

EUROPEAN COMMON PROPOSALS

Part 3

Agenda Item 1.3 Harmonized bands for Public Protection and Disaster Relief (PPDR)

Introduction

Resolution 645 calls for studies on the identification of frequency bands that could be used on a global/regional basis by administrations intending to implement future solutions for public protection agencies and organisations, including those dealing with emergency situations and disaster relief. There is also a need to study regulatory provisions necessary for identifying globally/regionally harmonised frequency bands for such purposes.

Europe supports the identification of the band 380-470MHz as frequency tuning range¹ for the public protection and disaster relief by a Resolution XXX. This will allow Administrations to determine as appropriate given their national conditions and requirements at a national level how much spectrum and where within the frequency tuning range, can be made available for permanent and temporary operations.

Within this frequency tuning range the band 380-385/390-395 MHz can be harmonized for permanent public protection activities.

It is recognised that frequencies for disaster relief operations falling within the frequency tuning range could be planned and used for other purposes in normal time.

Additional frequency tuning ranges need further studies on the operational and spectrum requirements. Therefore an agenda item needs to be included in the agenda of WRC-07.

Proposals

ADD EUR/1.3/1

RESOLUTION XXX (WRC-03)

Public Protection and Disaster Relief

The World Radiocommunication Conference (Geneva, 2003),

¹ Frequency tuning range : a range of frequencies over which radio equipment is capable of being tuned

considering

- a) the growing telecommunication needs including spectrum resources of public agencies and organisations dealing with law and order, protection of life and property, disaster relief and emergency response;
- b) that future advanced solutions used by such public protection and disaster relief agencies and organisations will require high data rates;
- c) that there is a need for interoperability and/or interworking between systems for public protection and disaster relief, for national, cross-border and international operations, in emergency situations and disaster relief;
- d) that organisations, including commercial entities, may be involved in providing solutions for disaster relief activities through special programmes;
- e) that some agencies are using commercially operated systems to fulfil the needs or some of the needs of its public protection and disaster relief, and the development of functions which may fulfil future needs is continuing;
- f) that public protection and disaster relief have different operational needs;
- g) that current public protection and disaster relief applications are mostly narrow-band, including voice and low data-rate applications, typically in channel bandwidths of 25 kHz or less;
- h) that although there will continue to be narrow-band requirements, many future applications are expected to be wideband (indicative data rates in the range of 384-500 kbit/s) and/or broadband (indicative data rates in the range of 1-100 Mbit/s) with channel bandwidths dependent on the use of spectrally efficient technologies;
- i) that new technologies for wideband and broadband public protection and disaster relief applications are being developed in various standards organisations for example for broadband systems a joint standardisation programme (known as Mobility for Emergency and Safety Applications (MESA)) between ETSI and TTA has commenced;
- l) that there is potential for new technologies such as IMT-2000 and systems beyond IMT-2000 and Intelligent Transportation Systems (ITS) which may support or supplement advanced public protection and disaster relief applications;
- m) that commercial systems including satellite systems may serve as a complement to dedicated systems in support of public protection and disaster relief and that such complementary use would be in response to market demands;
- n) that Resolution 36 (Marrakech, 2002) of the Plenipotentiary Conference urges Member States to facilitate use of telecommunications for the safety and security of humanitarian personnel,
- o) that the Tampere Convention on the Provision of Telecommunications Resources for Disaster Mitigation and Relief Operations, an international treaty deposited with the United Nations Secretary-General (ICET-98, Tampere 1998) and related United Nations General Assembly Resolutions and Reports are also relevant in this regard,

recognising

- a) that public protection activities are day-to-day operations and are conducted for the most part within respective national borders using public protection assets of the country and, as such, spectrum management is a national matter;

- b) that the amount of spectrum needed for public protection on a daily basis can differ significantly among countries;
- c) that significant amounts of spectrum are already in use in various countries currently for narrowband applications;
- d) that in response to a disaster access to additional spectrum may be required;
- e) that the identification of a common frequency tuning range² may ease the interoperability and/or interworking in national, cross-border and international emergency situations and disaster relief activities;
- f) that not all frequencies within an identified common frequency tuning range will be available within each country;
- g) that frequencies within the tuning range can be made available on a temporary basis for emergency situations and disaster relief activities;
- h) that the identification of a common frequency tuning range may support the development of future mobile systems for public protection and disaster relief resulting in economies of scale and expanded availability of equipment;
- i) that the tuning range should include the spectrum made available on a permanent basis for public protection agencies including those dealing with emergency situations and disaster relief;
- j) that when a disaster occurs the public protection and disaster relief agencies are usually the first on the scene using their day-to-day communication systems but in most of the cases military personnel and communication systems will be deployed in disaster relief operations too;
- k) the increased benefits of cooperation between countries for the provision of effective and appropriate humanitarian assistance during disasters in view of the special operational requirements of disaster relief which requires multinational and cross-border operations;
- l) the special needs of developing countries, taking into account the ITU-D Handbook on disaster relief;
- m) the needs of countries, particularly for developing countries, for low-cost communications equipment for public protection and disaster relief agencies and organisations;
- n) that the trend is to increase the use of technologies based on Internet protocols;
- o) that currently some bands or parts thereof below 1 GHz have been designated for exclusive use for public protection and disaster relief, specifically:
- some administrations in Region 2 have designated the bands 821-824/866-869 MHz for public protection and disaster relief use;
 - harmonisation, to some extent, has been achieved by some administrations in Region 1 by designating the frequency bands 380-385/390-395 MHz for permanent narrow band applications for emergency services;
 - some administrations in Region 3 are using, plan to use, or have identified parts of the frequency bands 68-88 MHz, 138-144 MHz, 148-174 MHz, 380-399.9 MHz,

