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Note by the Secretary-General

REPORT BY THE RADIO REGULATIONS BOARD TO WRC-15
RESOLUTION 80 (REV.WRC-07)

I have the honour to bring to the attention of the conference, at the request of the Director, Radiocommunication Bureau, the Report by the Radio Regulations Board to WRC-15, Resolution **80 (Rev.WRC-07)**.

Houlin ZHAO
Secretary-General

Annex: 1

ANNEX

Report by the Radio Regulations Board to WRC-15 on Resolution 80 (Rev.WRC-07)

Executive summary

The Board has addressed Resolution **80 (Rev.WRC-07)**, *Due Diligence in Applying the Principles Embodied in the Constitution*, at four world radiocommunication conferences since its adoption at WRC-97. In this report to WRC-15, the Board provides an update to the report to WRC-12 focussing on its efforts on new concepts to address issues the Board and the Bureau have faced since WRC-12 affecting fulfilment of the principles contained in Article **44** of the Constitution and No. **0.3** of the Preamble to the Radio Regulations. Chief among these concepts are the application of No. **13.6** of the Radio Regulations, additional considerations involving the application of RR No. **11.44B**, the tools available to resolve harmful interference situations, including the prospects for employing monitoring facilities, and considerations on satellite leasing[*]. To the extent possible, the Board provides recommendations and draft revisions to the provisions of the Radio Regulations enhancing the linkage between the notification, coordination, and registration procedures and the basic principles concerning the use of the radio frequency spectrum and satellite orbits. It is hoped that the administrations find this work useful in addressing the various issues at WRC-15, particularly those involving satellite networks.

[*] Here and throughout the Report, the phrase “satellite leasing” is used as an abbreviated means of referring to the use of a space station which is under the responsibility of another administration or an intergovernmental organization. In this report, consistent with the decisions of previous WRCs, the term “space station which is under the responsibility of another administration or intergovernmental organization” refers to an administration acting in the ITU on its own behalf or on behalf of an intergovernmental satellite communication organization bound by obligations under the ITU Constitution, ITU Convention and Administrative Regulations, in operating a space station at a notified orbital position. The use of the phrase satellite leasing in this Report does not address the nature of the arrangement that would be made to allow for a space station of one administration to be used by another.

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RESOLUTION 80 (REV.WRC-07)

Report by the Radio Regulations Board to WRC-15

1 Introduction

Resolution 80, *Due Diligence in Applying the Principles Embodied in the Constitution*, was first adopted by WRC-97 and subsequently revised by WRC-2000 and WRC-07. Each version of Resolution **80** has instructed the Radio Regulations Board (RRB) either to develop Rules of Procedure (ROPs), conduct studies, or consider and review possible draft recommendations related to linking the principles contained in No. **0.3** of the Preamble to the Radio Regulations to the notification, coordination and registration procedures in the Radio Regulations and to report to a subsequent WRC. In the case of Resolution **80 (Rev.WRC-07)**, these linkages were extended to include the principles contained in Article **44** of the Constitution.

The RRB reported the results of its studies to WRC-2000, WRC-03, and WRC-12 in Documents 29 (http://www.itu.int/itudocr/itu-r/archives/wrc/wrc-2000/docs/1-99/29.pdf), 4 Addendum 5 (http://www.itu.int/md/R03-WRC03-C-0004/en), and 11 (http://www.itu.int/md/R12-WRC12-C-0011/en) respectively. WRC-2000 and WRC-03 noted these reports, but took no related action. The annexes to Resolution **80 (Rev.WRC-07)** now contain some of the concepts reflected in the Board's reports to these two conferences. The Board was not instructed to report to WRC-07 on this matter, but WRC-07 modified Resolution **80**. On the other hand, WRC-12 addressed the issues of the application of No. **13.6** of the Radio Regulations, bringing into use, suspension of use, and harmful interference, issues identified in the Board's report to WRC-12, by modifying the Radio Regulations (RR).

Throughout its existence, Resolution **80** has related to the use of the radio-frequency spectrum and satellite orbits. Resolution **80 (Rev.WRC-07)** applies to space and terrestrial services, with the exception of those aspects specifically addressing orbits, satellites, or satellite networks that apply exclusively to space services.

2 Approach

The Board continued the working group on Resolution **80 (Rev.WRC-07)** under the chairmanship of Ms. Zoller, and subsequently of Ms. Wilson who was elected at the 68th meeting of the RRB. At its 67th meeting, the Board instructed the Director of the Radiocommunication Bureau to issue a circular letter calling the attention of administrations to the Draft Report by the Radio Regulations Board to WRC-15 on Resolution **80 (Rev. WRC-07)** and inviting administrations to contribute to these studies in time for the 69th meeting.

The Board decided to focus its efforts on new concepts to address issues which the Board and the Bureau have faced since WRC-12 rather than reconsider previous reports by the Board or options under discussion elsewhere in the ITU-R. Chief among these concepts are the application of No. **13.6** of the Radio Regulations, the status of assignments involved in certain unresolved harmful interference situations, the application of RR Nos. **11.44B** and **11.49**, and considerations on satellite leasing*.

3 The Board's mandate under *resolves* 2 of Resolution 80 (Rev.WRC-07)

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 Board concluded that the formal notification, coordination and registration procedures referred to in *resolves* 2 of Resolution **80 (Rev.WRC-07)** primarily involve Articles **9** and **11** and Appendices **4**, **5**, **30**, **30A**, and **30B** of the Radio Regulations and Resolution **49 (Rev.WRC-12)** and that all of the principles contained in Article **44** of the Constitution and No. **0.3** of the Preamble to the Radio Regulations were to be considered.

Article **44** of the Constitution, Use of the Radio-Frequency Spectrum and of the Geostationary-Satellite and Other Satellite Orbits, contains the following two provisions:

> **195**
> **PP-02**
>
> 1 Member States shall endeavour to limit the number of frequencies and the spectrum used to the minimum essential to provide in a satisfactory manner the necessary services. To that end, they shall endeavour to apply the latest technical advances as soon as possible.
>
> **196**
> **PP-98**
>
> 2 In using frequency bands for radio services, Member States shall bear in mind that radio frequencies and any associated orbits, including the geostationary-satellite orbit, are limited natural resources and that they must be used rationally, efficiently and economically, in conformity with the provisions of the Radio Regulations, so that countries or groups of countries may have equitable access to those orbits and frequencies, taking into account the special needs of the developing countries and the geographical situation of particular countries.

