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Spectrum Review Implementation Branch  
Five-year spectrum outlook  
Australian Communications and Media Authority  
PO Box 78  
BELCONNEN ACT 2616

### **WIA Submission: Five-year spectrum outlook 2017–21: the ACMA's spectrum management work program**

The Wireless Institute of Australia (WIA) welcomes the opportunity to respond to the ACMA's consultation on the *Five-year spectrum outlook 2017-2021*.

#### **About the WIA**

The WIA is the national organisation of licensed amateur radio operators ([www.wia.org.au](http://www.wia.org.au)), the peak body representing the interests of the Australian radio amateur community nationally and internationally.

The WIA represents the interests of the Australian radio amateur community through formal liaison with the ACMA, other government institutions and other organisations. A key role of the WIA is providing training and licence assessment services for people interested in obtaining their amateur licence, particularly young Australians.

The WIA is a member of the International Amateur Radio Union (IARU, [www.iaru.org](http://www.iaru.org)), which represents the interests of the amateur and amateur satellite services internationally and is recognised by the International Telecommunications Union (ITU). The WIA is a founding member of the Region 3 association, which serves the Asia-Pacific nations.

#### **WIA Response**

Radio amateurs are privileged to have access to many comparatively narrow frequency allocations in the UHF and microwave spectrum, some of which are currently the subject of review, and which the WIA accepts are likely to be partly reassigned to new telecommunications and entertainment services, in particular at 3.6 GHz.

The WIA seeks to preserve the opportunities for suitably qualified citizens to explore communications technologies and techniques on frequency bands allocated to the Amateur Service throughout the spectrum. The ability to experiment with, or adapt, existing and emerging technologies and applications is in keeping with the ITU definition of the Amateur Service and the objects of the Radiocommunications Act.

The WIA's view is that a greater number of narrow frequency assignments to the amateur service would be of value, especially if aligned as much as possible to amateur assignments in other nations. This would

allow a greater opportunity for experimentation using the full range of available technologies, and maximise the opportunities for radio amateurs to explore, experiment, and learn. It would also allow radio amateurs to experience a greater range of radio propagation characteristics throughout the radiofrequency spectrum.

The WIA has recently consulted members and the amateur radio community to identify opportunities for updating the licensing arrangements in the Radiocommunications Licence Conditions (Amateur Licence) Determination, to take account of current trends in technology and amateur operating practices and ensure the arrangements are fit for purpose to support the future evolution of the amateur service. The results of this consultation, along with recommended changes, will shortly be presented to the ACMA. The WIA regards this review of the licensing arrangements to be the most pressing matter facing the amateur service and would be grateful if the ACMA could give priority to considering the recommended changes in its 2018 work program.

Included in that presentation to the ACMA are the following specific spectrum-related issues.

### **1800-2000 kHz**

Extension of the 1800-1875 kHz band up to 2000 kHz.

This would align the Australian amateur service to that of many other countries.

### **3800-4000 kHz**

Extension of the 3776-3800 kHz DX Window above 3800 kHz.

This would align the Australian amateur service to that of many other countries.

### **5.3 MHz**

The new secondary amateur band at 5.3 MHz was approved at WRC-15 and has been incorporated into the Australian Radiofrequency Spectrum Plan (ARSP) 2017. ARSP 2017 was registered by the Australian Communications and Media Authority on 20 December 2016 and came into effect with a commencement date of 1 January 2017.

This allocation has been keenly awaited by Australian radio amateurs, but despite many submissions and representations to the ACMA on behalf of Australia's radio amateurs, the WIA is disappointed that it has not yet received a response and hopes that the band can be made available to Australian amateur operators at the earliest available opportunity.

### **50-52 MHz**

The WIA will continue pursuing primary status for Amateurs in the segment 50-52 MHz. This band is of great interest to Australian radio amateurs due to its unique propagation characteristics.

### **70 MHz**

The WIA has proposed a secondary allocation to radio amateurs at 70 MHz.

Please refer to the WIA submission to ACMA of 11 July 2014; *submission to RALI LM2 of 30 July 2016*

### **3.6 GHz**

The WIA is acutely aware of the need for spectrum reform to accommodate new radiocommunications services in the 3.6 GHz band.

Please refer to the WIA submission of 11 August 2017: “Future approach to the 3.6 GHz band” IFC: 9/2017

### **Amateur Service operation in Class-Licensed LIPD Bands**

Experimentation with new radio technologies, such as LORA<sup>1</sup> and other mesh technologies would be greatly aided if radio amateurs were encouraged to experiment with the range of new low-cost technologies available for Class-Licensed LIPD bands.

The WIA is of the view that radio amateurs may currently communicate on Class-Licensed LIPD bands under the “all transmitters” category, subject to the “all transmitters” technical conditions.

The WIA wishes to explore the additional possibility of:

1. The Amateur Service being specifically authorised to use any frequency designated as “all transmitters” in the LIPD Class Licence or any equivalent future spectrum authorisation. This would avoid potential confusion and conflict when amateurs use their call signs on LIPD frequencies.
2. Inter-communications between the Amateur Service and LIPD devices on LIPD Class-licensed frequencies.

### **STEM Band Initiative**

The WIA has viewed a draft proposal by a third party to utilise the 803-804 MHz guard-band as an LIPD item specifically for STEM education and experimentation purposes. We are advised that the draft proposal is also being submitted for consideration by the radio industry association ARCIA before submission to the ACMA.

The WIA notes that “the National Innovation and Science Agenda supports a STEM funding program which acknowledges the need for the education system to promote interest in the skills necessary for our existing and future workforces”. The WIA supports this view as it is in Australia’s national interests to have a strong technological skill set in the workforce that includes radiofrequency knowledge.

The WIA also believes that the initiative will help build interest in the “art and science” of radio communications among young people, ultimately leading to a new generation of radio amateurs. The WIA believes the proposal has considerable merit and therefore supports it.

*Disclosure: The STEM band initiative is independently proposed by a member of the WIA Spectrum Strategy Committee who is also a member of the ARCIA spectrum and technical committee.*

Thank you for the opportunity to make this submission. This response has been developed by the Spectrum Strategy Committee of the WIA. The contact person for the WIA will be Mr Peter Young, WIA Regulatory Counsel, who can be contacted on 0438 212 368, or by email at [petervk3mv@tpg.com.au](mailto:petervk3mv@tpg.com.au).

Yours sincerely



Justin Giles-Clark  
President, Wireless Institute of Australia

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<sup>1</sup> Long range, wireless platform operating on class-licensed frequencies and intended for low-power battery operated IoT devices. LoRaWAN™ is a Low Power Wide Area Network (LPWAN) specification intended for wireless battery operated Things in regional, national or global networks.