

EXPLANATORY STATEMENT

Issued by the Australian Communications and Media Authority

Australian Radiofrequency Spectrum Plan 2017

Radiocommunications Act 1992

Purpose

The purpose of the *Australian Radiofrequency Spectrum Plan 2017* (the Spectrum Plan 2017) is to divide the radiofrequency spectrum into frequency bands and specify the purposes for which those bands may be used.

Legislative Provisions

Section 30 of the *Radiocommunications Act 1992* (the Act) provides that the Australian Communications and Media Authority (the ACMA) may, by legislative instrument, prepare a spectrum plan. Pursuant to section 30 of the Act, a spectrum plan must divide the spectrum into such number of frequency bands as is considered necessary by the ACMA for the purpose of regulating radiocommunications under the Act. A spectrum plan must also designate one or more bands to be used primarily for the general purposes of defence, and specify the general purpose or purposes for which other bands may be used.

The Spectrum Plan 2017 revokes and replaces the *Australian Radiofrequency Spectrum Plan 2013* (the Spectrum Plan 2013). Subsection 33(3) of the *Acts Interpretation Act 1901* provides that where an Act confers a power to make a legislative instrument, the power shall be construed to include a power exercisable in the like manner and subject to the like conditions (if any), to repeal, rescind, revoke, amend or vary any such instrument.

Background

As required under section 30 of the Act, the Spectrum Plan 2017 divides the radiofrequency spectrum into frequency bands and specifies the purposes for which those bands may be used. This process is referred to as 'allocation' of frequency bands to services. The allocation process includes designating services as either primary or secondary services. The main purpose of designating services as either primary or secondary is to assist in interference management. These terms are described in detail in the Spectrum Plan 2017. The status of a service is indicated by use of upper case letters for 'PRIMARY', and lower case letters for 'secondary'.

The Spectrum Plan provides the basis for management of the radiofrequency spectrum in Australia. The allocations effected by the Spectrum Plan are prescriptive and the ACMA should issue apparatus licences consistent with the Spectrum Plan.

The Spectrum Plan 2017 is part of the way Australia's obligations as a signatory to the Constitution and Convention of the International Telecommunication Union (ITU) are addressed in domestic law. The provisions of the Constitution and Convention are complemented by the Administrative Regulations, including the Radio Regulations, which are binding on all Member States. The Spectrum Plan 2017 provides details of the international frequency allocations agreed for the three world regions (in column 1 of the Table of Frequency Band Allocations of the Spectrum Plan 2017) – Australia is part of Region 3 (the third sub-column under column 1).

The basis for the structure of the Spectrum Plan 2017 is derived from the Table of Frequency Allocations contained in Article 5 of the Radio Regulations. While the Australian allocations are broadly aligned with the ITU requirements for Region 3, some variations do exist. Such variations are subject to the condition that the services do not cause harmful interference to the radio services or communications of other ITU Members that operate in accordance with the provisions of the Radio Regulations, and that the possibility of harmful interference from such services and communications is accepted.

Operation

The Spectrum Plan 2017 revokes and replaces the *Australian Radiofrequency Spectrum Plan 2013*. Attachment A to this Explanatory Statement provides a description of the structure and operation of the Spectrum Plan 2017.

The differences between the Spectrum Plan 2017 and the former plan reflect both international and domestic changes.

Changes arising from the ITU World Radiocommunication Conference 2015 (WRC-15) held in Geneva, Switzerland from 2 to 27 November 2015 are reflected in column 1 of the Table of Frequency Band Allocations (Part 2 of the Spectrum Plan) and International Footnotes to the Table (Part 4 of the Spectrum Plan).

Attachment B provides details of the changes affecting Australia from WRC-15.

Domestic developments that have led to changes made in the Spectrum Plan 2017 (as compared to the Spectrum Plan 2013) are summarised below. These affect section 10 of Part 1, the Australian Table of Allocations (column 2 of the Table of Frequency Band Allocations) and the Australian Footnotes (Part 3 of the Spectrum Plan) to the Australian Table of the Spectrum Plan 2017.

