



African Telecommunications Union

ATU ORGANIZATION OF WORK FOR RA/WRC-23 PREPARATIONS AND COMMON POSITIONS

The paper presents a summary of the current ATU common positions as adopted by the 4th/final ATU preparatory meeting for WRC-23 (APM23-4) held in Yaonde (Cameroun) from 6 to 11 August 2023. The full report can be accessed [here](#). The ATU Preparatory Work Plan for WRC-23 and Leaderships for various working groups which shows the organization of its work for RA/WRC-23 preparations can be found [here](#).

1.1 Chapter 1: Fixed, Mobile and Broadcasting issues

The Table below summaries the APM23-4 outcomes for AIs under this chapter:

Agenda Item (AI)	APM23-4 Outcomes (AfCPs)
<p>AI 1.1 <i>possible measures to address, in the frequency band 4 800-4 990 MHz, protection of stations of the aeronautical and maritime mobile services located in international airspace and waters from other stations located within national territories, and to review the p.f.d. criteria in footnote No. 5.441B in accordance with Resolution 223 (Rev. WRC-19).</i></p>	<p>APM23-4 agreed to:</p> <p><u>Part 1: Common position:</u></p> <p>Support Method F which entails application of RR No. 9.21 and optionally bilateral/multilateral coordination agreements with coastal States for the protection of AMS/MMS stations in international airspace and international waters.</p> <p><u>Part 2: Way forward</u></p> <p>Request ATU administrations to:</p> <ol style="list-style-type: none"> 1. Support the AfCP under this agenda item. 2. Consider adding their names in the footnote 5.441B, for those Administrations not in the footnote, in accordance with the procedure as laid down in Resolution 26 (Rev. WRC-19), in order to achieve global/regional harmonization of the frequency band 4800-4990 MHz for the implementation of IMT.

<p>AI 1.2</p> <p><i>identification of the frequency bands 3 300-3 400 MHz, 3 6003 800 MHz, 6 425-7 025 MHz, 7 025-7 125 MHz and 10.0-10.5 GHz for International Mobile Telecommunications (IMT), including possible additional allocations to the mobile service on a primary basis, in accordance with Resolution 245 (WRC19);</i></p>	<p>APM23-4 agreed to:</p> <p><u>Part 1: Common position:</u></p> <ol style="list-style-type: none">For the frequency Band 1 (3 300 – 3 400 MHz):<ol style="list-style-type: none">Support Method 1FNot support methods 1A and 1B, which will result in maintaining the current regulatory situation.For the frequency Band 4 (6 425 – 7 025 MHz); Band 5 (7 025 – 7 125 MHz):<p>Support Methods 4C and 5C (alternative 2), to identify the frequency band 6 425 – 7 125 MHz to IMT with the following set of conditions to protect incumbent services:</p><ol style="list-style-type: none">For the protection of FSS (earth-to-space) in the frequency band 6 425-7 075 MHz – Mask for the expected equivalent isotropically radiated power (e.i.r.p.) emitted by an IMT base station: Example 3 of the draft resolution associated with method 4C/5C;For the protection of FSS (space-to-Earth) in the frequency band 6 700-7 075 MHz: through the adoption of site-specific coordination.For frequency Band 2 (3 300-3 400 MHz); Band 3 (3 600-3 800 MHz) and Band 6 (10 – 10.5 GHz (Region 2)):<ol style="list-style-type: none">For frequency band 2 and frequency band 3, support allocation to mobile service, and possible IMT identification in these frequency bands under consideration in Region 2, considering that this would foster global harmonization for the implementation of IMT;For frequency band 6, support that IMT identification of this frequency band or part thereof under consideration in Region 2, shall not affect services to which this frequency band is allocated to in Region 1. <p><u>Part 2: Way forward</u></p> <p>Request ATU administrations to:</p> <p>Support the AfCP under this agenda item.</p>
<p>AI 1.3</p> <p><i>Possible primary allocation of the frequency band 3 600-3 800 MHz to the mobile service in Region 1 and take appropriate regulatory actions, in accordance with Resolution 246 (WRC-19)</i></p>	<p>APM23-4 agreed to:</p> <p><u>Part 1: Common position:</u></p> <ol style="list-style-type: none">Adopt, as a matter of compromise, the following as the AfCP:

	<ul style="list-style-type: none"> a. Upgrade the allocation of the frequency band 3 600-3 800 MHz in Region 1 to the mobile on a primary basis in the Table of Frequency Allocation b. IMT identification with two footnotes proposing IMT identification in 3600-3700 MHz and also 3600-3800 MHz, countries can consider joining the respective footnote depending on their requirement. c. Technical conditions for IMT in line with those applicable to the 3 400-3 600 MHz band today (i.e., footnote RR No. 5.430A). d. Implementation of the Coordination Agreement can be undertaken through the Harmonized Calculation Method for Africa (HCM4A) Agreement, signed by the majority of African Administrations, <p>2. Address the protection of the existing satellite services operating in the C-Band such as aeronautical radio services by the following mechanism:</p> <ul style="list-style-type: none"> a. Establish an ATU Task group to develop an implementation strategy including proposals on possible migration mechanism such as Migration Timelines and some form of compensation in lieu of the out-of-band migration that administrations may consider. Such compensation mechanisms could include arrangements where a portion of the fund accruing from the awarding of the IMT spectrum in the 3600 – 3800MHz frequency band for the replacement of existing “obsolete” infrastructure on new frequency bands above 3800MHz. b. The ATU Task Group would also determine and propose a transition period for the consideration of Administrations during which IMT services shall not be deployed within some defined distances from aviation installations (exclusion zones) to protect the existing services which provide safety of life communications. <p><u>Part 2: Way forward</u></p> <p>Request ATU administrations to:</p> <p>Support the AfCP under this agenda item.</p>
<p>AI 1.4</p> <p>To consider, in accordance with Resolution 247 (WRC-19), the use of High-altitude platform stations as IMT Base Stations (HIBS) in the mobile service in certain frequency bands below 2.7 GHz already</p>	<p>APM23-4 agreed to:</p> <p><u>Part 1: Common position:</u></p> <p>Support Methods A3, B3, C3, D3 which identify the following frequency bands for use by high-altitude platform stations as International Mobile Telecommunications (IMT) base stations (HIBS) with the related conditions:</p>

identified for IMT, on a global or regional level.

Frequency band 694 - 960 MHz

1. for the protection of broadcasting in the GE06 agreement area: **Example 2 for resolves 3 to 5** of the draft resolution associated with Method A3;
2. for the protection of IMT mobile and base stations: **Example 2 for resolves 6.1 and 6.2** of the draft resolution associated with Method A3;
3. For protecting radio astronomy in the frequency band 1 610.3 – 1 613.6 MHz from second harmonics of HIBS in the frequency band 694 – 960 MHz: **Example 2 for resolves 6.3 and 6.4, associated with Example 3 for recognizing f)** of the draft resolution associated with Method A3;

Frequency band 1710 - 1885 MHz

1. for the protection of IMT mobile and base stations: **Example 1 for resolves 1.2 and 1.3** of the draft resolution associated with Method B3;
2. for the protection of stations in the fixed service: **Example 1 for resolves 1.6** of the draft resolution associated with Method B3;
3. for the protection of aeronautical mobile service systems: **[Example 1/ Example 3] for resolves 1.7 and 1.8** of the draft resolution associated with Method B3;

Frequency bands 1885 - 1980 MHz, 2010 - 2025 MHz and 2110 - 2170 MHz

1. for the protection of IMT mobile and base stations: **Example 1 for resolves 1.1 and 1.2** of the draft resolution associated with Method C3;
2. for the protection of fixed service stations: **[Example 2 for resolves 1.5] and Example 1 for resolves 1.6** of the draft resolution associated with Method C3;

