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| **World Radiocommunication Conference (WRC-19) Sharm el-Sheikh, Egypt, 28 October – 22 November 2019** |  |
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| PLENARY MEETING | **Addendum 4 to Document 12-E** |
|  | **2 October 2019** |
|  | **Original: English** |
|  | |
| Regional Commonwealth in the field of Communications Common Proposals | |
| Proposals for the work of the conference | |
|  | |
| Agenda item 1.4 | |

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

# 1 Introduction

The RCC Administrations do not oppose the adoption of Method B in the CPM Report, which provides for the deletion of some of the limitations in Annex 7, inasmuch as the deletion of those orbital position limitations will provide the broadcasting-satellite service (BSS) with an additional orbital resource which can among other things be used by administrations whose national assignments in the Regions 1 and 3 Plan have equivalent downlink protection margin values equal to or below −10 dB.

The following regulatory decisions are proposed in relation to WRC-19 agenda item 1.4:

Limitations (A1) of Section 1) of Annex 7 – the RCC Administrations do not oppose:

– the deletion of limitation A1a (No assignments in the Region 1 List in the frequency band 11.7-12.2 GHz further west than 37.2°W), accompanied by the use of new Resolution **[RCC/C14-LIMITA1A2]**,

– maintaining limitation A1b (No assignments in the Region 1 List in the frequency band 11.7-12.2 GHz further east than 146°E).

Limitations (A2) of Section 2) of Annex 7 – the RCC Administrations do not oppose:

– the deletion of limitation A2a (No modification in the Region 2 Plan in the frequency band 12.5-12.7 GHz further east than 54°W), accompanied by the use of new Resolution **[RCC/C14-LIMITA1A2]**,

– the deletion of limitation A2b (No modification in the Region 2 Plan in the frequency band 12.2-12.5 GHz further east than 44°W).

Limitation (A2) of Section 2) of Annex 7 – the RCC Administrations support maintaining:

– limitation A2c (No modification in the Region 2 Plan in the frequency band 12.2-12.7 GHz further west than 175.2°W).

Limitations (A3) of Section 3) of Annex 7 – the RCC Administrations support the deletion of:

– limitation А3а (No assignments in the Regions 1 & 3 List outside specific allowable portions of the orbital arc between 37.2°W and 10°E) provided the existing protection criteria from Annex 1 to RR Appendix **30** are maintained for implemented frequency assignments with an antenna diameter of 40 and 45 cm, accompanied by the use of the new Resolution **[RCC/A14-LIMITA3]**,

– limitation A3b (Max. e.i.r.p. of 56 dBW for assignments in the Regions 1 & 3 List at specific allowable portions of the orbital arc between 37.2°W and 10°E),

– limitation A3c (Max. power flux density of −138 dB(W/(m2∙27 MHz)) at any point in Region 2 by assignments in List located at 4°W and 9°E).

Limitation B – the RCC Administrations do not oppose maintaining:

– limitation B, associated with the concept of the space stations grouping on which the Region 2 Plan is based.

With the deletion of limitations A1a and A2a for future Regions 2 and 1 FSS networks with respect to new BSS frequency assignments in Regions 1 and 2 filed further west than 37.2°W/further east than 54°W, new Resolution **[RCC/C14-LIMITA1A2]** provides, for FSS and BSS orbital separations of less than 4.2 degrees, for the application of an Annex 4 coordination threshold mask only at the test points of new BSS networks; and, for orbital separations exceeding or equal to 4.2 degrees, throughout the service area of new BSS networks in accordance with the provisions of Annex 4, which will continue to apply for all separations (the value 4.2 degrees is a compromise between the proposed orbital separation values, namely 2 and 10.57 degrees).

With the deletion of limitation A3a to protect “implemented” BSS satellite networks in the frequency band 11.7-12.2 GHz in the orbital arc between 37.2°W and 10°E, with receiving antenna diameters 40 and 45 cm, new Resolution **[RCC/A14-LIMITA3]** provides, when determining the need for coordination between such networks and new BSS networks notified in specific segments of the orbital arc between 37.2°W and 10°E, that the only criterion to be taken into account is the change in the equivalent protection margin (EPM) values on the downlink.

