Wireless Institute of Australia

Australian Amateur Radio Repeater and Beacon Frequency Planning Rules and Process Changes

Consultation 2024/01

April 2024

Overview

The WIA was first approached by the ACMA in 2022, to consider how improved transparency could be brought to Amateur repeater and beacon frequency selection processes. In addition, the ACMA wished to enable a pathway for obtaining an amateur spectrum repeater/beacon frequency assignment that did not require them to engage with the WIA.

Following multiple rounds of discussions with ACMA, the following principles were agreed by WIA:

- The WIA would prepare a set of technical standards setting forth the calculation methodology it was using for planning repeater and beacon frequencies in Australia.
- These standards would be written in a way that:
    - enabled the existing licence processes to continue with improved transparency,
    - would also support an optional process where applicants could approach accredited persons (APs) directly (without involving the WIA) to select amateur repeater and beacon frequencies that conformed with the WIA defined standards.
- The ACMA and WIA agreed to develop a means for amateur radio operators to directly apply to ACMA accredited persons (APs) for amateur repeater and beacon frequencies directly (without engaging the WIA) where the application could fulfil the assignment rules laid out in the new technical standards, which would remain under WIA ownership.
- The ACMA also agreed to make provision for non-standard experimental applications or applications that failed the frequency coordination standards to be referred back to the amateur radio organisations such as the WIA and IARU (as owners of the standards).

While the WIA has agreed to establishing this pathway, it has also obtained agreement from ACMA that the existing process of obtaining a frequency allocation from the WIA which is then passed to an AP for checking and registration can continue. The WIA was firm on this requirement as it did not wish to see any new process implemented that would dramatically escalate the costs involved in applying for a repeater or beacon licence (due to the outsourcing of the engineering calculation work to a third party).

New Standards Documents Developed

Work on documenting the frequency coordination standards and rules then commenced. A considerable effort was made to ensure that they described the current approaches used in frequency selection within the amateur service, while also being written in a way that would enable non-amateur radio focused AP's to follow the same rules and deliver valid frequency assignment outcomes.

Four standards documents have now been prepared by the WIA:

- RALI-AA1 - Amateur (Assigned) Beacon Station Frequency Assignment Requirements
- RALI-AA2 - Amateur (Assigned) Repeater Station (Excluding the 146/438 MHz bands) Frequency Assignment Requirements
- RALI-AA3 - Amateur (Assigned) Repeater Station (146 MHz Band) Frequency Assignment Requirements
- RALI-AA4 - Amateur (Assigned) Repeater Station (438 MHz Band) Frequency Assignment Requirements

In addition, the ACMA has prepared a proposed process document that will describe the process for licensing amateur radio beacons and repeaters:

- Frequency Assignment Practice (FAP) 'Guideline No. 10 — Application process for amateur beacons and repeaters"

Next Steps

The next steps of this process are as follows:

1. The ACMA will engage in consultation with APs as well as the amateur community on the framework and processes outlined in Frequency Assignment Practice Guideline No.10 ‘Application process for amateur beacons and repeaters’ (FAP 10).

2. The WIA is in parallel releasing this consultation to the amateur radio community directly to seek feedback on the technical rules that have been created that define how to assign “standard” amateur repeater and beacon allocations.

The Issues to consider.

Each of the RALI documents has been written with the following structure:

1. Introduction
2. Assigned Amateur Service Station Classifications (for standard systems)
3. Service Delivery Models
    a. a description of how these stations typically operate.
4. Frequency Assignment Policy Guidelines
    a. This section is of most interest to radio amateurs as it sets forth all the rules and considerations to be made when selecting frequencies.
5. Frequency Coordination Step by Step procedures
    a. Describes how to apply the rules for each type of repeater or beacon.
6. Detailed Channel plans

The WIA is particularly interested to hear, primarily from repeater/beacon station and network constructors/developers, whether the technical criteria defined in section 4 and the sequencing of technical considerations in section 5 is appropriate for each of the defined amateur bands.

In responding to this consultation, please structure your response grouped by individual RALI document followed by each of these 6 sections, should you wish to provide feedback. This will help us assess feedback against the correct document and section.

The WIA Technical Advisory committee is also willing to discuss these in a workshop or forum type environment if that is desirable too. Should you feel that a more direct Q&A type environment would be beneficial (much like an ACMA Technical Liaison Group structure) then please let us know, and we can consider what additional consultation opportunities can be provided.

How to Engage

If you wish to provide feedback on the technical content of the draft RALI documents describing how to coordinate amateur repeater and beacon station frequencies, please provide a response direct to the WIA. The four Exposure Draft versions of the RALI documents are available on the WIA website. You can download and review each of them and provide your feedback to the WIA Technical Advisory Committee via email at tac@wia.org.au . Your submissions must be received by Friday 2nd August 2024.