Part 1 - Introductory

Unauthorised services

- Subsection 10(9) authorises use of earth receiver stations that are in motion in frequency bands allocated for fixed-satellite receivers (space-to-Earth). This provision adds flexibility to the type of devices that can be used to receive satellite transmissions.
- Subsection 10(10) provides flexibility for spectrum uses not contemplated at the time the Spectrum Plan 2017 was made. This subsection allows radiocommunications services to operate in frequency bands not specified for those services in circumstances where the ACMA is satisfied that the subject service is unlikely to cause harmful interference to another service and where the ACMA has approved the unspecified service in writing and given notice of that approval on the ACMA's website.

Australian Table of Allocations and Australian Footnotes

Broadcasting Services

- The broadcasting service has been removed from the frequency range 694-820 MHz, and the other services in that band upgraded to primary. This change reflects the redesignation of this spectrum effected by the *Radiocommunications (Spectrum Designated Primarily for Broadcasting Purposes) Notice 2014* made by the then Minister for Communications under subsection 31(1) of the Act which commenced on 1 January 2015.

Space Operation Satellite Services

- Australian Footnote 106, included in the Australian Table of Allocations for the frequency range 2 025-2 110 MHz, indicates that a specific part of this range (i.e. 2103.406-2109.406 MHz) may be used by the space operation (space-to-Earth), space research (space-to-Earth) and Earth exploration-satellite (space-to-Earth) services to support the operation of the Bilateral Ranging Transponder System earth station facility near Alice Springs (latitude 23° 45' 25.3" S, longitude 133° 52' 58.2" E). These provisions support the space vehicle tracking treaty between the Australian and United States governments.
- Australian Footnote 106A, included in the Australian Table of Allocations for the frequency ranges 2 200-2 290 MHz and 2 290-2 300 MHz, indicates that specific parts of these bands (i.e. 2284.5–2290.5 MHz) may be used by the space operation (Earth-to-space), space research (Earth-to-space) and Earth exploration-satellite (Earth-to-space) services to support the operation of the Bilateral Ranging Transponder System earth station facility near Alice Springs. These provisions support the space vehicle tracking treaty between the Australian and United States governments.

Consultation

Section 33 of the Act requires the ACMA to publish a notice on the ACMA's website stating that a draft of the spectrum plan is available for comment, setting out the draft plan and inviting interested persons to make representations about the draft plan by a date at least one month later than the date on which the notice is published. Such a notice was placed on the ACMA's website on 19 September 2016 inviting representations about the draft spectrum plan by 24 October 2016. 17 submissions were received during the comment period from a mixture of government agencies, communications and broadcasting industry members, and private citizens. In making the Spectrum Plan 2017, and in accordance with the requirements of subsection 33(4) of the Act, the ACMA gave due consideration to the representations received during the consultation period.

Regulatory Impact

The ACMA has been advised by the Office of Best Practice Regulation (OBPR) that the changes included in the Spectrum Plan 2017 (as compared to the Spectrum Plan 2013) will have minor and machinery impacts. As such, the ACMA has been advised that a Regulation Impact Statement is not necessary (OBPR ID: 21026).

Documents incorporated in the Spectrum Plan 2017 by reference

The Spectrum Plan 2017 incorporates references to the *Broadcasting Services Act 1992*, the *Offshore Minerals Act 1994*, the *Radiocommunications Act 1992*, the *Radiocommunications (Interpretation) Determination 2015* and the *Radiocommunications Regulations 2015*, each of which are available on the Australian Government's Federal Register of Legislation: www.legislation.gov.au.

