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Electronic Communications Policy  
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**RSPG OPINION ON THE**  
**PREPARATION OF ITU WORLD RADIOCOMMUNICATION CONFERENCES**

**1. Introduction**

The RSPG considers it necessary to represent a more finely-tuned EU approach at international forums such as the ITU Radiocommunication Conferences, regional and international negotiations as well as bordering multinational discussions. It is a common view of the RSPG that the European spectrum community should address these issues in a comprehensive and well thought forward level.

This opinion is intended to identify possible improvements to the process of coordination of EU spectrum interests in international forums such as the ITU World Radiocommunication Conferences (WRCs). It can equally be applied to ITU regional radiocommunication conferences.

Preparation of, and coordination during World Radiocommunication Conferences cannot be differentiated. They are part of a complex and comprehensive process which starts as early as the previous WRC and spans the 4 years between two conferences. Section 2 below presents the way in which WRCs are prepared, through regional and worldwide coordination. Section 3 provides a few examples of the way in which some important issues addressed in past WRCs since 1995 have been prepared and handled. On the basis of the experience since 1995, Section 4 summarizes the responses received to the public consultation on this issue. Section 5 contains the RSPG Opinion on how to improve the EU coordination in such instances.

**2. Flow of WRC preparation**

The draft agenda for a WRC is agreed at the previous WRC (as a conference Resolution). It is formally established by the ITU council with the concurrence of a majority of the Member States.

The preparation of WRCs from the view of an EU member state is done in parallel (see the flow of WRC preparation in Annex 1) in three different organisations, ITU, CEPT and EU itself, according to the following process:

## **2.1 ITU**

The WRC preparation process is described in ITU-R Resolution 2 (see Annex 2)

The preparation starts as early as the week following the previous WRC in the first Conference Preparation Meeting (CPM-1). This meeting prepares a draft structure for the CPM Report, based on the agenda for the next WRC, and distributes the work to the relevant ITU-R working parties. Exceptionally a specific group is created to deal with an agenda item (one for WRC-07, one for WRC-11).

The preparation is based on the work of ITU-R working parties. Each agenda item is attributed to a working party which has to gather all technical, operational and regulatory elements and summarise them in a section of the draft Conference Preparatory Meeting (CPM) report. Most of the work is usually carried out within this working party. Other working parties are also identified by the CPM as contributing or interested parties and collaborate in the preparation. Besides developing draft CPM text, ITU-R working parties also adopt draft ITU-R recommendations containing the results of studies relevant for WRC agenda items. These recommendations may be referred to in the CPM text. ITU-R Recommendations are normally adopted by the study groups and approved by Member States of the ITU.

The work of the working parties has to be finalised about 1 year before WRC and the result is compiled into the draft CPM report. For each agenda item regulatory options are identified with their advantages and disadvantages detailed. The CPM report is the main basis for administrations to determine their positions for the conference and in regional organisations since proposals are usually referring to CPM text options.

The CPM normally meets 9 months before the WRC and adopts the CPM report. This meeting is the main opportunity for administrations, including those not participating in ITU-R working parties, to discuss the technical, operational and regulatory background and to ensure that their views and preferred options are correctly reflected in the CPM report. The CPM is also a place where possible compromises for the conference are discussed and informally checked from the point of view of their acceptability.

## **2.2 CEPT**

CEPT preparation is carried out by a working group of the ECC named Conference Preparatory Group (CPG). This group has the responsibility to develop and agree European Common Proposals (ECPs) for the WRCs, to prepare and approve CEPT-Briefs (Briefs) for the members of CEPT national delegations and to coordinate CEPT actions during the course of the conference.

CEPT is one of the six main regional organisations regularly preparing for WRCs. The other five are: the Inter-American Telecommunication Commission (CITEL), the Asia Pacific Telecommunity (APT), the Regional Commonwealth in the field of Communications (RCC), the League of Arab States and the African Telecommunication Union (ATU). Most Member States are part of one regional organisation. There are several other regional organisations of lesser importance for WRC preparations. Some Member States (e.g. Cuba, Israel) are not a member of any of the six main regional organisations preparing for WRC while some are part of two (i.e. overlapping between CEPT and RCC and between the ATU and the League of Arab States).

Several organisations representing a specific sector also participate in WRCs as observers, such as ICAO, EUMETSAT, IUCAF.

CPG has been a “model” for other regional organisations in WRC preparation since 1995. The importance of regional organisations has been highlighted by the Plenipotentiary Conference in its Resolution 80 (Rev. Marrakesh, 2002) and by WRC in Resolution 72.

The term of office for the CPG chairman is normally to the first ECC meeting after the WRC. At this meeting the ECC elects the chairman for the next preparatory process. Once the Chairman has been appointed, the CPG decides on the organisation of the WRC preparations. The CPG establishes several project teams to address groups of agenda items under study and appoints Chairmen for each project team and CEPT coordinators for each agenda item.

The ECP and Briefs are developed in the project teams. The CEPT coordinators are essential in the development of the Briefs and ECPs. It is their role to gather all relevant information, including those from ITU-R activities, and to investigate possible compromise amongst CEPT administrations. During the conference, the CEPT coordinator on a given agenda item also has the responsibility to present the relevant ECPs and negotiate on this agenda item.

