



PLENARY MEETING

**Addendum 26 to
Document 6238-E
9 October 2023
Original: English**

African Common Proposals

PROPOSALS FOR THE WORK OF THE CONFERENCE

Agenda item 9.3

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

9.3 on action in response to Resolution 80 (Rev.WRC 07);

Summary

The proposals in the Annex to this document contain the ATU responses to some of the elements in the Report by the Radio Regulations Board to WRC-23 on Resolution **80 (Rev.WRC-07)**.

ANNEX

ATU Response to Resolution 80 (Rev.WRC-07)

Report by the Radio Regulations Board to WRC-19

AFCP/6238A26/1

1 Introduction

Resolves 2 of Resolution 80 (Rev.WRC-07) includes the following instruction to the RRB:

2 to instruct the RRB to consider and review possible draft recommendations and draft provisions linking the formal notification, coordination and registration procedures with the principles contained in Article 44 of the Constitution and No. 0.3 of the Preamble to the Radio Regulations, and to report to each future World Radiocommunication Conference with regard to this Resolution;

The RRB Report on Resolution 80 (Rev.WRC-07) was submitted to WRC-23 (Doc. 50). The ATU thanks the Board for its diligence and detail in identifying issues in Section 4 of the Report. Views on some of these elements are provided below.

2 Comments on Particular Issues

2.1 Linkage between bringing into use and notification for recording in the Master International Frequency Register of frequency assignments (MIFR) and Issues related to Resolution 40 (Rev. WRC-19).

In Section 4.3, the Report discusses whether the bringing into use of frequency assignments in Appendices 30, 30A and 30B with a satellite that is subsequently relocated prior to the notification submission should be permitted, noting (1) that §4.1.18 of Appendices 30 and 30A does not apply with respect to a frequency assignment in the Regions 1 and 3 Plan, or in the Region 2 Plan, or for which the procedure of § 4.2 of Appendices 30 and 30A has been initiated, (2) that §4.2.21A of Appendices 30 and 30A does not apply with respect to a frequency assignment in the Region 2 Plan, or in the Regions 1 and 3 Plan or List, or for which the procedure of § 4.1 or 4.2 has been initiated, and (3) that § 6.25 of Article 6 of Appendix 30B does not apply with respect to allotments in the Plan

The Board noted that administrations had been informed in CR/343, CCRR/49 and CCRR/52 about the link between the 90-day period for the bringing into use of frequency assignments and the notification procedure, and the matter had been discussed extensively within the relevant study groups, the RRB and at WRC-15. WRC-15 had adopted No. 11.44B.2 to discourage the practice of satellite hopping and its application had not given rise to any difficulties. The Board was of the view that there were no remaining ambiguities about how the Bureau or the Board should treat cases of non-planned services when the notified date of bringing into use is more than 120 days prior to the date of receipt of the notification information.

In addition to that in section 4.11 the RRB brought to attention difficulties that could happen due to satellite hopping and states that *“The Board is of the view that the key indicator of potential misuse is rather when frequency assignments are repeatedly brought into use or brought back into use only for a short period of time. This type of practice allows an administration to maintain its recording in the MIFR (which maintains the international recognition and rights for protection of the*

frequency assignments to the GSO satellite networks) by simply satisfying the BIU/BBIU requirements without maintaining any satellite with the required transmitting and receiving capability beyond the required 90-day BIU/BBIU period. Such a practice is contrary to the principles of Article 44 of the Constitution, the intent of the Radio Regulations and the essence of the regulatory provisions governing access to the radio spectrum and geostationary orbit.

