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WIA Response to:
Legislative Proposals Consultation Paper – Radiocommunications Bill 2016

The Wireless Institute of Australia (WIA) welcomes this opportunity to comment on the legislative proposals concerning the Radiocommunications Bill 2016.

The Australian community of licensed radio amateurs has a keen interest in the guiding regulation of its highly diverse activities involving self-training, intercommunication and technical investigations with other amateurs nationally and internationally.

In practical terms, most licensees in Australia use radiocommunications as a tool in their business activities**,** whether they be commercial, defence, government or non-commercial organisations**.** Contrasting this, the radio amateur community has no pecuniary interest in using spectrum**,** other than a keen interest in the pursuit of every conceivable aspect of the art and science of radiocommunications.

About the WIA

The WIA is the national organisation of licensed amateur radio operators (www.wia.org.au). It is the peak body representing the interests of the Australian radio amateur community nationally and internationally through formal liaison with the Australian Communications and Media Authority (ACMA, further government institutions and other organisations.

Founded in 1910, the WIA is acknowledged as being one of the first radio societies in the world, and is the world's oldest national Amateur Radio society. A key role of the WIA is providing training and licence assessment services for people interested in obtaining their amateur licence, particularly young Australians.

WIA appointees participate in the work of spectrum management, consultative and standards bodies, including:

- Australian Radio Study Groups in preparatory work for World Radio Conferences (WRCs),
- Australian delegations to WRCs,
- Standards Australia's standards committees, and
- the Radiocommunications Consultative Council.

In addition, the WIA has a contract with the Commonwealth, represented by the ACMA**,** to deliver administrative services that includes the management of examination services, the issue of certificates of proficiency, and administration of licence call signs for the Amateur Service.

The WIA is a member of the International Amateur Radio Union (IARU**,** www.iaru.org , which represents the interests of the amateur and amateur satellite services internationally**,** and is recognised by the International Telecommunications Union (ITU) and a number of regional telecommunications organisations. Membership of the IARU is comprised of the national societies of each separate country or territory. The WIA was one of the first 14 national societies to become a member of the IARU when it was formed in 1925.

The IARU is a Member of the ITU Radiocommunications Sector and actively participates in many ITU meetings, including the WRCs. There is an IARU association in each of the three ITU regions across the world; the WIA is a founding member of the Region 3 association (www.iaru-r3.org).

About Amateur Radio

Amateur radio is a not-for-profit community activity**.** Its purpose is to advance knowledge and experimentation in radio technologies by individuals through informal and formal learning and technical inquiries. Radio amateurs communicate nationally and internationally using a very wide range of technologies on frequencies spread across the radiofrequency spectrum. The Amateur Service is thus a significant stakeholder in spectrum policy decisions.

Formally, the Amateur Service is defined in the International Telecommunications Union (ITU) Regulations as follows:

> **1.56 amateur service:** A radiocommunication service for the purpose of self-training, intercommunication and technical investigations carried out by amateurs, that is, by duly authorized persons interested in radio technique solely with a personal aim and without pecuniary interest.
>
> **1.57 amateur-satellite service:** A radiocommunication service using space stations on earth satellites for the same purposes as those of the amateur service.

The Amateur Service exists to meet the needs of the community for public access to the radiofrequency spectrum for self-training, experimentation and self-development. These purposes clearly fall within the Objects of the Radiocommunications Act 1992, in particular, the object to:

> *(b) make adequate provision of the spectrum . . . for use by other public or community services; but not diminishing the other equal objects.*

The WIA expects that the same or a similar provision will be preserved in the objects of the proposed new Act.

A valuable community resource. The licensing of qualified people to use Amateur Service frequency bands throughout the spectrum has created an invaluable public good which, of itself, carries an intrinsic worth, an “intangible” community asset that cannot be reduced to a monetary value as is spectrum sought and used by for-profit commercial interests.

The Amateur Service represents a large resource of qualified and experienced radio operators and equipment dispersed throughout the community, and worldwide. Radio amateurs seek to explore and experiment with new technologies, yet retain an interest in, and continued use of, technologies of the past, albeit in a modern context.

Comprising some 14,000 individual licensees, the radio amateur population in Australia is relatively stable, with younger licensees replacing the numbers of older radio amateurs lost to age. This represents a significant pool of “wireless aware” people within the Australian population, who continue self-learning as they pursue their amateur radio interests. World-wide, there are more than three million licensed radio amateurs.

Innovation. Innovation in the use of radio/wireless technologies in increasingly diverse applications continues relentlessly, both within and beyond the sphere of amateur radio activities, and the WIA sees that it is important to facilitate radio amateurs' ability to adopt or adapt innovations without unnecessary impediments imposed by inappropriate regulation.

There are many examples from over the decades where radio amateurs have explored new radio communications concepts that have influenced or led to subsequent development (ex-Amateur Service) of successful commercial technologies – low cost, low Earth orbit (LEO) satellites; the foundations of cellular mobile telephone systems; spectrum-efficient voice communication transmissions; a diverse range of reliable, weak-signal software-defined digital transmission technologies; broadband wireless networking; innovative antenna systems to meet challenging conditions; new software-defined radio technologies; to cite a few examples.