² Frequency tuning range : a range of frequencies over which radio equipment is capable of being tuned

406.1-430 MHz, 440-502 MHz, 746-806 MHz, 806-824 MHz and 851-869 MHz for public protection and disaster relief applications,

noting

- a) that many administrations use frequency bands below 1 GHz for narrow-band public protection and disaster relief applications;
- b) applications requiring large coverage areas and providing good signal availability would generally be accommodated in lower frequency bands;
- c) applications requiring wider bandwidths would generally be accommodated in progressively higher bands;
- d) that public protection and disaster relief agencies and organisations have a minimum set of requirements, including but not limited to, interoperability and/or interworking, secure and reliable communications, sufficient capacity to respond to emergencies, priority access in use of non-dedicated systems, fast response times, ability to handle multiple group calls and ability to cover large areas;
- e) that in most administrations, public protection and disaster relief applications are provided at several levels, from national down to local, and cooperation between the levels is a domestic matter which harmonised spectrum and interoperability and /or interworking could facilitate;
- f) that, although harmonisation may be one method of realising the benefits stated above, but recognising its difficulty, an innovative solution based on global or regional frequency tuning ranges will allow administrations to nationally determine specific frequencies to be permanently used for public protection and temporarily used for disaster relief;
- g) that such use does not preclude the use of those bands falling in the frequency tuning range by other services to which those bands are allocated and also does not preclude the use of any other frequencies for public protection and disaster relief applications in accordance with the Radio Regulations,

resolves

- 1 to invite administrations, implementing or planning to implement future advanced public protection and disaster relief applications, to make their arrangement in bands allocated to the mobile service within the frequency tuning range 380 - 470 MHz ;
- 2 to urge administrations to use the bands 380-385/390-395 MHz as core global harmonised bands for permanent public protection activities, to the maximum extent possible;
- 3 that administrations continue to work closely with their public protection and disaster relief community to further refine the operational requirements for public protection and disaster relief activities;

invites ITU-R

- 1 to conduct further appropriate technical studies in support of additional identification of frequency tuning ranges to fulfil the communication needs of public protection and disaster relief agencies;
- 2 to conduct studies for the development of an ITU-R Recommendation on technologies to take advantage of frequency tuning ranges and complete these studies preferably within two years,

instructs the Director of the Radiocommunication Bureau

to report on the results of these studies to WRC-07,

urges administrations

to participate actively in the aforementioned studies by submitting contributions to ITU-R,

recommends

1 that administrations encourage public protection and disaster relief agencies and organisations to utilise relevant ITU-R Recommendations in planning and implementing spectrum, technology and systems for public protection and disaster relief,

2 that WRC-07 consider, the studies results on possible additional identification of common frequency tuning ranges for public protection and disaster relief and make regulatory provisions as necessary.

Reason: *The bands 380-385 MHz / 390-395 MHz are widely used for narrowband emergency services and wider implementation of the use of these bands globally is promoted. In addition identifying the tuning range 380-470 MHz to be used for public protection, including for disaster relief offers to Administrations the flexibility to determine which frequencies, within the frequency tuning range and how much spectrum is needed given their particular national circumstances and requirements; this also taking into account other services presently in use. At the same time this flexible solution makes it possible to use the same radios for disaster relief as well as for public protection allowing for the possibility of interoperability and inter-working between the networks, both nationally and for cross-border operations, in public protection situations including emergency and disaster relief. A tuning range for public protection and disaster relief also gives a broader manufacturing base and increased volume of equipment resulting in economies of scale and expanded availability of equipment, and allows the public protection and disaster relief user community to obtain the future solutions they require, as was made clear by the ITU-R WP8A extensive worldwide investigations made during the last study period.*

SUP **EUR/1.3/2**

RESOLUTION 645 (WRC-2000)

Reason: *Consequential upon proposal EUR/1.3/1*