

ITUEvents

3rd ITU Inter-regional Workshop on WRC-23 Preparation

**27 - 29 September 2023
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#ITUWRC**

**Status of CITE
preparation for WRC-23**

***Inter-American Telecommunication
Commission (CITEL)***



Inter-American Telecommunication Commission (CITEL)



OAS | **CITEL**



Permanent Consultative Committee II: Radiocommunications (PCC.II)

PCC.II
RADIOCOMMUNICATIONS

WG relative to CITEL's
Preparation for World
Radiocommunication
Conferences

WG on Terrestrial
Services

WG on Spectrum
Management

WG on Satellite System
and Scientific Services

WG on Broadcasting

CITEL's Preparation for World Radiocommunication Conferences



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Working Group relative to CITEL's Preparation for World Radiocommunication Conferences

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- **Preliminary View (PV):** Initial statement that the CITEL Member States make in relation to a specific item on the WRC agenda
- **Preliminary Proposal (PP):** a proposal that one (1) OAS/CITEL Member State presents to PCC.II, and that has not yet been supported by any other Member State. The PP is to be considered by the WG-WRC, with the objective of developing it into an INTER-AMERICAN PROPOSAL for its eventual submission to the WRC.
- **Draft Inter-American Proposal (DIAP):** PRELIMINARY PROPOSAL that has been supported by at least one (1) other Member State. The DIAP is to be considered by the WG-WRC, with the objective of developing it into an INTER-AMERICAN PROPOSAL for its eventual submission to the WRC.
- **Inter-American Proposal (IAP):** DRAFT INTER-AMERICAN PROPOSAL, for which the PCC.II has ended its evaluation and discussion as early as the LIMIT MEETING but not later than the FINAL MEETING; it must be supported by at least 6 (six) Administrations, and not opposed by more than 50% (fifty per cent) of the total number of endorsements obtained.

SGT1 - MOBILE, FIXED & BROADCASTING

AGENDA ITEM 1.2



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- **3 300-3 400 MHz - Inter- American Proposal – already posted in the WRC-23 contributions ([Doc. 44 Add. 2 Add.1](#))**
 - Allocation to the mobile (except aeronautical mobile) service and identification for IMT in Region 2 in the band 3 300-3 400 MHz by modification of **5.429C**, **5.429D** and the addition of **5.12AI**:
 - *5.12AI Stations in the mobile service operating in the frequency band 3 300-3 400 MHz in Region 2 shall not cause harmful interference to, or claim protection from, stations operating in the radiolocation service. (WRC 19)*

CITEL/GT/CMR-23/doc.042/23 rev.6
- **3 600-3 800 MHz - Inter-American Proposals**
 - Modification of **5.434** to extend the existing IMT footnote(s) to the entire Region 2 for the identification of the frequency band **3 600-3 700 MHz** for IMT, removing existing conditions and adding the sentence: Administrations wishing to implement IMT shall obtain the agreement of neighboring countries to ensure the protection of the fixed-satellite service (space-to-Earth).
 - Add a new footnote for some countries in Region 2 for the identification of the frequency band 3 700-3 800 MHz for IMT, adding the sentence: Administrations wishing to implement IMT shall obtain the agreement of neighboring countries to ensure the protection of the fixed-satellite service (space-to-Earth).

CITEL/GT/CMR-23/doc.134/23 rev.3
- **6 425-7 125 MHz - Inter-American Proposal**
 - Administrations propose NOC for the identification of the frequency band **6 425-7 125 MHz** for IMT in all Regions.

CITEL/GT/CMR-23/doc.067/23 rev.4



Inter-American Proposal – already posted in the WRC-23 contributions ([Doc. 44 Add. 3](#))

- Proposal: **NOC to Article 5 in the 3600-3800 MHz frequency allocations for Region 2.**

WRC-23 agenda item 1.3 addresses the consideration of a possible primary allocation of the band 3600-3800 MHz to mobile service, except aeronautical mobile, in Region 1. It should be noted that Regions 2 and 3 already have primary mobile (except aeronautical mobile) allocation in the 3600 – 3800 MHz frequency band, which could be harmonized with other Regions depending on the results of this agenda item at WRC-23. Any changes made to the Radio Regulations under WRC-23 agenda item 1.3 must not impact the existing allocations and identifications for Region 2, nor subject Region 2 to any changed procedural or regulatory provisions. Therefore, no change is proposed for Region 2 and this proposal does not address Regions 1 and 3.