Additionally, the WIA believes that, given the correct policy and regulatory settings, there could be an expanding role for amateur radio to play in Australian education, innovation and research.

Achievement. While commercial and defence operations focus on reliable, clear communications with strong signals unaffected by noise or interference**,** radio amateurs deliberately seek to explore testing and establishing communications under difficult circumstances where difficult weak-signal reception is the norm, rather than the exception. The amateur radio community, globally and in Australia, has built up a commendable record of investigation and achievement in advancing the state of the art with weak-signal communications technologies and techniques, widely used on a daily basis.

Technological leadership. The amateur radio community stimulates technological leadership within its ranks. Radio amateurs have made significant technical contributions to the understanding and use of electromagnetic propagation, spectrum-efficient signals, high frequency data communication systems, digital radio protocols and communications satellite design, among other things.

It is widely acknowledged and understood that "disruptive" technologies and innovations drive the advancement of technological industries, particularly the IT sector. The same is true for the wireless / radiocommunications sector and amateur radio has played a role over every decade across the past 100 years; increasingly so over the past two decades.

Community service. Month-in, month-out, year after year, amateurs across Australia use their skills, assets and resources to provide radiocommunications support for organised community events, generally through local radio clubs and groups working with community event organisers.

Community activities involving radio amateurs range across all sorts of sporting rallies, scout and guide camps and jamborees – including the global "Jamboree of the Air", held annually since 1957 – bush walks, marathon runs, walk-a-thons, bike-a-thons, horse enduros, boating and canoeing events, community celebrations and parades.

In addition, radio amateur groups and clubs engage in development, promotion and running of community and school education programs in basic electronics and radiocommunications, including demonstrations of space science and communications via Low Earth Orbit satellites (FUNcube, etc.) and the Amateur Radio in the International Space Station (ARISS) program, in which students get to ask questions and talk to ISS astronauts.

When all else fails. Amateur radio continues to play an important role in disaster communications and has a unique ability to provide radio communication independent of the telephone network or other radio services in disaster circumstances.

Although emergency services in Australia are now well equipped with modern communications infrastructure, amateur radio is likely to be of value in the first few hours of an emergency before other services have time to respond, alternatively as a skilled manpower resource, or as a form of back-up

communications resource if all else fails. Use of amateur radio capability is still part of disaster planning in Australia and many other countries.

Recent examples of where radio amateurs provided first-response communications services following natural disasters or emergencies include: the Victorian Black Saturday bushfires of February 2009, the Queensland floods in January 2011, the 2004 Boxing Day Indian Ocean tsunami, and Typhoon Haiyan of 2013 that devastated the Philippines.

WIA Response to the Consultation Paper

1. Objects and span

As a "community" user, the WIA supports the proposed revision of the objects of the new Act. The WIA also supports the clarification of the span of the rights, powers and obligations of the parties involved in spectrum managements and the supply industry.

2. Application

The WIA supports the proposed revisions and the role of the ACMA in the consultative arrangements.

3. Ministerial direction powers, policy guidance and accountability

The WIA supports the clarification of the accountability arrangements.

4. Annual spectrum work plan

The WIA agrees that a continuation of the current yearly spectrum work plan is desirable. It is also of the view that, in certain circumstance it may be desirable to address in a timely manner those planning or licensing issues that have fallen outside the yearly plan, rather than delay consideration of the issue until the next work plan cycle.

5. Radiofrequency planning

The WIA supports the consolidation of the ACMA radiocommunications planning powers into a single legislative instrument.

6. Licensing of spectrum

The WIA supports the concept of a single licence category with core conditions, as outlined in the Consultation Paper ('parameters-based' licences). These conditions may also include other parameters, such as transmitter power and compliance with other legal instruments, such as the APANSA standard related to electromagnetic emissions (EME).

The WIA supports the concept of spectrum sharing arrangements through third party authorisations. These sharing arrangements could be subject to interference assessments, and be based on geographic or band-edge segment usage.

7. Licence issue

The WIA agrees that the simplification of the issuing of licences or authorisations is a desired outcome and supports the retention of reviewable decision processes that exist today.

8. Licensing – limits

The WIA offers no specific comments.

9. Licensing – renewal rights

The WIA supports the proposed approach regarding licence renewal rights. The WIA is of the view that if a segment of spectrum is subject to a change of licence status, this should be advised through the annual spectrum work plan and, desirably, with at least five years warning that these changes may occur. It is suggested that, during this notification period, existing licensees are able to continue to use the spectrum to allow for alternative spectrum or sharing arrangements to be instituted. The cost to licensees in time and money can diminish the flexible arrangements the government is seeking if poor processes are employed.

10. Licensing – resumption

The WIA supports the proposed arrangements, noting the above comments.

11. Spectrum authorisations (class licences)

The proposed approach is supported by the WIA as it is seen to be consistent with the single licence proposal (*6. Licensing of spectrum*).

