|  |  |  |
| --- | --- | --- |
|  | ASIA-PACIFIC TELECOMMUNITY | **Document No:** |
| **The 4th Meeting of the APT Conference Preparatory****Group for WRC-19 (APG19-4)** | **APG19-4/OUT-22** |
| 7 – 12 January 2019, Busan, Republic of Korea | 12 January 2019 |

Working Party 3

**PRELIMINARY VIEWs on WRC-19 agenda item 7**

**Agenda Item 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.*

# General Consideration

APT Members support consideration of possible changes to improve advance publication, coordination, notification and recording procedures for frequency assignments pertaining to satellite networks/systems on the basis that activity under this agenda item is not used to make changes to allocations in Article 5 of the Radio Regulations.

APT Members are of the view that the general principle that satellite networks should be brought into use after conducting necessary frequency coordination should be maintained.

Taking into account the heavy workload of WRC-19 and several complex Agenda Items to be dealt with on the one hand, and the need for careful consideration of issues brought to WRC-19 to be carefully examined by CPM19-2 on the other hand, APT Members are of the view that APT Member states are invited to not bring any new issues under Agenda Item 7 to WRC-19.

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

1. Background

WRC-12 and WRC-15 adopted into the RR a series of specific provisions, including RR No. **11.44B**, that clarified the requirements for the bringing into use (BIU) and the bringing back into use (BBIU) of frequency assignments to a space station in a GSO satellite network. However, there are no provisions in the RR that specifically address the BIU of frequency assignments to space stations in non-GSO systems. In this context and in order to complete the recording of frequency assignments to non-GSO systems, it has been the practice of the Bureau to declare their BIU successfully completed when one satellite is deployed into a notified orbital plane and capable of transmitting and/or receiving those frequency assignments. This practice, reflected for FSS and MSS non-GSO systems in section 2 of the Rules of Procedure for RR No. **11.44**, has been used for a number of years. Furthermore, it has been used irrespective of the number of satellites or of the number of orbital planes indicated in the notification information provided under RR No. **11.2**.

However, in its report to WRC-15 on the experience in the application of regulatory procedures and other related matters, the Director of the Radiocommunication Bureau stated that:

“Taking into account of the numerous non-GSO systems received so far by the Bureau, and the possible speculative nature of such submissions that could lead to spectrum warehousing and resurgence of so-called “paper satellite networks” the conference may wish to consider redefining the notion of bringing into use for non-GSO satellite networks.”

WRC-15 invited the ITU-R to examine, under the standing WRC agenda item 7, the possible development of regulatory provisions beyond those under RR Nos. **11.25** and **11.44** on the non-GSO FSS/MSS systems and the implications of the application of such milestones to non-GSO FSS/MSS systems brought into use after WRC-15.

2. Documents

* Input Documents: APG19-4/INP- 120 (INS), 77 (KOR), 17 (AUS), 61 (J), 92 (SNG), 98 (CHN)
* Information Documents: APG19-4/INF-22 (CITEL), 23 (CEPT), 24 (RCC)

3. Summary of discussions

3.1 Summary of APT Members’ views

3.1.1 Indonesia - Document APG19-4/INP-120

* Indonesia is of the view as follow:
* BIU Period

All satellites which used in BIU shall be able to transmit and receive in the notified frequency assignments for a continuous period of 90 (ninety) days.

* Milestone-based approach

Considering that the appropriate time has been provided to allow the completion of the development of non-GSO satellite systems, the minimum required percentage of satellite deployed at the end of milestone shall be 100%. Should the number of satellites does not meet the requirement, Bureau shall adjust the MIFR accordingly.

* Transitional measure

Indonesia support that the decision of WRC-19 on this issue shall also apply for non-GSO systems with frequency assignments brought into use and having reached the end of their seven-year regulatory period prior to the entry into force of the provisions adopted by WRC-19.

3.1.2 Korea - Document APG19-4/INP-77

* With respect to bringing into use of frequency assignments to all non-GSO systems, the Republic of Korea has a view that it requires a continuous period of at least 90 days in a notified orbital plane of a satellite with the capability of transmitting or receiving the frequency assignments.
* The Republic of Korea also has a view that for establishment of a milestone-based approach for the deployment of non-GSO systems, a balance is required between the need to prevent warehousing of the orbital/spectrum resources and the operational requirements related to the deployment of a non-GSO system.

3.1.3 Australia - Document APG19-4/INP-17

* Australia supports a BIU requirement based on a milestone-based approach inclusive of a deployment factor for non-GSO systems, providing regulatory certainty to networks and recognition that constellations of non-GSO satellites may generally take time to be fully deployed. Australia is also of the view that any changes should not disadvantage existing and future GSO satellite systems and smaller non-GSO constellations. On specific draft CPM report text on Issue A, Australia has the following views:

Table 3/7/1.3.1 – Bring into use

Australia supports Option A, the 90-day requirement to bring into use the filing commences within the 7-year regulatory limit, as it aligns with current regulatory requirement for the GSO networks.

Table 3/7/1.3.2.1 – Milestones

Australia proposes a first milestone one or two years after the current 7-year regulatory period expiry, together with intermediate milestones that would serve as checkpoints to encourage a reasonable rate of deployment of planned systems.

Australia prefers Option F as the regulatory solution as it represents a good balance between flexibility and the requirement to use the radio frequency resource and associated satellite orbits in a rational, efficient and economic manner, and furthermore would be practical to apply for a wide range of already filed and anticipated non-GSO constellations. Australia opposes Option G on the basis of a lack of flexibility and achievability in satellite deployment (a higher proportion of satellites required at the first milestone); and its complexity when compared with other options.

Table 3/7/1.3.2.2 –Transitional measures

Australia supports Option 1, for its simplicity in the treatment of a temporary situation created by the transition to the new regulations. Australia supports a commencement date of 01 January 2021 as it is consistent with the typical ITU-R Method for determining the date of entry into force (as per RR Article **59**). Australia is also open to other commencement dates, noting that the WP4A Chairman Report on the draft CPM text points out that the specifics of transitional measures depend also on the characteristics of the milestone-based approach methodology adopted by WRC-19 (i.e. the number of milestones, the required levels of deployment, the bands and systems subject to the methodology, etc.) and can only be resolved once this is well known, and its impact on filings can be assessed.

Table 3/7/1.5.2.3 – Relevant frequency bands and services (for milestone approach)

Australia is of the view that the milestone approach should include all frequency bands under 1000 MHz for the MSS. Australia also supports the application of the milestone approach to non-GSO systems operating in the FSS, BSS and MSS and oppose the inclusion of the RNSS. Furthermore, Australia does not agree to the application of the milestone approach to the following frequency bands (GHz) referred to in the draft CPM report text:



Applicability of tolerance concept for orbital characteristic values:

Australia is of the view that a tolerance concept for Appendix **4** orbital data elements requires further studies as there may be unintended consequences. Therefore, Australia opposes the application of tolerance values under any Agenda Item in this WRC cycle but is open to consideration of it in a future WRC cycle.

3.1.4 Japan – Document APG19-4/INP-61

* With respect to BIU of non-GSO satellite systems (Issue A), Japan supports the current ITU-R studies to maintain the conditions for BIU, with some additional deployment milestones to certain space services and frequency bands, of frequency assignments to non-GSO satellite systems.

3.1.5 Singapore - Document APG19-4/INP-92

* In consideration of Issue A, Singapore has the following preliminary views:
1. concerning the continuous period for confirming the BIU of frequency assignments to a NGSO system, Singapore could accept all three options.
2. Regarding milestone timing and minimum required percentage of satellites to be deployed to meet the milestone, Singapore could support Options for which there exists a balance between the need to prevent warehousing of the orbital/spectrum resource and the operational requirements related to the deployment of a non-GSO satellite system.

1. Regarding the transitional measures, Singapore supports Option 1 which applies identical milestones, associated timelines and required levels of deployment for all non-GSO systems brought into use before and after the end of WRC-19. For non-GSO systems with frequency assignments reaching the end of their seven-year regulatory period after a date to be set by the Conference, the commencement of the milestone period will be the actual date of the end of the seven-year regulatory period. For the non-GSO systems with a regulatory period that ends before the date to be set by the Conference, the commencement of the milestone process is based on that date.

3.1.6 China - Document APG19-4/INP-98

* China supports that a solution to address this issue should follow the elements of seven guiding principles (in section 3/7/1.3 in Annex 30 of 4A/826) in the draft CPM text.
* China supports that the definition of the BIU of frequency assignments to non-GSO systems should be in accordance with the current practice as contained in the Rules of Procedure.
* China supports that a milestone-based approach for the maintenance of the recording in the MIFR of assignments to non-GSO systems should be associated with a minimum number of satellites to be deployed over time.
* China supports three milestones to be applied to networks recorded in the MIFR. Recognizing that some constellations may deploy some satellites but may fail to meet the milestones, a provision is proposed to reduce the number of satellites recorded in the MIFR while preserving the rights for the already in-orbit satellites. The reduction of the characteristics of the constellation recorded in the MIFR should be based on the number of actual satellites launched.
* China supports that any milestone-based approach should be applicable to FSS/BSS/MSS and other primary satellite services in the same direction as these services at least in the specific Ku, Ka and Q/V bands.
* China supports that those systems brought into use and notified, but not fully deployed before a date to be set by the Conference, will have the same regulatory certainty as that available to those systems which will be brought into use and notified after this date. For those systems brought into use and notified, but not fully deployed before a date to be set by the Conference, appropriate transitional measures may need to be considered in order to allow administrations to have sufficient time to adapt their current development and deployment schedules to meet milestones, as appropriate.

3.2 Summary of issues raised during the meeting

* Issue A addresses three points: Bringing-into-Use arrangements, Milestones, and Transitional arrangements.
* The summary of the issues was raised are as the follows:
	+ - * For issue on BIU of frequency assignments to non-GSO systems, a continuous period of at least 90 days is required for the FSS and MSS in a notified orbital plane of a satellite with the capability of transmitting or receiving the frequency assignments, in accordance with the current practice as contained in the Rules of Procedure on RR No. 11.44.
			* For establishment of a milestone-based approach for the deployment of non-GSO systems, a fair balance is required between the need to prevent warehousing of the orbital/spectrum resources and the operational requirements related to the deployment of a non-GSO system.
			* The milestone-based approach needs to provide sufficient flexibility to be compatible with the deployment of systems using new technologies. It is important to avoid any unnecessary constraints that would lead to the cancellation of any system under development as result of restrictive regulatory procedures.
* For issue on milestone-based approach for specific services in specific frequency bands:
	+ - * It is required to support an appropriate option, for which there exists a balance between the need to prevent warehousing of the orbital/spectrum resource and the operational requirements related to the deployment of a non-GSO satellite system.
			* A milestone-based approach for the maintenance of the recording in the MIFR of assignments to non-GSO systems should be associated with a minimum number of satellites to be deployed over time.
			* The reduction of the characteristics of the constellation recorded in the MIFR should be based on the number of actual satellites launched.
			* Any milestone-based approach should be applicable to FSS/BSS/MSS and other primary satellite services in the same direction as these services at least in the specific Ku, Ka and Q/V bands.
* For issue on transitional measures:
	+ - * Those systems brought into use and notified, but not fully deployed before a date to be set by the Conference, will have the same regulatory certainty as that available to those systems which will be brought into use and notified after this date. For those systems brought into use and notified, but not fully deployed before a date to be set by the Conference, appropriate transitional measures need to be considered in order to allow administrations to have sufficient time to adapt their current development and deployment schedules to meet milestones, as appropriate.

4. APT Preliminary View(s)

* APT Members support a BIU requirement based on a milestone-based approach inclusive of a deployment factor for non-GSO systems, providing regulatory certainty to networks and recognition that constellations of non-GSO satellites may generally take time to be developed and to complete their deployment. On draft CPM report text on Issue A, APT Members have the following views:

**BIU Period**

* APT Members support a continuous period of at least 90 days for the FSS and MSS in a notified orbital plane of a satellite with the capability of transmitting or receiving the frequency assignments, in accordance with the current practice as contained in the Rules of Procedure on RR No. **11.44**.

**Milestone-based approach**

* APT Members have the following preliminary views, in general:
	+ - * A milestone-based approach for the maintenance of the recording in the MIFR of assignments to non-GSO systems should be associated with a minimum number of satellites to be deployed over time.
			* Recognizing that some constellations may deploy some satellites but may fail to meet the milestones, a provision is proposed to reduce the maximum number of satellites recorded in the MIFR while preserving the rights for the already in-orbit satellites. The reduction of the maximum number of satellites recorded in the MIFR should be based on the number of actual satellites deployed.
			* APT members support the adoption of new WRC Resolution for Fixed Satellite Service(FSS), Mobile Satellite Service(MSS) and Broadcasting Satellite Service (BSS)if required in frequency bands of 10.7-13.25 GHz, 13.75-14.5 GHz, 17.3-20.2 GHz, 27-30 GHz, 37.5-42.5 GHz, 47.2-50.2 GHz and 50.4-51.4 GHz. This Resolution shall identify the requirement for the implementations of each milestone of deployment (Time period, percentage of satellites deployed for each milestone) together with necessary measure(s) to be applied to the system which failed to meet the milestone approach.

**Transitional Measure**

* APT members are of the view that those systems brought into use and notified, but not fully deployed before a date to be set by the Conference, will have the same regulatory certainty as that available to those systems which will be brought into use and notified after this date. For those systems brought into use and notified, but not fully deployed before a date to be set by the Conference, appropriate transitional measures may need to be considered in order to allow administrations to have sufficient time to adapt their current development and deployment schedules to meet milestones, as appropriate.

Reference to mile-stone based approach and transitional measures should be understood to be addressed irrespective of any method or option.

**Applicability of tolerance concept for orbital characteristic values**

* APT Members are of the view that a tolerance concept for Appendix **4** orbital data elements requires further studies.

5. Other View(s) from APT Members

**New WRC Resolution relating to Issue A**

* Some APT members are of the view that the new WRC Resolution referred to above shall not be used to limit the number of competing NGSO systems nor impede the deployment of such Non-GSO Systems/projects.

**Change to BIU**

* Some APT members are of the view that any changes to procedures relating to BIU should not disadvantage existing and future GSO satellite systems and smaller non-GSO constellations. Some other APT members do not share this view.

**Milestone-based approach**

* Some APT Members prefer Option F as the regulatory solution as it represents a good balance between flexibility and the requirement to use the radio frequency resource and associated satellite orbits in a rational, efficient and economic manner, and furthermore would be practical to apply for a wide range of already filed and anticipated non-GSO constellations. Some APT Members do not support Option G on the basis of a lack of flexibility and achievability in satellite deployment (a higher proportion of satellites required at the first milestone); and its complexity when compared with other options.
* Some other APT members are of the view that at this stage all options are on the table for discussions and consideration by the CPM19-2. Consequently, these APT Members do not agree to opt for particular option, due to the fact that selecting one option among several options which have not yet been fully discussed and analysed would give wrong impression and bias the mind of the readers of these options not allowing them to freely look at the advantage and disadvantage of these options before selecting any or some of the options under the Issue A.
* Some APT Members propose that a first milestone one or two years after the current 7-year regulatory period expiry, together with intermediate milestones that would serve as checkpoints to encourage a reasonable rate of deployment of planned systems.
* Some other APT members are of the view that at this stage all options are on the table for discussions and consideration by the CPM19-2. Consequently, these APT Members do not agree to opt for particular option, due to the fact that selecting one option among several options which have not yet been fully discussed and analysed would give wrong impression and bias the mind of the readers of these options not allowing them to freely look at the advantage and disadvantage of these options before selecting any or some of the options under the Issue A.

**Transitional measures**

* Some APT Members Support Option 1, for its simplicity in the treatment of a temporary situation created by the transition to the new regulations. Some APT Members support a commencement date of 01 January 2021 as it is consistent with the typical ITU-R Method for determining the date of entry into force (as per RR Article **59**). Some APT Members are also open to other commencement dates, noting that the WP4A Chairman Report on the draft CPM text points out that the specifics of transitional measures depend also on the characteristics of the milestone-based approach methodology adopted by WRC-19 (i.e. the number of milestones, the required levels of deployment, the bands and systems subject to the methodology, etc.) and can only be resolved once this is well known, and its impact on filings can be assessed.
* Some other APT members are of the view that at this stage all options are on the table for discussions and consideration by the CPM19-2. Consequently, these APT Members do not agree to opt for particular option, due to the fact that selecting one option among several options which have not yet been fully discussed and analysed would give wrong impression and bias the mind of the readers of these options not allowing them to freely look at the advantage and disadvantage of these options before selecting any or some of the options under the Issue A.

**Relevant frequency bands and services (for milestone approach)**

* Some APT Members are of the view that the milestone approach should include all frequency bands under 1000 MHz for the MSS. These APT Members also support the application of the milestone approach to non-GSO systems operating in the FSS, broadcasting-satellite service (BSS) and MSS and oppose the inclusion of the RNSS. Furthermore, these APT Members do not agree to the application of the milestone approach to the following frequency bands (GHz) referred to in the draft CPM report text:



* Some other APT members do not agree with inclusion of this table in this document.

6. Issues for Consideration at Next APG Meeting

* APT Members are encouraged to submit their contributions for further considerations at the next meeting, taking into account the outcome of CPM19-2.

