



## Radiocommunication Bureau (BR)

Circular Letter  
**CR/472**

Geneva, 8 December 2020

### To Administrations of Member States of the ITU

Subject: **Overview of the main decisions of the World Radiocommunication Conference, Sharm el-Sheikh, 2019 (WRC-19) related to terrestrial services**

The World Radiocommunication Conference, Sharm el-Sheikh, 2019, (WRC-19), adopted a partial revision of the Radio Regulations (RR) and decided that the revised provisions shall enter into force on 1 January 2021, except for those provisions for which another date was specifically indicated. Further to Circular Letters [CR/455](#), [CR/461](#) and [CR/464](#) related to space services, this Circular Letter highlights the most relevant decisions of the Conference related to terrestrial services.

This Circular Letter should also be read in conjunction with Circular Letters [CR/456](#) of 6 March 2020 relating to the WRC-19 decisions included in the Minutes of Plenary meetings and [CR/467](#) of 18 August 2020 on the use of the symbol 'IM' for notification of frequency assignments to IMT stations.

### Decisions that entered into force on 23 November 2019

As of 23 November 2019, the following provisions of the RR related to, or having impact on terrestrial services entered into force, pursuant to Resolution **99 (Rev.WRC-19)**: No. **5.441B**, Appendixes **4**, **5** and **15**:

- WRC-19 modified No. **5.441B** that identified the frequency band 4 800-4 990 MHz for IMT in a number of countries, subject to No. **9.21** and a power flux density (pfd) limit. The revised Resolution **223 (Rev. WRC-19)** determines the coordination criteria for the No. **9.21** procedure in this band and exempts several countries listed in No. **5.441B** from the application of the pfd limit;
- WRC-19 removed the frequency band 620-790 MHz from the list of BSS bands of Appendix **5** (Table 5-1). Consequently, the coordination of terrestrial transmitting stations with BSS in this band under No. **9.19** is no longer required. This removal was the consequence of the suppression of No. **5.311A** and Resolution **549 (WRC-07)**.

WRC-19 revised several Resolutions and Recommendations from previous conferences and adopted several new Resolutions. As a general rule, new and revised Resolutions and Recommendations enter into force at the time of the signing of the Final Acts of a conference. However, the Resolutions that are introduced by the modified Article 5 footnotes enter into force at the same time as such footnotes. This sub-section contains only those Resolutions, which entered into force on 23 November 2019. Other Resolutions are described in Section 3.

- WRC-19 modified Resolutions **12, 212, 224, 229, 344, 349, 356, 361, 418, 517, 535, 543, 550, 646, 647, 731, 748, 749** and **760** that are related to terrestrial services. However, these modifications are editorial and do not have impact on the activities of administrations BR.
- WRC-19 abrogated the following Resolutions dealing with terrestrial services: **236, 237, 238, 239, 359, 360, 362, 426, 641, 658, 763, 764** and **767** due to the fact that the concerned activities have been completed or the objectives are no longer relevant.

### **Decisions that enter into force on 1 January 2021**

WRC-19 made a number of changes in allocations related to terrestrial services and identifications for specific applications, together with the associated conditions for operation of the concerned services.

#### ***WRC-19 decisions related to IMT***

- Global identification of the **frequency band 24.25-27.5 GHz** for IMT, pursuant to No. **5.532AB**. Allocation of the frequency band 24.25-25.25 GHz to the mobile, except aeronautical mobile, service in Regions 1 and 2. Adoption of Resolution **242 (WRC-19)** on the conditions of the use of IMT in the band 24.25-27.5 GHz, including the limitation of IMT to applications of the land mobile service.  
  
Establishing, by Resolution **750 (Rev. WRC-19)**, the mandatory power limits of unwanted emissions in the band 23.6-24 GHz from IMT base and mobile stations operating in the band 24.25-27.5 GHz for the protection of the adjacent EESS (passive). These limits are imposed on the total radiated power (TRP) of IMT stations and implemented in 2 steps:
  - Before 1 September 2027: -33/-29 dB(W/200 MHz) for base/mobile stations;
  - From 1 September 2027: -39/-35 dB(W/200 MHz) for all new base/mobile station.
- Global identification of the **frequency band 37-43.5 GHz** for IMT, pursuant to No. **5.550B**. Upgrade of the secondary allocation to the land mobile service in the frequency band 40.5-42.5 GHz to a primary basis. The use of IMT in this band shall be in accordance with Resolution **243 (WRC-19)** and is limited to applications of the land mobile service. This Resolution established power limits on unwanted emissions in the band 36-37 GHz from IMT base and mobile stations in the band 37-40.5 GHz for the protection of the adjacent EESS (passive).
- Identification of the **frequency band 45.5-47.0 GHz** for IMT in a number of countries subject to No. **9.21**, pursuant to No. **5.553A**. Resolution **244 (WRC-19)** applies in this band.
- Identification of the **frequency band 47.2-48.2 GHz** for IMT in Region 2 and a number of countries of Regions 1 and 3, pursuant to No. **5.553B**. The use of IMT is governed by Resolution **243 (WRC-19)** and limited to applications of the land mobile service.

- Global identification of the **frequency band 66-71 GHz** for IMT, pursuant to No. **5.559AA**. Resolution **241 (WRC-19)** applies in this band and considers, *inter alia*, the co-existence of IMT and other applications of the mobile service, e.g. multiple gigabit wireless systems.

