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## **RADIO SPECTRUM POLICY GROUP**

# **RSPG Interim Opinion on Common Policy Objectives for WRC-19**

**(Draft) RSPG Interim Opinion on Common Policy Objectives for WRC-19<sup>1</sup>****1. Introduction**

The role of the Radio Spectrum Policy Group (RSPG) is to assist and advise the European Commission on radio spectrum policy issues, on coordination of policy approaches, on the preparation of multiannual radio spectrum policy programmes and, where appropriate, on harmonised conditions with regard to the availability and efficient use of radio spectrum necessary for the establishment and functioning of the internal market.

The RSPG notes that under the principle of subsidiarity, in areas which do not fall within its exclusive competence, the Union shall act only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States, either at central level or at regional and local levels, but can rather, by reason of the scale or effects of the proposed action, be better achieved at Union level. The reasons for concluding that a Union objective can be better achieved at Union level shall be substantiated by qualitative and, wherever possible, quantitative indicators. Draft European legislative acts shall take account of the need for any burden, whether financial or administrative, falling upon the Union, national governments, regional or local authorities, economic operators and citizens, to be minimised and commensurate with the objective to be achieved.

Having taken into account the legal European framework, this Opinion addresses the following matters:

- \* whether a co-ordination of policy approaches of the Member States with regard to any particular radio spectrum policy issue under the scope of this Opinion is needed and how this could best be achieved in case the RSPG identifies such a need;
- \* the relevance of the radio spectrum policy issue in the context of sector-specific (e.g. electronic communications, transport, research and development) and/or horizontal (e.g. internal market, competition, trade) Community policies;
- \* the extent to which the policy approaches of the Member States to the issue are consistent;
- \* the extent to, and manner in which the public has been consulted with regard to the issue under consideration.

A list of the consulted parties and of the documents considered will be included in the final Opinion expected in 2018.

**1.1 World Radiocommunication Conference (WRC) 2019**

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<sup>1</sup> 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).

*Note: The application of the Radio Spectrum Policy Programme Art. 10.1 is subject to the outcome of the pending case at the Court of Justice regarding WRC-15.*

The next WRC is planned to be held in 2019 and will be the culmination of several years of preparatory work within the International Telecommunication Union (ITU). WRC-19 will address necessary revisions of the Radio Regulations (RR)<sup>2</sup>, an international treaty between the 193 Member States of the ITU on the use of the radio spectrum and coordination rules to provide access to it. WRC-19 work will follow an Agenda proposed by the preceding WRC held in 2015 (WRC-15), which was finally adopted by ITU Council as Resolution 1380 (see Annex).

The RR are applicable to the relationship between ITU Member States. A specific provision of the RR<sup>3</sup> provides administrations with the latitude to make assignments of any frequency to any type of radio usage, providing that the station using such frequency does not cause harmful interference to, and does not claim protection from harmful interference caused by, other stations operating in accordance with the RR in another ITU Member State.

As such, no provision of the RR can affect the rights of the European Union and its Member States to implement any desired harmonised technical conditions and to make available spectrum for stations of any type, although RR provisions set technical conditions and regulatory procedures to avoid harmful interference with other countries (e.g. cross-border rights), in absence of other provisions agreed between countries (e.g. harmonised conditions within the EU or a bilateral agreement).

Allocations in the RR have to be differentiated from actual implementation and use of systems and applications. It is up to each ITU Member state or group of ITU Member States (such as the Member States of the European Union) to decide on the actual use of frequency bands in their territories, taking into account the sharing conditions and coordination requirements defined in the RR in order to protect spectrum use in other countries.

## **1.2 The need for a RSPG Opinion**

The RR are key for services of an international nature, such as mobile, aeronautical, maritime or space services and is essential in achieving worldwide harmonisation of spectrum use. Where worldwide harmonisation cannot be achieved, harmonisation within in a Region as defined by the RR<sup>4</sup> may be possible. Such harmonisation potentially translates into economies of scale and opportunity for circulation of equipment and the provision of services (e.g. roaming), thus bringing benefits to EU economy and citizens.

