

Chapter 3: Science issues

Agenda Item (AI)	WRC-23 Outcomes	Qualitative assessment of the outcome in respect to the AfCP
<p>1.12: to conduct, and complete in time for WRC-23, studies for a possible new secondary allocation to the Earth exploration-satellite (active) service for spaceborne radar sounders within the range of frequencies around 45 MHz, taking into account the protection of incumbent services, including in adjacent bands, in accordance with Resolution 656 (Rev.WRC-19);</p>	<p>Allocated spectrum to EESS (active) services in the band 40-50Mhz on a secondary basis restricting their operations to the Polar regions and imposing a <i>pdf</i> limit on any operation outside the poles. Operational specifics are detailed in Resolution COM5/6 (WRC-23) on the Use of the frequency range 40-50 MHz allocated to the Earth exploration-satellite service (active) for spaceborne radar sounders.</p>	<p>The WRC-23 decision was a compromise position, aligned to the AfCP alternative which sought to determine appropriate protection for services incumbent and adjacent to the band.</p> <p><i>Note: Whereas the initial AfCP was NO CHANGE, it was evolved by the ATU Caucus Meetings during the Conference as outlined above. The variation of the AfCP from the initial position was on the basis of the developments during the Conference.</i></p>
<p>1.13: to consider a possible upgrade of the allocation of the frequency band 14.8-15.35 GHz to the space research service, in accordance with Resolution 661 (WRC-19);</p>	<p>Upgraded the allocation of SRS in the band 14.8-15.35 GHz to Primary in all directions, that S-S, S-E and E-S directions.</p> <p>The allocation is supported by new a resolution COM5/7 (WRC23) on the Use of the frequency band 14.8-15.35 GHz by the space research service S-S, E-s, s-E, and the associated transitional measures detailing the operational limits of SRS in the band including but not limited</p>	<p>The WRC-23 decision was a compromise position, aligned to the AfCP alternative position which sought to determine appropriate protection for services incumbent and adjacent to the band, particularly FS and MS and Radiolocation services.</p> <p><i>Note: Whereas the initial AfCP was NO CHANGE, it was evolved by the</i></p>

	to <i>pdf</i> limits at any point on the services of the earth associated with the S-S and s-E emissions.	<i>ATU Caucus Meetings during the Conference as outlined above. The variation of the AfCP from the initial position was on the basis of the developments during the Conference.</i>
<p>1.14: to review and consider possible adjustments of the existing or possible new primary frequency allocations to the Earth exploration-satellite service (passive) in the frequency range 231.5-252 GHz, to ensure alignment with more up-to-date remote-sensing observation requirements, in accordance with Resolution 662 (WRC-19);</p>	<p>Allocated spectrum EESS (passive) services in the frequency bands 239.2-242.2 GHz and 244.2-247.2 GHz on a primary basis.</p> <p>Adjusted the FS and MS allocations in the frequency bands 239.2-241 GHz to the frequency band 235-238 GHz realizing a contiguous allocation to FS and MS of 9GHz envisaged to support further wideband applications in the band.</p> <p>Created a new footnote 5.B114 in which EESS (passive) in the band 235-238 GHz shall not claim protection from stations of the FS and MS services.</p>	<p>The allocation to EESS (passive) including the adjustment to the FS and MS allocations was in alignment with the AfCP.</p> <p>The restriction to the EESS (passive) under footnote 5.B114 was a compromise, however aligned to the ATU's aspiration of not constraining FS and MS operations in the band.</p>
<p>9.1-Topic A: (9.1-a)-In accordance with Resolution 657 (Rev.WRC19), review the results of studies relating to the technical and operational characteristics, spectrum requirements and appropriate radio service designations for space weather sensors with a view to describing appropriate recognition and protection in the Radio Regulations</p>	<p>Recognized space weather in the RR as Met Aids (Space Weather) and defined it as natural phenomena, mainly originating from solar activity and occurring beyond the major portion of the Earth's atmosphere, that impact Earth's environment and human activities; under Article 29B (new article included in the RR).</p>	<p>The WRC-23 decision was in alignment with the AfCP.</p>

<p>without placing additional constraints on incumbent services;</p> <p>Resolution 657 (Rev.WRC-19) – Protection of radio spectrum-reliant space weather sensors used for global prediction and warnings.</p>	<p>Developed a new Resolution COM 5/1 (WRC-23) on the importance of space weather observations and their service designation and also developed a new IA for 2027 study cycle to study the technical and spectrum requirements for Met Aids (Space Weather).</p>	
<p>9.1-Topic D: Protection of EESS (passive) in the frequency band 36-37 GHz from non-GSO FSS space stations</p>	<p>Established a protection criterion for the EESS (passive) sensors operating in the range 36 – 37GHz from the NGSO FSS systems operating in the 37.5 – 38GHz band. The protection criteria is highlighted in footnote 5. A91D, affecting the Fixed Satellite (Space-to-Earth).</p>	<p>The WRC-23 decision was a compromise solution aligned to the AfCP aspiration which sought to, to the extent possible, through studies ensure the protection of EESS services operating in the adjacency of NGSO FSS systems operating in the band 37.5 – 38GHz.</p>