4.11.3 The Board also noted with concern a recent case reported by the Bureau of “satellite hopping without moving,” whereby a single satellite located at orbital position “A” had been used to bring into use assignments to satellite networks notified at orbital position “B” less than 0.5° away from position “A.” Those networks had been suspended after several years of operation and the satellite, still physically located at position “A,” had then been used to bring into use frequency assignments to satellite networks at orbital position “C,” still less than 0.5° away from the satellite’s physical position. The case showed that notifying administrations could keep networks at two positions with a single physical satellite at a third position by suspending the networks in sequence every three years without suffering any loss of service for having to remain at a different position for 90 days or loss of fuel for drifting to a different position. When WRC-15 adopted Resolution 40, the operational costs of using one space station to bring into use frequency assignments at different orbital locations within a short period of time had been deemed to be sufficiently high to minimize potential misuse. However, when the practice does not involve any satellite relocation, the cost-related assumption that had led to the adoption of Resolution 40 (WRC-15) no longer applies. The Board is of the view that such practice also clearly runs contrary to the principles of the Union’s instruments in relation to the rational, efficient and economical use of, and equitable access to, frequency and orbital resources.”

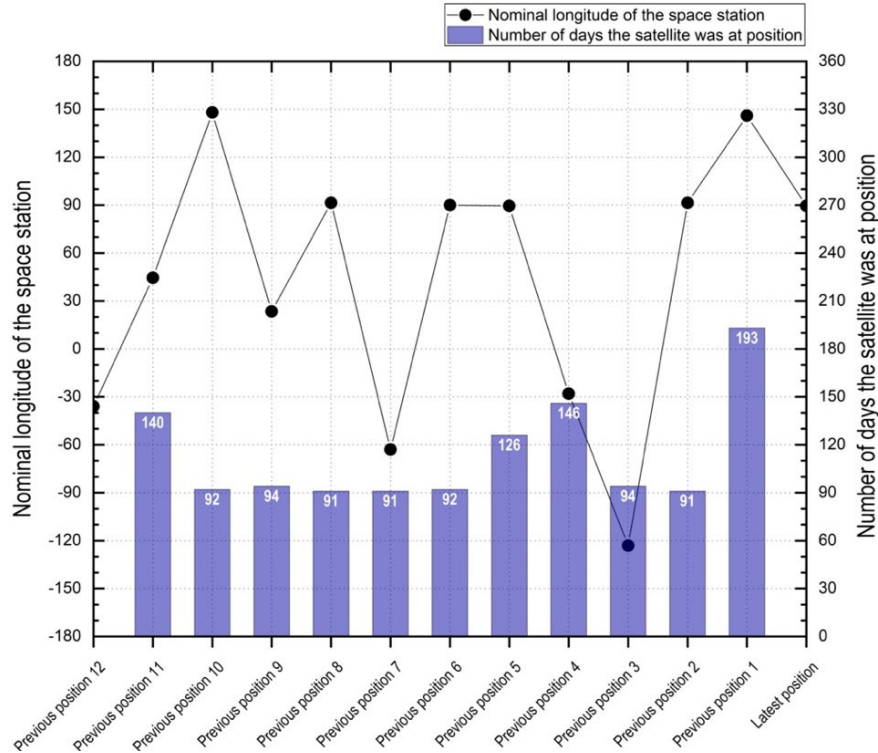
In addition to that Document [4A/402](#) from the Bureau provided an updated version of Resolution 40 (Rev.WRC-19) statistics from 28 November 2015 until 4 October 2021 was provided to WP4A. Table 1 below shows the number of submissions under Resolution 40 (Rev.WRC-19) against the number of orbital positions at which a space station mentioned in a Resolution 40 (Rev.WRC-19) submission was previously used.

TABLE 1
Statistics of submissions under Resolution 40 (Rev.WRC-19)

Number of positions at which the space station was used previously	Number of Res. 40 submissions	Percentage (%)
0	479	71.07
1	113	16.77
2	34	5.04
3	25	3.71
4	7	1.04
5	3	0.45
6	5	0.74
7	3	0.45
8	1	0.15
9	1	0.15
10	1	0.15
11	1	0.15
12	1	0.15

Document 4A/550 presented an analysis of the Resolution 40 (Rev.WRC-19) data from the BR indicates the following:

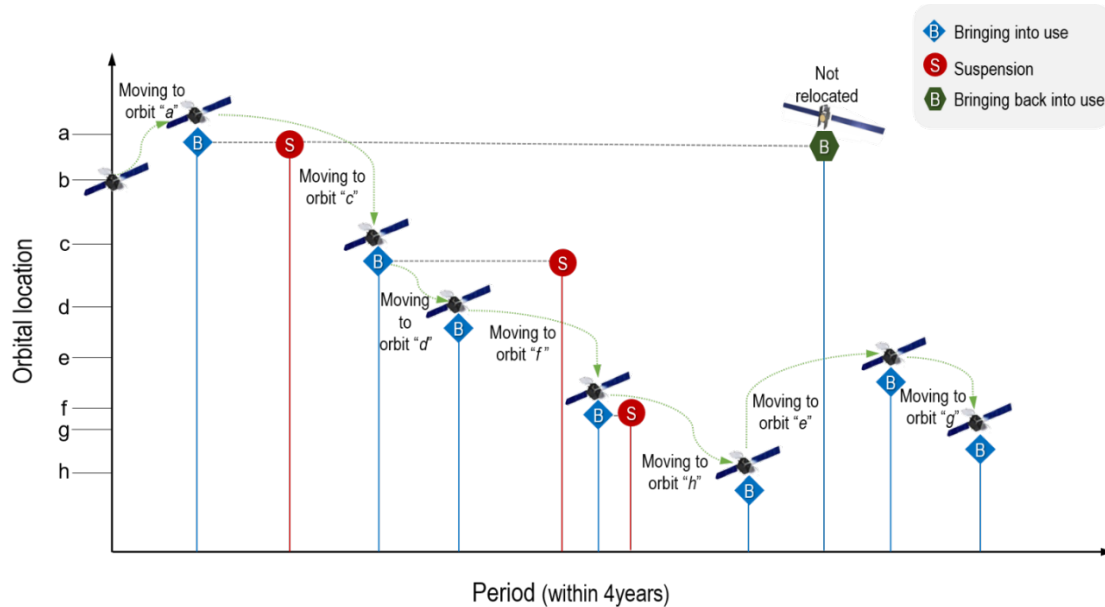
- a) It should be noted that there is a case of a single space station being used to bring into use (BIU), or bring back into use (BBIU), frequency assignments at twelve orbital locations, As shown in the figure, one single space station has been used to BIU or BBIU frequency assignments at twelve orbital locations and has been maintained for the period from 91 days to 193 days at an orbital position before the space station moved to other orbit, and in the case of 7 out of 11, the space station has been maintained at an orbital position just before moving to other orbital position, for only around 90 days which are minimum continuous period required under RR Nos. **11.44B** and **11.49.1**.



- b) As reported by the Bureau at WRC-19, it should be also noted that there is an example of a satellite bringing into use, or bringing back into use after suspension, frequency assignments at 8 different orbital positions within 4 years since November 2015 as shown in Figure 4/7/8.2-1. While recognizing that there must be a certain legitimate reason to need to move a spacecraft from one orbital position to a new orbital position, this situation shows that the provisions of the Radio Regulations including Nos. **11.44B** and **11.49** and Resolution **40 (Rev.WRC-19)** were excessively used to reserve satellite orbit and spectrum resources and concerns have been raised about the situation based on No. 196 of the Constitution.

FIGURE 4/7/8.2-1

Approximate situation showing a satellite bringing into use, or bringing back into use after suspension, frequency assignments at 8 different orbital positions



3 Proposal:

The African administrations would like to emphasise that this approach turned satellite operators that had in-orbit satellites available for leasing only. Even if the cases occur at a small rate, the use of satellite network resources by other administrations could be restricted by those cases. Therefore, it would be required to develop appropriate regulatory measures to prevent further cases of the excessive use of the relevant regulatory provisions in the future and to ensure the rational, efficient and economical use of and equitable access to radio frequencies and the geostationary-satellite orbit;

ATU support RRB proposal to further limit spectrum reservation practices, WRC-23 is invited to request the ITU-R to study possible measures to restrain the use of the same satellite or different satellites to repeatedly bring into use and bring back into use the same frequency assignments of a satellite network or system for a short period of time only for consideration at a future competent WRC.

