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| **The 5th Meeting of the APT Conference Preparatory**  **Group for WRC-23 (APG23-5)** | **APG23-5/OUT-35** |
| 20 – 25 February 2023, Busan, Republic of Korea | 24 February 2023 |

Working Party 5

**PRELIMINARY VIEWs on WRC-23 agenda item 4**

**Agenda item 4**

*in accordance with Resolution* ***95 (Rev.WRC-19)****, to review the Resolutions and Recommendations of previous conferences with a view to their possible revision, replacement or abrogation;*

# Background

The review of the Resolutions and Recommendations of previous conferences is a standing agenda item. It is the purview of the conference to decide on the need for any modification or suppression of WRC Resolutions or Recommendations in accordance with Resolution **95 (Rev.WRC-19)**.

Resolution **95 (Rev.WRC-19)** resolves that the recommended agendas for future world radiocommunication conferences should include a standing agenda item to review the Resolutions and Recommendations of previous conferences that are not related to any other agenda item of the conference, with a view to:

* abrogating those Resolutions and Recommendations that have served their purpose or have become no longer necessary;
* reviewing the need for those Resolutions and Recommendations, or parts thereof, requesting ITU-R studies on which no progress has been made during the last two periods between conferences;
* updating and modifying Resolutions and Recommendations, or parts thereof, that have become out of date, and to correct obvious omissions, inconsistencies, ambiguities, or editorial errors, and effect any necessary alignment,

Additionally, Resolution **95 (Rev.WRC-19)** invites future competent world radiocommunication conferences to review the Resolutions and Recommendations of previous conferences that are related to the agenda items of the conference, other than the standing agenda item mentioned in resolves, under those specific agenda items, with a view to their possible revision, replacement or abrogation, and to take appropriate action.

# Documents

## Input Documents:

APG23-5/INP-19(J), 30(IND), 40(IRN), 60(AUS), 92R1(CHN)

## Information Documents:

APG23-5/INF-01(WMO), 17(DG Chair), 37(BR), 38(BR), 39(CEPT), 43(CITEL), 45(RCC)

# Summary of Discussions

## Summary of APT Members’ views

### Japan (APG23-5/INP-19)

Japan supports the principle and intent of Resolution **95 (Rev.WRC-19)**, to ensure that the Resolutions and Recommendations of past WRCs are relevant and kept up to date.

While this study cycle is approaching to the end, a number of the studies requested by WRC Resolutions are still under consideration at the relevant groups in the ITU-R.

After the previous meeting, Japan has further reviewed and updated the status of WRC Resolutions/Recommendations in Attachment 1 in APG23-4 OUT-36, taking into account:

* the progress of the studies at the ITU-R where the Resolutions include the “*invites ITU-R*” section;
* the progress of the implementation work of the ITU Radiocommunication Bureau (BR) where the Resolutions include the “*instructs the Director of the Radiocommunication Bureau*” section.;
* other ITU-R studies in relation to WRC-23 agenda items resulting in the Draft CPM Report.

It should be noted that:

1. Resolutions that are explicitly on the current and future agenda items as specified in Resolution **811 (WRC-19)** and Resolution **812 (WRC-19)** or in other formal ITU-R/APG documents are shaded in grey;
2. in the Draft CPM Report, modifications of some Resolutions are being considered under agenda items other than AI 4;
3. therefore, it is proposed to consider the APT actions for these Resolutions within the APG WP responsible for the relevant agenda item.
4. The column for “New APT proposed action (NOC/MOD/SUP)” in the Attachment 1 is still preliminary and is open for further consideration. For some Resolutions with a possibility of MOD, example regulatory texts for modification are included in Attachment 2 in order to facilitate the discussion at this meeting as well as at future meetings.

### India (APG23-5/INP-30)

India supports the review of the Resolutions and Recommendations of previous conferences, in accordance with Resolution **95 (Rev.WRC-19)**, with a view to keep them relevant and up to date.

### Iran (Islamic Republic of) (APG23-5/INP-40)

The Administration of Iran (Islamic republic of) proposes that the following proposals be adopted as APT Preliminary Common Proposals (PACPs) at this stage.

* SUP: Resolution **75, 160, 161, 422**
* MOD: Resolution **242, 243, 222**

### Australia (APG23-5/INP-60)

Australia supports the principle and intent of Resolution **95 (Rev.WRC-19)**, to ensure Resolutions and Recommendations of past WRCs are relevant and kept up to date. Australia’s positions on specific proposals will be developed as these proposals arise during the cycle.

### China (APG23-4/INP-92 R1)

China supports the review of the Resolutions and Recommendations of previous conferences. By reviewing ITU-R study groups ongoing activities, China proposes “NOC/MOD” of Resolution **63, 212, 731, 750** for its possible actions.

## Summary of issues raised during the meeting

The meeting agreed:

* to update some “new APT proposed action” column in Attachment 1 based on input contributions and DG discussion;
* to add grey shading to some Resolutions, for which modifications are being considered in the Draft CPM Report under agenda items other than AI4. APT Members are of the view that APT actions for these Resolutions will be best considered within the APG WP responsible for the relevant agenda items;
* to carry forward example text for modification of Provisions, Resolutions and Recommendations in Attachment 2 for further consideration at APG23-6.

# APT Preliminary View

APT Members support the principle and intent of Resolution **95 (Rev.WRC-19)**, to ensure Resolutions and Recommendations of past WRCs are relevant and kept up to date.

Since a number of the studies requested by the WRC Resolutions are now under consideration at the relevant groups in the ITU-R, APT members are encouraged to participate in these studies.

In reviewing the Resolutions/Recommendations listed in Attachment 1;

* + the progress of the studies is important information for those Resolutions that include “*invites ITU-R*”,
  + or similarly, the progress of the implementation work of the ITU Radiocommunication Bureau (BR) is also important for those Resolutions that include “*instructs the Director of the Radiocommunication Bureau*”.

Additionally, APT Members are encouraged to review Attachment 2 “Example text for modification of Provisions, Resolutions and Recommendations” with the view to develop a PACP at the next APG meeting.

# Issues for Consideration at Next APG Meeting

APG23-6 will review the Resolutions and Recommendations listed in Attachment 1, taking into account the progress of the studies at the ITU-R and the progress of the implementation work of the ITU Radiocommunication Bureau (BR) as well as the result of CPM23-2. Additionally, the BR has created the website for categorization of all the W(A)RC Resolutions and Recommendations in force after WRC-19[[1]](#footnote-1), which may be useful for our future discussion on agenda item 4.

APG23-6 will also review the example text for modification of Provisions, Resolutions and Recommendations in Attachment 2 and develop a PACP.

When modification of a resolution or recommendation is proposed to the next APG meetings, APT Members are encouraged to provide specific regulatory text reflecting the proposed modification along with the reason by revising Attachment 2 in order to complete a PACP on this agenda item in a timely manner.

# Views from Other Organisations

## Regional Groups

### CEPT(APG23-5/INF-39)

CEPT encourages the constant review of Resolutions and Recommendations from previous conferences and will follow activities, in particular of ITU, associated with this effort.

* CEPT proposes to suppress Resolutions: RES **75 (Rev.WRC-12),** RES **160 (WRC-15),** RES **161(WRC-15),** to be developed;
* CEPT proposes to modify Resolutions: RES **76 (WRC-15),** RES **99 (WRC-19)**, RES **655 (WRC-15)**, RES **731 (Rev.WRC-19),** RES **804 (Rev.WRC-19)**, to be developed;
* CEPT proposes to suppress Recommendations: to be developed;
* CEPT proposes to modify Recommendations: REC **34 (Rev. WRC-12)**, to be developed

### CITEL (APG23-5/INF-43)

Preliminary Proposal (PP): MOD Resolution **655 (Rev. WRC-15)** “Definition of time scale and dissemination of time signals via radiocommunication systems”: One Administration proposes changes to this Resolution to reflect the completion of the work items as well as to acknowledge the ongoing cooperation between the ITU and other relevant organizations in the various aspects of current and potential future reference time scales and the role of the ITU-R in the dissemination of the international reference time scale by radiocommunication.

### RCC(APG23-5/INF-45)

The RCC Administrations support the principles set out in Resolution **95 (Revised WRC-19)**, in order to ensure the relevance of the Resolutions and Recommendations of the previous WRC.

### ATU (APG23-4/INF-02)

APM23-2 agreed to support the principle and intent of Resolution **95 (Rev.WRC-19**), to ensure Resolutions and Recommendations of past WRCs remain relevant and up to date.

### ASMG (APG23-4/INF-21)

ASMG administrations support the principle of Resolution **95 (Rev.WRC-19)** in order to ensure that Resolutions and Recommendations of previous WRCs remain relevant and up-to-date.

## International Organisations

### WMO (APG23-5/INF-01)

WMO has concerns regarding Resolution **731 (Rev. WRC-19)** as this WRC Resolution could impact a number of frequency bands above 71 GHz essential for the meteorological community. WMO supports treating under this agenda item a revision of Resolution **731 (Rev. WRC-19)** to clarify that in-band sharing studies cannot be performed in bands covered by RR No 5.340.

### ICAO[[2]](#footnote-2)

ICAO is considering possible modification/suppression on the following Resolutions.

* MOD: **156, 169**
* SUP: **160, 422**
* MOD/SUP: **223**

### IMO[[3]](#footnote-3)

IMO has studied the Resolutions and Recommendations of relevance and proposed to retain the following Resolutions and Recommendations.

* Resolutions: **13, 18, 205, 207, 222, 223, 331, 339, 343, 344, 349, 352, 354, 356, 361, 363, 612**
* Recommendations: **7, 37, 316**

### 4.3 SFCG (Space Frequency Coordination Group)[[4]](#footnote-4)

SFCG supports that:

- Resolution **75 (Rev.WRC-12)** be suppressed, recognising that studies have been completed;

- Resolution **731 (Rev. WRC-19)** be modified to clarify that in-band sharing studies cannot be performed in bands covered by RR No.5.340, stating that all emissions are prohibited.

**Attachment: 2**

**Attachment 1**

**Review of WARC/WRC** **Resolutions & Recommendations for consideration by WRC-23 under agenda item 4**

Note 1: Resolutions in grey shaded rows indicate those explicitly on the current and future agenda items as specified in Resolution **811 (WRC-19)** and Resolution **812 (WRC-19)** or in other formal ITU-R/APG documents including the Draft CPM Report.

Note 2: For those Resolutions and Recommendations with an asterisk (\*) in the following table, example regulatory texts for modification are included in Attachment 2.

