Radiocommunications (Communication with Space Object) Class Licence 2025

The Australian Communications and Media Authority issues the following class licence under section 132 of the *Radiocommunications Act 1992*.

Dated: 27 February 2025

Adam Suckling
[signed]
Member

Michael Brealey
[signed]
General Manager

Australian Communications and Media Authority

1 Name

This is the *Radiocommunications (Communication with Space Object) Class Licence 2025*.

2 Commencement

This instrument commences at the start of the day after the day it is registered.

Note: The Federal Register of Legislation is available, free of charge, at www.legislation.gov.au.

3 Authority

This instrument is made under section 132 of the *Radiocommunications Act 1992*.

4 Repeal

The *Radiocommunications (Communication with Space Object) Class Licence 2015* [F2015L01486] is repealed.

5 Interpretation

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

26 GHz band spectrum licence area means an area specified in the relevant tables for HCIS area descriptions set out in RALI SM 26 that apply to the frequency band of 25.1 GHz to 27.5 GHz.

aircraft has the meaning given by section 3 of the *Civil Aviation Act 1988*.

ARPANSA Standard means:

(a) the *Radiation Protection Standard for Limiting Exposure to Radiofrequency Fields – 100 kHz to 300 GHz* (2021), published by the Australian Radiation Protection and Nuclear Safety Agency; or

(b) if a later standard is published by the Australian Radiation Protection and Nuclear Safety Agency as a replacement of that standard – the later standard.

Note: The ARPANSA Standard is available, free of charge, from the website of the Australian Radiation Protection and Nuclear Safety Agency at www.arpansa.gov.au.

Australian Spectrum Map Grid means the Australian Spectrum Map Grid 2012, published by the ACMA.

Note: The Australian Spectrum Map Grid is available, free of charge, from the ACMA's website at www.acma.gov.au.

device compliance day for a station means the later of:

(a) if the station was manufactured in Australia – the day it was manufactured; or

(b) if the station was imported – the day it was imported; or

(c) if the station was altered or modified in a material respect in Australia – the day it was altered or modified.

HCIS (short for Hierarchical Cell Identification Scheme) means the cell grouping hierarchy scheme used to describe areas in the Australian Spectrum Map Grid.

ITU means the International Telecommunication Union.

ITU-R Resolution 169 (WRC-19) means "ITU-R Resolution 169 Use of the frequency bands 17.7-19.7 GHz and 27.5-29.5 GHz by earth stations in motion communicating with geostationary space stations in the fixed-satellite service", published by the ITU.

Note: ITU-R Resolution 169 (WRC-19) is available, free of charge, from the ITU's website at www.itu.int.

metropolitan area has the same meaning as in the *Radiocommunications (Mobile-Satellite Service) (1980–2010 MHz and 2170–2200 MHz) Frequency Band Plan 2022*.

Note: The *Radiocommunications (Mobile-Satellite-Service) (1980–2010 MHz and 2170–2200 MHz) Frequency Band Plan 2022* is available, free of charge, from the Federal Register of Legislation at www.legislation.gov.au.

occupied bandwidth, in relation to a radiocommunications transmitter, means the width of a frequency band having upper and lower limits that are necessary to contain 99% of the true mean power of the transmitter's emission at any time.

RALI SM 26 means the Radiocommunications Assignment and Licensing Instruction No. SM 26, *Restrictions on Apparatus Licensing in Spectrum Licensed Spaces*, published by the ACMA, as existing from time to time.

Note 1: RALI SM 26 is available, free of charge, from the ACMA's website at www.acma.gov.au.

Note 2: A number of other expressions used in this instrument are defined in the Act, including the following:

(a) ACMA;
(b) apparatus licence;
(c) equipment rules;
(d) frequency band;
(e) import;
(f) radio emission;
(g) radiocommunication;
(h) radiocommunications receiver;
(i) radiocommunications transmitter;
(j) reception;
(k) spectrum;
(l) spectrum plan.

Note 3: In this instrument, ***aircraft*** has a different meaning to that given by the Act.

Note 4: Other expressions used in this instrument may be defined in a determination made under subsection 64(1) of the *Australian Communications and Media Authority Act 2005*, that applies to this instrument, including the following:

(a) Act;
(b) area-wide receive licence;
(c) area-wide receive station;
(d) earth receive licence;
(e) EIRP;
(f) point to point station;
(g) ship;
(h) space licence;
(i) space object;
(j) space receive licence;
(k) station.

(2) In this instrument, unless the contrary intention appears, a reference to a part of the spectrum or a frequency band includes all frequencies that are greater than but not including the lower frequency, up to and including the higher frequency.