No. **0.3** of the Preamble to the Radio Regulations states the following:

> In using frequency bands for radio services, Members shall bear in mind that radio frequencies and the geostationary-satellite orbit are limited natural resources and that they must be used rationally, efficiently and economically, in conformity with the provisions of these Regulations, so that countries or groups of countries may have equitable access to both, taking into account the special needs of the developing countries and the geographical situation of particular countries (No. 196 of the Constitution).

According to CS **78**, the functions of the Radiocommunication Sector include "ensuring the rational, equitable, efficient and economical use of the radio-frequency spectrum by all radiocommunication services, including those using the geostationary-satellite or other satellite orbits, subject to the provisions of Article **44** of this Constitution." These functions are accomplished through the World and Regional Radiocommunication Conferences, ITU-R Study Groups, and the work of the Radiocommunication Bureau and RRB. While *resolves* 2 of Resolution **80 (Rev.WRC-07)** addresses specific instructions to the Board, the entire Radiocommunication Sector is involved in fulfilling the principles contained in Article **44** of the Constitution and No. **0.3** of the Preamble to the Radio Regulations.

All countries are charged with these principles and all countries benefit when this charge is met by having equitable access to spectrum and orbit resources. The Board strove to abide by these principles in considering the following issues and formulating 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.

4 Issues and draft recommendations

4.1 Application of No. 13.6 of the Radio Regulations

There is no Rule of Procedure concerning the application of RR No. **13.6**. Article **13** of the Radio Regulations is titled "Instructions to the Bureau" and No. **13.6** of the Radio Regulations falls under Section II, which has the heading "Maintenance of the Master Register and of World Plans by the Bureau." RR No. **13.6** states the following:

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 characteristics 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. 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 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. (WRC-12)

WRC-12 modified No. **13.6** of the Radio Regulations, addressing many of the issues identified in the Report of the Board under Resolution **80 (Rev.WRC-07)** to WRC-12. The roles of administrations, the BR, and the Board and the deadlines for administrations for each step of the RR No. **13.6** process were clarified by WRC-12. These changes improved the application of RR No. **13.6**, which remains a cornerstone for the maintenance of the Master Register and World Plans by the Bureau.

In accordance with the provisions of No. **13.6** of the Radio Regulations, the Radiocommunication Bureau (BR) continued to consult notifying administrations whenever it appeared from reliable information that a recorded assignment had not been brought into use, is not being used or is not being used in accordance with the notified frequency assignments. This process supported the maintenance of the Master International Frequency Register (MIFR) and World Plans by the BR. The application of RR No. **13.6** resulted in some networks and frequency assignments being retained, some being suspended, and some being removed from the MIFR. In the event of non-response or disagreement by the notifying administration, the BR continued to take the assignments

into account and brought the matter to the Board for a decision as to whether to cancel, retain or modify the assignments.

Lately, the number of appeals where an administration questions the bringing into use and/or the continuing operation of another administration's frequency assignments and requests the Bureau to verify the information in question in accordance with RR No. **13.6** has been growing. Increasing congestion of the GSO and the radio frequency spectrum, and resulting coordination difficulties seem to underlie many of these requests. In some cases, pursuing cancellation of another administration's assignments rather than continuing negotiation was the remedy sought to overcome these difficulties.

The situation where an administration has rights that they are not using and another administration files in the same bands at or near the same orbital location is often behind the type of coordination difficulties leading to this trend. In this case, if the newcomer is not able to complete coordination with the incumbent administration, the newcomer may decide to request the Bureau to verify the information through the application of RR No. **13.6** by providing some evidence that the recorded frequency assignments have not been brought into use, are not being used or are not being used in accordance with the notified characteristics.

In practice, it is difficult to apply RR No. **13.6** retroactively to circumstances that may have existed in the distant past. The RRB avoids questioning the historical application of the Radio Regulations and takes a case-by-case approach focused on current use. The situation becomes complex and urgent when there are two operational satellites and harmful interference is taking place or imminent.

Applying No. **13.6** of the Radio Regulations gave rise to the following considerations by the Board as to the application of this provision:

- The meaning of "reliable information".
- The meaning of "brought into use, or is no longer in use".

Each consideration is further elaborated below.

4.1.1 Addressing requests under RR No. 13.6 based on "reliable information"

RR No. **13.6** may be applied after the frequency assignments are brought into use and notified and recorded in the MIFR. RR No. **13.6** is undertaken by the Bureau because of the appearance of "reliable information"[1] that a recorded assignment has not been brought into use in accordance with the notified required characteristics as specified in Appendix **4**, or is not being used or is not being used in accordance with those characteristics. The BR periodically receives appeals where one administration questions the bringing into use and/or the continuing operation of another administration's frequency assignments and requests the cancellation of the assignments or networks in question. Sometimes the requests are supported by information posted on the websites of launch providers, satellite manufacturers, or satellite operators; licensing information; data elements from real-time satellite tracking databases open to the public; privately-collected monitoring data; press reports; or some combination of public and private data.

[1] The Spanish version of the Radio Regulations uses the term "available" whereas the English version refers to "reliable" information. The Spanish text should be brought into alignment with the English text.

The Board considered such information to be the best available and “reliable” for the purpose of initiating consultation, but not definitive for the purpose of cancelling, modifying or retaining an entry in the MIFR. Not all information regarding a satellite network is public and not all information that is public is entirely accurate.

In order to effect a high degree of transparency in its work, the Board only considers unrestricted input documents posted to the meeting website. At its 63rd meeting the Board modified *The Internal Arrangements and Working Methods of the Board,* which are contained in Part C of the Rules of Procedure, to indicate that any submission to the Board containing restricted material (e.g. confidential, proprietary, sensitive, etc.) shall be returned by the Bureau, who will invite the administration concerned to resubmit an unrestricted document if it wishes the Board to consider the material. This practice, while preserving the principle of transparency, may prevent consideration of reliable information that could clarify the status of assignments.

The response by the notifying administration to a BR inquiry about the status of its own satellite networks and frequency assignments, supported as appropriate, by the BR in the application of RR No. **13.6**, was taken by the Board to be reliable information. Nevertheless, noting that “reliable” in this context does not imply validated, when it deems necessary, the BR may continue to verify information that it has received by requesting additional clarification or information on a case by case basis.

