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| **The 4th Meeting of the APT Conference Preparatory****Group for WRC-23 (APG23-4)** | **APG23-4/OUT-32****(Rev.1)** |
| 15 – 20 August 2022, Bangkok, Thailand | 20 August 2022 |

Working Party 4

**PRELIMINARY VIEWs on WRC-23 agenda item 1.19**

**Agenda Item 1.19:**

*to consider a new primary allocation to the fixed-satellite service in the space-to-Earth direction in the frequency band 17.3-17.7 GHz in Region 2, while protecting existing primary services in the band, in accordance with Resolution* ***174 (WRC 19).***

**1. Background**

WRC-23 agenda item 1.19, in accordance with Resolution **174 (WRC-19)**, invites ITU-R Sector to conduct, and complete in time for WRC-23, sharing and compatibility studies between the FSS (space-to-Earth) and the BSS (space-to-Earth) and between the FSS (space-to-Earth) and the FSS (Earth-to-space), in order to consider a possible new primary allocation to the FSS (space-to-Earth) in the frequency band 17.3-17.7 GHz for Region 2, while ensuring the protection of existing primary allocations in the same and adjacent frequency bands, as appropriate, and without imposing any additional constraints on existing allocations to the BSS (space-to-Earth) and the FSS (Earth-to-space).

Progress of ITU-R on-going studies:

The 6th Working Party (WP) 4A meetings in May 2022 updated two documents related to WRC-23 agenda item 1.19:

* 1. Preliminary Draft CPM Text for WRC-23 Agenda Item 1.19.

The updates regarding this document includes the summary and analysis of the sharing and compatibility studies, the **relevant ITU R Recommendations and Reports as reference, and t**he methods to satisfy agenda item 1.19. The two proposed methods are:

**Method A**: Under this method, no change is proposed to the RR and suppression of Resolution **174 (WRC-19)**.

**Method B**: Modify footnotes in RR Article 5 that refers to the allocation of the frequency band 17.3-17.7 GHz in Region 2 to the fixed-satellite service in the space-to-Earth direction.

* 1. Working Document on WRC-23 Agenda Item 1.19.

This document includes input documents received at the Feb/Mar 2021, July 2021, Oct/Nov 2021 and May 2022 meetings of WP 4A. This document was presented and discussed to some extent, however it should be carefully reviewed, analyzed and agreed upon at future meetings of WP 4. Several sharing and compatibility studies were updated, such as Study 7, 9, 10, 12, 13, 14, 15, 20, 21, 22, 23, 24, and 25.

The next scheduled Working Party 4A meetings in September 2022 (WP 4A 7th) will focus on finalizing the draft CPM text.

The Working Party (WP) 4A Correspondence Group on WRC-23 agenda item 1.19 (CG#4) will have no meetings between the 6th and 7th WP 4A meetings.

**2. Documents**

* Input Documents: APG23-3/INP-[10](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-10_J-4_WP4_Preliminary_Views_on_WRC-23_Agenda_Items_1.15_1.16_1.17_1.18_1.19_and_7.docx)(J), INP-[17](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-17_AUS_WP4_Preliminary_Views_on_WRC-23_Agenda_Items_1.15_1.16_1.17_1.18_1.19_and_7.docx)(AUS), INP-[22](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-22_BGD_WP4_Preliminary_Views_on_WRC-23_Agenda_Items_1.15_1.16_and_1.19.docx)(BGD), INP-[26](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-26_IRN_WP4_Preliminary_Views_on_WRC-23_Agenda_Items_1.15_1.16_1.17_1.18_and_1.19.docx)(IRN), INP-[43](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-43_China_WP4_Preliminary_Views_on_WRC-23_Agenda_Items_1.15_1.16_1.17_1.18_1.19_and_7.docx)(CHN), INP-[64](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-64_India_WP4_Preliminary_Views_on_WRC-23_Agenda_Items_1.16_1.17_1.18_and_1.19.docx)(IND), INP-[77](https://www.apt.int/sites/default/files/2022/08/APG23-4-INP-77_VTN_WP4_Preliminary_Views_on_WRC-23_Agenda_Items_1.15_1.16_1.18_and_1.19.docx)(VTN).
* Information Documents: APG23-4/INF-[2](https://www.apt.int/sites/default/files/2022/07/APG23-4-INF-02_ATU_preparation.docx)(ATU), INF-[21](https://www.apt.int/sites/default/files/2022/08/APG23-4-INF-21_ASMG_Preparation_for_WRC-23.pdf)(ASMG), INF-[28(Rev.1)](https://www.apt.int/sites/default/files/2022/08/APG23-4-INF-28Rev.1_CITEL_Preparation_for_WRC-23.pdf)(CITEL), INF-[38(Rev.1)](https://www.apt.int/sites/default/files/2022/08/APG23-4-INF-38Rev.1_Brief_on_AI1.19.docx)(DG Chair), INF-[44](https://www.apt.int/sites/default/files/2022/08/APG23-4-INF-44_Status_of_RCC_preparation_to_the_World_Radio_Conference_and_Radio_Assembly_2023.pdf)(RCC), INF-[48](https://www.apt.int/sites/default/files/2022/08/APG23-4-INF-48_Status_of_CEPT_preparation_for_WRC-23_and_RA-23.pdf)(CEPT).

