

# WRC-19 addresses over 30 agenda items

Dr Ali R. Ebadi, advisor to the board of directors, MEASAT Satellite Systems, shares his thoughts on the The World Radiocommunication Conference 2019 (WRC-19), held in Sharm El Sheikh, Egypt, from 28 October - 22 November 2019.

Attended by more than 3,500 participants, WRC - 19 addressed over 30 agenda items related to frequency allocation and frequency sharing for the efficient use of spectrum and orbital resources, covering a wide range of radiocommunications services including mobile broadband, satellite delivery, TV broadcasting, scientific services and emergency services.

The conference was officiated by the President of Egypt, Abdel Fattah el Sisi, and chaired by Dr Amr Badawi of Egypt.

Pertinent discussions included:

## 1. New spectrum allocation for the International Mobile Telecommunications (IMT) – Agenda 1.1

- 24.25-27.5GHz Global Identification for IMT

- 37-43.5GHz Global Identification of the whole band or portions thereof

- 45.5-47GHz Identification in Region 1 (R1) and Region 3 (R3) in accordance to the footnote

- 47.2-48.2GHz Identified for IMT in Region 2 (R2) and countries in footnote R3 and R1

- 66-71GHz Identified for IMT in R1 and R3, and countries in footnote in R2

Additional allocation in C -band

in IMT:

- 3400-3500MHz for Malaysia, Thailand, Brunei and Indonesia added to footnote 5.432B

- 3500-3600MHz for Indonesia and Brunei added to footnote 5.433A

## 2. New allocation to Fixed-Satellite Service (FSS) – Agenda 9.1.9

In all ITU regions, the band 51.4 - 52.4GHz is allocated to the FSS Feeder Link with antenna size of 2.4m.

## 3. Allocation of C band to Non-GSO (NGSO) Satellite – Agenda 9.1.3

The conference decided that no allocation is given to the NGSO satellite in the C -band frequency.

## 4. To consider the new allocation to Earth Station in Motion (ESIM) in Ka-band

WRC - 19 approved operation of earth stations in motion (land, aeronautical and maritime) communicating with geostationary FSS space stations within the frequency bands 17.7 - 19.7GHz (space to Earth) and 27.5 - 29.5GHz (Earth to space) shall be subject to the application of a new resolution.

Under this resolution, ESIM shall protect terrestrial services and the notified administration is required to submit commitment to the Radio-

communication Bureau (BR) to resolve any interference issue upon receiving report of unacceptable interference.

## 5. High-altitude platforms (HAPS) new allocation – Agenda 1.14

The following frequencies were agreed for the application of HAPS services

- 21.4-22GHz and 24.25 -27.5GHz Region 2

- 31.3GHz, 38 -39.5GHz Worldwide

- 47.2 - 47.5GHz and 47.9 - 48.2GHz Worldwide

## 6. Bringing into Use (BIU) for NGSO – Agenda 7 issue A

BIU frequency assignments to all NGSO systems, and consideration of a milestone -based approach:

- By the deployment of one satellite (for 90 days) into one of the notified orbital planes within seven years of the date of receipt of the advance publication of information (API) or request for coordination, as applicable.

- This milestone -based approach would provide an additional period beyond the seven -year regulatory period for the deployment of the number of satellites, as notified and/or recorded, with the objective to help ensure that the Master International Frequency Register (MIFR) reasonably reflects the actual deployment of such NGSO systems.

Milestones timing (years)			Milestones percentage		
1st	2nd	3rd	1st	2nd	3rd
2	5	7	10	50	100

## 7. Appendix 30B, Resolution for application for developing countries – Agenda 7 Issue E

- Addresses the issue relating to difficulties faced by an administration wishing to convert its national allotment in Radio Regulations (RR) Appendix 30B to assignments with characteristics beyond those of the initial allotment or wishing to introduce a new network.

- Applies measure and procedure as an enhancement of equitable access to spectrum/orbital resources for developing countries to facilitate the processing of their submission in RR Appendix 30B.

## 8. Modified regulatory procedure for non-GSO satellite systems with short duration missions – Agenda 7 Issue I

The resolution is developed to detail the regulatory procedures for frequency assignments to NGSO satellite networks or systems identified as short-duration mission.