7. Views from Other Organisations

7.1 Regional Groups

7.1.1 ASMG

* In order to access to update views/positions of the ASMG, APT members are encouraged to refer to the[APG19-4/INP-09 (Rev.1)](file:///C%3A%5CBackup%5CAPG19-4%5CDownloads%5CFirst%20session%20of%20the%20DG%207A%5CAPG19-4-INP-09Rev.1_Report-second_Inter-regional_Workshop_on_preparations_for_WRC-19.docx)

7.1.2 ATU

* In order to access to update views/positions of the ATU, APT members are encouraged to refer to the [APG19-4/INP-09 (Rev.1)](file:///C%3A%5CBackup%5CAPG19-4%5CDownloads%5CFirst%20session%20of%20the%20DG%207A%5CAPG19-4-INP-09Rev.1_Report-second_Inter-regional_Workshop_on_preparations_for_WRC-19.docx)

7.1.3 CEPT - Document APG19-4/INF-23

* CEPT supports that a solution to address this issue should follow the principles established by ITU-RWP 4A (Annex 30 of 4A/826, Section 3/7/1.3).
* CEPT supports that the definition of the BIU of frequency assignments to non-GSO systems in
* accordance with the current practice as contained in then RoP adopted by the 73rd meeting of the RRB to be left unchanged from the current practice. This means that CEPT supports considering that the frequency assignments to a non-GSO system be brought into use with the deployment of one of its satellites in one of the notified orbital planes with the operational capability of transmitting or receiving those frequency assignments. Further consideration needs to be given on the most appropriate length of the period during which such satellite needs to operate in one of the notified orbital planes of the non-GSO system.
* At the same time, CEPT supports a milestone-based approach for the maintenance of the recording in the MIFR of assignments to non-GSO systems associated with a minimum number of satellites to be deployed over time. In assessing milestone timelines and objectives, CEPT will seek a balance between the need to prevent spectrum warehousing, the proper functioning of coordination mechanisms and the operational requirements related to the deployment of a non-GSO satellite system.
* CEPT supports that any milestone-based approach should be applicable to FSS/BSS/MSS in at least the frequency bands 10.7-13.25, 13.75-14.5, 17.3-21.2, 27-31, 37.5-47, 47.2-50.2 and 50.4-51.4 GHz and is considering its applicability to other primary satellite services in the same direction and same frequency bands.
* CEPT believes that the milestone-based proposal gives regulatory certainty to networks and systems and gives recognition that constellations of non-GSO satellites may generally take time to be fully deployed. CEPT supports the adoption of a unique method encompassing all types of constellations.
* CEPT supports three milestones to be applied to networks recorded in the MIFR. Recognizing that some constellations may deploy some satellites but may fail to meet the milestones, a provision is proposed to reduce the number of satellites recorded in the MIFR while preserving the rights for the already in-orbit satellites. The reduction of the characteristics of the constellation recorded in the MIFR should be based on the number of actual satellites launched.
* In the absence of a ITU-R Recommendation dealing with calculation for interference as a result of modification, CEPT supports the non-application of No. 11,43B if modifications to notified orbital parameters, following milestone failure, are limited to the reduction of the number of orbital planes, reduction of the number of satellites per plane, modification of the right ascension of the ascending node of each plane and the modification of the initial phase angle of each satellite provided that notifying administration submit a commitment stating that the modified characteristics shall not cause more interference or require more protection than the initial notified characteristics.
* CEPT supports that those systems brought into use and notified, but not fully deployed before a date to be set by the Conference, will have the same regulatory certainty as that available to those systems which will be brought into use and notified after this date. CEPT supports a methodology that would ensure that at one point in time after WRC-19, the recorded frequency assignments and their associated characteristics must reflect the actual deployment of such systems. Appropriate transitional measures are needed in order to allow administrations having systems brought into use and notified before a date to be set by the Conference to have sufficient time to adapt their current development and deployment schedules to meet milestones after an appropriate date after WRC-19.
* CEPT supports that the suspension of frequency assignments does not extend the milestone period nor reduce the requirements associated with any of the remaining milestones.
* CEPT will study further whether provisions should be developed so as to avoid that the same space station may be used to gain undue advantage in the deployment of the constellation by bringing into use multiple filings.
* CEPT supports the adoption of a new Resolution by WRC-19 based on the principles and methodology set out above to address this issue.
	+ 1. **CITEL** - **Document APG19-4/INF-22**
* one proposal supports Option A for BIU and Option E for milestones; another proposal supports Option B for BIU and Option D for milestones.
	+ 1. **RCC-- Document APG19-4/INF-24**

**Bringing into use**

* With regard to bringing into use of non-GSO systems, the RCC Administrations support that frequency assignment to space station of non-GSO satellite systems shall be considered as having been brought into use, when notifying administration informed the Bureau that at least one space station with the confirmed capability of transmitting or receiving, has been deployed on one of the notified orbital planes of the non-GSO satellite system, irrespective of the notified number of orbital planes and satellites per orbital plane in the system. The RCC Administrations do not support identification in the Radio Regulations a continuous period of 90 or less days of deployment of a satellite, when bringing into use frequency assignments to non-GSO system. Orbital tolerance elements shall take into account different types of orbits for non-GSO-systems and application of these systems.

**The procedure of the milestone-based deployment approach**

* With regard to milestone-based approach to the deployment of multisatellite non-GSO system, the RCC Administrations support adoption of new WRC-19 Resolution for fixed-satellite service (FSS) and mobile satellite service (MSS) only in specific frequency bands (Ku-, Ka-, Q/V bands). This Resolution shall identify the requirements for the implementation of each milestone of deployment (time period and percentage of the satellites deployed for each milestone) and restrictive measures applied to systems failed to meet the milestone (appropriate reduction in number of system satellites notified in the MIFR).
* The RCC Administrations consider that time period and per cent of satellites deployed for each milestone of the system deployment and duration of the transition period shall ensure the balance between the capability to implement the non-GSO satellite system and effective use of the orbital and frequency resources, in order to prevent spectrum reservation by multi-satellite systems, which do not have real capability to implement the satellite constellation with notified characteristics.
* RCC Administrations consider that the procedure for the milestone based approach of deployment shall not be applied to frequency assignments to non-GSO satellite systems/networks used for safety of human life.

7.2 International Organisations

7.2.1 ICAO

* None.

7.2.2 WMO

* None.

7.2.3 IARU

* None.

# Issue B - Ka-band coordination arc – FSS/MSS, MSS/MSS

1. Background

Currently in the Radio Regulations, to determine whether coordination under RR No. **9.7** is required, in the frequency bands 29.5-30 GHz (Earth-to-space)/19.7-20.2 GHz (space-to-Earth) in all 3 Regions the following criteria is applied:

– FSS vs FSS: Coordination arc of 8º

– FSS vs MSS: Δ*T/T* > 6%

– MSS vs MSS: Δ*T/T* > 6%

In addition, in the FSS vs FSS coordination, administrations can always request application of RR No. **9.41** to include additional satellite networks that would be affected taking into account the Δ*T/T* > 6% criteria.

Considering that according to the current Radio Regulations, to determine whether coordination under RR No. **9.7** is required between FSS vs FSS satellite networks, a coordination arc of 8º is the coordination criteria applied in this same frequency band, Agenda Item 7 Issue B studies the possibility to apply this same coordination criteria to determine if coordination is required between MSS systems and between MSS and FSS systems based on the following principles:

– Results of studies show that earth station terminals used in the MSS and FSS in the Ka‑band are quite similar. Therefore, it can be considered that the coordination arc that currently trigger coordination between FSS systems in an effective and efficient manner, can be applied to trigger coordination between MSS and FSS systems and MSS systems.

– Introduction of the coordination arc will reduce the number of Administrations identified for coordination, reducing the number of coordination processes and resulting in a reduction of required resources in Administrations, operators, Bureau, etc.

– Administration will always have the possibility to request application of RR No. **9.41** to include additional satellite networks affected, taking into account the Δ*T/T* > 6% criteria.

As a result of the ITU-R studies, Method B2 proposes the introduction of the coordination arc with a value of 8 degrees as coordination criteria between FSS and MSS systems and between MSS systems, in the frequency bands 29.5-30 GHz (Earth-to-space)/19.7-20.2 GHz (space‑to-Earth) in all 3 Regions, as substitution of the existing trigger of coordination Δ*T/T*> 6% without referring to the status of the existing and/or incoming FSS and MSS assignments. At the same time, administrations can always request application of RR No. **9.41** to include additional satellite networks that would be affected taking into account the Δ*T/T* > 6% criteria. Method B1 proposes no change to the Radio Regulations.

The Working Party 4A (WP4A) meeting in July 2018 agreed on the draft CPM text for WRC-19 Agenda Item 7 Issue B ([Annex 31 to Document 826](https://www.itu.int/dms_ties/itu-r/md/15/wp4a/c/R15-WP4A-C-0826%21N31%21MSW-E.docx) of the Working Party 4A Chairman’s Report).

**Relevant ITU-R Recommendations and Reports**

* [Annex 31 to Document 826](https://www.itu.int/dms_ties/itu-r/md/15/wp4a/c/R15-WP4A-C-0826%21N31%21MSW-E.docx) of the Working Party 4A Chairman Report, July 2018: Preliminary Draft CPM text for WRC-19 agenda item 7 – Issue B

2. Documents

* Input Documents: APG19-4/INP-[17 (AUS)](https://www.apt.int/sites/default/files/2019/01/APG19-4-INP-17_AUS3_-_Australian_Contribution_to_APG19-4_Chapter_3.docx), [43 (MLA, SNG, THA)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-43_MLA_SNG_THA_WP3_AI_7B_7C_7D.docx), [77 (KOR)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-77_WP3_kor.docx), [98 (CHN)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-98_China2_Preliminary_views_on_WRC-19_AI_1.4_1.5_1.6_7_9.1_issues_9.1.2_9.1.3_9.1.9.docx), [107 (MNG)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-107_Mongolian_Preliminary_Views_on_WRC-19_Agenda_Item_7_WP_3_APG19-4.docx), [112 (IND)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-112_India_Proposal_for_Modification_to_Draft_CPM_Text_of_Chapter_3_Agenda_Item_7.docx), [120 (INS)](https://www.apt.int/sites/default/files/2019/01/APG19-4-INP-120_INS3_Preliminary_View_-_WP3.docx)
* Information Documents: APG19-4/INP-[09(Rev.1) (ASMG, ATU)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-09Rev.1_Report-second_Inter-regional_Workshop_on_preparations_for_WRC-19.docx), APG19-4/INF-[02 (WMO)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INF-02_WMO-Position_20181109.docx), [03 (IARU)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INF-03_IARU.DOCX), [04 (ICAO)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INF-04_ICAO_01_WRC-19_ICAO-Pos_for_APG-4_for_WP5.docx), [22 (CITEL)](https://www.apt.int/sites/default/files/2019/01/APG19-4-INF-22_CITEL_PPT.pdf), [23 (CEPT)](https://www.apt.int/sites/default/files/2019/01/APG19-4-INF-23_CEPT_PPT.pdf), [24 (RCC)](https://www.apt.int/sites/default/files/2019/01/APG19-4-INF-24_RCC.pdf)

3. Summary of discussions

3.1 Summary of APT Members’ views

3.1.1 Australia – Document [APG19-4/INP-17](https://www.apt.int/sites/default/files/2019/01/APG19-4-INP-17_AUS3_-_Australian_Contribution_to_APG19-4_Chapter_3.docx)

* Australia supports the application of coordination triggers in the Ka-band to MSS networks, for coordination between MSS-MSS and MSS-FSS networks. Noting that any procedures should not compromise the protection of a primary service from a secondary service. Australia supports Method B2 and neutral on Method B1 of the draft CPM Report text.

3.1.2 Malaysia, Singapore, Thailand – Document [APG19-4/INP-43](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-43_MLA_SNG_THA_WP3_AI_7B_7C_7D.docx)

* Malaysia, Singapore and Thailand support Method B2 as it could help to facilitate and improve the coordination procedures.

3.1.3 The Republic of Korea – Document [APG19-4/INP-77](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-77_WP3_kor.docx)

* The Republic of Korea supports application of the coordination arc with a value of 8 degrees as coordination criteria, to determine if coordination is required between FSS and MSS systems and between MSS systems in the frequency bands 29.5-30 GHz (Earth-to-space)/19.7-20.2 GHz (space-to-Earth), in all Regions, while keeping the possibility to request application of RR No.**9.41** to include additional satellite networks that would be affected taking into account the ΔT/T > 6% criteria.
* Therefore, the Republic of Korea supports modifications to RR Appendix **5** in order to implement this application without modifications to current category of allocation in the frequency bands above.

3.1.4 China – Document [APG19-4/INP-98](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-98_China2_Preliminary_views_on_WRC-19_AI_1.4_1.5_1.6_7_9.1_issues_9.1.2_9.1.3_9.1.9.docx)

* In order to make more efficient the coordination procedures, China supports that coordination arc criteria would substitute the ΔT/T>6% criteria that currently applies, while keeping the possibility for Administrations to request ΔT/T criteria under No **9.41**, as outlined in Method B2 in the draft CPM text.

3.1.5 Mongolia – Document [APG19-4/INP-107](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-107_Mongolian_Preliminary_Views_on_WRC-19_Agenda_Item_7_WP_3_APG19-4.docx)

* The Administration of Mongolia considers that applying the coordination arc criterion would increase the efficiency of coordination procedure while maintaining the possibility to apply the RR No.9.41. Mongolia is of the view to support the Method B2 in the draft CPM19-2 report text.

3.1.6 India – Document [APG19-4/INP-112](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-112_India_Proposal_for_Modification_to_Draft_CPM_Text_of_Chapter_3_Agenda_Item_7.docx)

* Method B2: Agreed

3.1.7 Indonesia – Document [APG19-4/INP-120](https://www.apt.int/sites/default/files/2019/01/APG19-4-INP-120_INS3_Preliminary_View_-_WP3.docx)

* Indonesia is of the view to support Method B2 which propose to use of the coordination arc with a value of 8 degrees as coordination criteria, to determine if coordination is required between FSS and MSS systems and between MSS systems in the frequency bands 29.5-30 GHz (Earth-to-space)/19.7-20.2 GHz (space-to-Earth), in all 3 Regions, replacing the existing coordination criteria ΔT/T > 6%.

3.2 Summary of issues raised during the meeting

* None.

4. APT Preliminary View(s)

* APT Members support Method B2 in the draft CPM text that uses the coordination arc with a value of 8 degrees as coordination criteria, to determine if coordination is required between FSS and MSS systems and between MSS systems in the frequency bands 29.5-30 GHz (Earth-to-space)/19.7‑20.2 GHz (space-to-Earth), in all 3 Regions, replacing the existing coordination criteria ΔT/T > 6%, without modifications to current status of allocation in the frequency bands above. It is noted that under this Method, administrations can always request application of RR No. 9.41 to include additional satellite networks that would be affected taking into account the ΔT/T > 6% criteria.

5. Other View(s)

* None.

6. Issues for Consideration at Next APG Meeting

* APT Members are invited to follow the progress of ITU-R studies and are encouraged to submit their contributions to the next meeting to finalize the APT Views at the APG19-5 meeting.

7. Views from Other Organisations

7.1 Regional Groups

7.1.1 ASMG - Document APG19-4/INP-09(Rev.1)

* Follow up studies.
* Initial support to apply coordination Arc between FSS and MSS and between MSS and
MSS networks in the band 19.7-20.2 and 29.5-30 GHz, instead of DT/T (6%) approach.
* Continue the application of 9.41 with respect to networks exceeds DT/T 6%

7.1.2 ATU - Document APG19-4/INP-09(Rev.1)

* Method B2, the use of the coordination arc with a value of 8 degrees as coordination criteria, to determine if coordination is required between FSS and MSS systems and between MSS systems in the frequency bands 29.5-30 GHz (Earth-to-space) / 19.7‑20.2 GHz (space-to-Earth), in all 3 Regions, replacing the existing coordination criteria ΔT/T > 6%

7.1.3 CEPT - Document APG19-4/INF-23

* CEPT supports to apply the coordination arc to both MSS primary and secondary frequency assignments without modifying the current conditions related to the category of allocation applicable to assignments to be taken into account in coordination. Coordination arc criteria would substitute the ΔT/T>6% criteria that currently applies, improving and making more efficient the coordination procedures, while keeping the possibility for Administrations to request ΔT/T criteria under No **9.41**. CEPT supports adequate modifications to Table 5-1 of RR Appendix **5** to implement this proposal, as outlined in Method B2 in the draft CPM text

7.1.4 CITEL - Document APG19-4/INF-22

* DIAPs support Method B2 to extend the coordination arc approach to MSS in Ka bands.

7.1.5 RCC - Document APG19-4/INF-24

* The RCC Administrations support introducing the coordination arc mechanism in Ka-band to identify the need in the coordination between MSS and FSS geostationary satellite networks, as well as between MSS geostationary satellite networks, while maintaining the
possibility of applying RR No. **9.41** (Method В2)

7.2 International Organisations

7.2.1 ICAO - Document APG19-4/INF-04

* None.

7.2.2 WMO - Document APG19-4/INF-02

* None.

7.2.3 IARU - Document APG19-4/INF-03

* None.

# Issue C – Issues for which consensus was achieved in ITU-R

1. Background

Issue C is a collection of several different topics that are viewed as being straightforward and for which consensus was readily achieved within ITU-R. The issues address such things as resolving inconsistencies in regulatory provisions, clarifying certain existing practices, or increasing transparency in the regulatory process. The issues are separately numbered in the following sections.

# Issue C1 - Inconsistency between provisions of RR No.11.43A of RR Article 11 and paragraph 8.13 of Article 8 of RR Appendix 30B

1. Background

Further review of the provisions dealing with any changes to the characteristics of an assignment submitted under provisions of RR No. **11.43A** of RR Article **11**, and that submitted under paragraph 8.13 of Article 8 of RR Appendix **30B** and confirmed as having been brought into use, reveals that there is a regulatory inconsistency between the objectives of the two provisions/paragraph as follows:

*“****8.13*** *A notice of a change in the characteristics of an assignment already recorded, as specified in Appendix****4****, shall be examined by the Bureau under § 8.8 and § 8.9, as appropriate. Any changes to the characteristics of an assignment that has been notified and confirmed as having been brought into use shall be brought into use within eight years from the date of the notification of the modification. Any changes to the characteristics of an assignment that has been notified but not yet brought into use shall be brought into use within the period provided for in §§ 6.1, 6.31 or 6.31bis of Article 6.    (WRC‑12)”*

*“11.43A A notice of a change in the characteristics of an assignment already recorded, as specified in Appendix 4, shall be examined by the Bureau under Nos. 11.31 to 11.34, as appropriate. Any change to the characteristics of an assignment that has been recorded and confirmed as having been brought into use shall be brought into use within five years from the date of the notification of the modification. Any change to the characteristics of an assignment that has been recorded but not yet brought into use shall be brought into use within the period provided for in No. 11.44.    (WRC‑07)”*

It is to be emphasized that the concept of the text of paragraph 8.13 of Article 8 of RR Appendix **30B** was borrowed/taken from provisions of RR No. **11.43A** of RR Article **11**. However, in so doing an important element as contained in RR No. **11.43A** which referred to any change to the characteristics of an assignment that has been *recorded* and confirmed as having been brought into use was changed to *notified* and confirmed as having been brought into use*,* which is quite different.