**3. Summary of discussions**

**3.1 Summary of APT Members’ views**

**3.1.1 Japan** - **Document APG23-4/INP-10**

Japan is of the view that any studies in ITU-R related to Agenda Item 1.19 needs to ensure the protection of services already allocated in the frequency band 17.3-17.7 GHz and its adjacent bands.

**3.1.2 Australia** - **Document APG23-4/INP-17**

Australia supports arrangements that are consistent with the rational and efficient use of Australia’s sovereign assets in the radiofrequency spectrum. Noting that this is a Region 2 issue, Australia does not currently have a position on the proposed new primary allocation, however, protection for existing Appendix **30A** satellite networks should be ensured.

**3.1.3 Bangladesh (People’s Republic of)** - **Document APG23-4/INP-22**

This agenda is related to the issue of Region 2. Bangladesh is of the view that any studies at ITU-R related to Agenda Item 1.19 needs to ensure protection for existing frequency bands are allocated for the satellite networks as per the plan and procedures in Appendix.

**3.1.4 Iran (Islamic Republic of)** - **Document APG23-4/INP-26**

Two different Methods are contained in the Draft CPM text.

* This Administration is more in favor of Method A; NO CHANGE.
* However, it is also prepared to consider Method B if the protection of AP30A Feeder Link in Region 3 is addressed. To achieve this objective the following concept is needed to be included in the method to satisfy this agenda item and its associated regulatory text.

“In the band 17.3-17.7 GHz, space stations of the fixed-satellite service (space-to-Earth) in Region 2 shall not cause harmful interference to the Space Station Receivers associated with AP30A Feeder Link”

* This administration is also of the view that the mitigation requirements referred to in Study #1 of the draft CPM text considered to avoided significant interference in the equatorial-limb case should also be reflected in the form of regulatory procedures including the technical conditions in the proposed method to satisfy this agenda item and its associated regulatory text.

**3.1.5 China (People’s Republic of)** - **Document APG23-4/INP-43**

To consider possible new primary allocation to the fixed-satellite service (space-to-Earth) in the frequency band 17.3-17.7 GHz for Region 2, it should be ensure the protection of existing primary allocations in the same and adjacent bands, as appropriate, and without imposing any additional constraints on existing allocations to the broadcasting-satellite service (space-to-Earth) and the fixed-satellite service (Earth-to-space). In addition, the new allocation to FSS in Region 2 should not adversely effect on existing allocations and services for Region 3.

In particular, any new allocation in Region 2 in the band 17.3-17.7 GHz, shall not claim protection from the broadcasting-satellite service feeder-link earth stations operating under Appendix **30A**, nor put any limitations or restrictions on the locations of the broadcasting-satellite service feeder-link earth stations anywhere within the service area of the feeder link.

In Region 2, use of the fixed-satellite (space-to-Earth) service in the band 17.3-17.7 GHz shall not cause harmful interference nor claim protection from assignments in the broadcasting-satellite service operating in conformity with the Radio Regulations.

**3.1.6 India (Republic of)** - **Document APG23-4/INP-64**

India is of the view that new primary allocation to the fixed-satellite service in the space-to-Earth direction in the frequency band 17.3-17.7 GHz in Region 2 should not impose any constraints to the incumbent services operating in the concerned frequency bands and adjacent bands in Region 3.