During CPG meetings draft ECPs and draft Briefs are discussed and agreed. The wide participation of administrations in CPG meetings ensures that all views are taken into account and enables to find compromise on difficult issues.

The ECPs consist of proposals to modify the Radio Regulations or to adopt new Resolutions or modifications to existing Resolutions and include the reasons justifying these proposals.

The guideline for adopting ECPs is to have at least 10 supporting administrations and not more than 6 opposing administrations. A count of supporting and opposing administrations is made during the CPG meeting to facilitate the decision of the group and administrations have to indicate officially later whether or not they sign the ECP. Any CEPT Member which voices objections or submits alternative proposals to an ECP is obliged to inform the CPG of its intentions and should, nevertheless, cooperate with the other CEPT Members during the WRC to develop a consensus.

During WRC, there are negotiations for each agenda item and also more global discussions. The CPG chairman and vice-chairmen are leading the CEPT negotiation team during the conference. Each CEPT coordinator convenes coordination meetings and discussions with other interested regional organisations and administrations to find a satisfactory compromise on his/her specific agenda item. CEPT coordination meetings are also convened by the CPG Chairman in order to discuss and endorse new or modified CEPT position and to determine negotiation strategies. Discussions between Regional Organisations are regularly organised either bilaterally or under the umbrella of the WRC Chairman in order to help in solving the most difficult issues. In these discussions, all agenda items may be considered together with the idea that the overall result has to be satisfactory to all administrations at the end of the conference;

## **2.3 European Union**

For a complete preparation of a WRC and to meet EU interests, it is essential for EU Member States to include the view and policies on spectrum issues with community relevance as early as possible. In this regard it should be noted that administrations from EU member states have a significant influence in CEPT preparation process as they constitute a majority of CEPT administrations.

Illustrative is the EU preparation process for WRC-07, where RSPG adopted an opinion in 2005 taking into account the preparatory work done in ITU and ECC, which identified the main topics of WRC-07 agenda which were relevant for EU interest. This opinion was subsequently revised in 2007.

Based on the RSPG opinion, the Commission developed a communication which was submitted to the Council and to the European Parliament. On these contributions the Council adopted conclusions on WRC-07 in July 2007 and EU Member States followed the Council conclusions and have taken into account the other documents in defining their positions in CEPT and ITU meetings.

For the benefit of the preparation in Europe, the CPG and the European Commission organised two public workshops to ensure that European industry could voice its priorities and views on the WRC-07 agenda and the European positions. One workshop was held at the beginning of the WRC-07 preparation process and another at a later stage, just before the finalisation of the ECP.

### **3. Examples of CEPT preparation and coordination on WRC agenda items**

Annex 3 provides a few representative examples of the process followed by CEPT in the preparation of past WRCs, the way in which coordination was carried out within CEPT, the results obtained and the conclusions that may be drawn from the experience gained in the corresponding situations.

These examples relate to the following issues :

- NGSO FSS allocations (WRC-95, 97 and 2000)
- Radionavigation-satellite service allocations (WRC-2000)
- FSS allocation at 13.75-14 GHz (WRC-03)
- HFBC allocation (WRC-07)
- UHF allocation to mobile and identification for IMT (WRC-07)

### **4. Responses to the public consultation**

The RSPG undertook a public consultation to seek the views from all interested parties on this RSPG Opinion on the “Preparation of ITU World Radiocommunication Conferences”. The consultation was conducted in accordance with Article 5 of the EC Decision establishing the Radio Spectrum Policy Group, on 15 May 2009, via the RSPG website, with a closing date of the 15 July 2009.

There were 8 responses to the consultation, 2 from operator organizations (GSMA, ETNO), 3 from operators (Orange, Telecom Italia, Telefonica), 1 from a broadcaster (Mediaset), 1 from a coalition of companies, organizations and individuals (Open Spectrum Alliance), 1 from an administration (Luxembourg). The full text of the responses is available on the public RSPG website.

All responses were generally supportive of the proposed text for this Opinion, with a request to better emphasize the importance of industry participation in WRC preparation and some proposed revisions of the text from Luxembourg and Open Spectrum Alliance.

## 5. The Opinion of the RSPG

On the basis of the organisation described in Section 2 and of the experience of European preparations and coordination in past WRCs detailed in Annex 3, and taking into account the comments received from public consultation, **the RSPG notes:**

1. that World Radio Conferences adopt the modifications to the Radio Regulations, which are an international treaty and need to be applied by all ITU Member States in order to preserve access to spectrum and orbit resources in all parts of the world without harmful interference, and to facilitate the efficient and effective operation of all radiocommunication services;
2. that, although voting is possible in principle during WRCs, such a process is to be avoided and consensus is the rule, i.e. no sustained objection to WRC decisions by any country, or at least by not more than one country;
3. that preparation and negotiations associated to WRCs are part of a comprehensive process which starts as early as the previous WRC and spans the whole period between two subsequent conferences;
4. that, since 1993 and in response to the rapid evolution of technologies, WRCs have agendas encompassing all fields in radiocommunications (as opposed to the more specialised conferences held until 1988) and have been meeting as frequently as possible;
5. that this evolution has required the need for extensive technical preparations within the ITU-R sector, culminating in the ITU Conference Preparatory Meetings (CPM), where all technical preparations are finalised 9 months before the WRC, in order to be used by administrations for their formal proposals to the WRC;
6. that this evolution has prompted European countries, within CEPT to organise their preparation for WRCs and their coordination during WRCs in a more systematic way, in particular to develop European Common Proposals (ECPs) on the basis of ensuring consensus as much as possible (support by at least 10 countries and opposition by no more than 6 countries), with the aim of reducing the need for multiple proposals by different European countries, resolving any potential disagreements between European countries and increasing the likelihood of success of ECPs during WRCs;
7. that European industry is actively involved in the preparation of WRCs, in particular in the technical work carried out within CEPT. This is essential for ensuring that ECP take into account the European industry interests and are based on reliable technical information;
8. that as a result of this CEPT organisation, which was put in place in 1994 and improved at each WRC since 1995, most ECPs have been co-signed by an overwhelming majority of CEPT countries and adopted by WRCs with minimum changes. In some cases however, full consensus could not be achieved, which resulted in opposition to the ECP by some CEPT countries, including EU Member States;

