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RADIO SPECTRUM POLICY GROUP

(Draft) RSPG Opinion on Common Policy Objectives for WRC-15[1]

[1] 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)

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1. Introduction

RSPG shall assist and advise the 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.

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 level, 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.

Considering this legal European framework, in their reasoning, this Opinion addresses the following matters and comprises the following information:

* whether a co-ordination of policy approaches of the RSPG Member States with regard to the particular radio spectrum policy issue under the scope of this opinion is needed and how this could best be achieved in case the Group identifies such a need;

* whether there is a need for the Commission to develop proposals on harmonised conditions with regard to the availability and efficient use of radio spectrum;

* 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; including a list of the consulted parties and of the documents considered.

The next World Radiocommunication Conference (WRC) is planned to be held from 2 to 27 November 2015, which will be the culmination of several years of preparatory work within the International Telecommunication Union (ITU). The Conference in 2015 (WRC-15) will address necessary revision of the Radio Regulations, an international treaty on the use of the radio spectrum and coordination rules between the 193 Member States of the ITU, in accordance with an agenda proposed by the preceding WRC held in 2012 (WRC-12) which was finally adopted by ITU Council as Resolution 1343.

The Radio Regulations (RR) apply to the relationship between ITU Member States. It allows assignment to a station of any frequency providing that such a station does not cause harmful interference to, and does not claim protection from harmful interference caused by, a station operating in accordance with these regulations in another ITU Member state.

As such, no provision of the RR can affect the rights of the European Union to implement the desired harmonised technical conditions and to make available the spectrum for stations of any type. In addition RR provisions set technical conditions and regulatory procedures to avoid harmful interference with a country outside the EU (e.g. cross-border rights).

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 Member States to decide on the actual use of frequency bands in their countries taking into account the sharing conditions and coordination requirement defined in the RR in order to protect spectrum use in other countries. This is why frequency bands are often allocated to more than one radiocommunication service.

The RR are key for services of an international nature, such as; aeronautical, maritime or space services. It also helps in worldwide harmonisation of spectrum use, including for the mobile service. Such harmonisation potentially translates into economies of scale and opportunity for circulation of equipment (e.g. roaming), thus bringing benefits to EU economy and citizens.

This is reflected in the RSPG Opinion on the preparation of ITU World Radiocommunication Conferences[2] 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);*"

In addition the RSPG opinion on the Radio Spectrum Policy Programme[3] addressed the issue of EU external relations in relation with preparations of international conference such as WRCs:

- 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;

- 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

It is important that the EU and its Member States identify as early as feasible common policy objectives for those WRC-15 Agenda Items that are relevant for EU policies as identified in section 2. Since the RR relates to the right of individual administrations to access spectrum and not to

[2] See RSPG09-294 http://rspg.groups.eu.int/_documents/documents/opinions/rspg09_294_preparation_itu_wrc.pdf

[3] See RSPG10-330 http://rspg.groups.eu.int/_documents/documents/opinions/rspg10_330_rspp_opinion.pdf

harmonised technical conditions within EU, these 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).

It should be noted, that Member States have to balance satisfying EU policies also with those interests not subject to an EU policy within and between Agenda Items. In addition there might be case where negotiations at WRC-15 require balancing EU policies.

Therefore the aim of the Opinion in that regard is to:

- assist the European Commission in proposing Common Policy Objectives in an EC communication;
- offer guidance to Member States in developing ECPs within CEPT;
- identify actions for the European Commission in order to provide political support to promote common policy objectives in regular meetings between EC and non-EU countries.

Following the previous RSPG opinions addressing World Radiocommunication Conferences and the existing practise to address EU policy interest most efficiently the RSPG opinion on Common Policy Objectives for WRC-15 has been developed in two stages:

- Stage 1: An Interim Opinion identifying the main themes of WRC-15 where there is an EU policy in place;

- 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-15 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-15

The identification of the EU policies relevant to WRC-15 Agenda Items is complex. Agenda Items are formulated in terms of allocations to radiocommunication services as defined in the RR (e.g. mobile, fixed, fixed satellite services, broadcasting, etc.) and conflicting interests may exist between these services. Agenda Items generally have an impact on several radiocommunication services and several 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 before the conference. 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.

