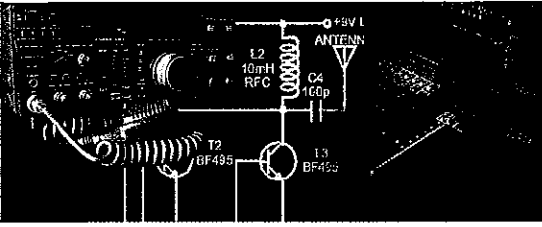

The Wireless Institute of Australia

The Wireless Institute of Australia - ABN. 56 004 920 745
P.O. Box 2042, Bayswater Vic 3153
Ph. (03) 9729 0400
Fx. (03) 9729 7325
www.wia.org.au

The Manager Compliance and Field Operations Section
Department of Communications and the Arts
Australian Communications and Media Authority
PO Box 13112,
Law Courts, Melbourne
VIC 8010

20th September, 2017

Wireless Institute of Australia - Response to Interference Management Principles Consultation

The Wireless Institute of Australia (WIA) welcomes the opportunity to present this response to the Interference Management Principles Consultation. The WIA confines its comments to issues most relevant to the amateur radio community in Australia.

About the WIA

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

Australia's licensed radio amateurs are, together, a significant stakeholder in spectrum policy decisions, legislation and regulatory activities.

A key role of the WIA is to participate in the Standards Australia committees TE003 and TE003-19, which are concerned with electromagnetic compatibility (EMC), including the protection from interference of radio reception, in the range 9 kHz to 400 GHz, caused by the operation of electrical or electronic appliances, and the setting of limits and test methods. This committee has the responsibility of looking at technical aspects of standards from CISPR, IEC, ETSI and other international standards bodies, and making recommendations, if required, for the Australian SAA response. The WIA is also represented on the RC004 and RC006 radiocommunications standards committees supporting standards to minimise interference.

The Amateur Service

The ITU and the Australian Radiofrequency Spectrum Plan define the amateur and amateur satellite service as a radiocommunications service for self-training, intercommunication, and technical investigation into radiocommunications by individuals who:

(a) are licensed under the Radiocommunications Act to do so;

(b) do so solely with a personal aim; and

(c) do not have a pecuniary interest in doing so.

The non-monetary benefits of Amateur radio to the Australian community are substantial.

Through on-air friendships formed at home and internationally, and through networks of physical radio clubs, followers of amateur radio experiment with, and advance their knowledge in, modern radio technologies, also benefitting from being part of a worldwide community of like-minded people.

Amateur radio has a very strong vocational component. Many of Australia's current scientists, engineers and technicians can trace their career back to an early interest in amateur radio. For many people, amateur radio 'sparked an interest' and acted as a catalyst to a lifelong career in science, electronics or communications.

Although the benefits of the Amateur Service cannot be measured in hard market terms, the public benefit to the community derived over many years from such a technically competent cohort is substantial.

Additionally, the Amateur Service has, for many years, provided a back-up emergency communications resource 'when all else fails', or when emergency communications facilities are stretched. More recently, the amateur service has provided highly-trained personnel as a back-up manpower resource during extended emergency communications operations, such as bushfires or missing person searches.

Amateur radio operators are widely dispersed throughout Australia and are ready to act as first-responders should they find themselves in the midst of an emergency situation, especially important in remote areas. Amateur radio operators are capable of providing the first few hours of vital communications until emergency services arrive on the scene.

WIA Amateur Community Engagement

In preparation for this submission, the WIA prepared, promoted and undertook a consultation process through an on-line system to allow all interested parties in the Australian amateur radio community the opportunity to provide comments.

In addition, the WIA also derived views and opinions of amateurs through monitoring and noting commentary on amateur radio-specific social media and on-line forums, along with correspondence to the WIA, and discussions at amateur radio club meetings and events.

The following comments generally reflect the broad views of the amateur community distilled through this process.

Susceptibility of the Amateur Service to Interference

Radio Amateurs communicate within Australia and worldwide using a wide variety of frequencies and transmission modes. Owing to the limited power available to amateur licensees and widely varying propagation conditions, inter-communications often takes place at poor signal-to-noise ratios. Modern digital communications techniques also allow limited communications using very narrow bandwidths in situations where conventional analogue voice or data communications would not work. However, in all cases, the ability to communicate is ultimately limited by man-made and natural noise and interference.

Radio amateurs are widely dispersed within the general population, with the majority living in urban environments surrounded by a multitude of electronic devices. Any relaxation or breach of the electromagnetic compliance framework, or of the management of electromagnetic interference, would have a very detrimental effect on the low-signal level communications abilities of radio amateurs, especially those living in urban areas.

