Proposed changes to amateur licence conditions

**Consultation paper**

June 2019

Canberra

Red Building   
Benjamin Offices  
Chan Street   
Belconnen ACT

PO Box 78  
Belconnen ACT 2616

T +61 2 6219 5555  
F +61 2 6219 5353

Melbourne

Level 32   
Melbourne Central Tower  
360 Elizabeth Street   
Melbourne VIC

PO Box 13112  
Law Courts   
Melbourne VIC 8010

T +61 3 9963 6800  
F +61 3 9963 6899

Sydney

Level 5   
The Bay Centre  
65 Pirrama Road   
Pyrmont NSW

PO Box Q500  
Queen Victoria Building   
NSW 1230

T +61 2 9334 7700 or 1800 226 667  
F +61 2 9334 7799

Copyright notice

[Creative Commons logo](http://i.creativecommons.org/l/by/3.0/88x31.png)

<https://creativecommons.org/licenses/by/4.0/>

With the exception of coats of arms, logos, emblems, images, other third-party material or devices protected by a trademark, this content is made available under the terms of the Creative Commons Attribution 4.0 International (CC BY 4.0) licence.

We request attribution as © Commonwealth of Australia (Australian Communications and Media Authority) 2019.

All other rights are reserved.

The Australian Communications and Media Authority has undertaken reasonable enquiries to identify material owned by third parties and secure permission for its reproduction. Permission may need to be obtained from third parties to re-use their material.

Written enquiries may be sent to:

Manager, Editorial Services  
PO Box 13112  
Law Courts  
Melbourne VIC 8010  
Email: [info@acma.gov.au](mailto:info@acma.gov.au)

Executive summary 1

Issues for comment 2

Introduction 3

Background 3

Current licensing arrangements 3

Reallocation of the 3.6 GHz band 4

Consideration of factors 5

Alternative approaches to qualification 5

Impact of technological change 6

Changes to advanced amateurs’ access to the 3.6 GHz band 8

Assessment of requests from the amateur community 9

Requests resulting in proposed changes included in the draft omnibus variation 9

Allow the use of digital modes for foundation licensees 10

Relax restrictions on the use of commercially manufactured equipment 10

Internet-connected repeater use by Foundation licensees 10

Relaxation of permitted bandwidths in certain circumstances 11

Clearer definitions of certain terminology 11

Requests for changes on which the ACMA invites feedback, for possible inclusion in a future draft variation 11

Increased power limit for Foundation and Standard licensees 12

Access to more amateur bands for Standard and Foundation licensees 12

Requests managed under the ACMA’s FYSO 12

Requests that the ACMA does not consider should result in changes to Amateur licence conditions 13

Increased power limit for Advanced licensees 13

Addition of other bands in the Amateur LCD 14

Proposed changes to instruments 15

Longer term considerations 16

Review of call signs 16

Amateur licensing arrangements 16

Invitation to comment 18

Making a submission 18

Executive summary

The Australian Communications and Media Authority (ACMA) has conducted a review of licence conditions that apply to amateur radio operators with Foundation, Standard and Advanced level qualifications.

The amateur service is a longstanding user of the radiofrequency spectrum, with a range of bands made available for qualified amateurs. It is designed primarily to facilitate hobby radiocommunications and technical experimentation. The ACMA supports the amateur service through planning arrangements which recognise the desires of amateur radio operators to access frequency bands, while balancing other demands for spectrum.

In the *Draft* *five-year spectrum outlook 2019–23* (draft FYSO), the ACMA indicated it would commence consultation on potential changes to amateur licensing conditions in Q4 2018–19.

Our review considered various requests for changes to licence conditions in submissions made by amateur peak bodies—the Wireless Institute of Australia (WIA) and the Radio Amateur Society of Australia (RASA).

The ACMA is also taking the opportunity during this process to consult on our proposals to remove amateur advanced licensees’ access to the 3575–3600 MHz band within areas reallocated for spectrum licensing.[[1]](#footnote-2) The purpose of these changes is to prevent cancellation of advanced amateur licences that would otherwise occur as a result of the reallocation of the 3575–3700 MHz band (the 3.6 GHz band) to spectrum licensees.

This paper sets out our proposals for public consideration. We are seeking stakeholder views on the following:

* the removal of amateur advanced licensees’ access to the 3575–3600 MHz band within specified areas
* changes that progress various requests of the amateur community, that will account for technological changes, reduce restrictions and increase flexibility for licensees
* changes that respond to requests by the amateur community for the medium term, that will increase flexibility for licensees

additional proposals for change that we have identified for the medium term to longer term aimed at reducing the overall regulatory burden of amateur licensing arrangements.

