

RSPG

REVISED RSPG OPINION ON WRC-07

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Introduction

Following the conclusion of the ITU WRC-03 conference, the Commission requested the Radio Spectrum Policy Group to provide it with an advisory Opinion on the policy priorities and objectives to be pursued by the European Community at the next conference (WRC-07), to ensure that European preparation of this event would be accompanied by a reflection process at political level to take into account Community interests. The RSPG's advice was sought rather early in the conference pre-negotiation cycle, in order to ensure that overall policy goals could be supported during the development of technical positions (European Common Proposals). An Opinion was adopted in November 2005. This Opinion adopted in February 2007 replaces the conclusions of the original Opinion.

Relevant Community Policies for WRC-07

As in the past, a number of Community policies will be potentially affected by regulatory decisions taken at WRC-07. Here is a brief overview of the main ones:

Information Society

The EU's goal for this policy is to ensure that Europe's citizens, businesses and governments can be provided with increasingly rich, advanced and diversified information services, and to ensure that Europe can play a leading role in shaping and participating in the global knowledge- and information-based economy, in order to draw the full benefits of digital technologies and the Internet in terms of sustainable growth, increased productivity and competitiveness, creation of new jobs and social progress.

Therefore, the Community has been working on stimulating the development of applications and content enabling all European citizens to participate in the information society and on supporting research into the development and deployment of new information and communication technologies. The promotion of alternative means of providing broadband information services in all environments is also important to the development of the information society¹, as is a modern and responsive regulatory framework for electronic communications.

¹ Communication of 20 March 2006, "*Bridging the Broadband Gap*", COM(2006)129

The Commission's activities in ICT are structured within the European Information Society 2010² strategic framework, laying out broad policy orientations, promoting an open and competitive digital economy and emphasising ICT as a driver of inclusion and quality of life. A key element of the renewed Lisbon partnership for growth and jobs, i2010 aims for an integrated approach to information society and audio-visual media policies in the EU.

An important element of the i2010 initiative is the provision of a common EU regulatory framework for electronic communications which remains responsive to evolving market conditions. The Commission is currently undertaking a review of the present regulatory framework to this effect³, with a view to propose legal modifications to the framework by mid-2007 to the European Parliament and to the EU Council.

Another significant tool in the Commission's strategy to support the creation of the information society in Europe is the multi-annual EU research and development programme. In the latest "RTD framework programme", the funding dedicated for ICT is of the order of 9 € billion for the 2007-13 period, a significant proportion of which dedicated to wireless technologies. Increasing the synergy and collaboration between relevant research actions and spectrum policy activities is an effective means to optimise the delivery of results in the information society policy sector.

Environment

Protecting the environment is essential for the quality of life of current and future generations and is a high political priority for the European Union in the context of the threat of climate change⁴. The challenge is to combine this with continuing economic growth in a way which is sustainable over the long term. European Union environment policy is based on the belief that high environmental standards stimulate innovation and business opportunities. The EC's objectives⁵ in this area are:

1. To promote Sustainable Development, preserving the rights of future generations to a viable environment.
2. To work towards a high level of environmental and health protection and improvement of the quality of life.
3. To promote environmental efficiency.
4. To encourage the equitable use, as well as the sound and effective management, of common environmental resources.

Environment policy is supported by scientific studies and data collection, including satellite-based global monitoring and climatology. In particular, the GMES (*Global Monitoring for Environment and Security*) Initiative⁶ is to enable decision makers in Europe to acquire the capacity for independent global as well as regional monitoring so as to effectively realise the

² http://europa.eu.int/information_society/europe/i2010/index_en.htm

³ Communication of 29 June 2006, "Review of the EU Regulatory Framework for Electronic Communication Networks and Services", COM(2006)334

⁴ See for instance the Presidency Conclusions of the Brussels European Council (14/15 12 06), <http://europa.eu/rapid/pressReleasesAction.do?reference=DOC/06/3&format=DOC&aged=0&language=EN&guiLanguage=en>

⁵ See also Decision No 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 laying down the Sixth Community Environment Action Programme (OJ L 242 of 10/9/2002)

⁶ See COM (2004) 65 final and COM(2005)565

EU's objectives in a wide variety of policy areas, including environment. In the same policy areas, Europe is also closely involved in the activities of GEO (*Group on Earth Observation*)⁷.