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-15 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-15.

The EU policy areas relevant to WRC Agenda Items are information society, internal market, environment, transport, space policy, audiovisual policy, research and development. In addition, Common Security and Defence Policy aspects can be seen as relevant too.

3. Response to public consultation

[Editors Note: To be filled in after Public consultation, if necessary]

4. Main themes with relevance to EU policies

The RSPG is of the opinion that the following areas of EU policy are most relevant to the specific Agenda Items at WRC-15.

4.1 Information society – Electronic Communications

The RSPG made an assessment of the possible solutions and options for meeting the future demand for wireless broadband services in the time frame 2013-2020 in response to the RSPP objectives. This work led to a report and an opinion on wireless broadband[4].

WRC-15 Agenda Item 1.1 is the result of proposals including from Europe demonstrating broad consensus on the need to harmonise additional spectrum for the mobile service to facilitate further development of mobile broadband applications in line with the objectives of the RSPP. This is one of the most significant WRC issues for many years.

WRC-15 Agenda Item 1.1 addresses studies on the future spectrum requirements for mobile service including IMT systems as well as sharing and compatibility issues in the potential additional frequency bands for mobile service. It is recognised that additional spectrum is one element to meet the capacity requirements of mobile broadband applications and other measures such as technological and network improvements will also contribute.

However preparatory discussions of potential frequency bands to meet the additional spectrum requirements have proved to be controversial and action at WRC-15 could impact a range of other EU policy areas, e.g. transport, environment, satellite, culture, Common Security and Defence Policy (CSDP). The EU common policy objective needs to establish a balance between the needs of developing mobile broadband applications and existing usage in the potential additional frequency bands.

The RSPG Opinion on Wireless Broadband calls for a strategic plan that should include a detailed analysis of the usage of all bands preliminary identified as candidate bands (Annex 2 of that Opinion), including e.g. the 700 MHz, 1.5 GHz, 2.3 GHz, 3.8-4.2 GHz and 5 GHz bands, in Member States and their potential for wireless broadband services on a harmonised basis, prioritising the bands in accordance with their potential and timeframe in which they are likely to be available.

Complementary to the identification and possible implementation of wireless broadband in the 700 MHz band, the impact on the environment of media distribution, in particular terrestrial television,

[4] https://circabc.europa.eu/sd/d/6e0575cf-5244-4707-a811-c45b61b29377/RSPG13-522-Final_RSPG_Report_on_WBB.pdf
https://circabc.europa.eu/sd/d/c7597ba6-f00b-44e8-b54d-f6f5d069b097/RSPG13-521_RSPG%20Opinion_on_WBB.pdf

needs to be taken into account, when considering the further development of the band 470-694 MHz. It was noted that in Europe there has been careful consideration on all relevant levels on strategic elements regarding the use of broadcasting in the band 470-694 MHz during the last years.

In its [draft] opinion on the UHF band[5], RSPG recommends that the frequency band 470-694 MHz shall remain available for DTT in the foreseeable future, i.e. 2030. RSPG is of the view that Member States should also have the flexibility to use the 470-694 MHz band for WBB downlink, provided that such use is compatible with the broadcasting needs.

Europe is considering carefully the use of the 1.5 GHz band, to ensure the compatibility with other services (including those in adjacent bands) as well as seeking for appropriate provisions to ensure an effective and efficient use of the band by mobile broadband applications. Noting the use of the band by aeronautical telemetry by a few countries at the border area of the EU, it is necessary to avoid any new constraints on the land mobile service for the protection of aeronautical telemetry.

In addition it is well noted that some parts of bands within the 1.5 GHz range are used intensively for defence purposes and fixed links in support of nationally important infrastructure networks in some Member States, which needs careful consideration when implementing a positive decision at WRC-15.