# Issues for comment

The ACMA is seeking detailed, evidence-based submissions from interested stakeholders on the proposals set out in this paper.

Comments are invited on:

* the proposed changes to the amateur instruments reflected in the draft omnibus instrument, which can be downloaded on the web page for this consultation
* other possible changes as discussed in this paper
* any other issues relevant to amateur licence conditions and licensing arrangements, including opportunities that could reduce regulatory burden on licensees while not detracting from other legitimate uses of the relevant spectrum.

# Introduction

Licensees are subject to a range of licence conditions that are set out in the *Radiocommunications Act 1992* (the Act), the Radiocommunications Licence Conditions (Amateur Licence) Determination 2015 (the Amateur LCD) and in individual licences. The Radiocommunications (Overseas Amateurs Visiting Australia) Class Licence 2015 (the Overseas Class Licence) sets out the conditions relevant to the operation of an amateur station by overseas amateurs visiting Australia for short periods of time.

We reviewed the amateur licence conditions in light of requests by amateur representatives for changes to the existing arrangements. We are now consulting with interested stakeholders on changes proposed to the amateur instruments, as well as seeking views on proposed changes for the medium to longer term and the potential for broader reform to the amateur licensing arrangements.

## Background

The amateur service is intended for hobby radiocommunications. Amateur radio operators conduct experiments and arrange public demonstrations relating to radiocommunications and, when required, they also provide a substitute form of communication in civil emergencies. Anyone can listen to the amateur bands using a receiver. To transmit, however, operator qualifications and a licence from the ACMA are required.

There are approximately 15,000 amateur radio licensees in Australia. Amateur radio operators are active in many countries and there are procedures authorising visiting amateur radio operators with overseas qualifications to operate in Australia.

Article 25.6 of the International Telecommunication Union (ITU) Radio Regulations requires each administration to verify the operational and technical qualifications of any person wishing to operate an amateur station.

In Australia, qualifications are generally conferred on amateur radio operators by a delegated third party. Qualifications generally take the form of certificates of proficiency under the Act. Under section 122A of the Act, the ACMA has delegated the power to issue amateur certificates of proficiency to the University of Tasmania, through its institute the Australian Maritime College (AMC). The ACMA has also approved the AMC to conduct related examinations and perform associated administrative services, such as making recommendations about the allocation of call signs to licence applicants. Some overseas qualifications and licences are also recognised as a basis for qualified operation in Australia.

## Current licensing arrangements

The role of the ACMA as the spectrum regulator is to ensure that the operation of amateur radio stations is appropriately authorised, including that amateur radio operators are appropriately qualified before issuing a licence. The ACMA issues apparatus licences to applicants in accordance with the level of qualification achieved. The ACMA’s review focusses on the licence conditions that apply to amateur radio operators with Foundation, Standard and Advanced level amateur qualifications.

Different conditions apply to each level of amateur station, as determined by the qualification achieved by the station operator, with Advanced being the most qualified, Standard being the middle level, and Foundation being the lowest and most easily obtained qualification. The flexibility in the use of the station, and the power level and available frequency bands that may be used by the station, vary according to the qualification achieved by the operator.

The Amateur LCD as amended from time to time sets out the licence conditions that apply to amateur licensees when operating amateur radio stations. The conditions include frequency bands of operation, transmitter output power limits, amount of bandwidth which can be used and transmission emission modes. Other conditions relate to interference, spurious emissions, how an amateur station may be used and the use of call signs.

The Overseas Class Licence reflects these conditions for the equivalent overseas amateur level and applies to licensed amateurs visiting Australia for a period of up to 90 days after each entry to Australia.

## Reallocation of the 3.6 GHz band

In December 2017, following public consultation, the ACMA made a recommendation to the Minister under section 153F of the Act that he make spectrum reallocation declarations with respect to the 3.6 GHz band.[[2]](#footnote-3) In March 2018, in accordance with the ACMA’s recommendation, the Minister made three reallocation declarations under section 153B of the Act:

1. [Radiocommunications (Spectrum Re‑allocation—3.6 GHz Band for Adelaide and Eastern Metropolitan Australia) Declaration 2018](https://www.legislation.gov.au/Details/F2018L00225)
2. [Radiocommunications (Spectrum Re‑allocation—3.6 GHz Band for Perth) Declaration 2018](https://www.legislation.gov.au/Details/F2018L00221)
3. [Radiocommunications (Spectrum Re‑allocation—3.6 GHz Band for Regional Australia) Declaration 2018](https://www.legislation.gov.au/Details/F2018L00222).

The reallocation declarations declared these areas for spectrum licensing. Accordingly, the ACMA allocated this spectrum by auction during November–December 2018.

