

Proposed amateur class licence and considerations for higher power operation

Consultation paper

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Executive summary

During February and April 2021, we consulted on a review of regulatory arrangements for the operation of non-assigned amateur stations.

The review's principal objective was to identify the best licensing mechanism for non-assigned amateur stations that would reduce regulatory burden and minimise costs for licensees, while preserving the operational utility of the current arrangements. We were also interested in examining opportunities for greater self-management by amateur radio operators (amateurs), including maintenance of a public register of amateur information and most aspects of call sign arrangements.

We consulted on 3 options for non-assigned amateur licensing. These included our preferred option, which was to transition from apparatus licensing to class licensing for all non-assigned amateur stations – that is, licences held by persons holding Foundation, Standard and Advanced Type amateur radio qualifications. Beacon and repeater stations would continue to be authorised under assigned apparatus licences.

In November 2021, we published a [response to submissions](#). In it, we indicated that we would address the issues and concerns expressed in submissions and would proceed with the implementation of a class licence.

In this consultation paper, we present an updated class licence incorporating changes suggested by representative bodies, amateur radio clubs and individual amateurs. Key updates include electromagnetic energy (EME) requirements, reciprocal arrangements for overseas amateurs visiting Australia and proposed access to the 50–52 MHz frequency band for Standard amateurs. We are confident that the changes made to the proposed class licence adequately address the key concerns raised in submissions.

We also present our positions on how matters related to operational policy and processes might function to support the class licence. Subject to some minor refinements and the implementation of administrative arrangements, the ACMA intends to implement the proposed arrangements from 1 July 2023.

We will keep amateurs updated on our progress before the class licence is made and comes into legal effect. We will provide advice on any actions required by amateurs, such as refunds for extant apparatus licences. To keep up-to-date, subscribe to our [Amateur radio update](#). Key information will also be provided on our [amateur radio hub](#).

In this paper, we also present our position on higher power operation by Advanced amateurs, including the use cases that may be authorised and the considerations for these.

1. Issues for comment

The ACMA invites comments on the questions featured throughout this paper. For ease of reference, the questions are listed below.

Please also note the guidance below on providing your feedback.

Consultation questions

1. Do you see any reason for not extending secondary user access to the 50–52 MHz band for Standard amateurs? If yes, what is your reason? (See section 3.)
-No reason.
2. What are your views on the proposed policy on call sign transfer? (See section 4.)
-All OK.
3. Will the proposed ‘regular check’ – to confirm whether a person is still using their call sign – be a sufficient method of ensuring there are enough call signs (in combination with other factors, for example, the high number of available call signs, deceased amateurs, most amateurs only wishing to hold one call sign)? (See section 4.)
-This should be sufficient
4. What are the benefits or disadvantages of our proposal not to limit the number of call signs that may be assigned to a person? (See section 4.)
-There should be a limit on callsigns. No more than 5.
5. Do you have any concerns with the other proposed call sign management arrangements? If so, what are they? (See section 4.)
-No
6. In the absence of amateur and station information being contained in the Register of Radiocommunications Licences, are there any amateur-operated registers or other existing voluntary registers that you would use? (See section 5.)
-QRZ.com voluntary register
7. Do you anticipate any difficulties operating your station in Conference of Postal and Telecommunications Administrations signatory countries? (See section 5.)
-No
8. What are your views on the proposal to allow Advanced amateurs to apply for assigned scientific licences for certain experimentation uses, such as reflecting signals from a celestial body as well as inter-continental ionospheric and trans-equatorial propagation experiments? (See section 6.)
-Higher power should be allowed, doesn't need to be classified as experimental. But stations need to be aware of potential interference and hazards.
9. Noting the proposal mentioned in 8, are there other amateur experimentation uses that require higher power that you think should also be considered under assigned scientific licensing arrangements? (See section 6.)
-No, it doesn't need to be experimentation. All AR is experimentation. They should just have to apply for a specific permit.
10. What are your views on the medium-term proposal to allow Advanced amateurs to apply for authorisation for other higher power use-cases under certain conditions? Please provide brief information to help us understand your view. (See section 6.)
-Yes go for it.
11. Is a 1kW power limit appropriate? Why or why not? If not, what alternative do you propose and why? (See section 6.)
-I think a 1kW limit is appropriate.

12. Are there particular bands that you consider should or should not be able to be accessed for Advanced amateur higher power operations? Which band(s) and why? (See section 6.)
 -Microwave bands above 23cm band. I think having 1 kW of TX power at 5 GHz for example could be dangerous, especially combined with high gain dish antennas it could be multiplied by hundreds of kW.
13. What use-cases would require stations to operate at power limits for Advanced amateurs higher than the 400W currently permitted? (See section 6.)
 -I don't personally see any use, except to try and overcome interference to reception from current devices in peoples homes and power line noise. If interference was brought under control, there would be no need for high power use.
14. For each use-case mentioned in 13, please briefly answer:
- Why is a higher power limit needed?
 To overcome potential interference to reception
 - What are the specific limitations of the current power limit?
 Two way comms may be hindered due to interference problems. If higher power is used it may overcome this limitation
 - What power level is required?
 1000 Watts max.
 - What is the technical description of this power level requirements (for example, transmitter output power, emission mode)?
 1000 watts on SSB mode, including digital modes. Measured at the transmitter or amplifier output
 - What amateur service frequency bands would be used?
 All up to and including 23cm band, but not above.
 - How often will a higher power level be required?
 Only when propagation or interference conditions require higher power use, it could be random.
 - What is the location of the station?
 Im referring to all advanced stations
15. Should potential higher power authorisations be limited by location, position, event or something else? (See section 6.) Please provide details to support your answer.
 They should be limited by antenna location. For example, the antenna would need to be far enough away from other people to be safe. Eg, an inner city apartment block is not suitable.

Guidance on providing feedback

Submissions from clubs and representative bodies

When we receive a submission from a club or representative body, we consider that the submission represents the views of its members.

We do not require submissions from individual club or representative body members expressing support for their clubs or representative body submission.

If a member of a club or representative body holds a view that significantly departs from that of their club or representative body, they should make a separate submission.

Pro-forma submissions

Amateurs wanting to use a pro-forma should add their signature to a *single* pro-forma or a *single* petition.

Processing large quantities of identical or near-identical pro forma submissions will delay progress; your cooperation is appreciated.

Written submissions

Please see *Section 8: Invitation to comment*.

2. Introduction and background

Amateur radio in Australia

Amateur radio is a longstanding use of the radiofrequency spectrum, with a range of bands available for qualified amateurs. It is designed primarily to facilitate hobby radiocommunications and technical experimentation.

The ACMA's spectrum management functions are performed in accordance with the [Radiocommunications Act 1992](#) (the Act). This includes ensuring that our regulatory arrangements are consistent with Australia's obligations under the International Telecommunication Union (ITU) Radio Regulations (RR).¹ We support amateur radio through planning arrangements that balance the demand for amateur radio use of certain frequency bands with other demands for spectrum.

Most Australian amateur stations are licensed by non-assigned apparatus licences. As of August 2022, there were just over 15,000 non-assigned amateur apparatus licences, authorising stations used by people holding Advanced, Standard and Foundation Type qualifications. There are also approximately 550 amateur beacon and repeater stations that are authorised by assigned apparatus licences. The main difference between an assigned and non-assigned licence is that assigned licences typically undergo technical coordination and have their own assigned frequency, whereas non-assigned licences share a range of permitted frequencies. For amateurs, those frequencies and other rules are contained in the [Radiocommunications Licence Conditions \(Amateur Licence\) Determination 2015](#) (the Amateur LCD).

Amateur non-assigned apparatus licences are the second largest apparatus licence type in Australia after land mobile licences. Amateurs are active in many countries and visiting amateurs with recognised overseas qualifications or licences are authorised to operate in Australia.²

Amateur reform project

During February to April 2021, we consulted on our [review of non-assigned amateur licensing arrangements](#).

The review's principal objective was to identify the most appropriate licensing mechanism that would reduce regulatory burden and minimise costs for amateurs, while preserving the operational utility for amateurs.

In the 2021 consultation, we sought views on 3 licensing options – the current apparatus licensing arrangements and 2 options that would simplify licence conditions as well as deliver regulatory efficiencies and cost reductions to varying degrees:

- > Option A: keep existing apparatus licensing arrangements and conditions
- > Option B: simplify existing licensing arrangements and licence conditions

¹ Article 19 of the ITU RR sets out regulations for identifying stations used in certain radiocommunications services, including amateur radio. Article 25 of the ITU RR sets out regulations for the amateur radio service. Article 25 grants administrations a degree of flexibility in regulating the amateur service.

² The [Radiocommunications \(Overseas Amateurs Visiting Australia\) Class Licence 2015](#) (the Overseas Class Licence) currently authorises overseas visiting amateurs with appropriate qualifications to operate amateur stations in Australia for fewer than 90 days, provided they comply with the conditions set out in the Overseas Class Licence.

- > Option C: transition non-assigned amateur stations to class-licensing arrangements, while retaining apparatus-licence arrangements for assigned amateur beacon and repeater stations.

We also sought views on a proposed class licence as part of Option C – the draft Radiocommunications (Amateur Radio Stations) Class Licence 2021 (referred to as the draft class licence in this paper), which we put forward as a preferred option for reforming the non-assigned amateur radio licensing arrangements.

