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| A picture containing text, clipart  Description automatically generated | ASIA-PACIFIC TELECOMMUNITY |  |
| **The 30th Meeting of the APT Wireless Group**  **(AWG-30)** |  |
| 5 – 9 September 2022, Bangkok, Thailand | 9 September 2022 |

Source: AWG-30/OUT-18

**QUESTIONNAIRE ON PMSE FREQUENCY USAGE IN THE 470-806 MHZ BAND IN ASIA PACIFIC REGION**

**Section 1: Elementary Part**

1. **Introduction:**

In 2016, the Asia-Pacific Telecommunity (APT) adopted the APT Recommendation on ‘Frequency arrangements for the implementation of IMT in the band 698-806 MHz’ when considering the harmonized frequency arrangements in the band of 698 - 806 MHz for mobile services will facilitate global roaming, economies of scale and availability of low-cost user equipment and recognizing the needs of countries for low-cost mobile user equipment.

The AWG/REP-79 on ‘Frequency Arrangements for IMT in the Band 470-698 MHz’ is revising in AWG, which considering to expand the APT harmonized band plan for IMT in to 2 time 40 MHz to address the need of APT countries. This work item is planned to finalize in AWG-30.

Programme Making and Special Events (PMSE[[1]](#footnote-1)) describes the service and applications that use radio spectrum to support the capture, production and broadcast of audio and video content consumed all over the world on a multitude of platforms. It relates typically to televised sport, outdoor music events, theatre productions, television light entertainment, feature film production and live television news gathering. However, it also encompasses many other applications, for example PMSE is used at exhibitions, conferences and educational institutions.

Many national administrations, including APT Members, decided and going to decide the 698-806 MHz band for International Mobile Telecommunication system (IMT) implementation. Some national administrations are also re-purposing the 610-698 MHz band from the traditional terrestrial TV, to accommodate IMT as well. At the present time, these bands are used by PMSE for content creation. However, there is a general incompatibility in co-channel spectrum sharing between various services, such as IMT and wireless PMSE equipment, specifically wireless microphones and similar devices, which are operating in the frequency range of 470-806 MHz. It is reported on some interference cases between IMT systems and PMSE equipment operating in the same frequency in some APT countries.

Re-purposing of these bands in favor of IMT systems is having a collateral effect of displacing some percentage of PMSE equipment. Also, there are transitions from analogue TV in the band 470-806 MHz to digital TV and mobile broadband, it is in the interests of national administrations and industry to examine, study, and specify frequency bands for PMSE in and outside of TV bands, as well as the possibility of coexistence between PMSE and IMT in these bands.

The harmonization would provide economies of scale and logistical practicality, especially for networks and production companies that must cover events in multiple countries, such as global news, elections, international sport events, conferences, and concert tours.

However, the availability of spectrum for PMSE equipment is determined by national administrations, according to differing national PMSE requirements, authorisation mechanisms and divergent national frequency plans.

This fragmentation of spectrum access contrasts with the preference of PMSE stakeholders that operate internationally for equipment that may be operated across multiple countries, and of PMSE equipment manufacturers for economies of scale to encourage innovation and investment in new equipment.

Reconciling the requirements of PMSE users with the divergence in PMSE demand for spectrum and fragmentation of supply across administrations lies behind the recommended “tuning ranges” concept for PMSE. A “tuning range” is a range of frequencies over which radio equipment is envisaged to be capable of operating. Within this tuning range, the use in any single administration of radio equipment will be limited to the range of frequencies identified for PMSE nationally (if any) within that country and will be operated in accordance with the related national regulatory conditions and requirements.

Furthermore, it is reported on interference cases between IMT systems and PMSE equipment operating in the same frequency in some APT countries.

1. **Objective of the Questionnaire:**

This survey is to collect information of regulation and frequency usage of PMSE equipment in the bands 470-806 MHz in Asia Pacific region. Based on the results of the survey, an APT report on regulation status and frequency usage of PMSE equipment in the band 470-806 MHz in Asia Pacific region will be developed for APT Members’ information.

1. **Responsible Group:**

Sub-Working Group on Spectrum Arrangement and Harmonization (SWG SA&H)

1. **Rapporteur of the Questionnaire:**

Ms. Lyu Boya (Chairperson of SWG SA&H)

1. **Meeting at which the Questionnaire was approved:**

AWG-30 Document: AWG-30/OUT-18

1. **Target Responder:**

APT Members

1. **Deadline for Responses:**

AWG-31

**Section 2: Questionnaire Part**

**Questions:**

1. **What are the existing services and systems in your country for frequency band 470 – 806 MHz and the incumbent applications?**

***Answer:***

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| --- | --- | --- |
| **Band** | **Services** | **Systems** |
| 470 – 610 MHz | Example:  [Broadcasting Service] | Example:  [DTTV, PMSE] |
| 610 – 698 MHz | Example:  [Mobile Service] | Example:  [IMT, PMSE] |
| 698 – 806 MHz |  |  |

1. **What is the PMSE equipment operating in 470 – 806 MHz deployed in your country?**

***Answer:***

|  |  |
| --- | --- |
| **Band** | **If yes, please specify the applications** |
| 470 – 610 MHz | Example: [Wireless microphone] |
| 610 – 698 MHz |  |
| 698 – 806 MHz |  |

1. **Does your country regulate PMSE equipment operating in 470 – 806 MHz now?**

***Answer:***

|  |  |
| --- | --- |
| **Band** | **If yes, please specify the regulations and standards** |
| 470 – 610 MHz |  |
| 610 – 698 MHz |  |
| 698 – 806 MHz |  |

1. **Which portion of the 470 – 806 MHz band is not allowed for PMSE equipment?**

***Answer:***

1. **Do you think it is necessary to harmonize the frequency band / tuning range for PMSE equipment among APT countries?**

***Answer:***

Agree / Neutral / Do not agree (Please select).

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1. Programme Making and Special Events (PMSE) equipment is meant for use in applications identified in various publications as Services Ancillary to Programme making (SAP), Services Ancillary to Broadcasting (SAB), Electronic News Gathering (ENG) / Outside Broadcasting (OB), Broadcast Auxiliary Systems (BAS) and applications used in meetings, conferences, cultural and education activities, trade fairs, local entertainment, sport, religious and other public or private events. [↑](#footnote-ref-1)