Transport

The common transport policy provided for by the EC Treaty aims to develop an integrated transport system in the European Community, inclusive of all transport modes. In order to further this policy, the Commission has proposed⁸ and continues to encourage the implementation of a broad range of measures to develop an integrated transport system⁹. In this context, the creation of a Single European Sky¹⁰ has the objective to optimise air traffic management and aviation safety, in order to satisfy all airspace users, whether civil or military, airspace being a common asset to be managed collectively regardless of national borders. Another element of EU transport policy, maritime navigation¹¹, is essential to trade: over 90% of the European Union's external trade goes by sea. This sector is critically dependent on the availability of radio spectrum for communications but also on radio-based safety procedures at sea.

Space Policy

Space represents an important strategic resource for the European Union to implement some of its broader goals in areas such as broadcasting, communications, sustainable transport and mobility, weather forecasting, monitoring of environmental changes, and responses to emergencies. Europe is currently developing an extended space policy^{12,13}, driven by demand, able to exploit the special benefits space technologies can deliver in support of the Union's policies and objectives: faster economic growth, job creation and industrial competitiveness, enlargement and cohesion, sustainable development and security and defence. Applications which the Community may support include satellite broadband telecommunications to tackle the "digital divide", and Earth observation, communication and positioning systems, all of which require an adequate access to the radio spectrum, and which will be discussed at WRC-07. This policy will be implemented by a Space programme (including the GMES and Digital Divide initiatives); this tool will also include spectrum needs.

Audiovisual Policy

In addition to its economic importance, the audiovisual sector plays a key social and cultural role in the European Union: television is currently the most important source of access to information and entertainment in society. The Commission stresses that the audiovisual media play a major role in the transmission of social and cultural values and that there are therefore fundamental public interests at stake¹⁴, such as freedom of expression and the promotion of cultural diversity. As a consequence, it must be ensured that broadcast services continue to have available the necessary resources, notably access to the radio spectrum. This should be done taking into

⁷ See <http://earthobservations.org/>

⁸ Second White Paper on the future development of the common transport policy, COM(2001) 370

⁹ Communication of 22 June 2006, "*Keeping Europe Moving – sustainable Mobility for our Continent. Mid-term Review of the European Commission's 2001 Transport White Paper*", COM(2006)314

¹⁰ http://europa.eu.int/comm/transport/air/single_sky/reform_en.htm

¹¹ http://europa.eu.int/comm/transport/maritime/index_en.htm

¹² Commission White Paper of 11 November 2003, "*Space: a new European frontier for an expanding Union - An action plan for implementing the European Space policy*"

¹³ Communication of 23 May 2005 on "*European Space Policy - Preliminary Elements*", COM(2005) 208

¹⁴ Communication on Principles and Guidelines for the Community's audiovisual policy in the digital age, COM(1999)657 final

account that such services can be provided by different platforms (terrestrial air broadcasts but also via satellite, cable and data networks). On-going technological and commercial developments need to be considered, and notably the convergence with other services, as fostered by the i2010 initiative. On content, activities to reform the current "TV without Frontiers" regulatory framework are also on-going¹⁵.

Research and Development

All the radio services addressed in the WRC process are underpinned by research and development (RTD). The objective of research and technology policy in the European Union is to enhance the gains in competitiveness which technological innovation can bring to European Society by coordinating national and EU policies and encouraging the networking of research teams. A major element of this policy is the funding of significant amounts of pre-competitive research and development by the EU via the Community's multi-annual RTD Framework programmes, including for commercial wireless technologies and applications, but also to support scientific activities. The seventh Framework Programme covering RTD financing between 2007 and 2013 has been launched recently¹⁶.