Furthermore regarding the band 3.4-3.8 GHz (already harmonised at EU level) , a global alignment to the maximum extent possible shall be considered to increase economies of scale for the equipment in this band, taking note of the fact that FSS is extensively deployed in the band 3600-4200 MHz in many emerging countries.

There could be a continued need for satellite communication in part of the frequency range 3400-3800 and 3800-4200 MHz in some areas of Europe. Outside Europe the band plays an important role for satellite communications as high rainfall in Equatorial Regions means that alternative satellite frequency bands are less practical to use. This is not the case in Europe; however this may limit the possibility of worldwide identification for IMT. The relevant EU space policy should also be taken into account.

Use of the mobile service within the 5 GHz range for an extension of RLAN is not feasible without mitigation techniques in order to avoid degradation to the usability of the European Copernicus system. Further work is ongoing on potential mitigation techniques but will not be finished before WRC-15. In addition no RLAN characteristics have been defined to ensure the protection of other services operating in this frequency band, e.g. radiolocation.

WRC-15 Agenda Item 1.2 follows the decision taken at WRC-12 to allocate the band 694 – 790 MHz also to the mobile, except aeronautical service in ITU Region 1 immediately after WRC-15 and to identify the band for IMT. This allocation will facilitate an implementation of mobile broadband systems in Europe in this frequency band. The purpose of the Agenda Item is to determine the technical and regulatory conditions applicable to this mobile allocation, including a possible refinement of the lower band edge.

[5] This document is under public consultation

Additionally solutions for services ancillary to broadcasting (e.g. wireless microphones and other programme making technologies) are studied by ITU-R.

The EU common policy objective should take into account several elements including the requirements of concerned services and the aim for regional and global harmonisation.

WRC-15 Agenda Item 1.3 addresses the international harmonisation on spectrum use for Public Protection and Disaster Relief (PPDR) applications, specifically the revision of WRC-Resolution 646 which currently provides information on regionally used tuning ranges for this purpose. Thus the on-going discussions on spectrum harmonisation for broadband PPDR services within Europe shall be taken as a basis for a common policy objective on this Agenda Item.

Since the PPDR requirements may vary to a significant extent from country to country, it is important that any action at WRC-15 reflect that PPDR related radiocommunication matters are an issue of sovereignty of each Member State. In that regard it is important to achieve to the maximum extent possible economies of scale and ensure interoperability between PPDR equipment by providing relevant information.

Therefore Europe will consider future harmonization of PPDR only if the action is flexible enough to consider national differences in spectrum requirements for PPDR services, as well as the national choice how to provide these services, which may be through a dedicated PPDR network, commercial networks or a hybrid solution (mix of dedicated and commercial networks). Regardless of the type of network, it is important that the harmonisation allows for commercial mobile broadband products (terminals, base stations, chipsets etc.) to be used in an as great extent as possible, thus avoiding that a niche market for PPDR equipment is created.

Elements for a common policy objective:

Under Agenda Item 1.1 Member states should ensure that at WRC-15 additional spectrum is identified for IMT and allocated to mobile services as appropriate taking into account the development of electronic communication services within the EU, the need to fulfil the tasks of the Digital Agenda for Europe and the RSPP and the protection of other radio applications.

In particular Member States should:

- **support the harmonisation of existing allocations for electronic communication services in EU Member states on a global level to gain benefits from economies of scale and increased opportunities;**
- **support regulatory provisions in this spectrum which ensures an equitable access between countries,**
- **support no mobile allocation in the band 470 – 694 MHz**
- **support no regulatory additional constraints to mobile service for the protection of aeronautical telemetry in the band 1429 – 1518 MHz**

- **also support, based on the RSPG Broadband Opinion, the worldwide identification of the following additional frequency bands for IMT:**

  around 1.5 GHz, in particular

  - **1427-1452 MHz**
  - **1452-1492 MHz**
  - **1492-1518 MHz**

    and

  - **3400-3600 MHz[6]**
  - **3600-3800 MHz[6,7]**

Under Agenda Item 1.2, Member States should:

- **support 694 MHz as the lower edge for the allocation to the mobile service on a co-primary basis with the broadcasting service and identification for IMT in the 700 MHz band, while ensuring protection of the broadcasting service below 694 MHz;**
- **ensure that no regulatory provisions in RR relevant to coexistence with broadcasting (co-channel, co-frequency and adjacent frequency) in addition to GE-06 agreement is adopted;**
- **ensure that equitable access between mobile service and aeronautical radionavigation services so as to facilitate the deployment of mobile services in all EU countries through appropriate regulatory provisions in the RR. Cross-border coordination agreement should be aimed to be reached before WRC-15 for all countries bordering countries outside the EU operating aeronautical Radionavigation services.**
- **ensure that there is no new provision which prohibits options for PMSE equipment**

Under Agenda Item 1.3, Member States should support a revision of WRC-Resolution 646 providing relevant information on regional PPDR frequency ranges with no obligation on the use of specific technology and specific frequency band.

Action regarding non-EU-countries: the policy development in EU regarding the use of 700 MHz for WBB may be addressed in meetings between EU and third-countries in order to promote actions to facilitate WBB deployment at the border of EU countries and cross-border coordination discussions and agreements based on the principle of equitable access.

[6] Already harmonised by EC Decision C(2014)2798

[7] Being aware, with regard to the bands 1492-1518 MHz, 3400-3600/3600-3800 MHz, of the issues mentioned above

4.2 Space policy

WRC-15 Agenda Item 1.6 concerns possible new primary allocations for the fixed satellite service: 1) of 250 MHz between 10 GHz and 17 GHz in Region 1; and 2) of 250 MHz in Region 2 and 300 MHz in Region 3 in the range 13 GHz to 17 GHz. This is a complex issue due to the fact that the amounts of spectrum allocated to two satellite services, the fixed-satellite service (FSS) and the broadcasting-satellite service (BSS) varies between the three ITU Regions and that the Agenda Item only addresses one service (FSS) and a limited frequency band (10 – 17 GHz). In addressing the issue, it is important to take into account the allocations to both satellite services across a wider frequency range. The main issue for item 2) is to solve the imbalance between the available up and downlink spectrum. Since several European operators are operating on a worldwide scale, both 1) and 2) are of significance.

WRC-15 Agenda Item 1.7 is to review the use of the band 5 091 – 5 150 MHz by mobile satellite service feeder links (which operate in the fixed-satellite service). This band was intended to be used in the short term for FSS sharing with aeronautical radionavigation, where it is designated as an extension band for the Microwave Landing System (MLS) in cases where its spectrum requirements cannot be met in the band 5 030 – 5 091 MHz. Since the FSS use has continued and the MLS has not needed access to this extension band, WRC-15 will review this situation.

WRC-15 Agenda Item 1.8 provides for a review of the regulatory arrangements introduced at WRC-03 for Earth Stations on Vessels (ESVs) which operate in fixed-satellite service networks in the uplink bands 5 925 – 6 425 MHz and 14 – 14.5 GHz. The objective of the review is to relax certain requirements following successful implementation of the original regulations.

Resolution 902 (WRC-03) contains provisions for the operation of ESVs including technical conditions and limits, with regard to the protection of terrestrial services operating in the same band. Resolution 902 could be reviewed to take into account the outcome of the studies on this Agenda Item with the aim to investigate whether present conditions for the operation of ESVs need to be retained or whether they should be modified. These bands are mainly used for commercial purposes. Revised provisions would support the development and use of ESVs as well as the European space and maritime industries.

Europe should support allowing more flexibility to ESV operation but continuing to protect other services in the same bands (5 925 – 6 425 MHz and 14 – 14.5 GHz).

WRC-15 Agenda Item 1.9, which has two parts, addresses possible new allocations for the fixed satellite service in the band 7 150 – 7 250 MHz (space to Earth) and 8 400 – 8 500 MHz (Earth to space) under Agenda Item 1.9.1 and 7 375 – 7 750 MHz and 8 025 – 8 400 MHz to the maritime mobile service under Agenda Item 1.9.2. These allocations are intended to be used by defence systems and are within or directly adjacent to those already used by defence systems. These allocations would support the capacity to be provided by the future generation of European military

telecommunications satellites which would support the development of European space industry. Coexistence with scientific services has been particularly considered. For Agenda Item 1.9.1 a solution based on technical constraints and an operational coordination appears to be effective and widely supported. For Agenda Item 1.9.2 however, no practical solution has been identified to ensure the protection of the numerous receiving earth stations operating in the band 8 025 – 8 400 MHz close to the coasts.

