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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 1 to Document 47(Add.19)-E** |
|  | **7 October 2019** |
|  | **Original: English** |
|  | |
| Australia | |
| proposals for the work of the conference | |
|  | |
| Agenda item 7(A) | |

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(A) Issue A - Bringing into use of frequency assignments to all non-GSO systems, and consideration of a milestone-based approach for the deployment of non-GSO systems in specific frequency bands and services

# 1 Introduction

The deployment of large non-GSO satellite constellations including those which may provide broadband and telecommunications access is planned for the near term. The Radio Regulations have lagged behind in developing measures to address regulatory issues stemming from the size of these constellations. Agenda item 7 Issue A aims to address international regulations on this issue by establishing a milestone approach to new and existing non-GSO filings, requiring constellation rollouts to adhere to set milestones and imposing restrictions on constellation size after missed milestones, with a view to allowing equitable access to and avoiding warehousing of scarce spectrum and orbital resources.

The CPM Report presents example regulatory text to satisfy this agenda item, with options for bringing into use frequency assignments to non-GSO systems and options for a number of potential elements of the milestone-based approach to deployment of non-GSO systems.

In identifying preferred options, Australia has been guided by the following considerations:

• **Efficient and equitable use of spectrum and orbital resources.** Only the minimum essential spectrum and associated orbital resources should be used, with use commencing within a reasonable but limited timeframe.

• **Unused spectrum and orbital resources should be made available for use by others as soon as possible.** In particular, regulations should require full deployment (100% of satellites) of constellations to avoid creating an obstacle to the establishment of other space systems.

• **Prospective application.** A number of large non-GSO satellite constellations are in development or already being rolled out. Changes to the Radio Regulations at WRC-19 should be designed so that they reasonably accommodate the deployment plans of all filed systems under design when the issue was introduced to the WRC-19 agenda.

• **Neutral application.** Regulation should apply to all non-GSO satellite systems equally, both existing and future systems. Transitional measures may be appropriate for some existing systems.

• **Moderate disincentives.** Disincentives should be moderate but should effectively deter ‘planning to fail’.

# 2 Proposals

Australia proposes regulatory changes for this agenda item, as follows:

ARTICLE 11

Notification and recording of frequency   
assignments1, 2, 3, 4, 5, 6, 7, 8    (WRC‑15)

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

MOD AUS/47A19A1/1#50014

11.44 The notified date24, MOD 25, MOD 26of bringing into use of any frequency assignment to a space station of a satellite network or system shall be not later than seven years following the date of receipt by the Bureau of the relevant complete information under No. **9.1** or **9.2** in the case of satellite networks or systems not subject to Section II of Article **9** or under No. **9.1A** in the case of satellite networks or systems subject to Section II of Article **9**. Any frequency assignment not brought into use within the required period shall be cancelled by the Bureau after having informed the administration at least three months before the expiry of this period.     (WRC‑19)

NOC AUS/47A19A1/2#50029

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24 11.44.1

MOD AUS/47A19A1/3#50016

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25 11.44.2The notified date of bringing into use of a frequency assignment to a space station of a satellite network or system shall be the date of the commencement of the continuous period defined in No. **11.44B** or [MOD] No. **11.44C**, as applicable.    (WRC‑19)

MOD AUS/47A19A1/4#50017

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26 11.44.3, 11.44B.1 and 11.44C.3Upon receipt of this information and whenever it appears from reliable information available that a notified frequency assignment has not been brought into use in accordance with No. **11.44**, No. **11.44B** or [MOD] No. **11.44C**, as the case may be, the consultation procedures and subsequent applicable course of action prescribed in No. **13.6** shall apply, as appropriate.     (WRC‑19)

MOD AUS/47A19A1/5#50018

11.44C A frequency assignment to a space station in a non-geostationary-satellite orbit with the “Earth” as the reference body shall be considered as having been brought into use when a space station in the non-geostationary-satellite orbit with the capability of transmitting or receiving that frequency assignment has been deployed and maintained on one of the notified orbital planesADD AA of the non‑geostationary-satellite system for a continuous period of 90 daysADD BB. The notifying administration shall so inform the Bureau within 30 days from the end of the 90-day periodMOD 26, ADD CC. On receipt of the information sent under this provision, the Bureau shall make that information available on the ITU website as soon as possible and shall publish it in the BR IFIC subsequently.    (WRC‑19)