In accordance with section 153H of the Act, the effect of these declarations is that all apparatus licences which authorise the operation of radiocommunications devices in the 3.6 GHz band in the relevant geographic areas will be automatically cancelled at the end of the relevant reallocation period, as follows:

1. Adelaide and Eastern Metropolitan Australia—29 March 2020
2. Perth—29 March 2023
3. Regional Australia—29 March 2025.

# Consideration of factors

With respect to amateur licensing, the role of the ACMA is to:

* ensure that licensing arrangements continue to reflect Australia’s obligations under Article 25.6 of the ITU Radio Regulations and comply with relevant Australian legislation

manage the risk of interference to other spectrum users and congestion within amateur bands, consistent with our spectrum management role.

The ACMA’s review of amateur licence conditions was guided by a total welfare standard (TWS) and the ACMA’s [Principles for spectrum management](https://www.acma.gov.au/Industry/Spectrum/Spectrum-planning/About-spectrum-planning/australian-spectrum-management-principles-spectrum-planning-acma) (the Principles).

The application of a TWS means the impact that a regulatory proposal has on the public interest is measured as the sum of the effects on consumers, producers and government, as well as the broader social impacts on the community. The ACMA understands that amateur radio users derive a benefit from accessing the spectrum to participate in the hobby, albeit one that is difficult to quantify. The ACMA has for many years successfully facilitated amateur use of the spectrum by enabling amateur use of a wide variety of spectrum bands, allocating amateur licences, and overseeing the qualifications framework.

Nevertheless, as noted in the draft FYSO, there is an increasing demand for spectrum as well as requests for changes to existing arrangements, which is resulting in increasing demand for the resources of the ACMA. It is necessary for the ACMA, as it does with other regulated sectors, to consider the costs and benefits of regulatory action.

With respect to amateur use of the spectrum, the ACMA considers that it is timely to consider measures that reduce the transaction costs incurred by licensees, and to explore opportunities for appropriate self-regulation. This is outlined in the section below, ‘Longer term considerations’. We also assessed our proposed changes to the amateur licence conditions against the Principles to determine whether they continue to reflect ACMA’s approach to spectrum planning. The changes proposed in this paper are consistent with the Principles for the following reasons:

* removing unnecessary restrictions on amateur licensees and ensuring continued access to spectrum will use the least cost and least restrictive approach to meet our regulatory role
* simplifying the amateur licensing regime and allowing all licensees greater flexibility in using frequency bands, emission modes and equipment, will promote both certainty and flexibility

maintaining the existing conditions of the Amateur LCD and the Overseas Class Licence relating to interference management will adequately balance the cost of interference, while allowing amateur licensees to better utilise allocated frequency bands.

## Alternative approaches to qualification

The Act does not require the ACMA to make examinations or certificates of proficiency available and we have previously consulted on the potential for these arrangements to be managed in the vocational education and training sector rather than through the mechanisms in the Act.

In a [consultation paper](https://www.acma.gov.au/theACMA/new-approaches-to-amateur-radio-qualification-arrangements) released in June 2018 on new approaches to amateur radio qualification, the ACMA communicated its desire to transition all amateur radio competencies into the Australian Qualifications Framework[[3]](#footnote-4).

Under this model registered training organisations (RTOs)—for example, TAFE colleges—would be able to provide the relevant training. RTOs offering the training would provide statements of attainment on satisfactory completion of study. The conduct of training would be overseen by the Commonwealth’s vocational education and training regulator, the Australian Skills Quality Authority (ASQA) or, in states that have not signed up the national vocational training arrangements, the relevant state-based training regulator. The ACMA believes this approach is also consistent with Australia’s obligations under the ITU Radio Regulations and would have the advantage of potentially maximising training options for amateur radio operations nationally.

Any organisation that issues amateur radio qualifications would participate in the Syllabus Review Panel, which would be convened by the ACMA under its current arrangements with the AMC. Members of the Syllabus Review Panel would help ensure that amateur radio syllabuses and associated qualifications continue to equip amateur licensees with the knowledge and skills necessary to operate an amateur station in Australia.

We are continuing to examine alternative options for the delivery of amateur qualification requirements as part of our approach to longer term amateur licensing reform.

## Impact of technological change

The three levels of amateur qualifications and corresponding apparatus licences reflect a hierarchical system that provides a pathway for licensed operators to gain more experience and qualifications. As each higher level is obtained, amateurs are afforded greater opportunities to experiment, such as the ability to operate in more frequency bands, use higher power and more bandwidth. The amateur community is largely supportive of this structure, which is consistent with international practice.

Over the last 20 years, the sector has experienced significant technological change with ubiquitous access to the internet and the proliferation of digital technologies and applications. However, the amateur instruments impose restrictions specific to Foundation licensees in a way that inhibits them from experimenting with new technologies.

