

Proposed reallocation of the 2300– 2302 MHz band for spectrum licensing Consultation paper

FEBRUARY 2013

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1. Introduction

This consultation paper outlines the Australian Communications and Media Authority's (the ACMA) proposal to recommend to the Minister for Broadband, Communications and the Digital Economy that the 2300–2302 MHz band be declared for allocation via the issue of spectrum licences. The purpose of this is to enable the extension of the already spectrum-licensed 2302–2400 MHz band (the 2.3 GHz band) from 98 MHz to 100 MHz of bandwidth.

This increase would better enable the deployment of next generation technologies, such as WiMAX and Time-Division Long-Term Evolution (TD-LTE), which typically operate using multiples of 5 MHz channels. Enabling the operation of these technologies would also harmonise the band with other international regulatory arrangements and global equipment standards.

The spectrum licences in the 2.3 GHz band will expire on 24 July 2015 and the ACMA is currently reviewing the technical and regulatory arrangements for this band in the context of its expiring spectrum-licence project. The ACMA commenced its Technical Liaison Group (TLG) process for the 2.3 GHz band in October 2012 and is working with incumbent licensees and other interested stakeholders in reviewing the technical framework to ensure its effectiveness across the next 15-year spectrum-licensed period.

One of the issues identified by the ACMA and canvassed publicly in the [Five-year spectrum outlook 2012–2016](#) was the intention to expand the 2.3 GHz band to provide 5 MHz channels. Changing the arrangements to allow for 5 MHz channels would provide industry with greater efficiencies as technology evolves and would assist licensees to use TD-LTE technologies in the band. However, to change the channel arrangements in this way, the overall bandwidth of the spectrum-licensed band would need to increase by 2 MHz from 98 MHz to 100 MHz.

The ACMA considered the use of spectrum adjacent to the 2.3 GHz band and identified 2 MHz of spectrum in the 2300–2302 MHz band as potentially available and suitable for this purpose.

The Australian Radiofrequency Spectrum Plan 2013 (the ARSP) allocates the 2300–2302 MHz band for use by fixed, mobile and radiolocation services on a primary basis, as well as amateur services on a secondary basis. There are currently no spectrum accesses associated with using the frequency range on a primary basis. However, the ACMA's Register of Radiocommunications Licences (RRL) has approximately 10,000 registrations of the Advanced amateur licence type that may use the frequency range on a secondary basis.

Given that use of the 2300–2302 MHz band is authorised under apparatus-licensing arrangements, the ACMA would need to undertake a reallocation process to change the channel arrangements in the 2.3 GHz band. The ACMA proposes to recommend to the minister that the 2300–2302 MHz band is declared for spectrum licensing.

Part 3.6 of the *Radiocommunications Act 1992* (the Act) requires the ACMA to undertake a number of necessary legislative steps before making a recommendation to the minister. One of these steps is to prepare and publish a written notice stating that a draft version of the recommendation is available for comment by potentially-affected apparatus licensees, and identify the terms that are set out in the draft recommendation. If a potentially-affected apparatus licensee provides comments to the ACMA, the ACMA must consider those comments in preparing its final recommendation to the minister. Subject to the outcomes of this consultation process,

the ACMA intends to recommend to the minister in the first half of 2013 that the 2300–2302 MHz band be declared for spectrum licensing throughout Australia.

The purpose of this paper is to provide context to the information set out in the notice to assist interested and affected stakeholders in commenting to the ACMA about the draft recommendation to the minister:

- > Chapter 2 of the paper explains the proposal to reallocate the 2300–2302 MHz band for spectrum licensing and assesses the impact on existing users of this band.
- > Chapter 3 outlines the activities necessary to facilitate the reallocation process.
- > Attachment A is a copy of the notice that provides the terms of the draft version of the recommendation the ACMA proposes to make to the minister.
- > Attachment B is a possible draft version of a reallocation declaration that the minister may make, should he choose to accept the ACMA's recommendation. It is for information purposes only. It contains the coordinates for the geographic area proposed to be reallocated for spectrum licensing.

The ACMA has also published the notice in *The Australian*, in accordance with the requirements of section 153G of the Act. In addition, the ACMA has provided information to the Wireless Institute of Australia (the WIA) about its proposal.

Legislative and regulatory framework

The ACMA is guided in its spectrum-management functions by the objects set out in section 3 of the Act and the Principles for Spectrum Management (the Principles). The key theme of the objects and the Principles is to maximise the overall public benefit derived from use of the radiofrequency spectrum. The ACMA achieves this goal through a balanced application of market and regulatory mechanisms.

The proposals set out in this paper are informed by, and are consistent with, objects (a), (c), (d) and (f) of section 3 of the Act. These objects are:

- > (a) maximise, by ensuring the efficient allocation and use of the spectrum, the overall public benefit derived from using the radiofrequency spectrum
- > (c) provide a responsive and flexible approach to meeting the needs of users of the spectrum
- > (d) encourage the use of efficient radiocommunications technologies so that a wide range of services of an adequate quality can be provided
- > (f) support the communications policy objectives of the Commonwealth Government.

