

4th April 2002

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Dear Jane and Catherine

The Response of Motorola Ltd. to the Consultation “Digital Television: The Principles of Spectrum Planning”

Motorola is grateful for the opportunity to respond to the above consultation.

We believe it appropriate that we refrain from commenting on the detail of how the spectrum should be organized for the broadcast use. We have therefore chosen not to respond directly to the ten specific questions listed in this consultation but to concentrate on comments relating to section 4 of the consultation.

We agree with the consultation conclusion that it is too early to finally decide what uses all the cleared spectrum should be put to (para 4.5). We note however, that the USA has undertaken a similar exercise and has identified 60MHz of spectrum to be recovered. A plan (attached) has been developed on how to re-deploy this spectrum. As the amount of UK spectrum to be recovered is predicted to be much more than in the US we obviously cannot simply copy their plan. Nevertheless, it is significant that the US plan has 40% of the total reserved for Public Safety voice and wideband services.

In our response we shall restrict our points to those relating to the principles by which the cleared spectrum should be arranged to ensure maximum flexibility and access to ensure success for future users of that spectrum.

Our points:

1. Splitting the spectrum

We note from the consultation that between 96 and 160MHz of spectrum may eventually become available from this switchover sometime after 2010. Whilst this is clearly a large amount of spectrum it is certainly not large enough to split into numerous separated blocks and still, at the same time, expect it to support the kind of

very high data rate multimedia services that may be required at that date. We therefore conclude that the greatest flexibility would result from a decision to have all the cleared spectrum in a contiguous block.

We are convinced that a block of spectrum (perhaps in excess of 100MHz even allowing some reservation for public safety use) ought to be capable of supporting services which will be very valuable to the Nation through their widespread up-take and use. We would appreciate information on how many sub-divisions of this block are envisaged. Our concern is that too many and there would be insufficient spectrum in each sub-division to support appropriate multimedia services. This is a key question and we propose this should be the subject of further debate closer to the time.

2. Clearing the top of the band

In consideration of the need for greater and greater use of the spectrum, it is important to study the possibility of re-using the spectrum by means of geographical separation. This is much easier to arrange at higher frequencies than at the lower frequencies due to the propagation properties of radio at higher frequency. Whilst we recognize the need to coordinate with the rest of Europe, the use of lower powers (consistent with re-use within the UK) may alleviate interference and thereby give us more flexibility. We therefore conclude that the cleared spectrum should lie at the top of the existing band. This would also have the advantage of some degree of harmonization with the USA over at least some part of the spectrum recovered which could be advantageous.

3. Access to the spectrum

The access to the cleared spectrum should not be at excessive cost. Spectrum licence fees should be arranged to ensure that investment in new systems and services is not impeded. Significant new development and investment will be required to provide the necessary equipment to bring these bands into use.

If this block of spectrum were to become internationally harmonised it would provoke important new services to be envisaged for this band which could be deployed elsewhere. This would make this spectrum much more valuable. If however, this is not the case then the spectrum must attract fees commensurate with its value as a National (but not International) market.

Motorola is not convinced that it is possible to design a set of auction rules that avoid the bids rising to levels that are above what would be considered the market value because of the current situation of artificial scarcity of spectrum. We accept that spectrum trading may moderate the "win-or-die" compulsion some bidders may find themselves under but in general this is yet to be proved.

We therefore conclude that because this spectrum has the potential to sustain limited amounts of valuable services, auctioning the licence is much too risky and should be avoided.

4. Harmonisation with other regions to supply services for public safety agencies

We note that the United States of America has designated 2x12MHz (764-776MHz paired with 794-806MHz) for both narrow band and wideband communications used for public safety. At least one other administration is considering an allocation in the same range.

This allocation approximately corresponds to the existing channels 57 to 62.