9. that this model of organisation has been followed by other parts of the world for the preparation of WRCs within other regional groups (CITEL for the Americas, APT for Asia-Pacific, ATU for Africa, RCC for ex-USSR countries and the Arab Group);
10. that, for a WRC to be effective, achieving consensus between regional groups has now become a necessity for taking decisions at WRCs and that, as a consequence, close cooperation needs to be maintained with other regional groups in order to better understand the positions of others regions and to build this consensus prior to each WRC, in particular on issues where significant disagreement exists. In other words, European views are unlikely to be accepted if they are not supported by at least one of the other regional groups;
11. that to this aim, preparatory meetings of each regional group are attended regularly by observers from other regional groups and joint meetings between regional groups have been held frequently since 1996, when the first CEPT-Arab Group meeting was held in Amman;
12. that WRC agenda are made of a number of items, each of them involving highly qualified expertise to take part in the debate ;
13. that on each of these items, it is usual that at least one European country has important (and sometimes vital) interests at stake, hence is ready to expend significant resources in order to ensure the success of its views at the WRC,
14. that the CEPT organisation for WRCs, where the European speaker on each agenda item is selected from a country having co-signed the corresponding ECP is the most efficient one since it ensures that CEPT views will be promoted by the best person in terms of competence and motivations;
15. that all agenda items are part of the WRC negotiations, i. e., it may not always be possible to decouple the discussion on a single agenda item from the discussions on other agenda items;
16. that the European Commission involvement in CEPT preparation for WRCs and coordination during WRCs has so far been limited to agenda items with direct community relevance
17. that the European Commission, following confirmation by the EU Council, has established policy level objectives for previous WRCs;
18. that the large number and diversity of countries participating in the European preparation process, while representing a challenge, is an asset for CEPT in that, if an ECPs has met with consensus within CEPT, it generally has a good likelihood of doing so at world level.
19. that CEPT has been generally successful in reaching its objectives by having ECPs adopted by WRCs, especially when it had a clear view of its priority objectives and was able to achieve early compromise with several other regional groups (WRC-2000 with global agreement with Arab Group and African Group on the five main issues of the conference) or when efforts

have been made until the last minute to achieve consensus within CEPT on very divided positions (e.g. NGSO FSS at WRC-97, 13.75-14 GHz at WRC-03). In other words, a strong ECP is not only an ECP supported by CEPT as a whole, but also by other regions;

**20.** that in cases where CEPT was not successful in having its ECPs adopted by WRCs with little or no change, the reasons may be found in:

- a lack of perception of the degree of opposition from other regional groups (e.g. HF allocations at WRC-07, C-band identification for IMT at WRC-07);
- a lack of consensus within CEPT, because key interests (hence opposition) of some CEPT members were not sufficiently considered during the preparation process and therefore had to be dealt with at the conference itself (C-band and UHF band identification for IMT at WRC-07);
- a lack of consensus within other regional organisations;

and consequently, a lack or adequate coordination/compromise with other regions;

**21.** that other regional organisations face the same difficulties. For example, almost all regions were divided on the identification of UHF or C-band spectrum for IMT at WRC-07;

**22.** that, due to the nature of regional coordination, transparency before and during WRCs is a necessity. For this reason, draft European Common Proposals and Briefs are public documents from the beginning of the preparation and fall back positions do not remain undisclosed;

**23.** that, in order to reach satisfactory solution at WRCs, any EU co-ordination on key WRC agenda items must take account of the 21 non-EU Member States of the CEPT, particularly to avoid any potential difficulties at EU borders and facilitate effective harmonisation within EU in the future. While guidance on the wider policy implications of ECPs could be helpful, mandatory negotiation lines are likely to be counter-productive.

**24.** that the standard declaration of EU countries at the end of each WRC states that they "will apply the revision of the Radio Regulations adopted at this conference in accordance with their obligations under the EC Treaty". This does not mean that they are not bound by their signature of WRC Final Acts and the resulting modifications to the Radio Regulations vis-à-vis countries outside the EU;

**25.** that, as indicated in its previous opinion on the spectrum issues concerning outer EU borders, there are occasions when application of EU spectrum harmonisation decisions and the Radio Regulations results in a double set of obligations for Member States at the EU borders. As a consequence, every effort should be made in WRCs so that EU spectrum harmonisation can deliver the expected benefits also in these countries.

