



**Wireless Institute of Australia
response to the
Australian Communications & Media
Authority
Consultation 28/2021:**

**“Incorporating a new ARPANSA protection standard
into the ACMA’s regulatory arrangements
Consultation paper
July 2021”**

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WIA Response

The Wireless Institute of Australia (WIA) thanks the ACMA for the opportunity to provide feedback on the public consultation titled "Incorporating a new ARPANSA protection standard into the ACMA's regulatory arrangements

Consultation paper - July 2021". In this consultation, the ACMA has stated that it proposes: *"to amend various ACMA legislative instruments to reference a new radiation protection standard published by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA)."*

The WIA particularly thanks the ACMA staff who met with the WIA on 5th August 2021, to clarify how the changes will impact the Amateur Service.

The WIA has reviewed the consultation and notes that the changes as proposed do not affect how ARPANSA standards are related to amateur service licensees. The WIA recognises that the material effect of the change is to simply substitute earlier references to the ARPANSA standard with updated references to the new ARPANSA-S1 standard within the "Radiocommunications Licence Conditions (Apparatus Licence) Determination 2015".

Noting that the management of electromagnetic energy (EME) is going to be reviewed within the amateur service as advised by the ACMA in 2022, the WIA is happy to endorse the proposed course of action as a suitable interim step that ensures minimal impact to amateur service operations.

The WIA remains available to discuss any aspect of this matter.

A.1 Appendix I - Introducing The Amateur Service

Amateur radio is a science-based technical activity enjoyed by over three million people worldwide. It is a recognised radiocommunications service by the International Telecommunication Union (ITU) and is listed in the ITU Radio Regulations as the 'amateur service' and the 'amateur-satellite service'.

The International Amateur Radio Union (IARU) is the global sector representative body for the amateur service. It is recognised by the United Nations as a Non-Governmental Organisation (NGO) by virtue of its consultative status with other United Nations bodies, i.e. International Telecommunication Union (ITU). The ITU recognises the IARU as an international organisation (CV/Art.19, No. 231). IARU has worked with the ITU for nearly a century and is a Sector Member of the Radiocommunication Sector (ITU-R), playing a full part in the work of ITU-R as it affects amateur

radio spectrum, and also of the Development Sector (ITU-D), relating to developing countries and emergency communication.

The Wireless Institute of Australia (WIA) is one of the founding member societies of the IARU Region 3 branch. WIA representatives are frequent members of Australian delegations to ITU-R Working Party meetings and World Radiocommunication Conferences. The WIA is also the sole representative member of the International Amateur Radio Union (IARU) in Australia.

- The amateur service is a radiocommunication service:
 - for the purpose of self-training,
 - Intercommunication and technical investigations carried out by duly authorised amateurs,
 - persons interested in radio technique solely with a personal aim and without pecuniary interest.
- And the amateur-satellite service is:
 - A radiocommunication service using space stations and earth satellites for the same purposes as those of the amateur service.
- More information about the amateur service can be found in Appendix I.

One of the goals of a simplification agenda should be to enhance the value of the amateur service to Australian; understanding and recognising that potential is key. Approaching the reform with a view to delivering increased value to the Australian people, through value creation as well as cost reduction, is fundamental to meeting the expectations of the amateur service.

Areas where the amateur services brings value to the community with no cost to the Government and community include:

A.1.1 Inter-communication

- **Inter-communication** - facilitating the exchange of ideas, wellbeing, connectedness and understanding across Australia's multicultural community.

In particular, using the idea of self reliant communication, the amateur service supports the health and wellbeing of the Australian community through events such as:

- [Scout & Guide Radio Jamboree](#) held globally each year.
- [Community sporting events](#) such as canoe marathons, car rallies, cross country cycling events and more.
- [Radio Sport](#) activities enable physical fitness and activity through (for example) the ARDF international competitions which combine orienteering with radio direction finding, as well as the Summits on the Air program (mixing mountaineering with amateur radio).

The value of these community based, community delivered communications capabilities via radio are hard to calculate in dollar terms, but are nonetheless invaluable to the function of such events. Indeed, during this COVID19 pandemic, more and more people have turned to, or returned to, amateur radio as a way of keeping in touch with community, friends and family across town or across the world.

A.1.2 Self Training

- **Self training** - promotion of Scientific, Technology, Engineering and Mathematics (STEM) accessibility throughout Australian society, not just through formal education channels. This delivers value through:

- [School science programs](#) through, for example, communicating with the International Space Station ([ARISS](#)) or flying and tracking high altitude balloons (e.g. [Project Horus](#)).
- [Engineering professional development](#) through self training on advanced communications techniques particularly on the VHF/UHF/Microwave bands.
- [Citizen science programs](#) such as wildlife tracking, [space weather monitoring](#), [radio propagation studies](#) and many more
- [Advanced Communications Techniques Developments](#) are being undertaken by individuals and groups across the country are facilitating new advanced communications techniques including developing new modes and methods of communication via radio (for example the development of HF digital voice communications using the Codec2 based [FreeDV](#) modulation or advanced weak signal communications using modes ([using the WSJT-X software suite](#)) such as FT8, JT65, WSPR, MSK144 and many more.
- [Building Practical skills within graduate professionals](#) and helping bridge the gaps that have appeared in formal radiocommunications educational pathways (eg the loss of the BOCP and TVOCP certifications and the withdrawal of radiocommunications specific courses at TAFE and higher learning institutions) through self training able to be undertaken within the amateur service.
- Recommendation [ITU-R M.1043-2](#) addresses the use of the amateur and amateur-satellite services in developing countries. It recommends that administrations encourage and facilitate the amateur and amateur-satellite services in order to develop radio operator skills, train engineers and technicians to design, construct and maintain radio equipment and systems, assist in forming groups capable of providing local support, exchange technical and operational information, experiment with new technology, and establish stations in rural and remote areas, among several other objectives.

A.1.3 Disaster Relief Communications

- **Disaster Relief Communications** - where in Australia organised self-training obtained within the amateur service facilitated by groups such as the [Wireless Civil Emergency Network \(WICEN\)](#) has enabled operators from the amateur service to act for the direct benefit of the community. For example:
 - [Relief Operators in disasters](#) - WICEN operators played roles as relief operators in disaster communications centres during the Summer 2019/20 bushfires.
 - [Secondary backup communications](#) - WICEN trained amateur radio operators also provided communications networks to the community on the NSW south coast last year when the public and government communications networks failed.
 - [Primary disaster communications channels](#) - amateur radio was one of the first means of communications re-established in Darwin in 1975 after Cyclone Tracey - being used to carry news and information for the ABC and 2GB out of Darwin.
 - [International Disaster communications](#) - the amateur service is recognised as a vital source of skilled operators able to enter disaster areas and set up communications networks with limited support. It was the amateur service that stepped in during several of the Caribbean hurricanes in the last couple of years. This capability of the amateur service is in fact recognised and encouraged in the ITU Radio Regulations through ITU-RR 25.9A.
 - Recommendation [ITU-R M.1042-3](#) addresses disaster communications in the amateur and amateur-satellite services. It is recommended that administrations encourage the development of amateur service and amateur-satellite service networks capable of providing radiocommunications in the event of natural disasters, that such networks be robust, flexible and independent of other telecommunications services and capable of operating from emergency power, and that amateur organizations be encouraged to promote the design of robust systems capable of providing radiocommunications during disasters and relief operations.