Frequency band 2500 - 2690 MHz

1. for the protection of IMT mobile and base stations: **Example 1 for resolves 1.1 and 1.2** of the draft resolution associated with Method D3;
2. for the protection of stations in the fixed service: **Example 1 for resolves 1.3** of the draft resolution associated with Method D3;
3. for the protection of the broadcasting-satellite service: **Example 2 for resolves 1.4** of the draft resolution associated with Method D3;
4. for the protection of the radiolocation service: **Example 1 of resolves 1.6** of the draft resolution associated with Method D3;

	<p>5. for the protection of the mobile satellite service: Example 2 of resolves 1.9 of the draft resolution associated with Method D3.</p> <p>6. [For the protection of radioastronomy service: Example 1 of resolves 1.7 and 1.8]</p> <p><u>Part 2: Way forward</u></p> <p>Request ATU administrations to:</p> <p>Support the AfCP under this agenda item.</p>
<p>AI 1.5</p> <p>recommended to Council to include in the Agenda of WRC23 (agenda item 1.5) “to review the spectrum use and spectrum needs of existing services in the frequency band 470-960 MHz in Region 1 and consider possible regulatory actions in the frequency band 470-694 MHz in Region 1 on the basis of the review in accordance with Resolution 235 (WRC15)”</p>	<p>APM23-4 agreed to:</p> <p><u>Part 1: Common position:</u></p> <ol style="list-style-type: none"> 1. Support Method A1 as an AfCP. 2. Note the national positions held by Egypt (Method C1), Namibia (Method C1), Nigeria (Method C1) and Tanzania (Method F2). <p><u>Part 2: Way forward</u></p> <p>Request ATU administrations to:</p> <p>Support the AfCP under this agenda item.</p>
<p>AI 9.1 Issue C</p> <p><i>Study the use of International Mobile Telecommunication system for fixed wireless broadband in the frequency bands allocated to the fixed services on primary basis, in accordance with Resolution 175 (WRC19).</i></p>	<p>APM23-4 agreed to:</p> <p><u>Part 1: Common position:</u></p> <ol style="list-style-type: none"> 1. Support Approach 2 Alternative 2. 2. Decide that, the development of any new ITU-R Recommendation(s), Report(s) and Handbook should not be undertaken, unless modifying existing ITU-R Recommendation(s), Report(s), and/or Handbook does not address the matter (Approach 2). 3. Note that Egypt supports Approach 1 Alternative 1. <p><u>Part 2: Way forward</u></p> <p>Request ATU administrations to:</p> <p>Support the AfCP under this agenda item.</p>

<p>AI 9 (RR21.5)</p> <p>How RR 21.5 should be applied to IMT stations that use Advanced Antenna Systems (AAS).</p>	<p><i>APM23-4 agreed to:</i></p> <p><u><i>Part 1: Common position:</i></u></p> <p>Support consideration on this matter at the WRC-23 based on the elements provided in the report of the Director of the Radiocommunication Bureau on the scope on the applicability of the limits specified in RR No. 21.5 to IMT stations using active antenna systems (AAS) and the verification of RR No. 21.5 regarding the notification of IMT stations that use AAS in the 26 GHz band, in accordance with Document 550 of WRC-19 and CA/251, that is, “Verification of No. 21.5 for the notification of IMT stations operating in the frequency band 24.45-27.5 GHz which use an antenna that consists of an array of active elements”.</p> <p><u><i>Part 2: Way forward</i></u></p> <p><i>APM23-4 agreed to request the ATU Secretary General to:</i></p> <p>Convene a Workshop to enlighten Administrations on the technical details of the provisions of RR.21.5 and the requirements of the studies called in WRC-19 Document 550, with view to understand better these provisions, to ensure proper interpretation when considering the Report at WRC 23 in collaboration with the management team of Working Group 1A, in appropriate time prior to the WRC-23.</p> <p><i>APM23-4 agreed to request ATU Administrations to:</i></p> <ol style="list-style-type: none">1. Consider and review the material available from the various elements discussed in ITU-R studies (Annex 4.5 to the WP 5D Chairman’s Report (Document 5D/1555)) on the studies called for in WRC-19 Document 550;2. Actively participate in the Workshop to be organized on reviewing and discussing the possible outcome on approaches and various aspects regarding Document 550;3. Contribute meaningfully to the discussion during the workshop in order to develop an appropriate position, in time for WRC-23 on the applicability of the limits specified in RR No. 21.5 to IMT stations using active antenna systems (AAS) and the verification of RR No. 21.5 regarding the notification of IMT stations in the 26 GHz band.4. Support the AfCP under this agenda item.
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1.2 Chapter 2: Aeronautical and maritime issues

The Table below summaries the APM23-4 outcomes for AIs under this chapter:

<i>Agenda Item (AI)</i>	APM23-4 Outcomes (AfCPs)
<p>AI 1.6 Possible Regulatory provisions to facilitate radiocommunications for sub-orbital vehicles, in accordance with Resolution 772 (WRC-19)</p>	<p><i>APM23-4 agreed to:</i></p> <p><u><i>Part 1: Common position:</i></u></p> <p>Support Method C a revision to Resolution 772 (WRC 19), to clarify the list of necessary studies and to extend their duration.</p> <p>Reasons:</p> <ol style="list-style-type: none"> 1. The required studies provided under resolves 2 Resolution 772 (WRC-19) were not completed with the list of possible interference scenarios, including scenarios for the use of ground/earth stations on board a sub-orbital vehicle in a section of its flight path passing in outer space. 2. As per the Recognizing c) and d) of the draft new resolution (WRC-23) proposed under method B, SOVs may have a radiocommunication impact on larger areas involving additional territories and/or on space stations (due to operation in higher altitudes) and may impact services operating in the same and adjacent or nearby frequency bands (due to increase of Doppler shift). <p><u><i>Part 2: Way forward</i></u></p> <p>Request ATU administrations to:</p> <p>Support the AfCP under this agenda item.</p>

AI 1.7

Possible new aeronautical mobile-satellite (R) service (AMS(R)S) allocation for both the Earth-to-space and space-to-Earth directions of aeronautical VHF communications in all or part of the frequency band 117.975-137 MHz, in accordance with Resolution 428 (WRC19)

APM23-4 agreed to:

Part 1: Common position:

1. Support Method B1, with the following conditions:

- a) Ensuring protection of the AM(R)S in the frequency band 117.975-137 MHz and the AM(OR)S in the frequency band 132-137 MHz, noting that the characteristics of the AM(OR)S are not available. Nevertheless, AM(OR)S systems are understood to operate on channels within national assignments of the AM(R)S, and coexistence between the AM(R)S and AM(OR)S might therefore be envisioned through frequency planning and coordination; ensuring protection of services in adjacent bands and not constraining these services.
 - b) In-band coexistence between the AM(R)S and AMS(R)S and adjacent-band coexistence between the ARNS and AMS(R)S around 117.975 MHz needs to be ensured through frequency planning and coordination work.
 - c) The protection of adjacent band services operating above 137 MHz from AMS(R)S space stations unwanted emissions falling above 137 MHz is ensured: through an additional limit of satellite pfd of $-166.6 \text{ dB(W/(m}^2 \cdot 14 \text{ kHz))}$ at the Earth's surface on the level of unwanted emissions in the adjacent band 137-138 MHz for AMS(R)S emissions from systems operating in 117.975-137 MHz. This limit should ensure compliance against the protection criteria of SRS, SOS, MSS and MetSat. It would be also possible to require the application of this limit to AMS(R)S emissions only within the band 136-137 MHz, as emissions in the band 117.975-136 MHz shall meet the RR Appendix 3 limits. Method B1 also proposes coordination for coexistence between AMS(R)S and other primary in-band services according to RR No. 9.11A with a coordination threshold proposed in Annex 1 of Appendix 5.
- 2. Consider** that RR No. 9.16, may add an extra burden on existing AM(R)S and AM(OR)S terrestrial stations due to the application of coordination with Non-GSO earth stations in case of adding/modifying any of the frequencies or technical characteristics of terrestrial stations of AM(R)S and AM(OR)S.
- 3. Consider** that RR No. 9.14, existing frequency assignments for terrestrial stations operating in the frequency range 117.975 – 137 MHz need to be added in the MIFR, to ensure that the transmitting space station of a satellite network will coordinate with in case the threshold value was exceeded.
- 4. Consider** the two values proposed for the coordination threshold under RR no. 9.14, it is recommended to choose the more stringent value (PFD limit of $-148 \text{ dB(W/(m}^2 \cdot 4 \text{ kHz))}$ on the Earth's surface) to ensure the protection of existing terrestrial stations.

