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TETRA and Critical Communications Association response to Ofcom consultation - Securing long term benefits from scarce spectrum resources

Foreword

The TETRA + Critical Communications Association was established in 1994 under the name TETRA MoU Association to promote the ETSI TETRA standard and to enable effective cooperation of users and manufacturers of TETRA products to build an open professional mobile radio marketplace by ensuring interoperability of products. Recently the Association has extended its scope beyond the TETRA standard to facilitate open broadband standards and solutions for mission critical professional mobile radio users.

TCCA welcomes the opportunity to express its views related to the future use of UHF spectrum. In this instance we have restricted our observations to the material factors affecting the future requirements of emergency services (Question 14 of the consultation).

Response to Q14

Are there other material factors affecting the future requirements of emergency services applications that we should be aware of as we develop an approach to secure long-term benefits from UHF band IV and V?

As we had explained in the TETRA Association's response to Ofcom's earlier call for inputs in 2011, the need for dedicated radio networks for PPDR (Public Protection and Disaster Relief) has been already justified and documented, for example in the report by Analysys Mason in 2010. This need is also recognised by CEPT via the establishment of Project Team FM49 specifically for the purpose of identifying new spectrum for Broadband and High Speed PPDR applications as well as by the EU in the recently published Radio Spectrum Policy Programme. The generally accepted estimate for the need of broadband PPDR spectrum capacity is 2 x 10 MHz, as stated in the PPDR System reference Document of ETSI, in Europe and likewise confirmed by the recently approved "Middle class tax relief and jobs creation Act" that allocated 2 x 10 MHz of spectrum to Public Safety in the U.S.

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A common opinion in the PPDR spectrum discussion is that PPDR spectrum should be identified below 1 GHz to enable good range per base station and therefore reasonable cost efficiency when investing public funds either via direct government investment or service charges to a contracted operator. We strongly agree with this view. It is easy to see that the current utilisation of frequencies between 400 MHz and 1 GHz is already high and subject to even increasing demand. As the frequency range between 860 MHz and 1 GHz is already loaded by mobile licensees and the same is expected to happen with the range 790 to 860 MHz, the only remaining options are the current PMR bands below 470 MHz and the UHF TV broadcasting bands between 470 and 790 MHz.

While the 400 MHz range frequencies provide attractive coverage characteristics – as pointed out in this Consultation document – it is not realistic to assume that the stated need of 2 x 10 MHz capacity could be fully met with frequencies between 410 and 470 MHz due to existing usage, which in the UK includes also PPDR usage.

Thus it is evident that the need of 2 x 10 MHz capacity cannot in practice be met without touching the current UHF bands above 470 MHz. If the opportunity to address the 470 – 790 MHz frequencies is lost, the long term future of PPDR radio communication will be at real risk.

For a limited volume market such as PPDR, all possible benefits should be taken from wide adoption of harmonised technologies and spectrum in order to be able build a feasible business case for the users, governments and industry. The fact that the U.S. Congress adopted the law to allocate 2 x 10 MHz in between 758 and 798 MHz to Broadband Public Safety gives clear indication that technology synergies would be achieved by having PPDR frequencies close to those.

We also want to point out that PPDR is not the only sector of mission critical radio communication currently in need of new broadband resources. Electric power utilities are today a good example of users of critical infrastructures that need new tools for both building their smart grid concepts and securing uninterrupted operation of the existing grid. Spectrum sharing between PPDR and critical infrastructures is an issue that we suggest should be carefully studied. Such sharing may not directly help each individual party to gain more resources but in any case sharing should always allow more efficient usage of the total spectrum resources.

We would like to emphasise that, in the case of UK, the expiry of the Airwave service contracts from 2016 is adding urgency to the spectrum identification for PPDR. Also on a European level the planned work schedule of CEPT PT FM49 (aiming at producing a PPDR Decision mid-2014) and the need to consolidate European positions to WRC-2015 Agenda Item 1.3 well ahead of 2015 are strong reasons to start immediate action in the national administrations who want to influence the outcome of these processes.

Conclusion

The TCCA appreciates the opportunity to respond to this consultation and is happy to provide further input if required.