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| **World Radiocommunication Conference (WRC-15)Geneva, 2–27 November 2015** |  |
| **INTERNATIONAL TELECOMMUNICATION UNION** |  |
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| PLENARY MEETING | **Addendum 23 toDocument 132-E** |
|  | **19 October 2015** |
|  | **Original: English** |
|  |
| United Kingdom of Great Britain and Northern Ireland |
| Proposals for the work of the conference |
|  |
| Agenda item 9 |

9 to consider and approve the Report of the Director of the Radiocommunication Bureau, in accordance with Article 7 of the Convention:

Introduction

Section 3.2.2.4.4 of Addendum 2 to document 4 addresses the issue of bringing into use of frequency assignments to stations of non-Geostationary Satellite Orbit (non-GSO) satellite systems.

The United Kingdom notes that a significant number of filings for non-GSO satellite systems have recently been published in the Space Services section of the BR International Frequency Information Circular (BR IFIC). Many of these are for systems employing a large number of satellites (up to thousands) distributed on many different orbital planes.

We note that currently there are no provisions in the Radio Regulations (RR) defining the framework and/or the conditions specifically for bringing into use frequency assignments to stations of non-GSO satellite systems. This is in contrast with the provisions for bringing into use frequency assignments to stations of GSO satellite networks (e.g. No. 11.44B).

We believe that the absence of appropriate provisions for non-GSO satellite systems may leave open the possibility for spurious claims that assignments to non-GSO networks or systems have been brought into use. We are also of the view that sharing spectrum resources between GSO networks and non-GSO systems and between different non-GSO systems is already a complex task. Therefore, if frequency assignments to stations of non-GSO systems are brought into use on spurious grounds with the aim of warehousing spectrum, this would inevitably lead to an inefficient use of that limited resource.

We note also that a number of non-GSO satellite operators have plans to bring into use their assignments in the coming years, and most likely before the end of WRC-19.

The United Kingdom is of the view that WRC-15 should define provisions to regulate against spurious claims that frequency assignments have been brought into use, so as to minimize the risk that relevant parts of spectrum will be “sterilized” by a misuse of the current provisions, in particular between WRC-15 and WRC-19.

In this document, we propose a possible amendment of the RR to address the issues highlighted above. The proposed amendment would require the Administration proposing the new non-GSO satellite system to declare, at the Coordination Request’s stage, the minimum number of satellites to be deployed within the regulatory period before being able to declare that any of the relevant frequency assignments have been brought into use. Such a number shall be determined from the minimum number of satellites to be deployed to offer the service intended to be operated.

We believe that for those non-GSO satellite systems for which the coordination request has been received by the Bureau before 27 November 2015, the responsible Administration shall indicate, through a modification of the relevant coordination request information, no later than 1 June 2016 or before the notified date of bringing into use, whichever comes first, the minimum number of satellites required for considering the frequency assignments to its stations brought into use. For this particular case, the indication of such a parameter shall not give a new date of receipt to the coordination request information.

More specific proposals on how to amend the Radio Regulations can be found in the Section of this document which follows.

Proposed amendments to the Radio Regulations

ARTICLE 11

Notification and recording of frequency
assignments1, 2, 3, 4, 5, 6, 7, 7*bis*     (WRC‑12)

Section II − Examination of notices and recording of frequency assignments
in the Master Register

NOC

11.44B A frequency assignment to a space station in the geostationary-satellite orbit shall be considered as having been brought into use when a space station in the geostationary-satellite orbit with the capability of transmitting or receiving that frequency assignment has been deployed and maintained at the notified orbital position for a continuous period of ninety days. The notifying administration shall so inform the Bureau within thirty days from the end of the ninety-day period.     (WRC‑12)

ADD G/132A23/1

11.X A frequency assignment in the fixed-satellite or mobile-satellite services to a space station in the non-geostationary-satellite orbit shall be considered as having been brought into use when at least the minimum number indicated in the coordination request information of non-geostationary-satellites with the capability of transmitting or receiving that frequency assignment has been deployed in at least one of the notified orbital planesADD YY.     (WRC‑15)

ADD G/132A23/2

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YY  11.X.1 Resolution **[G-A9]** **(WRC‑15)** applies.