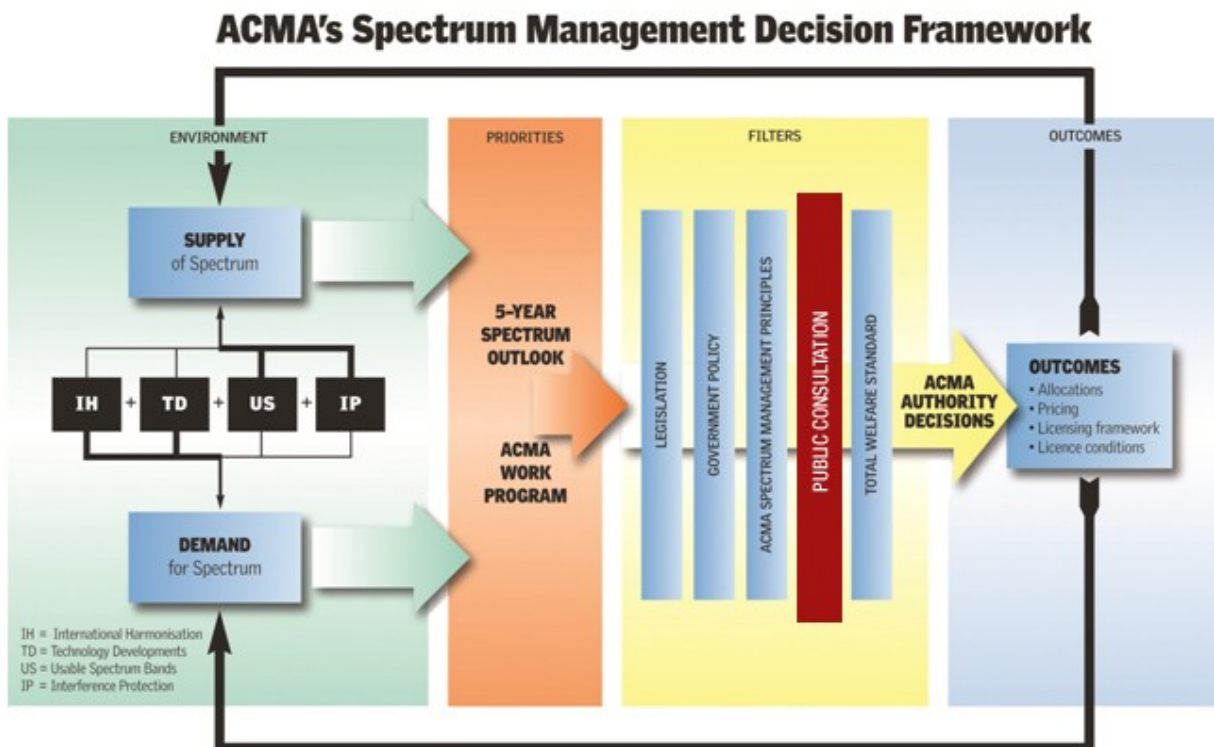
The ACMA's proposal to reallocate the 2300–2302 MHz band for spectrum licensing is consistent with Principles 1, 2, 3,4 and 5 (see Table 1).

Table 1 Summary of the decision to reallocate against the Principles

	<i>Principle 1</i> Allocate spectrum to the highest value use or uses	<i>Principle 2</i> Enable and encourage spectrum to move to its highest value use or uses	<i>Principle 3</i> Use the least cost and least restrictive approach to achieving policy objectives	<i>Principle 4</i> To the extent possible, promote both certainty and flexibility	<i>Principle 5</i> Balance the cost of interference and the benefits of greater spectrum utilisation
Reallocate the 2300–2302 MHz band for spectrum licensing on an Australia-wide basis.	✓	✓	✓	✓	✓

In arriving at regulatory decisions, the ACMA considers a range of factors identified in its spectrum management decision framework (see Figure 1). The expiring spectrum-licence process is a high priority for the ACMA and is discussed in the *Five-year spectrum outlook 2012–2016*. Therefore, the review of technical and regulatory arrangements for expiring spectrum licences in the 2.3 GHz band has been identified as part of the ACMA’s ongoing work on expiring spectrum licences in the *Five-year spectrum outlook* and the ACMA’s work plan. The proposal to recommend to the minister that he declare the 2300–2302 MHz band for spectrum licensing is at the public consultation stage.

Figure 1 Spectrum management decision framework



2. Proposal to declare the 2300–2302 MHz band for spectrum licensing

This chapter explains the proposal to declare the 2300–2302 MHz band for spectrum licensing in accordance with section 153B of the Act and assesses the impact on existing users of this band. The impact of the reallocation is expected to be beneficial in terms of providing additional bandwidth for the deployment of next-generation technologies in the 2.3 GHz band. The impact on existing apparatus licensees in the 2300–2302 MHz band is expected to be small, given the possibility of relocating services into other bands that are available for the deployment of similar services.

Setting out the proposal

The ACMA proposes to make a recommendation to the minister in accordance with section 153F of the Act that the 2 MHz in the 2300–2302 MHz band be declared for allocation via spectrum licensing. To reallocate the 2300–2302 MHz band for spectrum licensing, the ACMA must follow the processes set out in Part 3.6 of the Act.

If the minister agrees with the recommendation and makes a reallocation declaration for the 2300–2302 MHz band, the ACMA would allocate the additional 2 MHz of spectrum using a price-based allocation (PBA) process determined under section 60 of the Act. The timing for such an allocation process is likely to occur once the outcomes of the ACMA's expiring spectrum-licence process for the 2.3 GHz band are known.

The legislative requirements for reallocation of encumbered spectrum are outlined in detail in Chapter 3 of this paper.

Re-allocating the 2300–2302 MHz band for spectrum licensing would extend the bandwidth of the existing, adjacent spectrum-licensed 2.3 GHz band by 2 MHz from 98 MHz to 100MHz. This increase would provide efficiencies in the deployment of next-generation technologies in the 2.3 GHz band, such as WiMAX and TD-LTE, which are typically deployed using a multiple of 5 MHz channels. Associated benefits would also be realised, such as the alignment with international regulatory arrangements and globally harmonised equipment standards.