Based on the past experience of the BR, ascertaining the reliability of the previously provided information can best be achieved through the receipt of supplemental information from the notifying administration directly. Through an exchange of information with the notifying administration, the BR may then be able to determine what information is indeed accurate and complete enough to be used as the basis for its further actions. The BR asks the notifying administration whether the assignments were brought into use in accordance with the notified characteristics and to identify the actual satellite as well as the satellite’s real capability of transmitting or receiving the notified frequency assignments in conformity with the provisions of No. **11.44B**. If the administration does not provide information that demonstrates the assignments were brought into use and continue to be used in accordance with the notified characteristics, the BR and the Board consider this a non-response. If the notifying administration does not respond after the two reminders required by RR No. **13.6**, the BR then requests a decision by the Board to either cancel the frequency assignments or, if the regulatory deadline for bringing into use has not passed, reject the notification of bringing into use, providing all the relevant facts. In any case, either the administration requesting action by the BR in the application of RR No. **13.6** or the notifying administration providing supplemental information may ask that the matter be brought to the attention of the RRB.

RR No. 13.6 is precise concerning the use of “reliable” information as a mechanism to initiate consultation by the Bureau; nevertheless, what constitutes reliable information, including the source and contents thereof, must be examined by the BR on a case-by-case basis.

4.1.2 The new concept of “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 characteristics” provided by the addition of RR11.44B by the WRC-12

The BR is responsible for the MIFR (RR No. **13.4**) and for maintaining and improving its accuracy (RR No. **11.50**). The frequency assignments in the MIFR are associated with a given satellite network/system and a notifying administration.

The distinction between the parameters recorded in the MIFR and actual satellite operations is an important one, particularly when it comes to the understanding of bringing into use and implementation of Resolution **49 (Rev.WRC-12)**. The relationship between assignments associated with a given network in the MIFR and the satellite(s) bringing those assignments into use is dynamic. This flexibility leads to efficient use of the radio spectrum and satellite orbits, but complicates the application of the Radio Regulations, which have a less dynamic orientation with regard to bringing into use.

ITU filing parameters encompass the operations of real satellites, but the filings do not represent a particular satellite. Each frequency assignment in a satellite network filing could be brought into use by a different satellite. Conversely, more than one satellite network filing with the same orbital characteristics could be associated with bringing into use all the frequencies on a single satellite. The assignments associated with a given network in the MIFR may relate to more than one physical satellite, either at the same time or over the period of validity of the satellite network. The satellite(s) may have arrived at the notified orbital position either directly from launch or after being moved from one location to another.

WRC-12 modified No. **11.44B** to require that a space station in the geostationary-satellite orbit that has the capability of transmitting or receiving the notified frequency assignments be deployed and maintained at the notified orbital position for a continuous period of ninety days in order for the associated frequency assignments to be brought into use. Prior to the adoption of the ninety-day period, the Board considered that temporarily operating a satellite for a short period of time at a notified orbital location could not be considered as bringing its assignments into use or "regular operation". Quantifying the amount of time for BIU provided some certainty to administrations, the BR, and the Board.

4.2 Suspending the use of a recorded assignment to a space station

Based on modifications by WRC-12, No. **11.49** of the Radio Regulations allows for the use of a recorded assignment to a space station to be suspended for up to three years and requires administrations to inform the Bureau as soon as possible but not later than six months from the date on which the use was suspended. If the suspension is for a period less than six months, the notifying administration is not required to inform the Bureau. The footnote to this provision (RR No. **11.49.1**) requires that a space station in the geostationary-satellite orbit with the capability of transmitting or receiving the notified frequency assignments be deployed and maintained at the notified orbital position for a continuous period of ninety days in order for the associated frequency assignments to be brought back into use, same as RR No. **11.44B**. The provisions are as follows:

> **11.49** Wherever the use of a recorded frequency assignment to a space station is suspended for a period exceeding six months, the notifying administration shall, as soon as possible, but no later than six months from the date on which the use was suspended, 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 No. **11.49.1** when applicable, so inform the Bureau, as soon as

possible. The date on which the recorded assignment is brought back into use[2] shall be not later than three years from the date of suspension. (WRC-12)

The Board modified the Rule of Procedure for RR No. **11.49** to reflect the changes made by WRC-12. However, administrations continue to request to suspend assignments as a result of inquiries under RR No. **13.6**.

Recently, the Board discussed the fact that RR No. **11.49** is silent on what action is to be taken when a notifying administration fails to inform the BR about the suspension of its frequency assignment within 6 months after the date of suspension. After some discussions on this subject, the RRB decided to ask the BR to raise this issue in the Report of the Director to WRC-15.

The Board recommends WRC-15 consider clarifying RR No. 11.49 with respect to the action to be taken by the BR if the administration notifies a suspension later than six months from the date on which the use was suspended.

4.3 The inter-relationship between RR Nos. 11.49 and 13.6 of the Radio Regulations

The Rule of Procedure for RR No. **11.49** recognizes that suspensions may be effected by the notifying administration either at its own initiative or in response to an inquiry made under RR No. **13.6**. The Rule of Procedure for RR No. **11.49** states "When it is determined, via an inquiry from the Bureau under RR No. **13.6**, that an assignment has not been in use for more than 6 months, the issue shall be addressed under the procedures for RR No. **13.6** with the understanding that an untimely notice may not be relied upon to extend the suspension period beyond the period provided for in RR No. **11.49**, and without prejudice to whatever actions the Board may otherwise deem appropriate under RR No. **13.6**."

4.4 Article 48 of the Constitution

Members States are bound to abide by the provisions of the instruments of the Union they have ratified except in regard to services exempted from these obligations in accordance with the provisions of Article **48** of the Constitution (see CS **37**). Article **48** addresses installations for national defence services and states the following:

1 *Member States retain their entire freedom with regard to military radio installations.*

2 *Nevertheless, these installations must, so far as possible, observe statutory provisions relative to giving assistance in case of distress and to the measures to be taken to prevent harmful interference, and the provisions of the Administrative Regulations concerning the types of emission and the frequencies to be used, according to the nature of the service performed by such installations.*

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[2] **11.49.1** The date of bringing back into use of a frequency assignment to a space station in the geostationary-satellite orbit shall be the date of the commencement of the ninety-day period defined below. A frequency assignment to a space station in the geostationary-satellite orbit shall be considered as having been brought back 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)

> 3 *Moreover, when these installations take part in the service of public correspondence or other services governed by the Administrative Regulations, they must, in general, comply with the regulatory provisions for the conduct of such services.*

This special provision recognizes the unique nature of installations for national defence services and allows for the possibility that a Member State may, when necessary, operate military radio installations in a manner that does not meet all the obligations set forth in the instruments of the Union. Article **48** is also clear about the fact that military radio installations must observe the Radio Regulations as far as possible.

