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| A close up of a sign  Description automatically generated | **World Radiocommunication Conference (WRC-23) Dubai, 20 November - 15 December 2023** | |  |
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| Source Document: APG23-6/OUT-09 | | **Addendum 2 to Document xx-E** | |
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| Asia-Pacific Telecommunity Common Proposals | | | |
| Proposals for the work of the conference | | | |
|  | | | |
| Agenda item 1.2 | | | |

1.2 to consider identification of the frequency bands 3 300-3 400 MHz, 3 600‑3 800 MHz, 6 425-7 025 MHz, 7 025-7 125 MHz and 10.0-10.5 GHz for International Mobile Telecommunications (IMT), including possible additional allocations to the mobile service on a primary basis, in accordance with Resolution **245 (WRC‑19)**;

# Introduction

This document presents the APT Common Proposal for the frequency band 7 025-7 125 MHz under WRC-23 agenda item 1.2.

# Proposal

APT Members support identification of the frequency band 7 025-7 125 MHz for IMT globally through Method 5C together with a new WRC Resolution. APT Members are considering whether this proposed new WRC Resolution could be combined with a potential WRC Resolution for 6 425-7 125 MHz in Region 1, if agreed.

ARTICLE 5

Frequency allocations

Section IV – Table of Frequency Allocations  
(See No. 2.1)

MOD ACP/xxA2/1

6 700-7 250 MHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 6 700-7 075 FIXED  FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.441  MOBILE ADD 5.C12  5.458 5.458A 5.458B | | |
| 7 075-7 145 FIXED  MOBILE ADD 5.C12  5.458 5.459 | | |

**Reasons:** This is to identify the frequency band 7 025-7 125 MHz for IMT globally by creating a new RR footnote with conditions which are contained in a draft new WRC Resolution.

ADD ACP/xxA2/2

5.C12-5C The frequency band 7 025-7 125 MHz is identified for use by administrations wishing to implement the terrestrial component of International Mobile Telecommunications (IMT). This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. Resolution **[A12-7GHz] (WRC‑23)** applies.     (WRC‑23)

**Reasons:** This is to identify the frequency band 7 025-7 125 MHz for IMT globally by creating a new RR footnote with conditions which are contained in a draft new WRC Resolution.

ADD ACP/xxA2/3

draft new Resolution [A12-7GHz] (WRC‑23)

Terrestrial component of International Mobile Telecommunications in the frequency band 7 025-7 125 MHz in all Regions

The World Radiocommunication Conference (Dubai, 2023),

considering

*a)* that International Mobile Telecommunications (IMT), including IMT‑2000, IMT‑Advanced and IMT‑2020, is the ITU vision of global mobile access, and is intended to provide telecommunication services on a worldwide scale, regardless of location and type of network or terminal;

*b)* that harmonized worldwide frequency bands for IMT are desirable in order to achieve global roaming and the benefits of economies of scale;

*c)* that identification of frequency bands allocated to the mobile service for IMT may change the sharing situation regarding applications of services to which the frequency band is already allocated, and may require regulatory actions;

*d)* that the ITU Radiocommunication Sector (ITU‑R) has studied, in preparation for WRC‑23, sharing and compatibility with services allocated in the frequency band 7 025-7 125 MHz, and its adjacent band, as appropriate, based on characteristics available at that time, and results may change if these characteristics change;

*e)* that it is assumed that a very limited number of IMT base stations will be communicating with a positive elevation angle towards IMT indoor mobile stations;

*f)* that the frequency band 7 025-7 125 MHz, or part thereof, is allocated on a primary basis to the fixed, mobile, fixed-satellite (Earth-to-space and space-to-Earth) and space operation services (Earth-to-space);

noting

*a)* Resolutions **223 (Rev.WRC‑19)**, **224 (Rev.WRC‑19)**, **225 (Rev.WRC‑12)**, **241 (WRC‑19)**, **242 (WRC‑19)** and **243 (WRC‑19)**, which also relate to IMT;

*b)* that the IMT terrestrial radio interfaces as defined in Recommendations ITU‑R M.1457, ITU‑R M.2012 and ITU‑R M.2150 are expected to evolve within the framework of ITU‑R beyond those initially specified, to provide enhanced services and services beyond those envisaged in the initial implementation;

*c)* that ITU‑R has developed its vision defining the framework and overall objectives of IMT towards 2030 and beyond to drive the future developments for IMT;

recognizing

*a)* that the identification of a frequency band for IMT does not establish priority in the Radio Regulations and does not preclude the use of the frequency band by any application of the services to which it is allocated;

*b)* that studies have shown that the protection of feeder links for the non-geostationary-satellite orbit (non-GSO) fixed-satellite service (FSS) (space-to-Earth) requires the determination of protection distances ranging between a few kilometres to tens of kilometres. These protection distances are site-specific and depend on several elements, such as the propagation parameters, local terrain topography, station and orbital parameters of the feeder links for non-GSO FSS (space-to-Earth);

*c)* that some administrations are planning 7 025-7 125 MHz or portions thereof for IMT;

*d)* that some administrations are using and planning 7 025-7 125 MHz or portions thereof for other applications of the mobile service, including other wireless access systems;

resolves

1 that administrations wishing to implement IMT consider the use of the frequency band 7 025-7 125 MHz identified for IMT in all Regions in No. **5.C12**, taking into account the latest relevant ITU‑R Recommendations;

2 that administrations wishing to implement IMT in the frequency band 7 025-7 075 MHz shall apply the following conditions to IMT to ensure the protection, continued use and future development of the fixed-satellite service (Earth-to-space):

*[Example 1]*

2.1 take practical measures to ensure the transmitting antennas of outdoor base stations are normally pointing below the horizon when deploying IMT base stations within the frequency band 7 025-7 075 MHz; the mechanical pointing needs to be at or below the horizon;

*[Example 2]*

2.1 the level of expected equivalent isotropically radiated power (e.i.r.p.) emitted by an IMT base station as a function of vertical angle above the horizon in the frequency band 7 025-7 075 MHz or part thereof shall not exceed the following values:

|  |  |
| --- | --- |
| Vertical angle measurement window θ*L* ≤ θ < θ*H* (vertical angle θ above horizon) | Expected e.i.r.p.  (dBm/MHz)  (NOTE 1) |
| TBD | TBD |
| TBD | TBD |
| TBD | TBD |
| TBD | TBD |
| TBD | TBD |
| TBD | TBD |
| TBD | TBD |
| NOTE 1: The expected e.i.r.p. is defined as the average value of the e.i.r.p., with the averaging being performed:  – over horizontal angles between −180° to +180°, and the IMT base station beamforming in a specific direction within its steering range,  – over different beamforming directions within the IMT base station steering range, and  – over the specified vertical angle measurement window θ*L* ≤ θ < θ*H*. | |

*[Example 3]*

2.1 The following limit to the e.i.r.p. radiated by each IMT base station for a given elevation angle above the horizon applies:

e.i.r.p. limits for IMT base stations

| Elevation angle (θ) degrees | **Maximum e.i.r.p.  dBW/100 MHz** |
| --- | --- |
| 0 ≤ θ ≤  TBD | TBD |
| TBD < θ ≤ TBD | TBD |
| TBD < θ ≤ 90 | TBD |

*[Example 1]*

3 that administrations wishing to implement IMT in the frequency band 7 025-7 075 MHz shall ensure the protection, continued use and future development of feeder links for the non-GSO fixed-satellite service (space-to-Earth) through the adoption of site-specific coordination;

3*bis* that IMT within the frequency range 7 025-7 075 MHz shall not be used by aeronautical applications,

*[Example 2]*

3 (not used)

3*bis* (not used)

invites administrations

to take into account the benefits of harmonized utilization of the spectrum for the terrestrial component of IMT,

invites the ITU Radiocommunication Sector

1 to develop harmonized frequency arrangements to facilitate IMT deployment in the frequency band 7 025-7 125 MHz in all Regions;

2 to continue providing guidance to ensure that IMT can meet the telecommunication needs of developing countries;

3 to develop a recommendation to address methods for the determination of geographic zones for the co-existence between IMT base stations in the frequency bands 7 025-7 125MHz and non-GSO earth stations in the frequency band 6 700-7 075 MHz;

4 to update existing ITU‑R Recommendations/Reports or develop new ITU‑R Recommendations, as appropriate, to provide information and assistance to the concerned administrations on possible coordination of FS stations with IMT stations in the frequency band 7 025-7 125 MHz;

5 to develop ITU‑R Recommendations and/or Reports, as appropriate, to assist administrations in ensuring the efficient use of the frequency band 7 025-7 125 MHz through coexistence mechanisms between IMT and other applications of the mobile service, including other wireless access systems;

instructs the Director of the Radiocommunication Bureau

to bring this Resolution to the attention of relevant international organizations.

**Reasons:** This is to identify the frequency band 7 025-7 125 MHz for IMT globally by creating a new RR footnote with conditions which are contained in a draft new WRC Resolution.

SUP ACP/xxA2/4

RESOLUTION 245 (WRC‑19)

Studies on frequency-related matters for the terrestrial component of International Mobile Telecommunications identification in the frequency bands 3 300-3 400 MHz, 3 600-3 800 MHz, 6 425-7 025 MHz,   
7 025-7 125 MHz and 10.0-10.5 GHz

The World Radiocommunication Conference (Sharm el-Sheikh, 2019),

**Reasons:** The work is now complete on Agenda Item 1.2.