



Radio Spectrum Policy Group
RSPG Secretariat

Brussels, 08 June 2016

RSPG16-017 FINAL

RADIO SPECTRUM POLICY GROUP

RSPG Report on the result of the ITU-R World Radiocommunication Conference 2015

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1. Introduction

The World Radiocommunication Conference (WRC-15) of the International Telecommunication Union (ITU) took place in Geneva, Switzerland, from November 2nd to 27th 2015. More than 3200 representatives of 162 Member States of the ITU addressed about 33 Agenda items on radio spectrum issues of worldwide interest. The revisions of the Radio Regulations have been compiled in the Final Acts signed by 150 ITU members including the 28 Member States of the European Union.

This concluded the nearly 4-year-long preparation process for the EU Member States within CEPT and ITU-R Working Groups.

According to article 8a-4 of the Framework Directive, “*Where necessary to ensure the effective coordination of the interests of the European Community in international organisations competent in radio spectrum matters, the Commission, taking utmost account of the opinion of the RSPG, may propose common policy objectives to the European Parliament and the Council.*”

As it has been done for previous WRCs, RSPG published an Opinion on Common Policy Objectives for WRC-15¹. As stated in footnote 1 of the title, “these common policy objectives have been established in accordance with the requirements of the principle of sincere cooperation, as pointed out in the RSPP, Art. 10.1 (b)”². Based on this input, the European Commission submitted on May 29 2015 to the Council a Proposal for a Council Decision “*on the position to be adopted, on behalf of the European Union, in the International Telecommunication Union (ITU) World Radiocommunication Conference 2015 (WRC-15)*”³. On September 16 the COREPER gave guidance to the Working Party on Telecommunication and Information Society (TELECOM WP) on the procedure to follow. Based on this, the Council prepared draft Council conclusions covering common policy objectives to be pursued by the Member States at the WRC-15. On October 14 the permanent Representatives Committee reached final agreement on the entire text and on October 26 the Council adopted the conclusions as proposed⁴.

Initial positions of the Member States were in conformity with the Council conclusions and in addition with the RSPG opinion. In line with the Council conclusions the positions were constantly evolved by means of on-the-spot CEPT coordination meetings with the Commission participating and by EU coordination meetings, as relevant and for certain policy issues outside radio spectrum (e.g. declaration of the EU Member States when signing the Final Acts, Resolution (42) related to Palestine and declaration on Ukraine).

¹ RSPG 15-599 - 19 February 15- RSPG Opinion on Common Policy Objectives for WRC-15

² if the subject matter of the international negotiations falls partly within the competence of the Union and partly within the competence of the Member States, the Union and the Member States shall seek to establish a common position in accordance with the requirements of the principle of sincere cooperation.

³ COM (2015) 234 29 May 2015 submitted to the Council as ST09455.EN15

⁴ ST 13042/15

In order to assist the Commission in its task to report to the European Parliament and the Council on the results of WRC-15 and to allow further enhancement of the RSPG preparation on WRC-19, this RSPG Report highlights the WRC-15 results in reflection of the Council conclusions and RSPG opinion on WRC-15.

2. WRC-15 results regarding European common policy objectives

The World Radiocommunication Conference 2015 adopted modifications to the Radio Regulations, which are an international treaty 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.

- a) Agenda item 1.1 (additional spectrum for the mobile service to facilitate further development of mobile broadband applications)

WRC-15 Agenda item 1.1 considered “*additional spectrum allocations to the mobile service on a primary basis and identification of additional frequency bands for International Mobile Telecommunications (IMT) and related regulatory provisions, to facilitate the development of terrestrial mobile broadband applications, in accordance with Resolution 233 (WRC 12)*”. It focused on possible new mobile service allocation and identification of bands for IMT and relevant updates of the RR:

- 19 frequency bands had been identified in the ITU preparation process as possible candidate bands for IMT identification. As mentioned in the RSPG Opinion, many of these bands, which are not subject to an EC Decision on harmonised usage under the Radio Spectrum Decision, are fully under the competence of the Member states (including several harmonised bands for military purposes within NATO countries/nations). The Member States ensured that none of these bands (ie. 1350-1400 MHz, 2025-2110 MHz, 2700-2900 MHz, 4400-4990 MHz, 5350-5470 MHz, 5725-5850 MHz), nor one of those which were addressed by the Council conclusions under no. 3. a) iv. (ie. 5350-5470 MHz, 5725-5850 MHz, 5850-5925 MHz), have been allocated to the mobile service or identified for IMT.
- After intensive and critical negotiations the Member States achieved no change in the band 470-694 MHz as invited by No 3. a) iii. of the Council conclusions. WRC-15 concluded that a review of the wider UHF band (470 – 960 MHz), in order to assess the broadcasting and mobile usage, should be done for consideration at WRC-23. This is completely in line with the European strategy regarding the future of the UHF band as developed and recommended by the Lamy report to the European Commission and in the RSPG opinion on the UHF band^{5,6}.
- The frequency bands 3400-3800 MHz and 1452-1492 MHz, which were supported by the European Union and CEPT as candidate bands for IMT, are

⁵ http://rspg-spectrum.eu/wp-content/uploads/2013/05/RSPG15-595_final-RSPG_opinion_UHF.pdf

⁶ For further information, see the subsequent proposal for a Decision of the European Parliament and of the Council on the use of the 470-790 MHz frequency band in the Union COM(2016)43

already harmonised in the EU under the Radio Spectrum Decision⁷. These harmonisation measures setting the technical conditions for the usage of these spectrum bands within Member States were not affected by the results of WRC-15. Furthermore the bands 1427-1452 MHz and 1492-1518 MHz were proposed by the Council Conclusions as candidate bands, extending the band 1452-1492 MHz already harmonised in the EU.

- In all of these bands the overall objective was to reach common agreement for global identification for IMT. This was successful with regards to the bands 1427-1452 MHz, 1492-1518 MHz and 3400-3600 MHz as a mobile allocation in the table of frequency allocations and identification for IMT were reached.

For the band 1452-1492 MHz, this result was not completely reachable due to opposition from countries outside the EU using this band for Aeronautical telemetry. An IMT identification would have resulted in constraining provisions for the protection of those systems for bordering EU countries, consequently a risk of diverging legal obligations –notwithstanding the prevailing rule of the EU obligations– for those impacted Member states. In addition, the identification of this band for IMT outside Europe achieved the goal of harmonisation and economies of scale as intended by Europe’s proposals. Therefore the EU Member States in close consultation with the representatives of the European Commission decided to keep the *status quo*, in order to preserve the interest of all EU countries. The Union remained fully united in this discussion.

For the band 3600-3800 MHz, there was no worldwide identification for IMT due to opposition from countries outside Europe taking into account the intensive satellite use outside Europe in this frequency band. Any attempt at a more open result resulted in immediate objections and requests to also open other bands. Therefore it was decided by the EU Member States in close consultation with the representatives of the European Commission to retain the existing international status as the band is already available in Europe.

b) Agenda item 1.2 (700 MHz band)

WRC 15 Agenda item 1.2 examined “*the results of ITU-R studies, in accordance with Resolution 232 (WRC 12), on the use of the frequency band 694-790 MHz by the mobile, except aeronautical mobile, service in Region 1 and take the appropriate measures*”. It considered the use of the band 694-790 MHz by the mobile service in relevant updates needed in the RR:

- The CEPT negotiation process before the conference, resulted primarily in one remaining issue related to the cross-border coordination conditions and agreements with countries outside EU (e.g. the Russian Federation) using in this band aeronautical radionavigation service, which are under the competence of the Member states. This issue was solved bilaterally during the first week of the conference.

⁷ Decision 2008/411/EC on the harmonisation of the 3400-3800 MHz frequency band for terrestrial systems capable of providing electronic communications services in the community (amended by Decision 2014/276/EU); Decision 2015/750/EU on the harmonisation of the 1 452-1 492 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Union

- Following this achievement a further consideration on the protection criteria for broadcasting in close cooperation with Arab and African countries resulted in the full achievement of the European objectives, ie. setting of the lower edge at 694 MHz, ensuring balanced coexisting between wireless broadband and broadcasting and not adding additional constraints going beyond the GE-06 agreement.
- c) Agenda item 1.18 (short-range radars in the band 77.5-78 GHz)

WRC 15 Agenda item 1.18 considered a “*primary allocation to the radiolocation service for automotive applications in the 77.5 – 78.0 GHz frequency band in accordance with Resolution 654 (WRC-12)*”:

- The whole band 76-81 GHz is already harmonised in EU for the use of automotive short-range radar equipment since 2004⁸ pursuant to the Radio Spectrum Decision. The objective at WRC-15 was to promote this harmonisation outside EU by ensuring a proper worldwide allocation. There was no discussion at WRC-15 that could have resulted in an outcome affecting the harmonisation measure on the technical conditions under the Radio Spectrum Decision. Some discussions took place about the protection of radioastronomy in this band, which has to be ensured.
- One other issue was the worldwide extension of the allocation and an extension of this allocation to other radar usage such as by aircraft when taxiing and consequential impact on the coexistence with the Radioastronomy service. This resulted in further discussions, including among EU member states, during WRC-15: Close consultations within CEPT, including consultation with the representatives of the European Commission, resulted in an appropriate common way forward, which was finally accepted by the conference. The new allocation was limited to short-range radars for ground-based applications and concerns regarding the protection of the Radioastronomy Service against possible interference by radar usage during flights in the whole frequency band 76-81 GHz have been addressed in a corresponding Resolution of the conference.

- d) Agenda item 10 (Agenda of WRC-19)

Agenda item 10 considered “*to recommend to the Council⁹ 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 [...]*”:

- As requested by the Council conclusions, the Member States supported actively and achieved the inclusion of an agenda item relating to mobile broadband (5G) into the provisional Agenda for the WRC-19 with a corresponding Resolution of the conference to address a common approach to launch related compatibility studies in a list of dedicated frequency bands.
- Consistent with No 3 a) iv. (addressing Agenda item 1.1) of the Council conclusions, the Member states in close consultation with the representatives

⁸ Commission Decision 2004/545/EC

⁹ ITU Council

of the European Commission supported further studies for radio local area networks in the 5GHz range including the bands 5350-5470 MHz, 5725-5850 MHz and 5850-5925 MHz while achieving the protection of the primary use in all cases. WRC-15 decided to include this issue into the Agenda of WRC-19.

e) Other Agenda items / Policy areas addressed in the RSPG opinion on WRC-15

Several other main common policy objectives proposed in the RSPG opinion have also been achieved, such as:

- A revision of the relevant Resolution 646 addressing information on PPDR spectrum has been adopted with no obligation on specific technologies or specific frequencies;
- The operation of the global satellite search and rescue system COSPAS SARSAT have been further protected by new adequate protection criteria;
- The communication on manned space missions between space vehicle have been eased by removing unnecessary distance limitations;
- Spectrum allocations of 600 MHz bandwidth in total for new Earth exploration satellite systems (active) in the 9-10 GHz range have been adopted;
- Provisions for maritime on-board communications were reviewed and new regulations for maritime VHF data exchange systems have been adopted.
- A new Resolution addresses the conditions for the use of the fixed satellite service by satellite links for unmanned aeronautical systems.
- A spectrum allocation was made for the aeronautical mobile service allowing the use of the band 4200-4400 MHz by wireless avionics intra-communication;
- The provisions of coordination, notification and publication for space systems have been successfully updated.

3. EU unity at WRC-15 negotiations

Unity regarding the support of council conclusions is the essential obligation of the EU Member states throughout negotiations at WRCs. The CEPT coordination process and the efforts of the Commission achieved in all cases the support of a common (united) position. Member States and Commission applied the principle of sincere co-operation successfully in practice.

The following remarks need to be considered for future WRCs:

- a) Unambiguous wording in the Council Conclusions is important to ensure that the scope and intention of the policy objectives are well understood, nevertheless maintaining sufficient flexibility during the negotiations at the conference.
- b) The need to address one issue under an Agenda item within the Council conclusions does not necessarily mean that all issues under this Agenda item are subject to an EU policy and therefore these Council conclusions are exhaustive.

For example, the conclusions of the Council were addressing specific objectives related to four Agenda items (1.1, 1.2, 1.18, 10) with a view to facilitate the successful implementation of some EU policies. However, additional issues were considered by WRC-15 under these Agenda items:

- Opposition or support for IMT identification in other bands under Agenda item 1.1
- Protection of the Radioastronomy service under Agenda item 1.18

- c) On all issues where some EU countries may have been negatively affected by a possible decision of the Conference, the Union also remained fully united. This is exemplified by the result of the Conference on
- the frequency band 470-694 MHz;
 - the frequency band 1452-1492 MHz, where all EU countries were fully supportive of the interest of EU countries at the EU eastern borders;
 - the requirement for worldwide protection of the Copernicus system from interference of radio local area networks in the 5 GHz range in the studies for WRC-19
- d) It needs to be highlighted that CEPT, representing 48 ITU Member states, is wider than EU, which gives the opportunity for a wider support of common positions. In cases where there was a sustained opposition against a CEPT/EU common position at WRC-15 by one or more countries outside the EU, it did not result in any weakening of the common position, owing to the application of the CEPT coordination process.