We received over 800 submissions in response to the consultation paper, including submissions from amateur radio clubs, representative bodies and individual amateurs. Most submitters expressed conditional preparedness to support a future class licence, if the proposed class licence was amended to address the key issues raised during consultation.

In November 2021, we published a response to submissions paper, summarising the key issues, concerns and recommendations made by submitters and providing our response. In the paper, we:

- > clarified how the proposed class licensing arrangements would:
 - > preserve the operational utility of the amateur service
 - > not affect the interference protection arrangements for non-assigned amateur stations
 - > facilitate self-management of interference issues between amateurs.
- > noted additional issues that we were considering for implementation, including:
 - > exploring options for a public register
 - > determining the most appropriate electromagnetic energy (EME) requirements for amateurs
 - > work undertaken in collaboration with Conference of Postal and Telecommunications Administrations (CEPT) to arrange continued access to international reciprocity arrangements between Australia and CEPT countries, if the proposed amateur class licence is implemented.
- > clarified matters raised in submissions that were not directly related to the ACMA's role as the spectrum manager and should be managed outside of legislative instruments. These include call sign administration and operational practices.

We have continued to engage with amateurs and modified the proposed arrangements to address key concerns.

Amateur class licence

We intend that the operation of non-assigned amateur stations by holders of Foundation, Standard or Advanced Type qualifications (as well as people holding overseas equivalent qualifications or licences when visiting Australia) will be authorised through the Radiocommunications (Amateur Stations) Class Licence 2022 (referred to the proposed class licence in this paper). The proposed class licence is available on the landing page of this consultation.

From the commencement of the proposed class licence, anyone operating an amateur non-assigned station in accordance with the conditions of the proposed class licence will be authorised to operate under the class licence. This includes those who hold an amateur non-assigned apparatus licence.

Amateur non-assigned apparatus licensees may continue to operate under their apparatus licences until the licences expire. However, amateurs will also have the option to surrender their licences and receive a refund of the transmitter licence tax, if the notional refund amount exceeds the minimum refund amount.

When a licence is surrendered, under the Radiocommunications Taxes Collection Regulations 1985 (RTC Regulations)³, a refund is calculated in proportion to the amount of time before the licence is due for renewal. The minimum refund amount is \$30; if the calculation is under \$30, no refund is payable.

We will provide further advice on any actions required by amateurs and information about eligibility for refunds. To keep up-to-date, subscribe to our [Amateur radio update](#).

The benefits to amateurs of the proposed class licence include:

- > preserving the operational utility of the existing apparatus licensing arrangements
- > removing administrative and financial costs associated with licence application and renewal fees
- > reducing confusion and uncertainty for amateurs by simplifying and streamlining conditions
- > facilitating opportunities for greater self-management of some non-regulatory matters relating to amateur radio operation by amateurs; in particular, procedures for established operational practices that reflect the needs of amateurs but are not directly related to spectrum management.

What this paper does

This paper outlines the changes made to the draft class licence in response to suggestions made by submitters on the initial consultation, including implementation issues for the proposed arrangements – see *Section 3: Class licensing arrangements and other regulatory matters*. These changes are reflected in the proposed class licence.

How call signs would be regulated and managed under the new arrangements is explained in *Section 4: Call signs*. The paper also clarifies matters raised in submissions that are not directly related to our role as the spectrum manager and should be managed outside of legislative instruments – see *Section 5: Proposed operational arrangements to support the class licence*.

Separately, in *Section 6: Higher power operation*, the paper presents our proposed arrangement for authorising the use of higher power for certain Advanced amateur experimentation. It outlines our staged approach for considering additional higher power operations and proposal for higher power arrangements and uses that might be considered for authorisation in the medium term. We also seek information on desired use-cases associated with higher power operation, to inform our consideration.

Of note, this paper does not cover frequency assignment arrangements for beacon and repeater stations. Consistent with our commitment in the [Five-year spectrum outlook 2022–27](#), we will be consulting on that topic in Q1 2023. No changes are proposed to the basic assigned licensing arrangements for beacons and repeaters.

³ The Department of Infrastructure, Transport, Regional Development, Communications and the Arts is [consulting on remaking the RTC Regulations](#), which are due to sunset on 1 April 2023.

3. Class licensing arrangements and other regulatory matters

In this section, we identify the main updates that have been made to the draft class licence on which we first sought views and discusses some other regulatory matters. Key changes are listed at Appendix A.

EME regulatory arrangements

The [Radiocommunications Licence Conditions \(Apparatus Licence\) Determination 2015](#) (Apparatus LCD) sets out the EME⁴ requirements for all apparatus licensed devices, including amateur stations. Under the Apparatus LCD, devices are required to meet the reference levels for general public exposure at places accessible by the public, as set out in the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) Standard.⁵

Part 3 of the Apparatus LCD imposes different compliance methodology and record-keeping requirements depending if the station is classified as a Level 1 (low risk) or Level 2 (high risk) station. A Level 1 station has an average power of less than 100W, is inaccessible by the general public, has an antenna with the lowest point at least 10m above ground level and the average radiated power of all antennas fed by the transmitter is less than 3200W in any direction or is a point-to-point link above 1 GHz. A mobile station with an average power less than 100W is also a Level 1 station. A Level 2 station is any station that is not a Level 1 station.

The compliance methodology for Level 1 stations only requires amateurs to undertake a full EME assessment if requested to do so by the ACMA, as these transmitters pose a low EME risk. Amateurs operating Level 2 stations are required to take measurements and keep records demonstrating compliance with the EME limits in accordance with the ARPANSA Standard.

When we consulted on the draft class licence, we proposed that EME requirements for amateurs be consistent with other class licences, through a condition requiring compliance with the ARPANSA Standard.

What stakeholders told us

Many submitters disagreed with our proposed EME condition. Their key concern was that it would increase the compliance burden for amateurs by mandating costs to demonstrate compliance with the ARPANSA Standard and AS/NZS 2772.2 (which is referenced by the ARPANSA Standard).

Under the Apparatus LCD, most amateur stations would be classified as Level 1 stations. In practical terms, our proposed EME condition would require all amateur stations to comply with the Level 2 stations compliance methodology.

Submitters requested that, given the low risks associated with amateur stations, the current compliance methodology approach for Level 1 and Level 2 stations set out in the Apparatus LCD, should be incorporated in the proposed amateur class licence. Having considered those submissions, we now agree that this approach would be

⁴ Also referred to as electromagnetic radiation (EMR).

⁵ The ARPANSA Standard means the *Radiation Protection Standard for Limiting Exposure to Radiofrequency Fields – 100 kHz to 300 GHz (2021)*, or any standard published as a replacement of that standard, by the ARPANSA.

more appropriate for managing EME requirements and regulating compliance with the ARPANSA Standard for amateur stations.

Proposed new arrangements

Copies of industry standards can be viewed on request at an ACMA office. However, we recognise that this is not a practical solution for most amateurs, nor is paying \$250 for a copy of the AS/NZS 2772.2 and any further costs to obtain access to suitable modelling packages or measurement capabilities.

Under the proposed class licence, the key elements of the current EME framework under Part 3 of the Apparatus LCD would largely be replicated. In practical terms, there will be no change to how EME is regulated under the proposed class licence – that is, all stations must comply with the general public exposure reference levels in the ARPANSA Standard but the compliance methodology and record-keeping requirements will differ according to whether the station is low risk or high risk.

It is expected that most amateur stations would continue to be subject to the equivalent Level 1 requirements of Part 3 of the Apparatus LCD as they are a low risk for EME purposes. Amateur stations that did not fall within the criteria for applying the Level 1 requirements would be required to comply with Level 2 requirements as they are considered high risk stations.

This approach to EME regulation will also apply to overseas amateurs visiting Australia, who would also be covered by the proposed class licence. This approach will also have the advantage of being consistent with the EME framework that will apply to amateur repeater and beacon licences and will continue to be authorised under apparatus licensing arrangements.

Reciprocal arrangements for overseas amateurs operating in Australia

There are currently 2 sets of arrangements applying to appropriately qualified overseas amateurs visiting Australia, depending on how we recognise their qualifications or licences.

Qualifications and licences recognised as equivalent

The ACMA has existing reciprocal arrangements or otherwise recognises various overseas qualifications and licences as being equivalent with Australian amateur qualifications for the purposes of the Act. These are listed in [tables of equivalent qualifications and licences](#) on the ACMA's website. It is currently the ACMA's policy that amateurs residing in Australia, who hold recognised overseas qualifications or licences listed in tables A and B, may apply for an amateur apparatus licence. These licences are limited to a maximum duration of 12 months and will not be renewed.

Recognised for operation for up to 90 days under the Overseas Class Licence

The Overseas Class Licence currently authorises an overseas visiting amateur with an appropriate qualification or licence to operate an amateur station in Australia for up to 90 days after arriving in Australia, provided they comply with the conditions set out in the Overseas Class Licence. It affords them different levels of operating privileges (for example, specific frequency bands and power levels), according to the type of qualification or licence held by the visiting amateur and whether it is included within the ACMA's [tables C\(i\) to C\(v\) of equivalent qualifications and licences](#) on our website.

Visiting amateurs operating under the Overseas Class Licence are not required to apply to us before operating an amateur station under the Overseas Class Licence and are not required to pay any taxes or charges to the ACMA.

