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Source:	Joint Coordination Activity on Accessibility and Human Factors (JCA-AHF)
Title:	LS/o on Assistive Listing Devices (ALD) and the allocation of Mobile Phone Services in the 2.3-2.4 GHz band

LIAISON STATEMENT

For action to:	ITU-R SGs 4A, 4B, 5A and 5D; ETSI ERM; ITU-T SG16 and SG2
For comment to:	ITU-T SGs 3, 5, 9, 11, 12, 13, 15 and 17; ITU-D SG1 and SG2; CEPT WGFM
For information to:	ITU-R SG 6; FCC (USA); OFCOM UK
Approval:	By correspondence via JCA-AHF reflector (Geneva, 23 May 2014)
Deadline:	-

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It has come to the attention of the Joint Coordination Activity on Accessibility and Human Factors (JCA-AHF) that if Administrations reallocate the 2.3-2.4GHz band to mobile phone operations, the adjacent band 2.4-2483.5GHz used (amongst others) by Assistive Listening Devices (ALDs) and Cochlear implants, that ALD users will suffer from interference. This could be caused by someone just walking outside your house or school using a mobile phone on these frequencies. This will also impact children in schools who use assistive listening systems for learning and hearing their teacher.

OFCOM UK had a public consultation on the issue and asked for a response to the consultation with a deadline of the 15th of May. Many people including the Chairman of the JCA-AHF responded to that consultation stating that there was not any recognition of the problems that persons with disabilities would have. Specifically, the problems are with interference for those with a hearing impairment using ALDs. There is evidence that ALD users would encounter inference as identified in the OFCOM Consultation (7.87 see **Annex 1**). If this sale or any sale goes forth without better safe guards being introduced into the sale and license conditions, many ALDs and cochlear implant users are at risk of interference.

To date there has not been any official compatibility study of direct interference problems or a concerted effort to identify or solve the problems that are likely to occur if the lower channels of the 2.4-2.483.5 GHz band are blocked by mobile phone transmissions. This blockage will cause congestion in the remaining spectrum, and cause an increase in the noise floor interference that will reduce the sensitivity of the ALD systems.

ALDs are vital to the community of deaf and hearing impaired adults, older persons with age related disabilities and children especially in the latter in their educational needs in both content and speech development.

The problem is that there is a threat that mobiles phones will once again cause interference to ALD users, if the selloff in the UK or any other Administration takes place without a public study of the interference potential and therefore develops appropriate safe guards.

The United Nations Convention on the Rights of Persons with Disabilities (UN CRPD) states in Article 9 that persons with disabilities are to be included in communication. The ITU Resolution PP10 175 supports the inclusion of persons with disabilities to access communication and participate in the standards making process and includes them in that work. The JCA–AHF's mandate to inform is ITU wide and can and does include other outside organizations within the UN system, other NGOs or academia and any organization representing persons with disabilities. The JCA-AHF is highlighting this issue at its next meeting at the ITU in Geneva on 30th of May 2014.

JCA-AHF requests that prior to finalisation of any regulations or licence conditions for the 2.3-2.4GHz band, the use of ALDs and cochlear implants are carefully considered and provided with safeguards which will allow continued use of these devices without interference, so as not to hinder the quality of life for persons with disabilities that depend on ALDs.

Annex 1: Applicable text from Ofcom UK Consultation document

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Hearing Aids and Assistive Listening Devices (ALDs)

7.87 We have spoken to manufactures of hearing aids and ALDs (including those recommended to us by Public Health England and Action on Hearing Loss72) because we understand several ALDs on the market use the 2.4 GHz band. Uses for such devices include:

- Streaming audio to hearing aids from a main speaker (e.g. a teacher in a class room has a device which transmits and is picked up by the devices worn by a pupils);

- In home media streaming to a body worn device or directly to the hearing aid;

- Streaming between in-ear devices in the left and right ears.

7.88 In the particular circumstance where hearing aids and ALDs are being used (i.e. in classroom and in home scenarios) we believe it is reasonable for users be made aware of the slight risk of interference from LTE mobile devices (e.g. phones and laptops). Most issues can be resolved by careful positioning of these LTE devices or by switching off mobile phones in the classroom.

7.89 One of the manufacturers we spoke to said they would be happy to advise schools using their products about issues arising from proximity to base stations.

7.90 We note that it is important there is no transmission delay, in order to maintain user experience, and that there are uncertainties about the form interference might take and the impact on a hearing impaired user (i.e. loss of service or noise). Since this may impact a potentially vulnerable group of users, during the consultation period we are planning a test day where manufactures can self-assess their devices in the presence of a simulated base station signal.

7.91 Further details about this opportunity for manufacturers to test their devices will be communicated to manufacturers as well as through device suppliers including Action on Hearing Loss. However, interested parties are encouraged to email pssr@ofcom.org.uk as soon as possible to express their interest directly to us.

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