Where limitations A1b and A2c are concerned, despite the fact that the same provisions of RR Appendix **30** (protecting potentially affected services) apply as in the case of limitations A1a and A2a, the RCC Administrations are not proposing the deletion of these limitations since in these cases there is not sufficient geographical separation between the land territories of Regions 1 and 2 in terms of the border length between the Regions (Chukotka and Alaska).

Limitation A2b can be deleted in view of the fact that the existing provisions of Appendix **30** afford sufficient protection to the potentially affected BSS in Region 1, in addition to which the geographical separation that exists in the Atlantic region, where this limitation applies, ensures additional protection.

Where limitations A3b and A3c are concerned, studies have shown that they may be deleted since their deletion has no impact on the potentially affected FSS in Region 2.

Proposals in regard to the entry into force of revised Annex 7 to RR Appendix 30

The RCC Administrations propose the adoption of new Resolution **[RCC/D14-ENTRY-INTO-FORCE]**, which provides for the application of revised Annex 7 to RR Appendix **30** as from 23 November 2019; to this end, corresponding modifications to RR Article **59** are also proposed.

Additional regulatory measures

In view of the fact that some national assignments, especially those of developing countries in the Regions 1 and 3 Plan, have equivalent downlink protection margin values equal to or below −10 dB, the RCC Administrations propose the adoption of new Resolution **[RCC/B14-PRIORITY]**, specifying a period of time during which such countries have priority in the submission of new satellite networks in the orbital positions newly authorized further to deletion of the corresponding limitations in Annex 7 to RR Appendix **30**. After the end of this period, all administrations will be able to submit new BSS satellite networks in the newly-authorized orbital positions.

Proposals

The RCC Administrations propose the suppression of Resolution **557 (WRC-15)** and adoption of the modifications to the Radio Regulations presented in the annex hereto.

ANNEX

ARTICLE 59

Entry into force and provisional application  
of the Radio Regulations    (WRC‑12)

ADD RCC/12A4/1#49972

59.15 The other provisions of these Regulations, as revised by WRC‑19, shall enter into force on 1 January 2021, with the following exceptions:     (WRC‑19)

**Reasons:** Necessary addition of a provision to Article **59** of the Radio Regulations specifying the date of entry into force of the provisions of the Radio Regulations revised by WRC-19.

ADD RCC/12A4/2#49973

59.16 – the revised provisions for which other effective dates of application are stipulated in Resolution:

draft new Resolution **[D14-ENTRY-INTO-FORCE] (WRC‑19)**    (WRC‑19)

**Reasons:** The inclusion of a new provision in RR Article **59** takes account of the importance of the proposed modification of Annex 7 to RR Appendix **30**, which could help administrations improve equitable access to the resource by according temporary priority to administrations whose national assignments have a negative equivalent protection margin on the downlink. New Resolution **[RCC/D14-ENTRY-INTO-FORCE] (WRC-19)**, to which this provision refers, specifies that the date of entry into force of revised Annex 7 is 23 November 2019.

APPENDIX 30 (REV.WRC‑15)[[1]](#footnote-1)\*

Provisions for all services and associated Plans and List[[2]](#footnote-2)1 for  
the broadcasting-satellite service in the frequency bands  
11.7-12.2 GHz (in Region 3), 11.7-12.5 GHz (in Region 1)  
         and 12.2-12.7 GHz (in Region 2)    (WRC‑03)

MOD RCC/12A4/3#49974

ANNEX 7     (Rev.WRC‑03)

Orbital position limitationsADD [[3]](#footnote-3)YY, ADD [[4]](#footnote-4)ZZ

**Reasons:** To add a reference to new WRC-19 Resolutions (Resolutions **[RCC/A14-LIMITA3] (WRC-19)** and **[RCC/C14-LIMITA1A2] (WRC-19)**).

MOD RCC/12A4/4#49975

1) No broadcasting satellite serving an area in Region 1 and using a frequency in the band 11.7-12.2 GHz shall occupy a nominal orbital position further east than 146° E.

**Reasons:** To remove the reference to the orbital position limitation (limitation A1a) deleted further to the studies under WRC-19 agenda item 1.4.