The European Unions policy objectives were presented coherently and consistently during the conference. As for previous conferences, this was done by the relevant CEPT coordinator.

- e) It is beneficial to the overall preparation inside the EU to provide the opinion of RSPG as early as possible to the European Commission taking into account the parallel development of ITU Members final positions within the last year before a WRC.

In accordance with Article 6.1 of the RSPG Rules of Procedure, the European Commission provided the following dissenting view:

The Commission notes that the report does not reflect the differences between EU Member States that characterised the negotiations on some of the items on the WRC-15 agenda, for example on the band below 700 MHz or regarding the 5 GHz band. As a result, the Union position at WRC-15 was not as strong and unified as suggested in the report, or as it could have been. The Commission trusts that the preparations for WRC-19 will acknowledge and resolve different views and deliver the necessary unity within the EU.

References RSPG Opinions/ reports

<http://rspg-spectrum.eu/rspg-opinions-main-deliverables/>

- RSPG Opinion on Common Policy Objectives for WRC-15 - 19 February 2015
Document RSPG15-593
- RSPG Interim Opinion on Common Policy Objectives for WRC-15 | Final| 13 June 2013
Document RSPG13-525
- RSPG Opinion on the Main themes of WRC-12 of interest for EU-Wide support - 5 November 2009 - Document RSPG09-295
- RSPG Opinion on the Preparation of ITU World Radiocommunication Conferences - 5 November 2009- Document RSPG09-294

ANNEX

Council conclusions on common policy objectives for WRC-15

The Council “*EXPRESSED BROAD SUPPORT FOR the following objectives to be achieved at the WRC-15 in view of the successful implementation of relevant Union policies:*

a) Under agenda item 1.1:

- i. To identify the band 1452-1492 MHz, and adjacent bands 1427-1452 MHz and 1492-1518 MHz for International Mobile Telecommunications (IMT) while protecting passive services below 1427 MHz. This identification does not preclude the use of these bands by any applications, including defence, of the services to which they are allocated, nor establish priority in the Radio Regulations;*
- ii. To allocate the band 3400-3800 MHz on a co-primary basis to the mobile service and identify it for IMT, taking into account that the band plays an important role for satellite communications;*
- iii. To support no change to allocations in the band 470-694 MHz in Europe¹;*
- iv. To neither add the co-primary allocation to the mobile service of the bands 5350-5470 MHz and 5725-5850 MHz nor identify for IMT those bands as well as the band 5850-5925 MHz, while studying these three bands further with a view to consider their use for radio local area networks and ensuring that primary use is protected in all cases.*

b) Under agenda item 1.2:

- i. To set the lower band edge at 694 MHz and support ITU-R recommendations for protection levels for the broadcasting service below 694 MHz commensurate with the results of the studies performed by the European Conference of Postal and Telecommunications Administrations;*
- ii. To ensure balanced coexistence between wireless broadband and broadcasting, and not add additional constraints going beyond the GE-06 agreement¹² for the protection of broadcasting in the band 694-790 MHz;*
- iii. To ensure balanced access between mobile service and aeronautical radionavigation services (ARNS) at the borders of the eastern Member States, so as to facilitate the deployment of mobile services in all EU countries through appropriate regulatory provisions of the radio regulations, while favouring the smallest effective separation distances between ARNS and IMT and supporting the rights of the EU eastern Member States in this regard.*

c) Under agenda item 1.18, to allocate the band 77.5-78 GHz to radiolocation service to facilitate the deployment of automotive radars without introducing excessive restrictions, and to recognise that radio astronomy stations should continue to benefit from protection;

d) Under agenda item 10, to support an agenda item for WRC-19 addressing the spectrum needs for 5G mobile systems, with the focus above 6 GHz for new allocations and a common approach to launch related compatibility studies ahead of WRC-19”.

¹ [Member States should also have the flexibility to use the band for wireless broadband downlink, provided that such use is compatible with the broadcasting needs.](#)