WRC-15 Agenda Item 1.10 addresses potential mobile satellite spectrum in the frequency range 22 – 26 GHz, following the absence of any new allocation at WRC-12 in the frequency range 4 – 16 GHz (WRC-12 Agenda Item 1.25). This Agenda Item was proposed by countries outside Europe. This Agenda Item is relevant to both electronic communications and space policy. Europe should support the protection of the radio-astronomy usage in the 22 – 26 GHz band. No new MSS allocations should be agreed unless compatibility is demonstrated with existing services in the band.

Other WRC-15 Agenda Items are likely to lead to significant debate on space issues – in particular Agenda Item 7 - and the specific issues under the various parts of Agenda Item 9.1. In addition, Member States may raise specific issues at the conference in connection with satellite procedures. Ensuring an adequate international regulatory environment for satellite radiocommunications is critical since all ITU procedures applying to the coordination and notification of space networks and systems are fundamental to provide administrations and operators with the right to operate in an interference-controlled environment.

Issue 9.1.1 is to improve the protection of the various satellite systems operating in the mobile-satellite service in the band 406 – 406.1 MHz, to provide search and rescue communications. These systems are internationally coordinated through the international organisation Cospas-Sarsat. Europe provides a number of such space components (e.g. Galileo, Eumetsat) to the Cospas-Sarsat programme.

Issue 9.1.8 is on regulatory environment of nano- and pico- satellites. This is a growing satellite usage driven by scientific, education and technology demonstration projects. Europe should ensure that the coordination, notification and recording procedures for satellite systems adequately cover the specificities of nano- and pico- satellites – as set-up time and usage cycle of these satellite types are short.

Elements for a common policy objective:

Under Agenda Item 1.7, Member States should support removal of regulatory constraint to the fixed-satellite service (Earth-to-space) in the band 5 091 – 5 150 MHz.

Under Agenda Item 1.8, Member States should support allowing more flexibility to ESV operation while continuing to protect other services in the same bands (5 925 – 6 425 MHz and 14 – 14.5 GHz).

Under Agenda Item 1.9.1, Member States should support new allocations to the FSS in order to address the needs of the future generation of European military telecommunication satellites, whilst ensuring the development of European programs under the scientific service.

Under Agenda Item 9.1.1, Member States should support search and rescue communications in the band 406 – 406.1 MHz.

4.3 Transport policy

WRC-15 Agenda Item 1.5 is a follow up Agenda Item following the discussion at WRC-12 on unmanned aircraft systems (UAS). The specific issue for discussion at WRC-15 concerns the possible use of certain bands allocated to the fixed satellite service for the control and non-payload communications of UAS in non-segregated airspace. Sufficient satellite links are necessary to ensure the usage of UAS for long distance flights. This Agenda Item is closely linked to the development of appropriate ICAO policy and regulatory provisions. In general both ICAO and WRC actions to support the future implementation of UAS would also support the Single European Sky initiative as well as the European aviation industry. The challenge is to ensure the protection of the UAS command and control link while avoiding unexpected impact on the coordination and notification procedure of all satellite systems in the bands. So far, studies carried out do not provide any certainty on these impacts.

Elements for a common policy objective:

Member States should support the use of bands allocated to the fixed satellite service for the control communications of unmanned aerial systems whilst not compromising the current coordination and notification procedure of other all satellite networks in the bands. Member States should follow closely to the developments on ICAO requirements and should ensure that solutions meet those requirements.

