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| **The 5th Meeting of the APT Conference Preparatory**  **Group for WRC-19 (APG19-5)** | **APG19-5/OUT-08** |
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Woerking Party 3

**APT VIEW AND PRELIMINARY APT COMMON PROPOSAL**

**on WRC-19 agenda item 7 (Issues B)**

**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.*

# 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, WRC-19 Agenda Item Issue B proposes the introduction of the coordination arc with a value of 8 degrees as coordination criteria between fixed-satellite service (FSS) and mobile-satellite service (MSS) systems and 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%. Considering that according to the current RR, 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.

**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!N31!MSW-E.docx) of the Working Party 4A Chairman Report, July 2018: Preliminary Draft CPM text for WRC-19 agenda item 7 – Issue B
* Chapter 3 in the [CPM Report](https://www.itu.int/md/R15-CPM19.02-R-0001/en) to WRC-19, February 2019: Report of the CPM on technical, operational and regulatory/procedural matters to be considered by the World Radiocommunication Conference 2019

2. Documents

* Input Documents: APG19-5/INP-[44 (Rev.1) (AUS)](https://www.apt.int/sites/default/files/2019/07/APG19-5-INP-44-R1-AUS_Contribution_to_APG19-5_Chapter_3.docx), [51 (INS)](https://www.apt.int/sites/default/files/2019/07/APG19-5-INP-51-INS_Views-WP3.docx), [67 (CHN)](https://www.apt.int/sites/default/files/2019/07/APG19-5-INP-67-CHN-WG3_PACP_1.4_1.5_1.6_7_9.1_ISSUE_9.1.2_9.1.3_9.1.9_rev3.doc), [81 (J)](https://www.apt.int/sites/default/files/2019/07/APG19-5-INP-81-J-10_WP3_PACP_and_Viewsui1.41.679.1.29.1.3uj.docx), [98 (MNG)](https://www.apt.int/sites/default/files/2019/07/APG19-5-INP-98-Mongolian_Final_Views_on_WRC-19_Agenda_Item_7_WP3.docx), [108 (MLA & THA)](https://www.apt.int/sites/default/files/2019/07/APG19-5-INP-108-MLA_THA_WP3_AI_7_A-C_E_H-K_9.1.2_and_9.1.3.docx), [119 (VTN)](https://www.apt.int/sites/default/files/2019/07/APG19-5-INP-119-WP3_AI_1.6_7_9.1.2_9.1.3_0.docx), [129 (KOR)](https://www.apt.int/sites/default/files/2019/07/APG19-5-INP-129-WP3_kor.doc)
* Information Documents: APG19-5/INF-[18 (CEPT)](https://www.apt.int/sites/default/files/2019/07/APG19-5_INF-18-CEPT.docx), [19 (ATU)](https://www.apt.int/sites/default/files/2019/07/APG19-5_INF-19-ATU.docx), [22 (RCC)](https://www.apt.int/sites/default/files/2019/07/APG19-5-INF-22-RCC.docx)

3. Summary of discussions

3.1 Summary of APT Members’ views

3.1.1 Australia – Document APG19-5/INP-[44](https://www.apt.int/sites/default/files/2019/07/APG19-5-INP-44-R1-AUS_Contribution_to_APG19-5_Chapter_3.docx) (Rev.1)

* 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 developed should not compromise the protection of a primary service from a secondary service. Australia supports the single Method of the CPM Report text for this Issue.

3.1.2 Indonesia – Document APG19-5/INP-[51](https://www.apt.int/sites/default/files/2019/07/APG19-5-INP-51-INS_Views-WP3.docx)

* Indonesia is of the view to support a single method in CPM Report 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%.

3.1.3 China – Document APG19-5/INP-[67](https://www.apt.int/sites/default/files/2019/07/APG19-5-INP-67-CHN-WG3_PACP_1.4_1.5_1.6_7_9.1_ISSUE_9.1.2_9.1.3_9.1.9_rev3.doc)

* 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 the single Method in the CPM report.

3.1.4 Japan – Document APG19-5/INP-[81](https://www.apt.int/sites/default/files/2019/07/APG19-5-INP-81-J-10_WP3_PACP_and_Viewsui1.41.679.1.29.1.3uj.docx)

* Japan supports the single Method of the CPM Report for Issue B.

3.1.5 Mongolia – Document APG19-5/INP-[98](https://www.apt.int/sites/default/files/2019/07/APG19-5-INP-98-Mongolian_Final_Views_on_WRC-19_Agenda_Item_7_WP3.docx)

* Mongolia supports the Method in the Section 3/7/2.4 of the CPM19-2 on this Issue:
  + - 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%, without any modifications to the status of allocations in these frequency bands.
    - 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.

3.1.6 Malaysia and Thailand – Document APG19-5/INP-[108](https://www.apt.int/sites/default/files/2019/07/APG19-5-INP-108-MLA_THA_WP3_AI_7_A-C_E_H-K_9.1.2_and_9.1.3.docx)

* Malaysia and Thailand support the application of the coordination arc with a value of 8 degrees as the coordination criteria, to determine the requesting coordination between FSS and MSS systems and between MSS systems in the frequency bands 29.5-30 GHz (Earth-to-space) and 19.7‑20.2 GHz (space-to-Earth) in all 3 Regions, while keeping the possibility for Administrations to request ΔT/T criteria under No. 9.41.
* Therefore, Malaysia and Thailand support the single Method of the CPM report for this Issue.

3.1.7 Vietnam – Document APG19-5/INP-[119](https://www.apt.int/sites/default/files/2019/07/APG19-5-INP-119-WP3_AI_1.6_7_9.1.2_9.1.3_0.docx)

* Viet Nam supports Method B 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.
* *Reasons: 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.*

3.1.8 Korea – Document APG19-5/INP-[129](https://www.apt.int/sites/default/files/2019/07/APG19-5-INP-129-WP3_kor.doc)

* 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** as shown in the CPM Report in order to implement this application without modifications to current category of allocation in the frequency bands above.

3.2 Summary of issues raised during the meeting

* None.

4. APT Views

* APT Members support 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, 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 without modifications to current category of allocation in the frequency bands above.
* APT Members agree to develop Preliminary APT Common Proposal (PACP) based on this view.

5. Preliminary APT Common Proposal