Timely access to radio spectrum harmonised at European and global level will continue to be essential for research efforts and provide researchers with a focus to develop new scientific knowledge and to turn their visions into real applications available to European society. At the same time, research activities are making a significant contribution to the efficient and fulsome use of spectrum by developing new adaptive and "intelligent" technologies. Besides applied scientific activities, the adequate long-term protection from interference of radio spectrum used by basic scientific disciplines, such as radio astronomy, is also needed.

Community Principles and Objectives to be supported at WRC-07

By establishing a new regulatory framework for electronic communications¹⁷ designed to generate competition, the European Union has moved a step further on the road towards supporting a world-class communications and broadcasting infrastructure. This framework is based on clear principles¹⁸, notably that regulation in electronic communications ought to:

- be based on clearly defined **policy objectives**, notably the public interest;
- provide appropriate **legal certainty** to ensure investment and sufficient flexibility to respond to fast-moving markets and technology;
- promote competition and maximise end-user benefit
- be kept to the **minimum necessary** to achieve its objectives, and
- take the utmost account of the desirability of **technology neutrality**, taking into account convergence;

¹⁵ A legislative proposal for a new Audiovisual Media Services Directive is being negotiated between the EP and Council, see http://ec.europa.eu/comm/avpolicy/reg/tvwf/modernisation/proposal_2005/index_en.htm

¹⁶ See <http://europa.eu/scadplus/leg/en/lvb/i23022.htm>

¹⁷ Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services (Framework Directive)

¹⁸ See Art. 8 and Art. 9, Directive 2002/21/EC

- promote the **harmonisation** of the use of radio frequencies.
- avoid making the use of radio frequencies subject to the grant of individual rights of use where the risk of harmful interference is negligible¹⁹.

While radio spectrum regulation covers other sectors besides a narrow definition of “electronic communications”, it will benefit from the application of these principles whenever possible, with the spectrum policy goals of avoiding harmful interference and using this resource efficiently in a technical and economical sense.

Besides the principles directly applicable to electronic communications, some general Community objectives should be particularly considered during the technical negotiations at WRC-07:

- the promotion of **competition** between alternative infrastructure platforms
- the consolidation of the **Single Market** (support for harmonisation where appropriate);
- the removal of technical barriers to **international trade**;

It will also be important at the WRC to ensure the adequate protection of existing radiocommunications services including governmental usage.

Since the first WRC-07 Opinion was drafted in 2005, the RSPG has adopted the Opinion on WAPECS (Wireless Access Policy for Electronic Communications Services). The WAPECS Opinion advocates a more flexible approach to spectrum management in which a range of electronic communications networks and electronic communications services may be offered on a technology and service neutral basis, provided that certain technical requirements to avoid interference are met, to ensure the effective and efficient use of the spectrum, and the authorisation conditions do not distort competition. The extent to which this concept can be implemented in spectrum management is currently under study. Furthermore, the Commission has more recently (29 June 2006) launched its public consultation on the Review of the EU Regulatory Framework for electronic communications networks and services which advocates greater flexibility in spectrum management.

Also, the RSPG recently adopted a Report and Opinion on “coordinated EU spectrum approach for scientific use of the radio spectrum “stressing in particular the considerable societal value of scientific use of the spectrum”.

At the Regional Radiocommunications Conference of the ITU in May-June 2006 (RRC-06) there was considerable debate on the question of flexible use of the assignments/allotments in the digital broadcasting plan. All of the EU Member States, and others, signed a declaration in which they reserved the right to use the entries in the plan under the provisions of GE-06 and the Radio Regulations for any technology or service, within technical constraints, and to respect such use in other countries.

¹⁹ If this is not possible, additional technical and operational conditions necessary for the avoidance of harmful interference may be applied to individual licences.