An assignment may be notified but due to one or other reasons not yet recorded in the MIFR, but the notifying administration might have brought that assignment into use and its date of bringing it to use might have been confirmed.

It is also worth mentioning that an assignment may be notified but being returned to its notifying administration on relevant regulatory grounds. That assignment shall not be benefited as being recorded.

2. Documents

* Input Documents APG19-4/INP-17 (AUS), 39 (VTN), 43 (MLA\_SNG\_THA), 77 (KOR), 98 (CHN), 107 (MNG), 112 (IND), 120 (INS)
* Information Documents APG19-4/ INP-09(Rev.1) (ASMG, ATU), APG19-4/INF-22 (CITEL), 23 (CEPT), 24 (RCC)

3. Summary of discussions

3.1 Summary of APT Members’ views

3.1.1 Australia – Document APG19-4/INP-17

* Australia supports efforts to resolve inconsistencies in regulatory provisions, clarify certain existing practices, or increase transparency in the regulatory process. Australia supports the single Method of the draft CPM Report text for these Issues.

3.1.2 Viet Nam – Document APG19-4/INP-39

* Viet Nam supports the single method to address this issue by aligning the text of paragraph 8.13 of Article 8 of RR Appendix **30B** with that of RR No. **11.43A** of RR Article **11** while ensuring that this alignment should not impact on any other current regulatory practice.

3.1.3 Malaysia – Document APG19-4/INP-43

* Malaysia supports the single method in each of these sub issues within Issue C which provides clarity to the Radio Regulations.

3.1.4 Singapore – Document APG19-4/INP-43

* Singapore supports the single method in each of these sub issues within Issue C which provides clarity to the Radio Regulations.

3.1.5 Thailand – Document APG19-4/INP-43

* Thailand supports the single method in each of these sub issues within Issue C which provides clarity to the Radio Regulations.

3.1.6 Korea (Rep. of) – Document APG19-4/INP-77

* The Republic of Korea supports the single method in the draft CPM text to address this issue by aligning the text of paragraph 8.13 of Article 8 of RR Appendix **30B** with that of RR No. **11.43A** of RR Article **11** while ensuring that this alignment should not impact on any other current regulatory practice.

3.1.7 China – Document APG19-4/INP-98

* For issues C1 to C7, China supports a single method in relevant draft CPM text to address these sub-topics under Issue C for improvements of RR.

3.1.8 Mongolia – Document APG19-4/INP-107

* Mongolia is of the view to support the single method of the draft CPM Report text which provides clarity to the Radio Regulations.

3.1.9 India – Document APG19-4/INP-112

* India agreed to the single method.

3.1.10 Indonesia – Document APG19-4/INP-120

* Indonesia is of the view to support the single method in draft CPM Report which propose the alignment of the text of paragraph 8.13 of Article 8 of RR Appendix **30B** with that of RR No. **11.43A** of RR Article **11** while ensuring that this alignment should not impact on any other regulatory practice at present.

3.2 Summary of issues raised during the meeting

* None.

4. APT ****Preliminary**** View(s)

* APT Members support the single method in the draft CPM text to address this issue by aligning the text of paragraph 8.13 of Article 8 of RR Appendix **30B** with that of RR No. **11.43A** of RR Article **11** while ensuring that this alignment should not impact on any other current regulatory practice.

5. Other View(s)

* None.

6. Issues for Consideration at Next APG Meeting

* None.

7. Views from Other Organisations

7.1 Regional Groups

7.1.1 ASMG – Document INP-09(Rev.1)(ASMG, ATU)

* Initial support for all single methods proposed in draft CPM text for C1 to C7.

7.1.2 ATU – Document INP-09(Rev.1)(ASMG, ATU)

* ATU Supports, as a matter of principle, the methods proposed for each matter under this issue considering that the matters are non-contentious and consensus has already been achieved at the ITU-R WP4A on all matters on how best to resolve them.

7.1.3 CEPT – Document APG19-4/INF-23

* CEPT supports the consensus achieved at ITU-R level.

7.1.4 CITEL – Document APG19-4/INF-22

* The CITEL supports single method shown in the draft CPM report.

7.1.5 RCC– Document APG19-4/INF-24

* The RCC Administrations consider that the existing discrepancy between provisions of Articles in RR Appendices 30, 30А and 30В and the terminology of RR Article 11 provisions do not lead to complications when applying the relevant provisions of the Radio Regulations.

7.2 International Organisations

7.2.1 ICAO - Document APG19-4/INF-04

* None.

7.2.1 WMO - Document APG19-4/INF-02

* None.

7.2.2 IARU - Document APG19-4/INF-03

* None.

# Issue C2 - Clarification of the possibility to notify/bring into use only one of the blocks/one sub-band under AP30B Article 6

1. Background

RR Appendix **30B** consists of two blocks/ sub-bands of 250 MHz each in 13-11 GHz band, i.e. 10.70‑10.95 GHz, 11.2-11.45 GHz for downlink and 12.75-13.0 GHz, 13.0-13.25 GHz for uplink. Submission from administrations when applying Article 6 of RR Appendix **30B** for additional use usually covers both blocks/sub-bands of 250 MHz mentioned above or may only submit either of the two blocks for additional use or while successfully applying Article 6for the two blocks/ sub‑bands, when applying Article 8, only bring into use one block/sub-band of the 13-11 GHz.

There is no provision in the Appendix prohibiting, strictly speaking, to allow Administrations to submit an application for one of the blocks/sub-bands in an explicit submission of one of the blocks/sub-bands under RR Appendix **30B**. This concept is analogous to that stipulated in footnote 4 associated with paragraph 6.1 of Article 6 of the Appendix. However, there is no specific provision authorizing that application when submitting RR Appendix **4** for either of two sub-bands. Nevertheless, the Rules of Procedure relating to paragraphs 6.5 of Article 6 of the RR Appendix**30B** in its sub paragraph 1 stipulates that:

Quote

*“1 The planning exercise and the interference analysis were made by WARC Orb-88 for the whole band of 300 MHz (6/4 GHz) or 500 MHz (13/11 GHz) on a co-channel basis. It may happen that two administrations conclude agreement on the shared use of the frequency bands. In the compatibility examination by the Bureau, the mutual interference between non-overlapping frequency assignments shall not be taken into consideration in formulating findings”*

Unquote

The Rules were established during 90th in order that a dispute between two administrations relating the use of the entire bands (two blocks/sub-bands) on a given orbital position be satisfactorily resolved. The adoption of the Rules mentioned above permitted each of these two administrations using one of the two blocks/sub-bands, each of 250 MHz be used at two closely orbital positions.

2. Documents

* Input Documents APG19-4/INP-17 (AUS), 39 (VTN), 43 (MLA\_SNG\_THA), 77 (KOR), 98 (CHN), 107 (MNG), 112 (IND), 120 (INS)
* Information Documents APG19-4/ INP-09(Rev.1) (ASMG, ATU), APG19-4/INF-22 (CITEL), 23 (CEPT), 24 (RCC)

3. Summary of discussions

3.1 Summary of APT Members’ views

3.1.1 Australia – Document APG19-4/INP-17

* Australia supports efforts to resolve inconsistencies in regulatory provisions, clarify certain existing practices, or increase transparency in the regulatory process. Australia supports the single Method of the draft CPM Report text for these Issues.

3.1.2 Viet Nam – Document APG19-4/INP-39

* Viet Nam supports a single method as described in § 3/7/3.4.2 of CPM report.

3.1.3 Malaysia – Document APG19-4/INP-43

* Malaysia supports the single method in each of these sub issues within Issue C which provides clarity to the Radio Regulations.

3.1.4 Singapore – Document APG19-4/INP-43

* Singapore supports the single method in each of these sub issues within Issue C which provides clarity to the Radio Regulations.

3.1.5 Thailand – Document APG19-4/INP-43

* Thailand supports the single method in each of these sub issues within Issue C which provides clarity to the Radio Regulations.

3.1.6 Korea (Rep. of) – Document APG19-4/INP-77

* The Republic of Korea supports the single method in the draft CPM text which can allow administration to submit an application for one of the blocks/sub-bands of 250 MHz (10.7-10.95 GHz or 11.2-11.45 GHz for downlink and 12.75-13.0 GHz or 13.0-13.25 GHz for uplink) in an explicit submission of one of the blocks/sub-bands under RR Appendix **30B**.

3.1.7 China – Document APG19-4/INP-98

* For issues C1 to C7, China supports a single method in relevant draft CPM text to address these sub-topics under Issue C for improvements of RR.

3.1.8 Mongolia – Document APG19-4/INP-107

* Mongolia is of the view to support the single method of the draft CPM Report text which provides clarity to the Radio Regulations.

3.1.9 India – Document APG19-4/INP-112

* India agreed to the single method.

3.1.10 Indonesia – Document APG19-4/INP-120

* Indonesia is of the view to support the single method in draft CPM Report which proposes to add another footnote to paragraph 6.1 of Article 6 of RR Appendix **30B** to allow the administration as follows:
1. to submit under paragraph 6.1 an additional use for the two blocks/sub-bands in 10‑11 GHz but only bring into use one of the blocks/one sub-band or,
2. to submit under paragraph 6.1 an application of an additional use for only one of the two blocks/sub-bands in 10-11 GHz and notify and bring into use that block/sub-band only;
3. to allow/authorize the Bureau, in applying Article 6, to act according to the nature of submission and further process them accordingly, i.e. to process the two blocks/sub-bands or process one of the two block/sub-bands and further process the submission as received;
* to allow/authorize the Bureau, in applying Article 8, to maintain one of the two blocks/sub-bands as notified even though the entire two blocks/sub-bands were submitted under Article 6 and successfully coordinated under that Article but only one of the block/sub-bands is notified or brought into use.

3.2 Summary of issues raised during the meeting

* None.

4. APT Preliminary View(s)

* APT Members support the single method in the draft CPM text which can allow administrations to submit an application for one of the blocks/sub-bands of 250 MHz (10.7-10.95 GHz or 11.2‑11.45 GHz for downlink and 12.75-13.0 GHz or 13.0-13.25 GHz for uplink) in an explicit submission of one of the blocks/sub-bands under RR Appendix **30B**.

5. Other View(s)

* None.

6. Issues for Consideration at Next APG Meeting

* None.

7. Views from Other Organisations

7.1 Regional Groups

7.1.1 ASMG – Document INP-09(Rev.1) (ASMG, ATU)

* Initial support for all single methods proposed in draft CPM text for C1 to C7.

7.1.2 ATU – Document INP-09(Rev.1) (ASMG, ATU)

* ATU Supports, as a matter of principle, the methods proposed for each matter under this issue considering that the matters are non-contentious and consensus has already been achieved at the ITU-R WP4A on all matters on how best to resolve them.

7.1.3 CEPT – Document APG19-4/INF-23

* CEPT supports the consensus achieved at ITU-R level.

7.1.4 CITEL – Document APG19-4/INF-22

* The CITEL supports single method shown in the draft CPM report.

7.1.5 RCC– Document APG19-4/INF-24

* The RCC Administrations support the proposal on possible notification of frequency assignments blocks with bandwidth of 250 MHz each for additional systems in Ku-band within Appendix 30B.

**7.2 International Organisations**

7.2.1 ICAO - Document APG19-4/INF-04

* None.

7.2.1 WMO - Document APG19-4/INF-02

* None.

7.2.2 IARU - Document APG19-4/INF-03

* None.

# Issue C3 - AP30B MOD to Article 6 No. 6.10

1. Background

Issue C3 addresses the consequences for not replying to the letters from the Bureau initiated by a request for its assistance by a notifying administration seeking the inclusion of the territory of a foreign administration under §6.6 of RR Appendix**30B**.

An administration intending to convert an RR Appendix **30B** allotment into an assignment, introduce an additional system[[1]](#footnote-1) or modify the characteristics of an assignment in the Appendix **30B** List must submit the information specified in Appendix **4** to the Bureau. Following the receipt of the notice, the Bureau examines and publishes it in a special section of the BR IFIC. Among other things, this special section can contain two types of requirements to seek and obtain the agreement of those affected administrations whose:

– allotments in the Appendix **30B** or assignments in the Appendix **30B** List or those already examined by the Bureau (requirements identified under § 6.5 of Appendix **30B**), or

– territories have been included in the service area of the assignment under consideration (requirements associated with §6.6 of Appendix **30B**).

It is important to note that under the current regulatory framework, there is a specific provision (§ 6.13) in Appendix **30B** to seek the assistance of the Bureau in case of a non-response of affected administrations identified under § 6.5 of Appendix **30B** within the four-month comment period. In case of a non-response to the letters from the Bureau initiated under § 6.13, 6.14 and 6.14*bis* of Appendix **30B**, it will be deemed that this administration, identified under § 6.5 of Appendix **30B** has agreed as per § 6.15 of Appendix **30B**. However, none of the provisions referred above (§ 6.13 to 6.15) applies in the case of affected administrations identified under § 6.6 of Appendix **30B**. In fact, there is not a single regulatory mechanism in Appendix **30B** to seek the assistance of the Bureau in this case. For a request for the assistance of the Bureau on issue relating to the inclusion of the territory of an administration, the notifying administration, in its request to the Bureau and the Bureau, in its subsequent letters to the affected administration, have to invoke RR No. **13.1** for this matter. Furthermore, the current Radio Regulations do not specify any action from the Bureau with respect to an administration that did not respond to any of its letters initiated under RR No. **13.1**. This implies that the inclusion of the territory of an administration identified under § 6.6 of RR Appendix **30B** can only result from a formal agreement of this administration and, in no circumstance, results from a non-response to neither the original request for inclusion of its territory nor any subsequent letters from the Bureau on this matter.

2. Documents

* Input Documents APG19-4/INP-17 (AUS), 39 (VTN), 43 (MLA\_SNG\_THA), 77 (KOR), 98 (CHN), 107 (MNG), 112 (IND), 120 (INS)
* Information Documents APG19-4/INP-09(Rev.1) (ASMG, ATU), APG19-4/INF-22 (CITEL), 23 (CEPT), 24 (RCC)

3. Summary of discussions

3.1 Summary of APT Members’ views

3.1.1 Australia – Document APG19-4/INP-17

* Australia supports efforts to resolve inconsistencies in regulatory provisions, clarify certain existing practices, or increase transparency in the regulatory process. Australia supports the single Method of the draft CPM Report text for these Issues.

3.1.2 Viet Nam – Document APG19-4/INP-39

* Viet Nam supports the single method to add a new provision in Article 6 of RR Appendix **30B** to clearly state that § 6.13 to 6.15 of RR Appendix **30B** do not apply in the context of requirements associated with §6.6 of RR Appendix **30B**.

3.1.3 Malaysia – Document APG19-4/INP-43

* Malaysia supports the single method in each of these sub issues within Issue C which provides clarity to the Radio Regulations.

3.1.4 Singapore – Document APG19-4/INP-43

* Singapore supports the single method in each of these sub issues within Issue C which provides clarity to the Radio Regulations.

3.1.5 Thailand – Document APG19-4/INP-43

* Thailand supports the single method in each of these sub issues within Issue C which provides clarity to the Radio Regulations.

3.1.6 Korea (Rep. of) – Document APG19-4/INP-77

* The Republic of Korea supports the single method in the draft CPM text to add a new provision in Article 6 of RR Appendix **30B** to clearly state that § 6.13 to 6.15 of RR Appendix **30B** do not apply in the context of requirements associated with §6.6 of RR Appendix **30B**.

3.1.7 China – Document APG19-4/INP-98

* For issues C1 to C7, China supports a single method in relevant draft CPM text to address these sub-topics under Issue C for improvements of RR.

3.1.8 Mongolia – Document APG19-4/INP-107

* Mongolia is of the view to support the single method of the draft CPM Report text which provides clarity to the Radio Regulations.

3.1.9 India – Document APG19-4/INP-112

* India agreed to the single method.

3.1.10 Indonesia – Document APG19-4/INP-120

* Indonesia is of the view to support the single method in draft CPM Report which propose toadd a new provision in Article 6 of RR Appendix **30B** to clearly state that § 6.13 to 6.15 of RR Appendix **30B** do not apply in the context of requirements associated with § 6.6 of RR Appendix **30B**.

3.2 Summary of issues raised during the meeting

* None.

4. APT Preliminary View(s)

* APT Members support the single method in the draft CPM text to add a new provision in Article 6 of RR Appendix **30B** to clearly state that § 6.13 to 6.15 of RR Appendix **30B** do not apply in the context of requirements associated with §6.6 of RR Appendix **30B**.

5. Other View(s)

* None.

6. Issues for Consideration at Next APG Meeting

* None.

7. Views from Other Organisations

7.1 Regional Groups

7.1.1 ASMG – Document INP-09(Rev.1)(ASMG, ATU)

* Initial support for all single methods proposed in draft CPM text for C1 to C7

7.1.2 ATU – Document INP-09(Rev.1) (ASMG, ATU)

* ATU Supports, as a matter of principle, the methods proposed for each matter under this issue considering that the matters are non-contentious and consensus has already been achieved at the ITU-R WP4A on all matters on how best to resolve them.

7.1.3 CEPT – Document APG19-4/INF-23

* CEPT supports the consensus achieved at ITU-R level.

7.1.4 CITEL – Document APG19-4/INF-22

* The CITEL supports single method shown in the draft CPM report.

7.1.5 RCC– Document APG19-4/INF-24

* The RCC Administrations do not oppose the modification of RR Article 6 §§ 6.13 and 6.15 of Appendix 30B taking into account the Rules of Procedure under RR § 6.6 of Appendix 30B.

7.2 International Organisations

7.2.1 ICAO - Document APG19-4/INF-04

* None.

7.2.1 WMO - Document APG19-4/INF-02

* None.

7.2.2 IARU - Document APG19-4/INF-03

* None.

# Issue C4 - AP30/30A single AP4 notice for List and Notification

1. Background

Normally, at the end of the coordination process for Regions 1 and 3 under Article 4 of RR Appendices **30** and **30A** and when a network is about to be implemented, systems are submitted for entry into the List under § 4.1.12 and for Notification under §§ 5.1.1 and 5.1.2 of RR Appendices **30** and **30A,** respectively at the same time. This is logical since both these two provisions refer to actions following the completion of the coordination process and since they are both required to implement the network.