Part 2: Way forward

Request ATU administrations to:

Support the AfCP under this agenda item.

<p>AI 1.8 Possible revising Resolution 155 (Rev.WRC19) and No. 5.484B to accommodate the use of fixed-satellite service (FSS) networks by control and non-payload communications of unmanned aircraft systems, in accordance with Resolution 171 (WRC19)</p>	<p>APM23-4 agreed to:</p> <p><u>Part 1: Common position:</u></p> <p>Support, Method A – which proposes to suppress RR No. 5.484B together with Resolution 155 (Rev.WRC-19) as well as Resolution 171 (WRC-19), since so far, no satisfactory solution identified for the operation of UA earth stations.</p> <p><u>Part 2: Way forward</u></p> <p>Request ATU administrations to:</p> <p style="text-align: center;">Support the AfCP under this agenda item.</p>
<p>AI 1.9 Possible review Appendix 27 in order to accommodate digital technologies for commercial aviation safety-of-life applications in existing HF bands allocated to the aeronautical mobile (route) service and ensure coexistence of current HF systems alongside modernized HF systems, in accordance with Resolution 429 (WRC19)</p>	<p>APM23-4 agreed to:</p> <p><u>Part 1: Common position:</u></p> <p>Support Method B, with the following conditions:</p> <ol style="list-style-type: none">1. The new proposed digital wideband HF systems comply with the existing analog voice and data communication systems without causing interference or assignment modification unless agreed to by affected member states and operate in accordance with the ICAO international Standards and Recommended Practices and procedures.2. Protection of in band and adjacent band services shall be ensured. <p><u>Part 2: Way forward</u></p> <p>Request ATU administrations to:</p> <p style="text-align: center;">Support the AfCP under this agenda item.</p>

<p>AI 1.10</p> <p>possible new allocations for the aeronautical mobile service for the use of non-safety aeronautical mobile applications, in accordance with Resolution 430 (WRC19)</p>	<p><i>APM23-4 agreed to:</i></p> <p><u><i>Part 1: Common position:</i></u></p> <ol style="list-style-type: none">1. Support Method E, that is the Combination of Methods B and C with 10 MHz guard bands.2. In order to provide a new allocation in the band 15.41-15.7 GHz to the aeronautical mobile (off route) service for introduction of new non-safety aeronautical mobile applications (off-route).3. In order to provide a new allocation in the band 22-22.2 GHz to the aeronautical mobile (off route) service for introduction of new non-safety aeronautical mobile (off-route) applications. <p><u><i>Part 2: Way forward</i></u></p> <p>Request ATU administrations to:</p> <p>Support the AfCP under this agenda item.</p>
<p>AI 1.11</p> <p>possible regulatory actions to support the modernization of the Global Maritime Distress and Safety System and the implementation of e-navigation, in accordance with Resolution 361 (Rev.WRC19)</p>	<p><i>APM23-4 agreed to:</i></p> <p><u><i>Part 1: Common position:</i></u></p> <p><u>Issue A: GMDSS Modernization</u></p> <p>Support Method A, Alternative A1 for RR No. 5.375, on the Regulatory and procedural considerations for:</p> <p>MOD:</p> <p>5.375 The use of the frequency band 1 645.5-1 646.5 MHz is used by the mobile-satellite service (Earth-to-space) and for by inter-satellite links is limited to for distress, urgency and safety communications (see Article 31). Additionally, for the mobile-satellite service, use of this band from earth stations operating in the GMDSS for other than distress purposes is also permitted. (WRC-23)</p> <p>Reasons: The frequency band 1 645.5 to 1 646.5 MHz was used by 1.6 GHz satellite EPIRBs but these have been withdrawn. Unless the permitted use of this band is updated, this 1 MHz band will continue to be unused. Expanding its permitted use to more general distress, urgency and safety use will support the safety of seafarers and shipping. Also, to improve the efficiency of the use of this band, non-distress communications may also be used on a non-priority basis</p>

from earth stations supporting distress, urgency and safety communications in this band.

Note: Remove EPIRB restriction, make band available for GMDSS and general communications on GMDSS stations

Issue B: Electronic Navigation

Support Method “B” mentioned in the draft CPM (that is no need for changes to the RR);

3. Issue C: Introduction of additional satellite systems into the GMDSS

3.1 Support Method C3 - The introduction of additional satellite systems for the GMDSS operations is subject to the completion of relevant and applicable provisions of the Radio Regulations in force including RR Articles 9 and 11 together with the objectives of their associated Rules of Procedure (RoP), before such addition is made with a view to comply with the protection of existing services to which the frequency band is allocated, taking into account the conditions under which these existing services are currently operating and implemented.

This method also includes:

the addition of the frequency bands 1 610.18-1 621.35 MHz and 2 483.59-2 499.91 MHz to Table 15-2 of RR Appendix 15, as well as provisions RR No. 33.50 and RR No. 33.53 of RR Article 33, in order to support the requirement of safety of life aspects by the GMDSS and implement applicable provisions of RR;

to modify RR Nos. 5.364 and 5.368 to apply RR No. 4.10 in the frequency band 1 610.18-1 621.35 MHz to GMDSS stations operating in the MMSS (Earth-to-space) and to modify RR No. 5.368 to keep the status between GMDSS stations operating in the MMSS and AMS(R)S in the frequency band 1 610.18-1 621.35 MHz.

an associated Resolution with a view to addressing the coordination needs and the mitigation and elimination of possible harmful interference.

3.2 Some administrations are of the view that completion of coordination and notification of the new proposed GMDSS system, in accordance with Articles 9 and 11 of the RR, is a prerequisite for making changes to the Radio Regulations to accommodate it. Without this, a GMDSS system cannot claim

	<p>protection from harmful interference, and may not satisfy the requirements of a safety system. To this effect it is emphasized that assignments recorded under RR No. 11.41 are not suitable for use in a GMDSS system. Recognition and approval of the GSO satellite network/system by IMO to provide GMDSS function prior to WRC-23 is also a determining factor for adopting any changes to the Radio Regulations.</p> <p>3.3 Some other administrations are of the strong view that the above statement is not factual and misleading for the following reasons:</p> <p>There is no relation between the process of coordination of the assignments and decision of any WRC including WRC-23 since the course of actions to be taken for coordination are currently clearly described and outlined in the Radio Regulations and thus does not need an additional decision by WRC-23.</p> <p>Reference to inclusion of a given frequency assignments pertaining to a given GSO satellite network or non-GSO satellite system in the Radio Regulations is an integral part of the notification and recording procedure of these assignments as outlined in Article 11 of the Radio Regulations and thus is entirely independent of the decision of any WRC including WRC-23.</p> <p>The issue of recognition IMO of a GSO satellite network or non-GSO satellite system to be qualified as a candidate to provide GMDSS has no relation with the decision of any WRC, such as WRC-23 due to the fact that such recognition is entirely a separate issue within the mandate and remit of IMO which could be done before any WRC or after any WRC or not be recognized at all.</p> <p><i>Part 2: Way forward</i></p> <p>Request ATU administrations to:</p> <p>Support the AfCP under this agenda item.</p>
<p>AI 9.1 (Topic B)</p> <p>Review of the amateur service and the amateur-satellite service allocations in the frequency band 1 240-1 300 MHz to determine if additional measures are required to ensure protection of the</p>	<p>APM23-4 agreed to:</p> <p><i>Part 1: Common position:</i></p> <p>Support the development of possible technical and operational measures to ensure the protection of RNSS (space-to-Earth) receivers from the amateur and amateur-satellite services in the frequency band 1240-1300 MHz.</p>