When faced with an inquiry under No. **13.6** of the Radio Regulations, some administrations have indicated to the BR that the frequency assignment in question is being used under the provisions of Article **48**. The BR then discontinues the inquiry, understanding the special circumstances involved. Sometimes the reply to an inquiry under RR No. **13.6** is somewhat ambiguous. For example, an administration may state that the frequency assignments are being used for “strategic governmental purposes” without mentioning either Article **48** or military radio stations. The BR and the Board understood such responses also fall under the umbrella of Article **48** of the Constitution pending further clarification as to the application of this provision with respect to the process under RR No. **13.6**.

The Board decided to bring the issue of application of Article **48** of the Constitution to the process under RR No. **13.6** to the attention of WRC-15. The conference may wish to address the following questions:

- Should an administration explicitly invoke Article 48 of the Constitution in order for this provision to apply to an inquiry under RR No. **13.6**?
- In terms of nature of service, should a “Station open to official correspondence exclusively” as indicated in the filing by the symbol “CO” be the only type of station eligible to operate under Article **48**?
- In terms of class of station, should stations in the broadcasting or broadcasting-satellite service, whose transmissions are by definition intended for direct reception by the general public, be precluded from operating under Article **48**?

4.5 Additional considerations regarding No. 11.44B

4.5.1 Linkage between Bringing into Use and Notification for Recording in the MIFR

RR No. **11.44B** is considered one of the most important provisions of the Radio Regulations in terms of clarifying the definition of Bring into Use (BIU) of a frequency assignment to a space station in the geostationary-satellite orbit. WRC-12 adopted this addition to the Radio Regulations, which state the following:

> **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)*

When this new provision was discussed and adopted at WRC-12, it was not foreseen that some linkages could be introduced between the timing of BIU and the timing of Notification for Recording in the MIFR. After WRC-12, the Board and the Bureau identified a need for a new ROP on RR No.**11.44B** and the drafts were circulated to administrations in CCRR/45 and CCRR/52.

Administrations expressed diverse views on the various elements of the draft ROP and the Board approved some elements of the draft ROP, but not others. One view, however, was common: there was a general concern about the introduction of a linkage between BIU and Notification in the draft ROP. The Board discussed this matter in depth and attempted to address these concerns by modifying the draft ROP, but concluded that further consensus among administrations on this matter at WRC-15 was needed.

It should be emphasized that, in the application of RR No. **11.44B** by the BR, there is no difficulty in applying this provision when administrations follow the process correctly, *i.e.* by informing the BR within 30 days from the end of the 90-day period. When further information regarding the status of BIU such as the satellite launch date or satellite characteristics is needed, the BR is always able to send inquiries through the use of the ROP described in RR No.**11.44** and the status of the BIU can be verified.

However, just as in the case of RR No. **11.49**, RR No. **11.44B** is silent on what action is to be taken when a notifying administration fails to inform the BR within thirty days from the end of the ninety-day period that it has brought the frequency assignments associated with a space station in the geostationary-satellite orbit into use.

The particular case when a notifying administration does not inform the Bureau of the BIU of its frequency assignment, which took place more than 120 days prior, deserves special consideration. If an administration sends the Notification for Recording in the MIFR and, for the first time informs the Bureau that it brought the assignments into use more than 120 days ago, then the notice is not strictly in conformity with RR No**. 11.44B**. A question then arises as to whether or not the BIU can be accepted since RR No. **11.44B** does not articulate a consequence for not informing the Bureau within 30 days from the end of the 90 day period. In the current practice in the BR, the situation of the BIU will be further verified by the BR to reaffirm the BIU before proceeding to the notification process when it is requested. In this typical situation, however, there exist an inevitable "un-notified period" until the actual notification is completed by the administration and by the BR. If suspension is declared during this "un-notified period" before completion of notification, the suspension itself is not accepted because suspension is only possible for an already notified frequency assignment.

The above described situation may be precipitated by the coordination process among administrations. Or it may occur when a satellite used for the BIU is moved to another location immediately after the BIU and the replacement is delayed. This may lead to an unintended cancellation of a filing in relation with the provision of RR. 11.48. In any case, if the information regarding the orbital situation is uncertain for a long period, the maintenance of the MIFR by the BR will become difficult.

The BR and the RRB, in trying to offer a practical process to eliminate the ambiguity arising from the absence of rules for a case that is not conforming to RR No. **11.44B**, found that some information such as continuity of operation may be necessary to judge the situation clearly and to avoid the occurrence of an undesirable situation. This may or may not introduce some linkages between BIU and Notification.

In order to avoid any misunderstanding or misapplication of RR No. **11.44B** in reaching the final goal of completing the Notification process and accurately recording assignments in the MIFR:

WRC-15 may wish to state the consequences when an administration does not inform the BR within 30 days after the completion of Bringing into Use and to examine the possible linkage between BIU and Notification for Recording in the MIFR in the application of RR No. 11.44B

4.5.2 Use of a single satellite for the BIU of multiple frequency assignments in multiple orbital locations within a short period of time

RR No. **11.44B**, as modified by WRC-12, states that "a frequency assignment to a space station in the geostationary-satellite orbit shall be considered as having been brought into use when a satellite has been deployed and maintained at the notified orbital position for a continuous period of ninety days". It was also recognized, as shown in 4.7.1, that the use of satellite leasing* is possible for the purpose of BIU.

These two items both relate to BIU; however, these texts were basically independent in their usage when they were considered at the WRC-12. Nevertheless, one can derive a process of using one satellite for bringing into use multiple identical frequency assignments at different orbital positions. After 90 days of operation at a certain orbital position, the said frequency assignment is declared BIU, immediately suspended, and the satellite is moved to a next location to bring into use another filing.

Although the above stated process is not at variance with the provisions of the Radio Regulations, WRC-12 clearly indicated that such an action needs further study. Such study is necessary to ensure, *inter alia*, conformity with Article **44** of the Constitution of the ITU.