It would therefore reduce the workload of both administrations and the Bureau if one physical submission could be treated as, and examined in respect of both these provisions. In respect of RR Appendix **30A**, it would seem that this would be in particular of value for notification of receiving space stations and typical earth stations while specific earth stations probably in many cases would be subject to separate notices as the requirements change with time.

Given that the RR Appendix **4** information required for submission under § 4.1.12 and § 5.1.1/5.1.2, are identical for entry into the List and Notification, respectively, there are no negative consequences to allowing a single notice to be treated for, and examined in respect of, both of these provisions.

The Working Party 4A (WP4A) meeting in July 2018 agreed on the draft CPM text for WRC-19 Agenda Item 7 Issue C4 ([Annex 32 to Document 826](https://www.itu.int/dms_ties/itu-r/md/15/wp4a/c/R15-WP4A-C-0826%21N32%21MSW-E.docx) of the Working Party 4A Chairman’s Report).

**Relevant ITU-R Recommendations and Reports**

* [Annex 32 to Document 826](https://www.itu.int/dms_ties/itu-r/md/15/wp4a/c/R15-WP4A-C-0826%21N32%21MSW-E.docx) of the Working Party 4A Chairman Report, July 2018: Preliminary Draft CPM text for WRC-19 agenda item 7 – Issue C

2. Documents

* Input Documents: APG19-4/INP-[17 (AUS)](https://www.apt.int/sites/default/files/2019/01/APG19-4-INP-17_AUS3_-_Australian_Contribution_to_APG19-4_Chapter_3.docx), [39 (VTN)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-39_Vietnam_WP3_1.6_7_9.1.2.docx), [43 (MLA, SNG, THA)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-43_MLA_SNG_THA_WP3_AI_7B_7C_7D.docx), [77 (KOR)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-77_WP3_kor.docx), [98 (CHN)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-98_China2_Preliminary_views_on_WRC-19_AI_1.4_1.5_1.6_7_9.1_issues_9.1.2_9.1.3_9.1.9.docx), [107 (MNG)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-107_Mongolian_Preliminary_Views_on_WRC-19_Agenda_Item_7_WP_3_APG19-4.docx), [112 (IND)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-112_India_Proposal_for_Modification_to_Draft_CPM_Text_of_Chapter_3_Agenda_Item_7.docx), [120 (INS)](https://www.apt.int/sites/default/files/2019/01/APG19-4-INP-120_INS3_Preliminary_View_-_WP3.docx)
* Information Documents: APG19-4/INP-[09(Rev.1) (ASMG, ATU)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-09Rev.1_Report-second_Inter-regional_Workshop_on_preparations_for_WRC-19.docx), APG19-4/INF-[02 (WMO)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INF-02_WMO-Position_20181109.docx), [03 (IARU)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INF-03_IARU.DOCX), [04 (ICAO)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INF-04_ICAO_01_WRC-19_ICAO-Pos_for_APG-4_for_WP5.docx), [22 (CITEL)](https://www.apt.int/sites/default/files/2019/01/APG19-4-INF-22_CITEL_PPT.pdf), [23 (CEPT)](https://www.apt.int/sites/default/files/2019/01/APG19-4-INF-23_CEPT_PPT.pdf), [24 (RCC)](https://www.apt.int/sites/default/files/2019/01/APG19-4-INF-24_RCC.pdf)

3. Summary of discussions

3.1 Summary of APT Members’ views

3.1.1 Australia – Document [APG19-4/INP-17](https://www.apt.int/sites/default/files/2019/01/APG19-4-INP-17_AUS3_-_Australian_Contribution_to_APG19-4_Chapter_3.docx)

* Australia supports efforts to resolve inconsistencies in regulatory provisions, clarify certain existing practices, or increase transparency in the regulatory process. Australia supports the single Method of the draft CPM Report text for these Issues.

3.1.2 Vietnam - Document [APG19-/INP-39](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-39_Vietnam_WP3_1.6_7_9.1.2.docx)

* Viet Nam supports a single method to modify §4.1.12*bis* to allow administrations to request the Bureau to examine the submission made under §4.1.12 also in respect of notification under §5.1.1.

3.1.3 Malaysia, Singapore, Thailand – Document [APG19-4/INP-43](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-43_MLA_SNG_THA_WP3_AI_7B_7C_7D.docx)

* Malaysia, Singapore and Thailand support the single method in each of these sub issues within Issue C which provides clarity to the Radio Regulations.

3.1.4 The Republic of Korea – Document [APG19-4/INP-77](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-77_WP3_kor.docx)

* The Republic of Korea supports the single method in the draft CPM text to modify § 4.1.12*bis* of RR Appendices **30** and **30A** to allow administrations to request the Bureau to examine the submission made under § 4.1.12 also in respect of notifications under § 5.1.1 of RR Appendix **30** and § 5.1.2 of RR Appendix **30A**.

3.1.5 China – Document [APG19-4/INP-98](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-98_China2_Preliminary_views_on_WRC-19_AI_1.4_1.5_1.6_7_9.1_issues_9.1.2_9.1.3_9.1.9.docx)

* China support a single method in relevant draft CPM text to address these sub-topics under Issue C for improvements of RR.

3.1.6 Mongolia – Document [APG19-4/INP-107](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-107_Mongolian_Preliminary_Views_on_WRC-19_Agenda_Item_7_WP_3_APG19-4.docx)

* Mongolia is of the view to support the single method of the draft CPM Report text which provides clarity to the Radio Regulations.

3.1.7 India – Document [APG19-4/INP-112](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-112_India_Proposal_for_Modification_to_Draft_CPM_Text_of_Chapter_3_Agenda_Item_7.docx)

* Method to satisfy Issue C4: Agreed

3.1.8 Indonesia – Document [APG19-4/INP-120](https://www.apt.int/sites/default/files/2019/01/APG19-4-INP-120_INS3_Preliminary_View_-_WP3.docx)

* Indonesia is of the view to support the single method in draft CPM Report which propose to modify § 4.1.12*bis* to allow administrations to request the Bureau to examine the submission made under § 4.1.12 also in respect of notification under § 5.1.1.

3.2 Summary of issues raised during the meeting

* None.

4. APT Preliminary View(s)

* APT Members support the single method in the draft CPM text to modify § 4.1.12*bis* of RR Appendices **30** and **30A** to allow administrations to request the Bureau to examine the submission made under § 4.1.12 also in respect of notifications under § 5.1.1 of RR Appendix **30** and § 5.1.2 of RR Appendix **30A**.

5. Other View(s)

* None.

6. Issues for Consideration at Next APG Meeting

* APT Members are encouraged to submit their contributions to the next meeting to finalize the APT Views at the APG19-5 meeting.

7. Views from Other Organisations

7.1 Regional Groups

7.1.1 ASMG - Document APG19-4/INP-09(Rev.1)

* Initial support for the single method proposed in draft CPM text

7.1.2 ATU - Document APG19-4/INP-09(Rev.1)

* Support, as a matter of principle, the methods proposed for each matter under this issue considering that the matters are non-contentious and consensus has already been achieved at the ITU-R WP4A on all matters on how best to resolve them.

7.1.3 CEPT - Document APG19-4/INF-23

* CEPT supports the consensus achieved at ITU-R level.

7.1.4 CITEL - Document APG19-4/INF-22

* One proposal supports no change for Region 2.

7.1.5 RCC - Document APG19-4/INF-24

* The RCC Administrations support the proposal on submitting and processing a single notice for a new assignment to be included into the List under § 4.1.12 and recorded under §§ 5.1.1 and 5.1.2 for the networks in the RR Appendices 30/30А in Regions 1 and 3.

7.2 International Organisations

7.2.1 ICAO - Document APG19-4/INF-04

* None.

7.2.1 WMO - Document APG19-4/INF-02

* None.

7.2.2 IARU - Document APG19-4/INF-03

* None.

# Issue C5 – MOD to No. 11.46 and six month resubmission

1. Background for Issue C5

Pursuant to RR No. **11.46**, the Bureau allows notifying administrations six months to resubmit their notified frequency assignments which were returned due to an unfavourable finding with respect to RR Nos. **11.32**, **11.32A** or **11.33**. Any notification resubmitted beyond six months is considered as a new notification with a new date of receipt and would be subject to cost-recovery fees. However, neither RR No. **11.46** nor any other provision in the Radio Regulations requires the Bureau to send a reminder to the notifying administration at any point during the six-month period. If the notifying administration resubmits the notice to the Bureau beyond the required six-month period, the Bureau assigns a new date of receipt and reviews whether the notice complies with the period in RR No. **11.44.1** or RR No. **11.43A** and takes the appropriate action. In the case that a notice resubmitted beyond the six-month deadline is receivable, cost-recovery fees would be required for the resubmitted assignments. Addressing this lack of a reminder would be beneficial to administrations who may have experienced difficulties receiving or addressing the Bureau’s return of notice and the need to ensure that frequency assignments that are in use are properly recorded in the Master Register.

2. Documents

* Input Documents: APG19-4/INP-17 (AUS), 39 (VTN), 43 (MLA\_SNG\_THA), 77 (KOR), 98 (CHN), 107 (MNG), 112 (IND), 120 (INS)
* Information Documents: APG19-4/INF-22 (CITEL), 23 (CEPT), 24 (RCC)

3. Summary of discussions

3.1 Summary of APT Members’ views

3.1.1 Indonesia - Document APG19-4/INP-120

* Indonesia is of the view to support the single method in draft CPM Report which propose the modification of RR No. **11.46** requiring the Bureau to remind the notifying administration of the six-month deadline that would aid administrations who may have had difficulties in receiving the communication of returned frequency assignments.

3.1.2 Korea - Document APG19-4/INP-77

* The Republic of Korea has a view that it would be advantageous to notifying administrations if the Bureau sends a reminder of the option to resubmit returned frequency assignments under RR No. **11.37** or **11.38**.
* Therefore, the Republic of Korea supports the single method in the draft CPM text to modify RR No.**11.46** requiring the Bureau to remind the notifying administrations of six month deadline to resubmit their frequency assignments.

3.1.3 Mongolia - Document APG19-4/INP-107

* Mongolia is of the view to support the single method of the draft CPM Report text which provides clarity to the Radio Regulations.

3.1.4 Australia - Document APG19-4/INP-17

* Australia supports the single Method of the draft CPM Report text for this sub-Issue C5.

3.1.5 Malaysia, Singapore & Thailand - Document APG19-4/INP-43

* Malaysia, Singapore and Thailand support the single method in this sub issue C5 within Issue C which provides clarity to the Radio Regulations.

3.1.6 Viet Nam - Document APG19-4/INP-39

* Viet Nam supports the single method addressing the lack of a reminder when Bureau allows notifying administrations six months to resubmit their frequency assignments under RR **No. 11.46.**

3.1.7 China - Document APG19-4/INP-98

* For issue C5, China support a single method in relevant draft CPM text to address this sub-topic under Issue C for improvements of RR.

3.1.8 India - Document APG19-4/INP-112

* India support a single method in relevant draft CPM text to address this sub-topic under Issue C for improvements of RR.

3.2 Summary of issues raised during the meeting

* None.

4. APT Preliminary View(s)

* APT Members support the single method to modify RR No.**11.46,** asmentioned in the draft CPM text, requiring the Bureau to remind the notifying administrations of six month deadline to resubmit their frequency assignments under RR No. **11.46.**

5. Other View(s) from APT Members

* None.

6. Issues for Consideration at Next APG Meeting

* None.

7. Views from Other Organisations

7.1 Regional Groups

7.1.1 ASMG

* In order to access to update views/positions of the ASMG, APT members are encouraged to refer to the[APG19-4/INP-09 (Rev.1)](file:///C%3A%5CUsers%5CMA14468%5CDesktop%5CAPG19-4%5CDoc%5CTemp%20Doc%5CFirst%20session%20of%20the%20DG%207A%5CAPG19-4-INP-09Rev.1_Report-second_Inter-regional_Workshop_on_preparations_for_WRC-19.docx)

7.1.2 ATU

* In order to access to update views/positions of the ATU, APT members are encouraged to refer to the[APG19-4/INP-09 (Rev.1)](file:///C%3A%5CUsers%5CMA14468%5CDesktop%5CAPG19-4%5CDoc%5CTemp%20Doc%5CFirst%20session%20of%20the%20DG%207A%5CAPG19-4-INP-09Rev.1_Report-second_Inter-regional_Workshop_on_preparations_for_WRC-19.docx)

7.1.3 CEPT - Document APG19-4/INF-23

* CEPT supports the consensus achieved at ITU-R level.

7.1.4 CITEL - Document APG19-4/INF-22

* CITEL support single method shown in the draft CPM report.

7.1.5 RCC- Document APG19-4/INF-24

* The RCC Administrations support the proposal that the Bureau should timely notify the administration on expiration of the 6-month deadline after the unfavourable finding was sent under RR No. 11.37 or No. 11.38.

7.2 International Organisations

7.2.1 ICAO

* None.

7.2.2 WMO

* None.

7.2.3 IARU

* None.

# Issue C6 - Single AP4 notice for entry into the RR Appendix 30B List (under § 6.17) and Notification (under § 8.1)

1. Background

Normally, at the end of the coordination process under Article 6 of RR Appendix **30B** and when a network is about to be implemented, systems are submitted for entry into the List under § 6.17 and for Notification under § 8.1 at the same time. This is logical since both these two provisions refer to actions following the completion of the coordination process and since they are both required to implement the network.

Enabling, as an option, administrations to submit one notice and request in a letter to the Bureau that it should be treated both in respect of entry into the List and Notification would simplify the processing and reduce the workload of the Bureau and administrations. However, this is not possible under the current provisions of RR Appendix **30B** (§ 6.17). In addition, the data items required for the submission under § 6.17 and for Notification under § 8.1 are not the same.

**2. Documents**

* Input Documents APG19-4/ INP-17(AUS), INP-39(VTN), INP-43(MLA\_SNG\_THA), INP-77(KOR), INP-98(CHN), INP-107(MNG), INP-112(IND), INP-120(INS)
* Information Documents APG19-4/ INP-09(Rev.1) (ASMG, ATU), INF-22(CITEL), INF-23(CEPT), INF-24(RCC)

3. Summary of discussions

3.1 Summary of APT Members’ views

3.1.1 Australia – Document APG19-4/INP-17

* Australia supports efforts to resolve inconsistencies in regulatory provisions, clarify certain existing practices, or increase transparency in the regulatory process. Australia supports the single Method of the draft CPM Report text for these Issues.

3.1.2 Viet Nam – Document APG19-4/INP-39

* Viet Nam is of the view that one notice and request in a letter to the Bureau for entry into the List under §6.17 and for notification under §8.1 of RR Appendix **30B** could reduce workload of both administration and the Bureau. Therefore, Viet Nam supports a single method.

3.1.3 Malaysia – Document APG19-4/INP-43

* Malaysia supports the single method in each of these sub issues within Issue C which provides clarity to the Radio Regulations.

3.1.4 Singapore – Document APG19-4/INP-43

* Singapore supports the single method in each of these sub issues within Issue C which provides clarity to the Radio Regulations.

3.1.5 Thailand – Document APG19-4/INP-43

* Thailand supports the single method in each of these sub issues within Issue C which provides clarity to the Radio Regulations.

3.1.6 Korea (Rep. of) – Document APG19-4/INP-77

* The Republic of Korea supports the single method in the draft CPM text to allow one submission to be treated both in respect of entry into the List under §6.17 and notification under §8.1 of RR Appendix **30B** to reduce workload of both administration and the Bureau.

3.1.7 China – Document APG19-4/INP-98

* For issues C1 to C7, China supports a single method in relevant draft CPM text to address these sub-topics under Issue C for improvements of RR.

3.1.8 Mongolia – Document APG19-4/INP-107

* Mongolia is of the view to support the single method of the draft CPM Report text which provides clarity to the Radio Regulations.

3.1.9 India – Document APG19-4/INP-112

* India agreed to the single method.

3.1.10 Indonesia – Document APG19-4/INP-120

* Indonesia is of the view to support the single method in draft CPM Report which propose to modify § 6.17 to allow one submission to be treated in respect of both provisions and modify RR Appendix **4** to enable this.

3.2 Summary of issues raised during the meeting

* None.

4. APT Preliminary View(s)

* APT Members support the single method in the draft CPM text to allow a single submission to be treated both in respect of entry into the List under §6.17 and notification under §8.1 of RR Appendix **30B** to reduce workload of both administration and the Bureau.

5. Other View(s)

* None.

6. Issues for Consideration at Next APG Meeting

* None.

7. Views from Other Organisations

7.1 Regional Groups

7.1.1 ASMG – Document INP-09(Rev.1) (ASMG, ATU)

* Initial support for all single methods proposed in draft CPM text for C1 to C7

7.1.2 ATU – Document INP-09(Rev.1) (ASMG, ATU)

* ATU Supports, as a matter of principle, the methods proposed for each matter under this issue considering that the matters are non-contentious and consensus has already been achieved at the ITU-R WP4A on all matters on how best to resolve them.

7.1.3 CEPT – Document APG19-4/INF-23

* CEPT supports the consensus achieved at ITU-R level.

7.1.4 CITEL – Document APG19-4/INF-22

* The CITEL supports single method shown in the draft CPM report.

7.1.5 RCC– Document APG19-4/INF-24

* The RCC Administrations support the proposal that for satellite networks in the RR Appendix 30B administrations would submit a single notice for a new assignment to be included into the List and recorded.

7.2 International Organisations

7.2.1 ICAO - Document APG19-4/INF-04

* None.

7.2.1 WMO - Document APG19-4/INF-02

* None.

7.2.2 IARU - Document APG19-4/INF-03

* None.

# Issue C7 - Harmonization of AP30B with AP30/30A on Possibility of Obtaining Agreement for a Specific Period

1. Background for issue

Taking into account that the possibility of obtaining agreement from affected administrations for a specified period would considerably facilitate the tasks of those administrations applying Article 4 of RR Appendices **30** and **30A** as well as Article 6 of RR Appendix **30B**, it is proposed to amend RR Appendices **30A** and **30B** to be harmonized among RR Appendices **30**, **30A** and **30B**.