#### ***WRC-19 decisions related to HAPS***

- Identification of the **frequency band 21.4-22 GHz** for HAPS in Region 2 limited to the HAPS-to-ground direction, pursuant to No. **5.530E**. Resolution **165 (WRC-19)** applies in this band.
- Identification of the **frequency band 24.25-27.5 GHz** for HAPS in Region 2, pursuant to Nos. **5.532AA** and **5.534A**. Allocation of the frequency bands 24.25-25.25 GHz to the fixed service in Region 2 to allow for HAPS identifications. Resolution **166 (WRC-19)** applies in this band.
- Addition of one administration to No. **5.537A** dealing with HAPS identification in a number of countries in the **frequency band 27.9-28.2 GHz**. Retaining the current conditions of HAPS utilization in the band 27.9-28.2 GHz in Resolution **145 (Rev.WRC-19)**. Deletion of the part of this Resolution dealing with the band 31-31.3 GHz.
- Global identification of the **frequency band 31-31.3 GHz** for HAPS, pursuant to No. **5.543B**. Resolution **167 (WRC-19)** specifies the conditions of HAPS the usage in this band.
- Global identification of the **frequency band 38-39.5 GHz** for HAPS, pursuant to No. **5.550D**. Resolution **168 (WRC-19)** specifies the conditions of HAPS the usage in this band.
- Modification of operational conditions for HAPS in the **frequency band 47.2-47.5 GHz** and **47.9-48.2 GHz**, pursuant to revised No. **5.552A** and Resolution **122 (Rev. WRC-19)**.
- Addition of several new data items for HAPS notification to Appendix **4**, including 2.9.e, 2.9.f, 2.9.j and 3.8.BA.

It should be noted that the implementation of the WRC-19 decisions on HAPS requires substantive development work. BR will inform the administrations about the date when it is in a position to process submissions under the above-mentioned Resolutions concerning HAPS.

#### ***WRC-19 decisions related to other services and applications***

- Allocation of the band 50-52 MHz to the amateur service in Region 1 and addition of associated Nos. **5.166A**, **5.166B**, **5.166C**, **5.166D**, **5.166E**, **5.169A** (*alternative allocation*) and **5.169B**. Modifications to Nos. **5.278** and **5.431** relating to the amateur service.
- Modification of No. **5.279** that leads to additional allocations of the bands 430-435 MHz and 438-440 MHz to the maritime mobile service on a primary basis and to the fixed service on a secondary basis in Mexico subject to agreement obtained under No. **9.21**.

- Modification of Nos. **5.308**, **5.308A**, **5.429D**, **5.429F**, **5.432B**, **5.434** and **5.447** that leads to the change of the list of the administrations, whose stations in the mobile service are subject to agreement obtained under No. **9.21**.
- Modifications of Nos. **5.312** and **5.323** dealing with allocations to the aeronautical radionavigation service in the bands 645-862 MHz and 862-925 MHz respectively. The modifications consist in changes of limits of frequency bands and country names in these footnotes. They impact the application of No. **9.21** to stations under Nos. **5.312A** and **5.316B**.
- Establishment of the conditions for coexistence of IMT and the broadcasting-satellite service (sound) in the band 1 452-1 492 MHz in Regions 1 and 3 through Resolution 761 (Rev. WRC-19). This includes a pfd limit on IMT stations to protect BSS receiving stations. The limit could be used for coordination of terrestrial transmitters with BSS under No. 9.19.
- Modification of No. **5.453** that leads to addition of allocation to the fixed service in the frequency band 5 725-5 850 MHz in some countries on a non-interference basis.
- Identification of the band 275-450 GHz for land mobile and fixed service applications under specific conditions in respect to passive services, pursuant to No. **5.564A**.

WRC-19 also made a change in allocations related to space services, which modified the conditions of operation of the terrestrial services: allocation of the band 51.4-52.4 GHz to the fixed-satellite service (Earth-to-space) on a primary basis per No. **5.555C** and modification of Table **21-2**, which lead to the application of the Article 21 limits to the fixed and mobile services.

WRC-19 modified provisions Nos. **11.9** and **11.26** relating to notifications of frequency assignments to HAPS stations in the fixed service. Administrations are invited to take these changes into account for notifications of their frequency assignments.

WRC-19 modified provisions Nos. **19.36**, **19.99**, **19.102**, **19.111** and **19.114**. Administrations are invited to take these changes into account for their assignments of maritime identification digits.

With respect to Resolution **811 (WRC-19)**, dealing with the agenda for the 2023 World Radiocommunication Conference and Resolution **812 (WRC-19)**, dealing with the preliminary agenda for the 2027 World Radiocommunication Conference, in accordance with standard practices, the necessary preparatory actions have been initiated and the results of the first session of the 2023 Conference Preparatory Meeting (CPM23-1) have been dispatched to the membership, see [Administrative Circular CA/251](#) of 19 December 2019. In addition, the [Administrative Circular CACE/955](#) dealing with technical characteristics, operational parameters and protection criteria for sharing and compatibility studies required for WRC-23 was issued on 18 September 2020.

Finally, I wish to draw your attention to the provisions of Article **54** of the Constitution, which invites the Member States to notify the Secretary-General of their consent to be bound by the revisions of the Radio Regulations.

BR remains at the disposal of your Administration for any clarification you may require with respect to the subjects covered in this Circular Letter.

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Director

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