**Part I WARC/WRC Resolutions**

| **Res.** | **Subject** | **Remarks** | **Action taken by WRC-19** | **New APT proposed action** |
| --- | --- | --- | --- | --- |
| 1 | Notification of frequency assignments | (Rev.WRC-97) Still relevant. This Resolution is referred to in No. 26/5.2of Appendix **26**.  The necessity of footnote 1 associated with the title may need to be considered and possibly be deleted. | NOC | NOC/  MOD\* |
| 2 | Equitable use of GSO and other satellite orbits and frequency bands for space services | (Rev.WRC-03) Still relevant. This Resolution is referred to in Resolutions **4 (Rev.WRC-03), 170 (WRC-19), 172 (WRC-19) and 173 (WRC-19).** | NOC | NOC |
| 4 | Period of validity of frequency assignments to GSO and other satellite orbits | (Rev.WRC-03) Still relevant. This Resolution is referred to in Item A.2.b of Table A, Annex 2 of Appendix 4. | NOC | NOC |
| 5 | Technical cooperation with the developing countries in the tropical and similar areas | (Rev.WRC-15) Still relevant. | NOC | NOC |
| 7 | Development of national radio-frequency management | (Rev.WRC-19) Still relevant. | MOD | NOC |
| 10 | Use of two-way wireless communications by the International Red Cross and Red Crescent Movement | (Rev.WRC-2000) Still relevant. This Resolution relates to Resolution **646 (Rev.WRC-19).** | NOC | NOC |
| 12 | Assistance and support to Palestine | (Rev.WRC‑19) Still relevant.  Basically this Resolution is specific to Palestine. | MOD | N/A |
| 13 | Formation of call signs and allocation of new international series | (Rev.WRC-97) Still relevant.  This Resolution is referred to in No. **19.32**. | NOC | NOC |
| 15 | International cooperation in space radiocommunications | (Rev.WRC-03) Still relevant. implemented through liaison with ITU‑D Study Groups and BR/BDT seminars/workshops. | NOC | NOC |
| 18 | Relating to the procedure for identifying and announcing the position of ships and aircraft of States not parties to an armed conflict | (Rev.WRC-15) Still relevant. Possible modification of this Resolution is being considered under WRC-23 **agenda item 1.11.**  Modification to reflect current aeronautical practice may be needed. | NOC |  |
| 20 | Technical cooperation with developing countries in the field of aeronautical telecommunications | (Rev.WRC-03) Still relevant. This Resolution is referred to in Recommendation **724 (Rev.WRC-07**). | NOC | NOC |
| 22 | Measures to limit unauthorized uplink transmissions from earth stations | (WRC-19) Still relevant. | ADD | NOC |
| 25 | Operation of global satellite systems for personnel communications | (Rev.WRC-03) Still relevant. This Resolution is referred to in Resolution **156 (WRC-15**).  The reference to “Constitution (Geneva, 1992)” in considering a) may be reviewed. | NOC | NOC/  MOD\* |
| 26 | Footnotes to the Table of frequency allocations in Article 5 of the RR | (Rev.WRC-19) Still relevant to **agenda item 8** (permanent agenda item at each WRC). This Resolution is referred to in Recommendation **34** (Rev.WRC-12). | MOD |  |
| 27 | Use of incorporation by reference in the RR | (Rev.WRC-19) Still relevant to **agenda item 2** (permanent agenda item at each WRC). This Resolution is referred to in Nos. **21.2.2** and **21.4.1**. | MOD |  |
| 32 | Regulatory procedures for frequency assignments to non-GSO-satellite networks or systems identified as short-duration mission not subject to the application of Section II of Article 9 | (WRC-19) Still relevant.  This Resolution is referred to in No. **5.203C, 5.218A, A.9.4, 9.3.1, A.11.2** and Appendix **4**.  For this Resolution, a new RoP has been developed to clarify the relationship between the notification information timing to be communicated to the BR under this Resolution (section 4 of Annex) and the formal date of receipt of the notification notices under No.**9.1**. The text may be reviewed to take into account this point. | ADD | NOC/  MOD\* |
| 34 | BSS in Region 3 in the 12 GHz band and sharing with other services in all the Regions | (Rev.WRC-19) Still relevant. The text was editorially updated at the WRC-19. | MOD | NOC |
| 35 | A milestone-based approach for the implementation of frequency assignments to space stations in a non-GSO-satellite system in specific frequency bands and services | (WRC-19) Still relevant. NOC  This Resolution is referred to in No. **11.51** and Item A.23 in Table A of Appendix **4**. Possible post-milestone procedures will be discussed under **Agenda Item 7** (Topics A and B) at WRC-23, also taking into account the report from the RRB. | ADD |  |
| 40 | Use of one space station to bring frequency assignments to GSO-satellite networks at different orbital locations into use within a short period of time | (Rev.WRC-19) Still relevant. This Resolution is referred to in Nos. **11.44B** and **11.49**.1 and Appendices **30, 30A** and **30B**.  The Director’s Report to WRC-23 may consider a possible action on this Resolution. | MOD | NOC/MOD |
| 42 | Interim systems in Region 2 in BSS and in FSS (feeder link) in AP30/30A bands | (Rev.WRC-19) Still relevant, but basically Region 2 issue. This Resolution is referred to in Nos. **A.9.3** and **A.11.1** and Appendices **30** and **30A**. | MOD | N/A |
| 49 | Administrative due diligence applicable to some satellite radiocommunication services | (Rev.WRC-19) Still relevant. This Resolution is referred to in Nos. **11.44.1** and **11.48**, Articles **9** and **11**, Resolutions **55 (Rev.WRC-19)** and **81 (Rev.WRC-15)** and Appendices **30, 30A** and **30B**. Some updating may be necessary in the light of the current regulatory practice. | MOD | NOC/MOD |
| 55 | Electronic submission of notice forms for satellite networks, earth stations and RAS stations | (Rev.WRC-19) Still relevant. This Resolution is referred to in Nos.**59.6** and **59.10**.  . | MOD | NOC |
| 63 | Protection from ISM equipment | (Rev.WRC-12) Still relevant. There has been progress in the ITU-R studies invited in this Resolution including collaboration with CISPR. CPM Report in preparation for WRC-19 suggested that *invites ITU‑R*1 and 2 may need to be updated in view of the recent developments between ITU-R Study Group 1 and CISPR. | NOC | NOC/MOD |
| 72 | World and regional preparations for WRC | (Rev.WRC-19) Still relevant. The text was updated at the WRC-19. | MOD | NOC |
| 74 | Process to keep the technical bases of Appendix **7** current | (Rev.WRC-03) Still relevant. This Resolution is referred to in Resolution **75** (Rev.WRC-12). Recommendation ITU-R SM.1448 providing technical bases for coordination areas was reviewed for alignment with Appendix **7**. | NOC | NOC |
| 75 | Development of the technical basis for determining the coordination area of a receiving earth station in SRS with HDFS in the 31.8-32.3 and 37-38 GHz bands | (Rev.WRC-12) This Resolution is referred to in No.**5.547**. Similarly to CEPT’s view, the ITU-R studies invited in this Resolution has been completed. Based on item 2 of resolves of Resolution **95 (Rev. WRC-19)**, this Resolution could be suppressed. | NOC | SUP\* |
| 76 | Protection of GSO systems (FSS and BSS) from aggregate epfd produced by non‑GSO FSS in the bands 10.7-20.2 GHz | (Rev.WRC-15) Still relevant. This Resolution is referred to in No. 22.5K and Resolution **140 (Rev.WRC-15**). Recommendation ITU-R S.1503 was revised in 2018. On this basis, invites ITU‑R needs to be updated taking into account Recommendations ITU‑R S.1588 and ITU‑R S.1503 in force. The ITU-R studies invited in this Resolution are making progress at WP4A and modification of this Resolution is considered under Topic J of **agenda item 7**. | NOC |  |
| 80 | Due diligence in applying the principles embodied in the Constitution | (Rev.WRC-07) Still relevant to **agenda item 9.3** (permanent agenda item at each WRC). | NOC |  |
| 81 | Evaluation of the administrative due diligence procedure for satellite networks | (Rev.WRC-15) So-called “paper satellite” issue has been already solved and Resolution **49 (Rev.WRC-15**), in which this issue is implemented, has served its purpose (see also ITU R Circular Letter CR/301). Superseded by Resolution **49**, no action is indicated in the Resolution. Possibility of suppression of this Resolution needs to be considered. | NOC | MOD/SUP |
| 85 | Protection of GSO systems (FSS and BSS) from non-GSO FSS systems | (WRC-03) Still relevant. Recommendation ITU R S.1503 was revised in 2018. Since the epfd validation software has become available through the Circular Letter (CR/414, 6 December 2016), in view of resolves 5, modification is needed in this regard. New RR Appendix 4 parameters for Recommendation ITU-R S.1503 updates are being considered under WRC-23 agenda item 7 Topic D2. | NOC | NOC/MOD |
| 86 | Implementation of Res. **86** **(Rev. PP-02**) | (Rev.WRC-07) Still relevant to **agenda item 7** (permanent agenda item at each WRC). This Resolution is referred to in Resolution **769 (WRC-19)** and **770 (WRC-19).** | NOC |  |
| 95 | Review of WRC Resolution/Recommendation | (Rev.WRC-19) Still relevant to **agenda item 4** (permanent agenda item at each WRC). | MOD | NOC |
| 99 | Provisional application of certain provisions of the RR as revised by the WRC-19 and abrogation of certain Resolutions and Recommendations | (Rev.WRC-19) Still relevant. Updating is required at the next WRC. | MOD | MOD |
| 111 | Planning of the FSS in18/20/30 GHz | (Orb-88) Still relevant.  The necessity of footnote 1 associated with the title may need to be considered and possibly be deleted. | NOC | NOC/  MOD\* |
| 114 | Compatibility between ARNS and FSS (feeder links for non GSO MSS) in 5 GHz band | (Rev.WRC-15) Still relevant. This Resolution is referred to in Nos. **5.444** and **5.444A** and Resolution **748 (Rev.WRC-19)**. | NOC | NOC |
| 122 | Use of the bands 47/48 GHz by HAPS and other services | (Rev.WRC-19) Still relevant. This Resolution is referred to in Resolution **176 (WRC-19**), No. **5.552A** and Appendix **4.** | MOD | NOC |
| 125 | Frequency sharing in the 1.6 GHz bands between the MSS and the RAS | (Rev.WRC-12) Still relevant. Future competent WRC is to review the ongoing sharing studies between the MSS and RAS. Report ITU-R M.2459-0 was approved and outcomes of studies under WRC-23 agenda item 1.11 may also be relevant. | NOC | NOC/MOD |
| 140 | Epfd limits in the 19.7-20.2 GHz band | (Rev.WRC-15) Still relevant. This Resolution is referred to in No. **22.5CA**. This Resolution has relevance to Resolutions **76 (Rev.WRC-15)** and **85 (WRC-15)**. | NOC | NOC/MOD |
| 143 | Guidelines for implementation of HDFSS in identified frequency bands | (Rev.WRC-19) Still relevant. This Resolution is referred to in No **5.516B** and Resolution **243 (WRC-19).** | MOD | NOC |
| 144 | Special requirements of geographically small countries operating earth stations in the FSS in the band 13.75-14 GHz | (Rev.WRC-15) Still relevant. | NOC | NOC |
| 145 | Use of the bands 27.5-28.35 GHz and 31-31.3 GHz by HAPS in the fixed service | (Rev.WRC-19) Still relevant. The text was updated at the WRC-19. This Resolution is referred to in No **5.537A**. | MOD | NOC |
| 147 | PFD limits for certain systems in FSS using highly-inclined orbits in the band 17.7-19.7 GHz | (WRC-07) Still relevant. This Resolution is referred to in No. **21.16.6B** and **6C**. | NOC | NOC |
| 148 | Satellite systems formerly listed in Part B of the Plan of Appendix **30B** | (Rev.WRC-15) Still relevant. This Resolution is referred to in Appendix 30B. | NOC | NOC |
| 149 | Submissions from new Member States of the Union relating to Appendix **30B** | (Rev.WRC-12) Still relevant.  This topic will be discussed under Topic E of **Agenda Item 7** at WRC-23. | NOC |  |
| 150 | Use of the bands 6 440-6 520 MHz and 6 560-6 640 MHz by gateway links for HAPS | (WRC-12) Still relevant. This Resolution is referred to in No. **5.457**. | NOC | NOC |
| 154 | Existing and future operation of FSS earth stations within the band 3 400-4 200 MHz | (Rev.WRC-15) APT members are of the view that this Resolution is restricted to some countries in Region 1 and APT Members do not support any aspects of this issue being applied to Region 3. | NOC | NOC |
| 155 | Regulatory provisions related to earth stations on board unmanned aircraft which operate with GSO satellite networks in the FSS in certain frequency bands not subject to a Plan of Appendices 30, 30A and 30B for the control and non-payload communications of unmanned aircraft systems in non-segregated airspaces | (Rev.WRC-19) Still relevant. The text was updated at the WRC-19. This Resolution is referred to in No. **5.484B** as well as Resolution **171 (WRC-19)**, and has direct relevance to WRC-23 **agenda item 1.8.** | MOD |  |
| 156 | Use of the frequency bands 19.7-20.2 GHz and 29.5‑30.0 GHz by earth stations in motion communicating with geostationary space stations in the FSS | (WRC-15) Still relevant. This Resolution is referred to in No.**5.527A**.  － | NOC | NOC |
| 160 | Facilitating access to broadband applications delivered by HAPS | (WRC-15) According to the paragraph “*resolves to invite the 2019 World Radiocommunication Conference*”, this Resolution may be suppressed, given that the next WRC agrees to completion of the ITU-R studies. | NOC | SUP\* |
| 161 | Studies relating to spectrum needs and possible allocation of the frequency band 37.5-39.5 GHz to the FSS | (WRC-15) As a result of consideration of WRC-19 (**agenda item 10**), this resolution was kept without any change. However, it is no longer included in the agenda items for WRC-23. In this regard, it may be appropriate to consider suppression of this Resolution. | NOC | SUP\* |
| 163 | Deployment of earth stations in some Regions 1 and 2 countries in the frequency band 14.5-14.75 GHz in the FSS (Earth-to-space) not for feeder links for the BSS | (WRC-15) Still relevant, but basically other Regions 1 and 2 issue. This Resolution is referred to in Nos. **5.509B, 5.509C, 5.509D, 5.509E, 5.509F, 5.510** and **22.40** and Appendices **4** and **30A**. | NOC | N/A |
| 164 | Deployment of earth stations in some Region 3 countries in the frequency band 14.5-14.8 GHz in the FSS (Earth-to-space) not for feeder links for the BSS | (WRC-15) Still relevant. This Resolution is referred to in Nos. **5.509B, 5.509C, 5.509D, 5.509E, 5.509F, 5.510** and **22.40** and Appendices **4** and **30A**. Recommendation ITU-R S.2112-0 for guidelines to conduct bilateral coordination for explicit agreements in this band was developed. | NOC | NOC |
| 165 | Use of the frequency band 21.4-22 GHz by HAPS in the FS in Region 2 | (WRC-19) Still relevant. This Resolution is referred to in No. **5.530E**. | ADD | NOC |
| 166 | Use of the frequency band 24.25-27.5 GHz by HAPS in the FS in Region 2 | (WRC-19) Still relevant. This Resolution is referred to in Nos. **5.532AA** and **5.534A**. | ADD | NOC |
| 167 | Use of the frequency band 31-31.3 GHz by HAPS in the FS | (WRC-19) Still relevant. This Resolution is referred to in No. **5.543B**. | ADD | NOC |
| 168 | Use of the frequency band 38-39.5 GHz by HAPS in the FS | (WRC-19) Still relevant. This Resolution is referred to in No. **5.550D**. | ADD | NOC |
| 169 | Use of the frequency bands 17.7-19.7 GHz and 27.5-29.5 GHz by earth stations in motion communicating with GSO space stations in the FSS | (WRC-19) Still relevant. This Resolution is referred to in No. 5.517A, Appendix **4**, Resolutions **172 (WRC-19**) and **173 (WRC-19).** The methodology for examining characteristics of aeronautical ESIM by BR is being reviewed technically at WP4A in reference to the criteria specified in ANNEX 3. | ADD | NOC/MOD |