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AGENDA ITEM 1.4



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Inter-American Proposals:

- Administrations propose identification for HIBS in accordance with CPM text methods A2, B2, C2, and D2, including:
 - ✓ **MOD Article 5 - 460-890 MHz / MOD Article 5 - 890-1 300 MHz**
 - ✓ **ADD 5.A14 ADD 5.B14**
 - ✓ **ADD RESOLUTION [A14-HIBS 698-960 MHz] (WRC-23)** *Use of high-altitude platform stations as International Mobile Telecommunications base stations (HIBS) in the frequency band 694-960 MHz, or portions thereof*
 - ✓ **MOD Article 5 - 1 710-2 170 MHz**
 - ✓ **MOD 5.388A**
 - ✓ **MOD RESOLUTION 221 (REV.WRC 07)** *Use of high altitude platform stations providing IMT in the bands 1 885 1 980 MHz, 2 010-2 025 MHz and 2 110-2 170 MHz in Regions 1 and 3 and 1 885-1 980 MHz and 2 110-2 160 MHz in Region 2*
 - ✓ **MOD Article 5 - 2 170-2 520 MHz / MOD article 5 - 2 520-2 700 MHz**
 - ✓ **ADD 5.L14**
 - ✓ **ADD RESOLUTION [B14-HIBS 2 500-2 690 MHz] (WRC-23)** *Use of high-altitude platform stations as International Mobile Telecommunications base stations (HIBS) in the frequency band 2 500-2 690 MHz, or portions thereof.*
 - ✓ **MOD 11.26A**
 - ✓ **SUP RESOLUTION 247 (WRC-19)** *Facilitating mobile connectivity in certain frequency bands below 2.7 GHz using high-altitude platform stations as International Mobile Telecommunications base stations.*



Inter-American Proposal – already posted in the WRC-23 contributions ([Doc. 44 Add. 5](#))

- Proposal: **NOC for Region 2.**

WRC 23 agenda item 1.5 addresses the spectrum use and spectrum needs of existing services in the frequency band 470-960 MHz in Region 1 and considers possible regulatory actions in the frequency band 470-694 MHz in Region 1 only. Any changes made to the Radio Regulations under WRC 23 agenda item 1.5 must not impact the existing allocations and identifications for Region 2, nor subject Region 2 to any changed procedural or regulatory provisions. Therefore, no change is proposed for Region 2 under agenda item 1.5, and this proposal does not address Region 1 or 3.



Inter-American Proposals – already posted in the WRC-23 contributions ([Doc. 44 Add. 24 Add. 3](#))

- Proposals: **NOC to the RR except for the suppression of Resolution 175 (WRC-19).**

Reasons: No changes are required to the Articles or Appendices of the Radio Regulations under this topic of the 9.1 agenda item.

Suppression of Resolution **175 (WRC-19)** is a consequential change as no further action is required by a WRC to address this topic. The ITU-R, through the course of its normal Study Group activities, may continue studies towards the revision of existing Reports and Recommendations, to consider the use of IMT for fixed wireless broadband within the fixed service on a primary basis.



Inter-American Proposal:

CITEL proposes the following modifications to the Radio Regulations in relation to this Agenda Item:

- **ADD RESOLUTION [A16] Regulatory provisions for the operation of radiocommunications on sub-orbital vehicles** - proposed new Resolution is in accordance with Approach B of Method B contained in the CPM Report.
- **ADD 43.XX** – proposed new provision to Article **43** of the **RR** provides the necessary reference within the Radio Regulations to the above proposed new Resolution.
- **SUP RESOLUTION 772 (WRC-19)** – Consequential to the results of studies at ITU-R in relation to this Resolution
- The proposed approach clarifies that stations on-board sub-orbital vehicles may be terrestrial station or earth station or both, and can be used in all phases of flight maintaining the same class of station within their respective service allocation.



Inter-American Proposal:

CITEL proposes the following modifications to the Radio Regulations in relation to this Agenda Item:

- **Addition of three new footnotes to Article 5 of RR.**
- Proposal supports new primary AMS(R)S service allocation in the frequency band 117.975 – 137 MHz limited to non-GSO satellite systems and considers application of a coordination approach involving PFD limit over territories of administrations concerned as well as PFD limit to ensure protection of adjacent frequency band primary allocated services.
- **SUP RESOLUTION 428 (WRC-19)** – Consequential to the results of studies at ITU-R in relation to this Resolution .



Inter-American Proposal:

CITEL proposes the following modifications to Appendix **27** of the Radio Regulations to accommodate new digital HF technologies in frequency bands allocated to AM(R)S in relation to this Agenda Item:

- **The proposed modifications are in accordance with Method B of the final CPM Report, reflecting existing Rules of Procedure (RoP) in the Appendix 27 of RR.**
- **SUP RESOLUTION 429 (WRC-19)** – Consequential to the results of studies at ITU-R in relation to this Resolution.



Inter-American Proposal:

CITEL proposes the following modifications to the Radio Regulations in relation to this Agenda Item:

- Proposal is based on the sharing and compatibility studies carried out in line with Resolution **430 (WRC-19)** in the frequency bands 15.4 - 15.7 GHz and 22.0 - 22.21 GHz in consideration of new allocation for aeronautical mobile service for non-safety applications.
- **NOC** in relation to frequency band **15.4 - 15.7 GHz**
- **NOC** in relation to frequency band **22.0 - 22.21 GHz**
- **SUP RESOLUTION 430 (WRC-19)** – Consequential to the results of studies at ITU-R in relation to this Resolution.