The ACMA commenced its [process to review the technical framework for the 2.3 GHz band](#) in October 2012. The TLG is also considering the 2 MHz from the 2300–2302 MHz band in its review of the technical framework for the 2.3 GHz band. The types of issues that are being considered in the TLG process include:

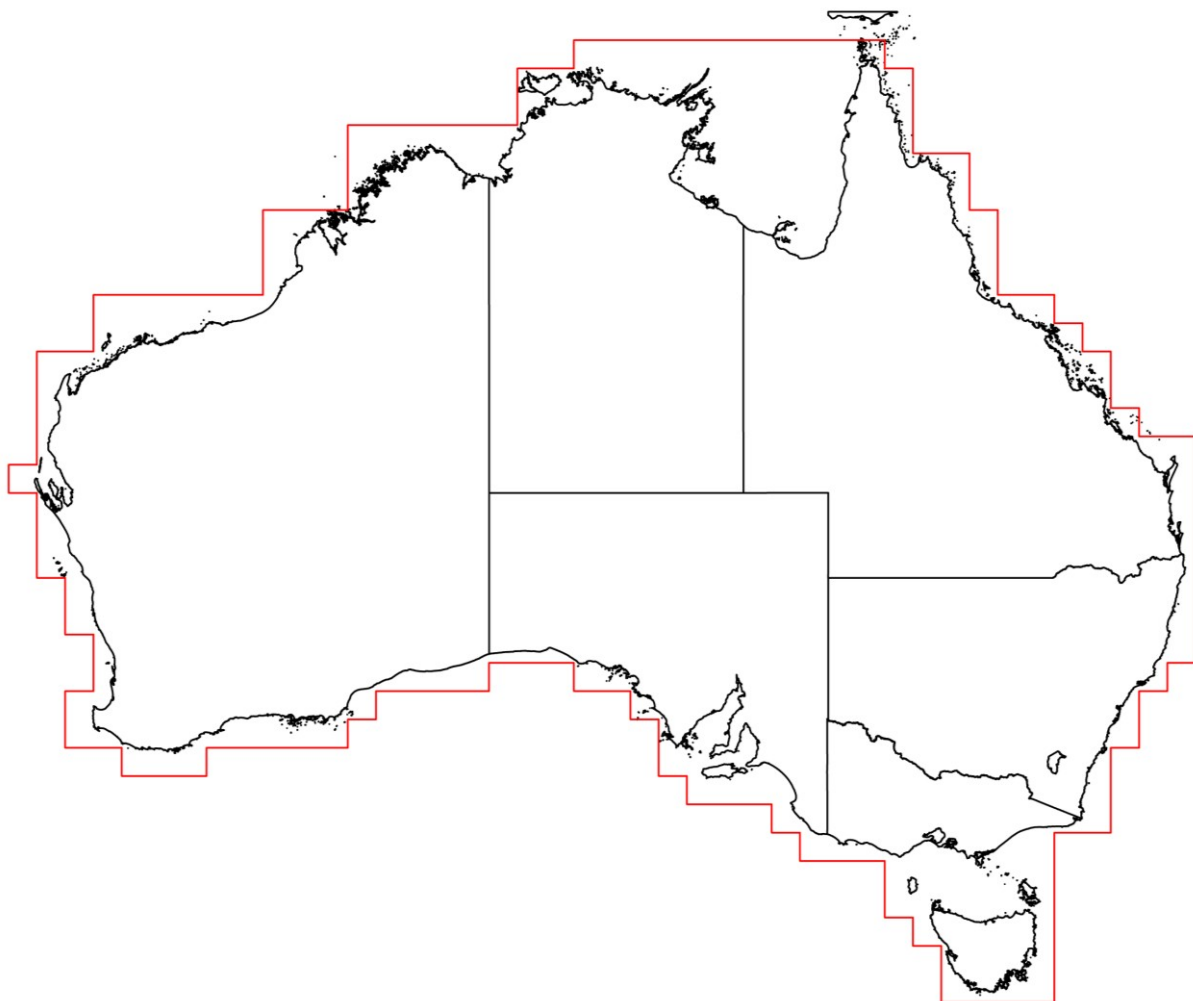
- > technology evolution and a channel raster in multiples of 5 MHz (WiMAX, TD-LTE)
- > increasing the minimum contiguous bandwidth a licensee may hold as a result of a spectrum trade from 3.5 MHz to 5 MHz
- > changes to the outside-the-area and outside-the-band emission limits to take account of the changes in technology and/or use in the band.

It is expected that spectrum licences allocated in the 2300–2302 MHz band will align with the existing arrangements for the 2.3 GHz band. That is:

- > The 2 MHz of spectrum will be reallocated throughout Australia.

- > The geographic area that the ACMA proposes to be subject to reallocation is the same as the extent of the geographic area, which is subject to spectrum licensing in the adjacent 2.3 GHz band. An illustration of this geographic area is provided in Figure 2 below. Precise coordinates are included in the schedule in Attachment B.
- > The spectrum licences will have the same expiry date as the 2.3 GHz licences—24 July 2030.

Figure 2 Map of the geographic area proposed to be reallocated for spectrum licensing in the 2300–2302 MHz band



Aligning the expiry date and other conditions of spectrum licences that may be allocated in the 2300–2302 MHz band will provide efficiency in spectrum trading over the spectrum-licence period and in undertaking any future expiring spectrum-licence process in 2030.

If the minister agrees with the ACMA's recommendation to reallocate the 2300–2302 MHz band for spectrum licensing, he will make a reallocation declaration in accordance with section 153B of the Act. The declaration states the frequency range and geographic area subject to allocation via spectrum licences, and provides time frames for both the reallocation deadline and the reallocation period.