<p>radionavigation-satellite (space-to-Earth) service operating in the same band in accordance with Resolution 774 (WRC19)</p>	<p><u>Part 2: Way forward</u></p> <p>Request ATU administrations to:</p> <ol style="list-style-type: none"> 1. Note that some cases of harmful interference caused by transmissions from stations in the amateur service operating on a secondary basis into RNSS (space-to-Earth) receivers operating on a primary basis have been observed, documented and reported in two countries. More information can be found in Report ITU-R M.2513. 2. Note that ITU-R is developing a Recommendation ITU-R M.[AS.GUIDANCE] providing guidelines in order to avoid such cases of harmful interference to the RNSS (space-to-Earth) receivers in the future. This Recommendation could include encouragement for the amateur and amateur-satellite services to use specific sub-bands with sufficient frequency offsets from the spectrum main lobes of RNSS signals, maximum emission power level and emission bandwidth restrictions to enhance the protection of RNSS (space-to-Earth) receivers in the bands under consideration. These guidelines are intended to assist administrations and the amateur and amateur-satellite services to ensure the protection of the RNSS (space-to-Earth) in the frequency band 1 240-1 300 MHz. 3. Continue making a follow up on the development of the Preliminary Draft New Recommendation ITU-R M. [AS GUIDANCE] and Preliminary Draft New Report ITU-R M. [AMATEUR.CHARACTERISTICS].
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1.3 Chapter 3: Science Issues

The Table below summaries the APM23-4 outcomes for AIs under this chapter:

<i>Agenda Item (AI)</i>	<i>APM23-4 Outcomes (AfCPs)</i>
<p>AI 1.12 Possible new secondary allocation to the Earth exploration-satellite (active) service for spaceborne radar sounders within the range of frequencies around 45 MHz, in accordance with Resolution 656 (Rev.WRC-19)</p>	<p>APM23-4 agreed to:</p> <p><u>Part 1: Common position:</u></p> <ol style="list-style-type: none"> 1. Support Method D (No Change) because no sufficient pdf limit has been established yet to ensure the protection of all incumbent services from interference. 2. Note that the Administration of Tunisia adopts a different Method for AI 1.12 than the adopted AfCP without opposition to the AfCP.

	<p><u>Part 2: Way forward</u></p> <p>Request ATU administrations to:</p> <ol style="list-style-type: none">1. Invite the industry to provide trials and real parameters in space science,2. Continue participating in any other discussions relating to the agenda item,3. Follow the developments regarding the AI with an interest in Method A2 Option 2 as a favorable compromise because;<ol style="list-style-type: none">a. it provides room for determination of an appropriate pdf limit to prevent harmful interference from occurring to the subject incumbent service. It is important to calculate the power flux-density (pdf) that can protect all incumbent service to a satisfactory level.b. there was no agreement reached on the exposure time to interference from the radar sounders to victim services.
<p>AI 1.13</p> <p>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>APM23-4 agreed to:</p> <p><u>Part 1: Common position:</u></p> <ol style="list-style-type: none">1. Support no change to the radio regulations. If the proposed methods do not prevent harmful interference to the incumbent services and do not protect systems of primary services in the frequency band 14.8-15.35 GHz, then it would be appropriate to have no change to the Radio Regulations.2. Note that the Administration of Tunisia adopts a different Method for AI 1.13 than the adopted AfCP without opposition to the AfCP. <p><u>Part 2: Way forward</u></p> <p>Request ATU administrations to:</p> <p>Continue participating in the ITU-R studies under this agenda item between now and the WRC-23, to examine the possible upgrade of SRS services in the 14.8 – 15.35 GHz band while protecting the primary services in this band, with a view to possibly support either Method E1 or E2 upon satisfying the requirement for protection of Fixed and Mobile services as well as Radio Astronomy Services.</p>

<p>AI 1.14</p> <p>possible adjustments of the existing or possible new primary frequency allocations to EESS (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>APM23-4 agreed to:</p> <p><u>Part 1: Common position:</u></p> <p>Support Method B Option 3 (which provides for the suppression of Resolution 662 among other things).</p> <p>Reasons:</p> <ol style="list-style-type: none"> 1. The method addresses the invite of Resolution 662, 2. The adjustment will result in a contiguous block 231.5GHz – 239.2GHz (for fixed and mobile services) following the consolidation of 231.5 -235GHz and 238 - 241GHz, 3. Provides the protection of incumbent services. <p><u>Part 2: Way forward</u></p> <p>Request ATU administrations to:</p> <p>Support the AfCP on this agenda item (Method B Option 3).</p>
<p>AI 9.1 Topic A</p> <p>Review the results of studies relating to the technical and operational characteristics, spectrum requirements and appropriate radio service designations for space weather sensors, in accordance with Resolution 657 (Rev.WRC-19)</p>	<p>APM23-4 agreed to:</p> <p><u>Part 1: Common position:</u></p> <ol style="list-style-type: none"> 1. Support the recognition and protection of space weather sensors through possible modification of Article 1 and Article 4 of the RR as highlighted in 1.XXX and 4.XXX above. 2. Support the new draft WRC resolution on the importance of MetAids (space weather) service application to facilitate studies on definition of technical and operational characteristics, as well as, identification of spectrum requirements - this could empower WRC-27 to take decisions on this important matter of SWS; 3. Support the consequential suppression of Resolution 657 (Rev.WRC-19) at WRC-23. <p><u>Part 2: Way forward</u></p> <p>Request ATU administrations to:</p> <p>Support the AfCP (as outlined above) as the issue is important in addressing the global climate change agenda.</p>
<p>AI 9.1 Topic D</p> <p>Protection of EESS (passive) in the frequency band 36-37 GHz from non-GSO FSS space stations;</p>	<p>APM23-4 agreed to:</p> <p><u>Part 1: Common position:</u></p>


	<p>Support ITU-R studies related to the protection of EESS (passive) sensors operating in the 36-37 GHz band against non-GSO FSS systems in the 37.5-38 GHz band, with due regard to the operational aspects of the non-GSO FSS systems, and develop recommendations and/or reports, as appropriate.</p> <p><i>Part 2: Way forward</i></p> <p>Request ATU administrations to:</p> <p>Continue participating meaningfully in ITU-R studies relating to this issue in order to ensure African views are taken into account.</p>
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1.4 Chapter 4: Satellite Issues


The Table below summaries the APM23-4 outcomes for AIs under this chapter:

<i>Agenda Item (AI)</i>	<i>APM23-4 Outcomes (AfCPs)</i>
<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>The APM23-4 agreed:</p> <p><i>Part 1: Common position:</i></p> <p>APM23-4 agreed to support <u>Method B</u> if the following conditions are fulfilled:</p> <ol style="list-style-type: none"> 1. Ensuring protection to the existing services and those in the adjacent bands within the frequency band 13.25–13.75 GHz, taking into account the need to protect Appendix 30B and the operation of such earth stations on aircraft and vessels should not impact the usability of the allotments in the Plan and assignments in the List under Appendix 30B of the Radio Regulations and not limit the access of other administrations to their national resources in Appendix 30B as well as implementation of Resolution 170 (WRC 19). 2. Support that Aeronautical or maritime earth stations in the 12.75 - 13.25 GHz band need to have the capability to restrict operations in territories of those administrations where agreement under No. 6.6 has been obtained 3. Support that the operation of A ESIM and M ESIM within territorial waters and/or airspace under the jurisdiction of an administration shall be carried out only if authorization of that administration is obtained;

