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| **The 6th Meeting of the APT Conference Preparatory****Group for WRC-23 (APG23-6)** | **APG23-6/OUT-30** |
| 14 – 19 August 2023, Brisbane, Australia | 19 August 2023 |

Working Party 4

**APT VIEW and Preliminary APT Common Proposal on**

**WRC-23 agenda item 1.18**

**Agenda Item 1.18:**

*to consider studies relating to spectrum needs and potential new allocations to the mobile-satellite service for future development of narrowband mobile-satellite systems, in accordance with Resolution* ***248******(WRC‑19)****;*

**1. Background**

WRC-23 Agenda item 1.18 calls for WRC-23 to implement the “*studies relating to spectrum needs and potential new allocations to the mobile satellite service in the frequency bands 1 695-1 710 MHz, 2 010-2 025 MHz, 3 300-3 315 MHz and 3 385-3 400 MHz for future development of narrowband mobile-satellite systems”*while ensuring the protection of existing primary services in those frequency bands and adjacent frequency bands.

According to the Resolution **248 (WRC-19)**, the candidate frequencies for agenda item 1.18 are as follows:

* 1 695-1 710 MHz in Region 2,
* 2 010-2 025 MHz in Region 1,
* 3 300-3 315 MHz, 3 385-3 400 MHz in Region 2;

The CPM Report provides three methods for agenda item 1.18 as follows;

**Method A**: No change to the Radio Regulations and suppression of Resolution **248 (WRC-19)**;

**Method B**: No change to any Articles of the Radio Regulations and the Appendices thereof, except revision of Resolution **248 (WRC‑19)** in order to address the difficulties and inconsistencies of the Resolution

**Method C**: Primary allocation to the mobile-satellite service in the frequency band 2 010-2 025 MHz (Earth-to-space) in Region 1

• Alternative 1 with two options:

* Option 1: MSS narrowband use for all countries in Region 1;
* Option 2: MSS narrowband use for a list of countries in Region 1.

• Alternative 2 with two options:

* Option 1: MSS allocation for all countries in Region 1;
* Option 2: MSS allocation for a list of countries in Region 1.

**2. Documents**

* Input Documents APG23-6/INP-07 (Co-Chair of WP4), INP-26 (BGD), INP-38 (JPN), INP-50 (IDN), INP-68 (IRN), INP-83 (AUS), INP-90(Rev.1) (KOR), INP-101 (NZL), INP-106 (CHN), INP-120 (VTN)
* Information Documents APG23-6/INF-02 (WMO), INF-19 (DG Chair), INF-28 (GSOA), INF-30 (IARU), INF-45 (RCC), INF-46 (CEPT), INF-52 (CITEL)

**3. Summary of discussions**

**3.1 Summary of APT Members’ views**

**3.1.1 Bangladesh** - **Document APG23-6/INP-26**

Due to the difficulties and ambiguities of Resolution **248 (WRC‑19)**, amongst other things, the responsible group was unable to achieve agreement on the interpretation of Resolution **248 (WRC‑19)** and the technical parameters of narrowband MSS. Accordingly, the responsible group was unable to progress, finalize or fully discuss the sharing and compatibility studies with existing primary services to determine the suitability and spectrum needs of new allocations to the MSS for applications of low data rate systems under WRC‑23 agenda item 1.18. Therefore, Bangladesh administration supports method **A** of the CPM report to WRC-2023. i.e., no change to the RR.

**3.1.2 Japan** - **Document APG23-6/INP-38**

Japan does not support specific Method at this stage.

**3.1.3 Indonesia** - **Document APG23-6/INP-50**

The radio frequency bands of  1695-1710 MHz, 2010-2025 MHz, and 3300 - 3312,5 MHz,  in Indonesia are utilized for fixed service which comply with ITU Radio Regulations. In addition, the radio frequency bands of 2010-2025 MHz and 3312.5–3400 MHz are recognized for the implementation of the International Mobile Telecommunications (IMT) system.  Therefore, Indonesia has the urgency to protect incumbent services and the national interest for IMT utilization in the future.

Furthermore, the ITU WP4C unable to progress, finalize or fully discuss the sharing and compatibility studies with existing primary services to determine the suitability and spectrum needs of new allocations to the MSS for applications of low data rate systems under WRC-23 agenda item 1.18. Consequently, the compatibility of narrowband MSS systems and the protection of incumbent services, both in-band and adjacent band, could not be determined or ensured. Therefore, Indonesia supports Method A: No Change to the Radio Regulations, with regard to this agenda item at WRC-23.