Inter-American Proposal - CITEL proposes the following modifications to the Radio Regulations addressing *Resolves 1, 2 and 3* of Resolution **361 (Rev.WRC-19)** in relation to this Agenda Item:

- **Resolves 1:** Supported by a number of Administrations. Proposal on Modernization of GMDSS is in accordance with the draft CPM text and consists of a number of regulatory solutions, including the deletion of Narrow-Band Direct Printing (NBDP) for distress and safety communication from GMDSS in RR Appendices **15** and **17**, introduction of automatic connection system in RR Article **5** and Appendix **17**, introduction of the NAVDAT frequencies in Appendix **15** and modification of the relevant provisions in Articles **5, 32, 33** and **52**, as well as No. **31.7**.
- **NOC** in relation to frequency band **1 645.5-1 646.5 MHz** as any modification to this frequency band is in need of further studies
- **Resolves 2:** Supported by a number of Administrations. Proposal on E-Navigation is consistent with the **NOC** which is the only identified Method in the CPM Report.

CITEL/GT/CMR-23/doc. 056/22
- **Resolves 3:** proposal on consideration of additional GSO MSS system to provide sub-regional GMDSS is in accordance with the CPM Report Method C1
 - **NOC** - in accordance with **Method C1:**
 - the additional GSO MSS system has not coordinated its satellite frequencies for provision of GMDSS safety services with other satellite systems already providing safety services.
 - IMO approval of the GSO MSS system is conditional on a number of elements, including completion of spectrum coordination requirements before commencement of GMDSS service.
 - Spectrum requirements for provision of the GMDSS is not studied.
- **SUP RESOLUTION 361(Rev.WRC-19)** – Consequential to the results of studies



Inter-American Proposal

- CITELE support Method A1 of CPM text which establish a new global secondary allocation to the EESS (active) and proposes a new WRC Resolution to protect incumbent services in-band and in adjacent-bands. Finally, **RES 656 (Rev.WRC-19) will be consequentially suppressed.**

CITEL/GT/CMR-23/doc.186/23



Inter-American Proposal

- CITEL, considering the results of studies instructed in Resolution **661 (Rev. WRC-19)**, **supports** a possible upgrade to the existing global allocation to the SRS in the frequency range 14.8-15.35 GHz, taking into account the need to provide protection to and not to impose constraints on the incumbent services in this frequency band and its adjacent frequency bands. IAP consist in:
 - MOD Article 5;
 - ADD Footnote 5.A113;
 - MOD Article 21 table to include Space Research (space-to-space) pfd limits;
 - SUP Resolution 661.



Inter-American Proposal

- CITEL, support Method B option 1 of CPM text, Adding new primary allocations to the EESS (passive) in the frequency bands 239.2-242.2 GHz and 244.2-247.2 GHz, switching of the current FS and MS allocations in the frequency band 239.2-241 GHz to the frequency band 235-238 GHz and restricting the EESS (passive) allocation in the 235-238 GHz to limb-sounding operations; IAP consist in:
 - **MOD** article 5 – new primary allocations to EESS(passive) in frequency bands 239.2-242.2 GHz and 244.2-247.2 GHz, switching of the current FS and MS allocations in the frequency band 239.2-241 GHz to the frequency band 235-238 GHz.
Reason:
studies performed by WP 7C indicated that there would be no compatibility issues between the FS/MS and EESS (passive) since this portion of the band 235-238 GHz is mainly used for limb sounding passive sensors.
 - **ADD 5.B114.** Use of EESS(passive) in 235- 238 GHz band is limited to the operation of limb sounding passive sensors.
 - **SUP RESOLUTION 662 (WRC 19)** Review of frequency allocations for the Earth exploration-satellite service (passive) in the frequency range 231.5-252 GHz and consideration of possible adjustment according to observation requirements of passive microwave sensors.



Inter-American Proposal (IAP)

- CITELE proposes to adopt a technical and regulatory framework to allow earth station on aircraft (A-ESIM) and vessels (M-ESIM) to operate in the 12.75-13.25 GHz (Earth-to-space) with GSO FSS satellites, consistent with Method B of the CPM Report, the proposal includes:
 - New footnote, **5.A115**, to the Table of Frequency Allocations (Article 5 of RR) in the 12.75-13.25 GHz (Earth-to-space) frequency band that refers to a Draft New Resolution;
 - Draft New Resolution provides the conditions and regulatory framework for the operation of A-ESIM and M-ESIM including Annexes that address the following: submission of filing and examination by the BR for AP30B ESIMs operations (Annex 1); protection of terrestrial services (Annex 2); protection of NGSO FSS systems (Annex 3); and a methodology for the BR to examine compliance with the pfd mask contained in Annex 2 (Annex 4).
 - Suppression of Resolution 172 (WRC-19).