The importance of the process to modify the RR is reflected in the RSPG Opinion on the preparation of ITU World Radiocommunication Conferences<sup>5</sup> which recommends:

*“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);”*

Furthermore, the RSPG Opinion on the Radio Spectrum Policy Programme (RSPP)<sup>6</sup> addressed the issue of EU external relations in relation with preparations of international conference such as WRCs:

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<sup>2</sup> <http://www.itu.int/pub/R-REG-RR-2016/>

<sup>3</sup> See No. 4.4 of Article 4 of the Radio Regulations

<sup>4</sup> See No. 5.2 of Article 5 of the Radio Regulations

<sup>5</sup> See RSPG09-294

[http://rspg.groups.eu.int/documents/documents/opinions/rspg09\\_294\\_preparation\\_itu\\_wrc.pdf](http://rspg.groups.eu.int/documents/documents/opinions/rspg09_294_preparation_itu_wrc.pdf)

<sup>6</sup> See RSPG10-330 [http://rspg.groups.eu.int/documents/documents/opinions/rspg10\\_330\\_rspp\\_opinion.pdf](http://rspg.groups.eu.int/documents/documents/opinions/rspg10_330_rspp_opinion.pdf)

- *“Where a potential for conflict of interest between differing groups of stakeholders arises, the Commission should provide guidance on European priorities in regard to those WRC Agenda Items relevant to the EU. This guidance should be based on an evaluation of social and economic consequences which should be undertaken in parallel with the compatibility analysis conducted by CEPT. The assessment of the social and economic impacts for all stakeholders should be discussed with Member States through RSPG;*
- *During the conferences, Member States should make their best efforts to coordinate the evolution of European Common Proposals (ECPs) in line with EU and CEPT policy objectives and to find a balanced compromise on all WRC Agenda Items taking into account the relevant policy objectives; and*
- *The identification of European spectrum interests and priorities shall be followed by the development of a programme for regular discussions on spectrum policies with non-EU countries and other regions. This programme should contain actions aimed at presenting EU spectrum policy objectives and understanding the views and positions of non-EU countries and other regions in order to obtain common understanding and substantial support to reach the EU policy goals.”*

Therefore, it is important that the EU and its Member States identify as early as practicable common policy objectives for those WRC-19 Agenda Items that are relevant for the EU policies as identified in section 2 of this Opinion. Since the RR relate to the right of individual administrations to provide access to spectrum and not to harmonised technical conditions within the EU, the modifications of the RR cannot affect the EU common rules on spectrum. Therefore, the common policy objectives have to be established in accordance with the requirements of the principle of sincere cooperation, as pointed out in the RSPP, Art. 10.1 (b)<sup>7</sup>.

### **1.3 Towards WRC-19**

It should be noted that in proposing common policy objectives RSPG have to balance satisfying EU policies with those interests not subject to an EU policy across the WRC-Agenda. In addition there might be cases where negotiations at WRC require balancing EU policies.

Therefore the aim of this Opinion is to:

- assist the European Commission in proposing Common Policy Objectives;
- provide guiding material for the development of ECPs within CEPT;
- propose actions for the European Commission, as necessary, in order to provide political support to promote common policy objectives in regular meetings between EC and non-EU countries.

As for previous RSPG opinions addressing WRCs and following the existing practise to address EU policy interest most efficiently, the RSPG opinion on Common Policy Objectives for WRC-19 will be developed in two stages:

- Stage 1: This Interim Opinion identifying the main themes of WRC-19 where there is an EU policy in place taking into account relevant spectrum harmonisation measures;

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<sup>7</sup> See <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32012D0243&from=EN>; see also the Note in footnote 1.

- Stage 2: Based on the results of stage 1, the development of a final Opinion containing information on the main themes based on emerging results from studies conducted in the overall framework of WRC-19 preparation, together with Common Policy Objectives relevant to these themes, taking into account RSPP Art. 10.1 (b).

## 2. Identification of relevant EU Policies for WRC-19

The identification of the EU policies relevant to WRC-19 Agenda Items is a complex task. Agenda Items are formulated in terms of allocations to radiocommunication services as defined in the RR (e.g. Mobile, Fixed, Fixed-satellite, Broadcasting Services, etc.) and conflicting interests may exist between users of these Services. Changes to the international regulatory framework, by addressing those through an Agenda Item, have generally an impact on several radiocommunication services and may require a thorough analysis of current EU policies. Some Agenda Items are broad in nature, for example those Agenda Items which are not limited to specific frequency bands, and it may not be possible to determine all relevant policies impacted. Moreover Member States will have to balance the need for a new allocation for some radiocommunication services versus the need for continuing operation and protection of other services in the same frequency range. The RSPG has made every effort to balance these interests and provide a strategic input through this Opinion process.

