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|  | ASIA-PACIFIC TELECOMMUNITY | **Document No:** |
| **The 5th Meeting of the APT Conference Preparatory**  **Group for WRC-19 (APG19-5)** | **APG19-5/OUT-21** |
| 31 July – 6 August 2019, Tokyo, Japan | 5 August 2019 |

Working Party 3

**APT VIEW AND PRELIMINARY APT COMMON PROPOSAL**

**on WRC-19 agenda item 9.1 (Issue 9.1.2)**

**Agenda Item 9.1**:

*to consider and approve the Report of the Director of the Radiocommunication Bureau, in accordance with Article 7 of the Convention on the activities of the Radiocommunication Sector since WRC-15;*

**Issue 9.1.2**:

*Resolution* ***761******(WRC-15)*** *Compatibility of International Mobile Telecommunications and broadcasting-satellite service (sound) in the frequency band 1 452-1 492 MHz in Regions 1 and 3*

**1. Background**

Pursuant to Resolution **761 (WRC-15)**, the regulatory and technical studies between International Mobile Telecommunications (IMT) and broadcasting-satellite service (sound) (BSS (sound)) in the frequency band 1 452-1 492 MHz in Regions 1 and 3 need to be conducted by ITU-R in time for the WRC-19, taking into account IMT and BSS (sound) operational requirements.

At the CPM19-2 meeting (Geneva, Feb., 2019), the 9 possible actions below were prepared in order to facilitate the long-term stability of IMT and BSS (sound) in the frequency band 1 452-1 492 MHz in Regions 1 and 3.

Possible action 1: Maintain status quo (i.e. no changes to the Radio Regulations)

Possible action 2: Maintain status quo (i.e. no changes to the Radio Regulations) for those countries for which the frequency band is not identified for IMT

Possible action 3: Maintain status quo (i.e. no changes to the Radio Regulations) for the protection of BSS (sound) and stipulate pfd limits for the protection of IMT in Regions 1 and 3

Possible action 4: Maintain status quo (i.e. no changes to the Radio Regulations) for the protection of BSS (sound) and stipulate pfd limits for the protection of IMT in some countries of Regions 1 and 3

Possible action 5: Maintain status quo (i.e. no changes to the Radio Regulations) for the protection of IMT and stipulate pfd limits for the protection of BSS (sound) in Regions 1 and 3

Possible action 6: Stipulate pfd limits for the protection of both IMT and BSS (sound) in Regions 1 and 3

Possible action 7: Stipulate pfd limits for the protection of both IMT and BSS (sound) in some countries of Regions 1 and 3

Possible action 8: Stipulate a new coordination threshold for the protection of both IMT and BSS (sound) in Regions 1 and 3

Possible action 9: Stipulate a new coordination threshold for the protection of both IMT and BSS (sound) in some countries of Regions 1 and 3

**2. Documents**

* Input Documents : APG19-5/INP-18rev1(NZL), 26 (BGD), 44rev1(AUS), 55(PNG), 67(CHN), 81(JPN), 95(LAO), 108(MLA, THA), 119(VTN), 129(KOR)
* Information Documents : APG19-5/INF-18(CEPT), 19(ATU), 22(RCC)

**3. Summary of discussions**

**3.1 Summary of APT Members’ views**

**3.1.1 New Zealand** - **Document APG19-5/INP-18rev1**

New Zealand supports no change to the Radio Regulations.

**3.1.2 Bangladesh – Document APG19-5/INP-26**

In Bangladesh, the frequency band 1452 – 1492 MHz has been already identified for terrestrial IMT at WRC-15. Bangladesh is of the view that technical and operational measures is required to safeguard terrestrial IMT operating in the spectrum band 1 452 – 1 492 MHz.

**3.1.3 Australia – Document APG19-5/INP-44rev1**

Australia will monitor debate on this agenda item.

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

**3.1.4 Papua New Guinea – Document APG19-5/INP-55**

Papua New Guinea supports no change to the Radio Regulations for several key reasons:

(1) Priority of the spectrum and power (pdf) value for the PNG space station filing needs to be protected based on ITU rules and regulations and not constrained. As the BSS (sound) services are serving the public in multiple countries, any new constraint placed on the space station EIRP would limit the effectiveness of the services.

(2) The BSS (sound) L-band frequency from 1467 – 1492 MHz is ideal for serving countries in the regions with high humidity and susceptible to rain fade such as PNG, Indonesia, New Zealand, Pacific Islands and many other areas. These remote land masses are better served with satellite services, technically and economically. In many areas satellite will remain the only viable means of delivery of basic services.

**3.1.5 China – Document APG19-5/INP-67**

1. Pursuant to Resolution 761 (WRC-15), the pfd limitation when it is agreed to be proposed should firstly cover existing and planned BSS (sound) operational requirements, where it is imposed for BSS (sound) space station in the frequency band 1 452-1 492 MHz in Table 21-4 under RR No. 21.16. Furthermore, it should be noted that any frequency assignment shall have its time limitation for bringing into use. China proposes that there should be no pfd limitation in the RR Art. 21 to the BSS (sound) space station in the 1 452-1 492 MHz frequency band.
2. Considering that the current Radio Regulation and technical conditions could sufficiently ensure compatibility of IMT and broadcasting-satellite service (BSS) (sound) in the frequency band 1 452-1 492 MHz in Regions 1 and 3, China supports the possible action 1 (NOC) in CPM Report and propose it to be the APT common proposal on the WRC-19 agenda item 9.1 issue 9.1.2.

During the discussion, China also express its support for possible action 5 in the CPM Report.

**3.1.6 Japan – Document APG19-5/INP-81**

For the long-term stable operations of IMT systems in this frequency band, Japan supports Possible action 3 Alternative 2 in the CPM Report to WRC-19 for agenda item 9.1, Issue 9.1.2, which stipulates a PFD limit for BSS (sound) in Table **21-4** under RR No.**21.16** with respect to the protection of IMT base and mobile stations in Regions 1 and 3, and no change to the Radio Regulations with respect to the protection of BSS (sound) receivers.

**3.1.7 Lao – Document APG19-5/INP-95**

Lao PDR identified the frequency band 1452-1492 MHz for International Mobile Telecommunication (IMT), therefore the protection of IMT is required.

Lao PDR is of the view that it is necessary to facilitate the long-term stability for the operation of IMT. Therefore, Lao PDR support possible action 3 to stipulate pfd limit(s) at the Earth’s surface produced by a space station in the BSS (sound) in the frequency band 1452 – 1492 MHz in Region 1 and 3

**3.1.8 Malaysia and Thailand – Document APG19-5/INP-108**

The frequency band of 1 452 - 1 492 MHz has been already identified for terrestrial IMT in Malaysia and Thailand. Therefore Malaysia and Thailand are of the view that technical and operational measures are required to safeguard terrestrial IMT operating in the band   
1 452 - 1 492 MHz as needed.

Malaysia and Thailand support possible Action 3 with the view to protect terrestrial IMT in this band.

**3.1.9 Viet Nam – Document APG19-5/INP-119**

The protection of the BSS (sound) is achieved by the application of RR No 9.19 currently in force.

For the protection of IMT in Resolution 761 (WRC-15), the application of RR No 9.11 does not provide long-term stability for the operation of IMT due to the fact that only the IMT systems that would come into operation within the next three years would be protected if their coordination is agreed, and only for those three years. This situation implies that IMT systems may not be protected appropriately in those countries planning to deploy them in future, if the territory of those countries were covered by a satellite network service area provided by another country’s BSS (sound) system(s).

Viet Nam and some other APT countries identified the frequency band 1 452-1 492 MHz for IMT under the mobile service. Therefore Viet Nam is of the view to protect the IMT from BSS (sound) and possible action 3 alternative 2 in the CPM Report is supported.

**3.1.10 Republic of Korea – Document APG19-5/INP-129**

Korea (Rep. of) is of view that IMT needs to be protected from the emission of BSS space station through appropriate technical and/or regulatory actions such as establishing the pfd limit of BSS downlink and supports that pfd limit in Alternative 2 is stipulated in the RR Table 21-4.

Consequently, Korea (Rep. of) supports the possible action 3 with Alternative 2 in the CPM Report to facilitate compatibility between IMT and BSS (sound) in the frequency band 1 452-1 492 MHz in Regions 1 and 3.

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

APT Members discussed how to achieve the compatibility between BSS (sound) and IMT in this band and following issues, views and published information were raised during DG3-5 meeting.

* Some APT Member are of view that in order to protect BSS from impact of IMT, current coordination procedure under Article 9 and 11 in the Radio Regulations is sufficient to protect BSS(sound).
* Some APT Members express their concern that the imposing pfd limitation to the space station of BSS would be a certain constraint for its operation and/or providing service.
* Some APT Members are of view that pfd limits to the BSS should be stipulated in the Table 21-4 in RR for the long-term stability for the operations of IMT systems in this frequency band taking into account deployment of existing and future IMT system.
* Some APT members have the views that the principle for all allocation for either terrestrial or space services should not establish undue constraint on the services to which the frequency band is allocated. Furthermore, the pfd limitation when it is agreed to be proposed should firstly cover existing and planned BSS (sound) operational requirement pursuant to Resolution **761** (WRC-15).
* It is informed that there is an existing ASIABSS space station that is currently operating in orbit at 105E longitude, which is registered in the ITU MIFR since 2003. Furthermore, the additional filing NYBSS for the replacement 105E space station was submitted to the ITU in 2015 and is under coordination. Some APT Members consider that the space station ASIABSS and the NYBSS filings should be “grandfather” based on the ITU regulations.

**4. APT View(s)**

APT Members do not support the possible actions 2, 4, 6, 7, 8 and 9 among the 9 possible actions in the CPM Report.

No consensus is reached regarding the measures to protect IMT from BSS (sound) space station and to protect BSS (sound) receiver from IMT in the 1452 - 1492 MHz frequency band taking into account the possible actions 1, 3 and 5 in the CPM text.

**5. Preliminary APT Common Proposal(s)**

None