> "WRC-12 recognizes that the issue of using one space station to bring frequency assignment at different orbital locations into use within a short period of time was not the intent of these new provisions, and ways to address this issue require study. WRC-12 took significant steps in this regard with changes to bringing into use and suspension provisions, as well as to No. **13.6**. In examining this issue, it must be emphasized that there are legitimate reasons why an administration or operator may need to move a spacecraft from one orbital position to a new orbital position, and care should be taken not to constrain the legitimate use of fleet manoeuvres and management.
>
> Nevertheless, administrations are encouraged to examine their own national regulatory provisions to ensure that opportunities for abusive practices are minimized. Until ITU-R studies are completed, where an administration brings into use frequency assignments at a given orbital location using an already in-orbit satellite, the BR is requested to make an enquiry to that administration as to the last previous orbital location/frequency assignments brought into use with that satellite and make such information available." (§ 9.2 Doc. CMR12/554)

4.5.3 Does the new 11.44B allow for in-orbit testing (IOT) during the period of BIU?

Under the former RR No. **13.6**, before this provision was modified by WRC-12, some notices were submitted as being brought into use at the stage of IOT, before the assignments had been brought into "regular operation" in accordance with the notified characteristics as specified in Appendix 4. If an administration claimed it had BIU frequency assignments based on the period of IOT when a spacecraft was tested for a short duration (e.g., one week) and then soon moved to another location, the RRB concluded that this manoeuvre was not a "regular operation" and the claim of BIU was not accepted.

In the current RR No. **13.6**, however, the terminology "regular operation" was considered ambiguous and WRC-12 deleted it. It may still be likely that an administration claims the completion of BIU by temporarily operating a satellite at a notified orbital position for a period of at least 90 days and then later suspending operation as described above. Consistent with the addition of RR No. **11.44B** by WRC-12, the RRB now considers that the period of IOT in the notified orbital location can occur during the BIU period. However, the period of IOT in a location other than the

notified location will not be counted as the part of 90 days specified in RR No. **11.44B**, unless the WRC-15 decides otherwise.

4.6 Considerations regarding harmful interference

4.6.1 Considerations regarding the status of assignments involved in harmful interference situations and factors affecting the resolution of harmful interference

The Board treats requests for its assistance regarding harmful interference on a regular basis. These requests involve mostly terrestrial services, but increasingly also involve some space services, including some services that are subject to a plan. The Board and the Bureau had no difficulties acting in accordance with the procedures of Article **15** of the Radio Regulations in addressing these cases. Nevertheless, the persistent character of the harmful interference in some situations is a concern and creates a situation that impedes fulfilment of the principles contained in Article **44** of the Constitution and No. **0.3** of the Preamble to the Radio Regulations. In those cases where the Bureau's offers of assistance are accepted, the parties generally make better progress and take action to resolve the interference.

The Board recommends intensifying efforts to ensure all members exercise the utmost goodwill and mutual respect and adhere to the instruments of the Union.

4.6.2 Analysis relating to the application of the GE06 Regional Agreement

Greatly concerned about a particular situation and pursuant to No. **13.15** of the Radio Regulations, the Board instructed the Director of the Radiocommunication Bureau to request a special study by the ITU Legal Advisor to identify any legal options for dealing with the situation whereby an administration, by virtue of being situated within the planning area of the GE06 Regional Agreement, exercises its rights but does not respect its obligations under that Agreement. The resultant study may be found at **http://www.itu.int/md/R13-RRB13.3-INF-0002/en**.

4.6.3 Considerations regarding monitoring

Article **16** of the Radio Regulations concerns International Monitoring. Historically, specially designated stations that are recognized as part of the international monitoring system have concentrated on terrestrial services. The ITU publishes the list of recognized international monitoring stations on a periodic basis.

The RRB considered that monitoring results obtained by recognized international monitoring stations using measurement techniques and technologies documented in the *ITU-R Handbook on Spectrum Monitoring* to be a valuable resource for addressing harmful interference and noted with satisfaction the Bureau's activities in this area. The Board deemed that the procedures for the use of recognized monitoring stations to assist the Bureau to perform measurements related to cases of harmful interference for which an administration is seeking the assistance of the Bureau would require careful consideration and that having measurements from more than one source would be desirable.

The BR does not have the capability to conduct monitoring, which requires substantial resources. It is noteworthy that the space monitoring facilities described above are operated by telecommunications regulatory authorities of Member States of the ITU. In the absence of ITU monitoring facilities, the regulatory authorities of Member States operating recognized international monitoring stations would seem to provide the best alternative.

PP-14 adopted Resolution **186** (Busan, 2014), Strengthening the role of ITU with regard to transparency and confidence-building measures in outer space activities, which addresses the use of satellite monitoring. This resolution invites Council to consider and review any proposed cooperation agreements on the use of satellite monitoring facilities, in light of their strategic and financial implications, within the budgetary limitations of the Union. It also instructs the Director of the Radiocommunication Bureau to promote access to information, upon request by administrations concerned, related to satellite-monitoring facilities, in order to address cases of harmful interference in accordance with Article **15** of the Radio Regulations, through these cooperation agreements, within the budgetary limits of the Union, in order to implement the objectives of this resolution; to continue taking action to maintain a database on cases of harmful interference reported in accordance with relevant provisions of the Radio Regulations, in consultation with Member States concerned; and to coordinate activities, if necessary, with the Directors of the Telecommunication Standardisation Bureau and the Telecommunication Development Bureau.

With more specially designated stations in the international monitoring system, particularly more with satellite monitoring capabilities, there will be more options to locate interference sources and resolve harmful interference. Developing countries would particularly benefit from access to these capabilities.

The Board considers monitoring results obtained by recognized international monitoring stations using measurement techniques and technologies documented in the *ITU-R Handbook on Spectrum Monitoring* to be a valuable resource for addressing harmful interference.

4.6.4 Modifications of Articles 13 and 15

The possible draft revisions to Articles **13** and **15** that follow could be considered as a first step to accelerate assistance from the Bureau in resolving harmful interference, enable administrations to seek the assistance of the Bureau in identifying a source of harmful interference regardless of the frequency band affected, and activate the international monitoring system to help identify the source of the interference (unmodified provisions are shown for context):

13.2 When an administration has difficulty in resolving a case of harmful interference and seeks the assistance of the Bureau, the latter shall, as appropriate, help in identifying the source of the interference and seek the cooperation of the responsible administration and specially designated stations of the international monitoring system to the extent possible in order to resolve the matter. The Bureau shall prepare a report for consideration by the Board, including draft recommendations to the administrations concerned.