WRC-07 provides an opportunity to consider the extension of these principles into the international radio regulatory framework. The countries of the EU should take that opportunity.

Opinion 1: Member States should support these overall goals in their proposals to, and negotiations during, WRC-07.

WRC-07 Agenda Items and Issues of particular interest to the EC

Opinion 2: The RSPG is of the opinion that the following WRC-07 issues are of most relevance to the Community. It should be noted however, that given the rapid pace of technological progress and commercial deployment of new wireless systems, additional issues may also emerge as being important during the process of preparation of the conference. The position of issues in the following list should not be taken as implying any relative priority. (The “A.I.” references are to agenda items in the formal agenda for WRC-07 – see Annex.)

- **IMT-2000 and systems beyond (A.I. 1.4, 1.9)**
- **Future spectrum needs for aviation (A.I. 1.5, 1.6)**
- **Reorganisation of HF bands (A.I. 1.13)**
- **Support for scientific uses of spectrum (A.I. 1.2, 1.3, 1.20, 1.21)**
- **Improving the global regulatory framework for satellite communications (A.I. 1.10, 1.12)**
- **Introduction of more flexibility in the international spectrum regulatory framework (A.I. 7.1, specifically Resolution 951)**
- **Preparation of WRC-10 agenda (A.I. 7.2)**

IMT-2000 and systems beyond (A.I. 1.4, 1.9)

WRC-07 has been tasked to debate “frequency related matters” for IMT-2000 and systems beyond IMT-2000. In preparation for the Conference ITU is proposing the generic root name “IMT” which encompasses both IMT-2000 and IMT-Advanced. The term “IMT-2000” encompasses also its enhancements and future developments and the term “IMT-Advanced” is to be applied to those systems, system components, and related aspects that include new radio interface(s) that support the new capabilities of systems beyond IMT-2000.

WRC-07 will consider the spectrum needs for such systems and consider what spectrum could be made available and when. The timeline for the introduction of IMT-Advanced systems is expected to be after 2015 in Europe. The preparatory work for WRC-07 has demonstrated a clear demand for additional spectrum to be identified for IMT, especially for IMT-Advanced systems globally under this Agenda Item.

The main candidate bands under consideration for providing the high capacities needed are above the existing bands available for IMT-2000. These bands are extensively used by other terrestrial and space services. However WRC-07 will also consider the possibility of identifying bands below those already identified for IMT-2000. The coverage is better (in terms of increased cell radius in rural areas and better indoor penetration) at these frequency ranges compared to the

higher frequency bands already identified for IMT-2000 and therefore networks are expected to be cheaper to build, thus assisting developing countries and sparsely-populated regions to introduce IMT systems in the future, while bearing in mind that lower frequencies are extensively used by other terrestrial services.

Some EU activities may be relevant to the preparation of WRC-07 for this issue:

- The Radio Spectrum Policy Group has adopted the WAPECS Opinion, a high-level analysis of the approach to spectrum management for a wide range of different wireless communications access platforms, with the aim to enable Europe to agree on a common long-term approach to support this important sector;
- The EU RTD programmes are providing a significant amount of funding to mobile technology projects. A number of them, under the umbrella of the Wireless World Initiative, are directly related to the identification of spectrum requirements for advanced mobile systems;
- The study on spectrum requirements for Future Mobile Services, carried out by consultants on behalf of the European Commission, used possible scenarios for the economic modelling of future demand²⁰.

Should spectrum resources in bands below those already identified be required for mobile communications under this agenda item, the digital dividend arising from digital television switchover might provide an opportunity. The RSPG has adopted an Opinion on this subject²¹.