The network or system shall operate under any space radiocommunication service on frequency assignments that are not subject to coordination, and the maximum period of operation and validity of frequency shall not exceed three years from the date of bringing into use the frequency without any possibility of extension.

The total number of satellites shall not exceed 10 satellites, of with the typical mass of each satellite should not normally exceed 100kg.

## 9. Resolution 40, satellite hop

# on the efficient use of spectrum

ping and review of 90 days BIU period for the FSS – Agenda 9.2

There were not enough data at the BR data centre to address the above issue. WRC-19 decided to differ this issue to the WRC-23 conference and as such “No Change to the Radio Regulations”.

**10. Request by administrations for extension of satellite filings – Agenda 9.1**

WRC-19 decided to accede requests by Bulgaria for the slot of 1.8°E, African countries for retention International Telecommunications Satellite Organization (ITSO) heritage satellite under Intelsat 328.5°E, China for Asiasat AK, AK1 and AKX, Indonesia for extension of filings date for PSN 146°E, Palapa 113°E and Garuda 123°E, Cyprus for extension of KYOROS-SAT 3 at 39°E, India for INSAT plan band at 82.5°E, Mongolia for 113.6°E plan band and Egypt for the extension of filing of EGY-N-SAT.

**11. Decision on extension of filing due to co-passenger delay under force majeure – Agenda 9.3**

An administration shall provide the following information to the Board in support of a request for extension of regulatory deadlines due to co-passenger delay. Satellite manufacturer and satellite summary, status of construction, launch vehicle contract and manifest, confirmation of launch delay and reason for the delay by launch vehicle contractor, and sufficient detail to justify the length of extension.

**12. Requests from developing**

**countries that do not qualify as force majeure or co-passenger delay – Agenda 9.3**

ITU-R is invited to study the matter of requests for extensions of regulatory time limits from developing countries that do not qualify as force majeure or co-passenger delay and to develop the specific criteria and conditions upon which the Radio Regulations Board (RRB) could consider granting an extension of the regulatory deadline to a developing country.

**13. Article 48 of Constitution, Installation of National Defence Services – Agenda 9.3**

The Board considered concerns raised by some administrations regarding the appropriateness of other administrations’ application of Article 48 of the ITU Constitution.

Taking into account the report of the Board on Resolution 80 (Rev. WRC-07), and the contributions and comments related to the report, WRC-19, in accordance with Article 21 of the ITU Convention, invites the 2022 Plenipotentiary Conference to consider the question of invocation of Constitution Article 48 in relation to the Radio Regulations raised at WRC-19 and take necessary actions, as appropriate.

**14. Other issues**

The Conference also addressed regulatory provisions in the existing Radio Regulations on issues such as harmonisation between APP 30, APP 30A and APP 30B (plan bands), reduction of coordination arc, new

allocation to NGSO satellite above 30GHz improvement to procedures in the Radio Regulations as well as addressing difficulties/inconsistency in the application of the Radio Regulations.

**Paving the way for future conferences**

WRC-19 concluded by outlining the works of future conferences and the need to recognise future growth of the telecommunications industry, adopting agenda items for WRC-23 based on the results of the ITU-R studies, and considering the spectrum needs for the following allocations:

- IMT in the bands 3300-3400MHz (R1 & R2), 3600-3800MHz (R2), 6425-7025MHz (R1), 7025-7125MHz (global) and 10.0-10.5GHz (R2)

Band 3600-3800MHz to Mobile service in primary basis in R1

- High altitude platform stations as IMT base stations (HIBS) in the IMT in the bands below 2.7GHz

- Earth Stations In Motion (ESIM) in the plan band (APP30B) 12.75-13.25GHz communicating from aircrafts or vessels with GSO FSS for the broadband communications for passengers

- FSS (space-to-Earth) in Region 2 in the band 17.3 - 17.7GHz

ESIM communicating with NGSO in the bands 17.7-18.6GHz and 18.8-19.3GHz and 19.7-20.2GHz (space to Earth) and 27.5-29.1GHz and 29.5-30GHz (Earth to space).



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