*[Note: The following paragraphs are subject to the second stage towards a final Opinion. CEPT is in the process of developing and adopting European Common Proposals (ECP) and associated briefings. It is therefore the right time for highlighting the relationship between the activities within CEPT on WRC-19 Agenda Items and EU policies as well as common policy objectives that Member States should follow at the final ECP adoption phase and during WRC-19.]*

The EU policy areas relevant to WRC Agenda Items are Electronic Communication and Connectivity, Single Market, Transport, Trade, Space, Science and Research. In addition, aspects of the Common Security and Defence Policy may be considered as having relevance. *(Editor's Note: Crosscheck needed!)*

## 3. Response to public consultation

[to be filled in after public consultation in 2018]

## 4. Identification of relevant EU policies

The RSPG is of the opinion that the following specific WRC-19 Agenda Items are of relevance for some EU policies. This identification is based on the objectives of the WRC-19 Agenda Items and includes references to harmonisation decisions under the Radio Spectrum Decision<sup>8</sup>.

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<sup>8</sup> See Decision No 676/2002/EC <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32002D0676&from=EN>

#### **4.1 WRC-19 Agenda Item 1.5**

This Agenda Item is a continuation of the work performed during the previous WRC cycle for the frequency bands 19.7-20.2 GHz and 29.5-30 GHz. It seeks to extend the operation of earth stations in motion into the frequency ranges 17.7 – 19.7 GHz and 27.5 – 29.5 GHz while ensuring at the same time protection of other services.

##### **4.1.1 Link with EU policies:**

European electronic communication policy aims to deliver broadband connectivity to European citizens also while they are in motion as outlined in the EC Communications on the Gigabit society and a 5G Action plan<sup>9</sup>. Earth stations in motion would contribute to that goal.

##### **4.1.2 Relevant spectrum harmonisation decisions:**

None

##### **4.1.3 Elements for a common policy objective:**

[to be defined at the second stage]

#### **4.2 WRC-19 Agenda Item 1.6**

This Agenda Item deals with the establishment of regulatory provisions for sharing between non-geostationary and geostationary satellites in the 50/40 GHz frequency bands allocated to the fixed-satellite service. It also addresses the protection of passive services (i.e. the Radioastronomy, Earth-exploration satellite and space research services) in adjacent frequency bands.

##### **4.2.1 Link with EU policies:**

European space policy supports the establishment of a sustainable regulatory environment, which is necessary for the development and production of non-geostationary satellites operating in these frequency bands<sup>10</sup>. This Agenda Item supports the development of such an international regulatory framework.

##### **4.2.2 Relevant spectrum harmonisation decisions:**

None

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<sup>9</sup> At this stage EC proposed two Communications to the Council and Parliament: COM(2016) 587 <https://ec.europa.eu/transparency/regdoc/rep/1/2016/EN/1-2016-587-EN-F1-1.PDF>  
COM(2016) 588 <https://ec.europa.eu/transparency/regdoc/rep/1/2016/EN/1-2016-588-EN-F1-1.PDF>

<sup>10</sup> Proposal of a EC Communication on a Space Strategy for Europe COM(2016) 705

**4.2.3 Elements for a common policy objective:**

[to be defined at the second stage]

**4.3 WRC-19 Agenda Item 1.7**

This Agenda item deals with spectrum needs for the technical operation of satellites with short mission durations. It will initially study whether existing allocations to space services, in particular the space operation service are sufficient. Otherwise, there is the possibility of making suitable and appropriate new allocations.

**4.3.1 Link with EU policies:**

The EU is aiming to develop a competitive, independent and global European space industry. Strengthening the European space sector by boosting space research and innovation is vital if Europe is to maintain and safeguard access to and operations in space<sup>11</sup>. Ensuring the availability of spectrum for operating satellites with short mission duration may be supportive to these policy objectives, in particular for SMEs.

**4.3.2 Relevant spectrum harmonisation decisions:**

None

**4.3.3 Elements for a common policy objective:**

[to be defined at the second stage]

**4.4 WRC-19 Agenda Item 1.8**

This Agenda Item is linked to the global development of maritime transportation. The Global Maritime Distress and Safety System (GMDSS) is under modernisation within the International Maritime Organisation (IMO). This also includes the potential introduction of additional satellite systems (such as those operating in the 1.6/1.5 GHz frequency range) into the GMDSS, which is subject to the approval by IMO. However, the introduction of an additional GMDSS satellite system operating in the mobile satellite service in the 1.6 GHz frequency band will have to ensure protection of the Radioastronomy service in the adjacent band.

