



Commission for
Communications Regulation

Information Notice

World Radiocommunication Conference (WRC-07)

22 October – 16 November 2007, Geneva, Switzerland

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1 Introduction

This information document provides a brief overview of progress at the World Radiocommunication Conference (WRC-07) currently taking place in Geneva from 22 October to 16 November 2007. The document provides an introduction to the WRC-07, a flavour of the range of issues under discussion at the conference, and the radiocommunication services on which they impact.

A further information notice will be published in late November following the completion of WRC-07.

2 Background

The last decade has witnessed unprecedented developments in the field of wireless communications, resulting in the expansion of a growing range of services and applications, from aircraft navigation to scientific research, terrestrial and satellite broadcasting, mobile telephony and satellite news gathering, to name just a few. Each of these services and applications require access to radio spectrum and in some cases satellite orbits to operate. Yet both the radio frequency spectrum and satellite orbits are finite natural resources and how to organize equitable access to these resources is an essential and challenging task of world radiocommunication conferences. Many vital services that use the radio frequency spectrum are competing to ensure that they maintain — and perhaps expand — their access to it. New technologies, some of which promise the availability of communications anywhere and at any time also require access to spectrum.

As parts of the spectrum become crowded, WRC-07 must ensure that all users can share it without causing harmful interference. Demands for more spectrum have been submitted by the aviation sector, amateur radio, space sciences, emergency telecommunications, and electronic news gathering. One of the most fundamental issues is reconciling the needs of satellite operators with those of mobile personal communications and broadcasting. As mobile markets approach saturation in developed countries, IMT-2000 (or 3G) systems and those beyond (known as IMT-Advanced) are expected to generate further growth opportunities. Broadband wireless access technologies, particularly those with mobile capabilities such as WiMAX, promise new ways of bridging the digital divide.

The WRC-07 agenda focuses on some 30 items related to almost all terrestrial and space radio services and applications, including aeronautical telemetry and telecommand systems, satellite services, mobile communications, maritime distress and safety signals, digital broadcasting, satellites for meteorology, and the prediction and detection of natural disasters. There are over 3000 delegates in attendance at the WRC-07 representing the 191 Member States and 700 Sector Members and Associates of the ITU. This unprecedented level of participation shows the growing importance that radiocommunications is playing in the worldwide economy and how critical it is that we harmonise spectrum usage not only to prevent interference problems but also to achieve economies of scale in the manufacturing sector and to facilitate global use of radiocommunications applications.

Ireland's interests are represented by a small team headed by the Department of Communications, Energy and Natural Resources which includes staff from ComReg and the Department of Transport.

3 The World Radiocommunications Conference 2007

The general scope of the agenda of WRC-07 was established at the previous WRC in 2003, with the final agenda finalised two years before the conference. At this conference the key issues under discussion include:

- (i) The development of advanced mobile services that are compatible worldwide. Four years of intense preparations have culminated in proposals for additional spectrum allocations to facilitate IMT-Advanced, supported by a common packet core network. This should be able to carry up to 100 Mbit/s for high-mobility services (such as mobile access) and up to approximately 1 Gbit/s for low-mobility services, such as nomadic/local wireless access, for deployment after 2010. Of particular interest to Ireland are proposals to introduce IMT in the 3400-3800 MHz band and in the UHF broadcasting band – the latter as part of a digital dividend.
- (ii) As more and more flights cross the skies and new communication technologies are introduced more radio-frequency spectrum is required to keep pace. The international civil aviation community are looking to secure spectrum that will support and satisfy developments in aviation in the medium and longer term.
- (iii) Increasing awareness of global warming and the impact of human activities on the Earth's environment have brought the importance of Earth-observation sciences to the fore. In this period of great meteorological disturbances, space science plays a major role in the prediction and detection of natural disasters. Agenda items focus on requirements for additional frequency bands and improved sharing of spectrum for the space science community.
- (iv) There are proposals to resolve a number of outstanding issues concerning the regulation of maritime distress and safety services, of importance to the Irish shipping and fishing industry;
- (v) Finally, resolving a myriad of satellite network regulatory issues which will permit further sharing between terrestrial (e.g., fixed links and mobile services) and satellite services that share a number of bands.

Ireland is part of a grouping of 48 European countries (CEPT) that have formulated European Common Positions in order to negotiate from a strong position. The primary goal is to reach global agreement where possible and Ireland has signed up to the majority of these European Common Positions where they best serve the interests of Irish users of radiocommunications services. Further information on the WRC-07 agenda can be found on the ITU website at www.itu.int and details of the European Common Positions can be found on the ERO web site at www.ero.dk under Conference Preparatory Group.