15.**41** § 33 1) If it is considered necessary, and particularly if the interfering signals appear to be of a nature that is forbidden under RR No. **15.1** or the steps taken in accordance with the procedures described above have not produced satisfactory results, the administration concerned shall forward details of the case to the Bureau for its information.

15.42 2) In such a case, the administration concerned may also request the Bureau to act in accordance with the provisions of Section I of Article **13**; but it shall then supply the Bureau with the full facts of the case, including all the technical and operational details and copies of the correspondence.

15.43 § 34 1) In the case where an administration has difficulty in identifying a source of harmful interference and urgently wishes to seek the assistance of the Bureau, it shall promptly inform the Bureau.

15.44 2) On receipt of this information, the Bureau shall immediately request the cooperation of appropriate administrations and/or specially designated stations of the international monitoring system that may be able to help in identifying the source of harmful interference.

15.45 3) The Bureau shall consolidate all reports received in response to requests under No. **15.44** and, using such other information as it has available, shall promptly attempt to identify the source of harmful interference.

15.46 4) The Bureau shall thereafter forward its conclusions and recommendations to the administration reporting the case of harmful interference. These shall also be forwarded to the administration believed to be responsible for the source of harmful interference, together with a request for prompt action.

The Board considers reports of harmful interference submitted under RR No. **13.2** at its regularly scheduled meetings, which occur several months apart. Annex 2 to Decision 5 (Rev. Busan, 2014), which addresses possible measures for reducing expenditures, states the following: "26). Taking into account No. **145** of the Convention, a full range of electronic working methods needs to be explored to possibly reduce the costs, number and duration of the Radio Regulations Board meetings in the future, e.g. reduction of the number of meetings in one calendar year from four to three." Since this measure was first adopted in Antalya in 2006, the Board has held three meetings most calendar years rather than the normal four meetings per year foreseen in the Convention.

4.7 Considerations on satellite leasing*

The basic texts of the ITU and the Radio Regulations do not regulate commercial relationships. In this regard, the subject of satellite leasing* is addressed in this report because such use can be applied for effecting the bringing into use or bringing back into use a frequency assignment in a satellite network filing. In this section we discuss the issues exclusively focusing on the use of satellite leasing* for the purpose of meeting the regulatory procedures and deadlines affecting the status of frequency assignments in the MIFR.

4.7.1 Leasing of satellites* for the purpose of BIU or bringing back into use of a frequency assignment

In a recent discussion in the RRB, the issue of leasing* as it pertains to the use of satellites was highlighted in relation to the application of RR Nos. **13.6** and **11.44B**. In particular, the roles of the licensing administration and of the notifying administration responsible for a satellite network filing were raised as factors related to confirming the BIU status of the frequency assignments of a satellite network recorded in the MIFR where leasing* is involved.

Respect for Article **18** of the Radio Regulations, in particular No. **18.1**, is the focal point for these considerations.

18.1 § 1 1) No transmitting station may be established or operated by a private person or by any enterprise without a licence issued in an appropriate form and in conformity with the provisions of these Regulations by or on behalf of the government of the country to which the station in question is subject (however, see Nos. **18.2**, **18.8** and **18.11**).

When an administration intends to bring into use or bring back into use a frequency assignment, it is frequently observed that a space station licensed by another administration is used temporarily

under the terms of a relevant arrangement. The space station may already be operating on the GSO and may be able to be moved from its original orbital location to the target location. This type of arrangement for using a space station often occurs when a notifying administration has completed Advanced Publication and is undertaking coordination, but the planned satellite is not yet ready for operation before the date of expiry for BIU specified in RR No. **11.44**. Leasing* is one way to maintain the proposed frequency assignments.

4.7.2 Recalling the Minutes of the 13th Plenary Meeting of the WRC-12 (§ 3.12 of Doc. CMR12/554)

A satellite leasing* arrangement for the purpose of BIU or bringing back into use of a frequency assignment is considered not to be at variance with the Radio Regulations and other ITU texts in the current practice of ITU. But a very important point, which was sometimes disregarded, is that the notifying administration must respect the rights of the licensing administration and must follow No. **18.1** of the Radio Regulations. This point was intensively discussed at WRC-12 and the following understanding was added to the Minutes of the 13th Plenary Meeting (Doc. CMR12/554):

> *"WRC-12 recognizes that an administration can bring into use, or continue the use of, frequency assignments for one of its satellite networks by using a space station which is under the responsibility of another administration or intergovernmental organization, provided that this latter administration or intergovernmental organization, after having been informed, does not object, within 90 days from the date of receipt of information, to the use of this space station for such purposes. This requirement shall not be applied retroactively and applies to assignments brought into use after the end of WRC-12." (§3.12 Doc. CMR12/554)*

When planning to use satellite leasing* in order to effect BIU or bringing back into use of a frequency assignment, a notifying administration needs to consider, No. **18.1** of the Radio Regulations and the process described therein. When the notifying administration proceeds to implement the process and send information, such as the Resolution **49 (Rev. WRC-12)** due diligence information, to the ITU, the following must be considered by the administrations concerned:

- It is the responsibility of the notifying administration to seek agreement from the licensing administration before making a claim of BIU.
- There may be a case that the notifying administration, without informing the licensing administration, sends a notification such as Resolution **49 (Rev. WRC-12)** data to the BR. The notifying administration must bear in mind that this action is not considered sufficient to complete the process of "informing" the licensing administration. The process of acquiring rights for use of a satellite licensed by another administration is a delicate subject and a clear "hand shake" between the two administrations is necessary.

4.7.3 Differences in characteristics between leased satellites* and assignments in the MIFR

When a leased satellite* is used for the purpose of BIU of a frequency assignment, sometimes the characteristics of such a space station may differ from the characteristics of the assignments notified in the MIFR. This can give rise to certain problems.

RR No. **11.44B** states only that "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" is necessary to confirm BIU. It is assumed that the further status of the filing may be examined through the use of a new ROP on RR No. **11.44**, if necessary.

4.8 Issues related to the "responsible administration"

As previously noted in section 4.7.2, the matter of an administration using a space station under the responsibility of another administration or intergovernmental organization to bring into use or continue use of its own frequency assignments was resolved by WRC-12.