A second issue at WRC-07 concerns the protection of the European terrestrial IMT-2000 extension band 2500 - 2690 MHz. While compatibility with broadcasting satellites was already debated by WRC-03, other satellite services also have allocations in the band, besides BSS(sound), and WRC-07 will review the sharing conditions between all terrestrial and satellite systems in this band. In the light of the use of this spectrum in Europe in the near future for terrestrial IMT-2000, Europe will need to ensure its interests are safeguarded by an adequate protection. There is a risk that satellite systems notified before 2007 will not be included in any overall agreement, hence there is a need for all Member States to act jointly in the context of the ITU coordination procedures applicable to these systems to minimise any interference in the 2500 – 2690 MHz band.

Opinion 3: Every effort should be made to accommodate the requirement for additional spectrum for IMT by identifying spectrum for this purpose, preferably world-wide, but on a non-exclusive basis. This approach would provide a balance between global harmonisation for IMT and flexible use of the spectrum.

Opinion 3bis: Every effort should be made to minimise the risks of interference to terrestrial services in the 2.5 – 2.69 GHz band from satellite services.

Future spectrum needs for aviation (A.I. 1.5,1.6)

The changing needs for spectrum dedicated to aeronautical systems will be debated at the next Conference, notably the requirements of line-of-sight air-ground communications, where the allocated VHF band in Europe might reach saturation by 2008, as well as the spectrum requirements of aeronautical telemetry systems.

²⁰ To read the full report, see: <http://fms.jrc.es/pages/documents.htm>

²¹ RSPG07-160 final: RSPG Opinion on EU Spectrum Policy Implications of the Digital Dividend.

The European Union's interests in this area will need to be protected (EU Single Sky policy) and the aeronautical sector provided with sufficient spectrum to plan the required capacity growth to overcome congestion, while increasing safety, and at the same time promoting the timely introduction of more spectrum-efficient technologies in this sector²². The formal relationship established between the European Commission and Eurocontrol²³, and the creation of the European Aviation Safety Agency²⁴, ought to be employed to help translate policy objectives into technical positions for WRC-07.

The priority should be to make maximum use of spectrum already allocated for aviation, given the increase of efficiency expected by technological development and the difficulties of gaining international agreement to access new bands. It is recognised that the parallel operation of old and new aeronautical systems is unavoidable taking into account the need for global migration to new technologies and the delays that can be expected in developing countries.

Opinion 4: Every effort should be made to meet the needs of the aeronautical community at WRC-07, particularly to implement the Single European Sky objective (substantial increase in capacity), taking into account the following:

- **priority should be given to making maximum use of spectrum already allocated for aviation, given the increase of efficiency expected by technological development and the difficulties of gaining international agreement to access new bands;**
- **the parallel operation of old and new aeronautical systems, although unavoidable taking into account the need for global migration to new technologies, should be kept to the minimum.**

Reorganisation of HF bands (A.I. 1.13)

High-frequency (or short-wave) spectrum is essential to transmit radio signals over a long distance and the pressing and often conflicting requirements for these bands necessitate some in-depth consideration concerning band allocation and protection, in particular for short-wave broadcast radio and the aeronautical and maritime mobile service, thus affecting the relevant EU audiovisual and transport policies. The review is due to address the range from 4 MHz to 10 MHz, with the exception of the decision taken at WRC-03 around 7 MHz for the radio amateurs, in the light of repeated demands for additional spectrum for short-wave broadcasting.

The complex undertaking of restructuring the HF frequencies has economic, political, social, military and cultural elements associated with it. The issue was on the WRC-03 agenda, but was generally not considered mature enough to be finalised at that Conference. Further HF spectrum for broadcasting will assist the successful uptake of the European DRM digital radio standard.

Opinion 5: RSPG recognises the importance of meeting the requirements of all HF users including the HF broadcasting community. In developing the European position on this WRC-07 agenda item consideration should be given to a more generic approach to fixed and mobile allocations in the HF spectrum as opposed to dedicated spectrum allocations specific to different applications.

²² These requirements are explicitly addressed in recital 17 of Regulation (EC) No 52/2004 of the European Parliament and of the Council of 10 March 2004 on the interoperability of the European Air Traffic Management network.