APPENDIX 4 (REV.WRC‑12)

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 G/132A23/3

**TABLE A**

GENERAL CHARACTERISTICS OF THE SATELLITE NETWORK, EARTH STATION OR RADIO ASTRONOMY STATION

| **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.4.b | **For space station(s) onboard non-geostationary satellite(s):** |  |  |  |  |  |  |  |  |  | A.4.b |  |
| A.4.b.1 | the number of orbital planes |  |  | **X** |  | **X** |  |  |  |  | A.4.b.1 |  |
| A.4.b.2 | the reference body code |  | **X** | **X** |  | **X** |  |  |  |  | A.4.b.2 |  |
| A.4.X | **For space stations of a non-geostationary fixed-satellite or mobile-satellite system:** |  |  |  |  |  |  |  |  |  | A.4.X |  |
| A.4.X.1 | the minimum number of non-geostationary satellites necessary to consider the frequency assignments to its stations brought into use |  | **O** | **X** |  | **X** |  |  |  |  | A.4.X.1 |  |
| ... |

ADD G/132A23/4

DRAFT NEW RESOLUTION [G‑A9] (wrc‑15)

Conditions for declaring the bringing into use of frequency assignments to stations of non‑geostationary‑satellite systems in the fixed-satellite or mobile‑satellite services

The World Radiocommunication Conference (Geneva, 2015),

considering

*a)* that in the Radio Regulations there currently is no specific provision regulating the bringing into use of frequency assignments to stations of non-geostationary satellite orbit (non‑GSO) satellite systems;

*b)* that a significant number of submissions related to non-GSO satellite systems have recently been published in the BR International Frequency Information Circular (BR IFIC);

*c)* that a significant number of those submissions identified in *considering b)* refer to non‑GSO satellite systems the space segment of which is planned to be composed of many satellites (up to thousands);

*d)* that frequency assignments of a significant number of those non‑GSO systems identified in *considering b)* are likely to be brought into use in the near future;

*e)* that the current regulatory framework allows for frequency assignments to stations of such systems to be brought into use purely on spurious ground and that this practice may entail the inefficient use of scarce spectrum resources;

*f)* that it is preferable to have a set of clear rules to make sure that such spectrum resources are efficiently used by real systems;

*g)* that one way to ensure an effective use of spectrum resources by non‑GSO systems is for an administration to declare the minimum number of satellites for frequency assignments to stations of non‑GSO systems to be considered brought into use;

*h)* that the number referred to in *considering g)* should be determined from the minimum number of satellites to be deployed to offer the service intended to be operated,

noting

*a)* that the Rule of Procedure on No. **9.6** of the Radio Regulations applicable to all GSO and non‑GSO satellite networks indicates that the intent of No. **9.6** is to identify to which administrations a request for coordination is to be addressed, and not to state an order of priorities for rights to a particular orbital position;

*b)* that the Rule of Procedure on No. **9.6** also indicates that the coordination process is a two-way process and that no administration obtains any particular priority as a result of being the first to start either the advance publication phase or the request for coordination procedure (see Sections I and II of Article **9**, respectively),

resolves

1 that the administration responsible for a new non‑GSO satellite system shall indicate in the request for coordination under No. **9.30** the minimum number of satellites required for considering the frequency assignments to its stations brought into use;

2 that for those non‑GSO satellite systems for which the coordination request has been received by the Bureau before 27 November 2015, the responsible administration shall indicate, through a modification of the relevant coordination request information, no later than 1 June 2016 or before the notified date of bringing into use, whichever comes first, the minimum number of satellites required for considering the frequency assignments to its stations brought into use;

3 that the modification referred to in *resolves*2 shall not give a new date of receipt to the relevant coordination request information.

