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Ann Chadwick
Policy Analyst
Industry Partnerships Section
Australian Communications and Media Authority
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Dear Ms Chadwick

WIA issues concerning remaking the Amateur Licence Conditions Determination

As discussed, herewith is the outline of issues the WIA wishes addressed in the remake of the Amateur LCD.

The WIA supports the remaking of the LCD to ensure there is appropriate continuity and refinement of the existing arrangements beyond the expiry of the current LCD, but we also look forward to reviewing the optimal longer term amateur licensing arrangements as part of the spectrum review process.

It is our intention to take these matters to the Australian amateur radio community at an early opportunity this year, in a form of public consultation, and seek feedback to get a gauge of the diversity of views and perhaps flush out further issues that need to be addressed. As you would be aware, there are other issues we would like to address surrounding Amateur licensing – such as tenure and fees, availability and use of callsigns, etc – which we would raise as part of any future review of the Radiocommunications Act.

The WIA realises that this is a once-in-a-decade opportunity to address not only general licensing issues but also a multitude of specific issues for all current licence grades, to reduce the regulatory burden for both licensees and the ACMA, and to establish amateur licensing so as to accommodate future developments in communications technologies and applications, to let the hobby develop in whatever direction current and future amateurs might take it. To this end, the Board has adopted the following policy principles:

- A. That a remade Amateur LCD should not limit experimentation with, or adaptation of, emerging technologies and applications – particularly digital transmission technologies – including those not yet invented.
- B. That future Amateur licensing is not reduced or downgraded from the current principles embodied in Apparatus licensing.
- C. That future Amateur licensing incorporates flexibility for licensees to pursue their interests in communications technologies and applications as a self-regulating service within the framework of the licensing privileges and conditions.

In approaching remaking of the LCD, the WIA makes the following observations:

- Radio amateurs seek to explore and experiment with new technologies, yet retain an interest in, and continued use of, technologies of the past (eg. vacuum tubes, AM, RTTY, SSB), albeit in a modern context.
- Advances in radiocommunication technologies have outstripped many provisions of the current LCD.
- While the current LCD was demonstrably an advance on its predecessors and generally served the amateur community well during a period of regulator flux, it is now rather prescriptive and insufficiently flexible in many areas to accommodate emerging technology adaptations.
- Innovation in the use of radio/wireless technologies in increasingly diverse applications continues apace, both outside and inside the sphere of amateur radio activities.

1.0 GENERAL ISSUES

1.1 Lack of clarity, in terms of definitions and intent, in a number of provisions in the current LCD; for example: clause 7 [interference], clause 8 (6) [retransmission], clause 9 (1) [operation of repeaters].

1.2 Station identification requirements in clause 8 (1), in relation to brief transmissions.

1.3 EME compliance: the Apparatus LCD 2003 (due to sunset 1 April 2015 and now being remade) is “invisible” within the Amateur LCD, only brought to amateurs’ attention on their licenses. In order to better ensure licensees’ compliance with the EME requirements, the WIA wishes to see prominent reference to this within the LCD. In addition, accompanying documentation (“guidelines”) needs to be updated and clarified, and also referenced within the LCD.

Foundation Licence

1.4 Lack of ability for Foundation licensees to use digital modes (designated as “data” in other countries’ licences) and other computer- or digitally-produced modes, including voice, Morse, RTTY, facsimile and image transmissions. The WIA seeks the inclusion of digital or data modes in the permitted modes for Foundation licensees. The WIA notes that the entry level licence’s in Argentina, Canada, Japan, USA and the UK have included data and image modes since its inception, without notable incidents or issues reported.

1.5 The WIA seeks relaxation of the restriction on Foundation licensees to using commercially manufactured transceivers, which includes the microphone. The objective is to enable foundation licensees to:

- (i) assemble and use commercially available receiver and transmitter kits. The WIA notes that the UK Foundation licence has permitted this for some years, without notable incidents or issues reported;
- (ii) connect personal computers for the purpose of using digital transmission modes;
- (iii) use microphones other than standard microphone provided by the transceiver manufacturer;
- (iv) use of commercially manufactured transceivers for non-amateur band applications, but converted for operation on permitted amateur bands.