**Reasons:** Australia supports a continuous period of 90 days to bring into use a non-geostationary-satellite system.

ADD AUS/47A19A1/6#50019

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AA 11.44C.1In examining information provided by an administration in application of [MOD] No. **11.44C**, the following data items in Table A in Annex 2 of Appendix **4** shall be used, as appropriate, to determine if at least one of the orbital planes of the space stations in the non-geostationary-satellite system deployed corresponds to one of the notified orbits:

– Item A.4.b.4.a, the inclination of the orbital plane of the space station;

– Item A.4.b.4.d, the altitude of the apogee of the space station;

– Item A.4.b.4.e, the altitude of the perigee of the space station; and

– Item A.4.b.5.c, the argument of the perigee of the orbit of the space station (only for orbits whose altitudes of the apogee and perigee are different).     (WRC‑19)

**Reasons:** Australia has chosen this option for No. **11.44C.1** as it considers that the footnote should reference only those characteristics directly relevant to determine the notified orbital plane.

ADD AUS/47A19A1/7#50021

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BB 11.44C.2 A frequency assignment to a space station in a non-geostationary-satellite system with a reference body that is not “Earth” shall be considered as having been brought into use when the notifying administration informs the Bureau that a space station with the capability of transmitting or receiving that frequency assignment has been deployed and operated in accordance with the notification information.     (WRC‑19)

ADD AUS/47A19A1/8#50022

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CC 11.44C.4 A frequency assignment to a space station in a non-geostationary-satellite orbit with a notified date of bringing into use more than 120 days prior to the date of receipt of the notification information shall also be considered as having been brought into use if the notifying administration confirms, when submitting the notification information for this assignment, that a space station in a notified orbital plane (see also [ADD] No. **11.44C.1**) with the capability of transmitting or receiving that frequency assignment has been deployed and maintained as provided for in [MOD] No. **11.44C** for a continuous period of time from the notified date of bringing into use until the date of receipt of the notification information for this frequency assignment.     (WRC‑19)

MOD AUS/47A19A1/9#50023

11.49 Wherever the use of a recorded frequency assignment to a space station of a satellite network or to all space stations of a non-geostationary satellite system is suspended for a period exceeding six months, the notifying administration shall inform the Bureau of the date on which such use was suspended. When the recorded assignment is brought back into use, the notifying administration shall, subject to the provisions of Nos. **11.49.1** or **11.49.2** as applicable, so inform the Bureau, as soon as possible. On receipt of the information sent under this provision, the Bureau shall make that information available as soon as possible on the ITU website and shall publish it in the BR IFIC. The date on which the recorded assignment is brought back into use28, ADD DD, ADD EE, ADD FF shall be not later than three years from the date on which the use of the frequency assignment was suspended, provided that the notifying administration informs the Bureau of the suspension within six months from the date on which the use was suspended. If the notifying administration informs the Bureau of the suspension more than six months after the date on which the use of the frequency assignment was suspended, this three-year time period shall be reduced. In this case, the amount by which the three-year period shall be reduced shall be equal to the amount of time that has elapsed between the end of the six-month period and the date that the Bureau is informed of the suspension. If the notifying administration informs the Bureau of the suspension more than 21 months after the date on which the use of the frequency assignment was suspended, the frequency assignment shall be cancelled.     (WRC‑19)

ADD AUS/47A19A1/10#50024

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DD 11.49.2 The date of bringing back into use of a frequency assignment to a space station in the non-geostationary satellite orbit with the “Earth” as the reference body shall be the date of the commencement of the 90‑day period defined as follows. A frequency assignment to a space station in the non-geostationary-satellite orbit shall be considered as having been brought back into use when a space station in the non-geostationary satellite orbit with the capability of transmitting or receiving that frequency assignment has been deployed and maintained on one of the notified orbital planes for a continuous period of 90 days. The notifying administration shall so inform the Bureau within 30 days from the end of the 90‑day period.     (WRC‑19)

ADD AUS/47A19A1/11#50025

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EE11.49.3 A frequency assignment to a space station in a non-geostationary satellite system with a reference body that is not “Earth” shall be considered as having been brought back into use when the notifying administration informs the Bureau that a space station with the capability of transmitting or receiving that frequency assignment has been deployed and operated in accordance with the notification information.     (WRC‑19)