Inter-American Proposal (IAP)

CITEL supports the proposals below:

- Addition of a new footnote, **5.A116**, in RR Article 5, frequency bands 17.7-18.6 GHz, 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), pointing to a new Resolution, also proposed, that provides the conditions for the operation of aeronautical and maritime ESIMs communicating with non-geostationary FSS space stations in these bands, while ensuring the protection of incumbent services, as well propose the suppression of Resolution 173 (WRC 19) in consequence.
- Technical and operational requirements for the use of non-GSO ESIM shall ensure the protection of GSO networks and other services operating in the same frequency bands and in adjacent bands:
 - To prevent potential interference to satellite networks or systems from other Administrations, non-GSO ESIM characteristics shall remain within the envelope characteristics of typical earth stations associated with the non-GSO FSS system with which the ESIM communicates;
 - the operation of non-GSO ESIM shall comply with the coordination agreements obtained following the application of provisions under Article 9;
 - the protection of GSO FSS networks operating in the frequency bands 17.8-18.6 GHz, 19.7-20.2 GHz, 27.5-28.6 GHz and 29.5-30 GHz from non-GSO ESIM can be achieved by requiring that links involving non-GSO ESIM comply with epfd limits referred to in Nos. 22.5C, 22.5D and 22.5F;



Inter-American Proposal (IAP)

- For the protection of terrestrial services, CITELE proposes that:
 - non-GSO ESIM operating in the frequency bands 17.7-18.6 GHz and 18.8-19.3 GHz and 17.7-20.2 GHz and 27.5-29.1 GHz shall not claim protection from nor cause unacceptable interference to terrestrial services operating in the same frequency bands in accordance with the Radio Regulations;
 - non-GSO ESIM operating in the frequency band 29.5-30 GHz shall not adversely affect the operation of terrestrial services to which the frequency band is allocated on a secondary basis and that operate in accordance with the Radio Regulations;
 - the PFD limits contained in Annex 3 to Resolution 169 (WRC-19) be applicable to aeronautical and maritime ESIMs communicating with non-GSO systems operating in the frequency band 27.5-29;
 - the limits contained in Annex 3 to Resolution 169 (WRC-19) be used to protect stations in the fixed and mobile services operating in the frequency band 29.5-30 GHz on the entire territories of administrations mentioned in No. 5.542.
- For the protection of EESS (passive) sensors in the frequency band 18.6-18.8 GHz, Citel proposes a pfd limit over the oceans of -118 dBW/m²/200 MHz for Non-GSO space stations operating with an orbit apogee of more than 2 000 km and less than 20 000 km and and -110 dBW/m²/200 MHz for Non-GSO space stations operating with an orbit apogee less than or equal to 2 000 km.



Inter-American Proposal (IAP)

CITEL supports the proposals below:

- Changes to the Frequency Allocations table in RR Article 5 for the frequency bands 18.1-18.6 GHz, 18.8-20.2 GHz and 27.5-30 GHz and addition of a new footnote, **5.A117**, pointing to a new Resolution, also proposed, that provides the technical conditions for the operation of satellite-to-satellite links through an inter-satellite service (ISS) allocation where such operations would use the “within the cone” concept.
- No change (NOC) to the Radio Regulations for the frequency band 11.7-12.7 GHz.
- Include inter-satellite service in Article 21, Table 21-4 to ensure that pfd limits to protect terrestrial services that apply to FSS (space-to-Earth) also apply to ISS, and a methodology to check for compliance.
- Hard limit to address sharing with non-GSO FSS systems given the need to protect incumbent systems and the potential added complexity of coordinating incumbent systems with satellite-satellite operations.
- Add a new footnote **5.523x** in Article 5 specifying a pfd limit to protect feeder links for non-geostationary-satellite systems in the mobile-satellite service.
- Add Appendix 4 data elements that are needed as a result of the new Resolution.
- Suppression of Resolution 773 (WRC-19).



Inter-American Proposal (IAP)

CITEL supports the proposals below:

NOC Radio Regulations Articles and Appendices

Reason: ITU-R studies did not demonstrate that sharing and compatibility is feasible between low-data rate, narrowband MSS applications and existing primary services. In addition, discussions on Resolution 248 (WRC-19) have shown it is ambiguous and unclear regarding the consideration of the appropriate technical and operational characteristics that should be used in the sharing and compatibility studies. Therefore, no regulatory action is justified for changes to the Radio Regulations.

SUP RESOLUTION 248 (WRC-19)

Studies relating to spectrum needs and potential new allocations to the mobile satellite service in the frequency bands 1 695-1 710 MHz, 2 010-2 025 MHz, 3 300-3 315 MHz and 3 385-3 400 MHz for future development of narrowband mobile-satellite systems

Reason: Consequential action.