1.6 The WIA seeks permission for unattended and remote control of Foundation licensee stations. The WIA notes that this is not restricted for entry level licence’s in other countries, and has been part of the UK Foundation licence terms and conditions for some years, without notable incidents or issues reported.

1.7 The WIA seeks clarification of the use of internet-connected repeater systems by Foundation licensees.

Standard Licence

1.8 The WIA seeks to raise Standard licence conditions to better match similar licence grades in other countries, with particular reference, for example, to the Canadian Basic licence, the US General licence and the Japanese Second-class Operator.

2.0 ACCESS TO FREQUENCY BANDS

2.1 Foundation Licence: The Foundation licence's permitted bands are quite restricted when viewed in the context of other entry level licence's across the world, except for the Malaysian Class B licence, as evidenced in **Tab A**. The WIA wishes to discuss increasing the number of permitted frequency bands for Foundation licensees.

2.2 Standard Licence: The Standard licence's permitted bands are quite restricted when viewed in the context of like or similar intermediate level licence's in other countries, as evidenced in **Tab B**. The WIA wishes to discuss the possibility of increasing the number of permitted bands for Standard licensees between 1.8MHz and 28MHz, and particularly access to 50-52 MHz.

(i) The WIA notes that the Australian Standard licence's progenitor in the UK has considerably more band access across the spectrum, which has not occasioned notable complaints or issues. Likewise, Argentina, Canada, Japan, the UK and the USA also provide wide access to bands across the spectrum.

2.3 The WIA seeks access to the 5 MHz (60m) band for Australian amateurs, subject to the outcome of WRC-15. It would be advantageous if such an allocation were aligned, at least in part, if not entirely, with other 5 MHz allocations across the Asia-Pacific region within Region 3

2.4 Continued access to 50-52 MHz, preferably on a primary basis, in line with previous WIA representations.

2.5 Consideration of Amateur access to a band at 70 MHz (4m), preferably congruent with, or overlapping, allocations in other countries (eg. Region 1).

2.6 Consideration of Amateur access to a band at, or within, 918-926 MHz (33cm), preferably congruent with, or overlapping, allocations in other countries (eg. Region 2).

2.7 Retention of access at 2300 MHz (2300-2300.15 MHz), as per the WIA's submission to the 2.3 GHz band review in 2013.

2.8 Retention of access in the 3300-3600 MHz band. The WIA is developing a submission to the ACMA's review of the 3.5 GHz band.

2.9 Retention of primary access in 77.5 – 78 GHz, coincident with global ITU allocations.

3.0 PERMITTED BANDWIDTHS

3.1 Advanced Licence: The WIA seeks relaxation of permitted bandwidths on the amateur bands from 1.8 MHz to 430 MHz, with the aim of enabling the exploration and use of emerging and newly developed technologies, for the following reasons:

(i) future developments in technologies and applications are undefined.

(ii) the parallel development of software defined radio and sophisticated signal processing software over the past decade has enjoyed significant uptake across the amateur radio community globally. While these developments have been built around extant narrowband

transmission modes and permitted bandwidths, future development will likely centre around low spectral density transmissions of wider bandwidth able to co-exist with other transmissions in overlapping spectrum spaces, yet providing robust information exchange.

3.2 Standard Licence: The WIA seeks a relaxation of the permitted bandwidths relating to the Standard licence on all bands over 1GHz, to allow the use of wideband digital and image transmission modes by that licence grade.

3.3 Foundation Licence: The WIA seeks a relaxation of the permitted bandwidths relating to the Foundation licence, in order to allow Foundation licensees the ability to take up the use of more recently-developed technologies, and those to emerge in the future.

4.0 PERMITTED POWERS

4.1 The WIA wishes to see the permitted powers for all licence grades reviewed in a sensible, pragmatic approach to enable licensees to pursue their interests commensurate with their established knowledge (demonstrated in licence assessment) and within reasonable bounds of public safety considerations. The WIA is aware of differing views on the issue and notes the disparity in current permitted powers of all three Australian licence grades compared to similar licence grades in other countries.