**3.1.7 Viet Nam (Socialist Republic of)** - **Document APG23-4/INP-77**

Viet Nam of the view that the use of spectrum available (17.3-17.7 GHz) to networks and systems in the FSS across Regions needs to be supported if the studies show that the new allocation is feasible. Therefore, Vietnam supports Method B.

**3.2 Summary of issues raised during the meeting**

The existing primary services in Region 3 in the frequency band considered under the Agenda Item 1.19 of WRC-23, including Appendix **30A** satellite networks, should be protected from any impact of the ITU-R study results for this agenda item.

**4. APT Preliminary Views**

APT Members are of the view that:

* Any studies in the ITU-R related to Agenda Item 1.19 needs to ensure protection of the services as referred to in Resolution 174 (**WRC-19**) dealing to which the bands are allocated in the same and adjacent bands without imposing any additional constraints on existing allocations to the broadcasting-satellite service (space-to-Earth) and the fixed-satellite service (Earth-to-space).
* Any new allocation in Region 2 in the band 17.3-17.7 GHz (space-to-Earth) shall not cause harmful interference to the Space Station Receivers associated with AP**30A** Feeder Link and shall not claim protection from the broadcasting-satellite service feeder-link earth stations operating under AP**30A**, nor put any limitations or restrictions on the locations of the broadcasting-satellite service feeder-link earth stations anywhere within the service area of the feeder link.
* The new allocation to FSS in Region 2 in the band 17.3-17.7 GHz (space-to-Earth) shall not adversely affect existing allocations and services for Region 3 and shall not impose any constraints to the incumbent services operating in the concerned frequency bands and adjacent bands in Region 3.
* The mitigation requirements referred to in Study #1 of the draft CPM text considered to avoid significant interference in the equatorial-limb case should also be reflected in the form of regulatory procedures including the technical conditions in the proposed method to satisfy this agenda item and its associated regulatory text.
* It is also prepared to consider Method B at this stage, if the studies show that the new allocation is feasible and the protection of AP30A Feeder Link in Region 3 is addressed.

**5. Other View(s) from APT Members**

None.

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

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

**7. Views from Other Organisations** (as provided in the information documents to

APG23-4)

**7.1 Regional Groups**

**7.1.1 ATU** - **Document APG23-4/INF-2**

* Decide that, as a matter of principle, any new primary allocation to FSS in the frequency band 17.3-17.7 GHz in Region 2 shall ensure the protection of existing services in the frequency band and adjacent bands in Region 1 and without adversely affecting the future developments of services in this band. In particular, any new allocation in R2 in the band 17.3-17.7 GHz, shall not claim protection from the broadcasting-satellite service feeder-link earth stations operating under Appendix **30A**, nor put any limitations or restrictions on the locations of the broadcasting-satellite service feeder-link earth stations anywhere within the service area of the feeder link.
* Support the development of the necessary regulatory procedures including the technical and operational procedures to ensure the protection for existing services in band and the adjacent band.

**7.1.2 ASMG** - **Document APG23-4/INF-21**

* The new allocation in Region 2 should ensure protection of existing services in same frequency band and adjacent bands in Region 1.
* Develop the necessary technical, operational and regulatory measures in order to ensure the protection of existing services in the bandwidth and adjacent bands in Region 1.

**7.1.3 CITEL** - **Document APG23-4/INF-28(Rev.1)**

Some Administrations support conducting studies in accordance with Resolution 174 (WRC-19) to facilitate a new FSS downlink allocation in the frequency range 17.3-17.7 GHz in Region 2. WRC-23 action would be subject to the development of the appropriate regulatory provisions and coordination mechanisms to protect Appendix 30A BSS feeder links and the BSS downlinks, while also taking into account the need to ensure the protection of existing primary services in this band and the adjacent bands.

**7.1.4 RCC** - **Document APG23-4/INF-44**

None.

**7.1.5 CEPT** - **Document APG23-4/INF-48**

CEPT supports a new FSS (space‐to‐Earth) allocation in Region 2 in the frequency band 17.3‐17.7 GHz, which facilitates the use of spectrum available to networks and systems in the FSS across Regions.

**7.2 International Organisations**

**7.2.1 WMO** - **Document APG23-4/INF-03**

None.

**7.2.2 IARU** - **Document APG23-4/INF-27**

None.

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