MOD RCC/12A4/5#49976

2) No broadcasting satellite serving an area in Region 2 and using a frequency in the band 12.2-12.7 GHz that involves an orbital position different from that contained in the Region 2 Plan shall occupy a nominal orbital position

further west than 175.2° W.

However, modifications necessary to resolve possible incompatibilities during the incorporation of the Regions 1 and 3 feeder-link Plan into the Radio Regulations shall be permitted.

**Reasons:** To remove the reference to the orbital position limitations (limitations A2a and A2b) deleted further to the studies under WRC-19 agenda item 1.4

SUP RCC/12A4/6#49977

3) The purpose of the following orbital position and e.i.r.p. limitations is to preserve access to the geostationary-satellite orbit by the Region 2 fixed-satellite service in the band 11.7‑12.2 GHz. Within the orbital arc of the geostationary-satellite orbit between 37.2° W and 10° E, the orbital position associated with any proposed new or modified assignment in the Regions 1 and 3 List of additional uses shall lie within one of the portions of the orbital arc listed in Table 1. The e.i.r.p. of such assignments shall not exceed 56 dBW, except at the positions listed in Table 2.

**Reasons:** To remove the reference to the orbital position and e.i.r.p. limitations (limitations A3a, A3b and A3c) within the orbital arc of the geostationary orbit between 37.2° W and 10° E that were deleted further to the studies under WRC-19 agenda item 1.4.

SUP RCC/12A4/7#49978

TABLE 1

Allowable portions of the orbital arc between 37.2°W and 10° E for new or modified   
assignments in the Regions 1 and 3 Plan and List

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Orbital position** | 37.2° W to 36° W | 33.5°W to 32.5° W | 30° W to 29° W | 26° W to 24° W | 20° W to 18° W | 14° W  to 12° W | 8° W  to 6° W | 4° W 1 | 2° W to 0° | 4° E to 6° E | 9° E 1 |
| 1 Proposed new or modified assignments in the List which involve this orbital position shall not exceed the power flux-density limit −138 dB(W/(m2 · 27 MHz)) at any point in Region 2. | | | | | | | | | | | |

**Reasons:** To remove the reference to the orbital position limitation within the orbital arc of the geostationary-satellite orbit between 37.2° W and 10° E that was deleted further to the studies under WRC-19 agenda item 1.4 (limitation A3a).

SUP RCC/12A4/8#49979

TABLE 2

Nominal positions in the orbital arc between 37.2° W and 10° E at which the   
e.i.r.p. may exceed the limit of 56 dBW

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Orbital position** | 37° W ± 0.2° | 33.5° W | 30° W | 25° W ± 0.2° | 19° W ± 0.2° | 13° W ± 0.2° | 7° W ± 0.2° | 4° W 1 | 1° W ± 0.2° | 5° E ± 0.2° | 9° E 1 |
| 1 Proposed new or modified assignments in the List which involve this orbital position shall not exceed the power flux-density limit −138 dB(W/(m2 · 27 MHz)) at any point in Region 2. | | | | | | | | | | | |

**Reasons:** To remove the reference to the nominal positions in the orbital arc of the geostationary orbit between 37.2° W and 10° E at which the e.i.r.p. may exceed the limit of 56 dBW, which is no longer necessary following the deletion of all limitations in this orbital arc (limitations A3a, A3b and A3c).

NOC RCC/12A4/9#49980

B The Region 2 Plan is based on the grouping of the space stations in nominal orbital positions of ±0.2° from the centre of the cluster of satellites. Administrations may locate those satellites within a cluster at any orbital position within that cluster, provided they obtain the agreement of administrations having assignments to space stations in the same cluster. (See § 4.13.1 of Annex 3 to Appendix **30A**.)