If overseas visiting amateurs wish to operate a station under the Overseas Class Licence for more than 90 days, they must obtain a relevant apparatus licence and a call sign recommendation from the Australian Maritime College (AMC).⁶

Our current policy is that licences based on any qualifications recognised in tables A, B or C are issued for 12 months and will not be renewed. Overseas amateurs seeking to continue to operate an amateur station beyond the 12-month term of the initial licence must obtain an Amateur Operator's Certificate of Proficiency (AOCP), and a call sign recommendation from the AMC.

However, if an amateur licence was issued to someone on the basis that they held a recognised overseas qualification or licence (listed in tables A, B or C) before 19 September 2020, they do not need to obtain an AOCP.⁷

What stakeholders told us

Submitters to the review consultation mainly expressed views about international arrangements as they applied to Australian amateurs travelling overseas.

In addition, amateur licensees have previously sought clarity from us on the different arrangements for recognising overseas qualifications and licences listed in tables A and B, compared to those for operation under the Overseas Class Licence listed in Table C.

Proposed arrangements

We are proposing to extend the period of time that overseas visiting amateurs holding recognised qualifications (currently operating under the Overseas Class Licence) are authorised to operate a station – from up to 90 days to up to 365 days – as reflected in the proposed class licence. This will align the period of time that all overseas amateurs holding recognised qualifications or licences are authorised to operate amateur stations in Australia under those qualifications or licences.

As per current arrangements, overseas visiting amateurs must comply with class licence conditions.

The proposed change will simplify the arrangements, provide more clarity and certainty for overseas visiting amateurs, and is consistent with the review objectives.

In implementing the proposed arrangements, we will consolidate the list of recognised qualifications and licences (that is, those currently listed in tables A, B and C) and publish it on our website.

Overseas visiting amateurs holding recognised qualifications and licences currently specified in Table C would be able to operate amateur stations in accordance with the corresponding Australian qualification and use the call sign issued by the overseas jurisdiction. Overseas qualified amateurs staying in Australia for longer than 365 continuous days would cease to be authorised by the proposed class licence until they have obtained an Australian qualification and call sign.

⁶ A Deed for the Supply of Goods and Services related to Amateur Radio Qualifications is in place between the Commonwealth of Australia, represented by the ACMA, and the University of Tasmania, represented by the AMC. Under the Deed, the AMC provides statutory services (for example, conducting examinations, issuing certificates of proficiency) and non-statutory services (for example, recommendations to the ACMA for call signs to be included on amateur apparatus licences).

⁷ Our current reciprocal licensing policy was implemented on 19 September 2020. Amateur licences issued prior to this date were not subject to limits on licence term or renewal. We honoured these amateur apparatus licences by grandfathering the arrangement under our policy.

Application of radiocommunications standards to amateur equipment

The equipment rules applying to radiocommunications equipment are made under section 156 of the Act. Section 158 of the Act provides that the equipment rules may prescribe standards for equipment. The ACMA has made the [Radiocommunications Equipment \(General\) Rules 2021](#) (the Equipment Rules), which include standards for equipment.

The standards prescribed in the Equipment Rules fall into 3 broad categories:

- > general standards – standards made under the Act, which are intended to apply to specific types of equipment (for example, UHF CB radios, or Satellite Distress Beacons)
- > the electromagnetic compatibility (EMC) standard – that is, the [Radiocommunications \(Electromagnetic Compatibility\) Standard 2017](#)
- > the EME standard – that is, the requirements set out in Schedule 4 to the Equipment Rules.

What stakeholders told us

Submissions to the consultation requested that, if a technical standard applied to an amateur station before it was modified by an amateur licensee, the modified station should not be considered non-compliant with the applicable standard for the purpose of the Equipment Rules. Submitters argued that, unlike other services, amateur radio relies on the qualifications, knowledge and technical competency of individual amateur operators to make the service work, and that this is recognised by the ITU.

Submitters requested that the proposed class licence presented an opportunity to clarify that a modified amateur station should not be subject to any applicable standard.

Proposed arrangements

The Equipment Rules prohibit the possession, supply, and operation of equipment that does not comply with an applicable standard, unless the person has a permit from the ACMA or is otherwise exempt. These prohibitions are not intended to prevent amateur radio operators from modifying equipment originally supplied for another service. However, if there is an applicable standard for a device (including for an amateur station), that applies to the device before or after it was modified, the prohibitions in the Equipment Rules require that the device must be compliant with that standard.

There are no general standards specific to devices used for amateur services only.

The EMC standard applies to a device that is manufactured in, or imported into, Australia for supply unless the device is mentioned in Schedule 2 to the [Radiocommunications \(Electromagnetic Compatibility\) Labelling Notice 2017](#) (the Labelling Notice). Devices used to provide amateur services are unlikely to be exempt from the Labelling Notice (see Schedule 2 to the Labelling Notice). Accordingly, such devices need to comply with a standard in the list of ACMA-mandated EMC standards (Mandated EMC standards). For amateur stations that are manufactured in, or imported into, Australia for supply, Part 1 of the list of Mandated EMC standards applies.

The EME standard in Schedule 4 to the Equipment Rules applies to a device that, among other requirements, is a mobile station and has an integral antenna – an antenna that is either permanently attached to the device, or designed to be directly attached to a fixed connection on the device, without the use of an external cable.

For amateur licensees, EME regulation is principally managed by compliance with the EME provisions in the Apparatus LCD and, under the proposed class licence, by compliance with the relevant provisions that largely replicate those in the Apparatus LCD, as noted earlier. However, the Equipment Rules apply to all devices, unless a permit is granted (see Part 7) or an exemption applies (see Part 8).

Schedule 1 Table C Items 1 and 2

Table C of the proposed class licence lists the permitted frequencies, emission modes and power limits for operation by people with a recognised qualification (Advanced Type).

What stakeholders told us

Submitters proposed rewording Items 1 and 2. They argued that:

- > Transmitter output power limit in the 135.7–137.8 kHz band and the TX input power limit in the 472–479 kHz bands are unnecessary because the Effective Isotropic Radiated Power (EIRP) limit is very difficult or impossible to reach due to very high-power losses associated with antennas for that band, especially those available to amateurs. Submitters recommended removing the power limits and leaving only the EIRP specification in these items.
- > The limitation of 2.1 kHz should be changed to 3 kHz to allow conventional single side-band telephony usage, or even 7 kHz to be consistent with the 135.7–137.8 kHz band (which is only 2.1 kHz wide). Submitters argued that the bandwidth to 3 kHz has no adverse impact on primary users of the band (if any) or incumbent amateur stations.

Proposed arrangements

We consider that the suggested changes are reasonable, and we have made those changes in the proposed class licence.

Access to the 50–52 MHz band

Table B in Schedule 2 of the proposed class licence lists the permitted frequencies, emission modes and power limits for operation by persons with a recognised qualification (Standard Type).

What stakeholders told us

Submitters sought access to the 50–52 MHz frequency for Standard amateurs. The frequency is currently available for the operation of stations by Advanced amateurs.

A submitter noted that the previous restriction on access to this band was due to analog television with VHF Channel 0 audio on 51.75 MHz and this restriction is now redundant due to the switch to digital television.

Another submitter sought clarification as to why this band is singled out for additional protection as there are a number of bands where amateurs have secondary access.

Proposed arrangements

The frequency band 50–52 MHz is a part of the VHF Band I Channel 0 (45–52 MHz) of the broadcasting services bands (BSB). The BSB parts of the spectrum are designated under section 31 of the Act. This section provides the Minister for Communications with the power to designate parts of the spectrum as BSB and refer that spectrum to the ACMA for planning of the broadcasting services under provisions of Part 3 of the *Broadcasting Services Act 1992*.

The VHF Band I Channel 0 (45–52 MHz) was previously used for analog television services and additional restrictions to other uses of this band were put in place to manage potential interference risks to those services.

In 2013, the last analog television transmitters licensed to operate in Australia were switched off. As a part of this process, the spectrum formerly used by analog television services operating on VHF channels 0-5A has been vacated, as digital television services only use channels 6 and above. The vacated VHF spectrum includes the VHF Band I Channel 0 (45–52 MHz).

There is no use of the 50–52 MHz band by any broadcasting service at this time. It is also unlikely that this band would be used in the future for International Mobile Telecommunications.

With analog television services gone and this band being unlikely to be needed in the near future for other services, we are proposing to authorise the 50–52 MHz band for Standard amateurs as secondary users in Schedule 2 Table B and remove the Section 17 additional restriction on amateur access to 50–52 MHz in the proposed class licence.

While the 50–52 MHz band is not currently used by broadcasters, it remains a primary broadcasting allocation in the [Australian Radiofrequency Spectrum Plan](#). This part of the BSB may be subject to review in the future, potentially affecting secondary users of the 50–52 MHz band.

Subject to feedback on this proposal, we would make associated changes to the Amateur LCD and Overseas Class Licence to give early access for Standard amateurs to the 50–52 MHz band and remove associated restrictions (ahead of access being provided under the class licence).

Consultation question 1:

Advanced amateurs already have secondary user access to the 50–52 MHz band.

Do you see any reason for not extending secondary user access to 50–52 MHz for Standard amateurs? If yes, what is your reason?

4. Call sign administration

We understand that call signs are regarded by the amateur community as an important element of amateur radio.

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

However, many aspects of call signs do not need to be specified in legislative instruments because they are not intrinsic to our spectrum management role. Instead, they are operational policies or established conventions and practices that are otherwise considered valuable by amateurs.

The different aspects of call-sign management are:

- > requirement to use a call sign
- > structure of call signs
- > assignment policy (for example, eligibility for specific call sign ranges, reservation of call signs)
- > tenure of call sign assignment.

This section examines call sign assignment policy and established practice and proposes ways that these might be managed and facilitated when the class licence is in place.

Regulatory aspects

There are currently limited regulations for amateur call signs.

The Amateur LCD:

- A) requires amateurs to transmit the call sign of stations with which they are communicating, and the call sign that is associated with the station they are using
- B) specifies dates on which the AX prefix may be used by all amateurs, without needing to apply for a separate call sign.

The ACMA assigns call signs by specifying a particular call sign on an individual apparatus licence. Under the current apparatus-licensing arrangements, the Register of Radiocommunications Licences (RRL) operates as a de facto statutory register of assigned call signs.

Operational aspects of call sign management are the subject of a Deed between the ACMA and the University of Tasmania (via the AMC). Under this arrangement:

- > amateurs apply to the AMC for an available call sign
- > the AMC submits a recommendation to the ACMA, that the ACMA specifies the call sign on an apparatus licence
- > the AMC is required to maintain a database of available call signs and a list of 'reserved call signs' (that is, call signs that are not available for allocation)
- > in making a recommendation for a call sign, the AMC must use the call sign template in the Deed

- > the call sign template sets out certain matters relating to call sign syntax, including state or territory of residence and certain call sign ranges intended for use by specific groups (for example, Boy Scouts and Girl Guides)
- > the AMC must meet certain service-level standards in the performance of its functions.

In practice, the call sign template, in concert with other aspects of the Deed, constitutes the assignment policy for call signs in Australia. The structure of amateur call signs, as reflected in the template in the Deed, is consistent with Article 19 and Appendix 42 of the ITU RR, which set out the requirements for amateur station identification and high-level rules for the call sign formation.

Operational aspects of call signs

Many aspects of the allocation and use of amateur call signs are not directly related to spectrum management, but most amateurs consider them practical or valuable parts of amateur radio operation. These aspects are currently included in the call sign template and related matters in the Deed between the ACMA and AMC. The AMC manages call-sign applications in accordance with its [Australian Amateur Callsign Policy and Procedures](#).

We have been largely guided by the views of amateurs on how these aspects are best managed. We also considered what is practical and efficient for us and the AMC.

For example, certain call signs were previously only available to Advanced, Standard and Foundation amateurs, and obtaining a new qualification required obtaining a new call sign. In 2020, we facilitated a proposal that gave amateurs the option of not obtaining a new call sign when they obtained a new qualification, but instead having a 'call sign for life'.

We also understand that some amateurs consider it an important part of the amateur service that call sign prefixes reflect an amateur's place of residence. There is no express requirement for call signs to be structured to meet this expectation. However, we still facilitate these outcomes through the Deed, and also give amateurs who do not wish to obtain new call signs when moving interstate or obtaining a higher qualification the option of keeping their existing call sign.

In 2019, the ACMA made changes to amateur licence conditions⁸ and facilitated associated changes to the Foundation Syllabus that remove restrictions on Foundation amateurs using digital modes. As a result of these changes, seven-character call signs for Foundation amateurs (VK\$Fxxx) were no longer issued, because they were incompatible with some digital modes.

When we consulted on the draft class licence, we proposed that:

- > the assignment and management of call signs for qualified amateurs could continue to be managed by a third-party provider under a contractual arrangement. The ACMA would no longer be responsible for assigning call signs
- > a third-party provider could manage the database of publicly-available call signs and continue to recommend call signs for repeater and beacon station operators, with the ACMA issuing apparatus licences specifying a call sign.
- > the only conditions in the proposed class licence relating to call signs would be for a person operating an amateur station to transmit a call sign at the beginning, during, and the end of each transmission.

⁸ These changes were enabled through the making of the Radiocommunications Licence Conditions (Amateur Licence) Omnibus Amendment Instrument 2019 (No.1).

What stakeholders told us

Many submitters expressed views and concerns about many aspects of call sign operation. Some submissions expressed the view that we should directly regulate call sign assignment and use via requirements in the class licence.

Other submissions raised practical concerns that the pool of available call signs could be exhausted (in the absence of a mechanism for individual licences to lapse and return call signs into circulation), and other issues relating to call signs for club stations and overall transparency.

Proposed arrangements

In our response to submissions, we indicated that imposing prescriptive conditions on call signs would be inconsistent with our objective to streamline and simplify amateur radio regulation. Our view remains that most matters relating to call signs do not need to be specified in legislative instruments and enforced through direct regulation. Instead, these matters could be managed outside of regulation by an appropriate call sign entity (which may be a third party). As per current practice, the call sign entity would charge a fee for services it provides, including for assigning call signs.

The key features of our proposal for call sign management are:

- > the proposed class licence will include certain conditions relating to the use of call signs⁹ and allow a call sign entity to allocate call signs to qualified amateurs under an arrangement with the ACMA
- > the ACMA will publish a call sign assignment policy that includes information on call sign templates, 'reserved' call signs and other matters relating to the syntax and allocation of call signs
- > the call sign entity would use the call sign assignment policy when assigning call signs to qualified amateurs under an arrangement with the ACMA
- > other matters relating to call signs would be more appropriately managed by the amateur community, potentially through the proposed amateur operating procedures document (see discussion below).

Call signs would also need to comply with the ITU RR and any relevant ITU recommendations.

To provide clarity and assist amateurs in understanding our proposal, we have provided 3 tables below that set out more information about each call sign activity/issue, as well as who is responsible for it and how that activity occurs.

Both current arrangements and proposed arrangements are outlined, to enable direct comparison. These various call sign activities/issues are grouped into themes: assignment of call signs, register of assigned and available call signs, and use/transmission of call signs.

Table 1: Assignment of call signs

Activity/ Issue	Current arrangement	Proposed new arrangements	Included in the proposed class licence?
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⁹ The proposed class licence includes conditions for overseas visiting amateurs to use the VK prefix at the beginning of call signs issued by overseas jurisdictions; and for substituting the VK prefix with AX on certain dates each year.

Activity/ Issue	Current arrangement	Proposed new arrangements	Included in the proposed class licence?
Call sign assignment	The AMC recommends to the ACMA to assign a particular call sign. In making a recommendation, the AMC must have regard to the call sign template in the Deed.	A call sign entity (or third party under an arrangement with the ACMA) receives applications for call signs from amateurs and assigns those call signs to applicants directly, using ACMA's published call sign assignment policy.	Yes
Two-letter (for example, VK\$xx) call signs	Currently available only for Advanced amateurs.	No change.	No. The Call Sign Entity would assign 2-letter call signs in accordance with the ACMA's published call sign assignment policy.
2x1 contest call signs	<p>2x1 call signs are specified in licences by the ACMA in accordance with the 2x1 Contest Callsign Policy and Application Process published on the AMC website.</p> <p>The call signs are specified on licences that are issued only for 12 months, and the AMC maintains a register of people to whom the call signs have been issued.</p>	No change. The small number of contest signs makes maintenance of a register practical and not burdensome.	No. The Call Sign Entity would assign 2x1 contest call signs in accordance with the ACMA's published call sign assignment policy.

Activity/ Issue	Current arrangement	Proposed new arrangements	Included in the proposed class licence?
Period for which call sign is assigned to a person	A call sign is specified in an apparatus licence, and is, in practical terms, 'assigned' to an individual amateur for as long as that individual's apparatus licence is issued and renewed.	<p>Include a requirement for the call sign entity to issue a 'regular check' for the use of call signs assigned to amateurs.</p> <p>An adequate supply of call signs is also maintained by a combination of:</p> <ul style="list-style-type: none"> > the overall high number of available call signs in existence¹⁰ > next-of-kin of deceased amateurs advising of call signs that can be returned to the pool of available call signs or assigned to another person > the majority of amateurs wishing to have only one call sign. 	<p>No</p> <p>Our proposal will be included in the arrangement with the call sign entity.</p>
Numerical identifiers to indicate state/territory of residence	<p>The call sign template in the Deed enables call signs to have numerical identifiers that align with the state/territory of residence of the applicant/amateur.</p> <p>Applicants could request a call sign that does not align with their state/territory of residence, but would need to justify why such a call sign should be assigned.</p> <p>There is no regulatory requirement for amateurs changing their state/territory of residence on a permanent basis to obtain a new call sign with a new numerical identifier.</p>	No change.	<p>No.</p> <p>This will be included in the assignment policy published on the ACMA website.</p>

¹⁰ As at August 2022, none of the 3-letter call signs pools associated with VK1-8 had fewer than 14,300 available call signs.