WRC-15 Agenda Item 1.15 addresses the improvement and expansion of maritime mobile on-board UHF communications to address the reports of congestion on the six frequencies currently identified. Those frequencies are intensively used within port operations by ships, thus this Agenda Item would support the further development of maritime transportation in the EU – it should be noted however that this type of communication is primarily for the purpose of internal communication on board vessels rather than navigation and hence is not linked to EU maritime policies. The solution envisaged to respond to this Agenda Item is to increase the efficient usage in the existing frequencies by reducing the channel bandwidth.

WRC-15 Agenda Item 1.16 is to consider regulatory provisions and possible new allocation(s) to facilitate new Automatic Identification System (AIS) technology for both satellite and terrestrial applications. This item has already been brought to the attention of the International Maritime Organisation (IMO), and their input here is likely to have direct relevance to the direction and potential result of this Agenda Item. This is because the use of AIS is likely to figure in discussions related to the modernisation of the Global Maritime Distress and Safety System (GMDSS), a subject which is currently on the agenda of the IMO. WRC-12 saw allocations for satellite detection for AIS agreed. This agreement, coupled with this Agenda Item, is seeing new potential satellite delivered AIS applications being considered which may be of interest to the European satellite industry.

The preparatory work for WRC-15 has led to the development of a new concept, the VHF Data Exchange System (VDES), which could be introduced in the Radio Regulations through the following modifications:

- Introducing two Application Specific Message channels called ASM1 and ASM2 in RR Appendix 18 so as to reserve AIS frequencies for "Navigation Safety/Collision Avoidance" purposes (as a SOLAS requirement).

- Improving the data exchange of communication between ship and shore by combining 4 Appendix 18 channels to enable 100 kHz channel transmission.

- Introducing satellite monitoring of ASM1 and ASM2 as well as a satellite communications, including broadcast channel to enable innovative services in the fields of safety, navigation, security and operations.

Elements for a common policy objective:

Member States should support the future development of the European maritime sector by facilitating the introduction of the terrestrial and satellite components of VDES.

WRC-15 Agenda Item 1.17 is to consider allocations and regulatory provisions for Wireless Avionics Intra-Communications (WAIC). This is intended to bring benefits to aviation in terms of weight saving on aircraft, which in turn brings environmental benefits, and also potential safety benefits. Aircraft have an obvious need to be able to operate globally and cross national borders and a WRC

decision will support this. The solution envisaged to respond to this Agenda Item is on a global basis to allocate the band 4200-4400 MHz to the aeronautical mobile (route) service.

Elements for a common policy objective:

Member States should support a globally harmonized solution in the 4200-4400 MHz band for Wireless Avionics Intra-Communications (WAIC) while ensuring the protection of radio-altimeters operating in this band.

WRC-15 Agenda Item 1.18 is to consider a primary allocation to the radiolocation service for automotive applications in the 77.5 – 78 GHz band. The 77 – 81 GHz band has been identified in Europe as the band for long term deployment of automotive short range radar (SRR) and industry should be encouraged to develop SRR equipment for that band. The frequency bands 76 – 77.5 GHz and 78 – 81 GHz are already allocated to the radiolocation service on a primary basis in all three ITU regions. Therefore Europe has proposed an allocation in the band 77.5 – 78 GHz to the radiolocation service on a primary basis in all three regions with limitations in order to support a globally harmonised continuous band which would provide the automotive industry with benefits in terms of economies of scale, and would also provide the regulatory certainty needed for this application which has long cycles of development and use. Technical restriction may be necessary to protect other services , in particular radio-astronomy. Studies have shown that this can be ensured at national level adequately.

Elements for a common policy objective:

Member states should support the allocation of the band 77.5 to 78 GHz to the Radiolocation Service. The objective is to facilitate the global deployment of automotive SRR by ensuring a contiguous allocation to the radiolocation service from 76 to 81 GHz.

4.4 Scientific use of spectrum

WRC-15 Agenda Item 1.11 is to consider a primary allocation to the Earth Exploration Satellite Service (Earth to space) in the 7 – 8 GHz range. This allocation is intended for tracking, telemetry and control (TT&C) of satellites to provide an alternative to the congested bands around 2 GHz. The European Space Agency has shown considerable interest in the Agenda Item.