	<ol style="list-style-type: none">4. Support that the administrations responsible for notice to use an Appendix 30B assignment in the List in support of the operation of earth stations on aircraft and vessels in the frequency band 12.75-13.25 GHz, to seek the explicit agreement of all the affected administrations from such use.5. Support BR to publish the list of assignments in the Appendix 30B ESIM brought into use with information about its service area and countries authorize such use to assist affected administration to identify source of interference.6. Support usage of [175],150/133 Km as a minimum distance from the low-water mark as officially recognized by the coastal State for protection of terrestrial services from the M-ESIM transmission.7. Emphasize that the notifying administration of the satellite network is the only administration that has the responsibility to notify the ESIMs that will communicate with that network and to resolve any interference incident.8. Emphasize that the receiving part of the ESIM in their associated frequency band shall not adversely affect the allotments in the Plan nor the assignments in the List and not claim protection from other applications of the FSS as well as other radiocommunication services to which the frequency band is allocated. ATU prefer such measures to be included in resolves part;9. Completion of the interference management mechanism and Definition the role of the Network Monitoring and Control Center (NCCM), to deal with the interference that occurs from the operation of A-ESIM/M-ESIM of other administrations;10. Development of a methodology to assist the Radiocommunication Bureau in examining the conformity of earth stations on board aircraft and ships in the event that an appropriate flux density is used to protect terrestrial services from moving earth stations, with the need to develop and agree on such a methodology before end of the conference;11. Review which frequency assignments that entered in the List under § 6.17 can be used as supporting assignments by ESIM.
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	<p>12. Need to review any cost associated with the possible implementation of the Draft new resolution under AI 1.15;</p> <p>13. Decide that studies under this agenda item need to equally consider the effect of aggregated interference from ESIMs to ensure long term protection of Fixed and Mobile Service.</p> <p><i>Part 2: Way forward</i></p> <p>Request ATU administrations to:</p> <p>Support the AfCP (i.e. Method B) on this agenda item while remaining keen on ensuring that the draft new resolution under Method B addresses all the above listed requirements.</p> <p>The proposed text of the actual AfCP is embedded here below:</p>  <p>World Radiocommunication</p>
<p>AI 1.16</p> <p>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 motion, while ensuring due protection of existing services in those frequency bands, in accordance with Resolution 173 (WRC-19)</p>	<p>APM23-4 agreed to:</p> <p><i>Part 1: Common position:</i></p> <p>APM23-4 agreed to support <u>Method B</u> if the following conditions are fulfilled:</p> <ol style="list-style-type: none">1. For the protection of terrestrial services operating in the 27.5-29.1 GHz, transmitting non-GSO ESIMs in the frequency band 27.5-29.1 GHz shall not cause unacceptable interference to terrestrial services to which the frequency band is allocated and that operate in accordance with the Radio Regulations, and Annex 1 to the new Resolution under this Agenda Item shall apply.2. For the protection of secondary allocation to terrestrial services (No. 5.542) in the 29.5-30 GHz, that 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 and that operate in accordance with the Radio Regulations, and technical conditions in Annex 1 to the new Resolution under this Agenda Item shall apply with respect to administrations mentioned in RR No. 5.542.3. Non-GSO ESIM operating in the frequency bands 17.7-18.6 GHz, 18.8-19.3 GHz and 19.7-20.2 GHz (see No 5.524) shall not claim protection from terrestrial services to which the frequency band is allocated and operating in accordance with the Radio Regulations.

	<ol style="list-style-type: none">4. For the protection of space services, non-GSO ESIM characteristics shall remain within the envelope characteristics of typical earth stations associated with the non-GSO satellite system with which these ESIM communicate.5. For the protection of GSO systems in FSS and BSS, operating in the frequency bands 17.7–18.6 GHz, from non-GSO FSS systems using ESIMs, the RR No. 22.2 is applied.6. For the protection of GSO FSS networks operating in the 17.8-18.6 GHz, 19.7-20.2 GHz, 27.5-28.6 GHz and 29.5-30.0 GHz, the relevant EPFD limits in Nos. 22.5C, 22.5D and 22.5F shall apply.7. For the protection of GSO systems in FSS and BSS, operating in the frequency bands where epfd limits do not apply:<ol style="list-style-type: none">i. Non-GSO ESIM characteristics shall remain within the envelope characteristics of typical earth stations associated with the non-GSO satellite system with which the ESIM communicates;ii. Non-GSO ESIM shall not cause more interference and shall not claim more protection than typical earth stations in this non-GSO system;iii. The operation of non-GSO ESIM shall comply with the coordination agreements obtained following the application of provisions under No. 9.11A.8. Development of a methodology regarding examination by the Bureau of compliance with pfd limits by NGSO aeronautical ESIM to protect terrestrial services from earth station in motion to be agreed before end of the conference.9. The only administration that could notify the ESIM is the same administration that notified NGSO satellite network with which the ESIM will communicate.10. The capability of ESIMs to restrict operations to territories of those administrations where authorization for such operations has been granted.11. The notifying administration is the only administration responsible to resolve any reported interference complaints. In case more than one administration has notified satellites in a single NGSO constellation each of the notifying administrations is responsible to eliminate any unacceptable
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	<p>interference from ESIMs that have been authorized to operate.</p> <p>12. Support not to impose additional burden to the authorizing administrations</p> <p>13. Determination of detailed procedures for the interference management mechanism to deal with the interference that occurs from the operation of earth stations in motion of other administrations as there are still several issues on the operation of ESIMs to be clarified and specified in the Draft New Resolution regarding the interference management mechanism and its due functionality.</p> <p>14. Support publishing by the BR the list of Notifying Administration of NGSO system with which ESIM communicates and countries authorizing using of such ESIM to assist in interference resolution. This list would be provided by the notifying administration.</p> <p><u>Part 2: Way forward</u></p> <p>Request ATU administrations to:</p> <p>Support the AfCP (i.e. Method B) on this agenda item on condition that the draft new resolution under Method B addresses all the above listed requirements.</p> <p>The proposed text of the actual AfCP is embedded here below:</p> <div style="text-align: center;">  <p>Draft African Common Proposal on</p> </div>
<p>AI 1.17</p> <p>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</p>	<p>APM23-4 Agreed:</p> <p><u>Part 1: Common position:</u></p> <ol style="list-style-type: none"> 1. Support Method B as follows: 2. Agree that a regulatory framework should be developed to ensure the protection of the in-band and adjacent bands services to which the frequency bands referred to in this agenda item, in particular, existing and future FSS services be guaranteed. This will be based on the following conditions: <ol style="list-style-type: none"> a. Type of Allocation: <p style="text-align: center;"><i>Alternative FSS/ISS: Support Alternative ISS</i></p>

service allocation
where appropriate.

- Exclusion of the use of the KU-band for the inter satellite link
- b. Support the within the cone concept of operation.
 - c. Sharing mechanisms with non-GSO FSS system.

Alternative non-GSO FSS Hard limit

- d. Protection mechanisms for Incumbent Services:
 - *Annex 1: There are no issues on the formula as all have been agreed.*
 - *Annex 2: Option 2-2 is supported.*
 - *Annex 3: Option 1 is supported.*
 - *Annex 4: Option 2 is supported.*

Acknowledge that EIRP limits vary with altitude to ensure the protection of incumbent networks from potential hardware damage, as in tables below, with adding additional invites ITU-R to review the EIRP limits to ensure the hardware damage protection for non-GSO FSS systems from non-GSO ISS systems planning to operate in altitude above or equal to 900km and below 1290km, in addition to instruct the BR to report to next conference, progress in revisions to the EIRP limits in altitudes above or equal to 900km and below 1290km.

The emissions from any non-GSO space station transmitting in the frequency bands 27.5-29.1 GHz and 29.5-30GHz to communicate with a non-GSO system with a minimum operational altitude higher than 2000km, shall not exceed an on-axis e.i.r.p. spectral density of -20dBW/Hz and the total e.i.r.p. from any non-GSO space station shall not exceed:

minimum operational altitude >2 000 km	
Transmitting non-GSO space station operational altitude (km)	Maximum total e.i.r.p. (dBW)
altitude < 450	63
450 ≤ altitude < 600	61
600 ≤ altitude < 750	58
750 ≤ altitude < 900	55
900 ≤ altitude < 1 290	N/A
altitude ≥ 1 290	N/A

The emissions from any non-GSO space station transmitting in the frequency bands 27.5-29.1 GHz,

and 29.5-30GHz to communicate with a non-GSO system with a minimum operational altitude lower than 2000km, shall not exceed an on-axis e.i.r.p. spectral density of -30dBW/Hz and the total e.i.r.p. from any non-GSO space station shall not exceed:

minimum operational altitude <2 000 km	
Transmitting non-GSO space station operational altitude (km)	Maximum total e.i.r.p. (dBW)
altitude < 450	60
450 ≤ altitude < 600	58
600 ≤ altitude < 750	55
750 ≤ altitude < 900	53
900 ≤ altitude < 1 290	N/A
altitude ≥ 1 290	N/A

- *Annex 5: Option B is supported.*


3. **Support** development of the description of interference management system(s), monitoring facilities (NCCM), dealing with the cessation of transmission in order to provide a satisfactory resolution of the problem.
4. **Support** development of an acceptable power flux-density on the surface of the Earth towards a non-GSO mobile satellite gateway station for space-to-space links in the frequency band 19.3-19.7 GHz.
5. **Consider** the modification of the definition of the “expanded cone” concept by imposing altitude limitations on service providers and users and thus excluding LEO-to-LEO links.