A single method has been identified to address this issue. This method would add a new provision 6.15*bis* to Article 6 and a new provision § 8.16*bis* to Article 8 of RR Appendix **30B** in order to recognize the possibility of obtaining agreement from affected administrations for a specified period.

In addition, in order to make harmonisation of RR Appendix **30B** and RR Appendices **30** and **30A**, it is also proposed to modify § 5.2.6 of Article 5 of Appendix 30A to Radio Regulations.

2. Documents

* Input Documents APG19-4/INP-17 (AUS), 39 (VTN), 43 (MLA\_SNG\_THA), 77 (KOR), 98 (CHN), 107 (MNG), 112 (IND), 120 (INS)
* Information Documents APG19-4/INP-09(Rev.1) (ASMG, ATU), APG19-4/INF-22 (CITEL), 23 (CEPT), 24 (RCC)

3. Summary of discussions

3.1 Summary of APT Members’ views

3.1.1 Australia – Document APG19-4/INP-17

* Australia supports efforts to resolve inconsistencies in regulatory provisions, clarify certain existing practices, or increase transparency in the regulatory process. Australia supports the single Method of the draft CPM Report text for these Issues.

3.1.2 Viet Nam – Document APG19-4/INP-39

* Viet Nam supports a single method which would add a new provision 6.15*bis* to Article 6 and a new provision §8.16bis to Article 8 of RR Appendix **30B** in order to recognize the possibility of obtaining agreement from affected administrations for a specified period.

3.1.3 Malaysia – Document APG19-4/INP-43

* Malaysia supports the single method in each of these sub issues within Issue C which provides clarity to the Radio Regulations.

3.1.4 Singapore – Document APG19-4/INP-43

* Singapore supports the single method in each of these sub issues within Issue C which provides clarity to the Radio Regulations.

3.1.5 Thailand – Document APG19-4/INP-43

* Thailand supports the single method in each of these sub issues within Issue C which provides clarity to the Radio Regulations.

3.1.6 Korea (Rep. of) – Document APG19-4/INP-77

* The Republic of Korea supports the single method in the draft CPM text to add a new provision 6.15*bis* to Article 6 and a new provision §8.16*bis* to Article 8 of RR Appendix 30B in order to recognize the possibility of obtaining agreement from affected administrations for a specified period and modify § 5.2.6 to Article 5 of RR Appendix 30A.

3.1.7 China – Document APG19-4/INP-98

* For issues C1 to C7, China supports a single method in relevant draft CPM text to address these sub-topics under Issue C for improvements of RR.

3.1.8 Mongolia – Document APG19-4/INP-107

* Mongolia is of the view to support the single method of the draft CPM Report text which provides clarity to the Radio Regulations.

3.1.9 India – Document APG19-4/INP-112

* India agreed to the single method.

3.1.10 Indonesia – Document APG19-4/INP-120

* Indonesia is of the view to support the single method in draft CPM Report which propose toadd a new provision 6.15*bis* to Article 6 and a new provision § 8.16*bis* to Article 8 of RR Appendix **30B** in order to recognize the possibility of obtaining agreement from affected administrations for a specified period. In addition, in order to make harmonization of RR Appendix **30B** and RR Appendices **30** and **30A**, modification to § 5.2.6 to Article 5 of RR Appendix **30A** would be necessary.

3.2 Summary of issues raised during the meeting

* None.

4. APT Preliminary View(s)

* APT Members support the single method in the draft CPM text to add a new provision 6.15*bis* to Article 6 and a new provision §8.16*bis* to Article 8 of RR Appendix 30B in order to recognize the possibility of obtaining agreement from affected administrations for a specified period. It is also proposed to modify § 5.2.6 of Article 5 of Appendix 30A to Radio Regulations.

5. Other View(s)

* None.

6. Issues for Consideration at Next APG Meeting

* None.

7. Views from Other Organisations

7.1 Regional Groups

7.1.1 ASMG – Document INP-09(Rev.1)(ASMG, ATU)

* Initial support for all single methods proposed in draft CPM text for C1 to C7.

7.1.2 ATU – Document INP-09(Rev.1) (ASMG, ATU)

* ATU Supports, as a matter of principle, the methods proposed for each matter under this issue considering that the matters are non-contentious and consensus has already been achieved at the ITU-R WP4A on all matters on how best to resolve them.

7.1.3 CEPT – Document APG19-4/INF-23

* CEPT supports the consensus achieved at ITU-R level.

7.1.4 CITEL – Document APG19-4/INF-22

* Not yet decided.

7.1.5 RCC– Document APG19-4/INF-24

* The RCC Administrations consider proposals on the modification of RR Appendix 30B, allowing administrations to conclude agreements among themselves for a specific period of time.

7.2 International Organisations

7.2.1 ICAO - Document APG19-4/INF-04

* None.

7.2.1 WMO - Document APG19-4/INF-02

* None.

7.2.2 IARU - Document APG19-4/INF-03

* None.

# Issue D – Identification of those specific satellite networks and systems with which coordination needs to be effected under RR Nos. 9.12, 9.12A and 9.13

1. Background

The 2012 World Radiocommunication Conference (WRC-12) decided to modify RR No. **9.36.2**. Following this provision, the Bureau now publishes a “definitive list” of those networks, systems and earth stations with which coordination under RR Nos. **9.7**, **9.7A** and **9.7B** needs to be effected once a coordination request (a new one or a modification to an existing one, as appropriate) for a satellite network or system is processed. Such a list is published in the relevant Special Section annexed to the BR International Frequency Information Circular (BR IFIC).

The above-mentioned provision (RR No. **9.36.2**) is very useful, because, in the cases of coordination under RR Nos. **9.7**, **9.7A** and **9.7B**, it reduces the administrative workload of identifying the names of specific satellite networks, systems and earth stations with which a new satellite network or system needs to effect coordination.

However, in the cases of coordination under RR Nos. **9.12**, **9.12A** and **9.13**, the Bureau does not publish a list of the satellite networks or systems potentially affected to complement the list of administrations potentially affected by incoming satellite networks or systems that it provides.

**2. Documents**

* Input Documents: APG19-4/INP-17 (AUS), 39 (VTN), 43 (MLA\_SNG\_THA), 77 (KOR), 98 (CHN), 112 (IND), 120 (INS)
* Information Documents: APG19-4/INF-22 (CITEL), 23 (CEPT), 24 (RCC)

3. Summary of discussions

3.1 Summary of APT Members’ views

3.1.1 Australia- Document APG19-4/INP-17

* Australia supports the identification of potentially affected networks for which coordination is be effected under RR Nos. **9.12, 9.12A** and **9.13**. Therefore, Australia prefers Method D2, Method D3 as an alternative and opposes Method D1.

3.1.2 Viet Nam- Document APG19-4/INP-39

* Viet Nam supports method D2
* Under this method, it is proposed to add the requirements to have:

a) a pre-compiled list of potentially affected satellite networks and/or systems, published for information only, included in the CR/C Special Section for coordination under RR Nos. **9.12**, **9.12A** and **9.13**, by stipulating it in RR No. **9.36.1**;

b) the definitive list of affected satellite networks or systems to be considered when effecting coordination under RR Nos**. 9.12**, **9.12A** and **9.13**to be included in the CR/D Special Section by stipulating it in RR No. **9.53A**.

3.1.3 Malaysia, Singapore and Thailand- Document APG19-4/INP-43

* Malaysia, Singapore and Thailand support Method D2 which reduces the administrative workload related to the identification of potentially affected satellite networks and/or systems with which a new satellite network or system needs to effect coordination.

**3.1.4 Korea**- **Document APG19-4/INP-77**

* The Republic of Korea supports Method D3 in the draft CPM text to add the requirements to have the list of satellite networks or systems potentially affected included in the CR/C Special Section for coordination under RR Nos. 9.12, 9.12A and 9.13 for information only, by stipulating it in RR No. 9.36.1 without any further action from the notifying administrations for the list of satellite networks/systems following the publication of the CR/C.

3.1.5 China- Document APG19-4/INP-98

* China supports that the Bureau publish in the CR/D special section the “definitive lists” of those specific GSO networks or non-GSO systems, as appropriate, with which coordination under Nos.9.12, 9.12A or 9.13 needs to be effected, as outlined in Method D2 in the draft CPM text.

3.1.6 Indonesia- Document APG19-4/INP-120

* Indonesia is of the view to support Method D2 which propose to add the requirements to have:
1. a pre-compiled list of potentially affected satellite networks and/or systems, published for information only, included in the CR/C Special Section for coordination under RR Nos. **9.12**, **9.12A**and **9.13**, by stipulating it in RR No. **9.36.1**;
2. the definitive list of affected satellite networks or systems to be considered when effecting coordination under RR Nos. **9.12**, **9.12A** and **9.13** to be included in the CR/D Special Section by stipulating it in RR No. **9.53A**.

3.1.7 India - Document APG19-4/INP-112

* India supports Method D2.

3.2 Summary of issues raised during the meeting

* Based on the discussions were made, general consensus reached. So, APT Members did agree unanimously on the APT Preliminary View.

4. APT Preliminary View(s)

* APT Members do not Support Method D1(NOC).

5. Other View(s) from APT Members

* Some APT Members Support Method D2, as the follows:

“Under this method, it is proposed to add the requirements to have:

a) a pre-compiled list of potentially affected satellite networks and/or systems, published for information only, included in the CR/C Special Section for coordination under RR Nos. **9.12**, **9.12A** and **9.13**, by stipulating it in RR No. **9.36.1**;

b) the definitive list of affected satellite networks or systems to be considered when effecting coordination under RR Nos. **9.12**, **9.12A** and **9.13** to beincluded in the CR/D Special Section by stipulating it in RR No. **9.53A**.

The list of potentially affected satellite networks/systems provided in the CR/C is for information only, and to also avoid a different status compared to the list of affected administrations. Under the current regulatory regime, the definitive list of administrations is provided in the CR/D. Under this method, it is proposed to also include the definitive list of satellite networks/systemsin the CR/D.”

* Some other APT Members Support Method D3, as the follows:

“Under this method, it is proposed to add the requirements to have the list of satellite networks or systems potentially affected included in the CR/C Special Section for coordination under RR Nos. **9.12**, **9.12A** and **9.13** for information only, by stipulating it in RR No. **9.36.1**. As opposed to Method D2, no further action will be required from the notifying administrations for the list of satellite networks/systems following the publication of the CR/C.”

6. Issues for Consideration at Next APG Meeting

* APT Members are encouraged to submit their contributions for further considerations at the next meeting, taking into account the outcome of CPM19-2.

7. Views from Other Organisations

7.1 Regional Groups

7.1.1 ASMG

* In order to access to update views/positions of the ASMG, APT members are encouraged to refer to the[APG19-4/INP-09 (Rev.1)](file:///C%3A%5CUsers%5CMA14468%5CDesktop%5CAPG19-4%5CDoc%5CTemp%20Doc%5CFirst%20session%20of%20the%20DG%207A%5CAPG19-4-INP-09Rev.1_Report-second_Inter-regional_Workshop_on_preparations_for_WRC-19.docx)

7.1.2 ATU

* In order to access to update views/positions of the ASMG, APT members are encouraged to refer to the[APG19-4/INP-09 (Rev.1)](file:///C%3A%5CUsers%5CMA14468%5CDesktop%5CAPG19-4%5CDoc%5CTemp%20Doc%5CFirst%20session%20of%20the%20DG%207A%5CAPG19-4-INP-09Rev.1_Report-second_Inter-regional_Workshop_on_preparations_for_WRC-19.docx)

7.1.3 CEPT - Document APG19-4/INF-23

* СEPT proposes that the Bureau publish in the CR/D special section the “definitive lists” of those specific GSO networks or non-GSO systems, as appropriate, with which coordination under Nos 9.12,9.12A or 9.13 needs to be effected, similarly to what is currently done under the provisions of No 9.36.2, as outlined in Method D2 in the draft CPM text.
* CEPT understands that, once the relevant software currently used by the Bureau will be amended as needed, such an approach would not significantly increase the daily workload of the Bureau for producing such lists. In fact, the Bureau carries out a similar analysis to produce the list of Administrations currently published in the BR IFIC under the provisions of No 9.36.1; the proposed changes would just modify the details published in the BR IFIC, together with simplifying the administrative burden currently born by many Administrations.

7.1.4 CITEL - Document APG19-4/INF-22

* CITEL support Method D2 for modifications to Article 9 to have the list of potentially affected satellite networks or systems published in addition to the list of administrations under Nos 9.12, 9.12A and 9.13

7.1.5 RCC Document APG19-4/INF-24

* The RCC Administrations support the identification of specific GSO or non-GSO satellite networks which need coordination only according to RR Nos. 9.12, 9.12А or 9.13 as well as modification of relevant RR provisions (Method D2).
	1. International Organisations

7.2.1 ICAO

* None.

7.2.2 WMO

* None.

7.2.3 IARU

* None.

# Issue E - Resolution related to RR Appendix 30B

1. Background

ITU-R considered studies relating to the Enhancement of Regulatory Provisions of RR
Appendix 30B to observe the principles based on which it was initially established for Regions 1and 3 with that of Region 2.

An administration which decides to convert its National Allotment into assignments in an economically viable manner very often needs to modify the initial characteristics of its National allotments, taking into account the latest available development and advancement in technology as well as the most economically viable solution.

In so doing, a) when the request for conversion is submitted, the application would be queued at the end of the last submission received before it and b) once its turn to be processed is reached, due to the nature of those additional systems/uses it would be extremely difficult, if not totally impossible, to succeed coordination within the regulatory deadline. In summary, as it could be noted from the above, the probability that an administration could successfully complete coordination for the conversion of its national Allotment to assignments with characteristics beyond the initial allotment within that regulatory period is very low.

2. Documents

* Input Documents APG19-4/INP-17 (AUS), 39 (VTN), 55 (MLA), 77 (KOR), 92 (SNG), 98 (CHN), 112 (IND)
* Information Documents APG19-4/INP-09(Rev.1) (ASMG, ATU), APG19-4/INF-22 (CITEL), 23 (CEPT), 24 (RCC)

3. Summary of discussions

3.1 Summary of APT Members’ views

3.1.1 Australia - Document APG19-4/INP-17

* Australia supports the single Method of the draft CPM Report text for this Issue.

3.1.2 Viet Nam – Document APG19-4/INP-39

* Viet Nam supports a new resolution with regards to additional measures for satellite networks in the fixed-satellite service in frequency bands subject to Appendix 30B for the enhancement of equitable access to these frequency bands.

3.1.3 Malaysia – Document APG19-4/INP-55

* Malaysia supports single method, to establish special measures to be applied once with respect to the submission received from an administration having no frequency assignments in the RR Appendix **30B** List the details of which are to be contained in a WRC Resolution to facilitate the tasks of those administrations to provide an economically viable satellite service to its national territory as initially considered when the allotment Plan was established in 1988.

3.1.4 Korea – Document APG19-4/INP-77

* The Republic of Korea supports the single method in the draft CPM text to establish special measures to be applied once with respect to the submission received from an administration having no frequency assignments in the RR Appendix **30B** List the details of which are to be contained in a WRC Resolution to facilitate the tasks of those administrations to provide an economically viable satellite service to its national territory.

3.1.5 Singapore – Document APG19-4/INP-92

* Singapore supports the draft new Resolution containing a special one-time applied measure and procedure as an enhancement of equitable access to spectrum/orbital resources for developing countries to facilitate the processing of their submission in RR Appendix 30B.

3.1.6 China – Document APG19-4/INP-98

* China supports the WRC Resolution as contained in the draft CPM text.

3.1.7 India – Document APG19-4/INP-112

* India Agreed to the single method.

3.2 Summary of issues raised during the meeting

* It is worth mentioning that an information document was submitted to APG19-4 indicating that a trial test was performed using the special procedure contained in the draft Resolution [A7(E)-AP30B] (WRC-19).
* The result of that trial test when applying Paragraphs 2.1 and 2.2 in majority of cases did not yield any satisfactory results allowing the concerned administration of the trial network to reduce the number of required coordination in particular for uplink. This was mainly due to the fact that large majority of satellite networks recorded in the Appendix 30B List having multiple beam of global coverage. The document concluded that the expected coordination relaxation could not be achieved due to the inconsistency of criteria in the document of the draft Resolution and those contain the Annex 4 of RR Appendix 30B.
* APT Members therefore invite the CPM19-2 to consider the matter, taking into account the contribution already submitted by the concerned administration to CPM 19-2 in this regard with a view to favourably review the matter in order to achieved the objectives initially aimed at by this special procedure facilitating the task of those developing countries having no assignments in the AP30B List to provide coverage serving these national territory as described/outlined in the draft Resolution [A7(E)-AP30B].

4. APT Preliminary View(s)

* APT members support the single method in the draft CPM text to establish special measures to be applied once with respect to the submission received from an administration having no frequency assignments in the RR Appendix **30B** List the details of which are to be contained in a WRC Resolution to facilitate the tasks of those administrations to provide an economically viable satellite service to its national territory as initially considered when the allotment Plan was established in 1988.

5. Other View(s)

* None.

6. Issues for Consideration at Next APG Meeting

* None.

7. Views from Other Organisations

7.1 Regional Groups

7.1.1 ASMG – Document INP-09(Rev.1)(ASMG, ATU)

* Not yet decided.

7.1.2 ATU– Document INP-09(Rev.1)(ASMG, ATU)

* ATU supports the only method, which proposes the development of a new WRC Resolution to facilitate those Administrations who don’t have a frequency assignment in the Appendix 30B and wish to provide an economically viable satellite service to its national territory as initially considered when the allotment Plan was established in 1988.

7.1.3 CEPT– Document APG19-4/INF-23

* CEPT supports to pursue a solution that directly addresses the concern for administrations having nothing in the RR Appendix 30B List, to allow these administrations to convert their national allotments into assignments with characteristics outside the envelope of the allotment or make a submission for a new network provided that the assignment are limited to national service and coverage area. CEPT therefore supports the WRC Resolution as contained in the draft CPM text following the philosophy of Resolution 553 (WRC-15) which addresses a similar issue for the 21.4-22 GHz BSS band for Regions 1 and 3, as outlined in the single method.

7.1.4 CITEL – Document APG19-4/INF-22

* The CITEL supports single method shown in the draft CPM report.