The reallocation deadline is a time frame that applies to the ACMA for allocating spectrum licences via a price-based allocation process. This is discussed further in Chapter 3. The reallocation period is a minimum period of time (two years) within

which existing users of the band must relocate to other bands, or cease operation by the end of the reallocation period.

Impact on incumbent apparatus licensees

The ARSP allocates the 2300–2302 MHz band for use by fixed, mobile and radiolocation services on a primary basis, as well as amateur services on a secondary basis.

Data held on the RRL indicates that there are no primary services operating in the 2300–2302 MHz band. This means that there are no apparatus licences for fixed, mobile or radiolocation services issued to licensees.

Amateur operators who hold qualifications for the Advanced amateur licensing category are authorised to operate services in the 2300–2302 MHz band. The ACMA estimates that there are approximately 10,000 Advanced amateur operators on an Australia-wide basis who may be impacted by the ACMA's proposal to reallocate the additional 2 MHz of spectrum.¹

The ACMA understands that Advanced amateur operators use the 2300–2302 MHz band in accordance with the [Australian Amateur Band Plans](#). This band plan is made by the WIA and provides information on how the band may be used for narrow-band communications up to 4 kHz where weak signal operation has absolute priority. Modes such as carrier wave (CW), digital modes and single side band (SSB) are supported. The 2 MHz that is being considered for spectrum licensing in this paper may also be used for crossband EME (earth-moon-earth) contacts with overseas stations operating on 2304 MHz.

The ACMA understands that other frequencies are identified for uses similar to those of the 2300–2302 MHz band and the decision to reallocate the frequency range should not significantly impact Advanced amateur operations. Alternative arrangements that may be used by Advanced amateur licensees include:

- > The 2400–2450 MHz band, which is allocated for Advanced amateur operations in Schedule 2 of the Radiocommunications Licence Conditions (Amateur Licence) Determination No. 1 of 1997.
- > The 2403–2406 MHz and 2424–2425 MHz frequency bands. The WIA's Australian Amateur Band Plan recognises that these frequency bands have similar arrangements to the 2300–2302 MHz band.

The ACMA has little visibility of the extent to which amateur licensees are using the 2300–2302 MHz band, as individual devices do not require registration and licensees may be using other existing bands available for the deployment of similar services. As a result, the full extent of the impact of the ACMA's proposal on Advanced amateur licensees is not clear. The ACMA is engaging with the WIA to identify and mitigate any potential impact on amateur licensees resulting from the ACMA's proposal to reallocate the 2300–2302 MHz band for spectrum licensing.

The ACMA has placed an embargo on the spectrum so that no new frequency assignments may be made in the 2300–2302 MHz band.² The embargo does not prevent existing operators from using the band. If the minister makes a reallocation declaration for the 2300–2302 MHz band, existing operators may continue to use the band until the end of the reallocation period.

¹ This estimate is based on the number of Advanced amateur licences held in the ACMA's Register of Radiocommunications Licences.

² See Embargo 65 at www.acma.gov.au.

3. Necessary steps for reallocation

This chapter explains the legislative process and steps that the ACMA must undertake—in accordance with Part 3.6 of the Act—to facilitate the reallocation of the 2300–2302 MHz band for spectrum licensing.

This paper does not consider which price-based allocation mechanism would be used to allocate spectrum licences in the 2300–2302 MHz band. This is because the proposed reallocation of the 2300–2302 MHz band is subject to a decision yet to be made by the minister. However, should the minister agree with the ACMA's recommendation, the ACMA expects the allocation of the 2 MHz of spectrum to be undertaken with any spectrum that is not the subject of re-issue to incumbent licensees in the 2.3 GHz band. The outcomes of the expiring spectrum-licence process for the 2.3 GHz band will inform the auction or allocation methodology to apply to the 2300–2302 MHz and 2.3 GHz bands.

Before providing the minister with a recommendation under section 153F of the Act, the ACMA must—under section 153G(1) of the Act—prepare a written notice stating the terms of the draft reallocation declaration, inviting potentially-affected apparatus licensees to provide written comments. If potentially-affected apparatus licensees provide comments to the ACMA, the ACMA must consider those comments in preparing its final recommendation to the minister. The ACMA must also:

- > make all reasonable efforts to ensure that potentially affected apparatus licensees receive a copy of the notice
- > publish the notice in one or more newspapers circulating generally in the capital city of each state and territory.

The ACMA has provided a copy of the notice to the 10,000 Advanced amateur licensees (where addresses have been provided on the RRL) and informed them about where further information on the proposed recommendation can be obtained. A copy of the notice was also published in *The Australian* on 13 February 2013.

The ACMA is working closely with the WIA to promote the notice at Attachment A through WIA communication channels.

The ACMA invites stakeholders to provide comment on the terms of the draft version of the recommendation the ACMA proposes to make to the minister, at Attachment A.

Section 153E of the Act provides that the minister must not make a spectrum reallocation declaration in relation to a particular part or parts of the spectrum, unless, during the previous 180 days, the ACMA has given the minister a recommendation under section 153F. Subject to the outcomes of this consultation process, the ACMA may make a recommendation to the minister that he declare the 2300–2302 MHz band for allocation via spectrum licensing in the first half of 2013.

Under section 153F of the Act, the recommendation must:

- > specify one or more parts of the spectrum to be reallocated³
- > include the period that, in the ACMA's opinion, the declaration should specify as the reallocation period.