Note: This means the lower number in the reference to a part of the spectrum or a frequency band is not included in the part of the spectrum or the frequency band.

6 References to other instruments

In this instrument, unless the contrary intention appears:

(a) a reference to any other legislative instrument is a reference to that other legislative instrument as in force from time to time; and

(b) 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.

Note 3: See section 314A of the Act.

7 Class licence

(1) This instrument authorises a person to operate a station for the purpose of communicating with:

(a) a station on a space object which is authorised by a space licence or space receive licence; or

(b) another station, through a station on a space object which is authorised by a space licence or space receive licence;

subject to subsection (2) and to the conditions set out in sections 8, 9, 10 and 11.

(2) This instrument applies to all stations except:

(a) stations located on a space object; and

(b) stations authorised by an apparatus licence to operate for a purpose that is substantially the same as the purpose set out in paragraphs (1)(a) or (b).

8 Authorised frequencies

This instrument authorises transmission or reception of radio emissions by a station in the following frequency bands only:

(a) for transmission:

(i) 148 MHz to 150.05 MHz;

(ii) 399.9 MHz to 400.05 MHz;

(iii) 1610 MHz to 1660.5 MHz;

(iv) 1668 MHz to 1675 MHz;

(v) 2005 MHz to 2010 MHz;

(vi) 14 GHz to 14.5 GHz;

(vii) 27.5 GHz to 30 GHz;

(b) for reception:

(i) 137 MHz to 138 MHz;

(ii) 400.05 MHz to 400.15 MHz;

(iii) 400.15 MHz to 401 MHz;

(iv) 1518 MHz to 1559 MHz;

(v) 1613.8 MHz to 1626.5 MHz;

(vi) 2195 MHz to 2200 MHz;

(vii) 2483.5 MHz to 2500 MHz;

(viii) 10.7 GHz to 12.75 GHz;

(ix) 17.7 GHz to 20.2 GHz.

9 Equipment rules and standards

(1) A person must not operate a station under this instrument unless the station complies with:

(a) if the device compliance day for the station occurs before 17 June 2021 – any standard applicable to it, as in force on the device compliance day; or

(b) if the device compliance day for the station occurs on or after 17 June 2021 – any equipment rules applicable to it, as in force on the device compliance day.

Note: Part 1 of Schedule 4 to the *Radiocommunications Legislation Amendment (Reform and Modernisation) Act 2020* commenced on 17 June 2021. That Part replaces standards with equipment rules. See also item 42 of that Schedule.

(2) A person must not operate a station, or a group of stations, to which this instrument applies if the electromagnetic energy emitted by the station, or group of stations, exceeds the general public exposure limits specified in the ARPANSA Standard in a place accessible by the public.

(3) In paragraph (1)(a), ***standard*** has the meaning given by section 5 of the Act, as in force immediately before 17 June 2021.

Note: Part 1 of Schedule 4 to the *Radiocommunications Legislation Amendment (Reform and Modernisation) Act 2020* commenced on 17 June 2021. That Part replaces standards with equipment rules. See also item 42 of that Schedule.

10 Interference with other stations

(1) This instrument authorises operation of a station only when its operation does not interfere with the operation of a radiocommunications receiver.

(2) For the purposes of subsection (1), the operation of a station authorised by this instrument is taken to not interfere with the operation of an area-wide receive station that is:

(a) operating under an area-wide receive licence in the frequency band of 27.5 GHz to 28.1 GHz that is located outside a 26 GHz band spectrum licence area; or

(b) operating under an area-wide receive licence in the frequency band of 28.1 GHz to 29.5 GHz.

(3) This instrument authorises operation of a station in the frequency bands of 1610 MHz to 1626.5 MHz and 1670 MHz to 1675 MHz within 20 kilometres of a radio astronomy observatory mentioned in Australian footnote reference AUS87 of the spectrum plan, only if:

(a) the operator of the station has sought advice from the operator of the radio astronomy observatory about when it may operate the station in order to minimise the risk of interference; and

(b) the station is operated during periods consistently with the advice from the operator of the radio astronomy observatory.

Note: The spectrum plan is available, free of charge, from the Federal Register of Legislation at www.legislation.gov.au.

(4) The operator of a radio astronomy observatory may give advice to a person for the purposes of subsection (3).

Note: See subsection 133(3) of the Act.

(5) This instrument does not authorise operation of a station in the frequency bands of 1660 MHz to 1660.5 MHz and 1668 MHz to 1670 MHz when the station:

(a) is within 500 kilometres of a radio astronomy observatory mentioned in Australian footnote reference AUS87 of the spectrum plan; or

(b) is on board an aircraft that is in the air.

Note: The spectrum plan is available, free of charge, from the Federal Register of Legislation at www.legislation.gov.au.