| 170 | Additional measures for satellite networks in the FSS in frequency bands subject to Appendix 30B for the enhancement of equitable access to these frequency bands | (WRC-19) Still relevant. This Resolution is referred to in Resolution **172 (WRC-19).**  The topic of this Resolution will be discussed under **Agenda Item 7** (Topic E) at WRC-23. | ADD |  |
| 171 | Review and possible revision of Resolution 155 (Rev.WRC-19) and No. 5.484B in the frequency bands to which they apply | (WRC-19) For consideration by WRC-23 (**agenda item 1.8**). | ADD |  |
| 172 | Operation of earth stations on aircraft and vessels communicating with geostationary space stations in the FSS in the frequency band 12.75-13.25 GHz (Earth-to-space) | (WRC-19) For consideration by WRC-23 (**agenda item 1.15**). | ADD |  |
| 173 | Use of the frequency bands 17.7-18.6 GHz, 18.8-19.3 GHz and 19.7-20.2 GHz (space-to-Earth) and 27.5-29.1 GHz and 29.5-30 GHz (Earth-to-space) by earth stations in motion communicating with non-geostationary space stations in the FSS | (WRC-19) For consideration by WRC-23 (**agenda item 1.16**). | ADD |  |
| 174 | Primary allocation to the FSS in the space-to-Earth direction in the frequency band 17.3-17.7 GHz in Region 2 | (WRC-19) For consideration by WRC-23 (**agenda item 1.19**). | ADD |  |
| 175 | Use of IMT systems for fixed wireless broadband in the frequency bands allocated to the FS on a primary basis | (WRC-19) For consideration by WRC-23 (**agenda item 9.1-c**). | ADD |  |
| 176 | Use of the frequency bands 37.5-39.5 GHz (space-to-Earth), 40.5-42.5 GHz (space-to-Earth), 47.2-50.2 GHz (Earth-to-space) and 50.4-51.4 GHz (Earth-to-space) by aeronautical and maritime earth stations in motion communicating with geostationary space stations in the FSS | (WRC-19) This Resolution is referred to in the **preliminary agenda item 2.2** for WRC-27. Therefore, it may be considered by WRC-23 in relation to **agenda item 10**. | ADD |  |
| 177 | Studies relating to spectrum needs and possible allocation of the frequency band 43.5-45.5 GHz to the FSS | (WRC-19) This Resolution is referred to in the **preliminary agenda item 2.3** for WRC-27. Therefore, it may be considered by WRC-23 in relation to **agenda item 10**. | ADD |  |
| 178 | Studies of technical and operational issues and regulatory provisions for non-GSO FSS satellite system feeder links in the frequency bands 71-76 GHz (space-to-Earth and proposed new Earth-to-space) and 81-86 GHz (Earth-to-space) | (WRC-19) This Resolution is referred to in the **preliminary agenda item 2.7** for WRC-27. Therefore, it may be considered by WRC-23 in relation to **agenda item 10**. | ADD |  |
| 205 | Protection of the MSS in the band 406-406.1 MHz | (Rev.WRC-19) Still relevant. This Resolution is referred to in No. **5.265** and Resolutions **646 (Rev.WRC-19**). Some texts in *noting* part may be updated. | MOD | NOC/MOD |
| 207 | Measures to address unauthorized use of frequencies in the band allocated to the MMS/AMIS | (Rev.WRC-15) Still relevant. | NOC | NOC |
| 212 | Implementation of IMT in the bands 1.8-2.2 GHz | (Rev.WRC-19) Still relevant. | MOD | NOC/MOD |
| 215 | Coordination among MSS in the band 1-3 GHz | (Rev.WRC-12) Still relevant. The ITU-R study invited in this Resolution is still under way. | NOC | NOC |
| 217 | Wind profiler radars | (WRC-97) Still relevant. This Resolution is referred to in Nos. **5.162A** and **5.291A**. | NOC |  |
| 221 | HAPS for IMT in the bands around 2 GHz | (Rev.WRC-07) This Resolution is referred to in No. **5.388A** and Resolution **247 (WRC-19)** . Possible modification of this Resolution is being considered under WRC-23 **agenda item 1.4.** | NOC |  |
| 222 | Use of the frequency bands 1 525-1 559 MHz and 1 626.5-1 660.5 MHz by the MSS, and procedures to ensure long-term spectrum access for the AMSS I | (Rev.WRC-12) Still relevant. This Resolution is referred to in Nos. **5.353A** and **5.357A**. | NOC | NOC/MOD\* |
| 223 | Additional bands identified for IMT | (Rev.WRC-19) Still relevant. For consideration by WRC-23 (**agenda item 1.1**). This Resolution is referred to in Nos. **5.341A, 5.341B, 5.341C, 5.346, 5.346A, 5.384A, 5.388, 5.429B, 5.429D, 5.429F, 5.441A** and **5.441B** and Resolution **903 (Rev.WRC-19).**  For this Resolution, “*resolves* 1 & 2” and “*invites ITU-R* 1” are outside the scope of **agenda item 1.1**, and, thereby, these parts are considered under **agenda item 4**. The Study for “*invites ITU-R* 1” is making certain progress, but still ongoing. | MOD | NOC/MOD |
| 224 | Frequency bands for the terrestrial component of IMT below 1 GHz. | (Rev.WRC-19) Still relevant. This Resolution is referred to in Nos. **5.286AA, 5.295, 5.308A, 5.312A, 5.316B** and **5.317A** and Resolutions **251(WRC-19),749 (Rev.WRC-19)** and **760 (WRC-19).** Possible modification of this Resolution is being considered under WRC-23 **agenda item 1.5**. | MOD |  |
| 225 | Use of additional bands for the satellite component of IMT | (Rev.WRC-12) Still relevant. This Resolution is referred to in No. **5.351A**.  The ITU-R studies invited in this Resolution, i.e. the sharing studies between the MSS (satellite component of IMT) and terrestrial IMT in the 2655-2690MHz band are making certain progress, but still ongoing. | NOC | NOC/MOD |
| 229 | Use of bands 5 150-5 250 MHz, 5 250-5 350 MHz and 5 470-5 725 MHz for WAS including RLAN | (Rev.WRC-19) Still relevant. The text was updated at the WRC-19. This Resolution is referred to in **Nos. 5.446A, 5.447** and **5.453**.  The necessity of the ITU-R studies invited in this Resolution needs to be reviewed. | MOD | MOD\* |
| 235 | Review of the spectrum use of the frequency band 470‑960 MHz in Region 1 | (WRC-15) For consideration by WRC-23 (**agenda item 1.5**). | NOC |  |
| 240 | Spectrum harmonization for railway radiocommunication systems between train and trackside within the existing mobile-service allocations | (WRC-19) Still relevant. The ITU-R studies invited in this Resolution are making certain progress but still ongoing. | ADD | NOC/MOD |
| 241 | Use of the frequency band 66-71 GHz for IMT and coexistence with other applications of the mobile service | (WRC-19) Still relevant. This Resolution is referred to in **No.5.559AA**.  The ITU-R studies invited in this Resolution to develop frequency arrangements for IMT in the band 66-71 GHz are making progress. | ADD | NOC/MOD\* |
| 242 | Terrestrial component of IMT in the frequency band 24.25-27.5 GHz | (WRC-19) Still relevant. This Resolution is referred to in Nos. **5.532AB, 5.536A** and **5.536B**. The ITU-R studies invited in this Resolution are making progress, and one of the studies (*invites ITU-R* 2) has been completed, producing Recommendation ITU-R SA.2142. | ADD | MOD\* |
| 243 | Terrestrial component of IMT in the frequency band 37-43.5 GHz and 47.2-48.2 GHz | (WRC-19) Still relevant. This Resolution is referred to in Nos**. 5.550B** and **5.553B.**  The ITU-R studies invited in this Resolution are making progress, and one of the studies (*invites ITU-R* 3) has been completed, producing Recommendation ITU-R SA.2142. | ADD | MOD\* |
| 244 | IMT in the frequency band 45.5-47 GHz | (WRC-19) Still relevant. This Resolution is referred to in No.**5.553A**.  The ITU-R studies invited in this Resolution to develop frequency arrangements for IMT in the band 45.5-47 GHz are making progress. | ADD | NOC/  MOD\* |
| 245 | Studies on frequency-related matters for the terrestrial component of IMT identification in the frequency bands 3 300-3 400 MHz, 3 600-3 800 MHz, 6 425-7 025 MHz, 7 025-7 125 MHz and 10.0-10.5 GHz | (WRC-19) For consideration by WRC-23 (**agenda item 1.2**). | ADD |  |
| 246 | Studies to consider possible allocation of the frequency band 3 600-3 800 MHz to the mobile, except aeronautical mobile, service on a primary basis within Region 1 | (WRC-19) For consideration by WRC-23 (**agenda item 1.3**). | ADD |  |
| 247 | Facilitating mobile connectivity in certain frequency bands below 2.7 GHz using HAPS as IMT base stations | (WRC-19) For consideration by WRC-23 (**agenda item 1.4**). | ADD |  |
| 248 | Studies relating to spectrum needs and potential new allocations to the MSS in the frequency bands 1 695-1 710 MHz, 2 010-2 025 MHz, 3 300-3 315 MHz and 3 385-3 400 MHz for future development of narrowband mobile-satellite systems | (WRC-19) For consideration by WRC-23 (**agenda item 1.18**).  This Resolution is referred to in the **preliminary agenda item 2.13** for WRC-27. Therefore, it may be considered also by WRC-23 in relation to **agenda item 10**. | ADD |  |
| 249 | Study of technical and operational issues and regulatory provisions for space-to-space transmissions in the Earth-to-space direction in the frequency bands [1 610-1 645.5 and 1 646.5-1 660.5 MHz] and the space-to-Earth direction in the frequency bands [1 525-1 544 MHz], [1 545-1 559 MHz], [1 613.8-1 626.5 MHz] and [2 483.5-2 500 MHz] among non-GSO and GSO satellites operating in the MSS | (WRC-19) This Resolution is referred to in the **preliminary agenda item 2.8** for WRC-27. Therefore, it may be considered by WRC-23 in relation to **agenda item 10**. | ADD |  |
| 250 | Studies on possible allocations to the LMS (excluding IMT) in the frequency band 1 300-1 350 MHz for use by administrations for the future development of terrestrial mobile-service applications | (WRC-19) This Resolution is referred to in the **preliminary agenda item 2.9** for WRC-27. Therefore, it may be considered by WRC-23 in relation to **agenda item 10**. | ADD |  |
| 251 | Removal of the limitation regarding aeronautical mobile in the frequency range 694-960 MHz for the use of IMT user equipment by non-safety applications | (WRC-19) This Resolution is referred to in the **preliminary agenda item 2.12** for WRC-27. Therefore, it may be considered by WRC-23 in relation to **agenda item 10**. | ADD |  |
| 331 | Operation of the GMDSS | (Rev.WRC‑12) Still relevant. | NOC | NOC |
| 339 | Coordination of NAVTEX | (Rev.WRC‑07) Still relevant. This Resolution is referred to in No. **5.79A** and Appendix **15 (Rev.WRC-19**). | NOC | NOC |
| 343 | Certificates for vessels using GMDSS equipment on a non-compulsory basis | (Rev.WRC‑12) Still relevant. This Resolution is referred to in Nos. **47.27A** and **48.7**. | NOC | NOC |
| 344 | Management of maritime identity numbering resource | (Rev.WRC‑19) Still relevant. Some texts in *noting* part may be updated. Director’s Report to WRC-23 may also consider the implementation status of this Resolution. | MOD | NOC/MOD |
| 349 | Procedures for cancelling false alerts in GMDSS | (Rev.WRC‑19) Still relevant. This Resolution is referred to in No. **32.10A**. Possible modification of this Resolution is being considered under WRC-23 **agenda item 1.11** | MOD |  |
| 352 | Use of the carrier frequencies 12 290 kHz and 16 420 kHz for safety-related calling to and from resource coordination centres | (WRC‑03) Still relevant. This Resolution is referred to in No. **52.221A** and Appendix **17**. Some texts in *noting* part may be updated. | NOC | NOC/MOD |
| 354 | Distress and safety radiotelephony procedures for 2 182 kHz | (WRC‑07) Still relevant. This Resolution is referred to in Nos. **52.101** and **52.189.** Possible modification of this Resolution is being considered under WRC-23 **agenda item 1.11** | NOC |  |
| 356 | ITU maritime service information registration | (Rev.WRC‑19) Still relevant. The ITU-R consultation invited in this Resolution is still under way; a constant process at WP 5B and in IMO. | MOD | NOC |
| 361 | Consideration of regulatory provisions for modernization of GMDSS and related to the implementation of e‑navigation | (Rev.WRC-19) For consideration by WRC-23 (**agenda item 1.11**). | MOD |  |
| 363 | Considerations to improve utilization of the VHF maritime frequencies in Appendix 18 | (WRC-19) This Resolution is referred to in the **preliminary agenda item 2.10** for WRC-27. Therefore, it may be considered by WRC-23 in relation to **agenda item 10**. | ADD |  |
| 405 | Frequencies for AM(R)S | (Rev. WRC-97) Still relevant; ongoing activities in ICAO. The necessity of footnote 1 associated with the title may need to be considered and possibly be deleted. | NOC | NOC/  MOD\* |
| 413 | Use of the band 108-117.975 MHz by AM (R)S | (Rev.WRC-12) Still relevant. This Resolution is referred to in No. **5.197A** and Resolution **428(WRC-19).** | NOC | NOC |
| 416 | Use of the bands 4 400-4 940 MHz and 5 925-6 700 MHz by an aeronautical mobile telemetry application in the mobile service | (WRC-07) Still relevant. This Resolution is referred to in Nos. **5.440A, 5.442** and **5.457C**. | NOC | NOC |
| 417 | Use of the band 960-1 164 MHz by AM (R)S | (Rev.WRC-15) Still relevant. This Resolution is referred to in No. **5.327A**. | NOC | NOC |
| 418 | Use of the band 5 091-5 250 MHz by the aeronautical mobile service for telemetry applications | (Rev.WRC-19) Still relevant. This Resolution is referred to in Nos. **5.444B** and **5.446C**. | MOD | NOC |
| 422 | Methodology to calculate AMS (R) S spectrum requirements within the 1.5/1.6 GHz bands | (WRC-12) This Resolution is referred to in Resolution **222 (Rev.WRC-12).** Implemented following the approval of Recommendation ITU-R M.2091. Therefore, suppression of this Resolution is considered. | NOC | SUP |
| 424 | Use of Wireless Avionics Intra-Communications in the frequency band 4 200-4 400 MHz | (WRC-15) Still relevant. This Resolution is referred to in No. **5.436**. | NOC | NOC |
| 425 | Use of the frequency band 1 087.7-1 092.3 MHz by the AMSS (R) service (Earth-to-space) to facilitate global flight tracking for civil aviation | (Rev.WRC-19) Still relevant. This Resolution is referred to in No.**5.328AA**. | MOD | NOC |
| 427 | Updating provisions related to aeronautical services in the RR | (WRC-19) Still relevant. This Resolution is considered by WP2 of APG-23 possibly under **agenda item 9.** | ADD |  |
| 428 | Studies on a possible new allocation to the AMSS (R) within the frequency band 117.975-137 MHz in order to support aeronautical VHF communications in the Earth-to-space and space-to-Earth directions | (WRC-19) For consideration by WRC-23 (**agenda item 1.7**). | ADD |  |
| 429 | Consideration of regulatory provisions for updating Appendix 27 of the RR in support of aeronautical HF modernization | (WRC-19) For consideration by WRC-23 (**agenda item 1.9**). | ADD |  |
| 430 | Studies on frequency-related matters, including possible additional allocations, for the possible introduction of new non-safety aeronautical mobile applications | (WRC-19) For consideration by WRC-23 (**agenda item 1.10**). | ADD |  |
| 506 | Use of the 12 GHz bands by GSO BSS only | (Rev.WRC-97) Still relevant. | NOC | NOC |
| 507 | Agreements/Plans for BSS | (Rev.WRC-19) Still relevant. This Resolution is referred to in No. **11.37.2** and Appendix **30** and Resolution **553(Rev.WRC-15)** | MOD | NOC |
| 517 | Introduction of digital modulations in the HFBC | (Rev.WRC-19) Still relevant. This Resolution is referred to in No. **5.134**, Appendix **11**, Resolutions **543 (Rev.WRC-19)** and **550 (Rev.WRC-19)** and Recommendation **503 (Rev.WRC-19).** | MOD | NOC |
| 526 | Additional provisions for use for the BSS bands for HDTV | (Rev.WRC-12) The scope of this Resolution is only for Region 2. | NOC | N/A |