WRC-15 Agenda Item 1.12 is to consider an extension of the current primary allocation to the Earth Exploration Satellite Service (active) in the band 9 300 – 9 900 MHz range by up to 600 MHz within the overall 8 700 MHz – 10 500 MHz frequency range. This Agenda Item supports the development of the next generation of high resolution synthetic aperture radars (SAR). These imaging satellites enable short- and long-term Earth observations of high accuracy regarding geodetic references over time to monitor environmental changes.

As a consequent evolution of the current EESS SAR systems, the next generation, with a high-resolution mode, will provide more beneficial value for relevant industries and citizens. Those systems, being on the cutting edge of space technology, will complement Europe´s Global Monitoring for Environment and Security Programme (Copernicus).

WRC-15 Agenda Item 1.13 is to review footnote No. 5.268 to the Radio Regulations with a view to relaxing the 5 km distance limitation for the space research service used for communications between space vehicles. This allocation (in the band 410 – 420 MHz) is used by, for example, the International Space Station and there is a need to communicate with vehicles beyond the 5 km limit. This Agenda Item originated from outside Europe, however Europe will expect to take a positive approach to issues which have a global benefit for space missions.

WRC-15 Agenda Item 1.14 is to consider the feasibility of achieving a continuous reference time-scale, whether by the modification of coordinated universal time (UTC) or some other method. The idea of having a continuous reference timescale, although not strictly related to spectrum management, has attracted considerable attention during the Radiocommunication Assembly in 2012 and is a complex issue having a scientific, social and economic dimension.

Elements for a common policy objective:

Under AI 1.11 Member States should support proposals to WRC-15 which will provide the required allocations to the scientific radio services and adequate protection to existing radio communications services in the relevant bands.

Under Agenda Item 1.12, Member States should support the primary allocation to the Earth Exploration Satellite Service (active) in the frequency bands 9 200-9 300 MHz and 9 900-10 400 MHz for the future development of services for the European Global Monitoring for Environment and Security Programme (Copernicus), including a limitation that this extension shall only be used for systems which needs bandwidth greater than 600 MHz.

4.5 Future WRC Agenda Items, WRC-15 Agenda Item 10

The formulation of positions for future WRC Agenda Items is a critical issue since it may determine the scope of changes to the global spectrum management environment for several decades. It will be important to identify, as soon as possible, opportunities to promote European policies through action at future WRCs with the objective to promote European arrangements at a global level.

It will also be necessary to identify potential Agenda Items for future conferences early in the process, taking into account both the need to ensure long term consistency with EU policy and the possible connection to common policy objectives for WRC-15 Agenda Items.

Elements for a common policy objective:

Member States should support a future Agenda item addressing the spectrum needs for the fifth generation of mobile networks (commonly known as 5G) with the focus above 6 GHz.

Annex: Agenda of the WRC-15

Annex

RESOLUTION 1343

Place, dates and agenda of the World Radiocommunication Conference (WRC-15)

The Council,

noting

that Resolution 807 of the World Radiocommunication Conference (Geneva, 2012):

a) resolved to recommend to the Council that a world radiocommunication conference be held in 2015 for a period of four weeks;

b) recommended its agenda, and invited the Council to finalize the agenda and arrange for the convening of WRC-15 and to initiate as soon as possible the necessary consultation with Member States,

resolves

to convene a World Radiocommunication Conference (WRC-15) in Geneva (Switzerland) from 2-27 November 2015, preceded by the Radiocommunication Assembly from 26-30 October 2015, with the following agenda:

1 on the basis of proposals from administrations, taking account of the results of WRC-12 and the Report of the Conference Preparatory Meeting, and with due regard to the requirements of existing and future services in the bands under consideration, to consider and take appropriate action in respect of the following items:

1.1 to consider 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);

1.2 to examine 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;

1.3 to review and revise Resolution 646 (Rev.WRC-12) for broadband public protection and disaster relief (PPDR), in accordance with Resolution 648 (WRC-12);