Part 2: Way forward

Request ATU administrations to:

1. **Support** the AfCP for this agenda item (whose key elements are captured in the draft AfCP to WRC-23 embedded here).
2. **Actively participate** in discussions on this agenda item to ensure that adjacent GSOs and NGSOs stations are protected as well as protection of terrestrial stations from off-axis emissions.
3. **Review** the applicability of current regulation to protect GSO FSS in specific 9.11A and limits included in table 22-2.

	<p>4. Review the applicability of current regulation to protect non-GSO FSS using the limits specified in Annex 4 of the draft new resolution.</p> <p>5. Review the sharing and compatibility studies between satellite-to-satellite links and other services in the same bands and adjacent bands in order to develop technical conditions and regulatory provisions for the use of satellite-to-satellite operations in the 18.1-18.6 GHz, 18.8-20.2 GHz and 27.5-30 GHz frequency bands in accordance with Resolution 773 (WRC-19).</p>
<p>AI 1.18</p> <p>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><i>APM23-4 agreed:</i></p> <p><i>Part 1: Common position:</i></p> <p>Support Method A – which entails No Change and suppression of Resolution 248 (WRC-19) given the lack of agreement within the ITU-R on the technical characteristics and operational parameters to conduct the necessary sharing and compatibility studies to ensure the protection of existing primary services in the frequency bands under study or in the adjacent bands under this agenda item.</p> <p><i>Part 2: Way forward</i></p> <p>Request ATU administrations to:</p> <ol style="list-style-type: none"> 1. Support the AfCP on this agenda item as stated above. 2. Closely follow discussions on this agenda item at WRC-23 to ensure no actions are taken that are not backed by results of studies.
<p>AI 1.19</p> <p>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 accordance with Resolution 174 (WRC-19)</p>	<p><i>APM23-4 agreed:</i></p> <p><i>Part 1: Common position:</i></p> <ol style="list-style-type: none"> 1. Support Method B Alternative 2 including modification of footnotes in Article 5 of the Radio Regulations referring to the allocation of the frequency band 17.3-17.7 GHz in Region 2 to the space-to-Earth fixed-satellite service while emphasizing any new primary allocation to FSS in the frequency band 17.3-17.7 GHz in Region 2 shall ensure the protection of existing services in the frequency band and adjacent bands in Region 1 and not create undue constraints on future developments of services in this band to provide further protection of the BSS feeder link AP30A receiving space station and GSO FSS systems. 2. Agree that, as a matter of principle, any new primary allocation to FSS in the frequency band 17.3-17.7 GHz in Region 2 shall ensure the protection of existing services in the frequency band and adjacent bands in Region 1 and not create undue constraints

	<p>on future developments of services in this band. In particular, any new allocation in R2 in the band 17.3-17.7 GHz, shall not claim protection from the broadcasting-satellite service feeder-link earth stations operating under Appendix 30A, nor put any limitations or restrictions on the locations of the broadcasting-satellite service feeder-link earth stations anywhere within the service area of the feeder link.</p> <p><i>Part 2: Way forward</i></p> <p>Request ATU administrations to:</p> <p>Support the AfCP on this agenda item. The proposed text of the actual AfCP is embedded here below:</p> <div style="text-align: center;">  <p>Agenda item 1.19 WRC contribution.doc</p> </div>
<p>AI 7 Topic A</p> <p>Tolerances for certain orbital characteristics of non-GSO space stations in the FSS, BSS, and MSS</p>	<p>APM23-4 agreed:</p> <p><i>Part 1: Common position:</i></p> <p>Support Method A2 Option A which proposes to apply tolerances, including temporary variation, for satellites of all non-GSO FSS, BSS or MSS systems (either with an eccentricity < 0.5/TBD or more broadly), or to non-GSO FSS, BSS or MSS systems subject to Resolution 35 (WRC-19) (either with an eccentricity < 0.5/TBD or more broadly)</p> <p><i>Part 2: Way forward</i></p> <p>Request ATU administrations to:</p> <ol style="list-style-type: none"> 1) Support the AfCP on this Topic 2) Continue discussions towards defining the acceptable tolerances to be applied on Non-GSO systems;
<p>AI 7 Topic B</p> <p>Post-milestone reporting procedure for non-GSO systems</p>	<p>APM23-4 agreed to:</p> <p><i>Part 1: Common position:</i></p> <p>Consider the two methods being proposed by the Sub-Regional groups namely method B1 and B2 with the aim of developing an AfCP.</p> <p><i>Part 2: Way forward</i></p> <p>Request ATU Secretariat to:</p>

	<p>Convene meetings on this Issue with a view to developing AfCP.</p>
<p>AI 7 Topic C</p> <p>Protection of geostationary satellite networks in the MSS operating in 7/8 & 20/30 GHz from emissions of the Non-Geostationary Satellite systems operating in the same frequency bands and identical directions</p>	<p>APM23-4 agreed:</p> <p><u>Part 1: Common position:</u></p> <p>Support Method C3 which proposes to extend the concept of RR No.22.2 to GSO MSS with respect to Non-GSO systems in the above respective frequency bands relevant to the provisions of Article 5.</p> <p><u>Part 2: Way forward</u></p> <p>Request ATU administrations to:</p> <p>Support the AfCP on this Topic.</p>
<p>AI 7 Topic D</p> <p>Modifications to Appendix 1 to Annex 4 of Appendix 30B</p>	<p>APM23-4 agreed to:</p> <p><u>Part 1: Common position:</u></p> <ol style="list-style-type: none">Topic D1: Support the only method identified under this topic.Topic D2: Support modification of Appendix 4 to support the implementation of agreed revisions to Recommendation ITU-R S.1503-3, including new data elements and modified data elementsTopic D3: Support BR sending a reminder to the notifying administration regarding the confirmation of the BIU/BBIU date under Nos. 11.44B, 11.44C, 11.44D, and 11.44E, as applicable. <p><u>Part 2: Way forward</u></p> <p>Request ATU administrations to:</p> <p>Support the AfCP on this Topic.</p>

<p>AI 7 Topic E</p> <p>Improved procedures under RR Appendix 30B for new ITU Member States.</p>	<p><i>APM23-4 agreed to:</i></p> <p><i>Part 1: Common position:</i></p> <ol style="list-style-type: none">1. Support the proposition of South Sudan of requesting that New ITU member states should be granted the same right as other member states in Appendix 30B. Based on principles stipulated in Article 44 of the constitution, Resolution 2(REV.WRC-03) and those contained in Article 1 of Appendix 30B.2. Support efforts to avoid future degradation of the overall aggregate C/I by Part A submissions received before the submission to the Bureau of the requested national allotment of satellite networks of these 7 administrations.3. Support Method E2 to facilitate the coordination and protection of the new allotment for the new ITU member states. <p><i>Part 2: Way forward</i></p> <p><i>Request ATU administrations to:</i></p> <ol style="list-style-type: none">1. Support AFCP on this topic2. Consider the proposed method when preparing the common contribution at the WRC-23.
<p>AI 7 Topic F</p> <p>Impact of excluding feeder-link/Up-link service and coverage areas in the bands subject to RR Appendix 30A and RR Appendix 30B</p>	<p><i>APM23-4 agreed to:</i></p> <p><i>Part 1: Common position:</i></p> <p>Support Method F2 which proposes the followings:</p> <ol style="list-style-type: none">1. a new provision under Article 4 of RR Appendix 30A to allow an administration to request at any time the exclusion of its territory from the feeder-link service area of a satellite network of other administrations;2. a requirement for the notifying administration to align the coverage area to the associated up-to-date service area when submitting a Part A and/or Part B of an AP30A/AP30B notice to the Bureau. When it is not possible to do so as it relates to an operational satellite or a satellite soon to be launched, the notifying administration shall request the Bureau to update the coverage area in the List and Master Register when that satellite has been replaced by a new one without the need to restart the Article 4 / Article 6 procedures, as appropriate;3. footnotes to the new provision of RR Appendix 30A and § 6.16 of Article 6 of RR Appendix 30B to request a notifying administration of a satellite network having high receiving sensitivity (relative satellite antenna gain of at least -20 dB) over territory of other administrations to