The Spectrum Plan 2017 also incorporates references to:

- the 2004 and current editions of the Radio Regulations published by the ITU, both of which are available at the ITU's website: www.itu.int
- the Convention on International Civil Aviation and the Standards and Recommended Practices of the International Civil Aviation Organisation, both of which are available at the International Civil Aviation Organization's website: www.icao.int

- the Final Acts of the Special Regional Conference (Geneva, 1960), the Final Acts of the Regional Administrative LF/MF Broadcasting Conference (Regions 1 and 3) (Geneva, 1975), and the Final Acts of the Regional Administrative Radio Conference to Establish a Plan for the Broadcasting Service in the Band 605-1 705 kHz in Region 2 (Rio de Janeiro, 1998) - each of which are available at the ITU's website: www.itu.int
- the Master International Frequency Register maintained by the ITU, information about which is available at the ITU's website at: www.itu.int
- the following ITU Recommendations: Recommendation ITU-R P.452, Recommendation ITU-R RA.769, Recommendation ITU-R SA.1154-0, Recommendation ITU-R M.1174-3, Recommendation ITU-R S.1340-0, Recommendation ITU-R M.1371, Recommendation ITU-R F.1613-0; Recommendation ITU-R RA.1631-0, Recommendation ITU-R RS.1632-0, Recommendation ITU-R M.1638-0, Recommendation ITU-R M.1643-0, Recommendation ITU-R SA.1862, Recommendation ITU-R RS.1881, Recommendation ITU-R BO.1898 and Recommendation ITU-R M.2057 – each of which are available from the ITU's website at: www.itu.int; and
- Resolutions adopted at ITU World Radiocommunication Conferences held in 1997, 1999, 2000, 2003, 2007, 2012 and 2015- all of which are available from the ITU's website at: www.itu.int.

Statement of Compatibility with Human Rights

As required by subsection 9(1) of the *Human Rights (Parliamentary Scrutiny) Act 2011* a Statement of Compatibility with Human Rights has been prepared by the ACMA and is at Attachment C.

ATTACHMENT A - Description of the *Australian Radiofrequency Spectrum Plan 2017*

Part 1 - Introductory

Part 1 contains definitions of services and provisions which give effect to the various parts of the Table of Frequency Band Allocations ('the Table') in Part 2 and the Australian footnotes in Part 3. It also contains provisions which provide for the use of frequency bands other than in accordance with the Table.

Section 1 - Name of Spectrum Plan

Section 1 provides for the citation of the Spectrum Plan 2017 as the *Australian Radiofrequency Spectrum Plan 2017*.

Section 2 - Commencement

Section 2 provides for the commencement of the Spectrum Plan 2017 on 1 January 2017.

Section 2A – Revocation

Section 2A revokes the *Australian Radiofrequency Spectrum Plan 2013*.

Section 3 - Definitions

Section 3 contains definitions and interpretation provisions. It provides the meaning of terms used in the Spectrum Plan 2017, particularly the various kinds of "services". Many of these are derived from the Radio Regulations published by the ITU. Expressions not defined in the Spectrum Plan will have the meaning given by the *Radiocommunications (Interpretation) Determination 2015* or the *Radiocommunications Regulations 1993*.

Subsection 3(5) of the Spectrum Plan 2017 is intended to reflect that the Australian and International footnotes should be read as parts of the Spectrum Plan 2017 and not simply as being for information only.

Section 4 - Division of spectrum into frequency bands

Section 4 divides the radiofrequency spectrum into the frequency bands set out in column 2 of the Table for the purposes of section 30 of the Act.

Column 1 is only included in the Table to allow for comparison with column 2.

Section 5 - How the Table refers to services

Section 5 provides the method by which the primary and secondary services in a frequency band are expressed, including any limitations, modes of operation or operational restrictions, in column 2 of the Table.

Section 6 - Primary and secondary services — frequency band plans

Section 6 provides that if services are designated as primary in the Spectrum Plan 2017 they may also be designated as secondary in a separate frequency band plan.