Current Interference Resolution Practices

The amateur service is well accustomed to amicably resolving interference issues related to television and radio broadcast reception, where poor quality television and broadcast receivers in neighbouring properties are occasionally overloaded by an amateur's transmissions. There are many instances where a radio amateur has cooperated and worked with a neighbour to resolve interference issues, often requiring repairing a television antenna or feedline, or fitting a filter to the television antenna input.

In rare cases where the interference cannot be resolved, the amateur service has required the intervention of an ACMA officer, though our consistent experience is that the priority level is low.

The WIA now responds to the specific consultation questions.

ACMA Question: Do you consider that the Proposed Principles would operate effectively, and encourage the more timely resolution of interference cases now and under the future communications environment?

The WIA is of the view that the proposed principles could be effective in creating an environment that encourages a more timely response to interference issues. However, the WIA also believes the ACMA must be adequately funded in order to maintain a strong oversight of the performance of the market, and must be available to step-in if required by either party involved in an interference incident.

Protection needs to be in place to ensure that, not only are interference issues handled in a timely manner, but that minor issues are able to be resolved between the affected parties in the first instance, without initially incurring the expense of a contracted service provider.

ACMA Question: Do the Proposed Principles create any barriers to resolving cases of interference using the most appropriate approach; that is, cooperative, private rights of action or enforcement action?

As mentioned above, the WIA believes that interference issues identified by the ACMA need to be directed to the affected parties for their resolution in the first instance. This could be aided by the ACMA contacting those parties, giving a resolution period determined by the severity of the case and the risk, and then a follow-up contact made by ACMA staff to determine the outcome. If the issue remains unresolved, it could be suggested (or mandated) that a service provider become involved.

ACMA Question: Are there principles other than these that the ACMA should use to guide its interference management decisions?

The WIA expects that, over time, the cost of interference diagnosis and resolution provided by third parties would exceed the cost of interference resolution provided on a cost-recovery basis by the ACMA, and currently factored into licence fees. Indeed some of the specialist

equipment needed to locate certain forms of interference is well outside the means or day-to-day needs of even a commercial business activity, let alone radio amateurs.

The WIA notes that the ACMA has "adopted a harms- or risk-based - approach to regulation across a number of the regulatory regimes it administers, including how it exercises its direction to investigate matters of non-compliance".

The WIA is concerned that, although the amateur service is an apparatus licensed service, the risk and importance of disruptions posed by interference to amateur communications may be considered low when compared to other radiocommunications or telecommunications services. This may also be the case for other not-for-profit or community-based services.

The WIA would like to see some assurance within the Principles that the move to a market-based approach to interference resolution will not disadvantage the Amateur Service or other not-for-profit services.

ACMA Question: Are there any other matters the ACMA should consider when revising the 2004 Principles?

The Amateur Service is a non-commercial licence-paying service which provides public benefit to the wider community. The WIA is of the view that not-for-profit organisations should not bear the costs of interference management and resolution if possibly avoidable, especially when that cost is already factored in as a component of their licence fees.

In relation to the reported number of interference cases, the WIA is concerned that interference may be under-reported due to the inability of radiocommunications licensees and telecommunications users to identify the cause of poor reception or service performance, especially from devices, such as BPL/PLT modems.

It is the observation of amateurs, and indeed the general radiocommunications community, that the noise floor across the radiofrequency spectrum is rising due to the proliferation of electronic and electro-technical devices. The WIA is keen to ensure that the ACMA continue to regulate supply of equipment and pursue spectrum management practices to minimise such pollution.

Weak signals used in amateur operations mean that such operations are often the first to notice the impact of emissions from non-compliant devices or installations. If left unchecked, such non-compliant emissions are likely to increase over time and eventually cause interference to other radiocommunications services, including those that are designed to rely on high signal strength reception, such as broadcasting and land mobile communications.

The WIA was disappointed to see the ACMA use the public benefit metric to justify a relaxation in interference Standards for some equipment, such as occurred recently for BPL/PLT modems. The WIA hopes that this example will not be extended to other recognised potential interference sources such as LED lighting, switch-mode power supplies, inverters, and solar power installations etc, or for that matter, Wireless Power Transfer installations for transport applications.

Wireless Power Transfer (WPT), especially the domestic high power installations proposed for vehicle battery charging, should be of concern to all communications users including Defence, broadcasting, and telecommunications services. Our representative at a currently running International Amateur Radio Union (IARU) forum in Germany reports that there is strong evidence that harmonic emissions and automatic re-tuning of WPT has the potential to cause significant disturbance (pollution) to radiocommunications users including the amateur service.

Thank you again for the opportunity to make this submission, which was prepared by the WIA Spectrum Strategy Committee and endorsed by the WIA Board.

Yours sincerely

Justin Giles-Clark
President, Wireless Institute of Australia