ATU are in the view that modifications to RR Article 11 could be done to apply continuous period requirement differently according to the number of times a space station has previously been used to bring into use (BIU) or bring back into use (BBIU) frequency assignments, this requirement could be more strict in case where a space station has been used alternatively only in two orbital positions separated less than 1 degree.

AFCP/6238A26/2

Introduction

In accordance with Resolution **559 (WRC-19)** and the associated instructions to the Bureau (BR) from WRC-19, the Bureau has identified 55 Administrations eligible to apply the Special Procedure described in the said Resolution. These 55 Administrations have been listed in Circular Letter CR/455 of 21 February 2020 on the implementation of Resolution **559 (WRC-19)**.

45 Administrations out of the 55 eligible Administrations applied the above-mentioned Special Procedure by sending a request together with a submission¹, consisting of one notice for downlink and another notice for feeder-link.

90 Part A Special Sections corresponding to the 45 Res.559 submissions were published by the Bureau in BR IFIC 2932 of 27 October 2020.

The coordination process with affected Administrations begun on 27 February 2021 after the end of the four-month commenting period.

In order to be on time for consideration of WRC-23, 41 of out the 45 Administrations have submitted Part B of their Res.559 submissions before end of January 2023. 82 Part B Special Sections were published by the Bureau in BR IFIC 2993 of 4 April 2023 for the inclusion of frequency assignments of these Res.559 submissions in the List of additional uses of Appendices **30** and **30A**.

Frequency Coordination of Res.559 submissions

Based on the technical examination of the Bureau as published in the Part A Special Sections in BR IFIC 2932 of 27 October 2020, there are total of 100 potentially affected Administrations involving 1459 frequency coordination cases.

The Res.559 Administrations have not only actively carried out the frequency coordination but also submitted various proposals to the Radio Regulations Board (RRB) and ITU-R Working Party 4A (WP4A) in order to facilitate the required frequency coordination.

For the 41 Res.559 submissions for which Part B have been submitted, there are a total of 1393 frequency coordination cases involved. Thanks to the decisions of RRB, the technical advice of WP4A, the active roles of Res.559 Administrations and the assistance of the Bureau, 87.08% of the frequency coordination cases have been completed. Nevertheless, there are 180 frequency coordination cases which are yet to be completed. Statistics of major remaining coordination cases are as follows:

Total	Coordination under A30#4.1.1b)	Coordination under A30#4.1.1e)	Coordination under A30A#4.1.1b)
180	87	60	26
Percentage	48.3%	33.3%	14.4%

¹ Submissions under Resolution 559 (WRC-19) and under Article 4 of RR Appendices 30 and 30A from the Administrations of Mauritius, Madagascar and Seychelles. They are referred to as Res.559 submissions.

With respect to the remaining coordination cases under A30A#4.1.1b), the issue is due to the fact that the potentially affected Appendix 30A Article 4 submissions have global coverage leading to very high receiving sensitivity over the national territories of the concerned Res.559 Administrations. This issue is being addressed under Topic F of Agenda item 7 of WRC-23.

With respect to remaining coordination cases under A30#4.1.1b) and A30#4.1.e), the main issue is relating to two Administrations, which account for 64.4 % of the total number of frequency coordination cases.

Proposals

In view of the above and noting the intention of WRC-19 while adopting Resolution **559 (WRC-19)**, the following proposals are submitted for the consideration of WRC-23.