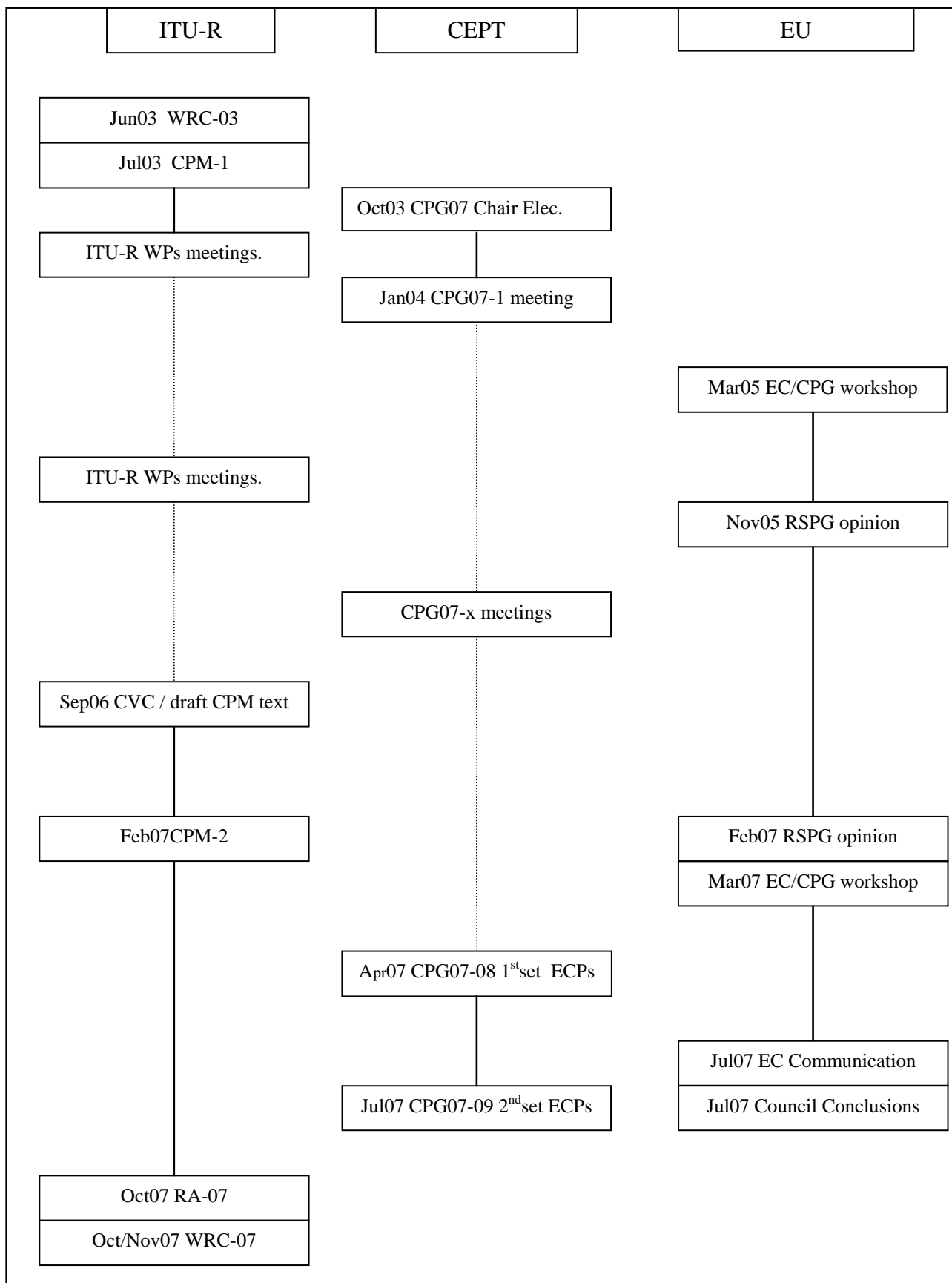
**26.** that the amended EU regulatory framework on electronic communication, still under discussion, will most probably involve the European Parliament and the EU Council in the definition of "Policy level objectives" on spectrum in parallel and that the preparation of these objectives will be taken into account in future by EU Member States in the development of future ECPs.

## **The RSPG recommends:**

1. that EU and CEPT preparations for WRCs give more emphasis on
    - a) avoiding active opposition by European Member States during WRCs, by taking into account the views of the minority as much as possible in the development and finalisation of the ECPs;
    - b) ensuring that ECPs are coordinated with other regional groups at the earliest possible stage, and incorporate the necessary amendments with the aim to achieve consensus at WRC;
  2. that EU and CEPT make all possible efforts to identify, early in the WRC preparation process and in consultation with stakeholders, the corresponding policy objectives and associated priorities, in order to facilitate the involvement of the political level for decision at the earliest possible stage;
  3. to develop and adopt an RSPG opinion for each WRC, proposing to the European Parliament, the EU Council and the European Commission “Common Policy objectives” for the corresponding conference, to be adopted in time for the CPM (i.e. 9 months before WRC);
  4. that, if, as result of the current Framework Review, a multi-annual spectrum policy programme is developed and adopted, this programme addresses policy issues related to WRC agenda items and provides guidance on strategic objectives;
  5. that political awareness on the priority issues to be discussed at WRCs should also be raised, as appropriate, at the level of regular summits between EU and other regions;
  6. that, where possible and desirable, the EU and CEPT give increased importance for the Radio Regulations to provide sufficient flexibility at the EU level in the use of allocations and facilitate harmonisation at European level;
  7. that, in line with its previous opinion on the spectrum issues concerning outer EU borders, the EU and CEPT should give more emphasis on WRC decisions which facilitate coordination at EU borders.
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**ANNEX 1 - Flows of WRC preparation in ITU-R, CEPT and EU (example of WRC-07)**