| 528 | Introduction of BSS (sound) in 1-3 GHz | (Rev.WRC-19) Still relevant. This Resolution is referred to in Nos. **5.345, 5.393** and **5.418** and Resolution **539 (Rev.WRC-19).** | MOD | NOC |
| 535 | Information for application of Article 12 | (Rev.WRC-19) Still relevant. | MOD | NOC |
| 536 | BSS satellites serving other countries | (WRC-97) Still relevant. | NOC | NOC |
| 539 | Use of the band 2 630-2 655 MHz for non-GSO BSS in certain Region 3 countries | (Rev.WRC-19) Still relevant to certain Region 3 countries. This Resolution is referred to in No. **5.418**, Appendix **5** and Resolution **903 (Rev.WRC-19).** | MOD | NOC |
| 543 | Provisional RF protection ratios for analogue and digital emissions in HFBC | (Rev.WRC-19) Still relevant. This Resolution is referred to in 1.1 and 2.5 of Part C of Appendix **11** and Resolutions **517 (Rev.WRC-19)** and **535 (Rev.WRC-19).** | MOD | NOC |
| 548 | Application of the grouping concept in AP30/30A in Regions 1 and 3 | (Rev.WRC-12) Still relevant. | NOC | NOC |
| 550 | Information relating to the HFBC | (Rev.WRC-19) Still relevant. | MOD | NOC |
| 552 | Long-term access to and development in the band 21.4-22 GHz in Regions 1 and 3 | (Rev.WRC-19) Still relevant. This Resolution is referred to in Nos. **11.44.1** and **11.48.1** and Articles **9** and **11** and Resolution **553(Rev.WRC-15).** | MOD |  |
| 553 | Additional regulatory measures for BSS networks in the band 21.4-22 GHz in Regions 1 and 3 | (Rev.WRC-15) Still relevant. This Resolution is referred to in Article **9** and Resolution **170 (Rev.WRC-19)**. Paragraphs 8 and 9 of the Attachment to this resolution need to be updated because the submission of advance publication information is no longer required.  Modification of this Resolution is considered under Topic K of **agenda item 7**. | NOC |  |
| 554 | Application of pfd masks to coordination under No. 9.7 for BSS networks in the band 21.4-22 GHz in Regions 1 and 3 | (WRC-12) Still relevant. This Resolution is referred to in Article **11 (A.11.7).** The content may need to be moved to RR Appendix **5**. | NOC | NOC/SUP |
| 558 | Protection of implemented BSS networks in the orbital arc of the GSO between 37.2° W and 10° E in the frequency band 11.7-12.2 GHz | (WRC-19) Still relevant. | ADD |  |
| 559 | Additional temporary regulatory measures following the deletion of part of Annex 7 to Appendix 30 (Rev.WRC-15) by WRC-19 | (WRC-19) Still relevant. | ADD |  |
| 608 | Use of 1 215-1 300 MHz band by systems in the RNSS (space-to-Earth) | (Rev.WRC-19) Still relevant. This Resolution is referred to in No. **5.329**. | MOD | NOC |
| 609 | Protection of ARNS from the epfd produced by RNSS networks and systems in the 1 164-1 215 MHz band | (Rev.WRC-07) Still relevant. This Resolution is referred to in Nos. **5.328A** and **21.18** and Recommendation **608 (Rev.WRC-07).** | NOC | NOC |
| 610 | Coordination of RNSS networks and systems in the bands 1 164-1 300 MHz, 1 559-1 610 MHz and 5 010-5 030 MHz | (Rev.WRC-19) Still relevant. This Resolution is referred to in No. **5.328B**. | MOD | NOC |
| 612 | Use of RLS between 3 and 50 MHz to support oceanographic radar operations | (Rev.WRC-12) Still relevant. This Resolution is referred to in Nos. **5.132A, 5.145A** and **5.161A** and Appendix **4**. | NOC | NOC |
| 642 | Earth stations in the amateur-satellite service | (WARC-79) Still relevant. Since RR No. **11.14** indicates that frequency assignments to earth stations in the amateur-satellite service shall not be notified under RR Article **11**, this Resolution may be suppressed. | NOC | NOC/SUP |
| 646 | Public protection and disaster relief | (Rev.WRC‑19) Still relevant. This Resolution is referred to in Resolutions **224 (Rev.WRC-19)** and **647 (Rev.WRC-19)** and Recommendation **206 (Rev.WRC-19).** | MOD |  |
| 647 | Radiocommunication aspects including spectrum management guidelines for emergency and disaster relief operations | (Rev.WRC‑19) Still relevant. | MOD |  |
| 655 | Definition of time scale and dissemination of time signals via radiocommunication systems | (WRC-15) In APG, treatment of this Resolution is being considered by WP3 under a separate subject.  This Resolution is referred to in No. **1.14**. The ITU-R studies invited in this Resolution are making progress. WRC-23 will consider these study results including the treatment of Recommendation ITU-R TF-406-6 incorporated by reference in the RR. | NOC |  |
| 656 | Possible secondary allocation to the EESS (active) for spaceborne radar sounders in the range of frequencies around 45 MHz | (Rev.WRC-19) For consideration by WRC-23 (**agenda item 1.12**). | MOD |  |
| 657 | Spectrum needs and protection of space weather sensors | (Rev.WRC-19) For consideration by WRC-23 (**agenda item 9.1-a**). This Resolution is referred to in the **preliminary agenda item 2.6** for WRC-27. Therefore, it may also be considered by WRC-23 in relation to **agenda item 10**. | MOD |  |
| 660 | Use of the frequency band 137-138 MHz by non-GSO satellites with short-duration missions in the space operation service | (WRC-19) Still relevant. This Resolution is referred to in No.**5.203C**. | ADD | NOC |
| 661 | Examination of a possible upgrade to primary status of the secondary allocation to the space research service in the frequency band 14.8-15.35 GHz | (WRC-19) For consideration by WRC-23 (**agenda item 1.13**). | ADD |  |
| 662 | Review of frequency allocations for the EESS (passive) in the frequency range 231.5-252 GHz and consideration of possible adjustment according to observation requirements of passive microwave sensors | (WRC-19) For consideration by WRC-23 (**agenda item 1.14**). | ADD |  |
| 663 | New allocations for the RLS in the frequency band 231.5-275 GHz, and a new identification for RLS applications in frequency bands in the frequency range 275-700 GHz | (WRC-19) This Resolution is referred to in the **preliminary agenda item 2.1** for WRC-27. Therefore, it may also be considered by WRC-23 in relation to **agenda item 10**. | ADD |  |
| 664 | Use of the frequency band 22.55-23.15 GHz by the EESS (Earth-to-space) | (WRC-19) This Resolution is referred to in the **preliminary agenda item 2.11** for WRC-27. Therefore, it may also be considered by WRC-23 in relation to **agenda item 10**. | ADD |  |
| 673 | The importance of Earth observation radiocommunication applications | (Rev.WRC‑12) Still relevant. This Resolution is referred to in No. **29A.1.** | NOC | NOC |
| 703 | Calculation methods and interference criteria recommended by ITU-R for sharing frequency bands | (Rev.WRC‑07) Still relevant. This Resolution is referred to in Resolutions **34 (Rev.WRC-19)** and **528 (Rev.WRC-19).** | NOC | NOC |
| 705 | Protection of services in 70-130 kHz | (Rev.WRC‑15) Still relevant. | NOC | NOC |
| 716 | Use of bands around 2 GHz by FS and MSS | (Rev.WRC‑12) Still relevant. This Resolution is referred to in Nos. **5.389A** and **5.389C**.  The reference to “Constitution (Geneva, 1992)” in considering a) may be reviewed | NOC | NOC  /MOC\* |
| 729 | Use of adaptive systems in the MF/HF bands | (Rev.WRC‑07) Still relevant. This Resolution is referred to in Appendix **4**. | NOC | NOC |
| 731 | Sharing and adjacent-band compatibility between passive and active services above 71 GHz | (Rev.WRC‑19) Still relevant. This Resolution is referred to in Resolution **776 (WRC-19).** The studies invited in this resolution are ongoing at WP1A, WP5C, WP7C and WP7D. | MOD | NOC/MOD |
| 732 | Sharing between active services above 71 GHz | (Rev.WRC‑12) Still relevant. | NOC | NOC |
| 739 | Compatibility between RAS and active space services | (Rev.WRC‑19) Still relevant. This Resolution is referred to in No. **5.208B** and Resolution **776 (WRC-19).** Possible modification of this Resolution is being considered under WRC-23 **agenda item 1.13** | MOD |  |
| 741 | Protection of RAS in the band 4 990-5 000 MHz from emissions of RNSS in the band 5010-5030 MHz | (Rev.WRC‑15) Still relevant. This Resolution is referred to in No. **5.443B** and Appendices **4** and **30**. | NOC | NOC |
| 743 | Protection of single-dish RAS stations in Region 2 in the band 42.5-43.5 GHz | (WRC‑03) Still relevant, but basically Region 2 issue. This Resolution is referred to in Nos. **5.551H** and **5.551I.** | NOC | N/A |
| 744 | Sharing between MSS (Earth-to-space) and FS/MS in the band 1 668.4-1 675 MHz | (Rev.WRC‑07) Still relevant. This Resolution is referred to in No. **5.379D**. | NOC | NOC |
| 748 | Compatibility between AM(R)S and FSS (Earth-to-space) in the band 5 091-5 150 MHz | (Rev.WRC‑19) Still relevant. This Resolution is referred to in No. **5.444B** and Resolution **418 (Rev.WRC-19).** | MOD | NOC |
| 749 | Use of the band 790-862 MHz in countries in Region 1 and Islamic Republic of Iran by mobile applications and by other services | (Rev.WRC‑19) Still relevant. This Resolution is referred to in Nos. **5.316B** and **5.317A** and Resolution **251 (WRC-19).** | MOD | NOC |
| 750 | Compatibility between EESS (passive) and relevant active services | (Rev.WRC‑19) Still relevant. This Resolution is referred to in NO.**5.338A**, Resolutions **161 (WRC-15), 176 (WRC-19), 178 (WRC-19), 242 (WRC-19), 773 (WRC-19), 775 (WRC-19)** and **776 (WRC-19).** | MOD | NOC/MOD |
| 751 | Use of the frequency band 10.6-10.68 GHz | (WRC‑07) Still relevant. This Resolution is referred to in No. **5.482A**. | NOC | NOC |
| 752 | Use of the frequency band 36-37 GHz | (WRC‑07) Still relevant. This Resolution is referred to in No. **5.550A**. | NOC | NOC |
| 759 | Technical studies on the coexistence of the radiolocation service and the amateur, amateur-satellite and RAS in the frequency band 76-81 GHz | (WRC-15) Still relevant.  The ITU-R study invited in this Resolution has not made progress. | NOC | NOC |
| 760 | Provisions relating to the use of the frequency band 694‑790 MHz in Region 1 | (Rev.WRC-19) Still relevant, but basically Region 1 issue. This Resolution is referred to in Nos. **5.312A** and **5.317A** and Resolution **251 (WRC-19).** | MOD | N/A |
| 761 | Compatibility of IMT and BSS (sound) in the frequency band 1 452‑1 492 MHz in Regions 1 and 3 | (Rev.WRC-19) Still relevant. | MOD | NOC |
| 762 | PFD criteria under No. 11.32A for FSS and BSS networks in the 6/10/11/12/14 GHz bands | (WRC-15) Still relevant. This Resolution is referred to in No. **11.32A.2.** The text in the “*instructs the Director of the Radiocommunication Bureau*” part may be updated. | NOC | NOC/MOD |
| 768 | Need for coordination of Region 2 FSS networks in the frequency band 11.7-12.2 GHz with respect to the Region 1 BSS assignments located further west than 37.2° W and of Region 1 FSS networks in the frequency band 12.5-12.7 GHz with respect to the Region 2 BSS assignments located further east than 54° W | (WRC-19) Still relevant. | ADD | N/A |
| 769 | Protection of GSO FSS, BSS and MSS networks from the aggregate interference produced by multiple non-GSO FSS systems in the frequency bands 37.5-39.5 GHz, 39.5-42.5 GHz, 47.2-50.2 GHz and 50.4-51.4 GHz | (WRC-19) Still relevant. This Resolution is referred to in No. **22.5M** and Resolution **770 (WRC-19).** WP4A is conducting a follow-on study to determine methods on how to implement and apply criteria and conditions defined in this resolution. | ADD | NOC/MOD |
| 770 | Application of Article 22 of the RR to the protection of GSO FSS and BSS networks from non-GSO FSS systems in the frequency bands 37.5-39.5 GHz, 39.5-42.5 GHz, 47.2-50.2 GHz and 50.4-51.4 GHz | (WRC-19) Still relevant. This Resolution is referred to in Nos. **5.550C**, **22.5L, 22.5M** and Resolution **769 (WRC-19).** WP4A is conducting a follow-on study including the revisions of the relevant ITU-R Recommendations as well as review of the texts in Annexes 1 and 2 (including associated Appendices) of this Resolution.  Modification of this Resolution is considered under Topic G of **agenda item 7**. | ADD |  |
| 771 | Use of the frequency bands 37.5-42.5 GHz (space-to-Earth) and 47.2-48.9 GHz, 48.9-50.2 GHz and 50.4-51.4 GHz (Earth-to-space) by non-GSO satellite systems in the FSS and 39.5-40.5 GHz (space-to-Earth) by non-GSO satellite systems in the MSS | (WRC-19) Still relevant. | ADD | NOC |
| 772 | Consideration of regulatory provisions to facilitate the introduction of sub-orbital vehicles | (WRC-19) For consideration by WRC-23 (**agenda item 1.6**). | ADD |  |
| 773 | Study of technical and operational issues and regulatory provisions for satellite-to-satellite links in the frequency bands 11.7-12.7 GHz, 18.1-18.6 GHz, 18.8-20.2 GHz and 27.5-30 GHz | (WRC-19) For consideration by WRC-23 (**agenda item 1.17**). | ADD |  |
| 774 | Studies on technical and operational measures to be applied in the frequency band 1 240-1 300 MHz to ensure the protection of the RNSS (space-to-Earth) | (WRC-19) For consideration by WRC-23 (**agenda item 9.1-b**). | ADD |  |
| 775 | Sharing between stations in the fixed service and satellite services in the frequency bands 71-76 GHz and 81-86 GHz | (WRC-19) This Resolution is referred to in the **preliminary agenda item 2.4** for WRC-27. Therefore, it may also be considered by WRC-23 in relation to **agenda item 10**. | ADD |  |
| 776 | Conditions for the use of the frequency bands 71-76 GHz and 81-86 GHz by stations in the satellite services to ensure compatibility with passive services | (WRC-19) This Resolution is referred to in the **preliminary agenda item 2.5** for WRC-27. Therefore, it may also be considered by WRC-23 in relation to **agenda item 10**. | ADD |  |
| 804 | Principles for establishing agendas for world radiocommunication conferences | (Rev.WRC‑19) Still relevant. This Resolution may be considered under agenda item **10**. | MOD |  |
| 811 | Agenda for the WRC-23 | (WRC-19) To be suppressed at WRC-23. | ADD | SUP |
| 812 | Preliminary agenda for the WRC-27 | (WRC-19) For consideration by WRC-23 (**agenda item 10**) | ADD |  |
| 901 | Determination of the orbital arc separation | (Rev.WRC‑15) Still relevant. This Resolution is referred to in Table 5-1 of Appendix **5**.  WRC-19 decided that the coordination arc concept would apply to MSS in Ka band. Updating “further noting” may be desirable. | NOC | NOC/MOD |
| 902 | Provisions relating to ESV in FSS networks in 5 925-6 425 MHz and 14-14.5 GHz | (WRC‑03) Still relevant. This Resolution is referred to in Nos. **5.457A, 5.457B, 5.506A** and **5.506B** and Recommendation **37 (WRC-03).** | NOC | NOC |
| 903 | Transitional measures for certain BSS/FSS systems in the band 2 500-2 690 MHz | (Rev.WRC‑19) Still relevant. This Resolution is referred to in No. **21.16.3A**. | MOD | NOC |
| 904 | Transitional measures for coordination between MSS (Earth-to-space) and SRS (passive) in the band 1 668-1 668.4 MHz for a specific case | (WRC‑07) Still relevant. This Resolution is referred to in No. **5.379B**. It should be noted that the concerned space station was notified and recorded in the MIFR. | NOC | NOC/SUP |
| 906 | Electronic submission of notices for terrestrial services to the BR | (Rev.WRC‑15) Still relevant. | NOC | NOC |
| 907 | Use of modern electronic means of communication for administrative correspondence related to satellite networks, earth stations and RAS stations | (Rev.WRC‑15) Still relevant. BR is taking actions to implement this Resolution. | NOC | NOC/MOD |
| 908 | Electronic submission and publication of satellite network filing | (Rev.WRC‑15) Still relevant. BR is taking actions to implement this Resolution. | NOC | NOC/MOD |