ADD RCC/12A4/10#49981

DRAFT NEW RESOLUTION [RCC/A14-LIMITA3] (WRC-19)

**Protection of implemented BSS networks in the orbital arc of the geostationary‑satellite orbit between 37.2° W and 10° E  
in the frequency band 11.7-12.2 GHz**

The World Radiocommunication Conference (Sharm el-Sheikh, 2019),

*considering*

*a)* that the provisions applying to the broadcasting-satellite service (BSS) in the frequency bands 11.7-12.5 GHz in Region 1, 12.2-12.7 GHz in Region 2 and 11.7-12.2 GHz in Region 3 are contained in Appendix **30**;

*b)* that systems in the fixed-satellite service (FSS) and the broadcasting-satellite service share the frequency band 11.7-12.2 GHz;

*c)* that WRC‑19 suppressed the limitation in Section 3 Annex 7 to Appendix **30 (Rev.WRC‑15)** which determined allowable portions of the orbital arc between 37.2° W and 10° E for new or modified assignments in the frequency band 11.7-12.2 GHz in the Regions 1 and 3 List;

*d)* that Section 1 of Annex 1 to Appendix **30** **(Rev.WRC‑15)** provides criteria used for determination of coordination requirements for frequency assignments of Regions 1 and 3 Plan and List;

*e)* that Section 1 of Annex 1 to Appendix **30 (Rev.WRC‑15)** pfd mask values are based on the parameters adopted by WRC‑2000 based on the minimum earth station receiving antenna size of 60 cm;

*f)* that the use of this frequency band by the BSS is subject to the coordination procedure of Article4 of Appendix **30 (Rev.WRC‑19)**,

*noting*

*a)* that the ITU Radiocommunication Sector (ITU‑R) has carried out a significant amount of studies in preparation for conferences on BSS planning, and has developed a number of Reports and Recommendations;

*b)* that within the orbital arc of the geostationary-satellite orbit between 37.2° W and 10° E before WRC‑19 there were limitations on the use of some orbital positions for any proposed new or modified assignment in the Regions 1 and 3 List of additional uses in the frequency band 11.7‑12.2 GHz;

*c)*  that some networks with earth station receiving antenna size smaller than 60 cm were successfully implemented within the orbital arc mentioned in *noting* *b)*, in view of protection due to the presence of limitations on the use of orbital positions in this orbital arc;

*d)* that with the deletion of orbital position limitations, the protection of satellite assignments mentioned in *noting* *c)* shall be ensured;

*e)* that the geostationary-satellite orbit between 37.2° W and 10° E is widely used by Region 1 BSS and Region 2 FSS networks;

*f)* that equitable access to and efficient use of the 12 GHz frequency range should be encouraged,

*resolves*

1 that this Resolution is applicable only to implemented[[5]](#footnote-5)1 networks with earth station receiving antenna size smaller than 60 cm (40 cm and 45 cm) as outlined in Annex 1 of this Resolution;

2 that frequency assignments of the networks mentioned in *resolves* 1 above are considered by the Bureau as being affected by a proposed new or modified assignment in the List filed to the GSO orbital positions mentioned in Annex 1 to this Resolution, only if the following conditions specified in Annex 1 of Appendix **30** **(Rev.WRC‑19)** are met:

– the minimum orbital spacing between the wanted and interfering space stations, under worst-case station-keeping conditions, is less than 9°;

– the reference equivalent downlink protection margin corresponding to at least one of the test points of that wanted assignment, including cumulative effect of any previous modification to the List or any previous agreement, falls more than 0.45 dB below 0 dB, or if already negative, more than 0.45 dB below that reference equivalent protection margin value;

3 that for cases, when a proposed new assignment in the List is filed within the geostationary orbital arc between 37.2° W and 10° E in orbital arc segments that differ from those in Annex 1 to this Resolution, appropriate provisions of Annex 1 Appendix **30** **(Rev.WRC‑19)** to determine the need for coordination, continue to be applied with respect to relevant frequency assignments of satellite networks mentioned in *resolves* 1.

ANNEX 1 TO draft new RESOLUTION [RCC/A14-LIMITA3] (WRC-19)

**Satellite networks and orbital arc segments for which this   
Resolution is applicable**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Satellite networks for which this Resolution applies** | | | | | **Orbital arc segments where the conditions specified in *resolves* 2 of this Resolution apply** |
| **Orbital position** | **Earth station antenna size, cm** | **Satellite network** | **Date of receipt of part A submission** | **Notice Id Part II** |
| 33.5° W | 45 | UKDIGISAT-4C | 09.10.2014 | TBD | 36.0° W <≤ 35.28° W;  31.72° W ≤ < 30.0° W;  29.0° W < ≤ 28.58° W; |
| 30.0° W | 45 | HISPASAT-1 | 08.02.2000 | 99500256 | 34.92° W ≤ < 33.5° W;  32.5° W <≤ 31.78° W;  28.22° W ≤ < 26.0° W; |
| HISPASAT-37A | 19.11.2014 | 117560019 |
| 4.8° E | 40 | SIRIUS-N-BSS | 17.11.2014 | 118560003 | 0 <≤ 2.93° E;  6.67° E ≤ < 9.0° E;  9° E <≤ 10° E. |
| Where  is the orbital position within the orbital segment defined in the table above. | | | | | |