ADD AUS/47A19A1/12#50026

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FF 11.49.4In examining information provided by an administration in application of No. [ADD] **11.49.2**, the following data items in Table A in Annex II of Appendix **4** shall be used, as appropriate, to determine if at least one of the orbital planes of the space stations in the non-geostationary-satellite system deployed corresponds to one of the notified orbits:

– Item A.4.b.4.a, the inclination of the orbital plane of the space station;

– Item A.4.b.4.d, the altitude of the apogee of the space station;

– Item A.4.b.4.e, the altitude of the perigee of the space station; and

– Item A.4.b.5.c, the argument of the perigee of the orbit of the space station (only for orbits whose altitudes of the apogee and perigee are different).     (WRC‑19)

**Reasons:** Australia has chosen this option for No. **11.49.4** as it considers that the footnote should reference only those characteristics directly relevant to determine the notified orbital plane.

ADD AUS/47A19A1/13#50060

11.51 For frequency assignments to some non-geostationary-satellite systems in specific frequency bands and services, draft new Resolution **[AUS/A7(A)-NGSO-MILESTONES] (WRC‑19)** shall apply.     (WRC‑19)

ARTICLE 13

Instructions to the Bureau

Section II − Maintenance of the Master Register and of World Plans by the Bureau

MOD AUS/47A19A1/14#50061

13.6*b)* whenever it appears from reliable information available that a recorded assignment has not been brought into use, or is no longer in use, or continues to be in use but not in accordance with the notified required characteristicsADD 1 as specified in Appendix **4**, the Bureau shall consult the notifying administration and request clarification as to whether the assignment was brought into use in accordance with the notified characteristics or continues to be in use in accordance with the notified characteristics. Such a request shall include the reason for the query. In the event of a response and subject to the agreement of the notifying administration the Bureau shall cancel, suitably modify, or retain the basic characteristics of the entry. If the notifying administration does not respond within three months, the Bureau shall issue a reminder. In the event the notifying administration does not respond within one month of the first reminder, the Bureau shall issue a second reminder. In the event the notifying administration does not respond within one month of the second reminder, action taken by the Bureau to cancel the entry shall be subject to a decision of the Board. In the event of non-response or disagreement by the notifying administration, the entry will continue to be taken into account by the Bureau when conducting its examinations until the decision to cancel or modify the entry is made by the Board. In the event of a response, the Bureau shall inform the notifying administration of the conclusion reached by the Bureau within three months of the administration’s response. When the Bureau is not in a position to comply with the three-month deadline referred to above, the Bureau shall so inform the notifying administration together with the reasons therefor. In case of disagreement between the notifying administration and the Bureau, the matter shall be carefully investigated by the Board, including taking into account submissions of additional supporting materials from administrations through the Bureau within the deadlines as established by the Board. The application of this provision shall not preclude the application of other provisions of the Radio Regulations.    (WRC‑19)

ADD AUS/47A19A1/15#50062

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1 13.6.1 See also [ADD] No. **11.51**, frequency assignments to non-geostationary-satellite systems recorded in the Master Register.     (WRC‑19)

ADD AUS/47A19A1/16

DRAFT NEW RESOLUTION [AUS/A7(A)-NGSO-Milestones] (WRC-19)

A milestone-based approach for the implementation of frequency assignments   
to space stations in a non-geostationary-orbit satellite system   
in certain frequency bands and services

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

considering

*a)* that filings for frequency assignments to non-geostationary orbit (non-GSO) satellite systems composed of hundreds to thousands of non-GSO satellites have been received by ITU since 2011 in particular in frequency bands allocated to the fixed-satellite service (FSS) or the mobile-satellite service (MSS);

*b)* that design considerations, availability of launch vehicles to support multiple satellite launches, and other factors mean that notifying administrations may require longer than the regulatory period stipulated in [MOD] No. **11.44** to complete implementation of non-GSO systems referred to in *considering* *a)*;

*c)* that any discrepancies between the deployed number of orbital planes and the number of satellites per orbital plane of a non-GSO system and the Master Register have, to date, not significantly impinged upon the efficient use of orbital and spectrum resources in any frequency band used by non-GSO systems;

*d)* that the bringing into use and the recording in the Master International Frequency Register (MIFR) of frequency assignments to space stations in non-GSO systems by the end of the period referred to in [MOD] No. **11.44** do not require confirmation by the notifying administration of the deployment of all satellites associated with these frequency assignments;