(6) This instrument does not authorise the operation of a station in the frequency band of 1673.38 MHz to 1675 MHz if the emissions of the radiocommunications transmitter of the station exceed a level of -128.1 dBm/4 MHz for more than 20% of the time at the output of the antenna of any radiocommunications receiver authorised to operate in all or part of that frequency band under an earth receive licence.

(7) Subject to subsection (8), this instrument authorises the operation of a station in the frequency band of 2005 MHz to 2010 MHz only if:

(a) the radiocommunications transmitter of the station is not on board an aircraft that is in the air; and

(b) the emissions of the radiocommunications transmitter above the frequency 2010 MHz do not exceed an EIRP of -66 dBW for each MHz.

(8) This instrument does not authorise the operation of a station in the frequency band of 2005 MHz to 2010 MHz in a metropolitan area unless:

(a) the emissions of the radiocommunications transmitter of the station do not exceed a maximum EIRP of 0.5 dBW for each MHz; and

(b) the maximum duty cycle of the radiocommunications transmitter does not exceed 1% averaged over a 15-minute period; and

(c) each transmission of the radiocommunications transmitter does not exceed 4 seconds in duration.

(9) This instrument authorises the operation of a station in the frequency band of 27.5 GHz to 28.3 GHz on land only if the radiocommunications transmitter of the station:

(a) is not operated in the frequency band of 27.5 GHz to 28.1 GHz in a 26 GHz band spectrum licence area; and

(b) when operated in the frequency band of 28.1 GHz to 28.3 GHz in a 26 GHz band spectrum licence area, is not operated within the greater of:

(i) 50 MHz above 28.1 GHz; or

(ii) twice the occupied bandwidth of the radiocommunications transmitter above 28.1 GHz; and

(c) when operated in the frequency band of 27.5 GHz to 28.1 GHz outside a 26 GHz band spectrum licence area, the emissions of the radiocommunications transmitter do not exceed a maximum EIRP to the horizon of -17.8 dBW in a 1 MHz bandwidth within 30 kilometres of a 26 GHz band spectrum licence area; and

(d) when operated in the frequency band of 27.5 GHz to 27.7 GHz outside a 26 GHz band spectrum licence area, is not operated within the greater of:

(i) 50 MHz above 27.5 GHz; or

(ii) twice the occupied bandwidth of the radiocommunications transmitter above 27.5 GHz.

(10) This instrument authorises the operation of a station in the frequency band of 27.5 GHz to 28.3 GHz on board an aircraft that is in the air only if the radiocommunications transmitter of the station does not exceed the maximum power flux density limits specified in clause 3.1 of Part II: Aeronautical ESIMs of Annex 3 to ITU-R Resolution 169 (WRC-19) for any radio emissions in the frequency band of 27.5 GHz to 28.1 GHz in a 26 GHz band spectrum licence area.

(11) This instrument authorises the operation of a station in the frequency band of 27.5 GHz to 28.3 GHz on board a ship only if the radiocommunications transmitter of the station does not exceed a power flux density on the shore of -112.2 dBW per square metre for

each MHz at a height of 30 metres above ground level for any radio emissions in the frequency band of 27.5 GHz to 28.1 GHz in a 26 GHz band spectrum licence area.

(12) This instrument does not authorise the operation of a station in a way that is inconsistent with the *Radiocommunications (Australian Radio Quiet Zone Western Australia) Frequency Band Plan 2023*, as in force from time to time.

Note 1: A station to which this instrument applies will not be afforded protection from interference caused by a radiocommunications transmitter of other radiocommunications services.

Note 2: The *Radiocommunications (Australian Radio Quiet Zone Western Australia) Frequency Band Plan 2023* is available, free of charge, from the Federal Register of Legislation at www.legislation.gov.au.

Note 3: Section 197 of the Act makes it an offence for a person to engage in conduct where they are reckless as to whether that conduct will result in substantial interference with, or substantial disruption or disturbance of, radiocommunications. In administering that provision with respect to the operation of a station for transmission on land under this instrument within the RQZ (inner) zone described in item 1 of Schedule 1 to the *Radiocommunications (Australian Radio Quiet Zone Western Australia) Frequency Band Plan 2023*, as in force from time to time, the ACMA will take into account whether or not the entity responsible for operating the Murchison Radioastronomy Observatory objects to the operation of the station.

11 Interference to certain receiving stations

The operation of a station for reception in the following frequency bands is subject to no protection from interference caused by a point to point station:

(a) 10.7 GHz to 11.7 GHz;

(b) 18.2 GHz to 18.8 GHz;

(c) 19.3 GHz to 19.7 GHz.