

RSM Policy & Planning
RSM P&P, MBIE,
WELLINGTON

6th March 2015

Dear RSM,

FIXED SERVICES DISCUSSION DOCUMENT

Thank you for the opportunity to comment on the Fixed Services Discussion Document. As an independent radio engineer and ARE I have been involved in a wide variety of engineering and licensing projects involving fixed services. Based on this experience I have the following comments:

8. *Should the current '1 dB interference threshold degradation' method prescribed in Section 4.3 'Co-channel interference threshold' of PIB 38 be retained or replaced with a carrier to interference method?*

I support retaining the 1dB threshold. If the C/I calculation permits a significantly higher interfering signal, that suggests that the existing signal(s) is higher than it needs to be. Maybe a review of the radiated power of existing links going to major sites would highlight some which are too high due to poor engineering or incorrect setup. This would be a better way of using spectrum efficiently rather than licensing new links with higher transmission powers based on the C/I calculation.

18. *Should digital services be permitted in STL bands?*

I support the introduction of digital STL's to improve the spectrum efficiency of these links. However the paper does not mention some of the challenges this would create. These include more D/A and A/D conversions in the total signal path which could contribute to signal distortion. They can also cause delays which interfere with live feedback monitoring. Choosing the right compromise between performance and spectrum efficiency will be necessary to minimise these effects.

22. *Should a limit of three STL licences (via a combination of analogue and digital transmissions) at any single location be introduced for any single licensee?*

A review of STL use some years ago also highlighted a number of licences which were being held but not in use. This was justified as the need for a cold standby link or as a reserve for future expansion (i.e. squatting on the channel). Any unused licenses should be reviewed to ensure they are not denying current users access to the spectrum.

TVOB I note that no comment is made on the allocations for TVOB in OX band. The current allocation is inconsistent with most other countries which becomes an issue when large events require overseas media to bring in their own equipment. This results in short term licences compatible with the specific equipment being negotiated with one or more MR holders in the 2 – 3 GHz band. As much of this spectrum is now being used for the new 4G cellular rollout it is becoming more and more difficult to find vacant spectrum for these short term TVOB licences. It is recommended that this topic is included in this discussion on fixed services to help identify a way forward.

I am happy to discuss any of these comments in more detail if need be.

Yours sincerely

Larry Purchas