*e)* that ITU-R studies have shown that the adoption of a milestone-based approach will provide a regulatory mechanism to help ensure that the MIFR reasonably reflects the actual deployment of such non-GSO satellite systems in certain frequency bands and services, and improve the efficient use of orbital and spectrum resources in those frequency bands and services;

*f)* that in defining the timeline and objective criteria for the milestone-based approach, there is a need to seek a balance between the prevention of spectrum warehousing, the proper functioning of coordination mechanisms, and the operational requirements related to the deployment of a non-geostationary satellite system;

*g)* that extensions to milestones are undesirable, as they create uncertainty with respect to the non-GSO FSS system with which other systems must coordinate,

recognizing

*a)* that [MOD] No. **11.44C** addresses the bringing into use of frequency assignments to non-GSO satellite systems;

*b)* that any new regulatory mechanism for management of frequency assignments to non-GSO systems in the Master Register should not impose an unnecessary burden;

*c)* that since No. **13.6** is applicable to non-GSO systems with frequency assignments that were confirmed to have been brought into use prior to 1 January 2021 in the frequency bands and services to which this Resolution applies, transitional measures are required to provide affected notifying administrations the opportunity to either confirm deployment of satellites in accordance with the notified required characteristics as specified in Appendix **4**, or to complete deployment in accordance with this Resolution;

*d)* that for frequency assignments to non-GSO systems brought into use and having reached the end of the period referred to in No. **11.44** prior to 1 January 2021 in the frequency bands and services to which this Resolution applies, affected notifying administrations should be given the opportunity to either confirm the completion of the deployment of satellites in accordance with the Appendix **4** characteristicsof their recorded frequency assignments, or be given sufficient time to complete deployment in accordance with this Resolution;

*e)* that it is not necessary or appropriate for the Bureau, in the interest of improving the efficient use of orbital and spectrum resources or otherwise, to routinely use the procedures of No. **13.6** to seek confirmation of the deployment of the number of satellites in notified orbital planes for non-geostationary-satellite orbit systems in frequency bands and services not listed in *resolves*1of this Resolution;

*f)* that No. **11.49** addresses the suspension of recorded frequency assignments to a space station of a satellite network or to space stations of a non-geostationary satellite system,

recognizing further

that this Resolution relates to those aspects of non-GSO systems to which *resolves*1 applies with regard to the notified required characteristics as specified in Appendix **4**. The conformity of the notified required characteristics of the non-GSO systems other than those referred to in *recognizing d)* above is outside the scope of this Resolution,

noting

that for the purpose of this Resolution:

– the term “frequency assignments” is understood to refer to frequency assignments to a space station of a non-geostationary satellite system;

– the term “notified orbital plane” means an orbital plane of the non-GSO system, as provided to the Bureau in the most recent advance publication, coordination or notification information for the system’s frequency assignments, that possesses the general characteristics of Items A.4.b.4.a to A.4.b.4.f, and Item A.4.b.5.c (only for orbits whose altitudes of the apogee and perigee are different) in Table A of Annex 2 to Appendix **4**;

− the term “total number of satellites” is understood to mean the sum of the various values of Appendix **4** data item A.4.b.4.b associated with the notified orbital planes,

resolves

1 that this Resolution applies to frequency assignments to non-geostationary satellite systems brought into use in accordance with [MOD] Nos. **11.44** and [MOD] **11.44C**,in the frequency bands and for the services listed in the Table below:

Frequency bands and services for application of the milestone-based approach

|  |  |  |  |
| --- | --- | --- | --- |
| Bands (MHz) | Space radiocommunication services | | |
|  | Region 1 | Region 2 | Region 3 |
| 137-137.025 | MOBILE-SATELLITE (space-to-Earth) | | |
| 137.025-137.175 | Mobile-satellite (space-to-Earth) | | |
| 137.175-137.825 | MOBILE-SATELLITE (space-to-Earth) | | |
| 137.825-138 | Mobile-satellite (space-to-Earth) | | |
| 148-149.9 | MOBILE-SATELLITE (Earth-to-space) | | |
| 149.9-150.05 | MOBILE-SATELLITE (Earth-to-space) | | |
| 399.9-400.05 | MOBILE-SATELLITE (Earth-to-space) | | |
| 400.15-401 | MOBILE-SATELLITE (space-to-Earth) | | |
| Bands (GHz) | Space radiocommunication services | | |
| Region 1 | Region 2 | Region 3 |
| 10.70-11.70 | FIXED-SATELLITE (space-to-Earth)  FIXED-SATELLITE (Earth-to-space) | FIXED-SATELLITE (space-to-Earth) | |
| 11.70-12.50 | FIXED-SATELLITE (space-to-Earth) | | |
| 12.50-12.70 | FIXED-SATELLITE (space-to-Earth)  FIXED-SATELLITE (Earth-to-space) | FIXED-SATELLITE (space-to-Earth) | BROADCASTING-SATELLITE  FIXED-SATELLITE (space-to-Earth) |
| 12.7-12.75 | FIXED-SATELLITE (space-to-Earth)  FIXED-SATELLITE (Earth-to-space) | FIXED-SATELLITE (Earth-to-space) | BROADCASTING-SATELLITE  FIXED-SATELLITE (space-to-Earth) |
| 12.75-13.25 | FIXED-SATELLITE (Earth-to-space) | | |
| 13.75-14.50 | FIXED-SATELLITE (Earth-to-space) | | |
| 17.30-17.70 | FIXED-SATELLITE (space-to-Earth)  FIXED-SATELLITE (Earth-to-space) | None | FIXED-SATELLITE (Earth-to-space) |
| 17.70-17.80 | FIXED-SATELLITE (space-to-Earth)  FIXED-SATELLITE (Earth-to-space) | FIXED-SATELLITE (space-to-Earth) | FIXED-SATELLITE (space-to-Earth)  FIXED-SATELLITE (Earth-to-space) |
| 17.80-18.10 | FIXED-SATELLITE (space-to-Earth)  FIXED-SATELLITE (Earth-to-space) | | |
| 18.10-19.30 | FIXED-SATELLITE (space-to-Earth) | | |
| 19.30-19.60 | FIXED-SATELLITE (space-to-Earth) (Earth-to-space) | | |
| 19.60-19.70 | FIXED-SATELLITE (space-to-Earth) (Earth-to-space) | | |
| 19.70-20.10 | FIXED-SATELLITE (space-to-Earth) | FIXED-SATELLITE (space-to-Earth)  MOBILE-SATELLITE (space-to-Earth) | FIXED-SATELLITE (space-to-Earth) |
| 20.10-20.20 | FIXED-SATELLITE (space-to-Earth)  MOBILE-SATELLITE (space-to-Earth) | | |
| 27.00-27.50 |  | FIXED-SATELLITE (Earth-to-space)  INTER-SATELLITE | |
| 27.50-29.50 | FIXED-SATELLITE (Earth-to-space) | | |
| 29.50-29.90 | FIXED-SATELLITE (Earth-to-space) | FIXED-SATELLITE (Earth-to-space)  MOBILE-SATELLITE (Earth-to-space) | FIXED-SATELLITE (Earth-to-space) |
| 29.90-30.00 | FIXED-SATELLITE (Earth-to-space)  MOBILE-SATELLITE (Earth-to-space) | | |
| 37.50-38.00 | FIXED-SATELLITE (space-to-Earth) | | |
| 38.00-39.50 | FIXED-SATELLITE (space-to-Earth) | | |
| 39.50-40.50 | FIXED-SATELLITE (space-to-Earth)  MOBILE-SATELLITE (space-to-Earth) | | |
| 40.50-41.25 | FIXED-SATELLITE (space-to-Earth)  BROADCASTING-SATELLITE | | |
| 47.20-50.20 | FIXED-SATELLITE (Earth-to-space) | | |
| 50.40-51.40 | FIXED-SATELLITE (Earth-to-space) | | |

*Note: In addition to the frequency bands contained in the table above, for which consensus was agreed for inclusion in the example of a draft new WRC Resolution, other frequency bands were proposed. These frequency bands, for which no consensus to include in the example draft new WRC Resolution was reached at CPM, are shown in the table below.*