Section 7 - Primary services — spectrum licences

Section 7 provides that services operating under a spectrum licence are generally taken to be primary services. This section ensures that spectrum licences are generally afforded particular interference protection over any class or apparatus licences that might be operating in that band as secondary services.

Section 8 - Use of frequency bands — general

Section 8 provides that if a frequency band is part of a frequency band plan, the frequency band must be used only for the purpose specified in the frequency band plan and in a way mentioned in section 9 or 10.

Section 9 - Use of frequency bands — spectrum licensing and class licensing

Subsection 9(1) provides that a frequency band may be used for a service that is operating in accordance with a spectrum licence and is an unspecified service.

Subsection 9(2) provides that a frequency band may be used by a device that is operating in accordance with a class licence and is not consistent with a service specified in column 2 of the Table for the frequency band.

Section 10 - Use of frequency bands — other circumstances

Section 10 provides flexibility provisions for circumstances in which a frequency band may be used for a service that is not specified in column 2 of the Table.

Subsection 10(1) provides for a frequency band to be used for an unspecified service if that service is used to support a service specified in column 2 of the Table.

Subsection 10(2) provides for the better support of certain practical configurations of radiocommunications systems. Examples of this are provided for in the subsection.

Subsection 10(3) supports the use of a frequency band for broadcasting purposes where fixed and mobile services are allocated to that band.

Subsection 10(4) provides flexibility in the use of a frequency band to assist in the planning and implementation of new radiocommunication services.

Subsection 10(5) provides for experimental stations to use a frequency band on a secondary basis where the band's allocation(s) do not otherwise support their use.

Subsection 10(6) provides for atmospheric and ionospheric sounders to use a frequency band on a secondary basis where the band's allocation(s) do not otherwise support their use.

Subsection 10(7) provides for use of a service where that use is in the public interest for the purposes of defence or national security.

Subsection 10(8) provides that a frequency band may be used for radio astronomy services in circumstances where the ACMA has made provision for that use in a frequency band plan.

Subsection 10(9) provides that a frequency band may be used by an earth receive station in a frequency band allocated for the fixed-satellite service (space-to-Earth) where that station is in motion, or in a stationary position at an unspecified point on land, on water or in the air.

Subsection 10(10) provides that a frequency band may be used for an unspecified service if, prior to that use, the ACMA, being satisfied that the unspecified service is unlikely to cause harmful interference to another service, has approved the unspecified service in writing and given notice of that approval on its website.

Section 11 - Harmful interference — general

Subsection 11(1) provides that if an allocation to a service in column 2 of the Table is subject to the requirement that the use does not cause harmful interference to another service, then the first-mentioned service may not claim protection from harmful interference caused by the second-mentioned service.

Subsection 11(2) provides that if an allocation to a service in column 2 of the Table is subject to the requirement that the use may not claim protection from interference caused by another service, then the first-mentioned service must not cause harmful interference to the second-mentioned service.

Subsection 11(3) provides that a service operating otherwise than in accordance with the ITU Radio Regulations must not cause harmful interference to a station outside Australia operating in accordance with the Radio Regulations.

Subsection 11(4) provides that if a service is operating otherwise than in accordance with the ITU Radio Regulations it must not cause harmful interference to a foreign vessel or foreign aircraft that is travelling on a voyage and operating in accordance with the Radio Regulations.

Section 12 - Harmful interference — secondary services

Section 12 provides that services that have a secondary status in the Table must not cause harmful interference to other services and cannot claim protection from harmful interference caused by a primary service using the band, but may however claim protection from harmful interference from certain other secondary services.

Section 13 - Interpretation of the Table

Section 13 provides information to assist in interpreting the Table.

Subsection 13(1) explains how a frequency band is identified.

Subsection 13(2) explains that the numbers used to identify bands refer to kilohertz, megahertz or gigahertz, and that the range is taken to include the higher but not the lower number.