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<sup>11</sup> Proposal of a EC Communication on a Space Strategy for Europe COM(2016)705

**4.4.1 Link with EU policies:**

European Transport and Trade policies are aiming at maximising safety and efficiency in the maritime sector, in particular improving logistics<sup>12</sup>.

The issue of protecting the Radioastronomy service is of importance for European Science policy promoting research and technological development<sup>13</sup>.

**4.4.2 Relevant spectrum harmonisation decisions:**

None

**4.4.3 Elements for a common policy objective:**

[to be defined at the second stage]

**4.5 WRC-19 Agenda Item 1.9 (1.9.2)**

This Agenda Item comprises two independent issues:

- 1.9.1, dealing with the growing number of maritime radio equipment which uses spectrum designated to the Automatic Identification System (AIS). This use does not fully respect in most cases the AIS requirements and therefore endangers traditional AIS uses.
- 1.9.2, a follow-up issue of WRC-15 aiming to allocate an appropriate portion of current allocations to the maritime mobile service in the frequency band 156 – 162 MHz to the maritime mobile-satellite service to support the implementation of the VHF Data Exchange System (VDES).

**4.5.1 Link with EU policies:**

There is currently no link visible to EU policy for Agenda Item 1.9.1.

For Agenda Item 1.9.2, the European transport policy is aiming at maximising safety and efficiency, which is outlined by improving logistics<sup>14</sup>. The implementation of the satellite part of VDES will be beneficial to the efficiency aspect.

**4.5.2 Relevant spectrum harmonisation decisions:**

None

**4.5.3 Elements for a common policy objective:**

[to be defined at the second stage]

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<sup>12</sup> see TFEU Art. 91 (1c)

<sup>13</sup> see TFEU Art. 179-190.

<sup>14</sup> see TFEU Art. 91 (1c).

#### 4.6 WRC-19 Agenda Item 1.12

This Agenda Item is looking into a potential global or regional harmonisation of spectrum for the development of Intelligent Transport Systems (ITS). Any solution will have to take utmost account of already existing harmonisation in Europe. Since this Agenda Item is limited to frequency bands already allocated to the appropriate mobile service, the preparatory studies may as well look into the aspect of solving the item without revisions to the Radio Regulations, e.g. by means of non-binding ITU documents.

##### 4.6.1 Link with EU policies:

European Transport policy is aiming at maximising road safety and efficiency, which is outlined by halving road death by 2020 and improving logistics and creating smarter ‘travel behaviour’<sup>15</sup>. It should be noted that future ITS may benefit from an integration into the wider ecosystem of 5G (see EC Communication on the connectivity for a European Gigabit society<sup>16</sup>).

##### 4.6.2 Relevant spectrum harmonisation decisions:

2008/671/EC – Commission Decision on the harmonised use of radio spectrum in the 5 875 - 5 905 MHz frequency band for safety-related applications of Intelligent Transport Systems (ITS)<sup>17</sup>

##### 4.6.3 Elements for a common policy objective:

[to be defined at the second stage]

#### 4.7 WRC-19 Agenda Item 1.13

This Agenda Item aims to complement the availability of spectrum for Electronic Communication Systems (ECS) usable for ultra-high capacity links in higher frequency bands. These bands will form a complementary element for the worldwide deployment of the fifth generation of mobile communication systems, so called “5G”. The studies are limited to eleven bands ranging from 24.25 GHz to 86 GHz, mainly within already existing allocations to the mobile service to ensure from the beginning an opportunity of worldwide harmonisation.

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<sup>15</sup> see TFEU Art. 91 (1c).

See also proposal in Commission Communication on a European strategy on Cooperative Intelligent Transport Systems, a milestone towards cooperative, connected and automated mobility COM(2016) 766.  
see COM(2016) 588 <https://ec.europa.eu/transparency/regdoc/rep/1/2016/EN/1-2016-588-EN-F1-1.PDF>

<sup>16</sup> COM(2016) 587 <https://ec.europa.eu/transparency/regdoc/rep/1/2016/EN/1-2016-587-EN-F1-1.PDF>

<sup>17</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008D0671&from=en>

#### 4.7.1 Link with EU policies:

European Electronic Communication and Connectivity policy is aiming at ubiquitous ultra-high broadband connectivity of all European citizens and fostering innovative applications in the single market.