## ANNEX 2

### RESOLUTION ITU-R 2-5

#### Conference Preparatory Meeting

(1993-1995-1997-2000-2003-2007)

The ITU Radiocommunication Assembly,

*considering*

- a) that the duties and functions of the Radiocommunication Assembly, in preparing for World Radiocommunication Conferences (WRCs) are stated in Articles 13 of the ITU Constitution and 8 of the ITU Convention;
- b) that special arrangements are necessary for such preparations,

*noting*

that the Special Committee is part of the preparation for the Conference, for procedural and regulatory matters, and the rules governing the Committee are in Resolution ITU-R 38,

*resolves*

**1** that a Conference Preparatory Meeting (CPM) shall be set up on the basis of the following principles:

- that the CPM should be permanent;
- that it should address topics on the agenda of the immediately forthcoming conference and make provisional preparations for the subsequent conference;
- that invitations to participate should be sent to all Member States of the ITU and to Radiocommunication Sector Members;
- that documents should be distributed to all Member States of the ITU and to Radiocommunication Sector Members wishing to participate in the CPM;
- that the terms of reference of the CPM should include the updating, rationalization, presentation and discussion of material from Radiocommunication Study Groups and the Special Committee, together with consideration of new material submitted to it, including contributions on the review of existing WRC Resolutions, Recommendations and contributions, if available, by Member States with contributions concerning the Agenda for the next and subsequent WRCs. These contributions should be included in an Annex to the CPM Report for information only;

**2** that the scope of the CPM shall be to prepare a consolidated report to be used in support of the work of World Radiocommunication Conferences, based on:

- contributions from administrations, the Special Committee, the Radiocommunication Study Groups (see also No. 156 of the Convention), and other sources (see Article 19 of the Convention) concerning the regulatory, technical, operational and procedural matters to be considered by such conferences;
- the inclusion, to the extent possible, of reconciled differences in approaches as contained in the source material, or, in the case where the approaches cannot be reconciled, the inclusion of the differing views and their justification;

**3** that the working methods shall be as presented in Annex 1.

## Working methods for the Conference Preparatory Meeting

**1** Studies of regulatory, technical, operational and procedural matters will be undertaken by the Study Groups or the Special Committee, as appropriate.

**2** The CPM will normally hold two sessions during the interval between WRCs.

**2.1** The first session will be for the purpose of coordinating the work programmes of the relevant Study Groups, and preparing a draft structure for the CPM Report, based on the agenda for the next two WRCs, and for taking into account any directives which may have come from the previous WRC. This first session will be of short duration and the Study Group Chairmen and Vice-Chairmen will be invited to participate.

**2.2** The second session will be for the purpose of preparing the report for the next WRC. This session shall also review progress on preparatory studies for agenda items to be considered at the WRC following the next scheduled WRC. The second session will be of adequate duration to accomplish the necessary work (generally not exceeding two weeks) and will be timed to ensure publication of the Final Report at least six months before the next WRC.

**2.3** The first session will identify issues for study in preparation for the next WRC and, to the extent necessary, for the subsequent WRC. These issues should be derived from the draft and provisional Conference agendas and should, as far as possible, be self contained and independent. For each issue a single ITU-R group (which could be a Study Group, Task Group or Working Party, etc.) should be identified to take responsibility for the preparatory work, inviting input and/or participation from other concerned\* ITU-R groups as necessary. As far as possible, existing groups should be used for this purpose, with new groups being established only where this is considered to be necessary.

**2.4** Meetings of the ITU-R groups identified (i.e. the responsible groups) should be scheduled to facilitate maximum participation by all interested members. The groups should base their output on existing material plus new contributions. The final reports of the responsible groups may be submitted directly to the CPM process, normally at the CPM Management Team meeting, or exceptionally via the relevant Study Group.

**2.5** In order to facilitate the understanding by all participants of the contents of the draft CPM Report, an executive summary for each issue (see § 2.3 above) will be developed by the responsible group and used by BR for informing the regional groups throughout that WRC study cycle, with the final summary being prepared for the final draft CPM text by the responsible group and included in the CPM Report.

**3** The work of the CPM will be directed by a Chairman and Vice-Chairmen. The Chairman will be responsible for preparing the report to the next WRC.

**4** The Chairman or the CPM may appoint Chapter Rapporteurs to assist in guiding the development of the text that will form the basis of the CPM Report, and to help with the consolidation of texts from the responsible groups into a cohesive draft CPM Report.

**5** The CPM Chairman, the Vice-Chairmen and the Chapter Rapporteurs, and the Special Committee Chairman and Vice-Chairmen will be called the CPM Steering Committee.

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\* A concerned ITU-R group may be either a contributing group on a specific item, or an interested group that will follow the work on a specific issue and act as appropriate.