*Australia has no objection at this stage to inclusion of the following bands:*

|  |  |  |  |
| --- | --- | --- | --- |
| Bands (GHz) | Region 1 | Region 2 | Region 3 |
| 3.400-4.200 | FIXED-SATELLITE (space-to-Earth) | | |
| 5.091-5.150 | Option 1:  FIXED-SATELLITE (Earth-to-space)  Option 2:  FIXED-SATELLITE (Earth-to-space)  AERONAUTICAL MOBILE-SATELLITE (R) | | |
| 5.150-5.250 | FIXED-SATELLITE (Earth-to-space) | | |
| 5.725-5.85 | FIXED-SATELLITE (Earth-to-space) |  | |
| 5.85-6.70 | FIXED-SATELLITE (Earth-to-space) | | |
| 6.70-6.725 | FIXED-SATELLITE (Earth-to-space)  FIXED-SATELLITE (space-to-Earth) | | |
| 6.725-7.025 | FIXED-SATELLITE (space-to-Earth) | | |
| 7.025-7.075 | FIXED-SATELLITE (Earth-to-space)  FIXED-SATELLITE (space-to-Earth) | | |
| 14.5-14.8 | FIXED-SATELLITE SERVICE (Earth-to-space) | | |
| 15.43-15.63 | FIXED-SATELLITE (Earth-to-space) | | |
| 21.4-22.0 | BROADCASTING-SATELLITE |  | BROADCASTING-SATELLITE |
| 24.65-24.75 | FIXED-SATELLITE (Earth-to-space)  INTER-SATELLITE |  | FIXED-SATELLITE (Earth-to-space)  INTER-SATELLITE |
| 24.75-25.25 | FIXED-SATELLITE (Earth-to-space) | | |
| 42.5-43.5 | FIXED-SATELLITE (Earth-to-space) | | |
| 43.5-47 | Option 1:  MOBILE-SATELLITE  Option 2:  MOBILE-SATELLITE  RADIONAVIGATION-SATELLITE | | |

2 that for the frequency assignments to which *resolves* 1 applies, and for which the end of the seven-year regulatory period is 1 January 2021 or later, the notifying administration shall communicate to the Bureau the required deployment information in accordance with Annex 1 to this Resolution no later than 30 days after the end of the regulatory period specified in [MOD]  No.**11.44** or 30 days after the end of the bringing into use period referred to in [MOD] No. **11.44C**, whichever comes later;

3 that for frequency assignments to which *resolves* 1 applies, and for which the end of the seven-year regulatory period specified in [MOD] No. **11.44** has expired prior to 1 January 2021, the notifying administration shall communicate to the Bureau the required deployment information in accordance with Annex 1 to this Resolution no later than 1 February 2021;

4 that upon receipt of the required deployment information submitted in accordance with *resolves* 2or3 above, the Bureau shall:

*a)* promptly make this information available “as received” on the ITU website;

*b)* add a remark to the Master Register entry if available or to latest notification information, as appropriate, stating that the assignments are subject to the application of this Resolution if the number of satellites communicated to the Bureau under *resolves*2 or3aboveis less than 100% of the total number of satellites indicated in the latest notification information published in the BR IFIC (Part I‑S) for the frequency assignments; and

*c)* publish the results of action taken pursuant to *resolves* 4*b)* above in the BR IFIC and the ITU website;

5 that, if the number of satellites (rounded down to the lower integer) communicated to the Bureau under *resolves* 2 or 3 above is equal to the total number of satellites indicated in the latest notification information published in the BR IFIC (Part I‑S) for the frequency assignments, no further action is required under the subsequent *resolves* of this Resolution;

6 that, for the frequency assignments to which *resolves* 2 applies, the notifying administration shall communicate to the Bureau the required deployment information in accordance with Annex 1 to this Resolution for the milestone period mentioned in subsections *a)* through *c)* of this *resolves* 6:

*a)* no later than 30 days after the expiry of the 3-year period after the end of the seven-year period referred to in [MOD] No. **11.44**;

*b)* no later than 30 days after the expiry of the 5-year period after the end of the seven-year period referred to in [MOD] No. **11.44**;

*c)* no later than 30 days after the expiry of the 7-year period after the end of the seven-year period referred to in [MOD] No. **11.44**;

7 that, for the frequency assignments to which *resolves* 3 applies, the notifying administration shall communicate to the Bureau the required deployment information in accordance with Annex 1 to this Resolution for the milestone period mentioned in subsections *a)* through *c)* of this *resolves* 7:

*a)* no later than 31 January 2024 (corresponding to 30 days after the expiry of the 3-year period after 1 January 2021);

*b)* no later than 31 January 2026 (corresponding to 30 days after the expiry of the 5-year period after 1 January 2021);

*c)* no later than 31 January 2028 (corresponding to 30 days after the expiry of the 7-year period after 1 January 2021);