	<p>accept feeder-link or uplink interference emanating from the territory of other administrations if so requested;</p> <ol style="list-style-type: none"> 4. amend Article 9 of RR Appendix 30B to remove the right to claim protection from harmful interference from additional systems which have not indicated their agreement to inclusion in the given service area; 5. amend Article 10 of RR Appendix 30A to remove the right to claim protection from harmful interference from additional systems which have not indicated their agreement to inclusion in the given service area. <p><i>Part 2: Way forward</i></p> <p>Request ATU administrations to:</p> <p style="text-align: center;">Support AFCP on this Topic.</p>
<p>AI 7 Topic G:</p> <p>Revisions to Resolution 770 (WRC-19) (GSO PROTECTION FROM SINGLE ENTRY NON-GSO IN Q/V BANDS) to allow its implementation</p>	<p><i>APM23-4 agreed to:</i></p> <p><i>Part 1: Common position:</i></p> <p style="text-align: center;">Support Method G3 - which proposes to remove annex 2 from Resolution 770 (WRC-19) and move it to a new ITU-R recommendation.</p> <p><i>Part 2: Way forward</i></p> <p>Request ATU administrations to:</p> <p style="text-align: center;">Support AFCP on this Topic.</p>
<p>AI 7 Topic H:</p> <p>Enhanced protection of RR Appendices 30/30A in Regions 1 and 3 and RR Appendix 30B</p>	<p><i>APM23-4 agreed to:</i></p> <p><i>Part 1: Common position:</i></p> <ol style="list-style-type: none"> 1. Support Method H1B option 1 with regard to the concept of implicit agreement 2. Support Method H2B with regard to EPM degradation tolerance 3. Note: Some administrations are of the view that the proposed methods could affect the systems that are already in operation of other African administrations. In addition, some of the proposed changes could increase the coordination requirements. <p><i>Part 2: Way forward</i></p> <p>Request ATU administrations to:</p>

	<ol style="list-style-type: none"> 1. Support the AfCP on this Topic. 2. To take into consideration the view expressed above by some Administrations .
<p>AI 7 Topic I: Special Agreements under RR Appendix 30B.</p>	<p><i>APM23-4 agreed to:</i></p> <p><i>Part 1: Common position:</i></p> <p>Support Method I2 which proposes:</p> <ol style="list-style-type: none"> 1. define a new type of agreement between a national allotment and an assignment. Under such agreement, the administration of the national allotment allows the assignment to operate until the bring into use of its national allotment. At that time, the administration of the assignment commits to respect the section 2.2 of Annex 4 pfd levels over the territory of national allotment. As national allotment and assignment will not operate simultaneously the same frequency over the same area, mutual interference is not considered. 2. develop a new Resolution allowing national allotment, subject to agreements under § 6.15 of RR Appendix 30B: <ol style="list-style-type: none"> 1) to sign this new type of agreement with concerned assignments, 2) to request the Bureau to update the reference situation without reviewing the previous examinations, and 3) to request the notifying administrations of assignments for which procedures of Article 6 of RR Appendix 30B have not yet been completed and which have been examined by the Bureau before the signature of such agreement to make their utmost efforts to take into account the new reference situations of this national allotment. <p><i>Part 2: Way forward</i></p> <p><i>Request ATU administrations to:</i></p> <p>Support the AfCP on this Topic.</p>
<p>AI 7 Topic J: Modification to Resolution 76 (Rev. WRC-15).</p>	<p><i>APM23-4 agreed to:</i></p> <p><i>Part 1: Common position:</i></p> <ol style="list-style-type: none"> 1. Support Method J3 which proposes Modify Resolution 76 (Rev.WRC-15) to comply with the aggregate EPFD levels included in the same Resolution through a consultation process/meeting. 2. Note that some Administrations expressed the need to further discuss the issue concerning the operation of both

	<p>non-GSO systems and planned non-GSO system in the calculation of the aggregate EPFD limit.</p> <p><i>Part 2: Way forward</i></p> <p>Request ATU administrations to:</p> <ol style="list-style-type: none"> 1. Support AFCP on this Topic. 2. Consider the expressed view of some administrations during the input contribution at WRC-23.
<p>AI 7 Topic K: Modification to Resolution 553 (Rev.WRC-15) to ensure equitable access to the frequency band 21.4-22 GHz</p>	<p><i>APM23-4 agreed to:</i></p> <p><i>Part 1: Common position:</i></p> <p>Support method K2 which aims to increase the chances of effective use of Resolution 553 (WRC-15 Rev) by administrations.</p> <p><i>Part 2: Way forward</i></p> <p>Request ATU administrations to:</p> <p>Support the AfCP on this Topic.</p>

1.5 Chapter 5: General issues

The Table below summaries the APM23-4 outcomes for AIs under this chapter:

<i>Agenda Item (AI)</i>	<i>APM23-4 Outcomes (AfCPs)</i>
<p>AI 2</p> <p>to examine the revised ITU-R Recommendations incorporated by reference in the Radio Regulations communicated by the Radiocommunication Assembly, in accordance with further resolves of Resolution 27 (Rev.WRC19), and to decide whether or not to update the corresponding references in the Radio Regulations, in accordance with the principles contained in resolves of that Resolution;</p>	<p><i>APM23-4 agreed to:</i></p> <p><i>Part 1: Common position:</i></p> <p>Support the revision of ITU-R Recommendations incorporated by reference in the Radio Regulations communicated by the Radiocommunication Assembly, in accordance with Resolution 27 (Rev.WRC-19), with a view to updating the corresponding references in the Radio Regulations.</p> <p><i>Part 2: Way forward</i></p> <p>Request ATU administrations to:</p>

	<ol style="list-style-type: none"> 1. Monitor the progress of the proposed revisions of ITU-R Recommendations. 2. Note and review the report of the Director of the Radiocommunications Bureau to the second session of CPM. 3. Support the work of the radiocommunication study groups and the Radiocommunication Assembly on revision of those Recommendations to which mandatory references are made in the Radio Regulations.
<p>AI 4 in accordance with Resolution 95 (Rev.WRC-19), to review the Resolutions and Recommendations of previous conferences with a view to their possible revision, replacement or abrogation;</p>	<p><i>APM23-4 agreed to:</i></p> <p><u>Part 1: Common position:</u></p> <p>Support the regular review of Resolutions and Recommendations from previous conferences and will follow activities, in particular of ITU, associated with this effort.</p> <p><u>Part 2: Way forward</u></p> <p><u>Request ATU administrations to:</u></p> <ol style="list-style-type: none"> 1. Study Recommendations and Resolutions of previous conferences to identify those that may have accomplished their purpose and are due for abrogation or those that may need reviewing or replacement. 2. Study the BR Director’s report to ensure that any proposal for abrogation, review or replacement of resolutions or recommendations is in line with our interests. 3. Review Recommendations and Resolutions below that may have accomplished their purpose to be reviewed and possibly removed from the Radio regulations.
<p>AI 8 to consider and take appropriate action on requests from administrations to delete their country footnotes or to have their country name</p>	<p><i>APM23-4 agreed to:</i></p> <p><u>Part 1: Common position:</u></p> <ol style="list-style-type: none"> 1. Encourage Administrations to review footnotes and to propose the deletion of their country names or the deletion of country footnotes if no longer required, or addition of their country to footnotes with a view to promoting