When addressing such a case, the Board was of the view that an administration remains the 'responsible administration' for its space station even after its frequency assignments have been suppressed. Publication of a notice identifying a space station under the responsibility of another administration or intergovernmental organization is not sufficient to inform that administration or intergovernmental organization of the desired use of their space station. The administration wishing to use a space station under the responsibility of another administration or intergovernmental organization must directly inform that administration or intergovernmental organization.

The Board also noted that the transfer of responsibility through the change of the notifying administration for notified frequency assignments and their related orbital positions from one administration to another can be carried out, but only in accordance with the relevant provisions of the Radio Regulations and Rules of Procedure. Such requests to change the notifying administration have to be considered by the Board on a case by case basis.

4.9 Situations of "force majeure"

The Board has received requests from administration to extend the regulatory deadline for bringing the frequency assignments associated with a satellite networks into use because of *force majeure*. WRC-12 had discussed this situation in conjunction with the case of co-passenger delays, but did not create a resolution to address it. The Board requested the opinion of the ITU Legal Advisor as to whether the RRB is authorized to address requests by administrations seeking to extend, for reasons of *force majeure*, the regulatory time-limit for the bringing into use of frequency assignments (Document 554 of WRC-12) and identify the conditions covered by the notion of *force majeure.*

As indicated in the Opinion of the ITU Legal Advisor on *force majeure* found at (http://www.itu.int/md/R12-RRB.12.2-INF-0002/en), the RRB may address requests for a time-limit extension based on either a co-passenger issue or *force majeure* so long as any extension is "limited and qualified" as described by WRC-12. There is a very high threshold for a case to be considered as *force majeure,* as described by the ITU Legal Adviser.

WRC-03 addressed the issue of *force majeure* in the planned bands by adopting changes to Appendices **30**, **30A**, and **30B** that define the circumstances which must exist, the action required by the administration, and the deadlines. The text below is an example from Appendix **30**. **WRC-15 may wish to consider adopting similar conditions for the unplanned bands.**

> 4.1.3*bis* The regulatory time-limit for bringing into use of an assignment in the List may be extended once by not more than three years due to launch failure in the following cases:
>
> – the destruction of the satellite intended to bring the assignment into use;
>
> – the destruction of the satellite launched to replace an already operating satellite which is intended to be relocated to bring another assignment into use; *or*
>
> – the satellite is launched, but fails to reach its assigned orbital location.
>
> For this extension to be granted, the launch failure must have occurred at least five years after the date of receipt of the complete Appendix **4** data. In no case shall the period of the extension of the regulatory time-limit exceed the difference in time between the three-year period and the period remaining from the date of the launch failure to the end

of the regulatory time-limit[3]. In order to take advantage of this extension, the administration shall have, within one month of the launch failure or one month after 5 July 2003[3], whichever comes later, notified the Bureau in writing of such failure, and shall also provide the following information to the Bureau before the end of the regulatory time-limit of § 4.1.3:

– date of launch failure;

– due diligence information as required in Resolution **49 (Rev.WRC-03)**[4] for the assignment with respect to the satellite that suffered the launch failure, if that information has not already been provided.

If, within one year of the request for extension, the administration has not provided to the Bureau updated Resolution **49 (Rev.WRC-03)**[4] information for the new satellite under procurement, the related frequency assignments shall lapse. (WRC-03)

4.10 Considerations on satellite failure during the ninety-day bringing into use period

WRC-12 discussed the issue of a satellite failure during the ninety-day bringing into use period, and invited the ITU-R to study, as a matter of urgency, to determine what regulatory changes, if any, should be made to the RR under WRC-15 agenda item 7 to address this issue. In parallel with the above ITU-R study activity, the Board was instructed to consider the development of a RoP taking into account the results of the ITU-R studies, when they became available, to cover the period between WRC-12 and WRC-15. Furthermore, WRC-12 decided that in case of such failure, the notifying administration may submit the case to the RRB for its consideration and decision on a case-by-case basis. (§ 9.1 Document CMR12/554).

The issue was studied within ITU-R and the following six methods were proposed in the CPM Report (Document CPM15.02/228, Issue E of agenda item 7):

a) **first method**: adding a footnote to RR No. **11.44B** indicating that, in the event of satellite failure during the bringing into use period, the frequency assignment was to be considered as having been brought into use;

b) **second method**: in addition to adding a footnote to RR No. **11.44B** as in the first method, adding a footnote to RR No. **11.49** indicating that, in the event of satellite failure during the period for bringing a frequency assignment back into use, the frequency assignment was to be considered as having been brought back into use;

c) **third method**: to make no changes to the current provisions of the Radio Regulations;

d) **fourth method**: adding an additional provision RR No. **11.44.3** that allows extending the date of bringing into use for 3 years from the date of the failure;

e) **fifth method**: the situation of satellite failure during the ninety-day will be considered on a case-by-case and the RRB shall decide on the matter, as appropriate, taking into account all supporting material, including the BR report; and

f) **sixth method**: adding a footnote to RR No. **11.44B** which indicates that in case of a satellite failure during the bringing into use period, the notifying administration can notify the case as soon as possible but no later than sixty days from the date of the failure to the BR with all supporting evidence. The BR will, based on its investigation, either take a decision on the completion of the BIU period or present the case to the

[3] For a launch failure which occurred before 5 July 2003, the maximum extension of three years shall apply as from 5 July 2003. (WRC-03)

[4] *Note by the Secretariat:* This Resolution was revised by WRC-07 and WRC-12.

RRB to decide on the matter, as appropriate. In this case the satellite failure during the ninety-day bringing into use period will be considered on a case-by-case basis.

The first, second and fourth methods suggesting the frequency assignment to be considered as having been brought into use followed by a suspension of frequency assignment under RR No. **11.49** provides the notifying administration with a sufficient three-year period to launch a replacement satellite.

