## Dr M Gordon

## **Additional comments:**

I am truly astonished that this sell off has even been contemplated without someone realising the crucial importance of radio band with to all electronic hearing devices.

Question 4.1: Do you agree with our proposal to conduct a market led award through an auction process for licensed use of the 2.3 and 3.4 GHz bands? If not, please provide evidence to counter this proposal.:

Deaf children use these radio band widths in their FM radio aids equipment. These band widths are also used by deaf people (children and adults) who wear hearing aids and indeed cochlear implants.

Have the manufacturers of these been consulted?

Have the specialist ENT surgeons all over the UK who implant Cochlear Implants into deaf children and adults been consulted about this sale?

Question 4.2: Do you agree that we should not offer arrangements for aggregate bidding for low power use for these release bands? If you believe we should make such arrangements, please provide supporting evidence.:

YOU cannot risk the high likelihood of interference with hearing aids and radio hearing aids in use all over the UK in almost every school! Hearing is a low incidence disability BUT deaf people are everywhere! What will the parents of each deaf child say?

Question 6.1: Do you have evidence to challenge our methodology and assumptions, which show the number of Wi-Fi routers likely to be affected by LTE interference is low?:

I do not mind whether it interferes with wi fi! It WILL interfere with devices used daily by deaf children and that is against the Equalities Act and fundamentally interferes with the UN Rights of the Child!

Question 6.2: Do you have evidence to challenge our methodology and assumptions, which show the number of Wi-Fi client devices affected by LTE interference is low?:

See above! That is NOT the main problem!!!

Question 6.3: Do you agree with our assessment of the available options for mitigation of interference to home networks?:

As above!

Question 6.4: Do you agree with our assessment of the available options for mitigation of interference to public networks (both indoor and outdoor)?:

I will interfere with public networks used by deaf children!!!!!

Question 6.5: Do you agree with our assessment of the available options for mitigation of interference to Enterprise Networks?:

Question 6.6: Do you agree with our conclusion that the impact to Wi-Fi is not of a significant nature and therefore no regulatory intervention is necessary? If not, can you provide evidence?:

Question 7.1: Do you agree that we do not need to perform technical analysis on the applications in the middle of the band as set out in paragraph 7.7?:

You cannot be serious! You need to perform MAJOR technical analysis vis a vis radio hearing aids and coclear implant devices and indeed modern digital hearing aids asap!

Question 7.2: Do you agree with our technical analysis in relation to Bluetooth devices operating in the 2.4 GHz band, and that no additional restrictions are required in order to protect these applications?:

Many hearing aid users ( ie deaf people) use bluetooth devices also but with their hearing aids etc..

You need to look into this very urgently!

Question 7.3: Do you agree with our technical analysis in relation to ZigBee devices operating in the 2.4 GHz band and that no additional restrictions are required in order to protect these applications?:

Question 7.4: Do you agree with our technical analysis in relation to video sender devices operating in the 2.4 GHz band and that no additional restrictions are required in order to protect these applications?:

Question 7.5: Do you agree with our technical analysis in relation to radio microphones devices operating in the 2.4 GHz band and that no additional restrictions are required in order to protect these applications?:

Teachers in many many mainstream schools all over the UK use radio transmitters all day long so that the deaf child in their classroom, wearing wireless receivers on their hearing aids can receive an ENHANCED and clearer signal. Other teachers and lecturers in college use SOUND FIELD systems which use radio microphones to save their voices and improves the sound quality to ALL students. Waht will happen to all the equipment.

Question 7.6: Do you agree with our technical analysis in relation to short range devices operating in the 2.4 GHz band and that no additional restrictions are required in order to protect these applications?:

See above.

Question 7.7: Do you agree with our technical analysis in relation to medical devices operating in the 2.4 GHz band and that no additional restrictions are required in order to protect these applications?:

NOT AT ALL!

You have NOT considered MEDICAL devices ie the hearing aids which thousands of children in the UK cannot manage without day and daily in their lives! Many adults use hearing aids all day long also!