Activity/ Issue	Current arrangement	Proposed new arrangements	Included in the proposed class licence?
Call signs linked to qualification type	<p>Before August 2020, certain call-sign blocks were only available for Foundation, Standard and Advanced licences.</p> <p>Implementation of 'call sign for life' arrangements mean that most VK\$xxx call signs are available to any amateur.</p>	No change.	<p>No.</p> <p>This will be included in the assignment policy published on the ACMA website.</p>
Number of call signs that can be assigned to a single person	There is no limit on the number of amateur apparatus licences, and thus the number of call signs, that an amateur may have.	<p>Under consideration.</p> <p>We invite submissions from amateurs on the number of call signs that can be assigned to a single amateur (who is not a club) at any one time.</p>	<p>No.</p> <p>This will be included in the assignment policy published on the ACMA website.</p>
VI prefix	Under the Deed, the VI prefix can be specified for occasions of special state/territory or local significance, and only to clubs, organisations or amateur groups.	No change.	<p>No.</p> <p>This should be managed by the amateur community, potentially in the operating procedures.</p>
Transfer or trade of call signs	As it is the apparatus licence that is transferred or traded , the transfer of the call sign is incidental to that transfer.	Contractual arrangements between the ACMA and the call sign entity will allow for the transfer of call signs, with the agreement of the parties involved.	<p>No.</p> <p>This will be included in the arrangement with the call sign entity, with the agreement of the parties involved.</p>
Call signs for beacons and repeaters	Beacon and repeater call signs are specified in licences, based on recommendations from the AMC. Under the Deed, VK@Raa call signs are recommended only for beacons and repeater assigned amateur licences.	<p>No change.</p> <p>Beacon and repeater call signs will be specified in licences, based on recommendations made under an arrangement with a Call Sign Entity, consistent with the published call sign assignment policy.</p>	<p>No.</p> <p>The Call Sign Entity would recommend call signs for amateur beacon and repeater stations in accordance with the ACMA's published call sign assignment policy.</p>

Table 2: Register of assigned and available call signs

Activity/ Issue	Current arrangement	Proposed new arrangements	Included in the proposed class licence?
Publicly available database of available call signs	The AMC maintains a publicly available database on its website for amateurs/prospective amateurs.	No change.	No. This requirement will be included in the arrangements with the call sign entity.
Public register of call signs being used	The ACMA publishes call signs specified on amateur licences on the RRL.	Operators of amateur stations authorised under the proposed class licence would not be included on the RRL, and the ACMA would not maintain any other public register of call signs assigned to class licensed amateurs, nor would it impose an obligation on a third party to maintain such a public register. However, a call sign entity would have to maintain a record of call signs allocated and a 'reserve list', under an arrangement with the ACMA.	No. It would be open to the amateurs to develop and maintain one or more opt-in registers. We are aware that there are a number of online resources that are already used by the amateurs.
Reserved list of call signs of deceased amateurs	<p>The AMC maintains a list of the call signs of deceased amateurs for 2 years after the expiry of the deceased amateur's licence.</p> <p>The partner, next of kin, personal representative or executor/administrator of the estate advises either the AMC or the ACMA of the death of the amateur and may also request that the call sign be transferred to a particular person or be placed back on the public list.</p> <p>The ACMA has considered extensions or exceptions to this policy, taking into account past representations and specific circumstances.</p>	No change.	No.

Activity/ Issue	Current arrangement	Proposed new arrangements	Included in the proposed class licence?
Restricted list of call signs likely to cause offence to any person or group or that are inappropriate for any reason	<p>The AMC maintains a list of call signs that might be offensive or not appropriate for use.</p> <p>The list is updated as needed.</p> <p>We do not recall currently assigned call signs, even if a view is reached that they should be on the restricted list.</p>	No change.	No.

Table 3: Use/transmission of call signs

Activity/ Issue	Current arrangement	Proposed new arrangements	Included in proposed class licence?
Transmission of a call sign at the beginning and end of transmissions and at regular intervals	Various requirements in the Apparatus LCD about the use/transmission of call signs when operating an amateur station.	<p>No change.</p> <p>The key call sign condition in the proposed class licence requires the transmission of a call sign at beginning and end of transmissions, and at least once every 10 minutes during transmissions longer than 10 minutes.</p>	<p>Yes.</p> <p>The proposed class licence only retains only a few essential conditions relating to use/transmission of call signs.</p> <p>Other matters relating to call sign use and transmission may be the subject of operating procedures developed by the amateur community.</p>
Use of prefix VK by overseas amateurs visiting Australia	Under the Overseas Class Licence, amateurs with relevant qualifications or licences staying in Australia for less than 90 days who operate amateur stations must use their overseas call sign, preceded by the letters VK.	<p>No change.</p> <p>This condition is included in the proposed class licence. The period of time overseas visiting amateurs may operate their stations (and use overseas issued call signs with VK prefix) is proposed to be extended to up to 365 days.</p> <p>If overseas visiting amateurs wish to continue operating their stations in Australia for longer than 365 days, they will need to obtain an Australian qualification and a call sign from the call sign entity.</p>	<p>Yes.</p>
Use of AX prefix on specified days	The Amateur LCD specifies certain dates on which any amateur may use the AX prefix.	<p>No change.</p> <p>This is included in the proposed class licence.</p>	<p>Yes.</p>
Use of AX prefix on days not specified in the Amateur LCD	The Deed and the Australian Amateur Policy and Procedures specifies AX call signs for occasions of national or international significance.	<p>No change.</p> <p>Individual AX call signs could be assigned on a case-by-case basis for occasions of national or international significance.</p>	<p>No.</p>
Transmission of multiple call signs when undertaking emergency service operations or training	The Amateur LCD includes specific rules for transmission of call signs involved in emergency service operations or training.	The proposed class licence would not preclude transmission of all call signs involved in emergency service operations or training.	<p>No.</p> <p>This matter should be managed by the amateurs, potentially via operating procedures.</p>
Call signs for club stations	A special condition relating to keeping a record of stations communicated with, and the name and call sign of qualified persons operating the station, is imposed on licences for	There will no longer be a legal requirement to keep a record of stations communicated with, and the name and call sign of qualified persons operating the station.	<p>No.</p> <p>This matter should be managed by the amateurs, potentially via operating procedures.</p>

Consultation question 2:

Currently, a call sign is transferred by the transfer of the apparatus licence. We are proposing a process where the person with the assigned call sign surrenders that call sign, and nominates a new person to whom it may be issued. That new person will have one month in which to apply and pay for the call sign to be assigned to them. What are your views on the proposed policy on call sign transfer?

Consultation question 3:

We are proposing that the call sign entity, under an arrangement with the ACMA, would conduct a 'regular check' to confirm whether a person is still using their call sign. Will this be a sufficient method of ensuring there are enough call signs (in combination with other factors, for example, the high number of available call signs, deceased amateurs, most amateurs only wishing to hold one call sign)?

Consultation question 4:

What are the benefits or disadvantages of our proposal not to limit the number of call signs that may be assigned to a person?

Consultation question 5:

Do you have any concerns with the other proposed call sign management arrangements? If so, what are they?

5. Proposed operational arrangements to support the class licence

The Amateur LCD imposes various conditions on amateurs that directly regulate amateur station operation, but do not affect broader spectrum management issues and are also not expressly required under the Act.

These include issues that are ancillary to amateur licensing arrangements, or form part of the international regulatory context and relate to outcomes that the ACMA can assist in facilitating, or that we understand are important aspects to the amateur radio community.

It is our view that those matters are not part of the ACMA's spectrum management responsibilities, and we propose that they be excluded from (that is, not be requirements under) the proposed class licensing arrangements.

This section sets out our proposals for how aspects of those amateur arrangements could be managed outside the proposed class licence.

In reviewing these specific matters, and contemplating proposed arrangements for them, we considered:

- > What is the risk or potential harm to amateurs or other spectrum users?
- > What is the desired outcome?
- > Is the desired outcome intrinsic to or otherwise directly related to the ACMA's spectrum management responsibilities (or powers and functions)?
- > If the desired outcome is intrinsic to or otherwise directly related to the ACMA's spectrum management responsibilities, then:
 - > should the class licence impose a requirement that applies to all or a subset of amateur radio licences?
 - > should non-compliance with the relevant requirement be a civil or criminal penalty matter (that is, what is the gravity of the consequence of non-compliance)?
 - > are there non-regulatory mechanisms available that could be adopted to achieve the desired outcome?

Public register of call signs and amateur details

Maintaining the RRL, and collecting amateur information under the existing apparatus licensing arrangements, are statutory requirements under the Act.

Under sections 143 and 151 of the Act, the ACMA is required to maintain the RRL, and to ensure that the RRL is available for public inspection. Section 147 of the Act and the Radiocommunications (Register of Radiocommunications Licences) Determination 2017 (RRL Determination) prescribe the information that must be contained in the RRL about apparatus licences. There are similar requirements under the Act and under the RRL Determination for spectrum licences.

The primary purpose of the RRL is to facilitate the coordination of radiocommunications services. Licensees (and prospective licensees) and accredited persons (APs) interrogate RRL data to identify suitable locations and available frequencies for proposed frequency assignments (that is, licences). A secondary purpose of the RRL is to facilitate interference management and other monitoring and compliance activity.

Use of the RRL for coordination and interference management varies depending on the type of apparatus licence and the associated spectrum management issues. With the exception of amateur beacons and repeaters (which we are not proposing to transition to a class licence), we do not routinely use amateur data on the RRL for coordination and interference management functions.

Because amateur licences are currently a type of apparatus licence, the RRL contains information about each individual amateur licence, including the name of the licensee, their postal address, and the call sign specified with the licence that they hold.