MOD G/132A23/5

RESOLUTION 49[[2]](#footnote-2)1 (Rev.WRC‑15)

Administrative due diligence applicable to some
satellite radiocommunication services

The World Radiocommunication Conference (Geneva, 2015),

considering

*a)* that Resolution 18 of the Plenipotentiary Conference (Kyoto, 1994) instructed the Director of the Radiocommunication Bureau to initiate a review of some important issues concerning international satellite network coordination and to make a preliminary report to WRC‑95 and a final report to WRC‑97;

*b)* that the Director of the Bureau provided a comprehensive report to WRC‑97, including a number of recommendations for action as soon as possible and for identifying areas requiring further study;

*c)* that one of the recommendations in the Director’s report to WRC‑97 was that administrative due diligence should be adopted as a means of addressing the problem of reservation of orbit and spectrum capacity without actual use;

*d)* that experience may need to be gained in the application of the administrative due diligence procedures adopted by WRC‑97, and that several years may be needed to see whether administrative due diligence measures produce satisfactory results;

*e)* that new regulatory approaches may need to be carefully considered in order to avoid adverse effects on networks already going through the different phases of the procedures;

*f)* that Article 44 of the Constitution sets out the basic principles for the use of the radio-frequency spectrum and the geostationary-satellite and other satellite orbits, taking into account the needs of developing countries,

considering further

*g)* that WRC‑97 decided to reduce the regulatory time-frame for bringing a satellite network into use;

*h)* that WRC‑2000 has considered the results of the implementation of the administrative due diligence procedures and prepared a report to the 2002 Plenipotentiary Conference in response to Resolution 85 (Minneapolis, 1998),

resolves

1 that the administrative due diligence procedure contained in Annex 1 to this Resolution shall be applied as from 22 November 1997 for a satellite network or satellite system of the fixed-satellite service, mobile-satellite service or broadcasting-satellite service for which the advance publication information under No. **9.2B**, or for which the request for modifications of the Region 2 Plan under Article 4, § 4.2.1 *b)* of Appendices **30** and **30A** that involve the addition of new frequencies or orbit positions, or for which the request for modifications of the Region 2 Plan under Article 4, § 4.2.1 *a)* of Appendices **30** and **30A** that extend the service area to another country or countries in addition to the existing service area, or for which the request for additional uses in Regions 1 and 3 under § 4.1 of Article 4 of Appendices **30** and **30A**, or for which the submission of information under supplementary provisions applicable to additional uses in the planned bands as defined in Article 2 of Appendix **30B** (Section III of Article 6) has been received by the Bureau from 22 November 1997, or for which submission under Article 6 of Appendix **30B (Rev.WRC‑07)** is received on or after 17 November 2007, with the exception of submissions of new Member States seeking the acquisition of their respective national allotments[[3]](#footnote-3)2 for inclusion in the Appendix **30B** Plan;

2 that for a satellite network or satellite system within the scope of § 1 or 3 of Annex 1 to this Resolution not yet recorded in the Master International Frequency Register (MIFR) by 22 November 1997, for which the advance publication information under No. **1042** of the Radio Regulations (Edition of 1990, revised in 1994) or for the application of Section III of Article 6 of Appendix **30B** has been received by the Bureau before 22 November 1997, the responsible administration shall submit to the Bureau the complete due diligence information in accordance with Annex 2 to this Resolution not later than 21 November 2004, or before the expiry of the notified period for bringing the satellite network into use, plus any extension period which shall not exceed three years pursuant to the application of No. **1550** of the Radio Regulations (Edition of 1990, revised in 1994) or the dates specified in the relevant provisions Article 6 of Appendix **30B**, whichever date comes earlier. If the date of bringing into use, including extension specified above, is before 1 July 1998, the responsible administration shall submit to the Bureau the complete due diligence information in accordance with Annex 2 to this Resolution not later than 1 July 1998;

2*bis* that for a satellite network or satellite system within the scope of § 2 of Annex 1 to this Resolution not recorded in the MIFR by 22 November 1997, for which the request for a modification to the Plans of Appendices **30** and **30A** has been received by the Bureau before 22 November 1997, the responsible administration shall submit to the Bureau the complete due diligence information in accordance with Annex 2 to this Resolution as early as possible before the end of the period established as a limit to bringing into use in accordance with the relevant provisions of Article 4 of Appendix **30** and the relevant provisions of Article 4 of Appendix **30A**;