Subsections 13(3), (4), (5) and (6) explain that numbers (with or without letters) constitute a reference to the footnotes. Services with a footnote reference are subject to service conditions or restrictions. Frequency bands with a footnote reference are subject to conditions or restrictions across that band.

PART 2 - Table of Frequency Band Allocations

This part comprises two columns. Column 1 reproduces the Table of Frequency Allocations in Article 5 of the ITU Radio Regulations. Column 2 is the Australian Table of Allocations setting out frequency bands as required by section 30 of the Act. Both columns divide the spectrum into bands, and provide for services which are allocated to those bands. Column 2 includes numbers which are called footnotes which comprise both Australian (denoted as AUS) footnotes and international footnotes.

PART 3 - Australian Footnotes

This part sets out text for the Australian footnotes specified in column 2 of the Table of Frequency Band Allocations. All of the Australian footnotes begin with the prefix AUS, which distinguishes them from the International footnotes, which do not have this prefix. Whilst the Australian allocations are broadly aligned with the ITU requirements, a number of variations exist.

PART 4 - International Footnotes

This part sets out the International footnotes. These are the footnotes mentioned in Article 5 of the ITU Radio Regulations. These footnotes appear in both columns 1 and 2 of the Table of Frequency Band Allocations and, where included in the column 2 frequency bands, apply to Australian allocations.

Attachment B—Table of changes affecting Australia arising from WRC-15

The following table lists the changes that have been made to the Australian column of the Table of Frequency Band Allocations due to the outcomes of the 2015 World Radiocommunication Conference, as described in the WRC-15 Final Acts.

#	Frequency range	Changes
1	5 351.5-5 366.5 kHz	Added secondary service Amateur with footnote 133B .
2	149.9-150.05 MHz	Added footnote 220 to, and removed footnote 224A from, primary service Mobile-Satellite (Earth-to-space) . Removed primary service Radionavigation Satellite and corresponding footnote 224B . Removed footnotes 220 , 222 and 223 .
3	161.9375-161.9625 MHz	Added secondary service Maritime Mobile-Satellite (Earth-to-space) with footnote 228AA .
4	161.9875-162.0125 MHz	Added secondary service Maritime Mobile-Satellite (Earth-to-space) with footnote 228AA .
5	399.9-400.05 MHz	Added footnote 220 to, and removed footnote 224A from, primary service Mobile-Satellite (Earth-to-space) . Removed primary service Radionavigation Satellite and corresponding footnotes 222 , 224B and 260 . Removed footnote 220 .
6	403-406 MHz 406-406.1 MHz 406.1-410 MHz	Added footnote 265 .
7	694-820 MHz	Added footnote 313A to secondary service Mobile .
8	960-1 164 MHz	Added footnote 328AA .
9	1 427-1 429 MHz	Added footnote 341C to primary service Mobile except Aeronautical Mobile .
10	1 429-1 452 MHz	Added footnote 341C to primary service Mobile .
11	1 452-1 492 MHz	Removed footnote 345 from primary services Broadcasting and Broadcasting-Satellite . Added footnote 346A to primary service Mobile . Added footnote 345 .
12	1 492-1 518 MHz	Added footnote 341C to primary service Mobile .
13	2 535-2 655 MHz	Removed footnotes 417C and 417D .
14	3 400-3 600 MHz	Added footnotes 432B and 433A to primary service Mobile .
15	4 200-4 400 MHz	Added new primary service Aeronautical Mobile (R) with footnote 436 . Added new footnote 437 .
16	5 091-5 150 MHz	Added new primary service Fixed-Satellite (Earth-to-space) with footnote 444A . Removed footnote 444A .
17	6 700-7 075 MHz	Removed footnote 458C .
18	7 145-7 190 MHz	Added (deep space) to, and removed footnote 460 from, primary service Space Research (Earth-to-space) .
19	7 190-7 235 MHz	Added primary service Earth Exploration-Satellite (Earth-to-space) with footnotes 460A and 460B .
20	7 235-7 250 MHz	Added primary service Earth Exploration-Satellite with footnote 460A .