Inter- American Proposal (IAP)

CITEL supports the proposals below:

- Changes to the Frequency Allocations table of Article 5 of the Radio Regulations, and to the respective footnotes 5.484A, 5.516A and 5.517;
- Addition of two new notes stating that, in Region 2, a Non-GSO system operating in the FSS must always respect the limits of Article 22 of the Radio Regulations;
- Changes to Article 7 of the Appendix 30A to consider this new FSS allocation;
- Consequential changes to the table 5-1 of Appendix 5 to the Radio Regulations and the suppression of the Resolution 174 (WRC-19).



Topic A: Tolerances for certain characteristics of the notified orbital planes for non-GSO systems space stations of the FSS, BSS, and MSS. (1/3)

Inter-American Proposal (IAP)

CITEL supports the proposals below:

- Modifications to Article 11 to refer to a new WRC Resolution consisting in specifying tolerances.
- New WRC Resolution to be referred to in RR Article **11**:
 - Apply to space stations of non-GSO FSS, BSS or MSS systems subject to Resolution **35 (WRC-19)** with an eccentricity < 0.5 and an apogee altitude less than 15 000 km
 - For space stations with a notified altitude (apogee/perigee) ≤ 2000 km:
 - If deployed at an altitude $\leq \pm 80$ km of the notified altitude and an inclination of the orbital plane $\leq \pm 2^\circ$ of the notified inclination, the notifying administration need to provide an explanation of why there is a change in the orbital characteristics of the space stations;
 - If deployed at an altitude $\geq \pm 80$ km and $\leq \pm 100$ km of the notified altitude and an inclination of the orbital plane $\leq \pm 2^\circ$ of the notified inclination, the notifying administration need to provide an explanation of why there is a change in the orbital characteristics of the space stations and a technical showing confirming does not result in any increased interference or protection requirements as compared to those requirements for operation at the notified altitude;
 - Otherwise, modifications of the recorded the characteristics of the recorded assignments are required;



Topic A: Tolerances for certain characteristics of the notified orbital planes for non-GSO systems space stations of the FSS, BSS, and MSS. (2/3)

Inter-American Proposal (IAP)

- For space stations with a notified altitude (apogee/perigee) ≥ 2000 km
 - If deployed at an altitude $\leq \pm 5\%$ of the notified altitude and an inclination of the orbital plane $\leq \pm 2^\circ$ of the notified inclination, the notifying administration need to provide an explanation of why there is a change in the orbital characteristics of the space stations;
 - If deployed at an altitude $\geq \pm 5\%$ and $\leq \pm 10\%$ of the notified altitude and an inclination of the orbital plane $\leq \pm 2^\circ$ of the notified inclination, the notifying administration need to provide an explanation of why there is a change in the orbital characteristics of the space stations and a technical showing confirming does not result in any increased interference or protection requirements as compared to those requirements for operation at the notified altitude;
 - Otherwise, modifications of the recorded the characteristics of the recorded assignments are required;



Topic B: Non-GSO bringing into use post-milestone procedure.

Inter-American Proposal (IAP)

CITEL supports the proposal below:

- No Change to the RR, based on Method B1 of the CPM report Topic B. CITEL considers that the information-gathering under resolves 19 should be allowed to continue until such time when sufficient and meaningful operational data are collected before revisiting the question of a potential post-milestone mechanism to address intermediate- and long-term reductions in the number of space stations in non-GSO systems that have completed the milestone process under Resolution 35 (WRC-19).



Topic C: Protection of geostationary-satellite networks in the mobile-satellite service operating in the 7/8 GHz and 20/30 GHz bands from emissions of non-geostationary-satellite systems operating in the same frequency bands and identical directions.

Inter-American Proposal (IAP)

CITEL supports the proposal below:

- CITEL supports method C2 of the CPM Report Topic C consisting in expanding the concept of RR No. 22.2 (i.e. non-GSO systems shall not cause unacceptable interference to GSO networks in the FSS and BSS) to GSO MSS in some specific portions of X and Ka bands and associated modifications to No. 5.461 relating to the application of No. 9.21.
- In this context, CITEL proposes changes to RR No. 5.461 and also proposes to add a new provision to Article 22 to expand the concept of No. 22.2 to GSO MSS in the subject frequency bands.



Topic D1: Modifications to Appendix 1 to Annex 4 of RR Appendix 30B.

Inter-American Proposal (IAP)

- CITEC supports to align the values referred to in Appendix 1 to Annex 4 of RR Appendix 30B with those contained in § § 1.1 and 1.2 of Annex 4 to Appendix 30B (Rev. WRC-19) for the orbital spacing and incorporate the Rule of Procedure on Section 2 of Appendix 1 to Annex 4 in the RR based on the unique Method of the CPM report for Topic D1.

[GT-CMR23-2023-42-038r6 i.docx](#)

Topic D2: New RR Appendix 4 parameters for Recommendation ITU-R S.1503 updates

Inter-American Proposal (IAP)

- CITEC supports the modification of RR Appendix 4 to implement the agreed revisions to Recommendation ITU-R S.1503-3, including new data elements and modified data items based on the unique Method of the CPM report for Topic D2.