²³ Council Decision 11053/02 AVIATION 121 of 17 July 2002.

²⁴ See <http://www.easa.eu.int/index.html>

Scientific uses of spectrum (A.I. 1.2, 1.3, 1.20, 1.21)

Scientific uses of the spectrum include active and passive Earth Exploration satellites (EESS), meteorological satellites and space research systems, which are all relevant to EU policies in the areas of environment, space, and RTD.

The RSPG recently adopted a Report and Opinion on “coordinated EU spectrum approach for scientific use of the radio spectrum “ that recognises the considerable societal value of scientific use of the spectrum and particular importance of inter-governmental commitments such as GMES or the World Weather Watch of the World Meteorological organisation which rely on the availability of observations on every points of the world. This opinion is particularly relevant for the issue of protection of scientific services from services sharing the same band (agenda item 1.2) and from unwanted emissions of services operating in adjacent bands (agenda item 1.20 and 1.21).

WRC-07 agenda items also consider further spectrum allocations for extension of the existing 9.5-9.8 GHz band to EESS and meteorological satellites at 18.3 GHz and the provisions for protection of EESS, meteorological and Radio Astronomy services.

Opinion 6: RSPG recognises the importance and value of scientific and meteorological use of the spectrum and supports the related requirements under these agenda items noting, the need to balance these interests with the needs of other services. The RSPG Opinion on “coordinated EU spectrum approach for scientific use of the radio spectrum” should be taken into account in developing the European positions for WRC-07.

Improving the global regulatory framework for satellite communications (A.I. 1.10, and 1.12)

The European Union has consistently supported the development of viable communication satellite platforms, as they can provide pan-European services across the continent, help bridge any digital divide developing in the Information Society, and provide competition to terrestrial networks for the provision of broadband. WRC-07 agenda item 1.10 aims to optimise the use of the existing ITU plan for the Fixed Satellite Service, in order to ensure better use of the frequencies and orbital slots made available in the plan. Agenda item 1.12 considers the improvement of elements of the procedure to notify new satellite systems in the ITU.

Opinion 7: The RSPG supports any action at WRC-07, in response to these agenda items, within the existing allocations to space services, which would facilitate the development of viable communication satellite platforms, especially for the provision of pan-European services, to help bridge any digital divide developing in the Information Society, and to provide competition to terrestrial networks for the provision of broadband, and which would safeguard existing satellite systems.

Introduction of more flexibility in the international spectrum regulatory framework (A.I. 7.1)

The ITU-R Director's report to WRC-07 will include a response to Resolution 951 of WRC-03. The latter requests that studies be carried out by ITU-R to examine the effectiveness, appropriateness and impact of the Radio Regulations, with respect to the evolution of existing, emerging and future applications, systems and technologies, and to identify options for improvements in the Radio Regulations that address various considerations contained in this Resolution. The adoption of the RSPG Opinion on WAPECS, and the approach taken by EU administrations at RRC-06 to achieve flexibility in the VHF and UHF broadcasting bands, are particularly relevant in this context.

Opinion 8: This specific aspect of the WRC-07 provides an important opportunity to debate at the global level the strategic direction for the future of spectrum management. Although specific action in terms of changes to the Radio Regulations may not be possible at WRC-07, the debate should be opened and a specific agenda item placed on the agenda of WRC-11 to address any allocation, regulatory and procedural issues which would be identified by WRC-07, taking into account the conclusions of the ITU-R studies and contributions from Member States. In developing a European position, the results of RRC-06, the opinions of the RSPG, in particular the WAPECS Opinion and the Opinion on digital dividend, should be taken into account.