21	7 375-7 450 MHz 7 450-7 550 MHz 7 550-7 750 MHz	Added primary service Maritime Mobile-Satellite (space-to-Earth) with footnotes 461AA and 461AB .
22	9 200-9 300 MHz	Added primary service Earth Exploration-Satellite (active) with footnotes 474A , 474B and 474C . Added footnote 474D .
23	9.9-10 GHz 10-10.4 GHz	Added primary service Earth Exploration-Satellite (active) with footnotes 474A , 474B and 474C . Added footnote 474D .
24	10.4-10.45 GHz	Removed footnote 479 .
25	10.7-10.95 GHz	Removed footnote 484A from primary service Fixed-Satellite (space-to-Earth) .
26	10.95-11.2 GHz	Removed footnote 441 from, and added footnote 484B to, primary service Fixed-Satellite (space-to-Earth) .
27	11.2-11.45 GHz	Removed footnote 484A from primary service Fixed-Satellite (space-to-Earth) .
28	11.45-11.7 GHz	Removed footnote 441 from, and added footnote 484B to, primary service Fixed-Satellite (space-to-Earth) .
29	12.2-12.5 GHz 12.5-12.75 GHz	Added footnote 484B to primary service Fixed-Satellite (space-to-Earth) .
30	13.4-13.65 GHz	Removed footnote 501A from, and added footnotes 499C and 499D to, primary service Space Research . Removed footnote 501A .
31	13.65-13.75 GHz	Removed footnote 501A .
32	14-14.3 GHz 14.3-14.4 GHz 14.4-14.47 GHz	Added footnote 484B to primary service Fixed-Satellite (Earth-to-space) .
33	14.5-14.7145 GHz 14.7145-14.75 GHz 14.75-14.8 GHz	Added footnotes 509B , 509C , 509D , 509E , 509F to primary service Fixed-Satellite (Earth-to-space) . Added footnote 509G to secondary service Space Research .
34	15.4-15.43 GHz	Removed footnote 511D .
35	15.63-15.7 GHz	Removed footnote 511D .
36	19.7-20.1 GHz 20.1-20.2 GHz	Added footnotes 484B and 527A to primary service Fixed-Satellite (Earth-to-space) .
37	21.4-22 GHz	Removed footnote 530C .
38	29.5-29.9 GHz 29.9-30 GHz	Added footnotes 484B and 527A to primary service Fixed-Satellite (Earth-to-Space) .
39	77.5-78 GHz	Added primary service Radiolocation with footnote 559B

Attachment C

Statement of Compatibility with Human Rights

Prepared in accordance with Part 3 of the Human Rights (Parliamentary Scrutiny) Act 2011

Australian Radiofrequency Spectrum Plan 2017

This legislative instrument is compatible with the human rights and freedoms recognised or declared in the international instruments listed in section 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011*.

Overview of the Legislative Instrument

The *Australian Radiofrequency Spectrum Plan 2017* (the Spectrum Plan) is a legislative instrument for the purposes of the *Legislation Act 2003*.

The Spectrum Plan is prepared under section 30 of the *Radiocommunications Act 1992* and revokes and replaces the *Australian Radiofrequency Spectrum Plan 2013* (the 2013 Spectrum Plan).

The Spectrum Plan divides the radiofrequency spectrum into frequency bands and specifies the purposes for which those bands may be used. The Spectrum Plan reflects changes to the International Telecommunication Union's treaty level Radio Regulations resulting from the 2015 World Radiocommunication Conference, as well as changes that have occurred domestically since the 2013 Spectrum Plan.

Human rights implications

The Spectrum Plan does not engage any of the applicable rights or freedoms.

Conclusion

The Spectrum Plan is compatible with human rights as it does not raise any human rights issues.