, as the technical frameworks for 26 GHz band spectrum licences and area-wide licences are optimised for services which operate in the time-division duplex mode, there is potential for interference even when devices comply with those limits. Therefore, at times it may be necessary for spectrum licensees operating radiocommunications transmitters in the 26 GHz band to negotiate with area-wide licensees when deploying services in order to avoid harmful interference.
- (5) The procedures detailed in section 13 are to be used to guide the management of both adjacent-area and adjacent-band interference from radiocommunications transmitters operated under a spectrum licence in the 26 GHz band to receivers that are both:
  - (a) receiving communications from a transmitter operated under an area-wide licence in or adjacent to the 26 GHz band; and
  - (b) located in the geographic area authorised by the area-wide licence.

The ACMA will take the application of these procedures into account when resolving an interference dispute.

### 13 Recommended preliminary coordination procedures

- (1) Spectrum licensees planning to deploy radiocommunications transmitters in the 26 GHz band should have regard to radiocommunications receivers that are:
  - (a) recorded in the Register; and
  - (b) receiving communications from a transmitter authorised by area-wide licences operating in or adjacent to the 26 GHz band; and
  - (c) located in the geographic area authorised by the relevant area-wide licences.
- (2) In planning for the operation of fixed transmitters under a spectrum licence in the 26 GHz band, spectrum licensees should coordinate with any radiocommunications receivers that are:
  - (a) recorded in the Register; and
  - (b) receiving communications from a transmitter operated under an area-wide licence; and

- 
- (c) located in the geographic area authorised by the area-wide licence.

This coordination should:

- (d) use the parameters of the radiocommunications receivers as recorded in the Register;
- (e) use the compatibility requirement set out in Schedule 2 of the *Radiocommunications Advisory Guidelines (Managing Interference to Spectrum Licensed Receivers — 26 GHz Band) 2020*;
- (f) use the notional receiver performance levels set out in Schedule 1 of the *Radiocommunications Advisory Guidelines (Managing Interference to Spectrum Licensed Receivers — 26 GHz Band) 2020*;
- (g) make use of a suitable propagation model to model path loss between the fixed transmitters and radiocommunications receivers; and
- (h) take into account terrain and any other relevant factors.

Note: An example of a suitable propagation model is that set out in section 4.5.2 of the ITU-R Recommendation P.526-15: “*Propagation by diffraction*”, available free of charge from the ITU website: [www.itu.int](http://www.itu.int).

- (3) If coordination performed under subsection (2) indicates interference may occur, spectrum licensees should consider:
- (a) replanning the deployment of the fixed transmitter to avoid causing harmful interference; or
- (b) negotiating with the licensee of the affected area-wide licence to find a resolution.
- (4) In the event a solution under subsection (3) cannot be found, interference is to be managed through the application of any synchronisation requirement condition included in the spectrum licence, unless other arrangements are agreed to by the affected licensees.

---

## Part 6 Class licensed services

### 14 Background

The *Radiocommunications (Body Scanning – Aviation Security) Class Licence 2018* and the *Radiocommunications (Low Interference Potential Devices) Class Licence 2015* each permits the operation of a number of different types of radiocommunications transmitters in the 26 GHz band.

### 15 Protection requirements

A device operated under the *Radiocommunications (Body Scanning – Aviation Security) Class Licence 2018* will be afforded protection from harmful interference caused by a radiocommunications transmitter operated under a spectrum licence in the 26 GHz band.

Note: A radiocommunications receiver operated under a spectrum licence in the 26 GHz band is not afforded protection from interference caused by a device operated under the *Radiocommunications (Body Scanning – Aviation Security) Class Licence 2018*.

## Part 7 Fixed services

### 16 Background

- (1) Apparatus licensed fixed services operate in the frequency range 27.5 GHz–29.5 GHz and are licensed in accordance with the frequency assignment criteria detailed in RALI FX 3.
- (2) RALI MS 46 contains the coordination requirements to protect fixed services from interference caused by area-wide apparatus licensed services.

### 17 Protection requirements

Spectrum licensees are to ensure that authorised radiocommunications transmitters, excluding those exempt from registration in accordance with the conditions of the spectrum licence, protect fixed services to the levels of out-of-band and in-band protection detailed in RALI MS 46. When referring to RALI MS 46 in the application of section 17, references to an area-wide licensed transmitter in RALI MS 46 are to be substituted with a spectrum licensed transmitter.