1.4 to consider possible new allocation to the amateur service on a secondary basis within the band 5 250-5 450 kHz in accordance with Resolution 649 (WRC-12);

1.5 to consider the use of frequency bands allocated to the fixed-satellite service not subject to Appendices 30, 30A and 30B for the control and non-payload communications of unmanned aircraft systems (UAS) in non-segregated airspaces, in accordance with Resolution 153 (WRC-12);

1.6 to consider possible additional primary allocations:

1.6.1 to the fixed-satellite service (Earth-to-space and space-to-Earth) of 250 MHz in the range between 10 GHz and 17 GHz in Region 1;

1.6.2 to the fixed-satellite service (Earth-to-space) of 250 MHz in Region 2 and 300 MHz in Region 3 within the range 13-17 GHz;

and review the regulatory provisions on the current allocations to the fixed-satellite service within each range, taking into account the results of ITU-R studies, in accordance with Resolutions 151 (WRC-12) and 152 (WRC-12), respectively;

1.7 to review the use of the band 5 091-5 150 MHz by the fixed-satellite service (Earth-to-space) (limited to feeder links of the non-geostationary mobile-satellite systems in the mobile-satellite service) in accordance with Resolution 114 (Rev.WRC-12);

1.8 to review the provisions relating to earth stations located on board vessels (ESVs), based on studies conducted in accordance with Resolution 909 (WRC-12);

1.9 to consider, in accordance with Resolution 758 (WRC-12):

1.9.1 possible new allocations to the fixed-satellite service in the frequency bands 7 150-7 250 MHz (space-to-Earth) and 8 400-8 500 MHz (Earth-to-space), subject to appropriate sharing conditions;

1.9.2 the possibility of allocating the bands 7 375-7 750 MHz and 8 025-8 400 MHz to the maritime-mobile satellite service and additional regulatory measures, depending on the results of appropriate studies;

1.10 to consider spectrum requirements and possible additional spectrum allocations for the mobile-satellite service in the Earth-to-space and space-to-Earth directions, including the satellite component for broadband applications, including International Mobile Telecommunications (IMT), within the frequency range from 22 GHz to 26 GHz, in accordance with Resolution 234 (WRC-12);

1.11 to consider a primary allocation for the Earth exploration-satellite service (Earth-to-space) in the 7-8 GHz range, in accordance with Resolution 650 (WRC-12);

1.12 to consider an extension of the current worldwide allocation to the Earth exploration-satellite (active) service in the frequency band 9 300-9 900 MHz by up to 600 MHz within the frequency bands 8 700-9 300 MHz and/or 9 900-10 500 MHz, in accordance with Resolution 651 (WRC-12);

1.13 to review No. 5.268 with a view to examining the possibility for increasing the 5 km distance limitation and allowing space research service (space-to-space) use for proximity operations by space vehicles communicating with an orbiting manned space vehicle, in accordance with Resolution 652 (WRC-12);

1.14 to consider the feasibility of achieving a continuous reference time-scale, whether by the modification of coordinated universal time (UTC) or some other method, and take appropriate action, in accordance with Resolution 653 (WRC-12);

1.15 to consider spectrum demands for on-board communication stations in the maritime mobile service in accordance with Resolution 358 (WRC-12);

1.16 to consider regulatory provisions and spectrum allocations to enable possible new Automatic Identification System (AIS) technology applications and possible new applications to improve maritime radiocommunication in accordance with Resolution 360 (WRC-12);

1.17 to consider possible spectrum requirements and regulatory actions, including appropriate aeronautical allocations, to support wireless avionics intra-communications (WAIC), in accordance with Resolution 423 (WRC-12);

1.18 to consider 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);

2 to examine the revised ITU-R Recommendations incorporated by reference in the Radio Regulations communicated by the Radiocommunication Assembly, in accordance with Resolution 28 (Rev.WRC-03), and to decide whether or not to update the corresponding references in the Radio Regulations, in accordance with 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) 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-12;

9.2 on any difficulties or inconsistencies encountered in the application of the Radio Regulations; 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,

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-15,

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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