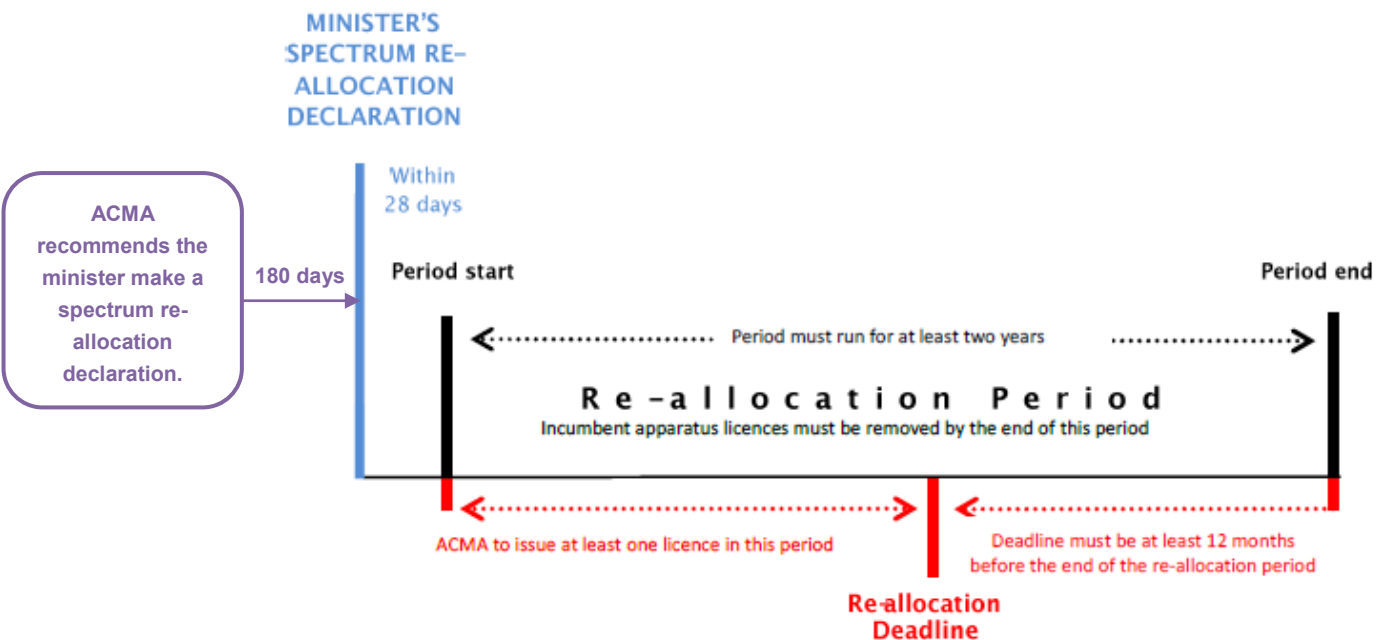
The ACMA may include other matters in the recommendation where relevant. The reallocation period sets the time frame during which the reallocation process is to be completed. The period must begin within 28 days of the spectrum reallocation declaration being made by the minister and must run for at least two years. During this time, incumbent apparatus licensees may continue to operate transmitters in accordance with the conditions of their apparatus licence. Alternatively, incumbent apparatus licensees may relocate their operations to different frequency bands.

Prior to the end of the reallocation period, the ACMA will vary the Radiocommunications Licence Conditions (Amateur Licence) Determination No.1 of 1997 to remove the 2300–2302 MHz band from the range of frequency bands in which a licensee is authorised to operate an amateur Advanced station. Apparatus licensees will no longer be authorised to operate devices under the licence in the 2300–2302 MHz band after the end of the reallocation period.

The reallocation deadline sets the date by which the ACMA must have allocated at least one licence for the reallocated spectrum. The reallocation deadline must be at least 12 months before the end of the reallocation period.

The diagram at Figure 3 summarises the steps involved and the timing.

Figure 3 Legislative steps and timings necessary for a spectrum reallocation declaration



³ 'Parts' of the spectrum are defined by their frequency and geographic boundaries. The datum used for coordinates of these 'parts' is the Geocentric Datum of Australia 1994 and the naming convention used is the Hierarchical Cell Identification Scheme.

Terms of the draft recommendation for the 2300–2302 MHz band

The ACMA has prepared a draft recommendation, the terms of which are set out in the notice at Attachment A, that the minister make a spectrum reallocation declaration for the 2300–2302 MHz band on a national basis. This would align with the terms set out in the designation notice for the 2.3 GHz band.

To provide stakeholders with an understanding of the kind of instrument the minister might make, this paper includes a draft version of a possible spectrum reallocation declaration instrument at Attachment B. Stakeholders should note that this instrument will be made and released by the minister and the draft version is included here for information purposes only.

The terms of this draft recommendation are summarised in Table 2. They reflect the ACMA's preferred timing and are indicative only.

Table 2 Terms of the draft recommendation the ACMA will make to the minister

Element of draft recommendation	Description
Part of the spectrum	2 MHz of bandwidth within the 2300–2302 MHz band. This frequency range should be reallocated on a national basis.
Reallocation period	The reallocation period should run for not less than two years, ending on or before 24 July 2015 .
Reallocation deadline	The reallocation deadline should be on or before 24 July 2014—12 months before the end of the reallocation period .
Licence type	Spectrum licence.

The ACMA's role is to provide a recommendation to the minister. Once provided with the recommendation, the minister may accept the ACMA's recommendation and make the spectrum reallocation declaration within 180 days. The minister decides the actual time frame included as the reallocation period and deadline.

The ACMA emphasises that the key date for the 2300–2302 MHz band spectrum licences to be aligned with newly issued 2.3 GHz band spectrum licences is the **expiry date**. That is, the ACMA will ensure that the 2300–2302 MHz band spectrum licences share a common expiry date with those spectrum licences issued in the 2.3 GHz band of 24 July 2030.