7.1.5 RCC– Document APG19-4/INF-24

* The RCC Administrations support the draft Resolution [AP30B] (WRC19) with the most favourable procedure for converting the national allotments into assignment with modified characteristics within national borders of the notifying administration or for entering additional system to the List of frequency assignments, with a service area limited to a national territory, for administrations without any assignments in the List.

7.2 International Organisations

7.2.1 ICAO - Document APG19-4/INF-04

* None.

7.2.1 WMO - Document APG19-4/INF-02

* None.

7.2.2 IARU - Document APG19-4/INF-03

* None.

# Issue F - Measures to facilitate entering new assignments into the RR Appendix 30B List

1. Background

Article 44 of the ITU Constitution stipulates that for countries to have equitable access to spectrum orbit resources, administrations shall limit their use to the minimum required to provide services in a satisfactory manner and to endeavour to apply the latest technical advances.

An administration which wants to convert its national allotment of RR Appendix **30B** into assignments in an economically viable manner very often needs to modify the initial characteristics of its national allotments, taking into account the latest available development and advancement in technology. For this purpose, the administration will make a submission and follow the procedures of Article 6 of RR Appendix **30B**.

In so doing:

a) when the submission is examined and published by the Bureau, the submission would need to coordinate with affected networks with higher priority;

b) due to the conservative criteria used in RR Appendix **30B**, a large number of coordination requirements will be identified;

c) networks can be designed with combinations of characteristics, possibly unrealistic, to obtain a high sensitivity to interference from later submissions of other administrations.

As a result, it may be difficult for an administration to successfully complete the coordination within the regulatory period.

2. Documents

* Input Documents APG19-4/INP-17 (AUS), 77 (KOR), 92 (SNG), 98 (CHN), 112 (IND), 120 (INS)
* Information Documents APG19-4/INP-09(Rev.1) (ASMG, ATU), APG19-4/INF-22 (CITEL), 23 (CEPT), 24 (RCC)

3. Summary of discussions

3.1 Summary of APT Members’ views

3.1.1 Australia - Document APG19-4/INP-17

* Australia Supports Method F1 as it is of the view that it would help to alleviate the difficulties faced by administrations in attempting to enter assignments into the Appendix **30B** List and to facilitate coordination of networks.

3.1.2 Korea (Rep. of)– Document APG19-4/INP-77

* The Republic of Korea has a view that the principle of the RR Appendix **30B** is to provide equitable access to the frequency bands and it is important to ensure protection of the assignments in the List and allotments in the Plan of RR Appendix **30B**.
* Noting that facilitation to enter new assignments into the RR Appendix **30B** List through revising the current protection criteria may reduce the protection of assignments in the List and allotments in the Plan of RR Appendix **30B**, the Republic of Korea supports Method F2 in the draft CPM text, which is no changes to the Radio Regulations.

3.1.3 Singapore – Document APG19-4/INP-92

* Singapore supports Method F1 as it helps to facilitate coordination of networks for newcomers by alleviating difficulties due to the conservative criteria used in RR Appendix **30B** and from networks with unrealistic characteristics which are highly sensitive to interference from later submissions.

3.1.4 China – Document APG19-4/INP-98

* Further study on these issues is needed with an aim to find the solution to address concerns raised by some administrations.

3.1.5 India – Document APG19-4/INP-112

* India agreed to the Method F1.

3.1.6 Indonesia – Document APG19-4/INP-120

* Indonesia is of the view to support method F1 in draft CPM Report which propose the following:
* Adopting the structure decided by WRC-2000 for RR Appendices 30 and 30A, i.e. a reduced coordination arc and mechanisms to remove unnecessary coordination requirements inside the coordination arc.
* Bringing the size of the coordination arc in line with that used for the unplanned frequency bands, i.e. 7° for C-band and 6° for Ku-band and consequently align the Annex 3 limits to newly established coordination arcs.
* Introducing pfd masks and levels like in RR Appendices 30 and 30A as well as in portions of the unplanned frequency bands to remove unnecessary coordination and prevent combinations of technical parameters leading to unrealistic links from hindering introduction of new networks. Proposed values for pfd masks and levels are those developed in preparation for WRC-15, based on a level of protection corresponding to ΔT/T = 6% for C-band antennas with a diameter between 1.2 and 18 m and Ku-band antennas with a diameter between 45 cm and 11 m).

3.2 Summary of issues raised during the meeting

* None.

4. APT Preliminary View(s)

* APT members support to further study the measures to facilitate entering new assignments into the RR Appendix 30B List.

5. Other View(s)

* Some APT members support method F1 as described in draft CPM text.
* Some other APT members support method F2 which is no changes to the Radio Regulations.

6. Issues for Consideration at Next APG Meeting

* APT Members are invited to follow the progress of ITU-R studies, and are encouraged to submit their contributions to APG19-5 for further considerations at the next meeting.

7. Views from Other Organisations

7.1 Regional Groups

7.1.1 ASMG – Document INP-09(Rev.1)(ASMG, ATU)

* Not yet decided

7.1.2 ATU– Document INP-09(Rev.1)(ASMG, ATU)

* ATU supports method F1, which proposes to update the coordination, triggers to take into account technological advances and avoid some unnecessary coordination while assuring adequate protection of other satellite networks.
* Support F1.

7.1.3 CEPT– Document APG19-4/INF-23

* CEPT supports to revise and restructure the coordination triggers used in Appendix 30B to take into account technological advances and the development of the use of the geostationary orbit to facilitate access for newcomers by avoiding overprotection and unnecessary coordination requirements, as outlined in Method F1 in the draft CPM text. CEPT believes that this would help to alleviate the difficulties faced by administrations in attempting to enter assignments into the Appendix 30B List and to facilitate coordination of networks, at the same time appropriately protecting the Appendix 30B Plan and List.

7.1.4 CITEL – Document APG19-4/INF-22

* Not yet decided.

7.1.5 RCC– Document APG19-4/INF-24

* The RCC Administrations do not support modifications of existing criteria of Annex 4 to RR Appendix 30B for determining affected allotments or assignments which can reduce the protection of assignments of RR Appendix 30B List and allotments of RR Appendix 30B Plan (Method F2).

7.2 International Organisations

7.2.1 ICAO - Document APG19-4/INF-04

* None.

7.2.1 WMO - Document APG19-4/INF-02

* None.

7.2.2 IARU - Document APG19-4/INF-03

* None.

# Issue G - Updating the AP30/30A reference situation

1. Background

§§ 4.1.18-20 of Appendix **30** to the Radio Regulations describes the requirements and conditions for recording in the Regions 1 and 3 List of a network with outstanding coordination requirements.

§ 4.1.18 prescribes that in the case of recording in the List with outstanding coordination requirements, this recording shall be provisional, but that the entry shall be changed from provisional to definitive recording in the List if the Bureau is informed that the new assignment in the Regions 1 and 3 List has been in use, together with the assignment which was the basis for the disagreement, for at least four months without any complaint of harmful interference being made. In doing so, the practice of the Bureau is to update the reference situation of the interfered-with network when changing the recording of the new assignment from provisional to definitive, i.e. after four months without complaints about harmful interference.

There may be many reasons why harmful interference does not occur during the first four months of operation, e.g. during this period, the interfered-with network may not operate with its most sensitive characteristics among its assignments in the List (use of larger antennas, modulation/coding that is more robust, e.i.r.p.s higher than the minimum values, …) or the interfering network may not operate with its most interfering characteristics (lower e.i.r.p.s, transponders with no customers, steerable beams pointing in another direction, …).

However, at the end of this four-month period, the reference situation of the interfered-with network will be updated to incorporate the maximum interference (as contained in the submission to ITU, even if during the 4-month period actual operation may have been with parameters causing less interference) from the network to which it has not given its agreement. This could severely affect the reference situation and thereby the protection of the interfered-with network and later submissions could impose significantly more interference upon the interfered-with network before exceeding the relative degradation which triggers coordination. As a result, the interfered-with network may find itself with reduced protection due to a network which has not completed the required coordination with the interfered-with network and to which it has not given its agreement.

On the other hand, for other affected networks, not updating the reference situation could keep networks at a high reference situation where they would be required to accept higher levels of interference from late comers than if the reference situation had been updated. For these cases, the interfered-with network may find itself with reduced protection due to a network which has not completed the required coordination with the interfered-with network and to which it has not given its agreement if the reference situation is not updated.

Depending on the initial reference situation of the affected network and what would be the reference situation if taking into account the interference from the network for which the agreement has not been given, it can be seen that updating or not updating the reference situation can have different effects on its protection against later submissions.

In response to Issue G, three methods have been identified. Method G1, the administration with an interfered-with network, depending on the specific situation of its network, will determine whether or not the reference situation shall be updated. Method G2, qquantification of when § 4.1.18 may be used, requirements for both existing and new network to operate exactly at notified parameters, and a Resolution which involves exchange of measurements and outlines how networks can be recorded under § 4.1.18. Method G3 is no change to the Radio Regulations.

The Working Party 4A (WP4A) meeting in July 2018 received three inputs on this topic and these were used to resolve the various editor’s notes and conflicting points of view in the previous text. The meeting updated and agreed on the draft CPM text for WRC-19 Agenda Item 7 Issue G ([Annex 36 to Document 826](https://www.itu.int/dms_ties/itu-r/md/15/wp4a/c/R15-WP4A-C-0826%21N36%21MSW-E.docx) of the Working Party 4A Chairman’s Report).

**Relevant ITU-R Recommendations and Reports**

* [Annex 36 to Document 826](https://www.itu.int/dms_ties/itu-r/md/15/wp4a/c/R15-WP4A-C-0826%21N36%21MSW-E.docx) of the Working Party 4A Chairman Report, July 2018: Preliminary Draft CPM text for WRC-19 agenda item 7 – Issue G

2. Documents

* Input Documents: APG19-4/INP-[17 (AUS)](https://www.apt.int/sites/default/files/2019/01/APG19-4-INP-17_AUS3_-_Australian_Contribution_to_APG19-4_Chapter_3.docx), [61 (J)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-61_3_J_WP3.docx), [70 (J)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-70_12_J_WP3_AI7uEIssue_GOther.docx), [77 (KOR)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-77_WP3_kor.docx), [92 (SNG)](https://www.apt.int/sites/default/files/2019/01/APG19-4-INP-92_WP3_Singapore_1.4_1.5_1.6_7.docx), [98 (CHN)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-98_China2_Preliminary_views_on_WRC-19_AI_1.4_1.5_1.6_7_9.1_issues_9.1.2_9.1.3_9.1.9.docx)
* Information Documents: APG19-4/INP-[09(Rev.1) (ASMG, ATU)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-09Rev.1_Report-second_Inter-regional_Workshop_on_preparations_for_WRC-19.docx), APG19-4/INF-[02 (WMO)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INF-02_WMO-Position_20181109.docx), [03 (IARU)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INF-03_IARU.DOCX), [04 (ICAO)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INF-04_ICAO_01_WRC-19_ICAO-Pos_for_APG-4_for_WP5.docx), [22 (CITEL)](https://www.apt.int/sites/default/files/2019/01/APG19-4-INF-22_CITEL_PPT.pdf), [23 (CEPT)](https://www.apt.int/sites/default/files/2019/01/APG19-4-INF-23_CEPT_PPT.pdf), [24 (RCC)](https://www.apt.int/sites/default/files/2019/01/APG19-4-INF-24_RCC.pdf)

3. Summary of discussions

3.1 Summary of APT Members’ views

3.1.1 Australia – Document [APG19-4/INP-17](https://www.apt.int/sites/default/files/2019/01/APG19-4-INP-17_AUS3_-_Australian_Contribution_to_APG19-4_Chapter_3.docx)

* Australia is of the view that when a network in Region 1 and 3 enters the List under § **4.1.18** of Appendix **30** or **30A**, the reference situation of the interfered-with network shall only be updated if and when the Bureau is informed that the agreement has been obtained, or if there is still disagreement that the reference situation of the interfered-with network shall only be updated if and when the Bureau is informed by the affected administration to do so. Australia supports modifying § **4.1.18** to reflect this view, as Method G1 in the draft CPM report text.

3.1.2 Japan - Document [APG19-4/INP-61, 69, 70](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-70_12_J_WP3_AI7uEIssue_GOther.docx)

*From Document APG19-4/INP-61*

* With respect to updating the reference situation for Regions 1 and 3 networks under RR Appendices 30 and 30A when provisionally recorded assignments are converted into definitive recorded assignments (Issue G), Japan supports Method G3 to maintain EPM criteria (RR Appendix 30) appropriately and update the reference EPM properly, making a point to protect operation of the existing BSS Plan and List, to ensure smooth introduction of the future BSS and to contribute to the efficient use of the geostationary satellite orbit.

*From Document APG19-4/INP-70*

* Japan has views on the Issue G of WRC-19 Ag. 7 as follows.
1. With respect to updating the AP30/30A reference situation (Issue G), Japan supports to maintain EPM criterion (RR Appendix 30) and update the reference EPM properly, since the EPM criterion contributes to alleviate the problem of "sensitive satellite network" having very low transmitting power and contribute to the efficient use of the geostationary satellite orbit.
2. Japan considers the modification of No. 4.1.18bis of RR Appendices 30 and 30A, where the reference situation of the interfered-with network should be updated in consultation with, and only with the agreement of, the affected administration, leads to the abolition of the EPM criteria in the future.
3. Japan supports NOC (Method G3). Even though the EPM value of a senior satellite (Sat. L) becomes low due to the application of § 4.1.18 and § 4.1.18*bis* by a junior satellite (Sat. M) against Sat. L, Sat. L has a chance to recover its EPM by applying § 4.1.20 against Sat. M. If Sat. M does not emit the wave and the EPM of Sat .L degrades,, Sat. L can request the elimination of the virtual interference from Sat. M by applying RR AP30/30A § 4.1.20.

3.1.3 The Republic of Korea – Document [APG19-4/INP-77](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-77_WP3_kor.docx)

* The Republic of Korea has a view that it is appropriate that the administration with an interfered-with network, depending on the specific situation of its network, would determine whether or not the reference situation shall be updated.
* Therefore, the Republic of Korea supports Method G1 to modify § 4.1.18*bis* of RR Appendices **30** and **30A** in such a way that when a network has entered into the List using § 4.1.18, and when the recording of the associated assignment transitions from provisional to definitive while there is still disagreement, the reference situation of the interfered-with network should be updated in consultation with, and only with the agreement of, the affected administration.

3.1.4 Singapore – Document [[APG19-/INP-92](https://www.apt.int/sites/default/files/2019/01/APG19-4-INP-92_WP3_Singapore_1.4_1.5_1.6_7.docx)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-77_WP3_kor.docx)

* Singapore supports Method G1 which proposes to update the AP30 and 30A List reference situation only after reaching agreements in Regions 1 and 3.

3.1.5 China – Document [APG19-4/INP-98](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-98_China2_Preliminary_views_on_WRC-19_AI_1.4_1.5_1.6_7_9.1_issues_9.1.2_9.1.3_9.1.9.docx)

* Further study on these issues is needed with an aim to find the solution to address concerns raised by some administrations.

3.2 Summary of issues raised during the meeting

* None.

4. APT Preliminary View(s)

* APT Members support further study on this issue with an aim to find the solution to address concerns raised by some administrations.

5. Other View(s)

* Some APT Members support Method G1 where administration with an interfered-with network, depending on the specific situation of its network, will determine whether or not the reference situation shall be updated.
* Some APT Members support to maintain EPM criteria (RR Appendix **30**) appropriately and update the reference EPM properly, with the no change to Radio Regulations under Method G3.

6. Issues for Consideration at Next APG Meeting

* APT Members are invited to follow the progress of ITU-R studies and are encouraged to submit their contributions to the next meeting to finalize the APT Views at the APG19-5 meeting.

7. Views from Other Organisations

7.1 Regional Groups

7.1.1 ASMG - Document APG19-4/INP-09(Rev.1)

* Follow up studies
* Initial support Method A

7.1.2 ATU - Document APG19-4/INP-09(Rev.1)

* Method G1, which provides that when a network enters the List of Appendix 30 or 30A, the reference situation of the interfered with the network shall only be updated if-and-when the Bureau is informed that the agreement has been obtained. RR Provision 4.1.18 must be modified to reflect this view.

7.1.3 CEPT - Document APG19-4/INF-23

* CEPT supports that when a network enters the List under § 4.1.18 of Appendix **30** or **30A**, while there is still disagreement, the reference situation of the interfered-with network shall only be updated if and when the Bureau is informed by the affected administration to do so. CEPT suggests modifying § 4.1.18*bis* to reflect this view as outlined in Method G1 in the draft CPM text.

7.1.4 CITEL - Document APG19-4/INF-22

* DIAP supporting no change to the Region 2 BSS Plan

7.1.5 RCC - Document APG19-4/INF-24

* The RCC Administrations consider it unreasonable to modify§ 4.1.18 of RR Appendices 30 and 30A, where the reference situation of the victim satellite network would be updated only after the agreement is reached between the administration notifying the network and the Administration notifying interfering new network. (Method G3).

7.2 International Organisations

7.2.1 ICAO - Document APG19-4/INF-04

* None.

7.2.1 WMO - Document APG19-4/INF-02

* None.

7.2.2 IARU - Document APG19-4/INF-03

* None.

# Issue H – Modifications to RR Appendix 4 items to be provided for non-geostationary satellite systems not subject to the procedures of Section II of RR Article 9

1. Background

The RR Appendix **4** items provided in the API for frequency assignments to non-GSO networks or systems in frequency bands not subject to coordination under Section II of RR Article 9 are used initially by administrations to identify potential interference scenarios to their existing and planned systems and to formulate their comments under RR No. **9.3**. The capability of these administrations to identify such potential scenarios depends, amongst other things, on whether the satellite orbits can be properly modelled based on the information provided in the API. The modelling of the orbit of satellites of non-GSO systems requires significantly more information than a GSO satellite network. Recent analysis performed for non-GSO satellite networks or systems based on APIs as published in the Radiocommunication Bureau International Frequency Information Circular (BR IFIC) have shown that, in some instances, there is a need for additional information in order to properly model the satellite orbits.