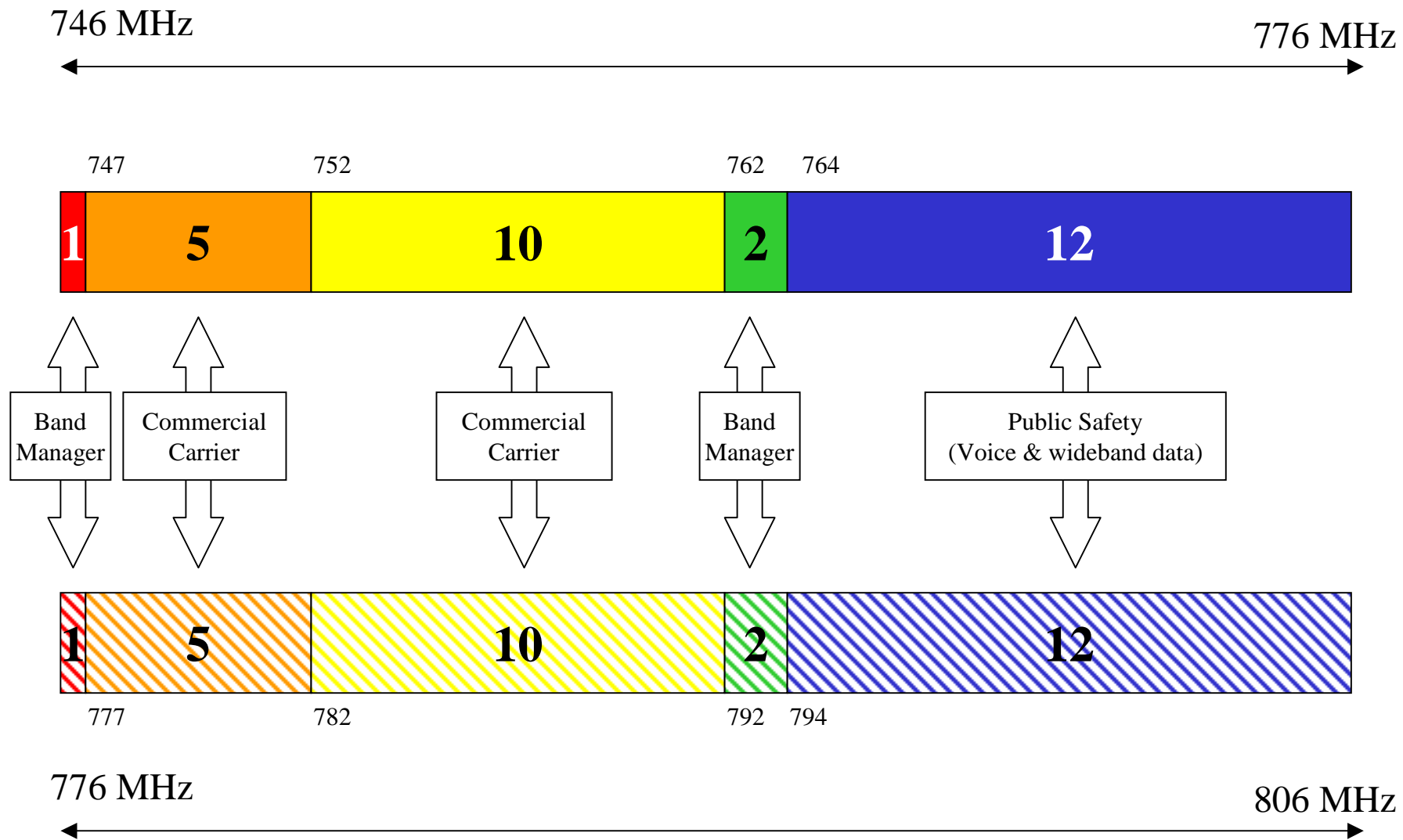
In view of the seriousness of the societal need that this designation addresses it would appear appropriate that serious consideration is given to having a similar allocation in the UK, harmonised with this band in the US.

We attach a graphical representation of the US plan for their recovered spectrum for your convenience. The diagram shows the allocation size, the frequency ranges, the channel pairings and the nominal beneficiaries foreseen by the plan.

Yours sincerely

Tim Cull
Director, Telecommunications Policy, Motorola Ltd.

Attachments: US Recovered Spectrum Plan.



US Arrangements for Recovered TV Spectrum