*NOTE - Currently, the proposed table contains all possible satellite networks that could comply with the conditions specified in resolves 1. WRC-19 will update this table to reflect the satellite networks that in fact comply with these conditions.*

**Reasons:** The addition of this new WRC-19 Resolution to the Radio Regulations is necessary in order to ensure protection, in accordance with the criteria of RR Appendix **30** (Rev.WRC-15), of frequency assignments brought into use on the geostationary arc between 37.2° W and 10° E with an earth station antenna diameter of 40 and 45 cm.

ADD RCC/12A4/11#49982

DRAFT NEW RESOLUTION [RCC/B14-PRIORITY] (WRC-19)

**Additional temporary regulatory measures following deletion   
of part of Annex 7 to Appendix 30 by WRC-19**

The World Radiocommunication Conference (Sharm el-Sheikh, 2019),

*considering*

*a)* that some national assignments especially those of developing countries in the Regions 1 and 3 Plan have equivalent downlink protection margin values in the RR Appendix **30** equal or below −10 dB;

*b)* that implementation of a national assignment in the Regions 1 and 3 Plan with an equivalent downlink protection margin equal or below −10 dB would be difficult;

*c)* that any modification of orbital position and other parameters of a national assignment in the Appendix **30** Plan would require a corresponding modification of the orbital position and other parameters in the Appendix **30A** feeder-link Plan,

*recognizing*

*a)* that Article 44 of the ITU Constitution stipulates that: *“In using frequency bands for radio services, Member States shall bear in mind that radio frequencies and any associated orbits, including the geostationary-satellite orbit, are limited natural resources and that they must be used rationally, efficiently and economically, in conformity with the provisions of the Radio Regulations, so that countries or groups of countries may have equitable access to those orbits and frequencies, taking account the special needs of the developing countries and the geographical situation of particular countries”*;

*b)* that Resolution 71 (Rev. Busan, 2014) of the Plenipotentiary Conference, ITU includes the ITU strategic plan for 2016-2019, which contains, as one of the strategic objectives of ITU‑R: *“Meet, in a rational, equitable, efficient, economical and timely way, the ITU membership’s requirements for radio-frequency spectrum and satellite-orbit resources, while avoiding harmful interference”*,

*resolves*

1 that as of 23 March 2020 and for a period until 21 May 2020, the special procedure outlined in the Attachment to this Resolution shall be applied in respect of submissions of Regions 1 and 3 administrations under § 4.1.3 of Appendices **30** and **30A** in Regions 1 and 3 meeting the specified requirements in § 1 of the Attachment to the Resolution at an orbital position of orbital arcs for which the Annex 7 to Appendix **30 (Rev.WRC-15)** limitations were suppressed by WRC‑19. Submissions sent before 23 March 2020 shall be returned to the administration;

2 that as of 23 November 2019 and for a period until 21 May 2020, all submissions under § 4.1.3 of Appendices **30** and **30A** in Regions 1 and 3 not meeting the specified requirements in § 1 of the Attachment to the Resolution at an orbital position within orbital arcs for which the Annex 7 to Appendix **30** **(Rev.WRC‑15)** limitations were suppressed by WRC‑19 shall be considered as received by BR on the 22 May 2020,

*instructs the Director of the Radiocommunication Bureau*

to identify the administrations that meet the conditions of Section 1 of the Attachment to this Resolution and inform these administrations accordingly.