**3.1.4 Iran** - **Document APG23-6/INP-68**

This Administration supports no changes to the Radio Regulations and suppression of Resolution **248 (WRC‑19)** with regard to WRC-23 agenda item 1.18.

**3.1.5 Australia** - **Document APG23-6/INP-83**

Noting that this is a Region 1 and 2 issue and that sharing and compatibility studies could not conclude for this agenda item, Australia will continue to monitor developments.

Australia does not propose a Preliminary APT Common Proposal for this issue.

**3.1.6 Korea (Rep. of)** - **Document APG23-6/INP-90 (Rev. 1)**

The Republic of Korea is of the view that, based on the results of ITU-R studies relating to spectrum needs and potential new allocations to the mobile satellite service in the frequency bands 1 695-1 710 MHz, 2 010-2 025 MHz, 3 300-3 315 MHz and 3 385-3 400 MHz for future development of narrowband mobile-satellite systems, potential new allocations may not be possible for the systems at WRC-23.

The narrowband MSS parameters were not agreed to by ITU-R under WRC‑23 agenda item 1.18 due to ambiguities in Resolution **248 (WRC‑19)**. As a result, appropriate sharing and compatibility studies between narrowband MSS and incumbent services could not be taken into account in this agenda item. Also, the compatibility of narrowband MSS systems and the protection of incumbent services, both in‑band and adjacent band, could not be determined or ensured.

Method C described in the CPM Report which was proposed during CPM23-2 without any ITU-R study results in accordance with Resolution **248 (WRC‑19)** was developed.

Therefore, the Republic of Korea supports Method A described in the CPM Report which is “No Change” to the Radio Regulations for the frequency bands 1695-1710 MHz, 2010-2025 MHz, 3300-3315 MHz and 3385-3400 MHz in Regions 1 and 2 and consequently suppression of Resolution **248**(**WRC-19**).

In addition, if WRC-23 considers the adoption of other methods than Method A, the use of narrowband MSS or MSS in Regions 1 and/or 2 needs to be subject to agreement obtained under No. **9.21** from administrations in Region 3. This consideration needs to be included in APT view or PACP for this agenda item. Also, the operational conditions of space station and earth station for narrowband MSS or MSS need to be specified. The conditions described in Resolution **248** would be applied.

**3.1.7 New Zealand** - **Document APG23-6/INP-101**

New Zealand supports Method A for no change and suppression of Resolution **248** on the basis that studies were not undertaken and work incomplete.

Although this is a Region 1 and Region 2 focused Agenda Item, New Zealand considers that space services do not adversely impact or claim protection from Fixed and Mobile Services operated in New Zealand under footnote - RR No **5.429**.

New Zealand does not support Method B to extend the studies under Resolution **248** into the next study cycle. Agenda Item 1.18 should not be linked to Agenda item 10.

New Zealand does not support Method C to allocate frequency band 2 010-2 025 MHz to the mobile-satellite service (Earth-to-space) as studies are incomplete.

**3.1.8 China** - **Document APG23-6/INP-106**

China proposes the following views for preliminary APT common proposals.

* Support Method A, which means No Change (NOC) to the Radio Regulations and suppression of Resolution 248 (WRC‑19).
* Oppose Method C, which means allocating 2010-2025MHz frequency band to the mobile-satellite service (Earth to Space) in Region 1.

The reasons are as follows:

* Among the candidate frequency bands, 2 010-2 025 MHz is allocated for Mobile Service, and can be used for the implementation of IMT on a worldwide basis in accordance with RR No. 5.388. Although the potential MSS narrowband application in 2 010-2 025 MHz is limited in Region 1, the IMT systems which deployed in Region 3 may also receive harmful interference. Therefore, the protection for IMT systems deployed in Region 3 in the frequency band 2010-2025 MHz should be considered when ITU-R conducts studies on AI 1.18.
* Sharing and compatibility studies with incumbent primary services could not be concluded due to the lack of MSS characteristics, which makes it impossible to determine the regulatory and technical measures for the protection of the incumbent services. Therefore, based on the current situation, there is no basis for a new frequency allocation for MSS.

**3.1.9 VietNam** - **Document APG23-6/INP-120**

According the text of the Report of CPM, any potential new allocations to the MSS for future development of narrowband mobile‑satellite systems is not possible under agenda item 1.18.

Therefore, Viet Nam supports method A.

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

Some APT Members expressed concern that ITU-R is not yet able to finalize the sharing and compatibility studies since relevant technical parameters and conditions are not agreed.

It is noted that the frequency band 2 010-2 025 MHz is allocated for Mobile Service, and can be used for the implementation of IMT on a worldwide basis in accordance with RR No. 5.388. Although the potential MSS narrowband application in 2 010-2 025 MHz is limited in Region 1, the IMT systems which deployed in Region 3 may also receive harmful interference.

**4. APT View(s)**

The APT Members have considered the agenda item 1.18 and agreed on a Preliminary APT Common Proposal on the matter. In addition, the APT Members have formed the following view(s) on the agenda item 1.18.

The APT Members supports Method A for no change to the Radio Regulations for this agenda item and consequently suppression of Resolution **248** (**WRC-19**) on the basis that studies were not undertaken and work incomplete.

**5. Preliminary APT Common Proposal**



**6. Issues for Consideration at APG Coordination Meeting at WRC-23 (if any)**

If the WRC-23 considers the adoption of other methods rather than Method A; APT would require that the following items, *inter alia,* need to be taken into account.

* the use of narrowband MSS or MSS in Regions 1 and/or 2 needs to be subject to agreement obtained under No. **9.21** from administrations in Region 3. Also, the operational conditions of space station and earth station for narrowband MSS or MSS need to be specified.
* that method shall not contain any element which would adversely affect or claim protection from the services to which the frequency band is allocated.
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**7. Views from Other Organisations** (as provided in the information documents to

APG23-6)

**7.1 Regional Groups**

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

* Follow-up studies, however, the ASMG preliminary position is supporting no change, given the lack of agreement on the technical characteristics and operational parameters to conduct the necessary sharing and compatibility studies to ensure the protection of existing primary services in the frequency bands under study or in the adjacent bands.

**7.1.2 ATU** - **Document APG23-4/INF-02**

* Support the ongoing studies at ITU-R on this agenda item with the view of ensuring the protection of primary services allocated in the frequency bands 1 695-1 710 MHz in R2, 2 010-2 025 MHz in R1, 3 300-3 315 MHz and 3 385-3 400 MHz in R2 especially the protection for IMT systems deployed or that may be deployed in the same and adjacent frequency band 2 010-2 025 MHz in R1 and to not adversely affecting the current use and future development of existing primary services in these frequency bands and adjacent frequency bands.

**7.1.3 CEPT** - **Document APG23-6/INF-46**

* CEPT supports “No Change” to the Radio Regulations for the frequency bands 1695-1710 MHz, 2010-2025 MHz, 3300-3315 MHz and 3385-3400 MHz.
* CEPT considers further the possibility for a global allocation for narrowband MSS to be addressed by WRC-27.

**7.1.4 CITEL** - **Document APG23-6/INF-52**

* **NOC** Radio Regulations Articles and Appendices
* **SUP** RESOLUTION **248 (WRC-19)**

Discussions finished, IAP will be send to WRC-23

**7.1.5 RCC** - **Document APG23-6/INF-45**

* New allocation for MSS in 2010-2025 MHz (Region 1) in “Earth-to-space” direction for future development of narrowband systems is possible if only technical and regulatory conditions for their use will protect existing and future systems operated in the same and adjacent frequency bands in accordance with Article 5 RR.
* Do not support new allocations for MSS in the bands 1695-1710 MHz, 3300-3315 MHz and 3385-3400 MHz.
* No specific Methods from the CPM Report

**7.2 International Organisations**

**7.2.1 IARU** - **Document APG23-6/INF-30**

The IARU supports retention of the amateur secondary allocation of 3 300-3 400 MHz in Regions 2 and 3.

IARU prefers Method A (No change) in the CPM Report.

**7.2.2 WMO - Document APG23-6/INF-02**

WMO does not support any RR modifications under this WRC-23 agenda item due to the absence of ITU-R studies addressing the protection of:

- a) current and future MetSat operations in the band 1 695–1 710 MHz and in the adjacent band 1670–1695 MHz from narrow-band MSS systems. It is important to ensure the protection of the downlink of the measured data as well as the global dissemination of the data directly to users

- b) EESS and SOS in the adjacent band 2 025–2 110 MHz.

WMO is in favour of Method A of the CPM Report (which proposes no change), whereas Method C does not address item b) above.

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