**Part II WARC/WRC Recommendations**

| **Rec.** | **Subject** | **Remarks** | **Action taken by WRC-19** | **New proposed action** |
| --- | --- | --- | --- | --- |
| 7 | Standard license forms for ship/ship-earth stations and aircraft/aircraft-earth stations | (Rev.WRC-97) Still relevant. | NOC | NOC |
| 8 | Automatic identification of stations | (WARC-79) Still relevant. | NOC | NOC |
| 9 | Operation of broadcasting stations on board ships/aircraft | (WARC-79) Still relevant.  The necessity of footnote 1 associated with the title may need to be considered and possibly be deleted. | NOC | NOC/  MOD\* |
| 16 | Interference management for stations under more than one terrestrial radiocommunication service | (Rev.WRC-19) Still relevant. | MOD |  |
| 34 | Principles for allocation of frequency bands | (Rev.WRC-12) Still relevant. This Recommendation is referred to in Resolution **160 (WRC-15)** Resolution **26** is referenced in *recognizing* part of this Recommendation and revision year of the Resolutions needs to be updated. | NOC | MOD\* |
| 36 | International monitoring of emissions from space stations | (Rev.WRC-19) Still relevant. | MOD | NOC |
| 37 | Operational procedures for ESV | (WRC-03) Still relevant. This Recommendation is referred to in Resolution **902 (WRC-03)** | NOC | NOC |
| 63 | Calculation of necessary bandwidth | (Rev.WRC-19) Still relevant. | MOD |  |
| 71 | Type approval of radio equipment | (WARC-79) Still relevant. The necessity of footnote 1 associated with the title may need to be considered and possibly be deleted. | NOC | NOC/  MOD\* |
| 75 | Study of boundary between the out-of-band and spurious domains of primary radars using magnetrons | (Rev.WRC-15) Still relevant. | NOC |  |
| 76 | Deployment and use of cognitive radio systems | (WRC-12) Still relevant. Study results of ITU-R Study Groups, e.g. Report ITU-R SM.2405, may be noted in this Recommendation. | NOC | NOC/MOD |
| 100 | Preferred bands for tropospheric scatter | (Rev.WRC-03) Still relevant. | NOC |  |
| 206 | Use of integrated MSS and ground component systems in some frequency bands identified for the satellite component of IMT | (Rev.WRC-19) Still relevant. | MOD | NOC |
| 207 | Future IMT systems | (Rev.WRC-15) Still relevant. Studies on Future IMT systems are ongoing in ITU-R WP5D. | MOD | NOC/MOD |
| 208 | Harmonization of frequency bands for evolving Intelligent Transport Systems applications under mobile-service allocations | (WRC-19) Still relevant. | ADD | NOC |
| 316 | Use of ship earth stations within harbours | (Rev.WRC-19) Some aspects still relevant. | MOD | NOC |
| 401 | Use of aeronautical mobile worldwide frequencies | (WARC-79) Some aspects still relevant. | NOC |  |
| 503 | HFBC | (Rev.WRC-19) Still relevant. | MOD |  |
| 506 | Harmonics in broadcasting-satellite stations | (WARC-79) Still relevant. The necessity of footnote 1 associated with the title may need to be considered and possibly be deleted. | NOC | NOC/  MOD\* |
| 520 | Elimination of out-of-band HFBC emissions | (WARC-92) Still relevant. | NOC |  |
| 522 | Coordination of HFBC schedules in the bands between 5 900 kHz and 26 100 kHz | (WRC-97) Still relevant. | NOC |  |
| 608 | Guidelines for consultation meetings established in Resolution **609 (Rev.WRC-07)** | (Rev.WRC-07) Still relevant. This Recommendation is referred to in Resolution **609 (Rev. WRC-07)** | NOC | NOC |
| 622 | Sharing of bands 2 025-2 110 MHz and 2 200-2 290 MHz by the SRS, SOS, EESS, FS and MS | (WRC-97) Still relevant. | NOC | NOC |
| 707 | Sharing between the inter-satellite service and RNS in the band 32-33 GHz | (WARC-79) Still relevant. This Recommendation is referred to in No. **5.548.** The necessity of footnote 1 associated with the title may need to be considered and possibly be deleted. Since Recommendation ITU-R S.1151 was developed in response to this Recommendation, other information may also need to be updated. | NOC | NOC/  MOD\* |
| 724 | Use by civil aviation of frequency allocations on a primary basis to FSS | (WRC-07) Still relevant. | NOC |  |

**Attachment 2**

**Example texts for modification of certain Provisions, Resolutions and Recommendations**

|  |  |
| --- | --- |
| **Proposal** | **Provisions/Resolutions/Recommendations** |
| MOD | RESOLUTION 1 |
| MOD | RESOLUTION 111 |
| MOD | RESOLUTION 405 |
| MOD | RECOMMENDATION 9 |
| MOD | RECOMMENDATION 71 |
| MOD | RECOMMENDATION 506 |
| SUP | RESOLUTION 75 |
| MOD | RR 5.547 |
| SUP | RESOLUTION 160 |
| SUP | RESOLUTION 161 |
| MOD | RECOMMENDATION 707 |
| MOD | RESOLUTION 25 |
| MOD | RESOLUTION 716 |
| MOD | RESOLUTION 32 |
| MOD | RESOLUTION 229 |
| MOD | RESOLUTION 241 |
| MOD | RESOLUTION 242 |
| MOD | RR 5.532AB |
| MOD | RR 5.536A |
| MOD | RR 5.536B |
| MOD | RESOLUTION 243 |
| MOD | RR 5.550B |
| MOD | RR 5.553B |
| MOD | RESOLUTION 244 |
| SUP | RESOLUTION 422 |
| MOD | RESOLUTION 222 |
| MOD | RR 5.353A |
| MOD | RR 5.357A |
| MOD | RECOMMENDATION 34 |

**MOD**

RESOLUTION 1 (Rev.WRC-23)

Notification of frequency assignments

The World Radiocommunication Conference (Dubai,2023),

…

***Reasons:***  *there is no need to include the footnote as many editorial corrections are routinely made under Agenda Item 4 at every WRC.*

MODRESOLUTION 111 (Rev.WRC-23)

Planning of the fixed-satellite service in the bands 18.1-18.3 GHz,  
18.3-20.2 GHz and 27-30 GHz

The World Radiocommunication Conference (Dubai,2023),

*…*

***Reasons:***  *there is no need to include the footnote as many editorial corrections are routinely made under Agenda Item 4 at every WRC.*

MODRESOLUTION 405 (REV. WRC-23)

Relating to the use of frequencies of the aeronautical mobile (R) service

The World Radiocommunication Conference (Dubai,2023),

…

***Reasons:***  *there is no need to include the footnote as many editorial corrections are routinely made under Agenda Item 4 at every WRC.*

MODRECOMMENDATION 9 (REV. WRC-23)

Relating to the measures to be taken to prevent the operation of broadcasting stations on board ships or aircraft outside national territories

The World Radiocommunication Conference (Dubai,2023),

…

***Reasons:***  *there is no need to include the footnote as many editorial corrections are routinely made under Agenda Item 4 at every WRC.*

**MOD**

RECOMMENDATION 71 (REV. WRC-23)

Relating to the standardization of the technical and   
operational characteristics of radio equipment

The World Radiocommunication Conference (Dubai,2023),

…

***Reasons:***  *there is no need to include the footnote as many editorial corrections are routinely made under Agenda Item 4 at every WRC.*

**MOD**

RECOMMENDATION 506 (REV.WRC-23)

Relating to the harmonics of the fundamental frequency of   
broadcasting-satellite stations

The World Radiocommunication Conference (Dubai, 2023),

…

***Reasons:***  *there is no need to include the footnote as many editorial corrections are routinely made under Agenda Item 4 at every WRC.*

**SUP**

RESOLUTION 75 (REV.WRC‑12)

**Development of the technical basis for determining the coordination area   
for coordination of a receiving earth station in the space research service   
(deep space) with transmitting stations of high-density applications   
in the fixed service in the 31.8-32.3 GHz and 37-38 GHz bands**

**Reasons:** Technical elements requested by this Resolution have been developed by ITU-R (Recommendations ITU-R F.1760, F.1765), and no recent activity has been performed since then. Therefore, this Resolution could be considered as implemented.