The nature and pace of technological change has resulted in Foundation licence privileges being superseded, necessitating users progressing up the hierarchy to enable them to use modern technology. Foundation licence holders currently constitute 17 per cent of amateur licensees in Australia[[4]](#footnote-5).

Some of the changes being proposed below will have the effect of altering the nature of the existing hierarchy. Stakeholders are asked to provide comments on whether the simplification of the qualification and licensing structure will facilitate more participation and provide existing licensees with greater opportunity to experiment, and whether there are any risks or issues associated with the proposal.

# Changes to advanced amateurs’ access to the 3.6 GHz band

The ACMA proposes to amend the Amateur LCD and vary the Overseas Class Licence to remove the 3.6 GHz band in the relevant areas subject to the reallocation declarations from the range of permitted frequencies that amateur licensees authorised to use advanced amateur stations (amateur advanced licensees) are able to use. This will take effect on the commencement date of the spectrum licences issued in the relevant region, which is also the end of the relevant reallocation period.

The intent of the proposed changes is to prevent cancellation of advanced amateur licences by the operation of section 153H of the Act, which is enlivened in relation to the 3575–3600 GHz band due to the 3.6 GHz band reallocation declarations. The proposed updates will ensure that advanced amateur licensees may continue to use the 3575–3600 MHz band outside spectrum licensed areas, as well as other bands allocated for amateur use. The ACMA proposes to amend the Amateur LCD and the Overseas Class Licence simultaneously to maintain a consistent amateur framework for both domestic licensed amateurs and overseas visiting amateurs with appropriate qualifications or licences.

The amendments to both instruments:

* specify that amateur advanced licensees may not operate an amateur station in the 3575–3600 MHz band within spectrum licensed areas from the expiry of the relevant reallocation period in each area
* update the list of permitted amateur frequency bands to limit the use of the 3575–3600 MHz band to areas outside spectrum licenced areas.

# Assessment of requests from the amateur community

WIA and RASA have made a number of requests to the ACMA for changes to amateur licence conditions. The requests received by the ACMA relate to the following:

* allowing the use of digital modes for foundation licensees
* reviewing call sign format
* relaxing restrictions on the use of commercially manufactured equipment
* reviewing net-connected repeater use by Foundation licensees
* expanding permitted bandwidths in certain circumstances
* clarifying definitions and terminology
* reviewing permitted transmitter output power levels

permitting operation in additional frequency bands, including secondary allocation in the 5.3 MHz band.

On some issues, the WIA and RASA are in agreement, while they hold differing views on others.

The ACMA has considered these requests against the Principles and the total welfare standard, particularly with a view to reducing unnecessary restrictions on amateur licensees and reducing regulatory red tape. We have divided these requests into the following four categories:

* Requests that the ACMA agrees should be progressed. Most of these requests (other than the call sign review) require changes to the Amateur LCD and Overseas Class Licence. These changes are proposed in the draft omnibus instrument which can be downloaded on the web page for this consultation.
* Requests that the ACMA considers would result in desirable changes, but which require further feedback from the amateur community prior to being presented in a draft amendment instrument. These changes would reduce differentiation between the three amateur licence levels under discussion.
* Requests that are most appropriately managed under the ACMA’s Five-year spectrum outlook (FYSO).

Requests that the ACMA does not consider should result in changes to amateur licence conditions.

## Requests resulting in proposed changes included in the draft omnibus variation

The ACMA considers that some of the requests from the amateur community will reduce unnecessary prescription and provide greater opportunity for amateur licensees for experimentation. The ACMA also considers that the changes proposed will not adversely affect amateur licensees or other spectrum users. Any increased risk of interference or congestion would continue to be mitigated by requirements for transmissions to remain entirely within the relevant frequency bands, and provisions limiting spurious emissions.[[5]](#footnote-6)

Changes as a result of these requests have been included in the draft omnibus variation, which can be downloaded on the web page for this consultation. The callsign review does not at this stage require changes to the Amateur LCD or Overseas Class Licence. The ACMA’s consideration of these requests appears below under ‘Longer term considerations’.

### Allow the use of digital modes for foundation licensees

Under the existing arrangements, Foundation licensees are limited to analogue modes of transmission, such as voice telephony and Morse code. They are also required to transmit using specified emission modes. These conditions do not apply to Standard and Advanced licensees.

The ACMA considers that technological developments have rendered these restrictions unnecessary and considers that Foundation licensees should be able to use any emission mode. The proposed change will allow entry level licensees to engage more fully with the hobby of amateur radio.