Europe's 5G strategy is outlined in the RSPG Opinion on 5G<sup>18</sup>, EC Communication on the connectivity for a European Gigabit society<sup>19</sup> and the EC Action Plan on 5G<sup>20</sup> including the expected benefit of a common ecosystem for a wide range of sectors like e.g. assisted driving, eHealth, energy management, possible safety applications.

EU wants to be at the forefront in the development of technology for mobile networks. Therefore the EU Member states need to work at ITU level towards an adequate regulatory framework which facilitates a timely deployment of 5G. This will include a thorough consideration of a global harmonisation of Europe's 5G pioneer band – 24.25-27.5 GHz – under this Agenda Item.

It needs to be highlighted that other bands already harmonised for wireless broadband in the EU are generally usable for 5G under the principle of technology neutrality. Taking benefit from ITU identified bands, further EU harmonisation measures may be necessary.

#### 4.7.2 Relevant spectrum harmonisation decisions:

None – at this stage. However a mandate to the CEPT on the harmonisation of spectrum for 5G has been issued<sup>21</sup>, in this context addressing with a priority the band 24.25-27.5 GHz.

#### 4.7.3 Elements for a common policy objective:

[to be defined at the second stage]

### 4.8 WRC-19 Agenda Item 1.16

This Agenda Item is a continuation of activities performed in view of WRC-15. Two frequency bands had been considered for the mobile service to enhance the spectrum available for Radio Local Area Networks (RLAN): 5 350 - 5 470 MHz and 5 725 - 5 850 MHz. WRC-15 did not introduce such an allocation, notably taking into account Europe's interest to protect the operation of the Sentinel satellites of its Copernicus programme<sup>22</sup> in the lower band. Based on a European initiative, WRC-15 decided to conduct further studies looking at the whole band 5 150 - 5 925 MHz to respond to the demand of Wireless Access Systems including RLAN to have access to more spectrum in order to ensure the availability of channels with a bandwidth of up to 160 MHz and to relax conditions in the existing 5 GHz range identified for RLAN. The Agenda Item requests as a first step assessment of the feasibility of suitable sharing techniques in the whole band. Therefore Europe is supporting the studies with a continuing emphasis on the need to protect existing services.

<sup>18</sup> [http://rspg-spectrum.eu/wp-content/uploads/2013/05/RPSG16-032-Opinion\\_5G.pdf](http://rspg-spectrum.eu/wp-content/uploads/2013/05/RPSG16-032-Opinion_5G.pdf)

<sup>19</sup> COM(2016) 587 <https://ec.europa.eu/transparency/regdoc/rep/1/2016/EN/1-2016-587-EN-F1-1.PDF>

<sup>20</sup> COM(2016) 588 <https://ec.europa.eu/transparency/regdoc/rep/1/2016/EN/1-2016-588-EN-F1-1.PDF>

<sup>21</sup> EC Mandate on 5G – [http://ec.europa.eu/newsroom/document.cfm?doc\\_id=42093](http://ec.europa.eu/newsroom/document.cfm?doc_id=42093)

<sup>22</sup> <http://www.copernicus.eu/main/copernicus-brief>

#### 4.8.1 Link with EU policies:

- Ensuring the full operation of the Sentinel satellites with their Earth observation capabilities is an essential political requirement of the Copernicus policy programme<sup>23</sup>.
- RLAN forms part of EU Framework for Electronic Communication Services and Networks<sup>24</sup>. The European Council called in June 2016 for very high-capacity fixed and wireless broadband connectivity across Europe, as a precondition for future competitiveness<sup>25</sup>.
- Common European Security and Defence Policy is relying on accurate information provided also by Radars, such as those operated in the 5 GHz range.
- European Transport policy is aiming at maximising safety and efficiency, which also involves improving logistics and creating smarter ‘travel behaviour’ by making the best use of modern ICT and satellite-based technology<sup>26</sup>. This implies studying in which way innovative ITS applications can be protected.<sup>27</sup>

#### 4.8.2 Relevant spectrum harmonisation decisions:

RLAN (2005/513/EC as amended by 2007/90/EC)<sup>28</sup>; SRD (2013/752/EU)<sup>29</sup>; ITS (2008/671/EC)<sup>30</sup>.

