

24th October 2016

Manager
Spectrum Planning
Spectrum Planning and Engineering Branch
Australian Communications and Media Authority
PO Box 78
Belconnen ACT 2616

Dear Manager,

Re: Discussion Paper – proposed update to the Australian Radiofrequency Spectrum Plan

Free TV Australia appreciates the opportunity to provide a response to the proposed update to the Australian Radiofrequency Spectrum Plan which is to come into effect before 1 January 2017.

We note that the “*Spectrum Plan*”,
reflects Australia’s treaty obligations as a member of the ITU, as outlined in the ITU’s Radio Regulations

Our response acknowledges Attachment A, the marked up version of the *Australian Radiofrequency Spectrum Plan* reflects changes to the ITU’s Radio Regulations made at the WRC-15 in column 1 of the Table of Frequency Band Allocations (Part 2 of Chapter 2) and the international footnotes (Part 4 of Chapter 2).

We note in Part 3 Australian Footnotes,

the addition of two new Australian footnotes to explicitly support the space vehicle tracking treaty between the Australian and United States governments - AUS106 and AUS106A. We ask why the inclusion of these footnotes and not inclusion on a number of footnotes for treaties into which Australia is supporting other international space arrangements and in the same frequency ranges 2 025 – 2 110MHz and 2 200 – 2 290MHz e.g. those space services identified in RALI FX21?

We are most concerned with the proposed subsection 10(10) which is intended to provide *more flexibility for spectrum uses* not contemplated at the time the 2017 Spectrum Plan was made. Its purpose to meet occasions where

- *the ACMA occasionally receives requests to operate devices in frequency bands that are not allocated to the requested service type.*
- *in certain cases, despite there being no practical or technical reason why the service the subject of the request could not or should not operate in the band (as there would be no detriment to incumbent users), the Spectrum Plan does not provide a mechanism to authorise the operation of such services using apparatus*

The attributes for this proposal are described in this subsection would

- *allow radiocommunications services to operate in frequency bands not specified for those services in circumstances where the ACMA is satisfied that the subject service is unlikely to cause harmful interference to another service.*
- *allow the ACMA to consider unspecified services on a case-by-case basis.*
- *only allow the operation of such services where they are considered to constitute an appropriate use of the spectrum, and where the ACMA is satisfied that the unspecified service is unlikely to cause harmful interference to another service.*

It is noted that this limitation on the authorisation of unspecified services does not extend to services authorised by spectrum or class licences because of the operation of section 9 of the Spectrum Plan – spectrum licensing and class licensing.

We also note in Attachment B the DRAFT Unspecified Services Policy for “unforeseen spectrum use” states:

*In cases where a proposed new use of the spectrum arises, and **the ACMA deems it to be an appropriate, useful and beneficial use of the spectrum which will be able to operate alongside any existing services**, subsection 10(10) may be used to allow its operation even where the ARSP does not explicitly allocate an appropriate frequency band.*

We note that Attachment B uses the Case Study of SmallSats to demonstrate the need and applicability of the proposed subsection 10(10) which includes the following:

In the United States, small satellites are being licensed mainly as experimental devices or are operating as non-commercial satellites in amateur bands. Neither of these solutions are ideal or viable in the long term, especially as demand for these devices is expected to greatly increase in the coming years.

At the moment, there is no obvious convenient way to licence many of these devices in Australia which creates difficulties both for prospective users of these systems and for the ACMA as the regulator.

In the longer term, as the technology matures, frequency bands may become more standardised and the International Telecommunication Union may make specific arrangements in support of these devices. In the meantime, however, it is considered that the ACMA should be able to consider requests for the operation of unspecified services (such as those characterised by the use of SmallSats) on a case-by-case basis, based on the intended frequency band(s), the characteristics of the unspecified service and the potential effect that the unspecified service may have on other spectrum users.

Free TV is concerned there is no defined technical and regulatory framework for the application of SmallSats in Australia. It appears the expediency of putting something into place on a case-by-case ad hoc basis would set an unnecessary precedent for many incumbent spectrum licensees in a number of bands.

In addition, we wonder if the introduction of the Unspecified Services Policy for SmallSats is premature?

As the ACMA is aware WRC-15 agenda item 9.1.8: Picosats & Nanosats resulted in the publication of the following in ITU-R Study Group 7:

Report ITU-R SA.2312 Characteristics, definitions and spectrum requirements of nanosatellites and picosatellites, as well as systems composed of such satellites

Report ITU-R SA. 2348 *Current practice and procedures for notifying space networks currently applicable to nanosatellites and picosatellites*

Free TV would highly recommend the ACMA put a technical framework in place for the application of SmallSats in frequency bands to provide some certainty to both the implementers of these space craft and the incumbent Australian licensees in the bands where SmallSats may be deployed.

In addition, WRC-19 Agenda Item 1.7 is

to study the spectrum needs for telemetry, tracking and command in the space operation service for non-GSO satellites with short duration missions, to assess the suitability of existing allocations to the space operation service and, if necessary, to consider new allocations, in accordance with Resolution 659

Free TV considers Australian stakeholders should closely monitor all developments within these studies towards outcomes at WRC-19 so that any technical framework which is brought into force does not create “legacy” issues for Australian spectrum licensees in bands where SmallSats might claim some spectrum rights based upon precedence.

Free TV looks forward towards taking part in the development of these technical frameworks.

Yours sincerely.



Roger Bunch

Director of Engineering

Cc:

Brett Savill CEO - Free TV Australia

John Albiston Chair – Engineering Committee

Trevor Nash Chair – PG – BSB

David Searle Chair – PG – DTTB