Neither the Act nor the RRL Determination states that detailed information about class licences or people operating stations under class licences should be contained in the RRL. Section 132 of the Act broadly states that class licences are to apply to 'any person', subject to conditions, and the Act does not cover the collection of personal information about people operating stations under class licences in order for the ACMA to manage the spectrum.

As a consequence of transitioning amateur licensees to a class licence, information about individual amateurs would no longer appear on the RRL.

What stakeholders told us

When we consulted on the draft class licence, many submitters expressed concerns that, under class licensing, there would be reduced opportunities for regulatory oversight because amateurs would not be required to regularly engage with us to renew their licence. Submissions also expressed the view that self-management of the hobby by the amateur community would be made more difficult if amateurs were no longer be visible on the RRL, and that there was no alternative public register that contains information linking the operator of each amateur station with a licence and a call sign.

We understand that many amateurs access the RRL for a variety of reasons. Some amateurs use the RRL to find out the qualifications and state or territory of residence of other amateurs, and this can serve a range of amateur functions.

Through interactions with amateurs, we are aware that, while some amateurs might not necessarily object to being included in the RRL, they would prefer that certain personal information (such as postal addresses) not appear in the RRL. Currently, we have no discretion as to the content of some of the information contained in the RRL – for example, the requirement that an apparatus licensee's postal address is contained in the RRL comes from the Act. This means we cannot elect to omit this information from the RRL.

In our response to submissions, we undertook to explore options for a public register, and to consider privacy implications and what type of information may be publicly available in a register.

Proposed arrangements

We have considered the role that a public register could play under, or alongside, the proposed class licence. In addition to privacy concerns, we have considered whether

such a register would serve a spectrum management function, as well as the ongoing impost involved in running such a register.

Taking these into account, there are 3 key options for a public register:

- A. maintained directly by the ACMA
- B. ACMA facilitates the management under a contract with a third party
- C. leaving the amateur community to maintain its own register (or registers) or use an existing voluntary register.

Currently, the collection of apparatus-licensed amateurs' personal information is required under the Act. Under a class licence, there would be no express requirement under the Act to collect personal information about class-licensed users. So, without this requirement, the collection of data would need to be expressly informed by the Australian privacy legislative framework. We considered the Australian Privacy Principles, particularly Principle 3, which requires, among other things, that 'an organisation may only solicit and collect personal information that is reasonably necessary for one or more of its functions or activities.'¹¹

Given that the collection and presentation of amateur's personal information on a register is not reasonably necessary for the ACMA's functions or activities for amateur radio, we are not satisfied that, in a class-licensed regime, collection of this information to include in a register is justifiable. The inclusion of call signs in a register does not assist the ACMA in its spectrum management role. Call signs are not relevant to managing interference as we would address interference issues at a local/field level. For these reasons, we do not consider it appropriate to impose an administrative burden, or make arrangements that incur costs, where no tangible spectrum management benefit is achieved.

We acknowledge that a register maintained under option A or B could run on an opt-in basis, and could likely collect and make available less personal information than is currently collected for the purpose of satisfying RRL regulatory requirements. However, any requirement to maintain a public register would impose an ongoing regulatory and financial burden on:

- > the ACMA under option A, or
- > a third party and, to a lesser extent, the ACMA under option B.

It may also be the case that the costs associated with running a register would need to be recovered in some way from end users. Both these outcomes are inconsistent with our approach to reduce regulatory burden and minimise costs for amateurs.

Given that a register of amateurs principally facilitates amateur service outcomes valued by some amateurs (but not necessarily all) and is not intrinsic to the ACMA's spectrum management role, it is our view that option C is appropriate.

We see an amateur-operated voluntary register as a way that amateurs can continue to access aspects of the amateur service that they consider important without the need for ACMA maintenance or visibility. We are aware of online resources already available to amateurs that function like the RRL, and which also include additional information about amateurs, their stations and activities. It would be open to any person, club, or representative body to develop and maintain one or more registers.

¹¹ <https://www.oaic.gov.au/privacy/australian-privacy-principles-guidelines/chapter-3-app-3-collection-of-solicited-personal-information>

The registers could be run on an opt-in basis, and the register operators could run the register on a voluntary, donation or subscription basis.

Consultation question 6:

In the absence of amateur and station information being contained in the RRL, are there any amateur-operated registers or other existing voluntary registers that you would use?

Amateur operating procedures

There are many aspects of amateur radio operation not subject to any regulatory authorisation, requirement or restriction.

While these matters may be desirable or very important for some amateurs, they do not enhance or diminish our capacity to regulate radiocommunications in general, or amateur stations in particular. Examples include the use of the phonetic alphabet and associated pronunciation, and the promotion of social behaviour.

Currently, we maintain a set of non-exhaustive [amateur radio operating procedures](#) that reflect some amateur radio operator practices, and can also assist amateurs in studying for examinations. Some matters covered by the operating procedures, such as distress and emergency signals, are currently included on amateur examination syllabi, and may be the subject of examinations. We do not consider it is appropriate to prescribe the process by which syllabi and qualifications are issued, rather these should be matters addressed via contractual arrangement.

In implementing the class licence, we will consider whether any material currently covered in the syllabi is more appropriately included in the proposed amateur operating procedures. We will consult on any proposed changes to the syllabi.

When we consulted on the draft class licence, we conveyed that we could develop amateur operating procedures to provide guidance to amateurs, but given the importance placed on such matters by amateurs, managing and amending these procedures could be better managed by the amateur community.

What stakeholders told us

Stakeholders expressed support for the ACMA and the amateur community collaborating on a set of voluntary operating procedures. There was also agreement with the proposal that the amateur community should take responsibility for managing these procedures through some form of deliberative amateur committee.

Proposed arrangements

In our response to submissions document, we indicated that we considered that operating procedures could play an important role in simplifying and streamlining amateur regulation. That is, by sharpening legislative instruments to focus solely on matters that are essential to achieving our spectrum management functions and responsibilities.

We propose that aspects of amateur radio operation that are not subject to any regulatory authorisation, would be appropriately located in amateur operating procedures. We consider that amateurs are best positioned to develop and manage these operating procedures.

Operating procedures would seek to consolidate matters that amateurs consider important, and it is appropriate that amateurs operators develop them. The ACMA

would have no role in managing or enforcing compliance with the amateur operating procedures.

Our view is that clubs and representative bodies could use the guidance in the non-exhaustive set of operating procedures on our website as a starting point and collaborate on a draft set of procedures. Once the class-licensing arrangements are in force, we would envisage removing the discontinued procedures from our website.

We do not intend to establish a formal mechanism (such as a panel or committee) to facilitate such collaboration. This does not preclude members of the amateur community, if they see value in such a body, from forming one.

We consider that views on the content of operating procedures and the process by which they might be developed are best directed to clubs and representative bodies.

International reciprocity arrangements for Australian amateurs with Advanced qualifications travelling overseas

Reciprocal licensing arrangements are intended to facilitate recognition of an Advanced amateur's qualifications in Conference of Postal and Telecommunications Administrations (CEPT) countries. This means that Australian Advanced amateurs travelling overseas can operate amateur stations in certain countries without needing to obtain new qualifications or a licence.

Reciprocal arrangements set out in [CEPT ECC Recommendation TR 61-01](#) have required Australian amateurs seeking to operate an amateur station in CEPT countries to hold (and to produce, if necessary) an apparatus licence – specifically, an Amateur Licence (Amateur Advanced Station) – as confirmation that they are appropriately licensed in Australia.

What stakeholders told us

Because Recommendation TR 61-01 specifies the amateur Advanced apparatus licence, many submitters expressed concerns that, under class licensing, Australian amateurs will not be able to access international reciprocity arrangements between Australia and CEPT countries. Submissions conveyed that, under a class licence, Australian amateurs would no longer be issued individual licence documentation and would therefore be unable to produce it to overseas regulators and customs officials.

Proposed arrangements

In our response to submissions, we undertook to consult with CEPT on what arrangements could be put in place to ensure that international reciprocal arrangements were maintained.

Table 2 in Annex 4 of Recommendation TR 61-01 has been amended so that an AOC (Advanced) (AOC-A) is specified as also being equivalent to the CEPT licence. Currently, this means that Advanced amateurs can produce either their licence or their certificate to overseas regulators or customs officials. A note in the documents reads:

Australia is currently reviewing licensing arrangements and until a decision is made both are considered valid. The AOC-A is issued by the Australian Maritime College. Older Advanced certificates issued in Australia are equivalent to the AOC-A. The Australian Communications and Media Authority confirms equivalency in writing to operators on request.

Anyone holding older certificates of proficiency can contact us for letters confirming equivalence of older certificates, if necessary.

Consultation question 7:

Thinking about reciprocal arrangements for Advanced amateurs overseas, the ACMA intends to consult as necessary with the European Conference of Postal and Telecommunications Administrations (CEPT) on any further changes relating to the operation of the proposed class licence.

Do you anticipate any difficulties operating your station in CEPT signatory countries?

Arrangements for amateur clubs

We currently issue advanced non-assigned licences to be used by amateur radio clubs.

Special conditions attached to most apparatus licences issued to clubs require that:

- > the licensee of a club station shall keep a log book in which must be entered:
 - > a chronological record of all transmissions
 - > the frequency and type of emission used
 - > the station(s) communicated with
 - > the name and call sign of the qualified person operating the station.
- > the Amateur station is a club station and must be operated in accordance with the conditions in the Apparatus LCD in accordance with the qualifications held by the operator of the station.

