

15 June 2018



**David Brumfield**

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Dear David,

**RE: 3.6 GHz band legislative instruments consultation**

The Communications Alliance Satellite Service Working Group (SSWG) welcomes the opportunity to provide this response to the *3.6 GHz band legislative instruments consultation* by the Australian Communications and Media Authority (the ACMA).

The SSWG has reviewed the consultation papers and is generally comfortable with the machinery of government being proposed for the reallocation of the 3.6 GHz spectrum band following the three Ministerial Declarations of 5 March 2018.

In reviewing the papers, the SSWG wishes to draw to your attention to an apparent anomaly with the C-Band filter characteristics on Earth Station receivers in the *Radiocommunications Advisory Guidelines (Managing Interference from Spectrum Licensed Transmitters — 3.4 GHz Band) 2015* (paper RAG Tx 3.4 GHz).

In Section 4.3 *Protection requirements – Earth receive stations operating in the 3600-4200 MHz band for fixed-satellite services*, the SSWG has identified an unexpected step function behaviour in Table 1. In reviewing this table Telstra has offered the following solution: in the second row of the table, 50 MHz should be subtracted from the offset value, given that row applies from 50 MHz to 150 MHz. If this amendment is made to the table, then the step function, with the unexpected steps at both 50 MHz and 150 MHz disappear, resulting in alignment with the FCC filter mask which was proposed by the ACMA in the TLG consultation (refer to page 34 of the TLG document Ver 4). The amended table and ensuing plot are attached to this letter. We understand that both Telstra and Foxtel will also be pointing this out in their submissions.

The SSWG also notes that the wording in the table heading 'Frequency offset (MHz) from the lower or upper frequency on the earth receive station licence' is not practical when there are multiple licences associated with the same Earth Station. The previous wording 'Frequency offset from lower edge of Earth station receiver (MHz)' in RAG Tx 3.4 GHz 2015 (and RALI MS39) is better, and in practical terms, these filters operate from the bottom of C-band either 3700 or 3800 MHz and are not generally tuned for a specific receive frequency.

Thank you for your consideration of this submission. If you have any questions with regards to this response, please contact Mike Johns on (02) 9959 9125.

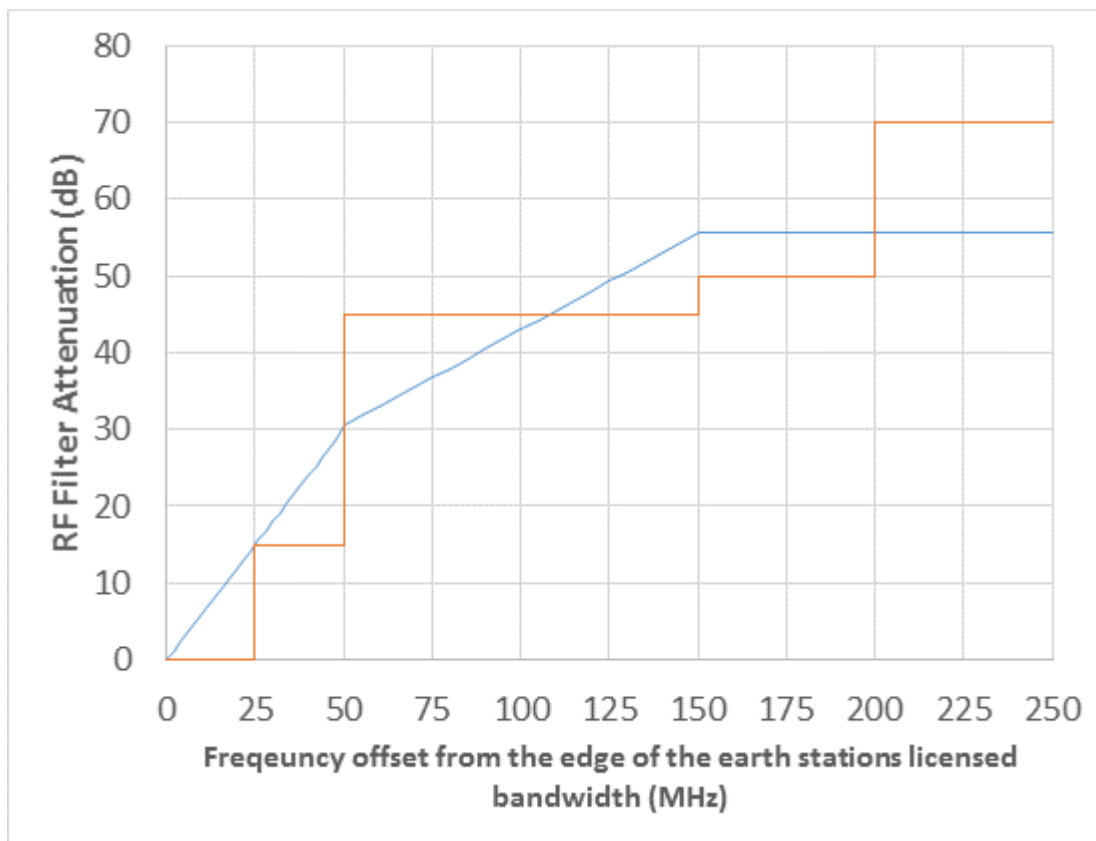
Yours sincerely,

A handwritten signature in black ink, appearing to read "John Stanton". The signature is fluid and cursive, with a large initial "J" and a long, sweeping underline.

John Stanton  
**Chief Executive Officer**

Frequency offset (MHz) from the lower or upper frequency on the earth receive station licence	Rejection (dB)
$\leq 50$	$0.5 + 0.6 * f_{\text{offset}} \text{ (MHz)}$
$50 < f_{\text{offset}} \leq 150$	$30.5 + 0.25 * (f_{\text{offset}} - 50) \text{ (MHz)}$
$150 < f_{\text{offset}} < 200$	55.5
$\geq 200$	70

Amended Table 1: Minimum frequency response of Earth receive station's RF filter



Orange line - RAG Tx 3.4 GHz Table 1  
 Blue line – Corrected Table 1, aligning with FCC mask