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Nature of Organisation's interest: - Conservation
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Subject 806 -960 MHz Band Replanning Options

Response to Question 1 No comment
Response to Question 2 No my organisation does not use the KK Band
Response to Question 3 Yes and No

Yes. While this band is being used extensively for Studio Transmitter Links (STL), and there seems to be pressure on the resource which indicates the band is well utilised.
No. The issue concerning STL was looked at recently only few years ago by the Ministry when similar pressure for additional spectrum was observed. At that time a number of recommendations were proposed for improving the situation as well as allowing the use of extra spectrum for STLs. Industry has not implemented all the recommendations of this previous review, especially the move to the consolidation of common path STLs and moving to digital technologies.
If additional spectrum was forthcoming, would not history repeat, and we will need to look at this again in a few years time?
During the period between the past review and now I believe nothing the demand both forecasted and actual has not changed. Surely a fundamental change in the way STLs are used is necessary. AM radio does need the high bandwidth, however only one STL technology is used.

Response to Question 4 Not currently

As the Ministry will be aware the ITU, has recommended that PPDR (public protection and disaster relief) wideband services be accommodated in part of this radio spectrum last year. The impact of this for those organisations involved is not fully known at this time. The process for developing the standards associated with UHF digital wideband radio systems, are just reaching their final stages. The existing Emergency Service "D" band is currently very small and may not be large enough for deploying the envisaged wideband radio service technologies.

Any relocation of services within the 806 – 960 MHz band should be addressed as a complete exercise looking at the requirements of all users. The land mobile users have only recently introduced digital services, with new APCO, and Tetra narrowband digital land mobile radio systems currently being deployed nationally. Both of these radio systems have wideband service options, recommended deployment being in the band under review, as do other evolving digital land mobile radio systems current under development. More investigation is needed to ensure sufficient spectrum, for digital land mobile radio services will be available for these wideband applications. Any digital wideband spectrum need to be compatible with international equipment specifications.

I would suggest that the Ministry include the new evolving digital land mobile application needs into their planning with a long term view.

Response to Question 5 Preference is for the band to be harmonised for both the European and North American markets.
Response to Question 6 No Comment
Response to Question 7 No Comment
Response to Question 8 Yes. I am Concerned PPDR organisations have not fully dimensioned their likely requirements in this band.

Response to Question 9 See question 8

Response to Question 10 See question 8

Many overseas administrations located the spectrum below 1GHz p generally to mobile services, limiting point to point applications. The suggestion that STLs would be a suitable use for the 841-849 MHz spectrum needs further qualification. The previous recent review of STL usages by the Ministry indicted the existing spectrum could satisfy future demand. It suggesting additional mechanisms to support that view. The fact that it has surfaced again so soon, could indicates unwillingness for industry participants to move to other technologies or delivery systems, believing Radio Frequency spectrum is not a finite resource.

If new spectrum was opened up for STLs, it should be mandated that this spectrum must use digital and more spectrum efficiency bearer systems. Therefore digital STLs along with multi channel bearer systems would be the preferred technologies for any new STL spectrum. Likewise the practise of overlaying additional analogue STLs that result in multiple common analogue STLs paths should also not be allowed.

This also raises the continuing suitability of the equipment standards for fixed studio transmitter linking. The use of RFS 36 and 37 standards must be questionable in today Radio spectrum management environment. Studio transmitter linking is just a point to point radio bearer application the emission mark applicable for this service should be identical to any other directional radio system with similar operating bandwidths. Given PDDR UHF wideband systems could be an alternative use for any proposed STL spectrum surely STL should match these PDDR services in their spectrum usage / efficiency characteristics.

Response to Question 11 the preference is to be harmonised with NZ's trading partners,

Response to Question 12 No comment.

Response to Question 13 No comment

Response to Question 14 No comment

Response to Question 15 No comment

Response to Question 16 Only Digital STL's should be allowed

Response to Question 17 No comment

Response to Question 18 No comment

Response to Question 19 Agree 5 year period is about right.

Response to Question 20 Land mobile wide band services needs to be factored in otherwise the band will need to be revisited in a few years.

Response to Question 21 Digital wideband Land mobile services. The ESD band however is too small.

Response to Question 22 It should be possible to mix certain land mobile services and other SRD application in the same bands if certain precautions were taken.

Why limit this to just Land mobile services?

VHF/UHF broadcast bands effectively already have unlicensed Short Range Devices operating in them. Proving it is possible and may be an option to explore further.

Response to Question 23

The provisions necessary for operating mixed services in the same band, obviously the focus needs to be on parameters such as for example:-

- a) The relative transmit power levels between SRDs and other licensed services operating in the area of use.
- b) The compatibility of the signal emission classifications for the SRDs as well as other licensed services.
- c) Agile frequency selection

Response to Question 24

No comment

Response to Question 25

No comment

Response to Question 26

Further investigation necessary.