**6** The Chairman shall convene a meeting of the CPM Steering Committee together with the Chairmen of the responsible groups and the Study Group Chairmen. This meeting (called the CPM Management Team meeting) will consolidate the output from the responsible groups into the draft CPM Report, which will be an input document to the second session of the CPM.

**7** The consolidated draft CPM Report shall be translated into the official languages of the Union and distributed to Member States a minimum of two months prior to the date scheduled for the second session of the CPM.

**8** Every effort shall be made to ensure that the volume of the final CPM Report is kept to a minimum. To this end, responsible groups are urged to maximize the use of references to approved ITU-R Recommendations and Reports, as appropriate, in preparing CPM texts.

**9** In relation to working arrangements, the CPM shall be considered as an ITU meeting in accordance with No. 172 of the Constitution.

**10** In preparing for the CPM, maximum use should be made of electronic means for the distribution of contributions to participants.

**11** The other working arrangements shall be in accordance with the relevant provisions of Resolution ITU-R 1.

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## ANNEX 3

### Examples of CEPT preparation and coordination on WRC agenda items

#### 1 NGSO FSS allocations (WRC-95, 97 and 2000)

One agenda item at WRC-95 addressed the requirement for new allocations to the Fixed-satellite service (FSS) for feeder links to non-geostationary satellites in the mobile-satellite service. These allocations were necessary for mobile-satellite systems such as Iridium, Globalstar or ICO.

Under this agenda item, a US proposal was supported by a majority of administrations (among which a large number of developing countries) to consider allocations to non-geostationary fixed-satellite services (NGSO FSS) in the 20/30 GHz range. Although no discussions were held before the WRC on this issue, the conference decided to allocate 2 x 400 MHz in these frequency bands for that purpose. The regulatory conditions under which this decision was taken provided one system (Teledesic) a de facto worldwide monopoly on the provision of broadband, direct to home, communication services through non-geostationary satellites. CEPT was initially opposed to this decision, considering that it was not on the agenda of the conference and no studies had been made on the issue, but obtained that it be reviewed at WRC-97, together with the possibility of extending the allocation by 2 x 100 MHz.

In the preparation for WRC-97, CEPT developed its ECPs on this issue with the objective of enabling NGSO FSS services to be provided on an equitable and competitive basis. Since several satellite systems were being put forward (Skybridge, Celestri, West), given the difficulty to share the same spectrum between several such systems, the proposal was to open all the FSS bands between 10.7 and 30 GHz, i.e. nearly 7 GHz of spectrum, to these systems, on a shared basis with geostationary satellite services and fixed services. Because of the interleaved allocations at 12 GHz between the FSS and the broadcasting-satellite service (BSS), this also meant sharing with the BSS. As a result, most of the communities in radiocommunications were initially opposed to the proposals (the telecommunications operators because of the threat to the fixed service, the broadcasting community, the satellite operators because of the threat to the geostationary systems, the space research community because of the exploration satellites in the 13 GHz band and the defence community because of their radars in the 13 GHz band and the Echelon system in all bands).

Extensive technical discussions were held within CEPT in order to ensure that all these systems would be protected, on the basis of imposing strict power limits to the NGSO FSS systems. This required the development of a considerable amount of new regulatory material for inclusion in the Radio Regulations. Most ECPs on the issue were adopted six months before the conference and, three months later, they had been co-signed by 25 Member States, with 2 reserving their position and 4 stating opposition. These reservations and oppositions were finally waived after further technical CEPT meetings held up until the conference in order to refine the limits.

Progress in the ITU preparation had been slow, however, because of the large opposition and reluctance from several countries to accept the proposed concepts. In particular, the CPM report included no material on the limits to protect GSO systems.

In spite of that, the call from CEPT countries to promote equitable access and competition was followed by the large majority of countries (in particular developing countries) and the technical discussions which could not be held before the conference took place during the conference. This led to the adoption of the European proposals in all proposed frequency bands (2 x 3.5 GHz), with only a few modifications. The limits were further reviewed and the provisions refined at WRC-2000 after extensive technical studies which confirmed the validity of the approach and satisfied all incumbent services. The original request from the USA at WRC-95 for a 2 x 500 MHz allocation in the 20/30 GHz bands was confirmed.

Several conclusions may be drawn from this experience:

- Clear policy objectives supported by universal principles are key to success in WRCs.
- Although all efforts have to be done to clear in advance regulatory/technical aspects, appropriate solutions can also be developed during the conference.
- Technical and regulatory excellence is essential in ensuring the success of positions at WRCs, even when there is also a strong political/moral support. Excellence is only gained by extending all efforts in order to reduce the remaining opposition in Europe by continuing technical discussions as long as necessary before the conference.

## **2 Radionavigation-satellite service allocations (WRC-2000)**

The WRC-2000 agenda item for new radionavigation satellite service allocations was originally proposed by United States at WRC-97, since they were looking for new spectrum for the new GPS generation. This was supported by Europe, which started at that time to envisage a project for a new radionavigation satellite system.