## Schedule 1 Inner-footprint areas

(subsection 4(1))

### Description of Area

1. The *inner-footprint areas* are the areas named in Column 1 of the table below.
2. An *inner-footprint area* consists of the aggregation of block areas referenced by HCIS identifiers specified for the area in the corresponding Column 2 of the table below.

Note: Refer to the ASMG for a complete description of the naming convention referred to as the HCIS.

Column 1 Name	Column 2 HCIS Identifiers
Geeveston (inner)	LY9N, LY9I8, LY9I9, LY9J7, LY9J8, LY9J9, LY9K7, LY9K8, LY9M2, LY9M3, LY9M5, LY9M6, LY9M8, LY9M9, LY9O1, LY9O2, LY9O4, LY9O5, LY9O7, LY9O8, LZ3A2, LZ3A3, LZ3B1, LZ3B2, LZ3B3, LZ3C1, LZ3C2
Waroona (inner)	BV7G, BV7C4, BV7C5, BV7C6, BV7C7, BV7C8, BV7C9, BV7D4, BV7D5, BV7D7, BV7D8, BV7H1, BV7H2, BV7H4, BV7H5, BV7H7, BV7H8, BV7K1, BV7K2, BV7K3, BV7L1, BV7L2, BV7C1, BV7C2, BV7C3, BV7D1, BV7D2, BV4O, BV4P1, BV4P2, BV4P3, BV4P4, BV4P5, BV4P7, BV4P8, BV4M1, BV4M2, BV4M3, BV4N1, BV4N2, BV4N3, BV5M1, BV5M2, BV5M3, BV5N1, BV5N2, BV5N3, BV5J, BV5I, BV4L, BV4K, BV4J, BV4I, BV4E8, BV4E9, BV4E6, BV4F, BV4G, BV4H, BV5E, BV5F, BV5B, BV5A, BV4D, BV4C9, BV4C8, BV4C7, BV4C6, BV4C5, BV4C4, BV4C3, BV4C2, BV4B9, BV4B8, BV1P8, BV1P9, BV2M7, BV2M8, BV2M9, BV2N4, BV2N5, BV2N6, BV2N7, BV2N8, BV2N9, BV7M4, BV7M5



## Schedule 2 Outer-footprint areas

(subsection 4(1))

### Description of Area

1. The *outer-footprint areas* are the areas named in Column 1 of the table below.
2. An *outer-footprint area* consists of the aggregation of block areas referenced by HCIS identifiers specified for the area in the corresponding Column 2 of the table below.

Note: Refer to the ASMG for a complete description of the naming convention referred to as the HCIS.

Column 1 Name	Column 2 HCIS Identifiers
Geeveston (outer)	LY5H3, LY5H6, LY5H9, LY6E, LY6F1, LY6F4, LY6F7, LY5L3, LY5L6, LY6I1, LY6I2, LY6I3, LY6I4, LY6I5, LY6I6, LY6J1, LY6J4
Waroona (outer)	AV9P9, AV9P6, BV7M7, BV7M8, AW3D3, BW1A1, BW1A2, BV1I2, BV1I3, BV1I4, BV1I5, BV1I6, BV1I7, BV1I8, BV1I9, BV1J, BV1K, BV1L, BV1M, BV1N, BV1O, BV2I, BV2J, BV4A, BV1F7, BV1F8, BV1F9, BV1G7, BV1G8, BV1G9, BV1H7, BV1H8, BV1H9, BV1P1, BV1P2, BV1P3, BV1P4, BV1P5, BV1P6, BV1P7, BV2E7, BV2E8, BV2E9, BV2F7, BV2F8, BV2F9, BV2M1, BV2M2, BV2M3, BV2M4, BV2M5, BV2M6, BV2N1, BV2N2, BV2N3, BV4B1, BV4B2, BV4B3, BV4B4, BV4B5, BV4B6, BV4B7, BV4C1, BV4E1, BV4E2, BV4E3, BV4E4, BV4E5, BV4E7
Wolumla (outer)	MW5E, MW4D6, MW4D9, MW4H3, MW4H9, MW4L3, MW5A4, MW5A5, MW5A6, MW5A7, MW5A8, MW5A9, MW5B4, MW5B7, MW5F1, MW5F4, MW5F7, MW5I1, MW5I2, MW5I3, MW5J1, MW6C7, MW6C8