

Chapter 4A: Satellite Issues

Agenda Item (AI)	WRC-23 Outcomes	Qualitative assessment of the outcome in respect of the AfCP
<p>AI 1.15</p> <p><i>harmonize the use of the frequency band 12.75-13.25 GHz (Earth-to-space) by earth stations on aircraft and vessels communicating with geostationary space stations in the fixed-satellite service globally, in accordance with Resolution 172 (WRC-19)</i></p>	<p>WRC-23 adopt new resolution for the operation of earth stations on aircraft and vessels communicating with geostationary space stations in the fixed-satellite service in the frequency band 12.75-13.25 GHz the new resolution includes the following:</p> <ol style="list-style-type: none"> 1. Use of the frequency band 12.75-13.25 GHz (Earth-to-space) by A-ESIMs and M-ESIMs shall not result in any changes or restrictions to allotments in the Plan, assignments in the List of Appendix 30B, and assignments recorded in the MIFR, including the assignments arising from the implementation of Resolution 170 (Rev.WRC-23); 2. Receiving part of the A-ESIMs and M-ESIMs in their associated frequency band shall not adversely affect the allotments in the Plan or the assignments in the List and shall not claim protection from terrestrial services or other applications of the FSS or other radiocommunication services to which the frequency band is allocated. 3. Notifying administration will remain the one responsible to eliminate the harmful interference while other potentially involved administrations may collaborate on a voluntary basis. 	<p>The WRC-23 outcome is very much aligned to the AfCP.</p>

	<ol style="list-style-type: none"> 4. In the case of unacceptable interference, the BR will request this information from the notifying administration on a bilateral basis. 5. Frequency assignments under No. 6.25 of the Radio Regulations can be used as supporting assignments for ESIMs. 6. Protection measures for terrestrial services in Annex 2 and PFD methodology for A-ESIM in Annex 4 were agreed. Annex 5 with the minimum capabilities for ESIMs was maintained. 7. ITU-R is invited to develop, as a matter of urgency, a new Recommendation on ESIM operations, network control and management centre (NCMC) and switching facilities. In the meantime, ESIM can operate under a commitment of the notifying administration to remove any unacceptable interference. 	
<p>AI 1.16 study and develop technical, operational and regulatory measures, as appropriate, to facilitate the use of the frequency bands 17.7-18.6 GHz and 18.8-19.3 GHz and 19.7-20.2 GHz (space-to-Earth) and 27.5-29.1 GHz and 29.5-30 GHz (Earth-to-space) by non-GSO FSS earth stations in</p>	<p>WRC-23 adopt new resolution for the operation of earth stations on aircraft and vessels non-GSO FSS earth stations in motion the new resolution includes similar conditions that states in the resolution for AI 1.15 in addition to that the transmitting non-GSO ESIMs in the frequency band 29.5-30.0 GHz shall not adversely affect the operations of terrestrial services to which this frequency band is allocated on a secondary basis, and the limits in Annex 1 to this Resolution shall</p>	<p>The WRC-23 outcome is aligned to the AfCP.</p>

<p>motion, while ensuring due protection of existing services in those frequency bands, in accordance with Resolution 173 (WRC-19)</p>	<p>apply with respect to those administrations mentioned in No. 5.542;</p>	
<p>AI 1.17 determine and carry out, on the basis of the ITU R studies in accordance with Resolution 773 (WRC 19), the appropriate regulatory actions for the provision of inter-satellite links in specific frequency bands, or portions thereof, by adding an inter-satellite service allocation where appropriate.</p>	<p>New resolution was developed to enable inter-satellite service (ISS) in the Ka band.</p> <ol style="list-style-type: none"> 1. The compromise solution agreed includes: 2. the emissions of this non-GSO ISS space station shall remain within the envelope of the recorded characteristics of the associated transmitting FSS earth stations of the GSO FSS network or non-GSO FSS system with which it communicates; 3. The extension to 29.5-30 GHz of the protection of the terrestrial services as requested by ATU; 4. an upgrade of the protection level regarding non-GSOs with operational altitude of 900 km; 5. an upgrade of the pfd mask within Table 21-4; 6. For the protection of GSO in the fixed-satellite service in the case of a GSO relay satellite closer than 2° from a GSO FSS satellite above its country. The service provider shall seek agreement with the neighbouring GSO. 7. the notifying administration for a GSO network/non-GSO system receiving in the band 27.5-30 GHz shall submit, with the 	<p>AfCP almost fulfilled with the acceptance to extend the ISS usage to expanded cone also.</p>

	<p>Appendix 4 data, a firm, objective, actionable, measurable and enforceable commitment that, in the event of reported unacceptable interference, it undertakes to immediately eliminate the interference or reduce it to an acceptable level,</p> <p>8. in case the interference persist the Bureau shall submit the case to the subsequent meeting of the Radio Regulations Board for review and the necessary actions (including suppression of the frequency assignment in question).</p>	
<p>AI 1.18 consider studies relating to spectrum needs and potential new allocations to the mobile-satellite service for future development of narrowband mobile-satellite systems, in accordance with Resolution 248 (WRC-19)</p>	<p>No change to Radio Regulation was agreed for this agenda item and a new AI for WRC-27 will address this topic.</p>	<p>The WRC-23 outcome is aligned to the AfCP.</p>
<p>AI 1.19 consider a new primary allocation to the fixed-satellite service in the space-to-Earth direction in the frequency band 17.3-17.7 GHz in Region 2, while protecting existing primary services in the band, in</p>	<p>New FSS (space-to-Earth) allocation in Region 2 in the frequency band 17.3-17.7 GHz, which facilitates the use of spectrum available to networks and systems in the FSS across Regions.</p> <p>Addition of a pfd limit to protect Region 1 and Region 3 Appendix 30A assignments from the</p>	<p>The WRC-23 outcome is aligned to the AfCP.</p>

accordance with Resolution 174 (WRC-19)	downlink of the fixed-satellite service in Region 2 was approved as requested by ATU. This topic is planned to be addressed in a future agenda item covering fixed-satellite service downlink in 17.3-17.7 GHz in Region 3, as well as consideration of non-GSO in region 1 & 3.	
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