This means that even if ministerial decision-making time frames resulted in a reallocation period with an end date later than the preferred timing provided above in Table 2, the ACMA would still proceed with the necessary steps. However, spectrum licences issued in the 2300–2302 MHz band may run for a period shorter than 15 years to ensure a common expiry date with 2.3 GHz band spectrum licences.

The overall 2.3 GHz band work program

The ACMA's recommendation to the minister to reallocate the 2300–2302 MHz band for spectrum licensing, though separate, is a step that sits within the overall expiring spectrum licence work program for the 2.3 GHz band.

Table 3 provides a summary of the overall work program for the 2.3 GHz band, to provide stakeholders with a complete picture of the steps involved. Stakeholders should note that as many of the steps involved are also subject to ministerial decision making, timing is indicative.

Table 3 Steps for the overall 2.3 GHz band expiring spectrum licence work program and indicative time frames

	Milestone	Indicative timing	Comments
1	<p>The ACMA consults with stakeholders about the possibility of re-allocating the 2300–2302 MHz band for spectrum licensing.</p> <p>The paper includes a draft recommendation the ACMA will make to the minister and provides potentially-affected licensees the opportunity to comment, as per section 153G of the Act.</p>	Q1 2013	<p>This paper describes the ACMA's proposal, and invites comments from potentially-affected stakeholders.</p> <p>Other consultation mechanisms are also employed, including:</p> <ul style="list-style-type: none"> > writing to individual affected licensees > publishing a notification in a newspaper (<i>The Australian</i>) > liaising with the WIA.
2	Finalise technical framework instruments for overall 2.3 GHz band.	Q2 2013	The finalised technical frameworks will consider extending the band by 2 MHz. The ACMA undertakes TLG processes to ensure that all interested/affected stakeholders participate in the technical planning of the band.
3	The ACMA recommends that the minister reallocate the 2300–2302 MHz band for spectrum licensing.	Q2–Q3 2013	
4	<p>The minister makes a spectrum reallocation declaration for the 2300–2302 MHz band as per section 153B of the Act.</p> <p>The reallocation declaration specifies the reallocation period for the band.</p>	Q3 2013	The reallocation period must run for at least two years. It will end on or before 24 July 2015. This is so that start and end dates for any spectrum licences issued for the 2300–2302 MHz band align with dates for licences in the balance of the 2.3 GHz band (current licences expire on 24 July 2015.)
5	Finalise re-issue process.	Q3–Q4 2013	<p>This time frame is subject to consideration of stakeholder requirements.</p> <p>Reissue considerations will begin in January 2013.</p>
6	<p>Prepare the price based allocation (PBA) of:</p> <ul style="list-style-type: none"> > the 2300–2302 MHz band > 2.3 GHz band licences not re-issued. <p>This includes making the marketing plan and releasing the applicant information pack (AIP).</p>	Q3–Q4 2013	Lots on offer and the PBA method to be used will be defined once the outcomes of the re-issue process are determined.
7	Conduct PBA.	Q1 2014	15-year licences will be issued once full payment is received.
8	Start date of 2300–2302 MHz band spectrum licences.	25 July 2015	This start date aligns with the start date of 2.3 GHz band spectrum licences to ensure a common expiry date of all licences.

4. Summary

The ACMA's view is that the reallocation of the 2300–2302 MHz band for spectrum licensing will assist in the deployment of next-generation technologies in the 2.3 GHz band. The ACMA is also of the view that the reallocation of the 2300–2302 MHz band meets the objects of the Act and the Principles.

This paper provides context for potentially-affected apparatus licensees in the 2300–2302 MHz band, or other interested persons, to make a submission or provide comment to the ACMA on the proposed recommendation it intends to make to the minister.

The ACMA will consider all comments received in deciding whether to make a recommendation to the minister under section 153F of the Act, and in the drafting of any recommendation to the minister.

After the ACMA has made the spectrum reallocation recommendation, the minister may make the declaration within 180 days. If the minister chooses to make the spectrum reallocation declaration, the ACMA expects it will prepare for the allocation of the 2300–2302 MHz band using a price-based allocation mechanism in accordance with section 60 of the Act. This preparation will be informed by outcomes from the expiring spectrum-licence process for the 2.3 GHz band. The ACMA expects to release further information about the allocation process for the 2300–2302 MHz and 2.3 GHz bands in the second half of 2013.

The ACMA is seeking comment from any potentially affected licensees, or other interested persons, on the terms of the draft version of the recommendation the ACMA proposes to make to the minister at Attachment A.

5. Invitation to comment

Making a submission

The ACMA invites members of the public to make submissions on the issues raised in this paper. Submissions should be made:

By email: spectrum.outlook@acma.gov.au
By mail: Manager
Spectrum Outlook and Review Section
Australian Communications and Media Authority
PO Box 78
Belconnen ACT 2616

Media enquiries should be directed to Ms Emma Rossi on (02) 9334 7719 or by email to media@acma.gov.au.

Electronic submissions in Microsoft Word or Rich Text Format are preferred.

The closing date for submissions in response to this paper is close of business on Wednesday 27 March 2013.

Effective consultation

The ACMA is working to enhance the effectiveness of its stakeholder consultation processes, which are an important source of evidence for its regulatory development activities. To assist stakeholders in formulating submissions to its formal, written consultation processes, it has developed [Effective consultation: A guide to making a submission](#). This guide provides information about the ACMA's formal written public consultation processes and practical guidance on how to make a submission.

Publication of submissions

In general, the ACMA publishes all submissions it receives. However, the ACMA will not publish submissions that it considers contain defamatory or irrelevant material.

The ACMA prefers to receive submissions which are not claimed to be confidential. However, the ACMA accepts that a submitter may sometimes wish to provide information in confidence. In these circumstances, submitters are asked to identify the material over which confidentiality is claimed and provide a written explanation for confidentiality claims.

