



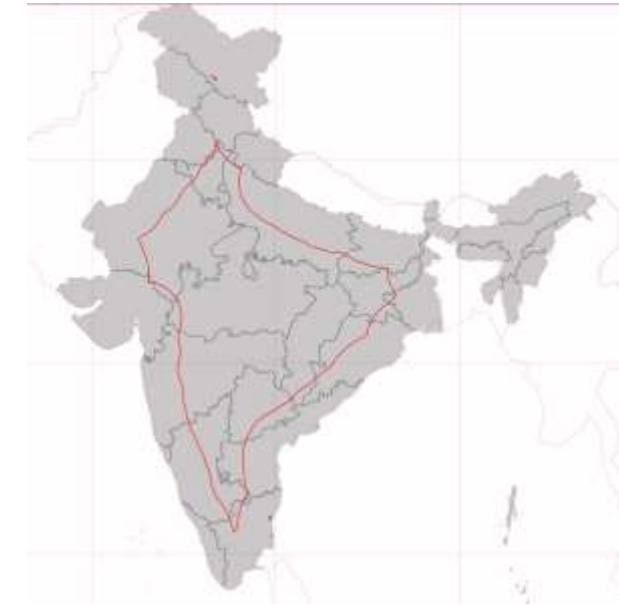
Sendil Kumar, Director – Standards & Spectrum
GFTL – S & I

AI 1.1 – 4800-4990MHz Outcome

Regions / countries that supported 4800-4990 MHz IMT at WRC-23

ATU, RCC, China, Vietnam, Indonesia, Cambodia, Laos, Brazil, Mexico, Argentina, Chile, Colombia and Cuba.

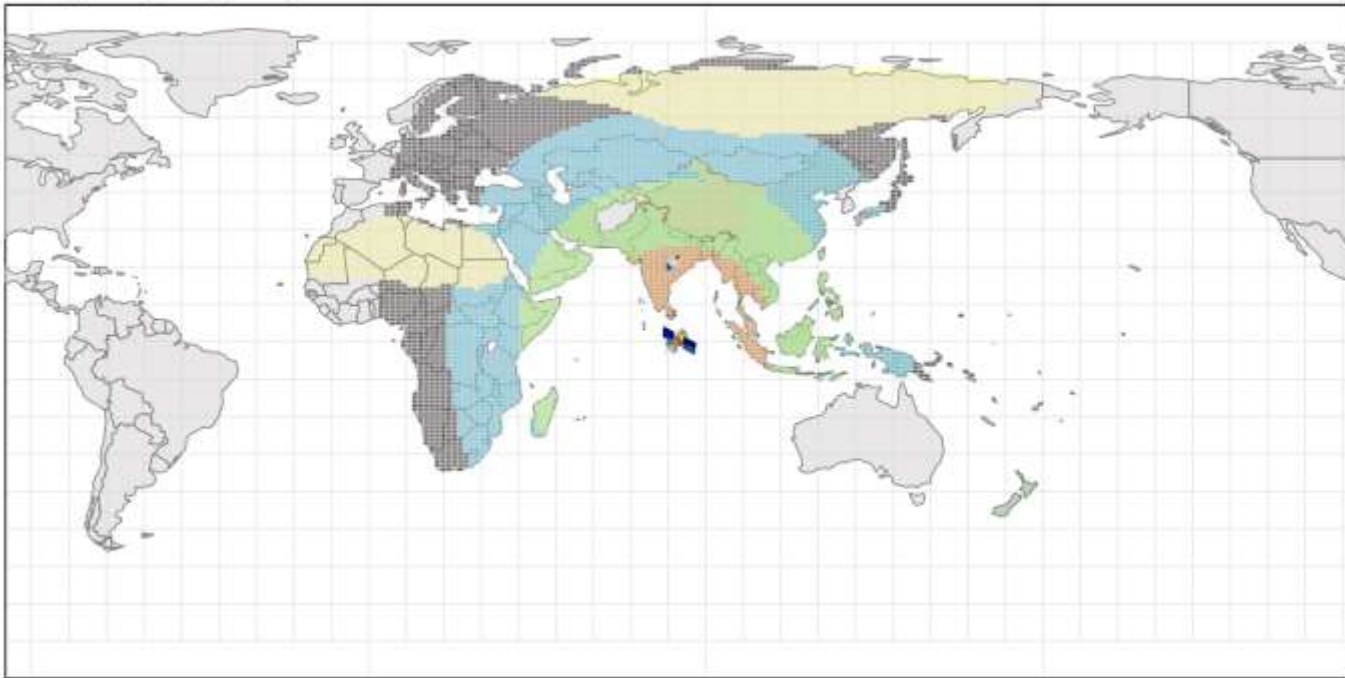
- ATU countries (incl. Nigeria, Kenya, Mozambique, Sudan, Tanzania) decided **to opt out of No. 5.441B** while several new IMT supporting countries (Indonesia, Mexico, Cuba, Algeria, Somalia) which initially requested to add their names to No. 5.441B in their input contributions finally decided not to join the footnote.
- A few new African countries as well as Argentina, Chile, Colombia and Iraq **joined No. 5.441B** on the grounds of national requirements for a band to be identified for IMT in the RR in order to be licensed for IMT at national level.