**MOD**

**5.547** The bands 31.8-33.4 GHz, 37-40 GHz, 40.5-43.5 GHz, 51.4-52.6 GHz, 55.78-59 GHz and 64-66 GHz are available for high-density applications in the fixed service . Administrations should take this into account when considering regulatory provisions in relation to these bands. Because of the potential deployment of high-density applications in the fixed-satellite service in the bands 39.5-40 GHz and 40.5-42 GHz (see No. **5.516B**), administrations should further take into account potential constraints to high-density applications in the fixed service, as appropriate.     (WRC‑23)

**SUP**

RESOLUTION 160 (WRC‑15)

**Facilitating access to broadband applications delivered   
by high-altitude platform stations**

**Reasons:** This Resolution should have been deleted at WRC-19 since it was related to WRC-19 agenda item 1.14.

**SUP**

RESOLUTION 161 (WRC‑15)

**Studies relating to spectrum needs and possible allocation of the   
frequency band 37.5-39.5 GHz to the fixed-satellite service**

**Reasons:** This Resolution should have been deleted at WRC-19 since it was related to WRC-23 preliminary AI 2.4 and not kept in the finalised WRC-23 Agenda.

**MOD**

RECOMMENDATION 707 (REV.WRC-23)

Relating to the use of the frequency band 32-33 GHz shared between the inter-satellite service and the radionavigation service

The World Radiocommunication Conference (Dubai,2023)

*considering*

*a)* that the band 32.3-33 GHz is allocated to the inter-satellite service and the radionavigation service;

*b)* that there are safety aspects associated with the radionavigation service;

*c)* that No. **5.548** has been incorporated into Article **5**;

*d)* that Recommendation ITU-R S.1151 provides the sharing criteria between inter-satellite service and the radionavigation service at 33GHz,

*recommends*

that a future competent world radiocommunication conference consider the result of the ITU-R studies referred to in *considering d)* above with a view to the inclusion of such sharing criteria in Article **21**.

**Reasons:**

*Currently, there is no ISS allocation from 32GHz to 32.3GHz. Recommendation ITU-R S.1151 was developed in 1995 in response to this WRC Recommendation. The remining issue is how to include the ITU-R studies in Article 21.*

**MOD**

RESOLUTION 25 (Rev.WRC‑23)

Operation of global satellite systems for personal communications

The World Radiocommunication Conference (Dubai, 2023),

considering

*a)* that, in accordance with No. 6 of its Constitution, one of the purposes of the Union is “to promote the extension of the benefits of the new telecommunication technologies to all the world’s inhabitants”;

…

***Reasons:*** *In a number of WRC Resolutions referring to the Constitution, it is customary not to include the year of revision of the Constitution. The similar editorial change is proposed for Resolution* ***716*** *below.*

**MOD**

RESOLUTION 716 (Rev.WRC‑23)

**Use of the frequency bands 1 980-2 010 MHz and 2 170-2 200 MHz in   
all three Regions and 2 010-2 025 MHz and 2 160-2 170 MHz in   
Region 2 by the fixed and mobile-satellite services   
and associated transition arrangements**

The World Radiocommunication Conference (Dubai, 2023),

*considering*

*…*

*h)* that some countries utilize these bands in application of Article 48 of the Constitution,

**…**

**MOD**

RESOLUTION 32 (REV. WRC‑23)

**Regulatory procedures for frequency assignments to non-geostationary-satellite networks or systems identified as short-duration mission not subject to the application of Section II of Article 9**

The World Radiocommunication Conference (Dubai, 2023),

*(No change is proposed for the texts as far as the “resolves” part.)*…

*instructs the Director of the Radiocommunication Bureau*

1 to expedite the online publication of notices “as received” for such networks or systems, in addition to the normal publication of notices;

2 to provide the necessary assistance to administrations in the implementation of this Resolution;

[3 to report to WRC‑23 on the implementation of this Resolution,]

…

ANNEX TO RESOLUTION 32 (REV. WRC-23)

**Application of the provisions of Articles 9 and 11 for non-geostationary-satellite networks and systems identified as short-duration mission**

…

4 Notices relating tonon-GSO networks or systems identified as short-duration mission shall be communicated to BR only after the launch of a satellite in the case of a satellite network or of the first satellite in the case of a system requiring multiple launches, and not later than two months after the date of bringing into use. This provision applies instead of No. **11.25** for frequency assignments to non-GSO networks or systems with short-duration missions (see also the Rules of Procedure associated with this Resolution). Irrespective of the date of receipt of the notified characteristics of the non-GSO network or system with a short-duration mission under this Resolution, the maximum period of validity of frequency assignments of the system shall not exceed the time-limit in *resolves* 1.2 of this Resolution. At the expiry date of period of validity, as described in *resolves* 1.2 of this Resolution, BR shall publish a suppression of the related Special Section.

5 In addition to the application of No. **11.36**,BR shallpublish the characteristics of the system together with the findings under No. **11.31** in the International Frequency Information Circular (BR IFIC) and on its website within no more than four months from the date of receipt of complete information under No. **11.28**. When BR is not in a position to comply with the time-limit referred to above, it shall periodically so inform the notifying administration, giving the reasons therefor.

6 In the application of No. **11.44**, the date of bringing into use of a non-GSO network or system identified as short-duration mission shall be defined as the launch date of a satellite in the case of a non-GSO network or of the first satellite in the case of a non-GSO system requiring multiple launches (see *resolves* 5of this Resolution).

7 Nos. **11.43A**, **11.43B** and **11.49** shall not apply to frequency assignments to non-GSO networks or systems identified as short-duration mission.

***Reasons:*** *A new RoP has been developed to clarify the relationship between the notification information timing to be communicated to the BR under this Resolution (section 4 of Annex) and the formal date of receipt of the notification notices under No.****9.1****.*

**MOD**

RESOLUTION 229 (REV.WRC‑23)

**Use of the frequency bands 5 150-5 250 MHz, 5 250-5 350 MHz and 5 470‑5 725 MHz by the mobile service for the implementation of   
wireless access systems including radio local area networks**

The World Radiocommunication Conference (Dubai,2023),

*(No change is proposed for the texts as far as the “invites administrations” part.)*

…

***Reasons:*** *Since developed at WRC-2003, no progress has been made in regard to the study item 1. For study item 2, as mentioned in noting part of this Resolution, it is considered to be completed by producing Report ITU R M.2115. So, it is time to review whether they are still needed or can be suppressed in accordance with items 1 and 2 of resolves of Resolution* ***95 (Rev. WRC-19)****.*

**MOD**

RESOLUTION 241 (REV. WRC‑23)

Use of the frequency band 66-71 GHz for International Mobile Telecommunications and coexistence with   
other applications of the mobile service

The World Radiocommunication Conference (Dubai, 2023),

considering

*a)* that International Mobile Telecommunications (IMT), including IMT‑2000, IMT‑Advanced and IMT‑2020, and other wireless access systems are intended to provide telecommunication services on a worldwide scale regardless of location and type of network or terminal;

*b)* that the evolution of IMT is being studied within the ITU Radiocommunication Sector (ITU‑R);

*c)* that harmonized worldwide frequency bands and harmonized frequency arrangements are highly desirable in order to achieve global roaming and the benefits of economies of scale;

*d)* that adequate and timely availability of spectrum for IMT and supporting regulatory provisions are essential to realize the objectives in Recommendation ITU‑R M.2083;

*e)* that IMT systems are envisaged to provide increased peak data rates and capacity that may require a larger bandwidth;

*f)* that there is a need to protect existing services and to allow for their continued development,

noting

*a)* Recommendation ITU‑R M.2083 provides the framework and overall objectives of the future development of IMT for 2020 and beyond;

*b)* Recommendation ITU‑R M.2003, on multiple gigabit wireless systems in frequencies around 60 GHz;

*c)* Report ITU‑R M.2227, on the Use of multiple gigabit wireless systems in frequencies around 60 GHz,

recognizing

Resolutions 176 (Rev. Dubai, 2018) and 203 (Rev. Dubai, 2018) of the Plenipotentiary Conference,

resolves

1 that administrations wishing to implement IMT make available the frequency band 66‑71 GHz identified in No. **5.559AA** for use by the terrestrial component of IMT;

2 that administrations wishing to implement IMT in the frequency band 66-71 GHz, identified for IMT under the provisions in No. **5.559AA**, which also wish to implement other applications of the mobile service, including other wireless access systems in the same frequency band, consider coexistence between IMT and these applications,

invites the ITU Radiocommunication Sector

[]1 to develop ITU‑R Recommendations and/or Reports, as appropriate, to assist administrations in ensuring the efficient use of the frequency band through coexistence mechanisms between IMT and other applications of the mobile service, including other wireless access systems, as well as between the mobile service and other services;

2 to regularly review, as appropriate, the impact of evolving technical and operational characteristics of IMT systems (including base-station density) and those of systems of space services on sharing and compatibility, and to take into account the results of these reviews in the development and/or revision of ITU‑R Recommendations/Reports addressing, *inter alia*, if necessary, applicable measures to mitigate the risk of interference into space receivers,

instructs the Director of the Radiocommunication Bureau

to bring this Resolution to the attention of relevant international organizations.

***Reasons:*** *The ITU-R studies invited in this Resolution to develop frequency arrangements for IMT in the band 66-71 GHz are making progress.*

*NOTE: The square bracket is kept for now until the revision of Recommendation ITU-R M.1036-6 is approved.*

**MOD**

RESOLUTION 242 (REV. WRC‑23)

Terrestrial component of International Mobile Telecommunications in the frequency band 24.25-27.5 GHz

The World Radiocommunication Conference (Dubai,2023),

considering

*a)* that International Mobile Telecommunications (IMT), including IMT‑2000, IMT‑Advanced and IMT‑2020, is the ITU vision of global mobile access, and is intended to provide telecommunication services on a worldwide scale, regardless of location and type of network or terminal;

*b)* that the evolution of IMT is being studied within the ITU Radiocommunication Sector (ITU‑R);

*c)* that harmonized worldwide frequency bands for IMT are desirable in order to achieve global roaming and the benefits of economies of scale;

*d)* that IMT systems are now being evolved to support diverse usage scenarios such as enhanced mobile broadband, massive machine-type communications and ultra-reliable and low‑latency communications;

*e)* that ultra-low latency and very high bit-rate applications of IMT will require larger contiguous blocks of spectrum than those available in frequency bands that are currently identified for use by administrations wishing to implement IMT;

*f)* that the properties of higher frequency bands, such as shorter wavelength, would better enable the use of advanced antenna systems, including multiple input, multiple output (MIMO) and beam-forming techniques, in supporting enhanced broadband;

*g)* that identification of frequency bands allocated to the mobile service for IMT may change the sharing situation regarding applications of services to which the frequency band is already allocated, and may require regulatory actions;

*h)* that there is a need to protect existing services and to allow for their continued development;

*i)* that ITU‑R has studied, in preparation for WRC-19, sharing and compatibility with services allocated in the frequency band 24.25-27.5 GHz and its adjacent band, based on characteristics available at that time, and results may change if these characteristics change;

*j)* that it is assumed that a very limited number of IMT base stations will be communicating with a positive elevation angle towards IMT indoor mobile stations;

*k)* that the allocations of frequency bands to the Earth exploration-satellite service (EESS) (passive) are defined solely by the fundamental properties of the Earth and its atmosphere, and related measurements are beneficial and used globally and extensively in meteorology, climatology and other scientific purposes for the protection of human life and natural resources; and although EESS (passive) satellites and sensors are operated by few countries, they benefit of the whole international community and are hence to be protected on a worldwide basis;

*l)* that sharing studies were conducted considering applications in the land mobile service,

noting

*a)* [the most recent version of] Recommendation ITU R M.2083 provides the framework and overall objectives of the future development of IMT for 2020 and beyond;

1. [the most recent version of] Recommendation ITU-R SA.2142 provides the methodologies for calculating coordination areas around Earth exploration satellite and space research earth stations to avoid harmful interference from IMT-2020 systems in the frequency bands 25.5-27 GHz and 37-38 GHz,

recognizing

*a)* that the identification of a frequency band for IMT does not establish priority in the Radio Regulations and does not preclude the use of the frequency band by any application of the services to which it is allocated;

*b)* Resolutions 176 (Rev. Dubai, 2018) and203 (Rev. Dubai, 2018)of the Plenipotentiary Conference;

*c)* that Resolution **750 (Rev.WRC‑19)** establishes limits on unwanted emissions in the frequency band 23.6-24 GHz from IMT base stations and IMT mobile stations within the frequency band 24.25-27.5 GHz;

*d)* that the spurious emission limits of Recommendation ITU‑R SM.329 Category B (−60 dB(W/MHz)) are sufficient to protect the EESS (passive) in the frequency bands 50.2-50.4 GHz and 52.6-54.25 GHz from the second harmonic of IMT base station emissions in the frequency band 24.25-27.5 GHz;

*e)* that ITU‑R has conducted sharing studies between IMT and the inter-satellite service (ISS)/fixed-satellite service (FSS) (Earth-to-space) in the frequency band 24.25-27.5 GHz based on a number of baseline assumptions, (e.g. equivalent isotropically radiated power (e.i.r.p.) of 18 dB(W/200 MHz), base station densities of 1 200 per 10 000 km2 and other deployment scenarios), as well as sensitivity analysis for some of them, and these baseline assumptions, as well as other assumptions, influence the sharing study results;