Prospective Foundation licensees need to obtain an Amateur Operator’s Certificate of Proficiency (Foundation) before applying for a Foundation licence. The training syllabus for this certificate will be updated to incorporate necessary knowledge if this change is made.

### Relax restrictions on the use of commercially manufactured equipment

Foundation licensees are subject to a number of other restrictions that do not apply to Standard and Advanced licensees. For example, they may only operate equipment that is available off-the-shelf. Standard and Advanced licensees are currently able to construct their own equipment.

The WIA proposed that Foundation licensees be permitted to assemble and use commercially available receiver, transmitter and transceiver kits. The WIA noted that such arrangements have applied to comparable entry-level Amateur licences in the United States and United Kingdom for several years. RASA has opposed this measure, on the basis that it would undermine the existing system.

The ACMA considers that the current restriction on Foundation licensees is unnecessary, and they should be permitted to construct their own equipment. Relaxing these restrictions is unlikely to lead to a significantly increased risk of interference or congestion. Any increased risk of interference to other spectrum users, or increased congestion in Amateur frequency bands, will be mitigated by existing provisions in the Amateur LCD and Overseas Class Licence.

### Internet-connected repeater use by Foundation licensees

The WIA has requested that the ACMA reviews the matter of internet-connected repeater systems by Foundation licensees. Foundation licensees are not currently permitted to connect their devices to the internet under the Amateur LCD and Overseas Class Licence. Standard and Advanced licensees are permitted to connect to the internet.

The ACMA considers that allowing Foundation licensees to connect their devices to the internet is unlikely to lead to a significantly increased risk of interference or congestion. Any increased risk of interference to other spectrum users, or increased congestion in Amateur frequency bands, will be mitigated by existing provisions in the Amateur LCD and Overseas Class Licence. The ACMA considers that this restriction on Foundation licensees is unnecessary and proposes that it should be removed.

### Relaxation of permitted bandwidths in certain circumstances

The WIA has requested that the ACMA reduce restrictions on permitted bandwidths for Advanced, Standard and Foundation licensees.

Under current arrangements, Amateur licensees are permitted to operate within a specified bandwidth amount for each frequency segment, up to 148.00 MHz. Above this, there are no restrictions on bandwidth.

The ACMA considers that allowing all licensees to use wider bandwidths in frequency bands where Amateur services are primary[[6]](#footnote-7), if signals conform to maximum spectral density limits, will allow amateur licensees greater scope for experimentation and skills development. In frequency bands where amateur services are secondary services, the ACMA considers that existing bandwidth restrictions should remain. The ACMA is also proposing to remove restrictions on frequency segments above 52.00 MHz. Access to frequency bands for each level of Amateur licence will remain the same.

The ACMA considers that spectral density limits are an effective method to ensure that any risk of interference or congestion from relaxing permitted bandwidths is minimised. Risk of interference will continue to be mitigated by the Amateur LCD’s requirement for transmissions to remain entirely within the relevant frequency bands and by provisions limiting spurious emissions.

### Clearer definitions of certain terminology

The ACMA has considered requests that terminology in the Amateur LCD be clarified, including outdated examples for paragraphs (c) and (d) in ss. 9(1) of the Amateur LCD. These examples relate to Amateur stations using automatic and computer-controlled modes.

Upon review, the ACMA agrees that examples (c) and (d) of ss.9(1) are outdated and proposes that they be removed from the Amateur LCD.

## Requests for changes on which the ACMA invites feedback, for possible inclusion in a future draft variation

These requests from the Amateur community are likely to reduce unnecessary prescription and increase flexibility. However, they require further feedback from the amateur community and other relevant stakeholders to inform ACMA decision-making.

While the ACMA is consulting on these changes as part of this consultation process, these changes are not reflected in the draft omnibus instrument. The possible changes would reduce differentiation between the three Amateur licence levels: Foundation, Standard and Advanced. The ACMA understands that there is considerable support in the Amateur community for the current structure of Amateur licensing, including from RASA.

If the ACMA decides that these changes are in the public interest, the ACMA will release a draft legislative instrument incorporating necessary changes for a second round of consultation.

### Increased power limit for Foundation and Standard licensees

The WIA has proposed that the maximum permitted power level for Foundation licensees be increased from 10 watts to 50 watts peak envelope power, and the maximum permitted power level for Standard licensees be increased from 100 watts to 200 watts peak envelope power. RASA considers that higher power should only be available for Advanced licensees.

The ACMA considers that allowing all licensees using any amateur station to use 400 watts peak envelope power, the same limit as currently applies to Advanced licensees, is unlikely to significantly increase the risk of congestion or interference. We consider that such a change would be consistent with the spectrum management principles, as it reduces restrictions on Foundation and Standard licensees.