The ACMA will not automatically accept all claims of confidentiality. The ACMA will consider each claim for confidentiality on a case-by-case basis.

Release of submissions where authorised or required by law

Any submissions provided to the ACMA may be released under the *Freedom of Information Act 1982* (unless an exemption applies) or shared with other Commonwealth Government agencies or other bodies under Part 7A of the *Australian Communications and Media Authority Act 2005*. The ACMA may also be required to release submissions for other reasons including for the purpose of Parliamentary processes or where otherwise required by law (for example, under a court subpoena). While the ACMA seeks to consult submitters of confidential information before that information is provided to another party, the ACMA cannot guarantee that confidential information will not be released through these or other legal means.

Status of this paper


This paper provides background information to assist people in making submissions to the ACMA on the issues addressed in the paper.

Information in this paper should not be taken to indicate the ACMA's commitment to a particular policy or course of action.

The ACMA does not make any representations or warranties that it will implement any or all of the options, positions or dispositions set out in this paper. The terminology used in this paper may also be subject to change. Material in this paper is made available for general information only and on the understanding that the ACMA is not providing professional advice. Different solutions and outcomes may apply in individual circumstances. While reasonable efforts have been made to ensure the accuracy, completeness and reliability of the material contained in this paper, to the extent permitted by law, the ACMA provides no express or implied warranties and makes no representations that the information contained in this paper is accurate, complete or reliable, and expressly disclaims liability for any loss, however caused and whether due to negligence or otherwise, arising directly or indirectly from the use of, inferences drawn, deductions made, or acts done in reliance on, this paper or the information contained in it, by any person.

Attachment A

Notice including the terms of the draft version of the recommendation the ACMA proposes to provide to the minister



The header of the notice features three logos on a black background. On the left is the Australian Government coat of arms with the text 'Australian Government'. In the center is the ACMA logo, which consists of a stylized '8' shape followed by the lowercase letters 'acma'. On the right is the text 'Australian Communications and Media Authority'.

Notice under section 153G of the
Radiocommunications Act 1992

REALLOCATION OF THE 2300–2302 MHz FREQUENCY BAND

The Australian Communications and Media Authority (the ACMA) has prepared a draft recommendation to the Minister for Broadband, Communications and the Digital Economy that he make a spectrum reallocation declaration under section 153B of the *Radiocommunications Act 1992*.

In this notice, the range of numbers that identifies a frequency band includes the higher but not the lower number.

Terms of the draft recommendation

The draft recommends to the minister that he makes a spectrum reallocation declaration under section 153B of the Act for the 2300–2302 MHz frequency band throughout Australia—the specified spectrum. 'Throughout Australia' is defined by the coordinates set out in the consultation paper referred to below.

The draft recommendation also proposes that the spectrum reallocation declaration specify that:

- (i) the declaration applies to all of the specified spectrum
- (ii) the specified spectrum be reallocated by issuing spectrum licences
- (iii) the reallocation period be a period of at least two years commencing within 28 days after the declaration is made, and ending on or before 24 July 2015
- (iv) the reallocation deadline is on or before 24 July 2014—12 months before the end of the reallocation period.

Invitation to comment

The ACMA invites potentially affected apparatus licensees to give the ACMA written comments about the terms of the draft recommendation, as set out in this notice, by **close of business on Wednesday 27 March 2013**.


The ACMA's consultation paper on the draft recommendation is available on the ACMA website under 'Issues for comment'. A copy of the paper is available from the Manager of the Spectrum Outlook and Review Section email: spectrum.outlook@acma.gov.au.

Comments should be sent to:

Manager, Spectrum Outlook and Review Section
Australian Communications and Media Authority
Purple Building, Benjamin Offices, Chan Street, Belconnen ACT 2617
PO Box 78, Belconnen ACT 2616

Email: spectrum.outlook@acma.gov.au

www.acma.gov.au
communicating | facilitating | regulating



The footer of the notice features a decorative graphic of overlapping, wavy lines in shades of grey and white, creating a sense of motion and connectivity.

Attachment B

Draft Radiocommunications (Spectrum Re-allocation) Declaration for the 2300–2302 MHz band Commonwealth of Australia

Radiocommunications Act 1992

Radiocommunications (Spectrum Re-allocation) Declaration No. x of 2013

I, STEPHEN MICHAEL CONROY, Minister for Broadband, Communications and the Digital Economy, having had regard to a recommendation given to me by the Australian Communications and Media Authority under subsection 153F(1) of the *Radiocommunications Act 1992* in relation to specified parts of the spectrum, make this Declaration under subsection 153B(1) of that Act.

Dated x x of x

DRAFT ONLY NOT FOR SIGNATURE

STEPHEN MICHAEL CONROY
Minister for Broadband, Communications and the Digital Economy

1 Name of Declaration

This Declaration is the *Radiocommunications (Spectrum Re-allocation) Declaration No. x of 2013*.

2 Commencement

This Declaration commences on the day after it is registered on the Federal Register of Legislative Instruments.

3 Definitions

In this Declaration:

Act means the *Radiocommunications Act 1992*.

Re-allocation deadline has the meaning given to that term by sub section 153B(5) of the Act.

Re-allocation period has the meaning given to that term by sub section 153B(1) of the Act.