ATTACHMENT TO DRAFT NEW RESOLUTION [RCC/B14-PRIORITY] (WRC‑19)

**Additional temporary regulatory measures following deletion of part   
of Annex 7 to Appendix 30 by WRC‑19**

1 The special procedure described in this attachment can only be applied once by an administration with:

*a)* no frequency assignments included in the List or for which complete Appendix **4** information has been received by the Bureau in accordance with the provision of § 4.1.3 of Appendix **30**; and

*b)* an assignment in the Regions 1 and 3 Plan of Appendix **30** when the equivalent downlink protection margin (EPM) value corresponding to a test point of its national assignment in the Regions 1 and 3 Plan is equal to or below −10 dB for at least 50% of the total number of EPM values of the assignment in the Regions 1 and 3 Plan in Appendix **30**.

2 Administrations seeking to apply this special procedure shall submit their request to the Bureau, with the information specified in § 4.1.3 of Appendices **30** and **30A**, in particular this information shall include:

*a)* in the cover letter to the Bureau, the information that the administration requests the use of this special procedure together with the name of the Plan assignments for which condition defined in § 1 above is met;

*b)* a service area is limited to the national territory as defined in the GIMS software application;

*c)* a set of maximum 20 test points inside the national territory;

*d)* a minimal ellipse determined by the set of test points submitted in *c)* above. An administration may request the Bureau to create such diagram;

*e)*[[6]](#footnote-6)1maximum ten consecutive odd or even channels with standard Appendix **30** assigned frequencies in the same polarization for a Region 1 administration or 12 consecutive odd or even channels with standard Appendix **30** assigned frequencies in the same polarization for a Region 3 administration with a bandwidth of 27 MHz;

*f)* a corresponding submission for the Appendix **30A** feeder-link Plan in compliance with the principle defined in items *b), c),* *d)* and *e)* above.

3 Upon receipt of the complete information from an administration sent under § 2 above, the Bureau shall process the submissions in date order in accordance with Article4 of Appendices **30** and **30A**.

4 The notifying administration shall request the subsequent WRCs to consider the inclusion in the Appendices **30** and **30A** Plans as a replacement of its national assignments appearing in the Plans, pursuant to paragraph 4.1.27 of Article4 of Appendices **30** and **30A**.

**Reasons:** The addition of this new WRC-19 Resolution to the Radio Regulations is necessary in order to provide a period of priority to administrations having national assignments in the Regions 1 and 3 Plan with equivalent downlink protection margin values equal to or below −10 dB for the submission of new satellite networks and new authorized orbital positions.

ADD RCC/12A4/12#49983

DRAFT NEW RESOLUTION [RCC/C14-LIMITA1A2] (WRC‑19)

**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**

The World Radiocommunication Conference (Sharm el-Sheikh, 2019),

*considering*

*a)* that WRC‑15 decided to conduct studies on, review, and identify possible revisions to, if necessary, the limitations mentioned in Annex 7 to Appendix **30 (Rev.WRC‑15)**, while ensuring the protection of, and without imposing additional constraints on, assignments in the Plan and in the List and the future of broadcasting-satellite service (BSS) networks and existing fixed-satellite service (FSS) networks;

*b)* that the provisions applying to the frequency assignments of the BSS in the frequency bands 11.7-12.5 GHz in Region 1 and 12.2-12.7 GHz in Region 2 are contained in Appendix **30**;

*c)* that the FSS has primary allocations in the frequency bands 12.5-12.75 GHz in Region 1 and 11.7-12.2 GHz in Region 2;

*d)* that the BSS has primary allocations in the frequency bands 11.7-12.5 GHz in Region 1 and 12.2-12.7 GHz in Region 2;

*e)* that WRC‑19 suppressed the limitation in Annex **7** to Appendix **30** that prevented broadcasting satellites serving an area in Region 1 and using frequency assignments in the frequency band 11.7-12.2 GHz at orbital positions further west than 37.2° W;

*f)* that WRC‑19 suppressed the limitation in Annex 7 to Appendix **30** that prevented broadcasting satellites serving an area in Region 2 and using frequency assignments in the frequency band 12.5-12.7 GHz at orbital positions further east than 54° W;

*g)* that the result of those suppressions shall ensure the protection of, and cannot impose additional constraints on, assignments in the Plan and the List and the future development of the BSS within the Plan, and existing and planned FSS networks,