#### 4.8.3 Elements for a common policy objective:

[to be defined at the second stage]

#### 4.9 Other Agenda Items

For WRC-19 Agenda Items 1.3, 1.9.1, 1.10, 1.11, 1.15, 7 as well as for Issues under Agenda Item 9.1, the current information is not sufficient enough to assess the impact on EU policy. Therefore, they are subject to further review.

#### Annex: Agenda of the WRC-19 (Resolution 1380 (ITU Council 2016))

<sup>23</sup> see Article 4 (2b) of Regulation 377/2014/EU of the European Parliament and of the Council establishing the Copernicus Programme and repealing Regulation (EU) No 911/2010 (<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0377&from=EN>)

<sup>24</sup> See RSPP Art. 6.

<sup>25</sup> European Council conclusions, 28 June 2016 (EUCO 26/16).

<sup>26</sup> see TFEU Art. 91 (1c).

<sup>27</sup> [http://europa.eu/european-union/file/1232/download\\_en?token=xCqI9RmY](http://europa.eu/european-union/file/1232/download_en?token=xCqI9RmY)

<sup>28</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32007D0090&from=EN>

<sup>29</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013D0752&from=EN>

<sup>30</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008D0671&from=EN>

## Annex

**RESOLUTION 1380****Place, dates and agenda of the World Radiocommunication Conference  
(WRC-19)**

The Council,

*noting*

that Resolution 809 of the World Radiocommunication Conference (Geneva, 2015):

- a) resolved to recommend to the Council that a world radiocommunication conference be held in 2019 for a maximum period of four weeks;
- b) recommended its agenda, and invited the Council to finalise the agenda and arrange for the convening of WRC-19 and to initiate as soon as possible the necessary consultation with Member States,

*resolves*

to convene a World Radiocommunication Conference (WRC-19) in Geneva (Switzerland) from 28 October to 22 November 2019, preceded by the Radiocommunication Assembly from 21 to 25 October 2019, with the following agenda:

1 on the basis of proposals from administrations, taking account of the results of WRC-15 and the Report of the Conference Preparatory Meeting, and with due regard to the requirements of existing and future services in the frequency bands under consideration, to consider and take appropriate action in respect of the following items:

1.1 to consider an allocation of the frequency band 50-54 MHz to the amateur service in Region 1, in accordance with Resolution **658 (WRC-15)**;

1.2 to consider in-band power limits for earth stations operating in the mobile-satellite service, meteorological-satellite service and Earth exploration-satellite service in the frequency bands 401-403 MHz and 399.9-400.05 MHz, in accordance with Resolution **765 (WRC-15)**;

1.3 to consider possible upgrading of the secondary allocation to the meteorological-satellite service (space-to-Earth) to primary status and a possible primary allocation to the Earth exploration-satellite service (space-to-Earth) in the frequency band 460-470 MHz, in accordance with Resolution **766 (WRC-15)**;

1.4 to consider the results of studies in accordance with Resolution **557 (WRC-15)**, and review, and revise if necessary, the limitations mentioned in Annex 7 to Appendix **30 (Rev.WRC-15)**, while ensuring the protection of, and without imposing additional constraints on, assignments in the Plan and the List and the future development of the broadcasting-satellite service within the Plan, and existing and planned fixed-satellite service networks;

1.5 to consider the use of the frequency bands 17.7-19.7 GHz (space-to-Earth) and 27.5-29.5 GHz (Earth-to-space) by earth stations in motion communicating with geostationary space stations in the fixed-satellite service and take appropriate action, in accordance with Resolution **158 (WRC-15)**;

1.6 to consider the development of a regulatory framework for non-GSO FSS satellite systems that may operate in the frequency bands 37.5-39.5 GHz (space-to-Earth), 39.5-42.5 GHz (space-to-Earth), 47.2-50.2 GHz (Earth-to-space) and 50.4-51.4 GHz (Earth-to-space), in accordance with Resolution **159 (WRC-15)**;

1.7 to study the spectrum needs for telemetry, tracking and command in the space operation service for non-GSO satellites with short duration missions, to assess the suitability of existing allocations to the space operation service and, if necessary, to consider new allocations, in accordance with Resolution **659 (WRC-15)**;

