



visit us
100 Victoria Street West
Auckland 1010

mail us
PO Box 3819, Auckland 1140

tvnz.co.nz

SUBMISSION TO MBIE ON TECHNICAL ARRANGEMENTS OF THE 3.5 GHz BAND

29 July 2019

This submission is made on behalf of Television New Zealand Limited (TVNZ), in response to the Ministry of Business, Innovation & Employment's Discussion document: Technical Arrangements of the 3.5 GHz Band

TVNZ thanks MBIE for the opportunity to comment on technical arrangements around 3.5 GHz band.

TVNZ has owned operated a C-Band satellite earth station at the corner of Victoria and Hobson Streets in Auckland since October 1991.

We are concerned about potential loss of utility in the lower of C-Band and have already suffered harmful interference from 5G trials.

TVNZ first signalled to RSM concern about C-Band satellite reception in our submission of 10 March 2017 to the Spectrum Outlook Paper.

TVNZ did not make a submission to the public 2018 5G discussion paper because information released by RSM prior to the discussion paper (for example, information presented by RSM in preparatory workshops) did not highlight possible threat to TVNZs enjoyment of reception of the C-Band above 3690 MHz. There were no questions in the 2018 5G discussion paper that highlighted this as a possibility.

Question 8: Do you agree with the choice of EIRP over the TRP?

TVNZ agrees that 5G services should be licensed using EIRP rather than TRP to maintain consistency of the licencing regime.

Licencing 5G using TRP would create unnecessary inconsistency and confusion in assessing the compatibility with other service types.

The obligation must be on the operators of 5G service to clearly demonstrate compatibility with adjacent services.

TVNZ notes that maintaining this restriction in the radio licencing regime will not prevent 5G operators from using TRP for their own intra-service compatibility calculations.

Question 12: Do you agree with the arrangement for satellite services in the frequency range 3800-3840 MHz?

New Zealand is an island nation and rare but extreme events mean that continued presence and maintenance of satellite reception capability is important.

New Zealand should very carefully consider protection of more than a single satellite earth station to provide diversity during rare but likely extreme events.

In the case of TVNZ this is important to be able to maintain international news gathering capability and credibility.

There have been suggestions of maintaining protection for some satellite earth stations in C-Band between 3700-3840 MHz. TVNZ assert that it is prudent to protect more than one satellite earth station location to assure utility during rare but extreme events.

For example, TVNZ suggest that both Warkworth and TVNZ at the corner of Victoria and Hobson Streets at Auckland should both be protected through technical provisions.

New Licences

RSM suggest:

'... granting new receive-protection licences for satellite downlink in the frequency range 3800-3840 MHz on a case-by case basis.'

TVNZ supports this, especially for established satellite earth station operators with a legacy of C-Band reception.

Protection of existing Incumbent licences

RSM suggest

'Incumbent receive-protection licences that include 3800-3840 MHz, or parts thereof, will be protected through an encumbrance arrangement under a condition associated to the respective management right in the upper end of the 3.5 GHz band.'

TVNZ supports this and suggest also that under certain circumstances the support should also extend to new or modified licences for incumbent users as described below in the section **Protection of Changing Incumbent Use**.

TVNZ would like to understand what the condition looks like before it is enacted so that we can present an informed view on this technical protection mechanism.

Protection of Changing Incumbent Use

Existing receive-only licences should not be looked upon as a static requirement.

TVNZ finds that over time international news and/or program feeds via C-Band undergo changes in frequency and other technical parameters.

News Gathering

International news distributors provide a mixture of free-to-air channels ranging from a situation where a receiving party must provide its own receiver, to the opposite where receivers are provided to news agencies like TVNZ so that they can use these for news gathering.

In both of these scenarios the channel used can change over time, with warning given for free-to-air, but sometimes unannounced for services where receivers are provided and managed by an international news agency.

Itinerant Programme Feeds

TVNZ also provides and receives live programme feeds in the lower C-Band.

The satellite and frequency of these types of feeds are often only confirmed 1-3 days ahead of a broadcast.

TVNZ appreciates the recent assistance from MBIE to ensure the most common uses by TVNZ in this band are protected.

But like the news gathering requirement, flexibility needs to exist to create or modify licences to accommodate changing needs for itinerant use.

TVNZ would be happy to answer any questions or clarify its response.

Wayne Huggard
Transmission Services Manager
TVNZ