*recognizing*

*a)* that existing FSS networks operating in the frequency bands mentioned in *considering* *c)* and BSS frequency assignments in the Plan and List implemented in accordance with the provisions of Annex 7 to Appendix **30 (Rev.WRC‑15)** prior to WRC**‑**19 shall continue to be protected;

*b)* that the frequency bands 11.7-12.5 GHz in Region 1 and 12.2-12.7 GHz in Region 2 are widely used by BSS networks, subject to the provisions of Annex 7 to Appendix **30** **(Rev.WRC‑15)** prior to WRC**‑**19;

*c)* that the frequency bands 12.5-12.75 GHz in Region 1 and 11.7-12.2 GHz in Region 2 are widely used by FSS networks,

*resolves*

1 that, in the frequency band 11.7-12.2 GHz, with respect to § 7.1 *a)*, 7.2.1 *a),* 7.2.1 *b)* and 7.2.1 *c)* of Article 7 of Appendix **30**, the need for coordination of a transmitting space station in the FSS of Region 2 with a transmitting space station in the BSS of Region 1 at an orbital position further west than 37.2° W and with minimum geocentric orbital separation less than 4.2 degrees between FSS and BSS space stations, the conditions in Annex 1 to this Resolution apply instead of those contained in Annex 4 to Appendix **30**;

2 that, in the frequency band 12.5-12.7 GHz, with respect to § 7.1 *a)*, 7.2.1 *a)* and 7.2.1 *c)* of Article 7 of Appendix **30**, the need for coordination of a transmitting space station in the FSS of Region 1 with a transmitting space station in the BSS of Region 2 at an orbital position further east than 54° W and not within its clusters in the Region 2 Plan of Appendix **30**, and with minimum geocentric orbital separation less than 4.2 degrees between FSS and BSS space stations, the conditions in Annex 2 to this Resolution apply instead of those contained in Annex 4 to Appendix **30**;

3 that, except the cases specified in *resolves* 1 and 2, the conditions in Annex 4 to Appendix **30** continue to apply.

ANNEX 1 TO draft new RESOLUTION [RCC/C14-LIMITA1A2] (WRC-19)

With respect to § 7.1 *a)*, 7.2.1 *a),* 7.2.1 *b)* and 7.2.1 *c)* of Article 7 of Appendix **30**, coordination of a transmitting space station in the fixed-satellite service (FSS) (space-to-Earth) of Region 2 is required with a broadcasting-satellite station serving an area in Region 1 and using a frequency assignment in the frequency band 11.7-12.2 GHz with a nominal orbital position further west than 37.2° W when, under assumed free-space propagation conditions, the power flux-density at any test point within the service area of the overlapping frequency assignments in the BSS exceeds the following values:

−147  dB (W/(m2 · 27 MHz)) for 0°  ≤θ< 0.23°

−135.7 + 17.74 log  dB (W/(m2 · 27 MHz)) for 0.23°  ≤θ< 2.0°

−136.7 + 1.66 2 dB (W/(m2 · 27 MHz)) for 2.0°  ≤θ< 3.59°

−129.2 + 25 log  dB (W/(m2 · 27 MHz)) for 3.59°  ≤θ< 4.2°

where  is the minimum geocentric orbital separation in degrees between the wanted and interfering space stations, taking into account the respective east-west station-keeping accuracies.

ANNEX 2 TO draft new RESOLUTION [RCC/C14-LIMITA1A2] (WRC-19)

With respect to § 7.1 *a)*, 7.2.1 *a)* and 7.2.1 *c)* of Article 7 of Appendix **30**, coordination of a transmitting space station in the fixed-satellite service (FSS) (space-to-Earth) of Region 1 is required with a broadcasting-satellite station serving an area in Region 2 and using a frequency assignment in the frequency band 12.5-12.7 GHz with a nominal orbital position further east than 54° W and not within its clusters in the Region 2 Plan of Appendix **30** when, under assumed free-space propagation conditions, the power flux-density at any test point within the service area of the overlapping frequency assignments in the BSS exceeds the following values:

−147  dB (W/(m2 · 27 MHz)) for 0°  ≤θ< 0.23°

−135.7 + 17.74 log  dB (W/(m2 · 27 MHz)) for 0.23°  ≤θ< 1.8°

−134.0 + 0.89 2 dB (W/(m2 · 27 MHz)) for 1.8°  ≤θ< 4.2°

where  is the minimum geocentric orbital separation in degrees between the wanted and interfering space stations, taking into account the respective east-west station-keeping accuracies.