[GT-CMR23-2023-42-108r3 i.docx](#)

Topic D3: BR reminders for BIU and BBIU

Inter-American Proposal (IAP)

- CITEC supports having the BR sending to notifying administrations reminder of the deadline for informing the Bureau of the completion of BIU/BBIU based on the unique Method of the CPM report for Topic D3.

[GT-CMR23-2023-42-109r2 i.docx](#)



Topic G: Revisions to Resolution 770 (WRC-19) to allow its implementation.

Inter-American Proposal (IAP)

CITEL supports the proposal below:

- CITEL supports moving the methodology to determine conformity of non-GSO satellite systems with single-entry interference thresholds in RR Article 22 to ensure the protection of the GSO fixed-satellite service (FSS) and broadcasting-satellite service (BSS) in the frequency bands 37.5-39.5 GHz, 39.5-42.5 GHz, 47.2-50.2 GHz and 50.4-51.4 GHz from Resolution 770 and retaining it instead in a new ITU-R Recommendation to be incorporated by reference in the RR, based on Method G3 of the CPM report for Topic G.

[GT-CMR23-2023-42-185 i.docx](#)



Topic I: Special agreements under RR Appendix 30B.

Inter-American Proposal (IAP)

CITEL supports the proposals below:

- Introducing a new type of agreement between a notifying administration of a national allotment and of an assignment, respectively. Pursuant to that agreement, the national allotment administration allows the assignment to function until the commissioning of its national allotment. At that time, the administration of the assignment undertakes to respect the pfd levels of section 2.2 of Annex 4 in the territory of the national assignment.
- Adding a new Resolution [7(I)-SPECIAL-AGREEMENT] allowing the notifying administration of a national allotment to sign the new type of agreement referred to above, to request the BR to update the reference situation without reviewing the previous examinations and to request the notifying administrations for which the procedures of Article 6 of RR Appendix 30B have not yet been completed and which have been examined by the BR before the signature of such agreement to make their utmost efforts to take into account the new reference situation of this national allotment, based on Method I2 of the CPM report for Topic I.



- Long-term space sustainability - LTSS (Section 4.13 of the RRB Report)

Inter-American Proposal (IAP)

- CITEC proposes that WRC-23 decides to instruct ITU-R concerned Study Groups to develop studies and finalize during the next study cycle, as a matter of urgency and priority, a new technical recommendation on “environmental protection of non-geostationary satellite orbits for the sustainable use by space radiocommunications services” evaluating and considering the inclusion of, but not limited to, guidance on safe and efficient deorbit strategies and methodologies of non-GSO space stations after their end of life.
- In the interim, the Director of the BR is requested to create a website, containing a compendium of links to available, and reliable, information on the above subjects from the different existing expert groups, based on suggestions by administrations and sector members.
- A draft text is proposed for inclusion in the Minutes of the Plenary of WRC-23 to reflect this decision.

[GT-CMR23-2023-42-177r1 i.docx](#)

- Recording of frequency assignments to non-GSO satellite systems under No. 4.4 (Section 4.14 of the RRB Report)

Inter-American Proposal (IAP)

- CITEC proposes to WRC-23 to confirm that frequency assignments recorded under No. 4.4 are not entitled to protection from harmful interference from other frequency assignments recorded under No. 4.4 and to improve disclosure of information on the satellite networks and systems invoking No. 4.4 in order to facilitate follow up by administrations.

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Interamerican Proposal (IAP)

MOD Resolution 655 (Rev. WRC-15) “*Definition of time scale and dissemination of time signals via radiocommunication systems*”: Seven Administrations propose changes to this Resolution tasked the ITU-R with studies and other work items related to the definition of time scale and dissemination of time scale via radiocommunication systems. This included strengthening the cooperation between ITU-R and the International Bureau of Weights and Measures (BIPM), the International Committee for Weights and Measures (CIPM), the General Conference on Weights and Measures (CGPM), as well as other relevant organizations, and to maintain a dialogue concerning the expertise of each organization, to further and more widely study the various aspects of current and potential future reference time scales, including their impacts and applications, to provide advice on the content and structure of time signals to be disseminated by radiocommunication systems, using the combined expertise of the relevant organizations, and to prepare one or more reports containing the results of studies that should include one or more proposals to determine the reference time scale and address other issues mentioned previously.



Interamerican Proposal (IAP)

NOC. Eleven Administrations support No Change to the Articles and Appendices of the RR. Administrations are encouraged to take into account ITU-R Reports/Recommendations under development on how the amateur allocation can coexist with primary services in the 1240 – 1300 MHz band. Spectrum management best practices along with technical and operational measures may be used by administrations to ensure the protection of RNSS without the need for any additional regulatory constraints on amateur-satellite services in this frequency band.