<p>deleted from footnotes, if no longer required, taking into account Resolution 26 (Rev.WRC19);</p>	<p>harmonization, in accordance with further resolves 1 and Annex 1 of Resolution 26 (Rev.WRC19).</p> <ol style="list-style-type: none">2. Invite ATU Administrations to review Annex B of the African Spectrum Allocation Plan (AfriSAP) which indicates the RR Footnotes containing explicit references to African country names with a view to assessing the continued need of their country name in the said footnotes.3. Examine the preliminary proposals/positions of other administrations or regional groups and take appropriate action. <p><i>Part 2: Way forward</i></p> <p><u>Request ATU administrations to:</u></p> <ol style="list-style-type: none">4. Review relevant footnotes in the RR well ahead of time and identify footnotes that might require actions by the concerned Member States under this agenda item. These actions could either be removal from or addition onto footnotes of country name in accordance with further resolves 1 and Annex 1 of Resolution 26 (Rev.WRC19).5. Make known, as early as possible, their proposals under agenda item 8 to other administrations who may be affected, with a view to resolving any potential challenges in seeking agreement of other administrations at the WRC23.
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<p>AI 9.2 on any difficulties or inconsistencies encountered in the application of the Radio Regulations;</p>	<p><i>APM23-4 agreed to:</i></p> <p><u><i>Part 1: Common position:</i></u></p> <p>Support measures to remove any difficulties or inconsistencies encountered in the application of the Radio Regulations.</p> <p><u><i>Part 2: Way forward</i></u></p> <p><u>Request ATU administrations to:</u></p> <ol style="list-style-type: none">1. Note that the Director of the Radiocommunications Bureau will prepare a report which will be published few months before WRC 23.2. Study and review the report of the Director of the Radiocommunications Bureau once it is published and prepare the Africa Common Proposal (AfCP).3. Set aside dedicated resources to make a close follow up of this agenda item during WRC23.4. Meaningfully participate in an online meeting which will be organized by ATU secretariat to review the Director of the Radiocommunications Bureau report and to prepare an Africa Common Proposal on this agenda item.
<p>AI 9.3 “on action in response to Resolution 80 (Rev.WRC07); Resolution 80 (Rev.WRC07) Due diligence in applying the principles embodied in the Constitution”</p>	<p><i>APM23-4 agreed to:</i></p> <p><u><i>Part 1: Common position:</i></u></p> <ol style="list-style-type: none">1. Strongly support, as a matter of principle, the full implementation of Resolution 80 (Rev.WRC-07) as a primary mechanism to foster application of equity and fulfillment of principles embodied in the ITU Constitution.2. Note the report by the Radio Regulation Board to WRC- 23 on Resolution 80 (Rev. WRC-07) for the meeting held from 26 June to 4th July 2023. This report to WRC-23, the Board examined in some detail the implementation of Resolution 559 (WRC-19), difficulties in resolving some harmful interference situations, difficulties affecting satellite network coordination and the treatment of requests for

	<p>extensions of regulatory time limits to bring into use or bring back into use frequency assignments.</p> <ol style="list-style-type: none">3. Submitted a request to ITU for WRC-23 to consider inclusion of frequency assignment of TANSAT1 satellite network in the Appendix 30 and Appendix 30A of Region 1 and Region 3 Plans for implementation of resolution 559 of WRC-19.4. Note the report of the ATU Conference of Plenipotentiaries held in Algeria from 25 to 26 July 2022 in relation to an African Common Proposal to ITU PP-22 on the implication of invocation of Article 48 of the ITU Constitution. <p><i>Part 2: Way forward</i></p> <p>Request ATU administrations to:</p> <ol style="list-style-type: none">1. Note the Radio Regulation Board (RRB) report to the WRC 23.2. Study and review the Radio Regulation Board (RRB) report to the WRC 23 and prepare the Africa Common Proposal to WRC 233. Set aside dedicated resources to make a close follow up of this agenda item during WRC23.4. Meaningfully participate in an online meeting which will be organized by ATU secretariat to review the Radio Regulation Board (RRB) report and to prepare an Africa Common Proposal on this agenda item.
<p>AI 10</p> <p>To recommend to the Council items for inclusion in the agenda for the next WRC, and to give its views on the preliminary agenda for the subsequent conference and on possible agenda items for future conferences, in accordance with Article 7 of the Convention.</p>	<p>APM23-4 agreed to:</p> <p><i>Part 1: Common position:</i></p> <ol style="list-style-type: none">1. Consider “<i>resolve 3</i>” of RESOLUTION 804 (REV.WRC-19), which “<i>encourages administrations and regional telecommunication organizations to submit, to the extent practicable, information on possible items/topics for the agenda of future WRCs under the WRC standing agenda item mentioned in resolves 1 to the second session of CPM</i>”,

	<ol style="list-style-type: none">2. Recall that APM23-4 decided that “<i>proposals to ATU Working Groups or APMs under AI 10 ought to be submitted by Sub-Regions or ATU Member State(s) only for reasons of ownership and accountability of subsequent necessary actions such as studies, and that for purposes of avoidance of doubt, proposals from Associate Members, Partners and Others, ought to be channeled through Sub-Region(s) or ATU Member State(s)</i>”.3. Recall that a new possible topic for agenda of future WRCs on “<i>Protection of Radio Quiet Zones (RQZ) from Satellite mega-constellations</i>” was submitted to APM23-4 for consideration and that APM23-4 requested Administrations to consider the topic with a “<i>view to addressing potentially difficult issues with the topics at the next meeting of WG5 and APM23-4</i>”,4. Propose the following topics to WRC-23 for the agenda of future WRCs:<ol style="list-style-type: none">(i) Topic 1: Protection of Radio Quiet Zones (RQZ) from Satellite mega-constellations submitted as per official template i.e. Annex 2 of the Resolution 804 (Rev.WRC-19). Annex 1 below refers,(ii) Topic 2: Spectrum allocation and associated regulatory provisions to support the use of the 51.4-52.4 GHz fixed-satellite service (Earth-to-space) frequency band for gateway earth stations operating with non-geostationary-satellite orbit FSS systems.(iii) Topic 3: Review of the usage of the band 13.75-14 GHz and study for possible revisions to the constraints in RR Nos. 5.502 and 5.503, in accordance with draft new Resolution [13.75-14 GHz], to enable efficient use of the band by uplink geostationary and non-GSO FSS earth stations.(iv) Topic 4: Modification of Resolution 176 calling for studies on the “<i>Use of the frequency bands 37.5-39.5 GHz (space-to-Earth), 40.5-42.5 GHz (space-to-Earth), 47.2-50.2 GHz (Earth-to-space) and 50.4-51.4 GHz (Earth-to-space) by aeronautical and maritime earth stations in motion communicating with geostationary or non-geostationary space stations in the fixed-satellite service</i>”.(v) Topic 5: Potential primary new frequency allocations to the Mobile Satellite Service in the
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	<p>following suggested frequency bands: 2 010-2 025 MHz (E-s) and 2 200-2 215 MHz (s-E).</p> <p><i>Part 2: Way forward</i></p> <p><u>Request ATU administrations to:</u></p> <ol style="list-style-type: none">1. Meaningfully participate in an online meeting which will be organized by ATU Secretariat to review, with a view to agreeing on an AfCP, the new proposed topic for study under Agenda Item 10 on the “<i>Review and update regulatory provisions for sharing between NGSO systems and GSI networks in the portion of 10.7-14.5GHz, 17.3-20.2 GHz and 27.5-30GHz frequency bands in which Article 22 and Resolution 76 (Rev.WRC-15) epcf revision of epcf limits apply</i>”.2. Support the AfCP under this agenda item.
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