4 Spectrum re-allocation

- (1) The part of the spectrum from 2300 MHz to 2302 MHz is subject to re-allocation under Part 3.6 of the Act in relation to the **re-allocation period**.
- (2) For the part of the spectrum mentioned in subsection (1), this Declaration applies to the specified area (the **National Area**), being the area bounded by the coordinates specified in Table A of the Schedule.
- (3) For the part of the spectrum mentioned in subsection (1) the **re-allocation period** begins on x x of x and ends on x x of x for the National Area.
- (4) For the parts of the spectrum mentioned in subsection (1), the **re-allocation deadline** is x x of x.
- (5) The part of the spectrum mentioned in subsection (1) may be re-allocated only by issuing spectrum licences under Subdivision B of Division 1 of Part 3.2 of the Act.
- (6) In subsection (1), the frequency band includes all frequencies that are greater than the lower frequency, up to and including the higher frequency.

Schedule

The area described in Table A is a polygon bounded by a line joining each of the following coordinates of latitude and longitude. The datum used for coordinates in this Schedule is the Geocentric Datum of Australia 1994.

Table A Outer boundary of the National Area

Row	° South	° East
1	24.998757	112.001377
2	24.998744	113.001346
3	23.998738	113.001340
4	22.998729	113.001347
5	21.998721	113.001338
6	20.998713	113.001332
7	20.998705	114.001326
8	20.998698	115.001297
9	19.998688	115.001319
10	18.998681	115.001312
11	18.998673	116.001310
12	18.998666	117.001309
13	18.998658	118.001306
14	18.998650	119.001304
15	18.998642	120.001301
16	18.998630	121.001292
17	17.998630	121.001289
18	16.998626	121.001281
19	15.998622	121.001274
20	15.998616	122.001271
21	15.998607	123.001262
22	15.998601	124.001256
23	14.998601	124.001255
24	13.998599	124.001249
25	12.998597	124.001244
26	12.998592	125.001239
27	12.998586	126.001234
28	12.998581	127.001229
29	12.998576	128.001224
30	12.998571	129.001218
31	12.998580	130.001200
32	11.998567	130.001205
33	10.998568	130.001202
34	10.998567	131.001191
35	10.998568	132.001181
36	9.998561	132.001184
37	9.998558	133.001177
38	9.998554	134.001170
39	9.998550	135.001162
40	9.998546	136.001154
41	9.998543	137.001145
42	9.998539	138.001137
43	9.998535	139.001128
44	9.998532	140.001118
45	9.998528	141.001108
46	9.998510	142.001113
47	9.998506	143.001104
48	10.998494	143.001114
49	10.998513	144.001081
50	11.998507	144.001084
51	12.998499	144.001091
52	13.998493	144.001090
53	13.998490	145.001081

54	13.998488	146.001070
55	14.998483	146.001074
56	15.998478	146.001078
57	15.998474	147.001067
58	16.998469	147.001072
59	17.998465	147.001078
60	18.998465	147.001089
61	18.998456	148.001071
62	18.998451	149.001058
63	19.998451	149.001064
64	19.998441	150.001050
65	20.998438	150.001056
66	20.998432	151.001042
67	21.998429	151.001049
68	22.998434	151.001058
69	22.998420	152.001041
70	23.998428	152.001046
71	23.998411	153.001033
72	23.998405	154.001018
73	24.998402	154.001025
74	25.998401	154.001033
75	26.998397	154.001041
76	27.998398	154.001049
77	28.998397	154.001059
78	29.998395	154.001068
79	30.998395	154.001078
80	31.998395	154.001088
81	31.998405	153.001103
82	32.998404	153.001116
83	32.998415	152.001132
84	33.998414	152.001145
85	34.998416	152.001158
86	34.998426	151.001172
87	35.998427	151.001188

88	36.998431	151.001203
89	37.998434	151.001218
90	37.998444	150.001236
91	37.998457	149.001255
92	38.998459	149.001268
93	39.998464	149.001286
94	40.998469	149.001304
95	41.998475	149.001323
96	42.998481	149.001343
97	43.998488	149.001364
98	43.998499	148.001382
99	43.998511	147.001401
100	43.998522	146.001418
101	43.998534	145.001436
102	42.998527	145.001413
103	41.998522	145.001384
104	41.998531	144.001408
105	40.998524	144.001387
106	40.998536	143.001403
107	39.998529	143.001383
108	38.998522	143.001358
109	38.998534	142.001379
110	38.998546	141.001393
111	38.998557	140.001407
112	37.998545	140.001384
113	37.998562	139.001401
114	36.998554	139.001381
115	36.998567	138.001396
116	36.998578	137.001408
117	36.998590	136.001420
118	35.998576	136.001402
119	35.998595	135.001413
120	34.998583	135.001401
121	33.998570	135.001397

122	33.998586	134.001398
123	32.998580	134.001383
124	32.998595	133.001387
125	32.998608	132.001394
126	31.998594	132.001397
127	31.998606	131.001396
128	31.998614	130.001404
129	31.998623	129.001413
130	32.998642	129.001419
131	32.998653	128.001427
132	32.998664	127.001435
133	32.998675	126.001445
134	32.998686	125.001456
135	33.998699	125.001467
136	33.998715	124.001479
137	34.998719	124.001489
138	34.998731	123.001496
139	34.998749	122.001505
140	34.998756	121.001505
141	34.998769	120.001510
142	34.998788	119.001513

143	35.998793	119.001533
144	35.998806	118.001537
145	35.998819	117.001541
146	35.998832	116.001543
147	34.998831	116.001528
148	34.998841	115.001532
149	34.998846	114.001528
150	33.998836	114.001511
151	32.998821	114.001492
152	32.998823	115.001497
153	31.998805	115.001478
154	30.998801	115.001459
155	30.998798	114.001458
156	29.998789	114.001441
157	28.998773	114.001422
158	28.998787	113.001428
159	27.998776	113.001417
160	26.998768	113.001394
161	25.998754	113.001362
162	25.998767	112.001389
163	24.998757	112.001377