2. Documents

* Input Documents: APG19-4/INP-120 (INS), 77 (KOR), 17 (AUS), 44 (MLA & THA), 61 (J), 98 (CHN), 112 (IND)
* Information Documents APG19-4/INF-22 (CITEL), 23 CEPT), 24 (RCC)

3. Summary of discussions

3.1 Summary of APT Members’ views

3.1.1 Indonesia - Document APG19-3/INP-120

* Indonesia is of the view to support the single method in draft CPM Report which propose to extend the requirement to provide items for frequency assignments of non-GSO systems in frequency bands subject to coordination under Section II of RR Article**9** of RR Appendix **4** parameters (namely the right ascension of the ascending node, the longitude of the ascending node and the associated date and time, the argument of the perigee) to API and notification filings for frequency assignments to non-GSO systems in frequency bands not subject to coordination under Section II of RR Article **9**.

3.1.2 Korea - Document APG19-4/INP-77

* Noting that the modelling of the orbit of satellites of non-GSO systems requires significantly more information than a GSO satellite network and there is a need for additional information in order to properly model the orbits of non-GSO systems, the Republic of Korea supports the Method in the draft CPM text to extend the requirement to provide additional items and add new items in RR Appendix **4** for APIs and notifications for frequency assignments to non-GSO systems in frequency bands not subject to coordination under Section II of RR Article **9**.

3.1.3 Australia - Document APG19-4/INP-17

* Australia supports the inclusion of missing Appendix **4** data for modelling of non‑GSO elements for systems not subject to coordination.

3.1.4 Malaysia &Thailand - Document APG19-4/INP-44

* Malaysia and Thailand supports single method to:
1. extend the requirement to provide RR Appendix **4** parameters (namely the right ascension of the ascending node, the longitude of the ascending node and the associated date and time, the argument of the perigee) to API and notification filings for frequency assignments of non-GSO systems in frequency bands not subject to coordination under Section II of RR Article 9. Those requirements would apply only for constellation-type non-GSO systems, as shown by a new RR Appendix **4** item.
2. add new RR Appendix **4** data items for frequency assignments to non-GSO systems in frequency bands not subject to coordination under Section II of RR Article 9:
* mandatory items, identifying whether the orbit is sun-synchronous or not,
* optional items, providing the local time of the ascending node (LTAN) for sun-synchronous orbits.

3.1.5 Japan – Document APG19-4/INP-61

* Japan supports the current ITU-R study which is proposing the additional orbital parameters to constellation type non-GSO systems in frequency bands not subject to coordination under Section II of RR Article **9**. With regard to the proposed modifications to RR Appendix 4 items under Issue H for sun-synchronous non-GSO satellite networks, it is desirable to add the option of adding the local sun time of descending node in addition to the current proposal of adding the local sun time of ascending node.

3.1.6 China - Document APG19-4/INP-98

* China supports the only method outlined in draft CPM text to address this issue.

3.1.7 India - Document APG19-4/INP-112

* India supports the only method outlined in draft CPM text to address this issue.

3.2 Summary of issues raised during the meeting

* None.

4. APT Preliminary View(s)

* APT Members support the single method outlined in draft CPM text to address this issue.

5. Other View(s) from APT Members

* With regard to the proposed modifications to RR Appendix 4 items under Issue H for sun-synchronous non-GSO satellite networks, it is desirable to add the option of adding the local sun time of descending node in addition to the current proposal of adding the local sun time of ascending node.

6. Issues for Consideration at Next APG Meeting

* APT Members are encouraged to consider the additional option as mentioned in the above section 5.

7. Views from Other Organisations

7.1 Regional Groups

7.1.1 ASMG

* In order to access to update views/positions of the ASMG, APT members are encouraged to refer to the[APG19-4/INP-09 (Rev.1)](file:///C%3A%5CUsers%5CMA14468%5CDesktop%5CAPG19-4%5CDoc%5CTemp%20Doc%5CFirst%20session%20of%20the%20DG%207A%5CAPG19-4-INP-09Rev.1_Report-second_Inter-regional_Workshop_on_preparations_for_WRC-19.docx)

7.1.2 ATU

* In order to access to update views/positions of the ATU, APT members are encouraged to refer to the[APG19-4/INP-09 (Rev.1)](file:///C%3A%5CUsers%5CMA14468%5CDesktop%5CAPG19-4%5CDoc%5CTemp%20Doc%5CFirst%20session%20of%20the%20DG%207A%5CAPG19-4-INP-09Rev.1_Report-second_Inter-regional_Workshop_on_preparations_for_WRC-19.docx)

7.1.3 CEPT - Document APG19-4/INF-23

* CEPT supports the only method proposed for agenda item 7 Issue H.

7.1.4 CITEL - Document APG19-4/INF-22

* None.

7.1.5 RCC-- Document APG19-4/INF-24

* The RCC Administrations support modification of data of the RR Appendix 4 submitted for new non-GSO systems.
	1. **International Organisations**

7.2.1 ICAO

* None.

7.2.2 WMO

* None.

7.2.3 IARU

* None.

# Issue I – Additional RR Appendix 4 data items to be provided for non-geostationary satellite systems with multiple orbital planes

1. Background

WRC-15 endorsed the recommendation of the Radiocommunication Bureau Director to allow two types of submissions for the coordination request (CR/C) for frequency assignments to non-GSO systems:

1) CR/C for frequency assignments to a non-GSO system with one (or more than one) set(s) of orbital characteristics with an indication that all frequency assignments of the system would be operated simultaneously;

2) CR/C for frequency assignments to a non-GSO system with different sets of orbital characteristics with an indication that the different sets of orbital planes would be mutually exclusive, i.e. satellites on these sets of orbits would not be operated simultaneously and only one of these sets of orbital planes would be implemented.

However, no modification was made to RR Appendix **4** to ensure the proper identification of the type of CR/C, leading the Bureau to systematically seek clarification from notifying administrations in case of a submission of a CR/C for frequency assignments to a non-GSO system with multiple orbital planes. Subsequently, the Radio Regulations Board adopted a Rules of Procedure for the receivability of non-GSO systems which implements the two types of submissions endorsed by WRC-15.

Although WRC-15 did not specifically address the case of frequency assignments to non-GSO systems with multiple planes in frequency bands not subject to coordination under Section II of RR Article **9**, it is important to consider the same level of flexibility for the submission of API and to reflect it in RR Appendix **4**.

2. Documents

* Input Documents: APG19-4/INP-120 (INS), 77 (KOR), 17 (AUS), 98 (CHN), 55 (MLA), 112 (IND)
* Information Documents APG19-4/INF-22 (CITEL), 23 (CEPT), 24(RCC)

3. Summary of discussions

3.1 Summary of APT Members’ views

3.1.1 Indonesia - Document APG19-4/INP-120

* Indonesia is of the view to support the single method in draft CPM Report which propose to add two new RR Appendix **4** data items: an indicator of whether all of the orbital planes define a single non-GSO system or multiple mutually exclusive configurations and in the case of the latter, another RR Appendix **4** data item for the provision of an exhaustive list of the potential orbital plane configurations.

3.1.2 Korea - Document APG19-4/INP-77

* The Republic of Korea supports the Method in the draft CPM text to include new items in RR Appendix **4** for the provision of information relating to the multiple orbital planes and their relationship with respect to the non-GSO system.

3.1.3 Australia - Document APG19-4/INP-17

* Australia supports the inclusion of additional Appendix **4** data elements for multiple plane orbits.

3.1.4 China - Document APG19-4/INP-98

* China supports the only method outlined in draft CPM text to address this issue.

3.1.5 Malaysia - Document APG19-4/INP-55

* Malaysia supports single method to include two new RR Appendix **4** data items: an indicator of whether all of the orbital planes define a single non-GSO system or multiple mutually exclusive configurations and in the case of the latter, another RR Appendix **4** data item for the provision of an exhaustive list of the potential orbital plane configurations.

3.1.6 India - Document APG19-4/INP-112

* India supports the only method outlined in draft CPM text to address this issue.

3.2 Summary of issues raised during the meeting

* None.

4. APT Preliminary View(s)

* APT Members support the single method outlined in draft CPM text to address this issue.

5. Other View(s) from APT Members

* None.

6. Issues for Consideration at Next APG Meeting

* None.

7. Views from Other Organisations

7.1 Regional Groups

7.1.1 ASMG

* In order to access to update views/positions of the ASMG, APT members are encouraged to refer to the[APG19-4/INP-09 (Rev.1)](file:///C%3A%5CUsers%5Caa%5CDesktop%5CDG%207A%5CFirst%20session%20of%20the%20DG%207A%5CAPG19-4-INP-09Rev.1_Report-second_Inter-regional_Workshop_on_preparations_for_WRC-19.docx)

7.1.2 ATU

* In order to access to update views/positions of the ATU, APT members are encouraged to refer to the[APG19-4/INP-09 (Rev.1)](file:///C%3A%5CUsers%5Caa%5CDesktop%5CDG%207A%5CFirst%20session%20of%20the%20DG%207A%5CAPG19-4-INP-09Rev.1_Report-second_Inter-regional_Workshop_on_preparations_for_WRC-19.docx)

7.1.3 CEPT - Document APG19-4/INF-23

* CEPT supports to further study the impact of this proposal in detail before taking any action.

7.1.4 CITEL - Document APG19-4/INF-22

* one proposal supports new data elements, i.e. the number of configurations and the identification of orbital planes for each configuration.

7.1.5 RCC- Document APG19-4/INF-24

* The RCC Administrations support insertion into RR Appendix 4 additional data elements submitted for new non-GSO systems with several orbital planes determining whether a satellite system is a multiple configurations that will operate simultaneously or it contains multiple configurations that are mutually exclusive.

7.2 International Organisations

7.2.1 ICAO

* None.

7.2.2 WMO

* None.

7.2.3 IARU

* None.

# Issue J – Possible modification to Section 1 of Annex 1 of RR AP30 to allow a specified power flux-density to be exceeded

1. Background

In order to provide the advanced broadcasting-satellite services (BSS) like UHDTV (see Rec. [ITU‑R BT.2020](http://www.itu.int/rec/R-REC-BT.2020/en)), a modulation scheme with high spectrum efficiency (e.g. APSK) and high required *C/N* (carrier-to-noise ratio) is necessary (see Rec. [ITU-R BO.2098](http://www.itu.int/rec/R-REC-BO.2098/en) and Rep. [ITU-R BO.2397](http://www.itu.int/pub/R-REP-BO.2397)). In that situation, a pfd value exceeding the limit of −103.6 dB(W/(m2 · 27 MHz)) within the service area is required in order to achieve the same service availability as the conventional BSS.

The Rules of Procedure addresses implementation of the pfd limit referred to in the first paragraph of Section 1 of Annex 1 to Appendix **30** of the Radio Regulations as a hard limit that shall not be exceeded in order to protect BSS assignments from interference that may be caused by BSS networks located outside an arc of 9 around a wanted BSS network.

In the case that an administration applies the relevant provisions of RR Article 23 to request the exclusion of its territory from the service areas of BSS networks of other administrations, such BSS networks of other administrations are not entitled to be protected within the territory of the objecting administration (i.e. the notifying administration mentioned above). It should be also noted that coordination among BSS networks belonging to the same notifying administration is an internal matter of that administration.

If that limit is not exceeded outside the territory of the notifying administration, the BSS networks outside the coordination arc of other administrations are protected outside the territory of the notifying administration. For the BSS networks inside the coordination arc of other administrations, the current coordination procedure continues to be applied.

According to the idea above, the pfd limit of −103.6 dB(W/(m2 · 27 MHz)) may be exceeded only within the national territory of the notifying administration provided that, on the border areas and other territory of other country, this pfd limit is not exceeded, under the condition that the assignment does not overlap with the Regions 1 and 3 guardbands as defined in § 3.9 of Annex 5 to RR Appendix **30** in order to ensure the protection of services in adjacent bands.

Two methods are provided. Method J1 proposes modifications to Section 1, Annex 1 of RR Appendix 30 and Method J2 proposes no changes to the Radio Regulations.

The Working Party 4A (WP4A) meeting in July 2018 received one input on this topic from the Director of the BR that provided a description of the BR process for pfd examination which was used to modify the previous text. The meeting updated and agreed on the draft CPM text for WRC-19 Agenda Item 7 Issue J ([Annex 39 to Document 826](https://www.itu.int/dms_ties/itu-r/md/15/wp4a/c/R15-WP4A-C-0826%21N39%21MSW-E.docx) of the Working Party 4A Chairman’s Report).

**Relevant ITU-R Recommendations and Reports**

* [Annex 39 to Document 826](https://www.itu.int/dms_ties/itu-r/md/15/wp4a/c/R15-WP4A-C-0826%21N39%21MSW-E.docx) of the Working Party 4A Chairman Report, July 2018: Preliminary Draft CPM text for WRC-19 agenda item 7 – Issue J

2. Documents

* Input Documents: APG19-4/INP-[17 (AUS)](https://www.apt.int/sites/default/files/2019/01/APG19-4-INP-17_AUS3_-_Australian_Contribution_to_APG19-4_Chapter_3.docx), [61 (J)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-61_3_J_WP3.docx), [77 (KOR)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-77_WP3_kor.docx), [98 (CHN)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-98_China2_Preliminary_views_on_WRC-19_AI_1.4_1.5_1.6_7_9.1_issues_9.1.2_9.1.3_9.1.9.docx), [112 (IND)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-112_India_Proposal_for_Modification_to_Draft_CPM_Text_of_Chapter_3_Agenda_Item_7.docx)
* Information Documents: APG19-4/INP-[09(Rev.1) (ASMG, ATU)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-09Rev.1_Report-second_Inter-regional_Workshop_on_preparations_for_WRC-19.docx), APG19-4/INF-[02 (WMO)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INF-02_WMO-Position_20181109.docx), [03 (IARU)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INF-03_IARU.DOCX), [04 (ICAO)](https://www.apt.int/sites/default/files/2018/12/APG19-4-INF-04_ICAO_01_WRC-19_ICAO-Pos_for_APG-4_for_WP5.docx), [22 (CITEL)](https://www.apt.int/sites/default/files/2019/01/APG19-4-INF-22_CITEL_PPT.pdf), [23 (CEPT)](https://www.apt.int/sites/default/files/2019/01/APG19-4-INF-23_CEPT_PPT.pdf), [24 (RCC)](https://www.apt.int/sites/default/files/2019/01/APG19-4-INF-24_RCC.pdf)

3. Summary of discussions

3.1 Summary of APT Members’ views

3.1.1 Australia – Document [APG19-4/INP-17](https://www.apt.int/sites/default/files/2019/01/APG19-4-INP-17_AUS3_-_Australian_Contribution_to_APG19-4_Chapter_3.docx)

* Australia will consider support for Method J1.

3.1.2 Japan - Document [APG19-4/INP-61](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-70_12_J_WP3_AI7uEIssue_GOther.docx)

* With respect to pfd limit in Section 1, Annex 1 of RR Appendix 30 (Issue J), Japan supports Method J1 to modify the RR AP30 and allow exceedance the pfd limit of -103.6 dB(W/(m2 · 27 MHz)) only within the national territory of notifying Administration and in the assignment frequency not overlapping with the Regions 1 and 3 guardbands, making a point to ensure smooth introduction of the future BSS.

3.1.3 The Republic of Korea – Document [APG19-4/INP-77](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-77_WP3_kor.docx)

* The Republic of Korea has a view that the pfd limit referred to in the first paragraph of Section 1 of Annex 1 to RR Appendix **30** is a hard limit that shall not be exceeded in order to protect BSS assignments from interference that may be caused by BSS networks located outside an arc of 9 around a wanted BSS network.
* Also noting that there may be potential impact, which has not been evaluated, due to the possible exceedance of the pfd limit even within the territory of the notifying administration, the Republic of Korea supports Method J2 which is no changes to the Radio Regulations.

3.1.4 China – Document [APG19-4/INP-98](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-98_China2_Preliminary_views_on_WRC-19_AI_1.4_1.5_1.6_7_9.1_issues_9.1.2_9.1.3_9.1.9.docx)

* China does not support modification of a hard pfd limit (−103.6 dB(W/(m2· 27 MHz) which is included in Annex 1 to RR Appendix 30.

3.1.5 India – Document [APG19-4/INP-112](https://www.apt.int/sites/default/files/2018/12/APG19-4-INP-112_India_Proposal_for_Modification_to_Draft_CPM_Text_of_Chapter_3_Agenda_Item_7.docx)

* Method J2: Agreed

3.2 Summary of issues raised during the meeting

* None.

4. APT Preliminary View(s)

* APT Members support further study on this issue with an aim to find the solution to address concerns raised by some administrations.

5. Other View(s)

* Some APT Members are of the view that the power flux-density limit referred to in the first paragraph of Section 1 of Annex 1 to RR Appendix **30** is a hard limit that shall not be exceeded in order to protect BSS assignments from interference that may be caused by BSS networks located outside an arc of  9 around a wanted BSS network. Hence, some APT Members support Method J2 which is no changes to the Radio Regulations.
* Some APT Members support Method J1.

6. Issues for Consideration at Next APG Meeting

* APT Members are invited to follow the progress of ITU-R studies and are encouraged to submit their contributions to the next meeting to finalize the APT Views at the APG19-5 meeting.

7. Views from Other Organisations

7.1 Regional Groups

7.1.1 ASMG - Document APG19-4/INP-09(Rev.1)

* Initial support for Method B
* Follow up studies with respect to cross border interference and guard bands

7.1.2 ATU - Document APG19-4/INP-09(Rev.1)

* Method J2 which proposes no change to the Radio Regulations since the pfd limit referred to in the first paragraph of Section 1 of Annex 1 to RR Appendix 30 is hard limit that shall not be exceeded in order to protect BSS assignments from interference that may be caused by BSS networks located outside an arc of ±9° around a wanted BSS network.

7.1.3 CEPT - Document APG19-4/INF-23

* CEPT supports to further study the impact of this proposal in detail before taking any action.

7.1.4 CITEL - Document APG19-4/INF-22

* None.

7.1.5 RCC - Document APG19-4/INF-24

* The RCC Administrations do not support modification of a hard pfd limit (-103.6 dB(W/(m2· 27 MHz), identified in Annex 1 to RR Appendix 30, and consider that to ensure protection of assignments to systems in the broadcasting-satellite service from interference caused by networks in the broadcasting-satellite service located outside of the coordination arc, hard pfd limit identified in Section 1, Annex 1 to RR Appendix 30 shall be observed, even if a test point is located in the territory of a notifying administration (Method J2).

