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| APTlogogreen3 | ASIA-PACIFIC TELECOMMUNITY | **Document:** |
| **The 2nd Meeting of the APT Conference Preparatory Group for WRC-19 (APG19-2)** | **APG19-2/OUT-33** |
| 17 – 21 July 2017, Bali, Republic of Indonesia | **22 July 2017** |

Working Party 1

**PRELIMINARY VIEWs on WRC-19 agenda item 1.15**

**Agenda Item 1.15:** *to consider identification of frequency bands for use by administrations for the land-mobile and fixed services applications operating in the frequency range 275-450 GHz, in accordance with Resolution* ***767 (WRC-15)****;*

1. **Background**

**Resolution 767**, WRC-15 invites WRC-19:

* taking into account the results of ITU-R studies on sharing and compatibility between passive and active services as well as spectrum needs for those services, to consider identification for use by administrations for the land-mobile and fixed service applications operating in the frequency range 275-450GHz, while maintaining protection of the passive services identified in No. **5.565**, and take appropriate action.

According to allocation of ITU-R preparatory work agreed by CPM 19-1,WP1A isresponsible to undertake studies with respect to *invites ITU-R 4 and 5*. WP5A and WP5C wereassigned as contributing groups with respect to *invites ITU-R 1 and 2*, and WP3J, WP3K and WP3M with respect to *invites ITU-R 3*. WP7C and WP7D were assigned to develop technical and operational characteristics of passive services.

WP1A is currently conducting sharing and compatibility studies between land mobile, fixed and passive services in frequency range 275-450GHz.

WP5A and WP5C have conducted studies on technical and operational characteristics and spectrum needs for land mobile and fixed service applications, on the following bands: 275-325 GHz and 275-450 GHz (for land mobile service applications) AND 275-325 GHz and 380-445 GHz (for fixed service applications).

WP7C and WP7D have conducted studies on technical and operational characteristics for passive services, on the following bands: 275-323 GHz, 327-371 GHz, 388-424 GHz and 426-442 GHz (already identified for RAS) AND 275-286 GHz, 296-306 GHz, 313-356 GHz, 361-365 GHz, 369-392 GHz, 397-399 GHz, 409-411 GHz, 416-434 GHz, 439-467 GHz (already identified for EESS (passive)).

The following methods are considered to satisfy AI 1.15 and may be applied to the candidate frequency bands, according to the current draft of CPM text developed by WP1A:

* Method A – No change, which may be accompanied by reasons.
* Method B – Identify the frequency band to the land mobile and fixed service applications by modifying No. 5.565.
* Method C – Identify the frequency band to the land mobile and fixed service applications by a new footnote.

Relevant ITU-R and APT reports and studies as well as on-going studies are as follows:

* WP1A – Working Doc.: Draft CPM Text WRC-19 AI 1.15 (Doc.[1A/208](https://www.itu.int/md/R15-WP1A-C-0208/en) Annex 1)
* WP1A –Working Doc.:PDN Report ITU-R SM.[275-450GHZ\_SHARING] (Doc.[1A/208](https://www.itu.int/md/R15-WP1A-C-0208/en) Annex 3)
* WP5A –PDN Report ITU-R M.[300GHZ\_MS\_CHAR] (Doc.[5A/469](https://www.itu.int/md/R15-WP5A-C-0469/en)Annex 31)
* WP5C –PDN ReportITU-R F.[300GHZ\_FS\_CHAR] (Doc.[5C/292](https://www.itu.int/md/R15-WP5C-C-0292/en)Annex 3)
* WP7C –PDN ReportITU-R RS.[275-450 GHZ CHARS] (Doc.[7C/147](https://www.itu.int/md/R15-WP7C-C-0147/en)Annex 15)
* AWG – APT Report on "Short Range Radiocommunication Systems and Application Scenarios Operating in the Frequency Range 275-1000GHz"’, Doc. APT/AWG/REP-66

1. **Documents**
   1. **Input Documents**

APG19-2/INP-07 (AWG), INP-08 (KOR), INP-20 (NZL), INP-28 (AUS), INP-39 (INS), INP-49 (CHN), INP-55 (JPN)

* 1. **Information Documents**

APG19-2/ INF-01 (Chairman, APG-19),INF-04 (CITEL), INF-05 (RCC), INF-06 (IARU), INF-14 (CEPT)

1. **Summary of Discussions**
   1. **Summary of Members’ view**

This section summarizes the views of each Member’s input contribution. Preliminary Views from Members were quoted in this summary.