What stakeholders told us

Submissions to the consultation conveyed that there are complexities associated with club stations and club ownership of call signs in migrating to a class licence.

Proposed arrangements

Under class-licensing arrangements, there would no longer be individual apparatus licences issued to club stations.

The proposed class licence will authorise the operation of a station owned and operated by or on behalf of a club, provided that the operator of the station is a qualified operator or is supervised by a qualified operator, and the operation of the station complies with conditions set out in the class licence. These conditions include the permitted frequencies, emission modes and the power limits applicable to qualifications held by the person operating the station, or the person supervising the operation of that station.

A club may be issued a call sign for the purpose of 'section 7' of the proposed class licence. A person operating an amateur station may be able to transmit the club call sign if they are a member of the relevant club, or they could elect to transmit the call sign that is assigned to the individual operator, or both their call sign and the club call sign (see more on this in *Section 4: Call signs*).

We do not consider that the maintenance of a log book needs to be regulated under the class licence as it is not required for the performance of our regulatory functions. It is open to amateur clubs if they want to continue to keep a log book, and the amateur community may elect to include recommendations about keeping a log book in operating procedures.

6. Higher power operation

Under the current regulatory arrangements, amateurs must comply with power restrictions applicable to their qualification type. It has been the ACMA's historical practice to consider applications to vary Advanced licences to permit high power for the specific purpose of reflecting signals from a celestial body. Authorising conditions have been time-limited – that is, the amateur is only permitted to operate at a higher power level until the date specified in the licence condition.

Under the proposed amateur class licence, persons with a recognised qualification (Advanced Type) must not operate an amateur advanced station using a transmitter output power of more than 400W peak envelope power (PEP).¹²

Amateurs have expressed interest in operating their stations at power limits higher than currently permitted. Higher power may facilitate Advanced amateurs' technical experimentation and enhance their ability to communicate with amateurs in other countries.

The ACMA and its predecessors have previously considered amateur use of higher power. Most recently, in 2012–13, we conducted a trial of the use of higher transmitter output power (up to 1kW) by Advanced amateurs. Our assessment of the trial found a demonstrated lack of awareness about EME requirements by some Advanced amateurs. We decided not to put in place regulatory arrangements authorising the use of higher power.

We have continued to receive requests from individual amateurs for higher power limits. The matter has also been raised by representative organisations. Higher power was specifically mentioned in submissions to the amateur class licence consultation.

We have examined regulatory approaches to the authorisation of higher power in a number of overseas jurisdictions. We have found that, while some jurisdictions ordinarily allow amateur radio operators to use power higher than 400W, the variations in regulatory arrangements and permitted use-cases make for complex comparisons with the Australian context.

Noting arrangements in place around the world, it is timely for the ACMA to reconsider higher power because of ongoing interest and to ensure that regulatory arrangements remain suitable.

This section of the paper outlines the ACMA's position to authorise higher power operations on a case-by-case basis. This includes the proposal for Advanced amateurs to seek authorisation to use higher power for scientific and experimentation use-cases in the short term, and to consider higher power operations for other purposes in the medium- and longer-term.

A case-by-case approach

Higher power use requires careful consideration and appropriate arrangements to ensure risks are appropriately managed, particularly for EME compliance as well as interference and co-existence with other spectrum users.

¹² The terms PEP and pX are identical, being the average power supplied to an antenna transmission line by a transmitter during 1 radio frequency cycle at the crest of the modulation envelope under normal operating conditions. pX is an ITU defined term.

Given this, the ACMA considers that any granting of higher power should be on a case-by-case basis – for example, through an apparatus licensing arrangement – and the ACMA is not inclined at this time to permit higher power operation under class licence arrangements.

Such case-by-case authorisations would involve a person applying to the ACMA for permission to operate a higher power station.

Interference and EME compliance risk would be assessed before approval. We consider that it should be incumbent on applicants to undertake their own due diligence (and bear application costs) for the interference, EME and EMC risks associated with their higher power licence. We would likely require independent assessment of interference potential and EME compliance.

Extending scientific licensing to Advanced amateurs for certain experimentation use-cases

Under current licensing and operational policy arrangements, some Advanced amateurs have applied for and been permitted to use higher power of up to 1500W to undertake experimentation to reflect signals from a celestial body under a licence condition granted for up to 12 months.

To align with those arrangements, the draft class licence previously included a provision that would allow Advanced amateurs to use higher power for Earth-Moon-Earth communications.

What stakeholders told us

Submitters told us that the explicit reference to Earth-Moon-Earth communications was more restrictive than what is currently available under the operational policy arrangements where Advanced amateurs can apply to use higher power for the purpose of ‘reflecting signals from a celestial body’. The wording in the draft class licence would prevent the existing activity of Meteor Scatter communications.

We are also aware, from other representations from amateurs, that some are interested in other higher power use-cases that focus on experimentation, rather than maintaining communications. This includes inter-continental ionospheric and trans-equatorial propagation experiments.

Proposed arrangements

We agree that ‘reflecting signals from a celestial body’ should be a purpose for which we would consider a higher power application, consistent with current arrangements. In addition, inter-continental ionospheric and trans-equatorial propagation experiments will be a purpose for which we may consider a higher power application.

Following further deliberation on this matter, we consider these might be appropriately authorised by an assigned scientific licence and propose to expand the access policy for scientific licences to include Advanced amateur frequencies when the proposed amateur class licence commences.

These changes will allow Advanced amateurs to apply for assigned scientific licences for certain experimentation uses, including reflecting signals from a celestial body, as well as inter-continental ionospheric and trans-equatorial propagation experiments.

These activities involve research, investigation, testing, and trialling of equipment, which are activities compatible with the uses of a scientific station in section 7 of the [Radiocommunications Licence Conditions \(Scientific Licence\) Determination 2015](#)

(the Scientific LCD) and the definition of a scientific assigned station and a scientific licence in the [Radiocommunications \(Interpretation\) Determination 2015](#).

Similar to the existing arrangements for reflecting signals from a celestial body, an Advanced amateur would be able to apply to the ACMA for an apparatus licence to authorise the operation of a station at a higher power level depending on the specific case. However, instead of the current practice of applying for a new or an amended amateur apparatus licence, they would apply for an assigned scientific licence.

To increase transparency around our considerations when assessing scientific licence applications for Advanced amateur use of higher power, we propose to develop an operational policy to provide guidance to applicants and clarify EME safety considerations. For example, in deciding whether to issue a scientific licence to an Advanced amateur, we will consider:

- > interference risk to other radiocommunications services (including co or adjacent channel assignments)
- > the proposed location of the station and, in particular, proximity between the station and residential premises
- > the qualifications held by the applicant/person to whom the licence would be issued (that is, Advanced qualifications only)
- > the likelihood of the applicant/station complying with applicable EME compliance methodology and record-keeping requirements
- > any other matters we consider relevant (for example, antenna height/direction, public accessibility of station).

All assigned scientific licences must comply with the Scientific LCD. Section 8 of the Scientific LCD requires that a licensee must operate a scientific station using either a call sign assigned by the ACMA, or another form of identification that clearly identifies the station (although this requirement does not apply if the station is operated for transmitting a message other than by voice, or if it is not technically practicable). If the experimentation communication involves voice, then an operator could use a non-amateur call sign assigned by the ACMA associated with the scientific licence or could use one of their existing amateur call signs and include some additional information that clearly identifies the station (for example, 'VK3aaa celestial' for celestial communications).

An assigned scientific licence currently incurs an issue charge of \$606¹³ and a licence tax, which covers the direct costs incurred by the ACMA in considering the application to issue the licence. Another application option is to apply to the ACMA via an accredited person (AP), which currently costs \$26.

An assigned scientific licence is assigned for up to 12 months, with the possibility of renewal.

Consistent with the ACMA's operational practice and policy for apparatus licensing, we consider that it should be incumbent on applicants to undertake their own due diligence (and bear application costs) for the interference, EME and EMC risks associated with their scientific licence.

¹³ Currently subject to review [Proposed ACMA fees for service 2022–23 - consultation 22/2022 | ACMA](#)

Consultation question 8:

What are your views on the proposal to allow Advanced amateurs to apply for assigned scientific licences for certain experimentation uses, such as reflecting signals from a celestial body as well as inter-continental ionospheric and trans-equatorial propagation experiments?

Consultation question 9:

Noting that proposal, are there other amateur experimentation uses that require higher power and you think should also be considered under assigned scientific licensing arrangements?

Further consideration of other higher power use-cases

What stakeholders told us

Amateur stakeholders have suggested other proposed higher power use-cases, in addition to those use-cases outlined above where applications for assigned scientific licences are proposed.

In particular, we understand that some amateur stakeholders would like to use higher power to facilitate regular and scheduled communications with amateurs overseas, as well as participation in radio sports. Higher power is desired in these cases to help overcome the increasing global electromagnetic noise pollution on High Frequency (HF) bands, in which most of these desired communications would take place.

Proposed medium-term approach

The ACMA is open to considering permitting further authorisations for the use of higher power by Advanced amateurs in the medium and longer term.