Preparation of WRC-11 agenda (A.I. 7.2)

To fulfil long-term EU policy objectives, it will be important to prepare common European positions early enough relating to the issues to be covered by the agenda of the conference after next, WRC-11. Therefore, at WRC-07 Community policies and objectives will also need to be considered in general in the negotiations on the adoption of the agenda of WRC-11. Given the previous tendency to defer or extend consideration of issues to a subsequent WRC, every effort should be made at WRC-07 to reach definitive conclusions. Any item on a WRC agenda requires considerable preparatory effort regardless of whether it leads to a fundamental change to the international regulatory framework. Any proposals for new agenda items should therefore be critically reviewed to determine the potential benefits and risks of the proposal, the resources needed to prepare for the item, and the likelihood of success.

Opinion 9: Early consideration should be given to the identification of issues of importance to Europe for inclusion in the agenda of WRC-11 and each proposal should be critically reviewed before being submitted formally. Proposals from outside Europe should similarly be reviewed critically.

ANNEX

Agenda for the World Radiocommunication Conference (WRC-07)²⁵

1 on the basis of proposals from administrations, taking account of the results of WRC-03 and the Report of the Conference Preparatory Meeting, and with due regard to the requirements of existing and future services in the bands under consideration, to consider and take appropriate action with respect to the following items:

1.1 requests from administrations to delete their country footnotes or to have their country name deleted from footnotes, if no longer required, in accordance with Resolution **26 (Rev.WRC-97)**;

1.2 to consider allocations and regulatory issues related to the Earth exploration-satellite (passive) service, space research (passive) service and the meteorological satellite service in accordance with Resolutions **746 (WRC-03)** and **742 (WRC-03)**;

1.3 in accordance with Resolution **747 (WRC-03)**, consider upgrading the radiolocation service to primary allocation status in the bands 9 000-9 200 MHz and 9 300-9 500 MHz and extending by up to 200 MHz the existing primary allocations to the Earth exploration-satellite service (EESS) (active) and the space research service (SRS) (active) in the band 9 500-9 800 MHz without placing undue constraint on the services to which the bands are allocated;

1.4 to consider frequency-related matters for the future development of IMT-2000 and systems beyond IMT-2000 taking into account the results of ITU-R studies in accordance with Resolution **228 (Rev.WRC-03)**;

1.5 to consider spectrum requirements and possible additional spectrum allocations for aeronautical telecommand and high bit-rate aeronautical telemetry, in accordance with Resolution **230 (WRC-03)**;

1.6 to consider additional allocations for the aeronautical mobile (R) service in parts of the bands between 108 MHz and 6 GHz, in accordance with Resolution **414 (WRC-03)** and, to study current satellite frequency allocations, that will support the modernization of civil aviation telecommunication systems, taking into account Resolution **415 (WRC-03)**;

1.7 to consider the results of ITU-R studies regarding sharing between the mobile-satellite service and the SRS (passive) in the band 1 668-1 668.4 MHz, and between the mobile-satellite service and the mobile service in the band 1 668.4-1 675 MHz in accordance with Resolution **744 (WRC-03)**;

1.8 to consider the results of ITU-R studies on technical sharing and regulatory provisions for the application of high altitude platform stations operating in the bands 27.5-28.35 GHz and 31-31.3 GHz in response to Resolution **145 (WRC-03)**, and for high altitude platform stations operating in the bands 47.2-47.5 GHz and 47.9-48.2 GHz in response to Resolution **122 (Rev.WRC-03)**;

1.9 to review the technical, operational and regulatory provisions applicable to the use of the band 2 500-2 690 MHz by space services in order to facilitate sharing with current and future terrestrial services without placing undue constraint on the services to which the band is allocated;