Reiterating the decision of WRC-12, the matter relating to satellite failure was concluded with the following text in the Minutes of the Thirteenth Plenary (Document CMR12/554):

"In case of a satellite failure, especially that of a newly launched satellite, during the ninety-day bringing into use period that renders the satellite technically incapable of operating in a given frequency band, the notifying administration may submit the case to the Board for its consideration and careful investigation, taking into account all supporting materials, including details on the satellite that failed, to enable the Board to decide on the matter, as appropriate. In considering such a matter, the Board may determine on a case-by-case basis whether it is appropriate to apply the provisions of No. ***11.49*** *to the relevant frequency assignments in this case."*

When addressing such a case, the Board was of the view that the concern about satellite failures at WRC-12 was particularly for newly launched satellites. However, the proposed methods in the CPM Report do not distinguish between the failure of a newly launched satellite and the relocation of an in-orbit satellite. In the latter case, the Board's concern is that the proposed methods that award brought into use status to a satellite failure could have the opposite effect and encourage abuse of the brought into use rules by sanctioning the movement of aging and older satellites from one orbital location to another without regard to the potential for satellite failures.

The proposed modification to the regulatory procedures should therefore be defined to apply differently to newly launched satellites in the initial bringing into use, and in-orbit satellites being relocated with the intention of bringing back into use frequency assignments at another orbital location.

WRC-03 considered the issue of *force majeure* in the planned bands where it adopted changes to Appendices **30**, **30A**, and **30B** that defines the circumstances that must exist, the action required by the administration, and the deadlines (described in Section 4.9 above). **WRC-15 may wish to consider adopting similar conditions.** Amongst others, the following circumstances of satellite failure should be considered:

a) (Newly launched satellite during initial bringing into use. Based on the first two methods proposed in the CPM Report, the frequency assignments in the initial bringing into use will be granted suspension under RR No. **11.49**.

b) Consecutive failure of a newly launched satellite *i.e.* satellite failure of a newly launched satellite followed by a subsequent failure of the replacement satellite. In this case, the right will be granted to extend the regulatory deadline.

c) Relocation of in-orbit satellites with the intention of bringing back into use frequency assignments at another orbital location. As the current provision in the RR, when relocating in-orbit satellites, the frequency assignments of the satellite at the original orbital slot will be suspended under RR No. **11.49**. Upon initiation of relocation, if there is a satellite failure during the relocation or prior to the ninety days period defined in RR No. **11.44B**, suspension under RR No. **11.49** cannot be granted.

Suspension can only be considered for frequency assignments that have been brought into use. Therefore, with the existing suspension of the original orbital location, any

case of satellite failure during relocation will not grant additional suspension to the new orbital location under RR No. **11.49**.

At the same time, for the period between WRC-12 and WRC-15, the Board dealt with the case of satellite failure on a case-by-case basis: the notifying administration submits the case to the Board for its consideration and careful investigation, taking into account all supporting material, including details on the satellite that failed, to enable the Board to decide on the matter, as appropriate.

For the period mentioned above, the Board reviewed only one case of satellite launch failure, which was when it considered the Russian satellite networks at 145°E. Since there have not been any demonstrable events of a satellite failure during the brought into use period, it may be premature to modify the current regulatory procedures. In the event of the rare case of such failure, the Board believes that it will be sufficient for the notifying administration to submit the case to the Board for its consideration and decision on a case-by-case basis.

Given that the six different methods were still being studied by ITU-R, the Board decided not to adopt a RoP on the matter for the period prior to WRC-15.

WRC-15 may wish to consider the need to modify the current regulatory procedures.

4.11 The status of WRC decisions recorded in the minutes from a World Radiocommunication Conference

The decisions of a WRC as recorded in the minutes may contain elements prescribing specific outcomes or instructing the Bureau, Board, or administrations to take certain actions. Paragraph 6.20 of the minutes of the 65th meeting of the RRB, found in Document RRB14-1/17, contains the opinion of the ITU Legal Advisor concerning the binding nature of such decisions:

> 6.20 The **ITU Legal Adviser**, referring to the decision in the minutes of the 13th plenary meeting of WRC-12 (Document CMR12/554), said that the decision, which had been approved by WRC-12 without any objection by the negotiating parties, was binding on the Bureau as a subsidiary body of the WRC, and therefore needed to be taken into account by the Bureau. The decision clearly did not have the value of a treaty for ITU Member States, as it had not been subject to a formal ratification procedure in the same way as a treaty. The decision had the status of an authentic interpretation of a treaty, as it had been reached by consensus by the members through the agreement set out in the minutes and clarified the interpretation of a provision or provisions of the treaty. An authentic interpretation was an interpretation which emanated from the body empowered to adopt the treaty. It was the highest level of interpretation of a treaty and was difficult to contest because it originated from the community that had negotiated the treaty or provision.

In view of this, the RRB instructed the Bureau to publish a Circular Letter containing all of the decisions of the conference recorded in the minutes which are of an interpretative nature and which are still relevant with respect to actions of the BR.

The WRC-15 may wish to consider the need to incorporate new provisions into the Radio Regulations or request the Radio Regulations Board to develop Rules of Procedure that would codify the decisions linked to the application of the Radio Regulations that are currently reflected in the minutes of previous WRCs.

5 Conclusions

In its report to WRC-12, the Board focused its efforts on new concepts to address issues the Board and the Bureau had faced since WRC-07 affecting fulfilment of the principles contained in Article **44** of the Constitution and No. **0.3** of the Preamble to the Radio Regulations. The use of the radio-frequency spectrum and of the geostationary-satellite and other satellite orbits in a manner consistent with the principles set forth in the Constitution and the Radio Regulations is vitally important for the future of these limited natural resources.

In this report to WRC-15, the Board examined the application of Nos. **11.44B** and **13.6** of the Radio Regulations, the situation with respect to harmful interference, and considerations on satellite leasing* in some detail. All these topics were related directly and, in some cases, indirectly to items on the Board's agenda in the period between WRC-12 and WRC-15. To the extent possible, the Board provided recommendations and draft revisions to the provisions of the Radio Regulations enhancing the linkage between the notification, coordination, and registration procedures and the basic principles concerning the use of the radio frequency spectrum and satellite orbits.

Possible modifications to Articles **13** and **15** of the Radio Regulations follow considerations regarding harmful interference, which includes factors affecting the resolution of such cases and the use of monitoring. Considerations on satellite leasing* highlights a complex situation touching on Articles **11**, **13**, and **18** of the Radio Regulations as well as the principles contained in Article **44** of the Constitution and No. **0.3** of the Preamble to the Radio Regulations and private business arrangements. The role of leasing* in protecting assignments in the MIFR and operating them will require further study. It is hoped that administrations find this work useful in addressing the various issues at WRC-15, particularly those involving satellite networks.

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