7.2 International Organisations

7.2.1 ICAO - Document APG19-4/INF-04

* None.

7.2.1 WMO - Document APG19-4/INF-02

* None.

7.2.2 IARU - Document APG19-4/INF-03

* None.

# Issue K – Difficulties for Part B examinations under § 4.1.12 or 4.2.16 of RR Appendices 30 and 30A and § 6.21 *c)* of RR Appendix 30B

1. Background

Examination under RR Appendix **30B** § 6.21 c) is based on the assignments for which the Bureau has previously received complete information in accordance with § 6.1 (i.e. Network SR-Part A) even though the Network SR-Part B has already been published under § 6.23 or § 6.25 with much reduced characteristic (e.g. reduced service area and coverage area) and from that Part B publication, Network SR-Part A no longer exists in the AP**30B** databases.

This creates difficulties to the notifying administration and may prevent its notice submitted under § 6.17 (Network JR-Part B) from entering into the List with favourable findings as the examination of its submission in respect of the senior network (Network SR-Part A) is unfavourable even though in reality, its network (Network JR-Part B) can co-exist with the senior network in the List (Network SR-Part B) and if examination in respect of Network SR is based on its Part B, examination result will become favourable.

2. Documents

* Input Documents APG19-4/INP-17 (AUS), 39 (VTN), 77 (KOR), 92 (SNG), 98 (CHN), 120 (INS)
* Information Documents APG19-4/INP-09(Rev.1) (ASMG, ATU), APG19-4/INF-22 (CITEL), 23 (CEPT), 24 (RCC)

3. Summary of discussions

3.1 Summary of APT Members’ views

3.1.1 Australia - Document APG19-4/INP-17

* Australia supports the single Method of the draft CPM Report text.

3.1.2 Viet Nam – Document APG19-4/INP-39

* Viet Nam supports method A which adds one more examination under §4.1.12 and 4.2.16 of RR Appendix **30** and**30A** and§ 6.21 c) of RR Appendix **30B** such that should any remaining affected networks whose assignments have been entered in the List before the submission under§4.1.12 and 4.2.16 of RR Appendix **30** and **30A** or § 6.17of RR Appendix **30B**, the Bureau shall further examine if the remaining corresponding assignments in the List are still considered as being affected.

3.1.3 Korea (Rep. of) – Document APG19-4/INP-77

* The Republic of Korea supports the Method in the draft CPM text to add one more examination under § 4.1.12 and § 4.2.16 of RR Appendices **30** and **30A** and § 6.21 c) of RR Appendix **30B** such that should any remaining affected networks whose assignments have been entered in the List before the submission under § 4.1.12 and § 4.2.16 of RR Appendices **30** and **30A** or § 6.17 of RR Appendix **30B**, the Bureau shall further examine if the remaining corresponding assignments in the List are still considered as being affected.

3.1.4 Singapore – Document APG19-4/INP-92

* Singapore supports the only Method which is to add one more examination under § 6.21 c) for AP30B and under § 4.1.12, §4.2.16 for AP30/30A such that should any remaining affected networks whose assignments have been entered in the List before the submission under § 6.17 for AP30B and under §4.1.12, §4.2.16 of AP30/30A, the Bureau shall further examine if these assignments in the List are still being affected, using its Part B characteristics. This method avoids overprotection of networks based on characteristics that are no longer valid and could potentially reduce the application of provisions for provisional recording in the List.

3.1.5 China – Document APG19-4/INP-98

* To increase the efficiency of spectrum use, China supports the single method in the draft CPM text.

3.1.6 Indonesia – Document APG19-4/INP-120

* Indonesia is of the view to support the single method in draft CPM Report which propose to add one more examination under § 4.1.12 and § 4.2.16 of RR Appendices **30** and **30A** and § 6.21 *c)* of RR Appendix **30B** such that should any remaining affected networks whose assignments have been entered in the List before the submission under § 4.1.12 and § 4.2.16 of RR Appendices **30** and **30A** or § 6.17 of RR Appendix **30B**, the Bureau shall further examine if the remaining corresponding assignments in the List are still considered as being affected.

3.2 Summary of issues raised during the meeting

* None.

4. APT Preliminary View(s)

* APT Members support the Method in the draft CPM text to add one more examination under § 4.1.12 and § 4.2.16 of RR Appendices **30** and **30A** and § 6.21 c) of RR Appendix **30B** such that should any remaining affected networks whose assignments have been entered in the List before the submission under § 4.1.12 and § 4.2.16 of RR Appendices **30** and **30A** or § 6.17 of RR Appendix **30B**, the Bureau shall further examine if the remaining corresponding assignments in the List are still considered as being affected.

5. Other View(s)

* None.

6. Issues for Consideration at Next APG Meeting

* None.

7. Views from Other Organisations

7.1 Regional Groups

7.1.1 ASMG – Document INP-09(Rev.1)(ASMG, ATU)

* Support Appendix 30B modification, according to ASMG submission.
* Follow up studies for the proposed Appendix30/30A modifications.

7.1.2 ATU– Document INP-09(Rev.1)(ASMG, ATU)

* ATU supports only method, proposed which intends to make satellite coordination easier and to allow satellites networks opportunity of additional examination that have received unfavourable finding.

7.1.3 CEPT– Document APG19-4/INF-23

* CEPT supports that the examination under § 4.1.12 or 4.2.16 of RR Appendices 30 and 30A and § 6.21 c) of RR Appendix 30B is performed in two steps, if needed, to better reflect the actual situation and to enable newcomers to benefit from the reduction of satellite networks parameters and characteristics of other networks emerging during the coordination process, and thus increase the efficiency of spectrum use, as outlined in the single method in the draft CPM text. CEPT believes that this method avoids over protection of earlier networks based on part A characteristics which could be obsolete and no longer valid due to changes during the coordination process and in entering into the List (Part B). This method would hence enable spectrum efficiency by addressing potential difficulties encountered by notifying administrations in the Part B examination to enter into the List with favourable findings. CEPT support the overall aim to facilitate entering new assignments into the RR Appendix 30B List and to facilitate coordination of networks for newcomers which the proposal in Issue K targets.

7.1.4 CITEL – Document APG19-4/INF-22

* The CITEL supports single method shown in the draft CPM report.

7.1.5 RCC– Document APG19-4/INF-24

* The RCC Administrations support re-examination of notices under §§ 4.1.12 or 4.2.16 of Appendices 30 and 30А and § 6.21 с) of RR Appendix 30B at the stage of publication relating to IFIC Part B in the case when networks which were the basis for the unfavourable finding were included in the List with decreased by results of coordination characteristics.

7.2 International Organisations

7.2.1 ICAO

* None.

7.2.2 WMO

* None.

7.2.3 IARU

* None

# Issue L –Update to RR Appendix 4 data elements required for RR Article 22 epfd verification after revision of Recommendation ITU-R S.1503

1. Background

Recommendation ITU-R S.1503 defines an algorithm that can be used to determine whether a non-GSO FSS system or network meets the equivalent power flux-density (epfd) limits in RR Article **22**. A revision to this Recommendation from versions ITU-R S.1503-2 to version ITU-R S.1503-3 was formally approved on 15 January 2018 after the procedure for simultaneous adoption and approval by correspondence.

The revised version introduced increased flexibility for non-GSO system operators to model their network while ensuring that the core algorithm to calculate epfd statistics was largely unchanged. This increased flexibility comes partly from new input parameters and partly from additional dimensions to existing input parameters. For example, the exclusion zone angle was assumed to be a single value in Recommendation ITU-R S.1503-2 but in the revision it can vary by latitude and frequency band.

The motivation for this work is to provide a better framework for GSO and non-GSO systems in frequency bands where there are epfd limits to protect the GSO in RR Article **22**. Improvements in the detail and accuracy of the modelling of non-GSO systems can improve spectrum utilization, increasing spectrum efficiency while maintaining the protection of the GSO. It can facilitate the introduction of new technologies and development of a wider range of non-GSO system types.

To realize these benefits it is necessary for the input data to be available, and to ensure this can occur they should be mandatory parameters defined in RR Appendix **4**. Hence it is proposed to revise RR Appendix **4** to include these additional parameters.

2. Documents

* Input Documents: APG19-4/INP-17 (AUS), 44 (MLA & THA), 77 (KOR), 98 (CHN), 112 (IND)
* Information Documents APG19-4/INF-22 (CITEL), 23 CEPT), 24(RCC)

3. Summary of discussions

3.1 Summary of APT Members’ views

3.1.1 Australia - Document APG19-4/INP-17

* Australia supports updating the required Appendix **4** data elements for RR Article **22** epfd verification as a consequence of ITU-R Recommendation S.1503-3 approval.

3.1.2 Malaysia & Thailand APG19-4/INP-44

* Malaysia and Thailand support single method to simplify the regulatory regimeas captured in the proposed new WRC Resolution together with an associated regulatory regime for non-GSO satellite systems with short-duration missions.

3.1.3 Korea - Document APG19-4/INP-77

* The Republic of Korea supports the Method in the draft CPM text to modify RR Appendix **4** in consequence of the revision of Recommendation ITU-R S.1503.

3.1.4 China - Document APG19-4/INP-98

* China supports revision of RR Appendix **4** as a consequence to the Recommendation ITU-R S.1503-3 coming into force, as outlined in the single method in the draft CPM text.

3.1.5 India - Document APG19-4/INP-112

* India supports the Method in the draft CPM text to modify RR Appendix **4** in consequence of the revision of Recommendation ITU-R S.1503.

3.2 Summary of issues raised during the meeting

* None.

4. APT Preliminary View(s)

* APT Members support the single method outlined in draft CPM text to address this issue

5. Other View(s) from APT Members

* None.

**6. Issues for Consideration at Next APG Meeting**

* None.

7. Views from Other Organisations

7.1 Regional Groups

7.1.1 ASMG

* In order to access to update views/positions of the ASMG, APT members are encouraged to refer to the[APG19-4/INP-09 (Rev.1)](file:///C%3A%5CUsers%5Caa%5CDesktop%5CDG%207A%5CFirst%20session%20of%20the%20DG%207A%5CAPG19-4-INP-09Rev.1_Report-second_Inter-regional_Workshop_on_preparations_for_WRC-19.docx)

7.1.2 ATU

* In order to access to update views/positions of the ATU, APT members are encouraged to refer to the[APG19-4/INP-09 (Rev.1)](file:///C%3A%5CUsers%5Caa%5CDesktop%5CDG%207A%5CFirst%20session%20of%20the%20DG%207A%5CAPG19-4-INP-09Rev.1_Report-second_Inter-regional_Workshop_on_preparations_for_WRC-19.docx)

7.1.3 CEPT - Document APG19-4/INF-23

* CEPT supports revision of RR Appendix 4 as a consequence to the Recommendation ITU-R S.1503-3 coming into force, as outlined in the single method in the draft CPM text.

7.1.4 CITEL - Document APG19-4/INF-22

* CITEL support single method shown in the draft CPM report.

7.1.5 RCC- Document APG19-4/INF-24

* The RCC Administrations do not oppose updating data elements of RR Appendix 4 required in order to verify epfd levels identified in RR Article 22, in accordance with current version of Recommendation ITU– R S.1503-3.

7.2 International Organisations

7.2.1 ICAO

* None.

7.2.2 WMO

* None.

7.2.3 IARU

* None.

# Issue M – Simplified regulatory regime for non-GSO satellite systems with short duration missions

**1. Background**

At WRC-15 a proposal for a new agenda item for WRC-19 “to consider modifications to the regulatory procedures for notifying satellite networks to accommodate nanosatellite and picosatellite missions” was submitted.WRC-15 decided not to include this as an item on the WRC-19 agenda, and concluded that this matter could best be dealt with by the ITU-R under the standing WRC agenda item 7.

Considering that the size of a satellite is independent of the nature of the service that it is intended to provide, a simplified regulatory regime has been developed for satellites with short duration missions, independent of the size of the satellite.

Based on the above, ITU-R developed a method to address this issue that consists of modifications to the existing regulatory procedures for advanced publication and notification of satellite networks and systems that are not subject to Section II of RR Article **9** to facilitate the recording of non-GSO satellite systems with short duration missions in the MIFR.

**2. Documents**

* Input Documents APG19-4/INP-17 (AUS), 39 (VTN), 44 (MLA\_THA), 61 (J), 77 (KOR), 98 (CHN), 112 (IND), 120 (INS)
* Information Documents APG19-4/INP-09(Rev.1) (ASMG, ATU), APG19-4/INF-22 (CITEL), 23 (CEPT), 24 (RCC)

3. Summary of discussions

3.1 Summary of APT Members’ views

3.1.1 Australia- Document APG19-4/INP-17

* Australia supports the establishment of new regulations for non-GSO satellites with short duration missions, provided that the applicability is optional and does not create unreasonable obligations for operators of existing satellite services.
* Australia also supports the retention of the typical 4 month commenting period from the date of BR IFIC containing information published under No. **9.2B**.

3.1.2 Viet Nam – Document APG19-4/INP-39

* Viet Nam supports a new WRC Resolution, together with an associated regulatory regime for non-GSO satellite systems with short duration missions.

3.1.3 Malaysia – Document APG19-4/INP-44

* Malaysia supports single method to simplify the regulatory regime as captured in the proposed new WRC Resolution together with an associated regulatory regime for non-GSO satellite systems with short-duration missions.

3.1.4 Thailand – Document APG19-4/INP-44

* Thailand supports single method to simplify the regulatory regime as captured in the proposed new WRC Resolution together with an associated regulatory regime for non-GSO satellite systems with short-duration missions.

3.1.5 Japan – Document APG19-4/INP-61

* With respect to simplified regulatory regime for non-GSO satellite systems with short-duration missions(Issue M), Japan recognizes the importance of ITU-R studies to develop a new Resolution to simplify regulatory regime for non-GSO satellite systems whose operational lifetime shall not exceed three years from the date of BIU, but it is necessary to study thoroughly, because sufficient time is needed to secure whether harmful interference between the existing or planned satellite networks and the newly proposed non-GSO satellite networks may occur and to prepare comments to the proposing Administration.

3.1.6 Korea – Document APG19-4/INP-77

* The Republic of Korea supports developing a simplified regulatory regime for non-GSO satellite systems with short-duration missions that are not subject to Section II of RR Article 9.
* However, the Republic of Korea has a view that the simplified regulatory regime for non-GSO satellite systems with short-duration missions should not place any burden on potentially affected administrations, in particular, for their communicating to the publishing administration their comments following publication of the systems by the Bureau.

3.1.7 China – Document APG19-4/INP-98

* China supports the general principles of the draft new WRC Resolution together with the associated regulatory regime. However, the amount of time of 4 months for comments raised by administrations following a publication of an API shall not be changed.

3.1.8 India – Document APG19-4/INP-112

* India agreed to the single method.

3.1.9 Indonesia – Document APG19-4/INP-120

* Indonesia is of the view to support the consideration for developing a simplified regulatory regime for non-GSO satellite systems with short-duration missions while ensuring the protection of existing and future satellite networks.

3.2 Summary of issues raised during the meeting

* None.

4. APT Preliminary View(s)

* APT members support a simplified regulatory regime for non-GSO satellite systemswith short duration missions. APT members also support the principles of the draft new WRC Resolution in draft CPM text.
* APT members are of the view that the simplified regulatory regime for non-GSO satellite systems with short-duration missions should not place additional burden on potentially affected administrations.
* APT members support the retention of the typical 4 month commenting period from the date of BR IFIC containing information published under No. **9.2B.**

5. Other View(s)

* Some other APT members are of the view that that the further development of the new Resolution is required to give flexibility in its applications and do not create unreasonable obligations for operators of existing satellite services.

6. Issues for Consideration at Next APG Meeting

* APT Members are invited to follow the progress of ITU-R studies, and are encouraged to submit their contributions for further considerations at the next meeting.

7. Views from Other Organisations

7.1 Regional Groups

7.1.1 ASMG– Document INP-09(Rev.1) (ASMG, ATU)

* Follow up studies.
* Study proposed resolution, considering pros and cons of its applications.

7.1.2 ATU– Document INP-09(Rev.1) (ASMG, ATU)

* The adoption of the new WRC Resolution, together with an associated regulatory regime for non-GSO satellite systems with short duration missions as proposed in the draft CPM text.

7.1.3 CEPT– Document APG19-4/INF-23

* CEPT supports the regulatory framework in the draft CPM text method where the short lifetimes of non-GSO space stations are taken into account. CEPT proposes to introduce this simplified regulatory regime for the advance publication, notification and recording procedures for non-GSO satellite systems with short duration missions not subject to Section II of RR Article 9 and in that respect supports the principles of the draft new WRC Resolution together with the associated regulatory regime. This regulatory regime for non-GSO satellite systems with short duration missions not subject to Section II of RR Article 9 shall be based on the following principles:

• The satellite operator shall stop the emission of the space station in case of harmful interference experienced by current assignments such in line with RR No. **22.1**;

• The API and the corresponding notification shall be accurate and complete regarding the orbital parameters and the number of carriers;

• The amount of time of 4 months for comments raised by administrations following a publication of an API shall not be changed;

• The API associated to a limited number of small satellites (maximum of 10) shall be unique, shall not be duplicated or re-used; the maximum duration is 3 years, any extension is prohibited.

7.1.4 CITEL– Document APG19-4/INF-22

* Have to study the details of the proposed new Resolution.

7.1.5 RCC– Document APG19-4/INF-24

* The RCC Administrations oppose modifications to RR Article 9 to simplify the regulatory regime for non-GSO systems with short duration missions.
* The RCC Administrations study the procedure of submitting data to the Bureau concerning non-GSO systems with short-duration missions (less than 3 years), not subject to the coordination procedure under Section II of RR Article 9 and possible measures to prevent possible interference to existing and planned assignments.
* The RCC Administrations are in favour of maintaining 4-month period for comments by administrations after publishing API for simplified regulatory regime for non-GSO systems.

7.2 International Organisations

7.2.1 ICAO

* None.

7.2.2 WMO

* None

7.2.3 IARU

* None

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

1. See § 2.6 of RR Appendix **30B**. [↑](#footnote-ref-1)