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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 9 toDocument 12(Add.19)-E** |
|  | **3 October 2019** |
|  | **Original: Russian** |
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| Regional Commonwealth in the field of Communications Common Proposals |
| Proposals for the work of the conference |
|  |
| Agenda item 7(I) |

7 to consider possible changes, and other options, in response to Resolution 86 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference, an advance publication, coordination, notification and recording procedures for frequency assignments pertaining to satellite networks, in accordance with Resolution **86 (Rev.WRC-07)**, in order to facilitate rational, efficient and economical use of radio frequencies and any associated orbits, including the geostationary-satellite orbit;

7(I) Issue I - Modified regulatory procedure for non-GSO satellite systems with short-duration missions

Introduction

The RCC Administrations consider that a set of technical and operational parameters should be defined for non-GSO systems with short-duration missions. A simplified procedure for submitting to the Bureau data concerning non-GSO systems with short-duration missions should be applied only to radio services and frequency bands not subject to the coordination procedure under Section II of Article 9, and should contain measures to prevent possible interference to existing and planned assignments being used in accordance with the RR. Such systems should be operated in accordance with the allocation conditions of those satellite services for which they are notified.

MOD RCC/12A19A9/1#50121

ARTICLE 9

Procedure for effecting coordination with or obtaining agreement of other administrations1, 2, 3, MOD 4, 5, 6, 7, 8, 9    (WRC‑19)

MOD RCC/12A19A9/2#50124

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4 A.9.4 Resolution **49 (Rev.WRC‑15)**, Resolution **552 (Rev.WRC‑15)** or Resolution **[RCC/A7(I)-NGSO SHORT DURATION] (WRC‑19)**, as appropriate, shall also be applied with respect to those satellite networks and satellite systems that are subject to it.    (WRC‑19)

Section I − Advance publication of information on satellite
networks or satellite systems

General

MOD RCC/12A19A9/3#50122

9.1 Before initiating any action under Article 11 in respect of frequency assignments for a satellite network or system not subject to the coordination procedure described in Section II of Article **9** below, an administration, or one10 acting on behalf of a group of named administrations, shall send to the Bureau a general description of the network or system for advance publication in the International Frequency Information Circular (BR IFIC) not earlier than seven years and preferably not later than two years before the planned date of bringing into use of the network or system (see also No. 11.44). The characteristics to be provided for this purpose are listed in Appendix 4. The notification information may also be communicated to the Bureau at the same time, but shall be considered as having been received by the Bureau not earlier than four months after the date of publication of the advance publication information.     (WRC‑19)

MOD RCC/12A19A9/4#50123

9.2B On receipt of the complete information sent under Nos. 9.1 and 9.2, the Bureau shall publish11 it in a Special Section of its BR IFIC within two months. When the Bureau is not in a position to comply with the time limit referred to above, it shall periodically so inform the administrations, giving the reasons therefor.     (WRC‑19)

Sub-Section IA − Advance publication of information on satellite networks or satellite systems that are not subject to coordination procedure under Section II

MOD RCC/12A19A9/5#50125

9.3 If, upon receipt of the BR IFIC containing information published under No. 9.2B, any administration believes that interference which may be unacceptable may be caused to its existing or planned satellite networks or systems, it shall within four months of the date of publication of the BR IFIC communicate to the publishing administration its commentsADD XX on the particulars of the anticipated interference to its existing or planned systems. A copy of these comments shall also be sent to the Bureau. Thereafter, both administrations shall endeavour to cooperate in joint efforts to resolve any difficulties, with the assistance of the Bureau, if so requested by either of the parties, and shall exchange any additional relevant information that may be available. If no such comments are received from an administration within the aforementioned period, it may be assumed that the administration concerned has no objections to the planned satellite network(s) of the system on which details have been published.     (WRC‑19)

ADD RCC/12A19A9/6#50126

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XX 9.3.1 Upon receipt of the International Frequency Information Circular (BR IFIC) containing information published under No. **9.2B** for frequency assignments to non-GSO satellite systems subject to Resolution **[RCC/A7(I)-NGSO SHORT DURATION] (WRC‑19)**, any administration which believes that unacceptable interference may be caused to its existing or planned satellite networks or systems shall, as soon as possible and within a period of four months, communicate with the notifying administration, with copy to the Bureau, these comments on the particulars of the potential interference to its existing or planned systems. The Bureau shall promptly make these comments available “as received”, on the ITU website.     (WRC‑19)

MOD RCC/12A19A9/7#50127

ARTICLE 11

Notification and recording of frequency
assignments1, MOD 2, 3, 4, 5, 6, 7, 8    (WRC‑19)

MOD RCC/12A19A9/8#50128

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2 A.11.2 Resolution **49 (Rev.WRC‑15)**, Resolution **552 (Rev.WRC‑15)** or Resolution **[RCC/A7(I)-NGSO SHORT DURATION] (WRC‑19)**, as appropriate, shall also be applied with respect to those satellite networks and satellite systems that are subject to it.     (WRC‑19)

APPENDIX 4 (REV.WRC‑15)

Consolidated list and tables of characteristics for use in the
application of the procedures of Chapter III