8 that, upon receipt of the required deployment information submitted in accordance with *resolves* 6 or 7, the Bureau shall:

*a)* promptly make this information available “*as received*” on the ITU website;

*b)* conduct an examination of the information provided for compliance with the minimum number of satellites to be deployed as prescribed for each period in *resolves* 9*a)*, 9*b)* or 9*c)* as appropriate;

*c)* modify the Master Register entry if available or latest notification information, as appropriate, for the frequency assignments to the system to remove the remark stating that the assignments are subject to the application of this Resolution if the number communicated to the Bureau under *resolves* 6, or *resolves* 7, is equal to the total number of satellites indicated in the Master Register entry for the non-geostationary satellite system;

*d)* publish this information and its findings in the BR IFIC;

9that, the notifying administration shall also submit to the Bureau, no later than 90 days after the expiry of the milestone period referred to in *resolves* 6*a),* 6*b),*6*c)* or *resolves* 7*a),* 7*b),*7*c),* as appropriate, the modifications to the characteristics of the notified or recorded frequency assignments if the number of space stations declared as deployed,

*a)* under *resolves* 6*a)* or7*a)*, as appropriate,is less than 10% of the total number of satellites (rounded down to the lower integer) indicated in the latest notification information published in the Part I-S of the BR IFIC for the frequency assignments. In this case, the modified total number of satellites shall not be greater than 10 times the number of space stations declared as deployed under *resolves* 6*a)* or7*a)*;

*b)* under *resolves* 6*b)* or7*b)*, as appropriate, is less than 30% of the total number of satellites (rounded down to the lower integer) indicated in the latest notification information published in Part I‑S of the BR IFIC for the frequency assignments. In this case, the modified total number of satellites shall not be greater than 3.33 times the number of space stations declared as deployed under *resolves* 6*b)* or7*b)*;

*c)* under *resolves* 6*c)* or7*c)*, as appropriate,is less than the total number of satellites indicated in the latest notification information published in Part I‑S of the BR IFIC for the frequency assignments. In this case, the modified total number of satellites shall be equal to the number of space stations declared as deployed under *resolves* 6*c)* or7*c)*;

10 that the Bureau shall, no later than 45 days before any deadline for submission by a notifying administration under *resolves*2, *resolves*3, subsections *a)*, *b)* or *c)* of *resolves*6 and subsections *a)*, *b)* or *c)* of *resolves* 7, send a reminder to the notifying administration to provide the information required;

11 that, upon receipt of the modifications to the characteristics of the notified or recorded frequency assignments as referred to in *resolves* 9:

*a)* the Bureau shall promptly make this information available “as received” on the ITU website;

*b)* the Bureau shall conduct an examination for compliance with the maximum number of satellites as per *resolves* 9*a)*, 9*b)* or 9*c)* and Nos. **11.43A** and **11.43B**, as appropriate;

*c)* the Bureau, for the purpose of No. **11.43B**, shall not treat these modifications as new notifications of frequency assignments and shall retain the original dates of entry of the frequency assignments in the Master Register if;

i) the Bureau reaches a favourable finding under No.**11.31**; and

ii) the modifications are limited to the reduction of the number of orbital planes (Appendix **4** data item A.4.b.1) and the modifications to the RAAN (Appendix **4** data item A.4.b.5.a) the longitude of the ascending node (Appendix **4** data item A.4.b.6.g) and the date and time of epoch (Appendix **4** data items A.4.b.6.h and A.4.b.6.i) associated with the remaining orbital planes or the reduction of the number of space stations per plane (Appendix **4** data item A.4.b.4.b) and the modifications of the initial phase of the space stations (Appendix **4** data item A.4.b.5.b) within planes; and

iii) the notifying administration provide a commitment stating that the characteristics as modified will not cause more interference or require more protection than the characteristics provided in the latest modification information published in Part I‑S of the BR IFIC for the frequency assignments (see Appendix **4** data item A.20);

*d)* the Bureau shall ensure the remark stating that the assignments are subject to the application of this Resolutionas defined in *resolves* 6 or 7 is retained until the milestone process of this Resolution is complete;

*e)* the Bureau shall publish the information provided and its findings in the BR IFIC;

12 that, if a notifying administration fails to communicate the information required under *resolves* 2 or *resolves*3, *resolves* 6*a),* 6*b)* or 6*c)* or *resolves* 7*a)*, 7*b)* or 7*c)*, as appropriate, the Bureau shall promptly send to the notifying administration a reminder asking the administration to provide the required information within 30 days from the date of reminder from the Bureau;