Multiple countries that either opted out of No. 5.441B or didn't join it at WRC-23 made statements to the Plenary:

- described the situation with ***no agreement of the Conference on AI 1.1*** and emphasizing the unjustified restriction (i.e. the pfd limit) in No. 5.441B on IMT stations on national territories to protect AMS/MMS stations in international airspace and waters;
- these countries ***reserved the right to implement IMT systems in the 4800-4990 MHz band*** in national territories consistent with the sovereign right of each State to regulate its telecommunications as reflected in the preamble of the ITU Constitution, while respecting the international rights, as provided in RR Art. 8.1, of neighboring countries.

New Studies during the Conference



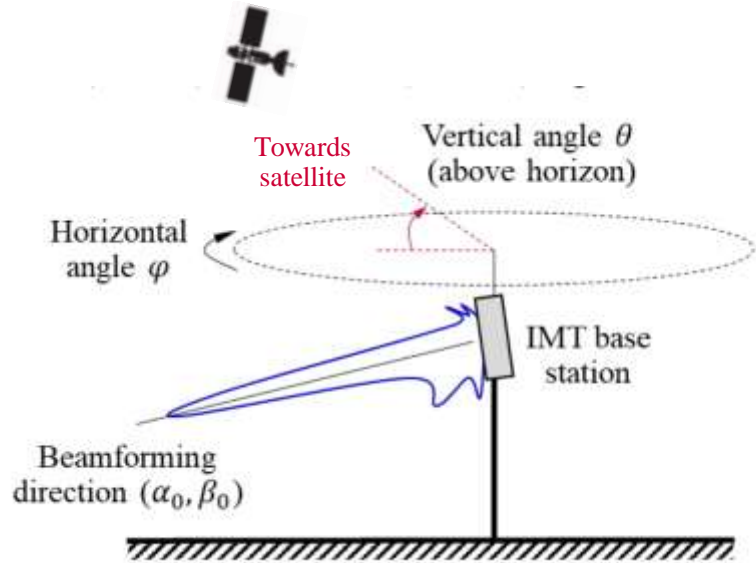
IMT stations R3 countries

IMT stations in R1

- a. Europe/CEPT region with $Ra2Rb1$
- b. ATU Region is $0.5 * Ra1Rb1$ (removing Sahara region)
- c. RCC Region $\sim 0.5 * Ra1Rb1$ (considering the RCC region)
- d. ASMG $Ra1Rb1$