The WIA favours the move towards spectrum authorisations for many consumer devices, and the adoption of a 'spectrum commons' concept for some international arrangements where specific bands and frequency allocations apply, agreed through the ITU.

The amateur service, while agreed general internationally, is more aligned with an individual authorisation depending on qualifications, many bands and technical parameters and transmitter power authorisations.

The existing Amateur Class licence for international visitors, applicable through the CEPT arrangements, needs to be retained, albeit in a different authorisation format.

12. Interference management

In our previous submission to the Spectrum Review, the WIA supported the extension of powers for the ACMA to instigate civil action. In addition, the WIA also supports the production of interference management guidelines.

13. Equipment regulation

The WIA supports the proposal to extend the existing standards framework that allows the ACMA to make equipment rules. Amateur equipment does not fall within the standards framework, due to the experimental nature of the Amateur Service, and the WIA would strongly resist any move that would emasculate technical investigation and research in radiocommunication techniques.

14. Compliance and enforcement

The WIA supports the additional tools for the ACMA to undertake enforcement action. The amateur community has a strong history of being seen to comply with all the legislative requirements that pertain to the amateur service. This is embodied within the training syllabus and examination process for all grades of radio amateur qualifications.

Accordingly, the WIA supports education programs and targeted information provided to spectrum users, including Class licence-like services.

15. Information provision

The WIA agrees in principle with the proposed approach. Fundamental to interference management is the need to be able to identify where communications devices are located, their technical parameters and who is the responsible party for the device – transmitters and receivers, alike. The current register of

licences (authorisations) needs to be retained and improved. In the case of private band managers – will there be a requirement to provide information on the details of individual authorisations?

The WIA welcomes the opportunity to contribute to discussions in order that amateur radio communications infrastructure is acknowledged and protected.

16. User involvement: accreditation, delegation, industry codes

The WIA supports the concept of more industry involvement through private band or service management. The WIA also supports industry involvement in development of codes.

The WIA has a contract with the ACMA for the managements of amateur service examinations, the issue of certificates of proficiency and the administration of Amateur Service licence call signs. These functions are primarily undertaken by volunteer assessors, but costs associated with office administration are recovered from the applicant. The WIA is audited annually in respect of its costs and service performance standards, embodied in the Deed of Arrangement and the WIA Business Rules.

For some decades, the WIA has developed, produced and published its own radiofrequency band plans indicating (by "gentlemens' agreement") suggested usage, modes and operational characteristics within Amateur Service frequency bands.

The WIA agrees in principle with private band management arrangements, but has a number of areas that require clarification. Firstly, if the WIA were to undertake this wider function to issue third party type authorisations in respect of individual amateurs, numbering approximately 14,000, there would be significant set-up costs and, in addition to recovering its costs, would necessitate a margin over and above cost-recovery to sustain its ongoing viability. Secondly, it is not clear where the current spectrum tax arrangement will come out of any review. This aspect of fees and charges are factors of interest for many radio amateurs and would be a factor in the WIA developing business case models as a band or service manager.

Regarding the development of industry codes, the WIA is of the view that, apart from the technical conditions for the three amateur licence categories – frequency bands, transmitter power and (in some cases) emission modes – most current licence conditions are operational or usage oriented and therefore open to the possible development of a "code".

One of the more frustrating aspects of the current regulatory arrangements, which were developed over ten years ago, is that significant technical research and investigation in new technologies (eg. digital and wideband communications) has in Australia been stifled for the radio amateur community by "black and white" regulation.

17. Broadcasting

The WIA offers no specific comments.

18. Review of decisions

The WIA supports the wider scope of decisions that are reviewable, both internally by the ACMA and the Administrative Appeals Tribunal (AAT).

19. Transitional arrangements

The WIA acknowledges the significant amount of work that needs to be undertaken with stakeholders. Equally, stakeholders such as the WIA would need time and resources to undertake a transition to any new arrangements.

Any significant change to the details that impinges upon the WIA-ACMA contractual arrangements need to be considered, as well. The WIA concurs with the proposed transitional arrangements.

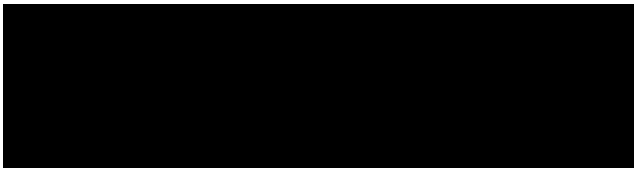
Summary

The WIA restates, on behalf of its members and the broader amateur radio community, that the new legislative arrangements should not diminish licensees' access to and use of spectrum for radio amateurs in the future. In stating this, the WIA is open to the continued shared use of spectrum in which the amateur service has a long history of experience in sharing arrangements.

In principle, the WIA is interested in pursuing the concept of a band or service manager role. As a natural stakeholder, the WIA is willing to participate in any forum to facilitate potential activities in private band management and possible sharing arrangements.

Again, thank you for the opportunity to provide this response. The WIA remains available to discuss aspects of this submission, or the invitation to provide comment on specific proposals once draft legislation is provided in more detail.

Yours sincerely



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