- 1 The submitting Administrations propose WRC-23 to endorse all the suggestions made by RRB and BR relating to the implementation of Resolution **559 (WRC-19)** as contained in their reports to WRC-23;
- 2 With respect to the remaining coordination cases under § 4.1.1 b) of Appendix **30**, the submitting Administrations propose WRC-23 to approve the following measures/proposals:
 - a) The notifying Administration of an additional use (i.e. assignments in the List and/or pending Article 4 networks) to accept possible interference produced to its test-points located within - 3 dB antenna gain contour of the Res.559 submission concerned due to the fact that the ellipse is already the minimum one validated by the Bureau;
 - b) The notifying Administration of an additional use (i.e. assignments in the List and/or pending Article 4 networks) to accept possible interference produced to its test-points located beyond - 20 dB antenna gain contour of the Res.559 submission concerned;
 - c) If the Equivalent protection margin (EPM) of a test-point of an additional use network is less than -10 dB at the time of examination by the Bureau of Part A of Res.559 submissions, that test-point should not be considered by the Bureau in reviewing the finding of the Res.559 submission concerned;
 - d) A coordination is deemed to be completed if the nominal orbital separation between a Res.559 submission and an additional use network is equal to or greater than 6 degrees;
- 3 With respect to the remaining coordination cases under § 4.1.1 e) of Appendix **30**, the submitting Administrations propose WRC-23 to approve the following measures/proposals:
 - a) A coordination is deemed to be completed if the nominal orbital separation between a Res.559 submission and non-planned satellite network concerned is equal to or greater than 6 degrees;
 - b) The service area of a non-planned satellite network to be considered shall be on land and located within – 3 dB antenna gain contour of that non-planned satellite network instead of the submitted service area which may include the area with very low relative antenna gain contour. It is noted that the non-planned satellite network only protects a Res.559 submission in a service area on land and situated within its – 3 dB antenna gain contour;

- c) If an Administration agrees not to protect the area, situated inside its national territory, in which the pfd (power-flux density) limit is exceeded, that part of the service area shall not be considered by the Bureau in reviewing the remaining coordination requirements of a Res.559 submission;
- d) The notifying Administration of a non-planned satellite network to accept possible interference produced to its service area located beyond - 20 dB antenna gain contour of the Res.559 submission concerned;

4 With respect to the remaining coordination cases under § 4.1.1 b) of Appendix **30A**, the submitting Administrations propose WRC-23 to approve that the remaining coordination cases are deemed to be completed due to the fact that:

- a) The Article 4 satellite networks have very large coverage with very high receiving sensitivity over the national territory of the Res.559 Administration concerned;
- b) The coverage areas of those Article 4 satellite networks extend far beyond the national territory of the notifying Administrations whereas feeder-link earth stations of the Res.559 submission concerned are only located inside the national territory and that cannot be further reduced;
- c) The objective of Resolution **2 (Rev.WRC-03)** and Topic F of WRC-23 Agenda item 7.

5 With respect to the remaining coordination cases under § 4.1.1 a) of Appendices **30** and **30A**, the submitting Administrations propose WRC-23 to approve the following measures/proposals:

- a) For multi-beam Plan assignments, if downlink single-entry C/I values are above 21 dB except for one test-point where single-entry C/I is greater than 18 dB, Res. 559 submissions and the corresponding Regions 1 and 3 Plan frequency assignments are considered compatible. In order to preserve the same level of protection for such compatible cases of those Regions 1 and 3 Plan frequency assignments from incoming Article 4 submissions, the reference situation of those Regions 1 and 3 Plan frequency assignments shall not be updated when the Res. 559 frequency assignments in the List are included in the Plans.;
- b) For multi-beam Plan assignments, if feeder-link single-entry C/I values are above 27 dB, Res. 559 submissions and the corresponding Regions 1 and 3 Plan frequency assignments are considered compatible. In order to preserve the same level of protection for such compatible cases of those Regions 1 and 3 Plan frequency assignments from incoming Article 4 submissions, the reference situation of those Regions 1 and 3 Plan frequency assignments shall not be updated when the Res. 559 frequency assignments in the List are included in the Plans.;

6 The Bureau shall:

- a) review the status of all the remaining coordination cases taking into account all the above-mentioned proposals including those of the RRB and BR. In this connection, for the remaining coordination cases under § 4.1.1 b) of Appendix **30**, if after taking into account all the above-mentioned proposals, there is only one remaining test-point potentially affected, the coordination is deemed to be completed.
- b) apply all the measures endorsed by WRC-23 to the Res.559 submissions of the Administrations of AFG, GNE, MLT and SEY and to the future applications of

§ 4.1.26 or § 4.1.27 of Article 4 of Appendices **30** and **30A**, which has the same nature as Resolution **559 (WRC-19)**.