However, we understand that this would have the effect of reducing differentiation between the Foundation, Standard and Advanced licence levels.

As there appears to be widespread support to retain the hierarchical licence level structure, the ACMA is consulting on this change to assist in our decision-making. The ACMA invites comment on allowing Foundation, Standard and Advanced licensees to use a maximum permitted peak envelope power of 400 watts.

### Access to more amateur bands for Standard and Foundation licensees

The WIA has proposed that Standard and Foundation licensees have access to more frequency bands that have been allocated to the Amateur service. RASA has expressed support for the current system.

The ACMA considers that allowing Foundation, Standard and Advanced licensees to use all existing Amateur frequency bands is unlikely to significantly increase the risk of congestion or interference. We consider that this would enable greater scope for experimentation and skills development by amateur licensees.

As above, we consider that this would be consistent with the spectrum management principles, as it reduces restrictions on Foundation and Standard licensees.

However, we understand that this would have the effect of reducing differentiation between the Foundation, Standard and Advanced licence levels.

As there appears to be widespread support to retain the hierarchical licence level structure, the ACMA is consulting on this change to assist in ACMA decision-making. The ACMA invites comment on allowing Foundation, Standard and Advanced licensees to use all frequency bands allocated to the Amateur service.

## Requests managed under the ACMA’s FYSO

The WIA and RASA have proposed the additional allocation of several new frequency bands for amateur licensees in submissions to and in meetings with the ACMA.

The ACMA responded to the majority of requests for access to new frequency bands in the [*Five-year spectrum outlook 2018–22*](https://www.acma.gov.au/Industry/Spectrum/Spectrum-projects/5-Year-Spectrum-Outlook/five-year-spectrum-outlook) (the 2018–22 FYSO). The bands that were addressed were:

* 70–70.5 MHz
* extension of the 3776–3800 kHz DX window to above 3800 kHz
* 50–52 MHz upgrade of amateur allocation to primary in the Australian radiofrequency spectrum plan
* expansion of amateur usage in 1800–1875 kHz up to 2000 kHz

secondary allocation at 5.3 MHz (implementation of WRC 15 agenda item 1.4).

The ACMA set out the reasons in the 2018–22 FYSO why it did not consider it feasible to allocate the requested bands to amateur services.

Following further submissions from the amateur community about 5.3 MHz, the ACMA has identified additional work on this issue for the 2019–2020 financial year. The [draft FYSO](https://www.acma.gov.au/theACMA/draft-five-year-spectrum-outlook-2019-23) states the ACMA’s intention to publish a discussion paper in Q3 2019–20 seeking industry views on implementation issues, including appropriate technical conditions and in which part of the band the amateur service could be supported.

## Requests that the ACMA does not consider should result in changes to Amateur licence conditions

### Increased power limit for Advanced licensees

The WIA has proposed that the maximum permitted power level for Foundation licensees be increased from 400 watts to 1500 watts peak envelope power. The WIA suggests that it should conduct an application and validation process on behalf of the ACMA and then recommend to the ACMA whether a licensee is suitable for a high-power authorisation.

Given the results of the 2012–13 [trial of higher transmitter output power for amateur advanced licensees](https://www.acma.gov.au/Industry/Spectrum/Radiocomms-licensing/Apparatus-licences/trial-of-higher-transmitter-output-power-for-licensees-i-acma), the ACMA considers that increasing the power limit for Advanced licensees carries an unacceptable risk of non-compliance with the requirements of the [Radiocommunications Licence Conditions (Apparatus Licence) Determination 2003](https://www.legislation.gov.au/Details/F2015L00210) (the Apparatus Licence LCD).

Importantly, the Apparatus Licence LCD sets out the maximum limits for electromagnetic energy (EME) exposure, and recordkeeping requirements, for the operation of transmitters. The ACMA considers that the consequences and risk of exceeding EME exposure limits are too great to outsource approval for higher power to a third party.

The WIA has suggested that the connection between the Apparatus Licence LCD and the operation of amateur stations should be made clear in amateur licence conditions. The ACMA does not consider it necessary or advisable to refer to the Apparatus Licence LCD in any licence determination. All apparatus licensed transmitters must comply with the Apparatus Licence LCD. This condition is specified on every apparatus licence when it is issued.

The WIA also suggested that the published guidelines on EME should be revised. The ACMA has information on EME requirements and compliance on its website for all licensees, including amateurs.[[7]](#footnote-8) The ACMA regularly reviews this information and will add the guidelines once they are revised.

RASA has suggested that amateurs wishing to operate with powers greater than 400 watts peak envelope power complete a standardised EME assessment, to be available for inspection by an ACMA officer. However, the Apparatus LCD already sets out appropriate compliance and record-keeping requirements for different categories of transmitters, based on the relative risk of EME exposure.

