Title:

Mr

Forename:

Samuel

Surname:

Hunt

Representing:

Organisation

Organisation (if applicable):

Maxxwave Ltd

Email:

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What additional details do you want to keep confidential?:

No

If you want part of your response kept confidential, which parts?:

Ofcom may publish a response summary:

Yes

I confirm that I have read the declaration:

Yes

Additional comments:

Question 1: Do you agree with Aegis?s conclusions on congestion of current use of 420-470 MHz spectrum? Are there any other signs or areas of congestion that Aegis have

not identified from their review?:

I believe that there is clear congestion in this frequency band simply by the fact that:-

1: Applications for licenses are being refused in many areas
2: When approved, often licenses arrive with reduced parameters to that expected

Many radio dealers do not even bother to apply for licenses in this band because they know it is very unlikely to succeed.

Question 2: Do you agree with Aegis?s conclusions on the future demand and use of 420-470 MHz spectrum over the next ten years? Are there any other future uses or areas for future demand that Aegis have not identified from their review?:

We believe that growth is already being hampered by lack of spectrum and actually the problem began 20 years ago. Therefore it is impossible to predict into the future because the current data is fundamentally flawed.

Question 3: Do you agree with Aegis?s conclusions that there is not yet any UK demand for wideband services in the 450-470 MHz band (which could for example, be used to improve rural mobile coverage)? Please provide any supporting evidence for your position.:

There is always demand for wideband services in every frequency band, as evidenced by every auction for every frequency band being snapped up quickly by interested parties.

I think if there was an auction for the 450-470mhz band then it would quickly be purchased for wideband services.

The question is not "is there any demand", the question really should be "are wideband services the best use for 450-470mhz". To this question we would answer no, wideband services are not the best use for 450-470mhz

Question 4: Have you experienced degradation in your systems? performance which you consider to be caused by continental interference in the last 12 months? If yes, what approach did you take towards managing and minimising interference?

Please provide any supporting evidence which explains the frequency, impact, duration, time, location and cause (whether suspected or investigated) of the interference with respect to your specific sector(s).:

We do not do enough work in this band on wide area systems near to the coast to be able to answer this question accurately.

Question 5: Is there additional information relevant to the configuration of the 420-470 MHz band that we should consider in developing our approach to its future management? Please provide any evidence to support your views.:

I believe that much of the 420-470band is sterilized by wide area radio systems which give very little spectral efficiency.

This band is uniquely important to the PMR community in that it is the only band to offer viable handportable coverage.

Radio systems using mobile units only and systems which have low channel utilisation but sterilise wide areas (such as the entire M25 area) are very poor uses of this band.

Question 6: Do you agree with the potential solutions Aegis have proposed for managing the 420-470 MHz band to both meet the continued growth in congestion and demand from incumbent spectrum users, and to facilitate the deployment of wideband technologies? Are there any other solutions which you consider we should examine that Aegis have not identified from their review?

Please provide any evidence to support your position and reference each solution in your response as appropriate.:

Question 7: Do you have any further comments relevant to how we might manage spectrum between 420-470 MHz? :

I believe that all installations on UHF in "congested" areas should be limited to downfire antennas, 4W base ERP, 1W mobile ERP (note the higher base ERP is due to 6dBd typical gain from a downfire antenna and would represent 1W TX power from a base station, thereby giving reciprocity)

Due to the line of sight nature of this band, high transmit powers from omni antennas can sterilise huge areas, up to 100km from a base on hilltops. Furthermore there is a very low noise floor on this band which means high transmit powers simply are not necessary like the lower frequency bands.

I believe that a license fee review in this band for wide area systems would be beneficial, with perhaps the fee criteria being altered for this band to encourage lower transmit power.

I suggest that the "Highly Congested" fee zone also be extended to other major conurbations that also experience issues, such as Manchester, Leeds and Birmingham.

The test of if a frequency band is "highly congested", I believe is if 3 different frequencies cannot be found that would facilitate a 25W ERP base at 100m antenna height in the centre of the grid square. This is clearly the case for UHF in many cities in the UK, so therefore it should be "Highly Congested".

I believe also that the license fees, previously set in 2006(?) have also not tracked with inflation and do not do enough to discourage use of this band for wide-area systems.

I believe however that on-site handportable systems using downfire antennas should not be penalised financially in any licence fee changes.

Question 8: Do you have any comments on our proposed programme of work, the outcomes from which we will use to inform future decisions on how we manage the 420-470 MHz band? Are there any additional areas you consider we should explore?:

Whatever you do will be wrong for some people, but I believe you have a good plan for moving forwards with this band.

I think serious consideration should be given to the fees, systems which sterilise wide areas and high power systems in this band.