The original ambition for new spectrum to facilitate the development for Galileo was limited until 1999, where it appeared that, in order to fully compete with GPS performance, Galileo would need to access to an equivalent amount of spectrum. The ECP was proposing several new allocations on top of the 96 MHz already available for radionavigation-satellite service:

- 51 MHz shared with a terrestrial radionavigation system (DME) and expanding on an initial idea from the USA
- 40 MHz extending bands already shared between radionavigation satellite systems and radars
- 20 MHz in an upper band (5 GHz)

This proposal was objected by those not seeing with good eyes the emergence of a European radionavigation satellite system, questioning the future of the Galileo project and having reluctance for allocating so large an amount of spectrum with a complex sharing situation. However, enabling a level playing field between Galileo and previously existing systems (GPS and GLONASS) was seen very positively by many countries and, in spite of strong political pressure from the other side, it was possible to ensure progressively a support to the CEPT position from inside other regional organisations, in particular APT and CITEL, and also within ICAO which was originally very reluctant to the proposed sharing scheme.

At WRC-2000, European Commission strongly supported the CEPT negotiations and helped in gaining support from other administrations and regions, in particular by funding industry and consultants. European Commissioner in charge of Transport & Energy Loyola de Palacio participated to the conference and opportunities were created for high-profile contacts with conference delegates.

During the Conference, the political debate was essentially hidden behind technical arguments. CEPT negotiators had to justify in a detailed way every spectrum requirement and sharing solution.

Part of the technical debate was not concluded and outstanding issues relating to technical conditions of sharing between radionavigation satellite services and other services were placed on the agenda of WRC-03. At this Conference, CEPT secured the allocations obtained at WRC-2000 in a way enabling Galileo to operate as planned, once again owing to the support of many countries outside CEPT, in particular on the issue of coordination between radionavigation satellite systems for which CEPT/Galileo position ultimately prevailed.

It can also be noted that a European administration took the initiative of starting the notification process for a radionavigation satellite system in advance of WRC-2000 decisions, which allowed Galileo to benefit from a priority access to the band newly allocated to radionavigation satellite services.

Several conclusions may be drawn from this experience:

- Participation in other regional organisations is essential to ensure a good understanding and support of the European case and position
- This is a case where EC had a direct interest in the agenda item since Galileo was an EU project and EC developed a useful activity in gaining support for CEPT positions.
- Technical expertise is essential in ensuring the success of positions at World Radio Conferences, even when there is also a strong political support.

### **3 FSS allocation at 13.75-14 GHz (WRC-03)**

Initial decisions on this matter were taken at WARC-92, where a 250 MHz frequency band was sought near 14 GHz for an allocation to the fixed-satellite service (FSS) (Earth-to-space). During the conference, it was realised that the band envisaged during the preparation (14.5-14.8 GHz) would not be accepted, hence another band was identified and technical/regulatory conditions developed during the conference with very little preparation. One of the conditions was to limit the use of this allocation to earth stations of a diameter larger than 4.5 m and a minimum e.i.r.p. of 68 dBW. These conditions were intended to limit the proliferation of earth stations, which would impacted the operation of maritime and land radar stations. They were reviewed and confirmed by WRC-95.

However, the development of VSATs in the FSS caused these conditions to be reviewed again at WRC-03. Extensive technical studies took place during the preparation in order to assess the interference situation from representative sets of earth stations and radars, as well as into Earth exploration satellite services. Due to the large discrepancy between the FSS earth station power levels required to protect radars and those required to permit the development of VSATs, the ITU studies however, could not be finalised with an agreed solution. The prospect of an agreement appeared to be low between the radar interests (supported by NATO) and the FSS interests (supported by many developing countries).

After the CPM, CEPT continued its discussions however, and the last CPG meeting, after several night sessions, was able to adopt a compromise solution one month before the WRC, with 11 Member States supporting it, and no opposition.

CEPT was particularly successful on this item, since the discussions at the WRC took a path similar to that followed in the CEPT preparation. The values finally adopted by the conference were very close to those proposed by CEPT and equivalent in terms of constraints.

One conclusion may be drawn from this experience:

- Due to diversity and number of countries in CEPT, if a consensus solution can be found in CEPT on a given proposal (i.e. no opposition), it is likely to be close to that of the WRC. Therefore, every effort has to be made during the CEPT preparation, and until the last minute, to reach such a consensus.

#### **4 HFBC allocation (WRC-07)**

The issue of HFBC allocation was already discussed at WRC-03. However, at that Conference, the agenda item was not for an allocation but for a review of the need for additional broadcasting spectrum in the HF band. This review resulted in an agenda item for WRC-07 requesting to examine all allocations between 4 and 10 MHz and in particular to examine the need for new allocations for broadcasting service.

Due to its propagation characteristics, with potentially broadcasting worldwide coverage, HF spectrum is always disputed. Additional access to spectrum for broadcasting can only be detrimental to access to spectrum for other services (i.e. preventing, or interfering with, other uses at the same frequency).

Several countries within CEPT were supportive of this agenda item, although NATO objected from the beginning to such new allocations which could limit their possibility to operate HF tactical systems, particularly important for military operations.

A technical and regulatory solution was identified within CEPT, which was taking benefit of the limited use of some HF maritime channels, used by obsolescent systems, to rearrange HF spectrum in order to provide up to 350 kHz of additional spectrum for broadcasting while preserving, in theory, the spectrum access to mobile and fixed services used by military. This solution was the basis for the development of the ECP which was adopted with a particularly limited number of supportive countries, reflecting at the same time the lack of strong interest within CEPT beyond the few countries having HF broadcasting interests and the continued opposition of NATO.