* + 1. **Republic of Korea (INP-08)**

Korea supports the identification of frequency bands in the 275-450 GHz range for land-mobile and fixed services applications under the condition that the protection of passive services identified in RR No. **5.565** is ensured.

* + 1. **New Zealand (INP-20)**

New Zealand supports the studies undertaken by ITU-R WP 1A, which would facilitate the development of innovative radiocommunication technologies utilising frequency range above 275 GHz by active services, such as fixed and land-mobile services, as long as such active service applications would not cause harmful interference to those passive service applications as indicated in RR No. **5.565**.

* + 1. **Australia (INP-28)**

Australia supports ITU-R studies to consider identification of frequency bands for use by administrations for the land-mobile and fixed services applications operating in the frequency range 275‑450 GHz, in accordance with Resolution **767 (WRC-15)** noting the need to maintain protection of the passive services identified in Radio Regulations No. **5.565**.

* + 1. **Republic of Indonesia (INP-39)**

Republic of Indonesia is of the view to support the identification of frequency bands for land-mobile and fixed service in the frequency range 275-450 GHz under the condition that protection of passive services identified in No. **5.565** is ensured.

* + 1. **People’s Republic of China (INP-49)**

Sufficient protection for RAS and EESS (passive) should be provided due to the sensitivity of passive services, and the compatibility study should be fully conducted before any frequency bands would be identified for the land‑mobile and fixed services applications in the frequency range 275-450GHz.

* + 1. **Japan (INP-55)**

Japan supports ITU-R studies to identify candidate frequency bands for use by systems in the land-mobile and fixed services conducted by WP1A. Japan is of the view that the passive services identified in No.**5.565** should be protected from interference caused by LMS and FS applications planned to be operated.

* 1. **Keypoints raised during the meeting**

None

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

APT Members support the ITU-R studies to consider identification of frequency bands for use by the land-mobile and fixed service applications operating in the frequency range 275-450 GHz, provided that the protection on passive services identified in No.**5.565** is ensured.

1. **Other Views**

None

1. **Views from Other Organisations**

This section summarizes the views/positions of other regional groups and international organisations.

* 1. **ASMG**

Follow up and support the current studies to consider identification of frequency bands for use by administrations for the land-mobile and fixed services applications operating in the frequency range 275-450 GHz, while ensuring the protection of passive services identified in No 5.565, and not adding any additional constraints on these services.

* 1. **RCC**

The RCC Administrations consider it reasonable that identification of frequency bands for land-mobile and fixed service applications in 275-450 GHz band in the RR No. 5.565 will facilitate global harmonization of radio frequencies for development and introduction of land mobile and fixed service applications above 275 GHz.

The RCC Administrations consider that when identifying frequency bands for active services in 275-450 GHz range, a balance of interests has to be observed in the use of this frequency range by both active and passive services, ensuring possibility for future development of new active service applications while excluding interferences to the passive services in the frequency bands already identified in No. **5.565** of the Radio Regulations.

The RCC Administrations consider that to provide a balanced use of 275-450 GHz range, frequency bands could be identified for sharing between active and passive services, and also frequency bands for exclusive use by active and passive applications taking into account the frequency bands identified in No. 5.565 for passive services and effect of active applications in the main and adjacent frequency bands.

* 1. **CEPT**

CEPT supports the identification for frequency bands for land-mobile and fixed services in the frequency range 275-450 GHz under the condition that the protection of passive services identified in No. **5.565** is ensured.

* 1. **IARU**

Resolution **767** (WRC-15) recognizes that the amateur service is developing and demonstrating applications above 275 GHz. As studies proceed to identify candidate frequency bands for the land-mobile and fixed services in the frequency range 275-450 GHz, the IARU supports maintaining access for non-commercial experimentation by stations in the amateur service to as much of the frequency range as possible, consistent with the protection of the passive and other active services.

1. **Issues for Consideration at next APG Meeting**

APT Members are encouraged to contribute to the APG19-3 meeting in considering the Methods to satisfy AI 1.15.

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