It is our disposition in the medium term, to establish a mechanism (potentially through apparatus licensing arrangements) by which higher power use-cases (that are not enabled under scientific licensing) can be authorised.

That might be for Advanced stations at higher power limits of up to 1kW, on certain frequencies and under certain conditions. This permitted power level and frequency specificity is consistent with our New Zealand's 1kW PEP on certain permitted frequencies. This 1kW power level is also the maximum permitted power in a number of other countries, including Spain and Sweden.

However, before considering higher power authorisation, we must be confident that the risk of interference to other spectrum users can be appropriately managed, and that adherence to EME compliance methodology and record-keeping requirements is assured.

We would need to study the potential for interference of possible higher-power operations on a band-by-band basis and consider co-existence with other spectrum users. There is also a potential risk that a higher power station will talk over other amateurs on certain frequencies, diminishing their access to the amateur service. Depending on the authorised frequencies, an outcome of a higher-power authorisation may be that the Advanced amateurs would enjoy more power to the potential detriment of Foundation and Standard amateurs.

Interference risk-mitigation may involve developing technical guidance for potential higher-power operators to manage the impact such operations may have on other radiocommunications.

We will consider the appropriate EME compliance arrangements for the use of higher power, which may include providing evidence of compliance and site evaluation.

Consultation question 10:

What are your views on the medium-term proposal to allow Advanced amateurs to apply for authorisation for other higher power use-cases under certain conditions? Please provide brief information to help us understand your view.

Consultation question 11:

Is a 1kW power limit appropriate? Why or why not? If not, what alternative do you propose and why?

Consultation question 12:

Are there particular bands that you consider should or should not be able to be accessed for Advanced amateur higher power operations? Which band(s) and why?

Request for detailed use-cases

We are interested in assembling an evidence base to inform our position on additional use-cases that might be appropriate for authorisation and to develop any associated authorisation options.

Potential higher power use-cases for communicating with amateurs in other countries that have been suggested to us include assisting in maintaining regular scheduled communications and facilitating participation in radio sports.

To inform our policy position, we are interested in understanding the detail of these use-cases and details of any other use-cases you might like us to consider.

Thinking about our proposal to consider authorisation of other higher power use-cases (not enabled under scientific licensing):

Consultation question 13:

What use-cases would require stations to operate at power limits for Advanced amateurs higher than the 400W currently permitted?

Consultation question 14:

For each use-case, please briefly answer:

- a. Why is a higher power limit needed?
- b. What are the specific limitations of the current power limit?
- c. What power level is required?
- d. What is the technical description of this power level requirement (for example, transmitter output power, emission mode)?
- e. What amateur service frequency bands would be used?
- f. How often will a higher power level be required?
- g. What is the location of the station?

Operating conditions

In considering a medium-term authorisation option, the management of interference and EME risk may be facilitated by including conditions on any higher power authorisation. This may include only authorising operation in a rural location and/or ensuring the station is not in proximity to other residences.

Requiring the station to be in a fixed position may facilitate EME assessment (noting that the general exposure limits would likely apply regardless of where the station is located) and interference management. However, allowing a station to be mobile/portable may assist the operator to ensure experimentation is carried out within EME-safe parameters.

Limiting the duration of the authorisation to a fixed term and/or specific event (for example, a competition) may reduce the risk of interference. However, the regularity of competitions may preclude this.

The management of interference and electromagnetic energy (EME) risk for higher power operation may be facilitated by limiting all authorisations to specific conditions.

Consultation question 15:

Should potential higher power authorisations be limited by:

- > location?
- > position?
- > event?
- > something else?

Please provide details to support your answer.

Proposed longer-term proposal

In the longer term, subject to our decision on authorisation options, if any revised arrangements for Advanced amateurs to apply for higher powers are in place and have been operating for a minimum of 12 months, we would examine their uptake and use through the apparatus-licensing data.

Following the evaluation, we would consider whether there might be a case to amend arrangements. For example, whether to extend the use-cases for which Advanced amateurs are able to apply for authorisation and whether higher power levels might be permissible.

7. Next steps

To stay up to date on the next steps in this review (outlined below) and key updates on ACMA-related amateur radio matters, subscribe to our [Amateur radio update](#).

Class licence implementation

Subject to the outcomes of this consultation and implementation of operational arrangements to support the proposed class licence, the ACMA intends to implement the proposed class-licensing arrangements from 1 July 2023.

When the class licence comes into effect, the operation of non-assigned amateur stations by holders of Foundation, Standard or Advanced Type qualifications (as well as people holding overseas equivalent qualifications or licences when visiting Australia) will be authorised in accordance with the conditions of the class licence, even if the operators hold an amateur non-assigned apparatus licence.

When the class licence comes into effect, holders of Advanced qualifications will be able to apply to the ACMA for a scientific licence to authorise the operation of a station at a higher power level for the purposes of reflecting signals from a celestial body as well as inter-continental ionospheric and trans-equatorial propagation experiments.

Amateur non-assigned apparatus licensees may continue to operate under their apparatus licence until it expires. However, licensees will also have the option to surrender their licences and receive a refund of the transmitter licence tax, if the notional refund amount exceeds the minimum refund amount.

We will provide further advice on any actions required by licensees, including requests for surrender of licences and refunds, where appropriate.

Operational arrangements to support the class licence

We welcome and encourage responses to specific questions and requests for information on the other matters considered within this paper – call signs and proposed operational arrangements to support class licensing.

Once we have considered responses, we will communicate key outcomes and next steps for the other matters to support class licensing. We expect to provide this in Q1 2023.

Higher power operation

Subject to the outcomes of this consultation and any future considerations, the ACMA intends to implement the proposed scientific licensing arrangements for higher power concurrent with the commencement of the proposed class-licensing arrangements (intended from 1 July 2023).

We will also evaluate other higher power use-case details provided in responses, assess if there is a justification for further higher power for particular use-cases, and whether potential risks can be managed. We expect to communicate key consultation feedback in Q3 2023. We will communicate our decision on higher power authorisation and consult on any associated regulatory proposals in 2024.

Beacons and repeaters consultation

This paper does not cover frequency assignment arrangements for beacon and repeater stations. We will be consulting on that topic in Q1 2023. No changes are proposed to the basic assigned licensing arrangements for beacons and repeaters.

8. Invitation to comment

Making a submission

We invite comments on the issues set out in this consultation paper.

- > [Online submissions](#) can be made by uploading a document. Submissions in PDF, Microsoft Word or Rich Text Format are preferred.
- > Submissions by email can be sent to SLPSConsultations@acma.gov.au.
- > Submissions by post can be sent to:

The Manager
Spectrum Licensing Policy
Australian Communications and Media Authority
PO Box 13112
Law Courts
Melbourne VIC 8010

The closing date for submissions is COB, **Tuesday 29 November 2022**.

Consultation enquiries can be emailed to spectrumlicensingpolicy@acma.gov.au.

Publication of submissions

We publish 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

View information about our policy on the [publication of submissions](#), including collection of personal information during consultation and how we handle that information.

Information on the *Privacy Act 1988*, how to access or correct personal information, how to make a privacy complaint and how we will deal with any complaints, is available in our [privacy policy](#).

Appendix A: Updates made in the proposed class licence

The ACMA has updated the draft class licence, in response to submissions received during the review consultation in 2021, and to update references and make minor drafting improvements.

The following changes have been made to the draft instrument:

- > Section 5 – Interpretation: changes to several definitions to improve drafting and update references. Emission modes is defined with reference to Appendix 1 (REV.WRC-12) of the Radio Regulations instead of providing the detail in the previous Schedule 3.
- > Section 7 – Call signs: new section to provide for the assignment of call signs by an entity other than the ACMA.
- > Section 8 – Qualified persons: change to authorise overseas visiting amateurs with recognised qualifications to operate for up to 365 days under the class licence.
- > Section 9 – Recognising qualifications: new section to recognise existing qualifications on commencement of the proposed class licence, with transitional arrangements set out in Schedule 4.
- > Section 12 – Using call signs: amend the condition for consistency with current arrangements, to also authorise:
 - > overseas visiting amateurs to add the VK prefix at the start of their overseas-issued call signs when transmitting in Australia
 - > amateurs to use of the AX prefix on specified days.
- > Section 15 – Electromagnetic energy requirements: condition replaced with Schedule 1, which reflects the current EME requirements under Part 3 of the Apparatus LCD.
- > Section 17 – Additional restrictions in certain frequency bands: changes have been made to this section to:
 - > remove additional restrictions in the 50–52 MHz band
 - > ensure amateur stations do not operate in the quiet zone, consistent with the relevant band plan.
- > Schedule 1 – New schedule setting out the EME requirements (see section 15 above).
- > Schedule 2 – Permitted frequencies and limits on operation: minor changes to improve clarity.
- > Schedule 3 – Excluded frequencies and areas: updated to reflect 3.4–3.7 GHz band spectrum licensing.
- > Schedule 4 – New schedule to provide transitional provisions to recognise qualifications and overseas qualifications (see section 9 above).
- > Special condition – Permission to operate at higher power for the purpose of Earth-Moon-Earth communications: this condition has been removed from the proposed class licence because higher power experimentation is to be authorised under the scientific licensing arrangements.

- > Emission modes: Previous Schedule 3 replaced with a definition of emission mode with reference to Appendix 1 (REV.WRC-12) of the Radio Regulations.