Meanwhile, all other regional organisations progressively developed a position for no additional allocation for broadcasting for various reasons:

- military or governmental interests,
- willingness to keep some extra spectrum for fixed, terrestrial mobile or maritime mobile communications,
- reluctance of some countries for HF broadcasting considered as potentially infringing the sovereignty of each state.

At the beginning of the conference, the CEPT position was therefore opposed to all other regional organisations. There were some expectations during the Conference that a compromise could be reached for at least a limited allocation. However, the situation was too unbalanced and the interest within each regional organisation too strong to avoid a decision of the conference for no change.

Several conclusions may be drawn from this experience:



- Cooperation with other regional organisations in the phase of development of the ECPs is important to verify that European views will not be isolated at the beginning of the Conference
- European views have little chance to be accepted if they are not supported by at least one of the other regional groups.

## **5 UHF allocation to mobile and identification for IMT (WRC-07)**

Discussions at WRC-07 on the allocation to mobile service and identification for IMT of part of the UHF broadcasting band is a good example of an agenda item where developing ECP and negotiating it during the conference was particularly difficult and where the achieved result (allocation of the band 790-862 MHz to mobile service on a primary basis with identification to IMT) was not initially expected.

### **a) Development of the ECP**

The debate on the digital dividend was initiated in Europe in the years preceding WRC-07. The RSPG opinion on the digital switchover (November 2004) was touching the issue and the momentum really started with the adoption of the RSPG opinion on Digital Dividend (February 2007) which proposed to study the possibility of harmonising a sub-band of the UHF broadcasting band for fixed and mobile networks. In this respect, the Digital Dividend was not part of the discussion at RRC-06 in June 2006 since this conference was only dealing with broadcasting planning and had no mandate to modify the Table of frequency allocations.

In response to the RSPG opinion and to the first EC mandate on Digital Dividend, CEPT made an important step in July 2007 by concluding about the feasibility of the “harmonisation of a sub-band of the UHF band for mobile communication applications (i.e. including uplinks) from a technical, regulatory and administrative point of view, provided that it is not made mandatory and any decision about use of the harmonised sub-band is left to individual Administrations, within the framework of the GE-06 Agreement, and without prejudice to existing national licence obligations”. The preferred sub-band for such harmonisation was the upper part of the UHF band, including, as a minimum, the range of channels 62-69 (798-862 MHz).

The ECP was developed in this context and recognised that the issue of Digital Dividend could lead to a new mobile allocation and identification for IMT but that it was too early to take any concrete decision at WRC-07. The proposal was then not to make any allocation at WRC-07 and to defer the discussion to WRC-11. Although the debate also took momentum at national level, the number of EU countries wishing to have decisions as early as WRC-07 always remained a small minority. RSPG opinion on WRC-07 and Council Conclusions in July 2007 were not challenging the European position as defined in the ECP. Clearly, the timing made it difficult for CEPT to consider development on Digital Dividend which happened just a few months before the Conference and to reach consensus within CEPT on a mobile allocation in the UHF band.

It could be noted that in a similar context, several regional organisations (ie, APT and the League of Arab States) did not succeed in reaching a consensus for a position at WRC-07 concerning this frequency band. Europe at least succeeded in defining a position with positive elements regarding the Digital Dividend (studies for WRC-11 and open-minded position to take account of the need of countries outside Europe) accommodating to some extent the views of those countries wishing to progress on Digital Dividend.

## **b) Discussions at WRC-07**

The ECP was adopted at the last CPG meeting, in July 2007, with 27 administrations<sup>1</sup> supporting it, 3 opposing or reserving their position and 3 abstaining.

As they had indicated during the CEPT preparation, from the beginning of WRC-07, three EU administrations submitted proposals to the conference diverging from the ECP.

There were split views inside all regional organisations, except for RCC. Several administrations part of the APT and League of Arab States proposed some mobile allocations where some other opposed to it. The ATU proposed the allocation of the band 806-862 MHz to mobile service and identification to IMT. However, several African countries wished more than 56 MHz and some other were simply opposing any mobile allocation.

The initial divergences were overcome through a high level compromise between the representatives of the regional groups, involving several issues and final consensus was reached without any vote, as usual during conferences.

Key to this outcome was the ability to develop regulatory safeguards (through resolutions and footnotes in the Table of Allocations) to ensure that the countries opposing the new allocation could preserve their rights to develop broadcasting in the future.

It can also be noted that the European position was able to evolve in response to internal and external pressure in a way consistent with EU interest. In spite of a few coordination difficulties, the CEPT negotiation team got a clear mandate concerning the final negotiation during the last days and nights of the Conference and was in a position to ensure a decision of WRC-07 in conformity to this mandate. Today, it seems that there is a large consensus in Europe about the importance of the WRC-07 decision which is an essential step in realising the Digital Dividend.

## **c) Conclusions**

Several conclusions may be drawn from this experience:

- when CEPT preparations on a given agenda item indicate the prospect of strong opposition by several CEPT Member States, every effort should be made to amend the ECP for reducing this opposition ;
- when a new allocation is proposed in addition to existing ones, arguments to defer the decision to a next conference are of little weight if regulatory/technical safeguards for present and future rights of existing allocations can be developed during the conference.

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<sup>1</sup> To be filled in before adoption.