While the ACMA believes that existing EME compliance requirements are sufficient, it needs to be confident that allowable power limits for certain licence types minimise the likelihood of EME exposure limits being exceeded. The ACMA considers that 400 watts is a prudent limit, and that any exceptions to this limit should be considered on a case-by-case basis.

Advanced amateur licensees may make an application to the ACMA for higher power transmissions for the purpose of Earth-Moon-Earth communications. Otherwise, if a licensee wishes to operate in a way other than that provided for in the Amateur LCD, they may apply for a Scientific apparatus licence.

### Addition of other bands in the Amateur LCD

Amateur representative bodies have also requested access to two frequency bands that are included[[8]](#footnote-9) in Schedule 1 of the Radiocommunications (Low Interference Potential Devices) Class Licence 2015 (the LIPD Class Licence):

* 70–70.5 MHz

918–926 MHz

The ACMA notes that all Amateur licensees are already able to access the frequency bands 915–928 MHz and 70–70.24375 MHz, under the authorisation of the LIPD Class Licence, provided they comply with the relevant maximum EIRP limitations.[[9]](#footnote-10)

# Proposed changes to instruments

The ACMA is proposing to make the Radiocommunications Licence Conditions (Amateur Licence) Omnibus Amendment Instrument 2019 (No. 1), which will amend the Amateur LCD and the Overseas Class Licence.

The ACMA omnibus variation (which can be downloaded on the web page for this consultation) proposes changes identified as part of a review of amateur licence conditions and are necessary to prevent cancellation of advanced amateur licences that would otherwise occur as a result of the reallocation of the 3.6 GHz band

The changes reflected in the draft omnibus instrument amend the Amateur LCD and the Overseas Class Licence to:

* allow the use of digital transmission modes
* remove the restriction on emission modes for Foundation licensees
* allow Foundation licensees to use non-commercially manufactured equipment and internet-connected repeater systems
* relax the permitted bandwidths for all licensees
* clarify definitions.
* specify that an amateur station must not be operated in the 3575–3600 MHz band within the designated areas after the day occurring before the end of the relevant reallocation period.
* update the list of permitted amateur frequencies to subject the use of the 3575–3600 MHz band to that same limitation.

define the designated areas and commencement dates for the 3575–3600 MHz band by referring to the relevant reallocation declaration.

# Longer term considerations

## Review of call signs

Article 19 (Identification of stations) of the ITU-R Radio Regulations sets out the requirements for the identification of stations used for transmission of a range of services, including amateur services. These requirements include options for call sign structure, a table of allocations for each member country and a template.

The ACMA issues call signs (recommended by the AMC) with licences to qualified operators who have been issued with an amateur operator’s certificate of proficiency by the AMC.

The WIA has requested a review of the Australian call sign format to ensure that it is fit for purpose. The WIA and RASA have submitted that the current Foundation four-character suffix is not compatible with most digital modes of transmission. It is also not readily identifiable by the worldwide amateur radio community.

The WIA and RASA have suggested that a three-character suffix should be identified and adopted for use by Foundation licensees in Australia. RASA proposes that the QAA–QZZ series be use for Foundation licensees who wish to use data modes, while allowing licensees to retain their existing call sign if they so choose.

The ACMA recognises that call sign allocation is of great importance to amateur radio operators and that proper consideration should be given to how it would be best managed, especially in light of the proposed changes to allow digital modes for Foundation licensees. Any changes to call sign format will be implemented in accordance with the ITU requirements.

The ACMA considers that the function of call sign management is suitable for self-regulation by the amateur sector. On that basis, the ACMA will welcome recommended changes to the call sign format that are generally supported by the amateur community and are consistent with ITU requirements. The ACMA requests that the amateur peak bodies develop a proposal that meets these requirements.

## Amateur licensing arrangements

The ACMA is exploring opportunities to improve future amateur licensing arrangements. The ACMA considers that there are potential changes to the amateur licensing arrangements that may reduce regulatory burden in a way that meets the obligations under the ITU Radio Regulations and complies with relevant Australian legislation. This includes identifying changes that will minimise, to the extent possible, the regulatory and transaction costs faced by licensees.

In the draft FYSO, the ACMA advised that it is considering the best licensing mechanisms for non-assigned licences, including amateur licences. We have foreshadowed consulting on these options in Q2 2019–20. This will include the most appropriate licensing mechanism, whether the current hierarchical qualification structure should be retained and exploring the potential for self-regulatory options for the amateur radio sector.

Following consultation last year on new approaches to amateur radio qualification, we are pursuing the incorporation of amateur radio units of competency in the AQF. This is also reflected in the draft FYSO.