3 that for a satellite network or satellite system within the scope of § 1, 2 or 3 of Annex 1 to this Resolution recorded in the MIFR by 22 November 1997, the responsible administration shall submit to the Bureau the complete due diligence information in accordance with Annex 2 to this Resolution not later than 21 November 2000, or before the notified date of bringing the satellite network into use (including any extension period), whichever date comes later;

4 that six months before the expiry date specified in *resolves*2 or 2*bis* above, if the responsible administration has not submitted the due diligence information, the Bureau shall send a reminder to that administration;

5 that if the due diligence information is found to be incomplete, the Bureau shall immediately request the administration to submit the missing information. In any case, the complete due diligence information shall be received by the Bureau before the expiry date specified in *resolves*2 or 2*bis* above, as appropriate, and shall be published by the Bureau in the International Frequency Information Circular (BR IFIC);

6 that if the complete due diligence information is not received by the Bureau before the expiry date specified in *resolves*2 or 2*bis* above, the request for coordination or request for a modification to the Plans of Appendices **30** and **30A** or for application of Section III of Article 6 of Appendix **30B** as covered by *resolves*1 above submitted to the Bureau shall be cancelled. Any modifications of the Plans (Appendices **30** and **30A**) shall lapse and any recording in the MIFR as well as recordings in the Appendix **30B** List shall be deleted by the Bureau after it has informed the concerned administration. The Bureau shall publish this information in the BR IFIC,

further resolves

that the procedures in this Resolution are in addition to the provisions under Article **9** or **11** of the Radio Regulations or Appendices **30**, **30A** or **30B**, as applicable, and, in particular, do not affect the requirement to coordinate under those provisions (Appendices **30**, **30A**) in respect of extending the service area to another country or countries in addition to the existing service area,

instructs the Director of the Radiocommunication Bureau

to report to future competent world radiocommunication conferences on the results of the implementation of the administrative due diligence procedure.

ANNEX 1 TO RESOLUTION 49 (Rev.WRC‑15)

1 Any satellite network or satellite system of the fixed-satellite service, mobile-satellite service or broadcasting-satellite service with frequency assignments that are subject to coordination under Nos. **9.7**, **9.11**, **9.12**, **9.12A** and **9.13** and Resolution **33 (Rev.WRC‑03)** shall be subject to these procedures.

2 Any request for modifications of the Region 2 Plan under the relevant provisions of Article 4 of Appendices **30** and **30A** that involve the addition of new frequencies or orbit positions or for modifications of the Region 2 Plan under the relevant provisions of Article 4 of Appendices **30** and **30A** that extend the service area to another country or countries in addition to the existing service area or request for additional uses in Regions 1 and 3 under the relevant provisions of Article 4 of Appendices **30** and **30A** shall be subject to these procedures.

3 Any submission of information under Article 6 of Appendix **30B (Rev.WRC‑07)**, with the exception of submissions of new Member States seeking the acquisition of their respective national allotments[[4]](#footnote-4)3 for inclusion in the Appendix **30B** Plan, shall be subject to these procedures.

4 An administration requesting coordination for a satellite network under § 1 above shall send to the Bureau as early as possible before the end of the period established as a limit to bringing into use in No. **9.1**, the due diligence information relating to the identity of the satellite network and the spacecraft manufacturer specified in Annex 2 to this Resolution.

5 An administration requesting a modification of the Region 2 Plan or additional uses in Regions 1 and 3 under Appendices **30** and **30A** under § 2 above shall send to the Bureau as early as possible before the end of the period established as a limit to bringing into use in accordance with the relevant provisions of Article 4 of Appendix **30** and the relevant provisions of Article 4 of Appendix **30A**, the due diligence information relating to the identity of the satellite network and the spacecraft manufacturer specified in Annex 2 to this Resolution.

6 An administration applying Article 6 of Appendix **30B (Rev.WRC‑07)** under § 3 above shall send to the Bureau as early as possible before the end of the period established as a limit to bringing into use in § 6.1 of that Article, the due diligence information relating to the identity of the satellite network and the spacecraft manufacturer specified in Annex 2 to this Resolution.