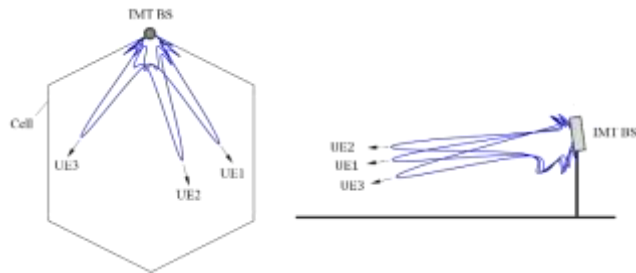
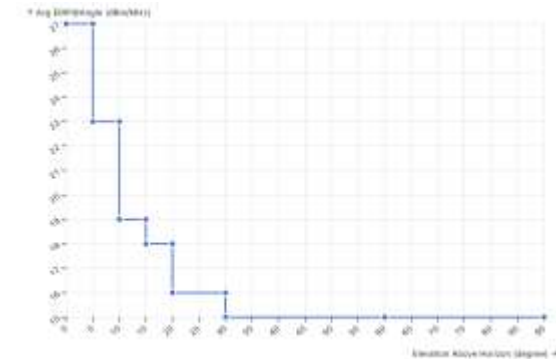
— Harmonized regulatory conditions on IMT station for sharing it with FSS

New Technical Compliance Requirements 6425-7125MHz



2 that, in order to ensure protection for the FSS (Earth-to-space), and taking into account *considering d*), the level of expected e.i.r.p. spectral density emitted by an IMT base station as a function of the vertical angle above the horizon shall not exceed the following values (No. 21.5 does not apply):

Vertical angle range $\theta_L \leq \theta < \theta_H$ (vertical angle θ above horizon)	Expected e.i.r.p. (dBm/MHz) (See NOTES 1, 2 and 3)
$0^\circ \leq \theta < 5^\circ$	27
$5^\circ \leq \theta < 10^\circ$	23
$10^\circ \leq \theta < 15^\circ$	19
$15^\circ \leq \theta < 20^\circ$	18
$20^\circ \leq \theta < 30^\circ$	16
$30^\circ \leq \theta < 60^\circ$	15
$60^\circ \leq \theta \leq 90^\circ$	15



NOTE 2: An IMT base station shall comply with the specified limits on expected e.i.r.p. spectral density for all mechanical tilts with which it can be deployed, taking into account *considering m*).

AI 1.2 : Requirements 10-10.5GHz



RESOLUTION COM4/6 (WRC-23)

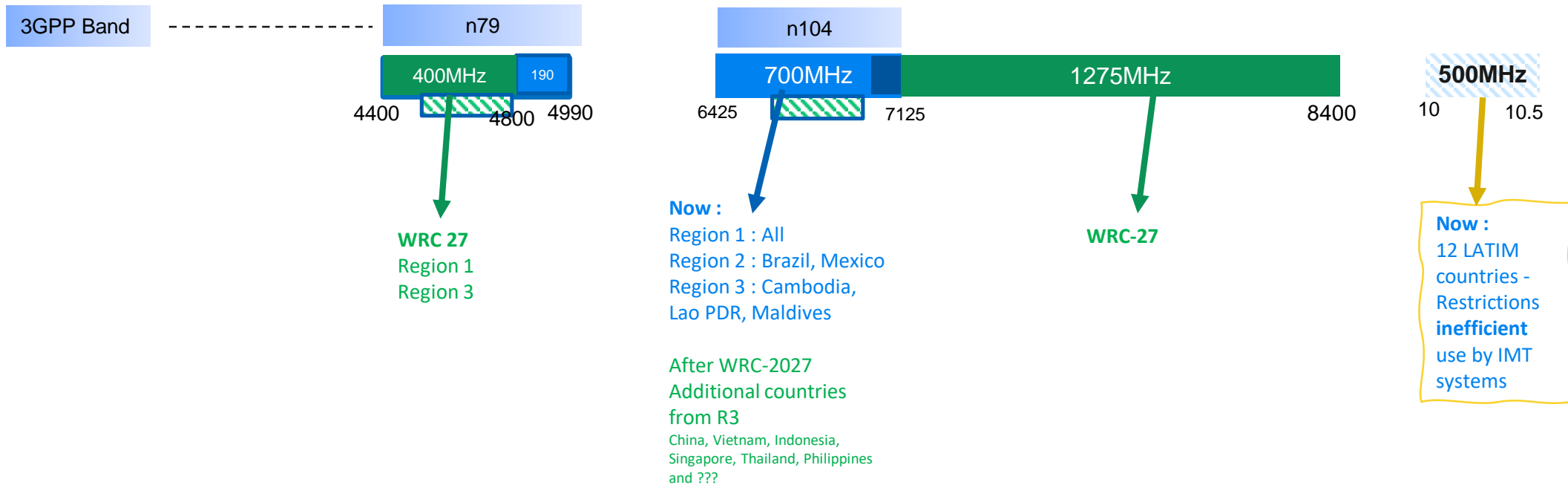
Terrestrial component of International Mobile Telecommunications in the frequency band 10-10.5 GHz in Region 2