1.8 to consider possible regulatory actions to support Global Maritime Distress Safety Systems (GMDSS) modernization and to support the introduction of additional satellite systems into the GMDSS, in accordance with Resolution **359 (Rev.WRC-15)**;

1.9 to consider, based on the results of ITU-R studies:

1.9.1 regulatory actions within the frequency band 156-162.05 MHz for autonomous maritime radio devices to protect the GMDSS and automatic identifications system (AIS), in accordance with Resolution **362 (WRC-15)**;

1.9.2 modifications of the Radio Regulations, including new spectrum allocations to the maritime mobile-satellite service (Earth-to-space and space-to-Earth), preferably within the frequency bands 156.0125-157.4375 MHz and 160.6125-162.0375 MHz of Appendix **18**, to enable a new VHF data exchange system (VDES) satellite component, while ensuring that this component will not degrade the current terrestrial VDES components, applications specific messages (ASM) and AIS operations and not impose any additional constraints on existing services in these and adjacent frequency bands as stated in *recognizing d) and e)* of Resolution **360 (Rev.WRC-15)**;

1.10 to consider spectrum needs and regulatory provisions for the introduction and use of the Global Aeronautical Distress and Safety System (GADSS), in accordance with Resolution **426 (WRC-15)**;

1.11 to take necessary actions, as appropriate, to facilitate global or regional harmonised frequency bands to support railway radiocommunication systems between train and trackside within existing mobile service allocations, in accordance with Resolution **236 (WRC-15)**;

1.12 to consider possible global or regional harmonised frequency bands, to the maximum extent possible, for the implementation of evolving Intelligent Transport Systems (ITS) under existing mobile-service allocations, in accordance with Resolution **237 (WRC-15)**;

1.13 to consider identification of frequency bands for the future development of International Mobile Telecommunications (IMT), including possible additional allocations to the mobile service on a primary basis, in accordance with Resolution **238 (WRC-15)**;

1.14 to consider, on the basis of ITU-R studies in accordance with Resolution **160 (WRC-15)**, appropriate regulatory actions for high-altitude platform stations (HAPS), within existing fixed-service allocations;

1.15 to consider identification of frequency bands for use by administrations for the land-mobile and fixed services applications operating in the frequency range 275-450 GHz, in accordance with Resolution **767 (WRC-15)**;

- 1.16 to consider issues related to wireless access systems, including radio local area networks (WAS/RLAN), in the frequency bands between 5 150 MHz and 5 925 MHz, and take the appropriate regulatory actions, including additional spectrum allocations to the mobile service, in accordance with Resolution **239 (WRC-15)**;
- 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-15)**, and to decide whether or not to update the corresponding references in the Radio Regulations, in accordance with the principles contained in Annex 1 to Resolution **27 (Rev.WRC-12)**;
- 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-07)**, 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 to consider possible changes, and other options, in response to Resolution 86 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference, an advance publication, coordination, notification and recording procedures for frequency assignments pertaining to satellite networks, in accordance with Resolution **86 (Rev.WRC-07)**, in order to facilitate rational, efficient and economical use of radio frequencies and any associated orbits, including the geostationary-satellite orbit;
- 8 to consider and take appropriate action on requests from administrations to delete their country footnotes or to have their country name deleted from footnotes, if no longer required, taking into account Resolution **26 (Rev.WRC-07)**;
- 9 to consider and approve the Report of the Director of the Radiocommunication Bureau, in accordance with Article 7 of the Convention:
  - 9.1 on the activities of the Radiocommunication Sector since WRC-15;
  - 9.2 on any difficulties or inconsistencies encountered in the application of the Radio Regulations<sup>\*</sup>; and
  - 9.3 on action in response to Resolution **80 (Rev.WRC-07)**;
- 10 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, in accordance with Article 7 of the Convention.

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\* This agenda item is strictly limited to the Report of the Director on any difficulties or inconsistencies encountered in the application of the Radio Regulations and the comments from administrations.

*instructs the Director of the Radiocommunication Bureau*

to make the necessary arrangements to convene meetings of the Conference Preparatory Meeting and to prepare a report to WRC-19,

*instructs the Secretary-General*

- 1 to make all the necessary arrangements, in agreement with the Director of the Radiocommunication Bureau, for the convening of the Conference;
  - 2 to communicate this Resolution to international and regional organizations concerned.
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