**Reasons:** Necessary addition to the Radio Regulations of this new WRC-19 Resolution, which, in order to mitigate possible coordination issues that may arise in special cases further to the deletion of limitations A1a and A2a, specifies the conditions necessitating coordination at certain orbital separations between new FSS networks and new BSS networks.

ADD RCC/12A4/13#49984

DRAFT NEW RESOLUTION [RCC/D14-ENTRY-INTO-FORCE] (WRC-19)

**Provisional application of certain provisions of the Radio Regulations as revised by the 2019 World Radiocommunication Conference**

The World Radiocommunication Conference (Sharm el-Sheikh, 2019),

*considering*

*a)* that this conference has, in accordance with its terms of reference, adopted a partial revision to the Radio Regulations (RR), which will enter into force on 1 January 2021;

*b)* that some of the provisions, as amended by this conference, need to apply provisionally before that date;

*c)* that, as a general rule, new and revised Resolutions and Recommendations enter into force at the time of the signing of the Final Acts of a conference,

*resolves*

that, as of 23 November 2019, the following provisions of the RR, as revised or established by this conference, shall provisionally apply: Annex 7 to Appendix **30**.

**Reasons:** Addition to the Radio Regulations of this new WRC-19 Resolution is necessary in order to specify the date of application of Annex 7 to RR Appendix **30** as revised by WRC-19.

SUP RCC/12A4/14#49985

Resolution 557 (WRC-15)

Consideration of possible revision of Annex 7 to   
Appendix 30 of the Radio Regulations

**Reasons:** The studies under this Resolution, involving consideration of the orbital position limitations indicated in Annex 7 to RR Appendix **30**, having been completed, this Resolution is not required.

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1. \* The expression “frequency assignment to a space station”, wherever it appears in this Appendix, shall be understood to refer to a frequency assignment associated with a given orbital position. See also Annex 7 for the orbital limitations.     (WRC‑2000) [↑](#footnote-ref-1)
2. 1 The Regions 1 and 3 List of additional uses is annexed to the Master International Frequency Register (see Resolution **542 (WRC‑2000)**\*\*).     (WRC‑03)

   \*\* *Note by the Secretariat*: This Resolution was abrogated by WRC‑03.

   *Note by the Secretariat*: Reference to an Article with the number in roman is referring to an Article in this Appendix. [↑](#footnote-ref-2)
3. YY See Resolution **[A14-LIMITA3] (WRC‑19)**. [↑](#footnote-ref-3)
4. ZZ Resolution **[C14-LIMITA1A2] (WRC‑19)** applies to broadcasting satellites serving areas in Region 1 in the band 11.7-12.2 GHz from nominal orbital positions further west than 37.2° W and broadcasting satellites serving areas in Region 2 in the band 12.5-12.7 GHz from nominal orbital positions further east than 54° W. [↑](#footnote-ref-4)
5. 1 For the avoidance of doubt, the “implemented” networks referred to are related to Regions 1 and 3 BSS networks in the orbital arc 37.2° W and 10° E:

   − for which complete Appendix **4** information had been received by the Bureau under § 4.1.3 of Appendix **30** prior to 28 November 2015, and

   − for which complete Appendix **4** information had been received by the Bureau under § 4.1.12 of Appendix **30** prior to 23 November 2019, and

   − for which the complete due diligence information, in accordance with Annex 2 to Resolution **49 (Rev.WRC‑15)**, had been received by the Bureau prior to 23 November 2019, and

   − for which complete Appendix **4** information had been received by the Bureau under § 5.1.2 of Appendix **30** prior to 23 November 2019, and

   − brought into use, and for which the date of bringing into use has been confirmed to the Bureau before 23 November 2019. [↑](#footnote-ref-5)
6. 1 In case of submission for the Appendix **30A** feeder-link Plan in the 14 GHz band, the maximum ten channels for a Region 1 administration or twelve channels for a Region 3 administration with a bandwidth of 27 MHz could be in different polarization. [↑](#footnote-ref-6)