SUP of RESOLUTION 774 (WRC 19) “*Studies on technical and operations measures to be applied in the frequency band 1 240-1 300 MHz to ensure the protection of the radionavigation-satellite service (space-to-Earth)*”: Consequential action as no further action is required by a WRC to address this topic. The ITU-R, through the course of its normal Study Group activities, could continue studies towards the revision of existing Reports and Recommendations.



Interamerican Proposal (IAP)

New MSS 2 GHz: Nine Administrations support to to study the sharing and compatibility considerations of adding primary MSS spectrum allocations in frequency bands 2010-2025 MHz, 2120-2160 MHz, and 2160-2170 MHz, to further enhance MSS capabilities.

As existing MSS allocations may fall short of accommodating future applications, additional spectrum should be studied to address the growing spectrum needs. At the same time, in all bands proposed for study for potential MSS allocations, the importance of protecting incumbent services is acknowledged. The overall aim is to fully leverage the evolving dynamics of MSS by providing additional spectrum, without imposing additional constraints on the existing services.



Interamerican Proposal (IAP)

50 GHz NGSO FSS: Ten Administrations support the inclusion of a WRC-27 Agenda Item to conduct sharing and compatibility studies with current and planned stations of existing primary services, including in adjacent bands, including protection of fixed and mobile services, to determine the suitability of revising the primary allocations to the FSS in the frequency band 51.4-52.4 GHz to enable use by gateway earth stations of non-GSO FSS systems (Earth-to-space), including identifying any necessary regulatory changes to enable such use, compatibility studies between NGSO FSS (E-s) gateway stations and EESS (passive) and Space Research (passive) systems operating in the frequency band 52.6-54.25 GHz, and studies regarding the protection of GSO FSS networks and associated gateway earth stations from the emissions of non-GSO FSS systems and associated gateways.



Interamerican Proposal (IAP)

EPDF: To study and update, as appropriate, regulatory provisions for sharing between non GSO systems and GSO networks in the portions of the frequency bands below 30 GHz in which Article 22 epfd limits apply, and the implementation of those provisions.

NGSO and GSO networks today have evolved in design and operational capabilities from the systems that were considered when developing the Article 22 epfd limits nearly twenty-five years ago. Equally important the tools and methodologies for examination of single-entry and aggregate epfd limits to protect GSO networks are not fully available. Thus a comprehensive study is needed to determine if updates to the protection levels are required, and make changes as appropriate to ensure maximum spectral efficiency to meet the growing demand for satellite services globally.

Ten Administration support a future WRC-27 agenda item to study regulatory provisions for protection of GSO FSS and BSS networks from non-GSO systems in frequency bands below 30 GHz in which Article 22 epfd limits apply, and the implementation of those provisions.



Interamerican Proposal (IAP)

ESIM 12 GHz: To study the technical and operational characteristics and user requirements of the A-ESIM and M-ESIM communicating with or intending to communicate with the non-GSO space stations in the FSS in the 12.75-13.25 GHz frequency band (Earth-to-space); to study sharing and compatibility between ESIM-A and ESIM-M communicating with non-GSO spaces in the FSS and the current and planned stations of existing services with allocations in the 12.75-13.25 GHz frequency band; to develop the technical conditions and regulatory provisions for the operation of ESIM-A and ESIM-M communicating with non-GSO space stations in the FSS that operate in the 12.75-13.25 GHz frequency band (Earth-to-space), taking into account the results of the studies outlined in ITU-R invitation resolutions 1 and 2, while ensuring the protection of incumbent services.

Nine Administrations support the inclusion of a WRC-27 Agenda Item for examine the possible use of the 12.75-13.25 GHz frequency band by aeronautical and maritime earth stations in motion communicating with non-geostationary space stations in the fixed-satellite service (Earth-space).



Interamerican Proposal (IAP)

ESIM: To study and develop technical, operational and regulatory measures, as appropriate, to facilitate the 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 and non-geostationary space stations in the fixed satellite service, while ensuring due protection of existing services in those frequency bands.

Resolution 176 (WRC-19) requests studies on the 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 space stations in the fixed-satellite service.

Seven Administrations support this.



Interamerican Proposal (IAP)

IMT: To identify the frequency bands 3 100-3 300 MHz, 7 125-8 500 MHz, and 14.75-15.35 GHz for future deployment of IMT, including possible additional allocations to the mobile service on a primary basis, seeking regional and global harmonization.

Demand for access to IMT spectrum is robust and accelerating. Contiguous spectrum bandwidths other than those currently available are necessary to address traffic growth in mobile networks. Spectrum in the candidate frequency bands could facilitate the IMT-2030 capacity-demanding use cases for both wider coverage and higher capacity, and complement the current supply of identified spectrum for IMT, providing additional alternatives for meet the demand for capacity foreseen for IMT-2030.

Twelve Administrations support the inclusion of a WRC-27 Agenda Item for identification of new spectrum for IMT.



Interamerican Proposal (IAP)

Lunar: To consider frequency allocations and/or identifications for lunar surface communications in accordance with Resolution [USA-B2027AI-10-LUNAR].

