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***Communications for all in East Africa***

**3rd EACO WRC-23 preparatory meeting (17th-19th/08/2021)**

CHAPTER 3 (Science issues)

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| **Input Document** |

**Agenda Item 9.1 Topic D**

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| ***Part A: Description*** |
| 9. to consider and approve the Report of the Director of the Radiocommunication Bureau, in accordance with Article 7 of the Convention;  9.1 on the activities of the Radiocommunication Sector since WRC‑19: ​Protection of EESS (passive) in the frequency band 36-37 GHz from non-GSO FSS space stations.  [WRC-19 Document 535](https://www.itu.int/md/R16-WRC19-C-0535/en), 2nd section of the Annex: Protection of EESS (passive) in the frequency band 36-37 GHz |
| ***Part B: Key Elements – the notables*** |
| The studies under WRC-23 agenda item 9.1, topic d), are a continuation of studies to address the following remaining issues from the discussion for WRC-19 agenda item 1.6 related to the protection of EESS (passive) sensors in the 36-37 GHz frequency band:   1. Interference into the sensing channel of EESS (passive) from fixed-satellite service non-GSO constellations operating in the 37.5-38 GHz frequency band at a lower altitude than EESS (passive) sensors. 2. Interference into the cold calibration channel of EESS (passive) from fixed-satellite service non-GSO constellations operating in the 37.5-38 GHz frequency band at a higher altitude than EESS (passive) sensors. |
| ***Part C: Current Status of Band*** |
| **Part A RR article 5 :**  The table below provides the international frequency allocation of the frequency band 36-37GHz band.   |  |  |  | | --- | --- | --- | | **REGION 1** | **REGION 2** | **REGION 3** | | **36- 37GHz** EARTH EXPLORATION-SATELLITE (passive)  FIXED  MOBILE  SPACE RESEARCH (passive)  **5.149 5.550A** | | |   **PART B AfriSAP:**  The table below provides the African common frequency allocation of the frequency band 36-37GHz band.   |  |  |  |  | | --- | --- | --- | --- | | **ITU Region 1** | **AfriSAP** | **Typical applications** | **Additional information** | | **36-37 GHz**  EARTH EXPLORATION-SATELLITE (passive)  FIXED  MOBILE  SPACE RESEARCH (passive)  **5.149 5.550A** | **36-37 GHz**  EARTH EXPLORATION-SATELLITE (passive)  FIXED  MOBILE  SPACE RESEARCH (passive)  **5.149 5.550A** |  | In making assignments to stations in the frequency band 36.43-36.5 GHz, Administrations are urged to give consideration to Radio Astronomy applications as per RR n° 5.149 | |
| ***Part D: Conclusion of the results of studies, if any*** |
| ITU- R WP 7C is the responsible group for WRC-23 agenda item 9.1 topic (d) for protection of EESS (passive) in the frequency band 36-37 GHz.  ITU-R WP 7C reviewed the preliminary draft new Report ITU-R S.[50/40 GHZ ADJACENT BAND STUDIES] that was developed by ITU-R 4A. ITU-R WP 7C subsequently developed a liaison statement to ITU-R WP 4A to seek information on whether the preliminary study in Annex 1 of this preliminary draft report contains the appropriate non GSO FSS transmission (including unwanted emission characteristics in the band 36-37 GHz) and constellation parameters that are to be used in the studies conducted under issue one of this Topic. The response from the ITU-WP 4A is yet to be received by ITU WP-7C. |
| ***Part E: Options and Associated Implications*** |
| These are yet to be established. |
| ***Part F: Proposed EACO Common View and/or Position*** |
| Support studies in ITU-R for the protection of EESS (passive) sensors operating in the band 36-37 GHz from non-GSO FSS systems in the band 37.5-38 GHz, with due consideration of operational aspects of non-GSO FSS system, leading to Recommendations and/or Reports as appropriate*.* |
| ***Part G: Recommendations and Way Forward*** |
| EACO invites member states to:   * Participate in the ITU-R studies, and to submit their views to the next meetings (either as EACO block, multinational contribution or otherwise). |
| ***Part H: Regional Groups and international organizations Preliminary Positions*** |
| ***APT (as of April 2021)***  Support studies in ITU-R for the protection of EESS (passive) sensors operating in the band 36-37 GHz from non-GSO FSS systems in the band 37.5-38 GHz, with due consideration of operational aspects of non-GSO FSS system, leading to Recommendations and/or Reports as appropriate.  ***ASMG (as of April 2021)***  Inviting ASMG administrations to follow up the studies and ensure protection of existing systems in the frequency band 36-37 GHz.  ***CEPT (as of April 2021)***  Supports the protection of EESS (passive) sensors operating in the frequency band 36‐37 GHz from NGSO FSS systems operating in the band 37.5‐38 GHz and the determination of relevant conditions that would ensure such protection.  ***CITEL***  No preliminary position  ***RCC (as of December 2020)***  The RCC Administrations support conducting compatibility studies to determine technical conditions and regulatory provisions ensuring EESS (passive) sensors’ protection in the frequency band 36-37 GHz from interference of non-GSO FSS space stations operating in the frequency band 37.5-38 GHz.  ***ICAO***  *No preliminary position*  ***IMO***  *No preliminary position*  ***WMO (as of February 2021)***  *WMO supports studies to further evaluate the impact of non-GSO FSS operations in the band 37.5-38 GHz on EESS (passive) sensors in the band 36-37 GHz, in particular the interference impact on the cold-sky calibration of passive sensors.* |