ANNEX 2

Characteristics of satellite networks, earth stations
or radio astronomy stations[[1]](#footnote-1)2    (Rev.WRC‑12)

**Footnotes to Tables A, B, C and D**

MOD RCC/12A19A9/9

**TABLE A**

GENERAL CHARACTERISTICS OF THE SATELLITE NETWORK,
EARTH STATION OR RADIO ASTRONOMY STATION     (Rev.WRC‑19)

| **Items in Appendix** | ***A \_ GENERAL CHARACTERISTICS OF THE SATELLITE NETWORK, EARTH STATION OR RADIO ASTRONOMY STATION***  | **Advance publication of a geostationary-satellite network** | **Advance publication of a non-geostationary-satellite network subject to coordination under Section II of Article 9** | **Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article 9** | **Notification or coordination of a geostationary-satellite network (including space operation functions under Article 2A of Appendices 30 or 30A)**  | **Notification or coordination of a non-geostationary-satellite network** | **Notification or coordination of an earth station (including notification under Appendices 30A or 30B)**  | **Notice for a satellite network in the broadcasting-satellite service under Appendix 30 (Articles 4 and 5)** | **Notice for a satellite network (feeder-link) under Appendix 30A (Articles 4 and 5)** | **Notice for a satellite network in the fixed-satellite service under Appendix 30B (Articles 6 and 8)** | **Items in Appendix** | **Radio astronomy** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A.1.g |  **Indicator showing that the non-GSO satellite system is effecting a short-duration mission****In the case of advance publication and notification of a non-geostationary-satellite network, required only for a non-geostationary-satellite network subject to the provisions of draft new Resolution [RCC/A7(I)-NGSO SHORT DURATION] (WRC-19)** |  |  | **+** |  | **+** |  |  |  |  | A.1.g |  |
| **A.2** | **DATE OF BRINGING INTO USE** |  | **A.2** |  |
| A.2.a | the date (actual or foreseen, as appropriate) of bringing the frequency assignment (new or modified) into useFor a frequency assignment to a GSO space station, including frequency assignments in Appendices **30, 30A** and **30B**, the date of bringing into use is as defined in Nos. **11.44B** and **11.44.2**For a frequency assignment to a non-GSO satellite system with a short-duration mission, the date of bringing into use is as defined in Resolution **[RCC/A7(I)-NGSO SHORT DURATION] (WRC‑19)**Whenever the assignment is changed in any of its basic characteristics (except in the case of a change under A.1.a, the date to be given shall be that of the latest change (actual or foreseen, as appropriate)Required only for notification |  |  |  | **+** | **+** | **+** | **+** | **+** | **+** | A.2.a |  |
| A.2.b | for a space station, the period of validity of the frequency assignments (see Resolution **4(Rev.WRC-03)** or Resolution **[RCC/A7(I)-NGSO SHORT DURATION] (WRC‑19)**, as appropriate) |  |  | **X** | **X** | **X** |  |  |  |  | A.2.b |  |

ADD RCC/12A19A9/10#50130

DRAFT NEW RESOLUTION [RCC/A7(I)-Ngso SHORT DURATION] (WRC-19)

Regulatory procedures for non-GSO satellite networks or systems
with short-duration missions[[2]](#footnote-2)1

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

considering

*a)* thatsome non-GSO satellites with short-duration missions have to date been operating for their entire mission duration without being notified or recorded;

*b)* that successful and timely development and operation of non-GSO satellite networks or systems with short-duration missions may require regulatory procedures which take account of the short development cycle, the short lifetimes and the typical missions of such satellites, and therefore the application of certain provisions of Articles **9** and **11** of the Radio Regulations may need to be adapted to take account of the nature of these satellites;

*c)* that these satellites typically have a short (one to two years) development time and are low cost, as well as light in weight and low-volume, often using off-the-shelf components;

*d)* that the operational lifetime of these satellites generally ranges from several weeks up to not more than three years;

*e)* that non-GSO satellites with short-duration missions generally utilize low-Earth orbits;

*f)* that non-GSO satellites with short-duration missions are being used for a wide variety of applications, including remote sensing, space weather research, upper atmosphere research, astronomy, radiocommunications, technology demonstration and education, and therefore may operate under various radiocommunication services;

*g)* that advances in the field of satellite technology have resulted in non-GSO satellites with short-duration missions becoming a means for developing countries to become involved in space activities,

considering further

*a)* that the application of provisions of Articles **9** and **11** to frequency assignments to non-GSO satellite networks or systems identified as short-duration mission as prescribed in this resolution should not adversely or otherwise affect the regulatory treatment of other systems;

*b)* that the application of any modified regulatory procedure should not change the sharing status with respect to networks and systems not applying the modified regulatory procedure, both terrestrial and space, in frequency bands which may be used by non-GSO satellite systems with short-duration missions,

recognizing

*a)* that Resolution ITU‑R 68 seeks to improve awareness and increase knowledge on existing regulatory procedures for small satellites;

*b)* that although satellite mass and size are not relevant from a frequency management perspective, the small mass and small dimensions of these satellites have been some of the major contributors to their success amongst new space-faring nations;