²⁵ As approved in ITU Council Resolution 1227

- 1.10 to review the regulatory procedures and associated technical criteria of Appendix **30B** without any action on the allotments, the existing systems or the assignments in the List of Appendix **30B**;
- 1.11 to review sharing criteria and regulatory provisions for protection of terrestrial services, in particular the terrestrial television broadcasting service, in the band 620-790 MHz from broadcasting-satellite service networks and systems, in accordance with Resolution **545 (WRC-03)**;
- 1.12 to consider possible changes in response to Resolution 86 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference: “Advance publication, coordination, notification and recording procedures for frequency assignments pertaining to satellite networks” in accordance with Resolution **86 (WRC-03)**;
- 1.13 taking into account Resolutions **729 (WRC-97)**, **351 (WRC-03)** and **544 (WRC-03)**, to review the allocations to all services in the HF bands between 4 MHz and 10 MHz, excluding those allocations to services in the frequency range 7 000-7 200 kHz and those bands whose allotment plans are in Appendices **25**, **26** and **27** and whose channelling arrangements are in Appendix **17**, taking account of the impact of new modulation techniques, adaptive control techniques and the spectrum requirements for HF broadcasting;
- 1.14 to review the operational procedures and requirements of the Global Maritime Distress and Safety System (GMDSS) and other related provisions of the Radio Regulations, taking into account Resolutions **331 (Rev.WRC-03)** and **342 (Rev.WRC-2000)** and the continued transition to the GMDSS, the experience since its introduction, and the needs of all classes of ships;
- 1.15 to consider a secondary allocation to the amateur service in the frequency band 135.7-137.8 kHz;
- 1.16 to consider the regulatory and operational provisions for Maritime Mobile Service Identities (MMSIs) for equipment other than shipborne mobile equipment, taking into account Resolutions **344 (Rev.WRC-03)** and **353 (WRC-03)**;
- 1.17 to consider the results of ITU-R studies on compatibility between the fixed-satellite service and other services around 1.4 GHz, in accordance with Resolution **745 (WRC-03)**;
- 1.18 to review pfd limits in the band 17.7-19.7 GHz for satellite systems using highly inclined orbits, in accordance with Resolution **141 (WRC-03)**;
- 1.19 to consider the results of the ITU-R studies regarding spectrum requirement for global broadband satellite systems in order to identify possible global harmonized fixed-satellite service frequency bands for the use of Internet applications, and consider the appropriate regulatory/technical provisions, taking also into account No. **5.516B**;
- 1.20 to consider the results of studies, and proposals for regulatory measures if appropriate regarding the protection of the EESS (passive) from unwanted emissions of active services in accordance with Resolution **738 (WRC-03)**;
- 1.21 to consider the results of studies regarding the compatibility between the radio astronomy service and the active space services in accordance with Resolution **740 (Rev.WRC-03)**, in order to review and update, if appropriate, the tables of threshold levels used for consultation that appear in the Annex to Resolution **739 (WRC-03)**;
- 2 to examine the revised ITU-R Recommendations incorporated by reference in the Radio Regulations communicated by the Radiocommunication Assembly, in accordance with Resolution **28 (Rev.WRC-03)**, and to decide whether or not to update the corresponding references in the Radio Regulations, in accordance with principles contained in the Annex to Resolution **27 (Rev.WRC-03)**;
- 3 to consider such consequential changes and amendments to the Radio Regulations as may be necessitated by the decisions of the Conference;
- 4 in accordance with Resolution **95 (Rev.WRC-03)**, to review the Resolutions and Recommendations of previous conferences with a view to their possible revision, replacement or abrogation;

5 to review, and take appropriate action on, the Report from the Radiocommunication Assembly submitted in accordance with Nos. 135 and 136 of the Convention;

6 to identify those items requiring urgent action by the Radiocommunication Study Groups in preparation for the next world radiocommunication conference;

7 in accordance with Article 7 of the Convention:

7.1 to consider and approve the Report of the Director of the Radiocommunication Bureau:

- on the activities of the Radiocommunication Sector since WRC-03;
- on any difficulties or inconsistencies encountered in the application of the Radio Regulations; and
- on action in response to Resolution **80 (Rev.WRC-2000)**;

7.2 to recommend to the Council items for inclusion in the agenda for the next WRC, and to give its views on the preliminary agenda for the subsequent conference and on possible agenda items for future conferences, taking into account Resolution **803 (WRC-03)**