ADD

5.10B12 In the following countries in Region 2: Brazil, Colombia, Costa Rica, Cuba, the Dominican Republic, Ecuador, Guatemala, Jamaica, Mexico, Paraguay, Peru and Uruguay, the frequency band 10-10.5 GHz is identified for the implementation of the terrestrial component of International Mobile Telecommunications (IMT). The implementation of this identification in Mexico is subject to seeking agreement with the United States under No. 9.21. The use of the frequency band 10-10.5 GHz by IMT stations in the mobile service shall not claim protection from systems in the radiolocation service. 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 **COM4/6 (WRC-23)** applies. (WRC-23)

- 2 that administrations shall take practical measures to ensure that transmitting antennas of outdoor base stations are normally pointing below the horizon when deploying IMT base stations within the frequency band 10-10.5 GHz; the mechanical pointing needs to be at or below the horizon;
- 3 that the maximum equivalent isotropically radiated power (e.i.r.p.) per base station shall not exceed 30 dB(W/100 MHz) and that the maximum e.i.r.p. per base station for elevation angles higher than 34 degrees shall not exceed 0.5 dB(W/100 MHz);
- 4 that, for the purposes of protecting the EESS (passive), and considering the conditions under *resolves* 3, the total radiated power (TRP)¹ produced per IMT base station operating in the frequency band 10-10.5 GHz shall not exceed -37.9 dB(W/100 MHz) in the frequency band 10.6-10.7 GHz;
- 5 that, for the purposes of protecting the EESS (passive), the TRP produced by IMT user equipment operating in the frequency band 10-10.5 GHz shall not exceed -39 dB(W/100 MHz) in the frequency band 10.6-10.7 GHz;

AI 1.2 – Outcome and relation to WRC-27



ADD
5.6B12 In Cambodia, Lao P.D.R. and the Maldives, the frequency band 6 425-7 025 MHz is identified for 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 **COM4/7 (WRC-23)** applies. (WRC-23)

resolves (WRC-27)
 that No. **5.6B12** identifies the frequency band 6 425-7 025 MHz for IMT for certain countries of **Region 3**, and that some other countries in **Region 3** could propose adding their names to this footnote in accordance with Resolution **26 (Rev.WRC-23)**,

AI 1.4 : Differences across Region



Frequency bands were identified for HIBS as follows, noting differences between different Regions.

— UHF

- 694-960 MHz for Region 1

- 698-960 MHz for Region 2

- 698-960MHz in Australia, Maldives, Micronesia, Papua New Guinea, Tonga and Vanuatu

- 703-733 MHz, 758-788 MHz, 890-915 MHz and 935-960 MHz, for China, India, Indonesia, Japan, Korea, Malaysia, the Philippines and Thailand

— 1.7 – 2.2 GHz

- 1 710-1 980 MHz, 2 010-2 025 MHz, and 2 110-2 170 MHz in Regions 1 and 3

- 1 710-1 980 MHz and 2 110-2 160 MHz in Region 2.

— 2.6 GHz

- 2 500-2 690 MHz in Regions 1 and 2

- 2 500-2 655 MHz in Region 3