Question 7.8: Do you agree with our technical analysis in relation to emergency services use in the 2.4 GHz band and that no additional restrictions are required in order to protect these applications?:

Question 7.9: Do you agree with our technical analysis in relation to hearing aids and assisted listening devices operating in the 2.4 GHz band and that no additional restrictions are required in order to protect these applications?:

NOT at all! I disagree completely and feel you are NOT aware of the implications at all!

This is really really serious!

MAJOR additional restrictions are needed!!!

Question 8.1: Do you agree that the available mitigations address the potential shortfall of spectrum for PMSE at major events and that no additional regulatory intervention is necessary to protect PMSE in frequencies adjacent to the award bands?:

Question 8.2: Do you agree that PMSE should have some continuing access to spectrum in the 3.4 GHz band until new services are rolled out in an area?:

Question 8.3: Which option for the provision of information about the roll-out of new services is most the appropriate? Should the requirement to supply information apply only in designated locations?:

You need to consult ALL the relevant people who are very concerned about this!

Question 8.4: Do you agree that any continuing access should be limited to five years from the award of new 2.3 and 3.4 GHz licences?:

FIVE years is FAR TOO LONG! You really need to consider very different alternatives.

Question 8.5: Do you agree with our assessment that there is little incremental benefit in on-going PMSE access to the 2.3 GHz award band?:

Question 10.1: Do you agree with our proposal that no coordination procedure is necessary in respect to maritime radar?:

- Question 11.1: Do you agree with our proposal to require coordination procedures for the 3.4 GHz band in order to protect of air traffic control radar in line with those applied to the 2.6 GHz band?:
- Question 12.1: Do you agree that for mobile satellite services operating in the band between 2170 and 2200 MHz, coexistence with LTE operating in the award bands above 2.35 GHz is unlikely to be an interference problem?:
- Question 12.2: Do you agree that satellite services operating in the band 2483.5 MHz to 2500 MHz can co-exist with LTE operating in the award bands (i.e. 2350 to 2390 MHz and 3410 to 3590 MHz) and there is unlikely to be an interference problem?:
- Question 12.3: Do you agree with that for satellite services operating between 2200 and 2290 MHz, coexistence with LTE operating in the release bands is unlikely to be an interference problem?:
- Question 12.4: Do you agree that for amateur satellite services operating between 2400 and 2450 MHz, coexistence with unwanted/out of band emissions of LTE operating in the release bands (the nearest release band is 2350 to 2390 MHz) is unlikely to be a greater problem than the current inband interference from licence exempt and ISM uses?:
- Question 12.5: Do you agree with our preferred option to adopt our proposed mask with informal co-operation on a case-by-case basis if required?:
- Question 13.1 Do you agree with our preference not to have a transitional region between blocks for licences in the 2.3 GHz band?:
- Question 13.2: Do you agree with our preference not to have a transitional region between blocks for licences in the 3.4 GHz band?:
- Question 13.3: Do you agree with our preference to not require synchronisation between different networks in the frequency band?:
- Question 13.4: Do you agree with our preference to include both the permissive (unsynchronised) and restrictive (synchronised) masks within the TLCs in the 2.3 GHz band?:
- Question 13.5: Do you agree with our preference to include both the permissive (unsynchronised) and restrictive (synchronised) masks within the TLCs in the 3.4 GHz band?:
- Question 13.6: Do you agree with our preference to not require synchronisation between different networks in the frequency band?:

Question 13.7: Do you agree with our proposed maximum in band power limit for base stations in the 2.3 GHz band?:

Question 13.8: Do you agree with our proposed maximum in band power limit for user terminals in the 2.3 GHz band?:

Question 13.9: Do you agree with our proposed maximum in band power limit for base stations in the 3.4 GHz band?:

Question 13.10: Do you agree with our proposed maximum in band power limit for user terminals in the 3.4 GHz band:

Question 14.1: Do you agree with our approach that it is not necessary to impose any guard bands or restricted blocks in order to manage the adjacencies between the incumbent UK Broadband and new users of spectrum to be awarded in the 3.4 GHz band?:

Question 14.2: Do you agree with our approach to require UK Broadband to have the same coordination requirements as other users of the band?: