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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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| PLENARY MEETING | | **Addendum 2 to Document 100(Add.27)-E** | |
|  | | **27 October 2023** | |
|  | | **Original: English** | |
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| Arab States Common Proposals | | | |
| PROPOSALS FOR THE WORK OF THE CONFERENCE | | | |
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| Agenda item 10 | | | |

10to recommend to the ITU Council items for inclusion in the agenda for the next world radiocommunication conference, and items for the preliminary agenda of future conferences, in accordance with Article 7 of the ITU Convention and Resolution **804 (Rev.WRC‑19)**,

ADD ARB/100A27A2/1

Draft New Resolution [ARB-AI 10IMT in 3 800-4 200 MHz] (WRC‑23)

Studies on the identification of additional frequency bands for the terrestrial component of IMT in the frequency range 3 800-4 200 MHz

The World Radiocommunication Conference (Dubai, 2023),

considering

*a)* that International Mobile Telecommunications (IMT) is intended to provide telecommunication services on a worldwide scale, regardless of location and type of network or terminal;

*b)* that IMT systems have contributed to global economic and social development in support of a digital economy and society;

*c)* that IMT systems are now evolving to provide diverse usage scenarios such as immersive communications, integrated sensing, integrated artificial intelligence and computing;

*d)* that IMT systems will require large contiguous blocks of spectrum for use by administrations wishing to implement IMT in the mid-band frequency bands;

*e)* that the frequency band 3 800-4 200 MHz is suitable to meet the IMT requirements for high capacity, capacity enhancement in congested areas, and low latency;

*f)* that there is a need to continually take advantage of technological developments in order to increase the efficient use of spectrum and facilitate spectrum access;

*g)* that adequate and timely availability of spectrum and corresponding regulatory provisions are essential to support the future development of IMT;

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

*i)* that a need exists to protect existing services and to allow for their continued development when considering frequency bands for possible additional allocations to any service,

noting

*a)* that Resolution ITU‑R 65 addresses the principles for the process of development of IMT for 2020 and beyond;

*b)* that IMT encompasses IMT-2000, IMT-Advanced and IMT-2020 collectively, as described in Resolution ITU‑R 56‑2;

*c)* that Question ITU‑R 77‑8/5 considers the needs of developing countries in the development and implementation of IMT;

*d)* that Question ITU‑R 229/5 seeks to address the further development of IMT;

*e)* that Question ITU‑R 262/5 addresses the study of usage of IMT systems for specific applications;

*f)* that Recommendation ITU‑R M.2083, contains the framework and objectives of the future development of IMT for 2020 and beyond;

*g)* that Recommendation ITU‑R M.2101 addresses the modelling and simulation of IMT networks and systems for use in sharing and compatibility studies;

*h)* that Recommendation ITU‑R M.[IMT.FRAMEWORK FOR 2030 AND BEYOND], contains the framework and objectives of the future development of IMT for 2030 and beyond;

*i)* that Recommendation ITU‑R P.2108, should be used for the prediction of clutter loss in sharing and compatibility studies;

*j)* that Report ITU‑R M.2320 addresses future technology trends of terrestrial IMT systems;

*k)* that Report ITU‑R M.2370 analyses trends impacting future IMT traffic growth beyond the year 2020 and estimates global traffic demand for the period 2020 to 2030;

*l)* that Report ITU‑R M.2376 contains the technical feasibility of IMT in the frequency bands above 6 GHz;

*m*) that Report ITU‑R M.2516 complies future technology trends of terrestrial IMT systems towards 2030 and beyond,

recognizing

*a)* that there is a lead time between the allocation of frequency bands by world radiocommunication conferences and the deployment of systems in those bands, and that timely availability of wide and contiguous blocks of spectrum is therefore important to support the development of IMT;

*b)* that in order to ensure the future development of IMT it is important to ensure the timely identification of additional spectrum;

*c)* that any identification of frequency bands for IMT should ensure the protection of incumbent services in the same or adjacent frequency bands, as appropriate, and the evolving needs of these services;

*d)* that any identification of frequency bands for IMT should also take into account the use of the frequency bands by other applications of the mobile service, and the evolving needs of these applications;

*e)* that frequency bands in this range allocated to passive services on an exclusive basis are not suitable for an allocation to the mobile service,

resolves to invite the ITU Radiocommunication Sector

1 to conduct and complete in time for WRC‑27 the appropriate studies pertaining to the possible use of the terrestrial component of IMT in the frequency range 3 800-4 200 MHz, taking into account:

– the evolving spectrum needs to meet emerging demand for IMT;

– the evolution of IMT through advances in technology and spectrally efficient techniques;

– the deployment scenarios envisaged for IMT systems and the related requirements of combined wider area coverage, higher capacity, and larger bandwidths;

– the needs of developing countries;

2 to conduct and complete in time for WRC‑27 the sharing and compatibility studies, with a view to ensuring the protection of services to which the frequency bands within the frequency range 3 800-4 200 MHz are allocated on a primary basis, without imposing additional regulatory or technical constraints on those services, and also, as appropriate, on services in adjacent bands,

resolves to invite the first session of the 2027 Conference Preparatory Meeting

to define the date by which technical and operational characteristics needed for sharing and compatibility studies are to be available to ensure that studies referred to in *resolves to invite the ITU Radiocommunication Sector* 2 can be completed in time for consideration at WRC‑27,

invites the 2027 World Radiocommunication Conference

to consider, based on the results of the above studies referred to in *resolves to invite the ITU Radiocommunication Sector*, additional allocations to the mobile service on a primary basis and identification of frequency bands for the terrestrial component of IMT only in the frequency bands listed in *resolves to invite the ITU Radiocommunication Sector* 2,

invites administrations

to participate actively in these studies by submitting contributions to ITU‑R.

ATTACHMENT

Proposal for additional agenda item for [ARB-AI 10 IMT in 3 800-4 200 MHz]

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| **Subject:** Proposed WRC‑27 agenda item to consider identification of the frequency bands 3 800-4 200 MHz range for IMT, including possible additional allocations to the mobile service on a primary basis, in accordance with Resolution **[ARB-AI 10 IMT in 3 800-4 200 MHz] (WRC‑23)**; | |
| **Origin:**  TBD | |
| ***Proposal*:**  to conduct studies to identify the frequency range 3 800-4 200 MHz for use by IMT, seeking global harmonization. | |
| ***Background/reason*:**  New wireless technologies and applications are driving an increase in demand for access to spectrum for IMT. IMT-2030 technology will further increase this demand, particularly for large, contiguous spectrum bandwidths that are necessary to implement new use case scenarios and address traffic growth in mobile networks. To address the needs for envisioned IMT-2030 networks, spectrum in the 3 800-4 200 MHz GHz frequency range could facilitate the 2030 capacity-demanding use cases for both wider area coverage and higher capacity. These bands would also satisfy the need for global harmonization and economies of scale. | |
| ***Radiocommunication services concerned*:**  Mobile, fixed, fixed-satellite, mobile-satellite, EESS, radio astronomy, aeronautical radionavigation, radiolocation, broadcasting, broadcast-satellite, and other services | |
| ***Indication of possible difficulties*:**  The proposed bands are used by other services | |
| ***Previous/ongoing studies on the issue*:**  Related studies have been already commenced in ITU‑R WP 5D. | |
| ***Studies to be carried out by*:**  ITU‑R WP 5D | ***with the participation of*:**  Administrations and Sector Members of the ITU‑R |
| ***ITU‑R study groups concerned*:** TBD | |
| ***ITU resource implications, including financial implications (refer to CV126)*:** This proposed agenda item will be studied within the normal ITU‑R procedures and planned budget. As the responsible group on IMT studies, ITU‑R WP 5D usually conducts meetings three times a year which last at least 6 days each. | |
| ***Common regional proposal*:** Yes | ***Multicountry proposal*:** Yes/No  ***Number of countries*:** |
| ***Remarks*** | |

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