*f)* that the frequency bands immediately below the passive frequency band 23.6-24 GHz are not intended to be used for high-density mobile applications,

resolves

1 that administrations wishing to implement IMT consider use of the frequency band 24.25‑27.5 GHz identified for IMT in No. **5.532AB**, and the benefits of harmonized utilization of the spectrum for the terrestrial component of IMT, taking into account the latest relevant ITU‑R Recommendations;

2 that administrations shall apply the following conditions for the frequency band 24.25‑27.5 GHz:

2.1 take practical measures to ensure the transmitting antennas of outdoor base stations are normally pointing below the horizon, when deploying IMT base stations within the frequency band 24.25-27.5 GHz; the mechanical pointing needs to be at or below the horizon;

2.2 as far as practicable, sites for IMT base stations within the frequency band 24.45‑27.5 GHz employing values of e.i.r.p. per beam exceeding 30 dB(W/200 MHz) should be selected so that the direction of maximum radiation of any antenna will be separated from the geostationary-satellite orbit, within line-of-sight of the IMT base station, by ±7.5 degrees;

3 that protection of EESS/space research service (SRS) earth stations in the frequency band 25.5-27 GHz and radio astronomy service (RAS) stations in the frequency band 23.6-24 GHz and coexistence between FSS earth stations in the frequency bands 24.65-25.25 GHz and 27-27.5 GHz and IMT stations should be facilitated through bilateral agreements for cross-border coordination as necessary;

4 that the operation of IMT within the frequency band 24.25-27.5 GHz shall protect existing and future EESS (passive) systems in the frequency band 23.6-24 GHz;

5 that IMT stations within the frequency range 24.25-27.5 GHz are used for applications of the land mobile service,

encourages administrations

1 to ensure that provisions for the implementation of IMT allow for the continued use of EESS, SRS and FSS earth stations and their future development;

2 to keep the antenna pattern of IMT base stations within the limits of the approximation envelope according to [the most recent version of] Recommendation ITU‑R M.2101;

3 to apply the spurious emission limits of Recommendation ITU‑R SM.329 Category B for the frequency bands 50.2-50.4 GHz and 52.6-54.25 GHz when making the frequency band 24.25‑27.5 GHz available for IMT;

4 that for the future development of EESS (passive) in the frequency band 23.6-24 GHz, administrations should consider additional mitigation techniques (e.g. guardbands) beyond the limits specified in Resolution **750 (Rev.WRC-19)**, as appropriate,

invites the ITU Radiocommunication Sector

[]

;

1 to develop ITU‑R Recommendation(s) to assist administrations to mitigate interference from FSS earth stations into IMT stations operating in the frequency bands 24.65-25.25 GHz and 27‑27.5 GHz;

2 to update existing ITU‑R Recommendations or develop a new ITU‑R Recommendation, as appropriate, to provide information and assistance to the concerned administrations on possible coordination and protection measures for the RAS in the frequency band 23.6-24 GHz from IMT deployment;

3 to regularly review, as appropriate, the impact of evolving technical and operational characteristics of IMT systems (including base-station density) and those of systems of space services on sharing and compatibility, and to take into account the results of these reviews in the development and/or revision of ITU‑R Recommendations/Reports addressing, *inter alia*, if necessary, applicable measures to mitigate the risk of interference into space receivers,

instructs the Director of the Radiocommunication Bureau

to bring this Resolution to the attention of relevant international organizations.

***Reasons:*** *The ITU-R studies invited in this Resolution are making progress, and one of the studies (invites ITU-R 2) has been completed, producing Recommendation ITU-R SA.2142. NOTE: The square bracket is kept for now until the revision of Recommendation ITU-R M.1036-6 is approved.*

**MOD**

**5.532AB** The frequency band 24.25-27.5 GHz is identified for use by administrations wishing to implement the terrestrial component of International Mobile Telecommunications (IMT). This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. Resolution **242 (WRC‑23)** applies.    (WRC‑23)

**5.536A** Administrations operating earth stations in the Earth exploration-satellite service or the space research service shall not claim protection from stations in the fixed and mobile services operated by other administrations. In addition, earth stations in the Earth exploration-satellite service or in the space research service should be operated taking into account the most recent version of Recommendation ITU‑R SA.1862. Resolution **242 (WRC‑23)** applies.     (WRC‑23)

**MOD**

**5.536B** In Algeria, Saudi Arabia, Austria, Bahrain, Belgium, Brazil, China, Korea (Rep. of), Denmark, Egypt, United Arab Emirates, Estonia, Finland, Hungary, India, Iran (Islamic Republic of), Iraq, Ireland, Israel, Italy, Jordan, Kenya, Kuwait, Lebanon, Libya, Lithuania, Moldova, Norway, Oman, Uganda, Pakistan, the Philippines, Poland, Portugal, Qatar, the Syrian Arab Republic, Dem. People’s Rep. of Korea, Slovakia, the Czech Rep., Romania, the United Kingdom, Singapore, Slovenia, Sudan, Sweden, Tanzania, Turkey, Viet Nam and Zimbabwe, earth stations operating in the Earth exploration-satellite service in the frequency band 25.5-27 GHz shall not claim protection from, or constrain the use and deployment of, stations of the fixed and mobile services. Resolution **242 (WRC‑23)** applies.     (WRC‑23)

**Reasons:** consequential changes required once the revision of Resolution **242 (WRC‑19)** is agreed.

**MOD**

RESOLUTION 243 (REV. WRC‑23)

Terrestrial component of International Mobile Telecommunications in the frequency bands 37-43.5 GHz and 47.2-48.2 GHz

The World Radiocommunication Conference (Dubai, 2023),

considering

*a)* that International Mobile Telecommunications (IMT), including IMT‑2000, IMT‑Advanced and IMT‑2020, is intended to provide telecommunication services on a worldwide scale, regardless of location and type of network or terminal;

*b)* that adequate and timely availability of spectrum and supporting regulatory provisions are essential to realize the objectives in Recommendation ITU‑R M.2083;

*c)* that there is a need to continually take advantage of technological developments in order to increase the efficient use of spectrum and facilitate spectrum access;

*d)* that IMT systems are now being evolved to provide diverse usage scenarios and applications such as enhanced mobile broadband, massive machine-type communications and ultra-reliable and low-latency communications;

*e)* that ultra-low latency and very high bit-rate applications of IMT will require larger contiguous blocks of spectrum than those available in frequency bands that are currently identified for use by administrations wishing to implement IMT;

*f)* that the properties of higher frequency bands, such as shorter wavelength, would better enable the use of advanced antenna systems, including multiple-input and multiple-output (MIMO) and beam-forming techniques, in supporting enhanced broadband;

*g)* that harmonized worldwide frequency bands for IMT are desirable in order to achieve global roaming and the benefits of economies of scale;

*h)* that the ITU Radiocommunication Sector (ITU‑R) has studied, in preparation for WRC‑19, sharing and compatibility with services allocated in the frequency ranges 37-43.5 GHz and 47.2-48.2 GHz and their adjacent frequency bands, based on the characteristics available at that time, and the results may change if these characteristics change;

*i)* that identification of frequency bands allocated to the mobile service for IMT may change the sharing situation regarding applications of services to which the frequency band is already allocated, and may require regulatory actions;

*j)* that there is a need to protect existing services and to allow for their continued development;

*k)* that it is assumed that a very limited number of IMT base stations will be communicating with a positive elevation angle towards IMT indoor mobile stations;

*l)* that the use of this frequency band by the mobile service for IMT is intended for land mobile service use and sharing studies were conducted based on that assumption,

noting

*a)* that[the most recent version of] Recommendation ITU‑R M.2083 provides the framework and overall objectives of the future development of IMT for 2020 and beyond;

*b)* that Report ITU‑R M.2320 addresses future technology trends of terrestrial IMT systems;

*c)* that Report ITU‑R M.2370 addresses trends impacting future IMT traffic growth beyond the year 2020 and estimates global traffic demand for the period 2020 to 2030;

*d)* that Resolution **143 (Rev.WRC‑19)** establishes the guidelines for the implementation of high-density applications in the fixed-satellite service (HDFSS) in frequency bands identified for these applications,

e) that [the most recent version of] Recommendation ITU-R SA.2142 addresses the methodologies for calculating coordination areas around Earth exploration-satellite and space research earth stations to avoid harmful interference from IMT-2020 systems in the frequency bands 25.5-27 GHz and 37-38 GHz,

recognizing

*a)* that timely availability of wide and contiguous blocks of spectrum is important to support the development of IMT;

*b)* Resolutions 176 (Rev. Dubai, 2018) and 203 (Rev. Dubai, 2018) of the Plenipotentiary Conference;

*c)* the identification of HDFSS in the space-to-Earth direction in the frequency bands 39.5‑40 GHz in Region 1, 40-40.5 GHz in all Regions, 40.5-42 GHz in Region 2 and 47.5-47.9 GHz in Region 1 (see No. **5.516B**);

*d)* that No. **5.149** applies for the purpose of protecting the radio astronomy service (RAS) in the frequency band 42.5-43.5 GHz, which is allocated on a primary basis;

*e)* that the frequency band 47.2-48.2 GHz is allocated to the fixed, mobile and fixed-satellite services, including planned non-geostationary-satellite (non-GSO) uplinks,

resolves

1 that administrations wishing to implement IMT consider use of the frequency band 37‑43.5 GHz, or portions thereof, and the frequency band 47.2-48.2 GHz, identified for IMT in No. **5.550B** and No. **5.553B**, and the benefits of harmonized utilization of the spectrum for the terrestrial component of IMT taking into account the latest relevant ITU‑R Recommendations;

2 that, in order to ensure coexistence between IMT in the frequency bands 37‑43.5 GHz and 47.2-48.2 GHz as identified by this conference in Article **5** and other services to which the frequency band is allocated, including the protection of these other services, administrations shall apply the following condition(s):

2.1 in order to protect the Earth exploration satellite service (EESS) (passive) in the frequency band 36-37 GHz, the following unwanted emissions of IMT stations operating in the frequency band 37-40.5 GHz apply as specified in Table 1 below:

TABLE 1

|  |  |  |  |
| --- | --- | --- | --- |
| Frequency band for the EESS (passive) | Frequency band for IMT stations | Unwanted emission mean power for IMT stations1 | Recommended limits for IMT stations1 |
| 36-37 GHz | 37‑40.5 GHz | −43 dB(W/MHz) and  −23 dB(W/GHz) within the frequency band 36-37 GHz | −30 dB(W/GHz) |
| 1 The unwanted emission power level is considered in terms of total radiated power (TRP). The TRP is to be understood here as the integral of the power transmitted from all antenna elements in different directions over the entire radiation sphere. | | | |

2.2 protection of space research service (SRS) earth stations in the frequency band 37-38 GHz and RAS stations in the frequency band 42.5-43.5 GHz from IMT stations should be facilitated through bilateral agreements for cross-border coordinationas necessary;

2.3protection of and coexistence with fixed-satellite service (FSS) earth stations within the frequency ranges 37.5-43.5 GHz and 47.2-48.2 GHz should be facilitated through bilateral agreements for cross-border coordinationas necessary;

2.4 take practical measures to ensure the transmitting antennas of outdoor base stations are normally pointing below the horizon, when deploying IMT base stations within the frequency bands 42.5-43.5 GHz and 47.2-48.2 GHz; the mechanical pointing needs to be at or below the horizon;

2.5 as far as practicable, sites for IMT base stations in the frequency bands 42.5-43.5 GHz and 47.2-48.2 GHz employing values of equivalent isotropically radiated power (e.i.r.p.) per beam exceeding 30 dB(W/200 MHz) should be selected so that the direction of maximum radiation of any antenna will be separated from the geostationary-satellite orbit, within line-of-sight of the IMT base station, by ±7.5 degrees;

3 that IMT stations within the frequency ranges 37-43.5 GHz and 47.2-48.2 GHz are used for applications of the land mobile service,

invites administrations

to ensure that, when considering the spectrum to be used for IMT, due attention is paid to the need for spectrum for ubiquitous earth stations at unspecified points, as well as those used for gateways, taking into account spectrum identified in the frequency bands 39.5-40 GHz in Region 1, 40‑40.5 GHz in all Regions, 40.5-42 GHz in Region 2 and 47.5-47.9 GHz in Region 1 for the HDFSS as per No. **5.516B**,

encourages administrations

1 to ensure that provisions for the implementation of IMT allow for the continued development of EESS, SRS, FSS and broadcasting-satellite service (BSS) earth stations and RAS stations and their future development;

2 to keep the antenna pattern of IMT base stations within the limits of the approximation envelope according to Recommendation ITU‑R M.2101,

encourages administrations of Region 1

to consider implementing IMT in the frequency band 40.5-43.5 GHz in order to better accommodate the needs of other services below 40.5 GHz, taking into account protection of the FSS within the frequency band 37.5-40.5 GHz in Region 1,

invites the ITU Radiocommunication Sector

[]

1 to continue providing guidance to ensure that IMT can meet the telecommunication needs of the developing countries;

2 to develop ITU‑R Reports and Recommendations, as appropriate, to assist administrations in ensuring coexistence between IMT and BSS and FSS, including HDFSS as per No. **5.516B**, within the frequency ranges 37-43.5 GHz and 47.2-48.2 GHz, as appropriate;

3 to develop a new ITU‑R Recommendation, as appropriate, to provide information and assistance to the concerned administrations on possible coordination and protection measures for the RAS in the frequency band 42.5-43.5 GHz from IMT deployment;

4 to regularly review, as appropriate, the impact of evolving technical and operational characteristics of IMT systems (including base-station density) and those of systems of space services on sharing and compatibility, and to take into account the results of these reviews in the development and/or revision of ITU‑R Recommendations/Reports addressing, *inter alia*, if necessary, applicable measures to mitigate the risk of interference into space receivers,

instructs the Director of the Radiocommunication Bureau

to bring this Resolution to the attention of relevant international organizations.