7 The information to be submitted in accordance with § 4, 5 or 6 above shall be signed by an authorized official of the notifying administration or of an administration that is acting on behalf of a group of named administrations.

8 On receipt of the due diligence information under § 4, 5 or 6 above, the Bureau shall promptly examine that information for completeness. If the information is found to be complete, the Bureau shall publish the complete information in a special section of the BR IFIC within 30 days.

9 If the information is found to be incomplete, the Bureau shall immediately request the administration to submit the missing information. In all cases, the complete due diligence information shall be received by the Bureau within the appropriate time period specified in § 4, 5 or 6 above, as the case may be, relating to the date of bringing the satellite network into use.

10 Six months before expiry of the period specified in § 4, 5 or 6 above and if the administration responsible for the satellite network has not submitted the due diligence information under § 4, 5 or 6 above, the Bureau shall send a reminder to the responsible administration.

11 If the complete due diligence information is not received by the Bureau within the time limits specified in this Resolution, the networks covered by § 1, 2 or 3 above shall be cancelled by the Bureau. The provisional recording in the MIFR shall be deleted by the Bureau after it has informed the concerned administration. The Bureau shall publish this information in the BR IFIC.

With respect to the request for modification of the Region 2 Plan or for additional uses in Regions 1 and 3 under Appendices **30** and **30A** under § 2 above, the modification shall lapse if the due diligence information is not submitted in accordance with this Resolution.

With respect to the request for application of Article 6 of Appendix **30B (Rev.WRC‑07)** under § 3 above, the network shall also be deleted from the Appendix **30B** List. When an allotment under Appendix **30B** is converted into an assignment, the assignment shall be reinstated in the Plan in accordance with § 6.33 *c)* of Article 6 of Appendix **30B** **(Rev.WRC‑07)**.

12 An administration notifying a satellite network under § 1, 2 or 3 above for recording in the MIFR shall send to the Bureau, as early as possible before the date of bringing into use, the due diligence information relating to the identity of the satellite network and the launch services provider specified in Annex 2 to this Resolution.

13 When an administration has completely fulfilled the due diligence procedure but has not completed coordination, this does not preclude the application of No. **11.41** by that administration.

ANNEX 2 TO RESOLUTION 49 (Rev.WRC‑15)

# A Identity of the satellite network or system

*a)* Identity of the satellite network or system

*b)* Name of the administration

*c)* Country symbol

*d)* Reference to the advance publication information or to the request for modification of the Region 2 Plan or for additional uses in Regions 1 and 3 under Appendices **30** and **30A**; or reference to the information processed under Article 6 of Appendix **30B (Rev.WRC‑07)**

*e)* Reference to the request for coordination (not applicable for Appendices **30**, **30A** and **30B**)

*f)* Frequency band(s)

*g)* Name of the operator

*h)* Name of the satellite(s) or of the satellite system which the satellite(s) is(are) part of

*i)* Orbital characteristics.

# B Spacecraft manufacturer[[5]](#footnote-5)\*

*a)* Name of the spacecraft manufacturer

*b)* Date of execution of the contract

*c)* Contractual “delivery window”

*d)* Number of satellites procured.

# C Launch services provider

*a)* Name of the launch vehicle provider

*b)* Date of execution of the contract

*c)* Launch or in-orbit delivery window

*d)* Name of the launch vehicle

*e)* Name and location of the launch facility

*f)* Number of satellites to be launched under the launch services contract.

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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 This Resolution does not apply to satellite networks or satellite systems of the broadcasting-satellite service in the 21.4-22 GHz band in Regions 1 and 3. [↑](#footnote-ref-2)
3. 2 See § 2.3 of Appendix **30B (Rev.WRC‑07)**. [↑](#footnote-ref-3)
4. 3 See § 2.3 of Appendix **30B (Rev.WRC‑07)**. [↑](#footnote-ref-4)
5. \* NOTE − In cases where a contract for satellite procurement covers more than one satellite, the relevant information shall be submitted for each satellite. [↑](#footnote-ref-5)