13 that, if a notifying administration fails to provide information after the reminder sent under *resolves* 12, the Bureau shall send to the notifying administration a second reminder asking it to provide the required information within 15 days from the date of the second reminder;

14 that, if a notifying administration fails to provide the required information under *resolves*12 and 13, the Bureau shall treat the case as it would treat a non-response case under No. **13.6**, and continue to take the entry into account when conducting its examinations until the decision is made by the Board to cancel the entry or modify the entry by suppressing the notified orbital parameters of all satellites not listed in the last complete deployment information submitted under *resolves* 6 or 7, as appropriate;

15 that, for frequency assignments suspended under [MOD] No. **11.49**, the date of bringing back into use of frequency assignments shall be no later than the date set as per [MOD] No. **11.49** or the date of the first next milestone as per *resolves* 6*a)*, 6*b)* or 6*c)* or *resolves* 7*a)*, 7*b)* or 7*c)* as appropriate, whichever date comes first;

16 that the suspension of frequency assignments in accordance with [MOD] No. **11.49** does not extend the milestone period as specified in *resolves* 6*a)*, 6*b)* or 6*c)* or *resolves* 7*a)*, 7*b)* or 7*c)*, as applicable, nor reduce the requirements associated with any of the remaining milestones as derived from *resolves* 6*a)*, 6*b)* or 6*c)* or *resolves* 7*a)*, 7*b)* or 7*c)*, as appropriate;

17 that, in the event that the total number of satellites of the non-GSO system remains, for a continuous period of three years, lower than 100% (rounded down to the lower integer) of the total number of satellites recorded in the Master Register after application of the third milestone, the notifying administration shall, within 90 days from the end of the three-year period, inform the Bureau of the total number of satellites of the non-GSO system at the end of the three-year period and the Bureau shall suitably modify the entry in accordance with *resolves* 14.

instructs the Radiocommunication Bureau

to take the necessary actions to implement this Resolution and to report any difficulties it encounters in the implementation of this Resolution to the upcoming WRC.

Annex 1 to draft new  
Resolution [AUS/A7(A)-NGSO-MILESTONES] (WRC-19)

Information to be submitted about the deployed space stations

A Satellite system information

1 Name of the satellite system

2 Name of the notifying administration

3 Total number of space stations deployed.

B Launch information to be provided for each deployed space station

1 Name of the launch vehicle provider

2 Name and location of the launch facility

3 Launch date.

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 AUS/47A19A1/17#50064

**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.18** | **COMPLIANCE WITH NOTIFICATION OF AIRCRAFT EARTH STATION(S)** |  | | | | | | | | | **A.18** |  |
| A.18.a | a commitment that the characteristics of the aircraft earth station (AES) in the aeronautical mobile-satellite service are within the characteristics of the specific and/or typical earth station published by the Bureau for the space station to which the AES is associated  Required only for the band 14-14.5 GHz, when an aircraft earth station in the aeronautical mobile-satellite service communicates with a space station in the fixed-satellite service |  |  |  | **+** | **+** |  |  |  |  | A.18.a |  |
| **A.19** | **COMPLIANCE WITH § 6.26 OF ARTICLE 6 OF APPENDIX 30B** |  |  |  |  |  |  |  |  |  | **A.19** |  |
| A.19.a | a commitment that the use of the assignment shall not cause unacceptable interference to, nor claim protection from, those assignments for which agreement still needs to be obtained  Required if the notice is submitted under § 6.25 of Article 6 of Appendix **30B** |  |  |  |  |  |  |  |  | **+** | A.19.a |  |
| **A.20** | **COMPLIANCE WITH *resolves* 11c)iii) OF RESOLUTION [AUS/A7(a)-NGSO-MILESTONES] (WRC-19)** |  |  |  |  |  |  |  |  |  | **A.20** |  |
| A.20.a | a commitment stating that the characteristics as modified will not cause more interference or require more protection than the characteristics provided in the latest notification information published in Part I‑S of the BR IFIC for the frequency assignments to the non-geostationary satellite system |  |  |  |  |  | **0** |  |  |  |  |  |

**Reasons:** Consequential modification of RR Appendix **4** to include a new item referred to in *resolves* 11c)iii) of the draft new Resolution.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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)