With these outcomes in mind, the ACMA is particularly interested in preliminary stakeholder views about further reducing reduce complexity of the licensing framework, providing users with greater operational flexibility and reducing operational costs. We are also interested in how we could best consider evolving technological and market practices.

In line with the above, we are seeking views on suggestions for further reform of the amateur licensing arrangements, including:

* the need for continuing the three-level structure for qualifications and licences
* whether the Amateur LCD is most appropriate licensing mechanism
* the appropriate future licensing mechanism and content for amateur licences
* identifying opportunities to reduce regulation or consider alternative regulatory practice, including the potential for self-regulation
* identifying options to reduce complexity and increase transparency for users
* identifying options to minimise transaction costs faced by licensees.

# Invitation to comment

## Making a submission

The ACMA invites comments on the issues set out in this consultation paper.

* [Online submissions](http://www.acma.gov.au/theACMA/Consultations/Consultations) can be made via the comment function or by uploading a document. Submissions in Microsoft Word or Rich Text Format are preferred.
* Submissions by post can be sent to:

The Manager

Spectrum Licensing Policy Section

Australian Communications and Media Authority

PO Box 78

Belconnen ACT 2616

**The closing date for submissions is COB, 9 August 2019.**

Consultation enquiries can be emailed to: [SpectrumLicensingPolicy@acma.gov.au](mailto:SpectrumLicensingPolicy@acma.gov.au).

Publication of submissions

The ACMA publishes submissions on our website, including personal information (such as names and contact details), except for information that you have claimed (and we have accepted) is confidential.

Confidential information will not be published or otherwise released unless required or authorised by law.

Privacy

[*Privacy and consultation*](https://www.acma.gov.au/theACMA/About/Corporate/Accountability/privacy-and-consultations) provides information about the ACMA’s collection of personal information during consultation and how we handle that information.

Information on the *Privacy Act 1988* and the ACMA’s privacy policy (including how to access or correct personal information, how to make a privacy complaint and how we will deal with the complaint) is available at [acma.gov.au/privacypolicy](http://www.acma.gov.au/privacypolicy).

1. This follows extensive consultation conducted during the lead up to the allocation process for the 3575–3700 MHz band, such as by way of the [*Future use of 1.5 GHz and 3.6 GHz bands*](https://www.acma.gov.au/theACMA/~/link.aspx?_id=01AE1DC5524E416C975D52D6F0CD35EB&_z=z) in November/December 2016, the [*Future approach to the 3.6 GHz band*](https://www.acma.gov.au/theACMA/future-approach-to-the-3_6-ghz-band) in July/August 2017, and the [*Draft spectrum reallocation recommendation for the 3.6 GHz band*](https://www.acma.gov.au/theACMA/spectrum-reallocation-for-the-3-6-ghz-band) in November 2017. [↑](#footnote-ref-2)
2. The ACMA foreshadowed potential changes to the amateur licensing framework in the [*Future use of the 3.6 GHz band*](https://www.acma.gov.au/theACMA/future-approach-to-the-3_6-ghz-band) public consultation in July/August 2017. In October 2017, the ACMA [invited comments on draft reallocation recommendations](https://www.acma.gov.au/theACMA/spectrum-reallocation-for-the-3-6-ghz-band) for the 3.6 GHz band. [↑](#footnote-ref-3)
3. The Australian Qualifications Framework is the national policy for regulated qualifications in Australian education and training and is regulated by the Australian Skills Quality Authority. [↑](#footnote-ref-4)
4. Out of a total of 15,279 amateur licenses, 9,940 are Advanced, 2,138 are Standard and 2,673 are Foundation level. [↑](#footnote-ref-5)
5. These are section 7A (spurious emission limits for an amateur station), and subsection.8(4) and subparagraphs 14(b), 24(b) and 29(c). There are corresponding provisions in the Overseas Class Licence. [↑](#footnote-ref-6)
6. The Australian Radiofrequency Spectrum Plan (ARSP) specifies services as primary or secondary for each frequency band. A secondary service must not cause harmful interference to a primary service using the frequency band and cannot claim protection from harmful interference caused by a primary service using the frequency band (s.12 of the ARSP 2017). [↑](#footnote-ref-7)
7. Please see <https://www.acma.gov.au/Citizen/Spectrum/About-spectrum/EME-hub>. [↑](#footnote-ref-8)
8. Partially, in the case of 70–70.5 MHz. Schedule 1 of the LIPD class licence includes 70–70.24375 MHz. [↑](#footnote-ref-9)
9. 9 Maximum EIRP for 915-928 MHz is 3 mW and for 70-70.24375 MHz is 100 mW. [↑](#footnote-ref-10)