*c)* thatall the non-GSO satellite networks or systems operating in bands not subject to Section II of Article **9** are, irrespective of the period of validity of their associated frequency assignments, subject to No. **9.3** and its process for resolution of difficulties;

*d)* that non-GSO satellite systems with short-duration missions are not be used for safety-of-life services,

noting

Report ITU‑R SA.2312 on “Characteristics, definitions and spectrum requirements of nanosatellites and picosatellites, as well as systems composed of such satellites”,

resolves

1 that this resolution shall apply only to non-GSO networks or systems identified by the notifying administration as effecting short duration missions and corresponding to the following criteria:

1.1 the network or system uses frequency bands that are not subject to the application of Section II of Article **9**;

1.2 the active lifetime of any satellite within the satellite network or system does not exceed three years;

1.3 the reference body for the satellite network or system is the Earth, and the orbit apogee does not exceed 800 km;

1.4 the number of satellites in the satellite network does not exceed [2];

1.5 the mass of the satellite does not exceed 100 kg;

2 that the use of the frequency assignments to the non-GSO satellite networks or systems corresponding to *resolves* 1 of this resolution shall be in accordance with the provisions of the Radio Regulations, taking into account the provisions set out in the annex to this resolution;

3 that non-GSO satellite networks or systems corresponding to *resolves* 1 of this resolution shall comply with the conditions for use of the frequency band that is allocated to the service within which they operate;

4 that non-GSO satellite networks or systems with short-duration missions shall use frequency bands allocated to the amateur-satellite service and shall operate in accordance with the provisions laid down in Article **25** of the Radio Regulations;

5 that non-GSO satellite networks or systems with short-duration missions shall have the capability to cease transmitting immediately in order to eliminate harmful interference;

6 that the maximum period of operation and validity of frequency assignments of a non‑GSO satellite network or system with a short-duration mission shall not exceed three years from the date of bringing into use of the frequency assignments (see the annex to this resolution for the definition of date of bringing into use for such a network or system), without any possibility of extension, after which the recorded assignments shall be cancelled;

7 that, for the purposes of this resolution, the date of bringing into use of a non-GSO satellite network or system with a short-duration mission shall be the date on which the first satellite is launched,

instructs the Director of the Radiocommunication Bureau

1 to expedite the online publication of notices 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,

invites administrations

1 to exchangeinformation associated with non-GSO satellite networks or systems with short-duration missions and to make every possible effort to resolve interference that may be unacceptable to existing or planned satellite networks or systems, including those with short-duration missions;

2 to provide their comments on the application of No. **9.3**, upon receipt of the International Frequency Information Circular (BR IFIC) containing information published under No. **9.2B**, as soon as possible within a period of four months from the date of publication of the BR IFIC, and to communicate to the notifying administration, with a copy to the Bureau, any comments on the particulars of potential interference to its existing or planned systems.

ANNEX TO draft new
RESOLUTION [RCC/A7(I)-Ngso SHORT DURATION] (WRC-19)

Application of the provisions of Articles 9 and 11 for non-GSO satellite networks and systems with short-duration missions

1 The general provisions of the Radio Regulations shall apply tonon-GSO satellite networks or systems with short-duration missions with the following additions/amendments:

2 When submitting advance publication information under No. **9.1**, administrations shall submit the orbital characteristics (Appendix **4** data item A.4.b.4) known at the early development stage of the satellite project.

3 The notification information under No. **11.2** may be submitted after the launch of a satellite in the case of a network or the first satellite in the case of a system with multiple launches.

4 Irrespective of the date of receipt of the notified characteristics of the non-GSO satellite network or system with a short-duration mission under this resolution, the maximum period of validity of frequency assignments of this system shall not exceed the time limit specified in *resolves* 6 of this resolution. At the expiry date of the period of validity specified in *resolves* 6 of this resolution, the Bureau shall cancel the frequency assignments in question and publish a corresponding communication in the relevant special section.

5 In the application of No. **11.28**,the Bureau shall also make available on its website the complete information received. Administrations may comment upon this information in accordance with No. **11.28.1**.

6 In addition to the application of No. **11.36**,the Bureaushallpublish the characteristics of the system together with the findings under No. **11.31** in the 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 the Bureau 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.

7 In the application of No. **11.44**, the date of bringing into use of a non-GSO satellite network or system with a short-duration mission shall be defined as the date of the first satellite launch and shall be indicated by the notifying administration in the application of No. **11.28**.

8 Nos. **11.43A**, **11.43B** and **11.49** shall not apply to frequency assignments to non-GSO satellite networks or systems with short-duration missions.

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1. 2 The Radiocommunication Bureau shall develop and keep up-to-date forms of notice to meet fully the statutory provisions of this Appendix and related decisions of future conferences. Additional information on the items listed in this Annex together with an explanation of the symbols is to be found in the Preface to the BR IFIC (Space Services).    (WRC‑12) [↑](#footnote-ref-1)
2. 1 For the purposes of this resolution, non-GSO satellite networks or systems with short-duration missions refers to networks or systems corresponding to the requirements set out in *resolves* 1 and 4 of this resolution. [↑](#footnote-ref-2)