***Reasons:*** *The ITU-R studies invited in this Resolution are making progress, and one of the studies (invites ITU-R 3) has been completed, producing Recommendation ITU-R SA.2142.*

*The square bracket is kept for now until the revision of Recommendation ITU-R M.1036-6 is approved.*

MOD

5.550B The frequency band 37-43.5 GHz, or portions thereof, is identified for use by administrations wishing to implement the terrestrial component of International Mobile Telecommunications (IMT). This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. Because of the potential deployment of FSS earth stations within the frequency range 37.5-42.5 GHz and high-density applications in the fixed-satellite service in the frequency bands 39.5-40 GHz in Region 1, 40-40.5 GHz in all Regions and 40.5-42 GHz in Region 2 (see No. **5.516B**), administrations should further take into account potential constraints to IMT in these frequency bands, as appropriate. Resolution **243 (WRC‑23)** applies.     (WRC‑23)

MOD

5.553B In Region 2 and Algeria, Angola, Saudi Arabia, Australia, Bahrain, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Rep., Comoros, Congo (Rep. of the), Korea (Rep. of), Côte d’Ivoire, Djibouti, Egypt, United Arab Emirates, Eswatini, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Equatorial Guinea, India, Iran (Islamic Republic of), Iraq, Japan, Jordan, Kenya, Kuwait, Lesotho, Liberia, Libya, Lithuania, Madagascar, Malaysia, Malawi, Mali, Morocco, Mauritius, Mauritania, Mozambique, Namibia, Niger, Nigeria, Oman, Uganda, Qatar, the Syrian Arab Republic, the Dem. Rep. of the Congo, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Singapore, Slovenia, Somalia, Sudan, South Sudan, South Africa, Sweden, Tanzania, Chad, Togo, Tunisia, Zambia and Zimbabwe, the frequency band 47.2-48.2 GHz is identified for use by administrations wishing to implement International Mobile Telecommunications (IMT). This identification does not preclude the use of this frequency band by any application of the services to which it is allocated, and does not establish any priority in the Radio Regulations. Resolution **243 (WRC‑23)** applies.     (WRC-23)

**Reasons:** consequential changes required once the revision of Resolution **243 (WRC‑19)** is agreed.

**MOD**

RESOLUTION 244 (REV. WRC‑23)

International Mobile Telecommunications  
in the frequency band 45.5-47 GHz

The World Radiocommunication Conference (Dubai, 2023),

considering

*a)* that International Mobile Telecommunications (IMT), including IMT-2000, IMT‑Advanced and IMT-2020, is intended to provide telecommunication services on a worldwide scale, regardless of location and type of network or terminal;

*b)* that the evolution of IMT is being studied within the ITU Radiocommunication Sector (ITU‑R);

*c)* that adequate and timely availability of spectrum and supporting regulatory provisions are essential to realize the objectives in Recommendation ITU‑R M.2083;

*d)* that there is a need to continually take advantage of technological developments in order to increase the efficient use of spectrum and facilitate spectrum access;

*e)* that IMT systems are now being evolved to provide diverse usage scenarios and applications such as enhanced mobile broadband, massive machine-type communications and ultra-reliable and low-latency communications;

*f)* that ultra-low latency and very high bit-rate applications of IMT will require larger contiguous blocks of spectrum than those available in frequency bands that are currently identified for use by administrations wishing to implement IMT;

*g)* that the properties of higher frequency bands, such as shorter wavelength, would better enable the use of advanced antenna systems, including multiple-input and multiple-output (MIMO) and beam-forming techniques, in supporting enhanced broadband;

*h)* that harmonized worldwide frequency bands for IMT are desirable in order to achieve global roaming and the benefits of economies of scale,

noting

Recommendation ITU‑R M.2083 provides the framework and overall objectives of the future development of IMT for 2020 and beyond,

recognizing

that the identification of a frequency band for IMT does not establish priority in the Radio Regulations and does not preclude the use of the frequency band by any application of the services to which it is allocated,

resolves

that administrations wishing to implement IMT consider use of the frequency band 45.5-47 GHz, identified for IMT in No. **5.553A**, and the benefits of harmonized utilization of the spectrum for the terrestrial component of IMT taking into account the latest relevant ITU‑R Recommendations,

invites the ITU Radiocommunication Sector

[]

to continue providing guidance to ensure that IMT can meet the telecommunication needs of the developing countries [].

***Reasons:*** *The ITU-R studies invited in this Resolution to develop frequency arrangements for IMT in the band 45.5-47 GHz are making progress. The square bracket is kept for now until the revision of Recommendation ITU-R M.1036-6 is approved.*

**SUP**

RESOLUTION 422 (WRC‑12)

**Development of methodology to calculate aeronautical mobile-satellite (R) service spectrum requirements within the frequency bands 1 545-1 555 MHz (space-to-Earth) and 1 646.5-1 656.5 MHz (Earth-to-space)**

**Reasons:** This Resolution has been implemented following the approval of Recommendation [ITU-R M.2091](https://www.itu.int/rec/R-REC-M.2091).

**MOD**

RESOLUTION 222 (Rev.WRC‑23)

**Use of the frequency bands 1 525-1 559 MHz and 1 626.5-1 660.5 MHz   
by the mobile-satellite service, and procedures to ensure long-term   
spectrum access for the aeronautical mobile-satellite (R) service**

The World Radiocommunication Conference (Dubai, 2023),

….

ANNEX to Resolution 222 (REV.WRC‑23)

**Procedures to implement No. 5.357A and   
Resolution 222 (Rev.WRC‑12)**

1 The notifying administrations of planned MSS, including AMS(R)S, networks shall submit to the Radiocommunication Bureau (BR) the required technical characteristics and other relevant information of their MSS networks in accordance with Appendix **4**. Coordination of these MSS networks with other affected satellite networks operating in the frequency bands 1 525‑1 559 MHz and 1 626.5-1 660.5 MHz shall proceed in accordance with Articles **9** and **11** and other relevant provisions of the Radio Regulations, as appropriate.

2 To further facilitate coordination under Articles **9** and **11**, the notifying administrations of MSS, including AMS(R)S, networks may authorize their respective MSS satellite operators, including AMS(R)S satellite operators, to enter into bilateral and multilateral coordination processes to obtain operator agreements on access to spectrum for their satellite networks.

3 At frequency coordination meetings, including operator meetings as referred to in 2 above, the notifying administration of each AMS(R)S network claiming priority under No. **5.357A**, or its respective satellite operator, shall present the spectrum requirements of each AMS(R)S network translated from their traffic requirements in accordance with methodology described in the most resent version of Recommendation [ITU-R M.2091](https://www.itu.int/rec/R-REC-M.2091) and accompanied with the information justifying such requirements.

The participants to the frequency coordination meeting then collectively validate the requirements.

The notifying administrations or their authorized MSS operators shall accommodate validated AMS(R)S spectrum requirements in accordance with No. **5.357A** without placing undue constraints on the existing systems operating in accordance with the Radio Regulations.

4 The notifying administrations of MSS networks, including AMS(R)S, have responsibility to ensure that their respective assignments are compatible in the relevant bilateral or multilateral frequency coordination meetings (in particular when those networks span various geographic area(s)).

5 The notifying administrations shall inform BR about the total amount of spectrum assigned to AMS(R)S systems after each coordination meeting where the total AMS(R)S assignments are affected.

6 If a notifying AMS(R)S administration is of the opinion that its spectrum requirements have not been met in the frequency coordination process as per No. **5.357A**, the notifying administration may notify the Director of BR of this and request that a Reassessment Meeting be called.

7 If the Bureau receives an announcement from an administration that their AMS(R)S spectrum requirements have not been met, the Director of the Bureau shall invite the notifying administrations of mobile-satellite networks involved in step 2 for a Reassessment Meeting to be held normally within three months. The Reassessment Meeting shall limit its task to consideration of the application of No. **5.357A** and shall not enter into specific coordination activities for the modification of the assignments to individual operators. The Reassessment Meeting shall be attended by the notifying administrations. These administrations may decide to invite other parties or BR in an advisory role if agreed by all notifying administrations.

8 If the Reassessment Meeting concludes that the AMS(R)S spectrum requirements of the concerned system have not been met, the Reassessment Meeting may call for an additional specific frequency coordination meeting of the notifying administrations of mobile-satellite networks involved in step 2 and their representative MSS operators, which is requested to adapt the coordination agreement, taking due account of the advice of the Reassessment Meeting. This frequency coordination meeting should take place as soon as possible and preferably immediately following the Reassessment Meeting.

9 At the conclusion of the Reassessment Meeting, a report containing information about the issue discussed and the conclusions shall be prepared by the participating notifying administrations and submitted to BR for publication.

10 If the matter remains unresolved at the administrations’ frequency coordination meeting referred to in 8 above, the notifying AMS(R)S administration shall seek the assistance of the Radiocommunication Bureau pursuant to Articles **7** and **13** and notify the respective administrations indicating that its AMS(R)S requirements have not been satisfied. The Radiocommunication Bureau shall provide a report and assistance in accordance with No. **13.3**.

11 If the matter remains unresolved after the Bureau has communicated its conclusions to the notifying AMS(R)S administration involved, the notifying AMS(R)S administration may request review of the decision of the Bureau in accordance with Article **14**.

**MOD**

**5.353A** In applying the procedures of Section II of Article **9** to the mobile-satellite service in the bands 1 530‑1 544 MHz and 1 626.5-1 645.5 MHz, priority shall be given to accommodating the spectrum requirements for distress, urgency and safety communications of the Global Maritime Distress and Safety System (GMDSS). Maritime mobile-satellite distress, urgency and safety communications shall have priority access and immediate availability over all other mobile satellite communications operating within a network. Mobile-satellite systems shall not cause unacceptable interference to, or claim protection from, distress, urgency and safety communications of the GMDSS. Account shall be taken of the priority of safety-related communications in the other mobile-satellite services. (The provisions of Resolution **222 (Rev.WRC-23)** shall apply.)     (WRC‑23)

**MOD**

**5.357A** In applying the procedures of Section II of Article **9** to the mobile-satellite service in the frequency bands 1 545-1 555 MHz and 1 646.5-1 656.5 MHz, priority shall be given to accommodating the spectrum requirements of the aeronautical mobile-satellite (R) service providing transmission of messages with priority 1 to 6 in Article **44**. Aeronautical mobile-satellite (R) service communications with priority 1 to 6 in Article **44** shall have priority access and immediate availability, by pre-emption if necessary, over all other mobile-satellite communications operating within a network. Mobile-satellite systems shall not cause unacceptable interference to, or claim protection from, aeronautical mobile-satellite (R) service communications with priority 1 to 6 in Article **44**.Account shall be taken of the priority of safety-related communications in the other mobile-satellite services. (The provisions of Resolution **222 (Rev.WRC‑23)** shall apply.)    (WRC‑23)

**Reasons:** Consequential changes following suppression of Resolution **422 (Rev.WRC-12)**, approval of Recommendation [ITU-R M.2091](https://www.itu.int/rec/R-REC-M.2091), and revision of Resolution **222 (Rev.WRC-12)**

**MOD**

RECOMMENDATION 34 (REV.WRC‑23)

**Principles for the allocation of frequency bands**

The World Radiocommunication Conference (Dubai, 2023),

**….***.*

*recognizing*

that Resolution **26 (Rev.WRC‑19)** provides guidelines for the use of footnotes, including additions, modifications or deletions,

*recommends that future world radiocommunication conferences*

1 should, wherever possible, allocate frequency bands to the most broadly defined services with a view to providing the maximum flexibility to administrations in spectrum use, taking into account safety, technical, operational, economic and other relevant factors;

2 should, wherever possible, allocate frequency bands on a worldwide basis (aligned services, categories of service and frequency band limits) taking into account safety, technical, operational, economic and other relevant factors;

3 should, wherever possible, keep the number of footnotes in Article **5** to a minimum when allocating frequency bands through footnotes, in line with Resolution **26 (Rev.WRC‑19)**;

4 should take into account relevant studies by the Radiocommunication Sector and report(s) of the relevant Conference Preparatory Meeting(s) (CPM), as appropriate, considering also contributions by members, including technical and operational developments, forecasts and usages as per the agenda of the WRC,

**….**

***Reasons:*** *The referenced Resolution was revised by WRC-19*

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1. <https://www.itu.int/en/ITU-R/study-groups/Pages/Categorization-WRC-Resolutions.aspx>

   <https://www.itu.int/en/ITU-R/study-groups/Pages/Categorization-WRC-Recommendations.aspx> [↑](#footnote-ref-1)
2. Document [WRC-23-IRW-22/8](https://www.itu.int/dms_pub/itu-r/md/19/2wshwrc23/c/R19-2WSHWRC23-C-0008!!PDF-E.pdf) (November 2022) [↑](#footnote-ref-2)
3. Document [CPM23-2/2](https://www.itu.int/dms_ties/itu-r/md/19/cpm23.2/c/R19-CPM23.2-C-0002!!MSW-E.docx) (December 2022) [↑](#footnote-ref-3)
4. Document [CPG(22)INFO 18](https://www.cept.org/ecc/groups/ecc/cpg/client/meeting-documents/?flid=30285) (August 2022) [↑](#footnote-ref-4)