4.2 Foundation Licence: The current permitted power of 10 W pX for the Foundation licence is experienced to be at a distinct disadvantage in today's urban RF noise environment on the HF and VHF bands – locally and globally – and in mobile applications on the bands above 30 MHz.

The WIA suggests 25 W pX would better address this issue under Australian conditions.

(i) Many commercial transceivers currently available (HF and VHF-UHF) afford operation at the suggested 25 W pX, more so than those that conform to the current permitted power of 10 W.

(ii) On the VHF and UHF bands, the “tyranny of distance” and scattered population centres dominate the ability of Foundation licensees to operate, particularly for mobile operations.

4.3 Standard Licence: The WIA notes that the permitted power of 100 W pX for Standard licensees was a carryover from the former Novice licence. The WIA suggests that a permitted power of 200 W pX would be a sensible, pragmatic provision for the Standard licence, going forward.

(i) The permitted power suggested affords Standard licensees the opportunity to explore RF technologies and on-air operations at this power level, in context with the urban RF noise environment on the HF and VHF bands now being experienced.

(ii) Many commercial transceivers currently available, and others produced over the last decade, provide output power at this level, manufactured to suit amateurs in the Japanese and North American markets, in particular.

4.4 Advanced licensees: The WIA seeks a permitted power of 1000 W pX without necessitating a separate permit, which is supported by improved awareness of EME requirements (now incorporated in the licence examination syllabuses) and visibility in the LCD, as per 1.2 above.

The WIA looks forward to hearing from you.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Phil Wait', with a large, stylized loop at the end.

Phil Wait VK2ASD
President

Attachments: A and B

Entry level licences – band access in different countries

■ = access to part or all of the nominated band

Amateur Band	Australia Foundation	Argentina Novicio	Canada Basic	India Restricted	Japan 4th Class	Malaysia Class B	Sth Africa Class B	UK Foundation	USA Technician
2200m					■			■	
600m									
160m				■	■			■	
80m	■	■		■	■		■	■	■
60m				■				■	
40m	■	■			■		■	■	■
30m								■	
20m		■		■				■	
17m		■		■				■	
15m	■	■		■	■			■	■
12m		■		■	■			■	
10m	■	■		■	■	■		■	■
6m		■	■	■	■	■	■	■	■
4m							■	■	
2m	■	■	■	■	■	■	■	■	■
1.25m		■	■						■
70cm	■	■	■	■	■	■	■	■	■
33cm			■						■
23cm		■	■		■		■		■
13cm		■	■		■		■		
9cm		■	■		■				
6cm		■	■		■		■		
3cm		■	■		■		■	■	
12.5mm		■	■		■		■		
6.38mm		■	■		■		■		
4.0mm		■	■		■		■		
2.5mm			■						
2.24mm		■	■		■		■		
1.25mm		■	■		■				

Intermediate level licences – band access in different countries

■ = access to part or all of the nominated band

Amateur Band	Australia Standard	Argentina Intermedia	Canada Basic +	Japan 3rd Class	UK Intermediate	USA General
2200m			■	■	■	
600m						
160m			■	■	■	■
80m	■	■	■	■	■	■
80m DX			■	■		■
60m			■		■	■
40m	■	■	■	■	■	■
30m			■		■	■
20m	■	■	■		■	■
17m		■	■		■	■
15m	■	■	■	■	■	■
12m		■	■	■	■	■
10m	■	■	■	■	■	■
6m		■	■	■	■	■
4m					■	
2m	■	■	■	■	■	■
1.25m		■	■			■
70cm	■	■	■	■	■	■
33cm			■			■
23cm	■	■	■	■	■	■
13cm	■	■	■	■	■	■
9cm		■	■	■	■	■
6cm	■	■	■	■	■	■
3cm		■	■	■	■	■
12.5mm		■	■	■	■	■
6.38mm		■	■	■	■	■
4.0mm		■	■	■	■	■
2.5mm			■		■	■
2.24mm		■	■	■	■	■
1.25mm		■	■	■	■	■