Initial survey of available technologies has indicated that a network based on commercial standards such as those developed by 3GPP can be capable of servicing reference mission concept of operation involving many user groups over a widespread surface area with high data throughput requirements. This future conference agenda item proposes to study the spectrum needs of communications systems on the moon, system characteristics, sharing and compatibility between such systems and the development of a potential new regulatory framework. The frequency ranges of interests are: 390-450 MHz, 2 400 - 2 700 MHz, 3 500 - 3 800 MHz, 5 150 - 5925 MHz, and 25.25-28.35 GHz.

Nine Administrations support the inclusion of a WRC-27 Agenda Item to study possible frequency allocations and/or identifications for lunar surface communications.



Interamerican Proposal (IAP)

MSS IMT: To develop studies for additional allocations to the mobile-satellite service on the following frequency bands: : 694-960 MHz, 1 710-2 025 MHz, 2 110-2 200 MHz, 2 300-2 400 MHz, 2 500-2 690 MHz.

Ten Administrations support the inclusion of a WRC-27 Agenda Item for additional allocations to the Mobile-Satellite Service to enable the use of the satellite component of International Mobile Telecommunications.



Interamerican Proposal (IAP)

Narrowband: Under agenda item 10, CITEL proposes to suppress agenda item 2.13 from the preliminary WRC-27 agenda and the consequential suppression of Resolution 248 (WRC-19) as it is no longer necessary. Eight Administrations support this.

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Interamerican Proposal (IAP)

PAI 2.8: To support the inclusion of agenda item 2.8 on the WRC-27 agenda with modifications.

To study of technical and operational issues and regulatory provisions for use of the frequency bands 1 525-1 544 MHz, 1 545-1 559 MHz 1 610-1 645.5 and 1 646.5-1 660.5 MHz and 2 483.5-2 500 MHz for space-to-space transmissions.

Ten Administrations support this.

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Interamerican Proposal (IAP)

PAI 2.9: Suppression of the preliminary WRC-27 Agenda Item 2.9.

While Resolution 250 (WRC-19) resolves to conduct sharing and compatibility studies to ensure protection of existing services to which the frequency band is allocated on a primary basis, the studies performed to date have not shown any potential for compatibility with the systems operated in this band. Furthermore, studies under WRC-15 Agenda Item 1.1 with IMT and the same incumbent radar systems demonstrated that co-frequency sharing was not possible. Therefore, there is significant concern of a new WRC-27 Agenda Item considering a new mobile service allocation to the 1 300-1 350 MHz frequency band that could provoke harmful interference to these incumbent radar systems and has the potential to harm the public safety. Consequential to non-inclusion of resolves 2.9 from the preliminary WRC-27 agenda on the WRC-27 agenda adopted by WRC-23.

Six Administrations support this.



Interamerican Proposal (IAP)

PAI 2.10: To consider improving the utilization of the VHF maritime frequencies in Appendix 18, in accordance with Resolution 363 (WRC-23).

To consider possible changes to Appendix 18, excluding any new allocations in Article 5 and within Appendix 18 frequency bands, to enable use in the MMS for future implementation of new technologies, for improving efficient use of the maritime frequency bands, as well as for the implementation of the R-Mode as a new maritime radionavigation service.

Eight Administrations support the inclusion of agenda item 2.10.



Interamerican Proposal (IAP)

PAI 2.11: To retain on the agenda of the 2027 World Radiocommunication Conference agenda item 2.11 from Resolution 812 with some modifications to Resolution 664 (WRC 23).

This allocation, if agreed, would be paired with the existing worldwide allocation to the EESS (space-to-Earth) in the frequency band 25.5 27 GHz. Pairing these bands would allow for uplinks and downlinks on the same transponder, increasing efficiency and reducing satellite complexity.

Six Administrations support the WRC-27 agenda item to study possible allocation to the Earth exploration-satellite service (Earth-space) in the frequency band 22.55 23.15 GHz.



Interamerican Proposal (IAP)

Small antennas: Review the conditions of use and sharing of the 13.75-14 GHz band to allow efficient use of the band by uplink FSS earth stations, including FSS earth stations using smaller antenna sizes.

The critical need to identify additional uplink FSS capacity in the 10-15 GHz range that can be used efficiently by smaller earth station antennas to provide broadband and other satellite applications to smaller user terminals.

Seven Administrations support the inclusion of a WRC-27 Agenda Item for possible revisions to the constraints in RR Nos. 5.502 and 5.503 to enable efficient use of the band 13.75-14 GHz.



Interamerican Proposal (IAP)

Space Weather: Based on the results of the CPM23-2, CITEL proposes a new agenda item and a new Resolution under WRC-23 agenda item 10 (based on 2.6 of the preliminary agenda item for WRC-27 as per Resolution 812 (WRC-19)) to continue the work that has already been initiated during this study cycle on the issue of space weather. The Resolution supports further work on sharing and compatibility studies between space weather systems (active and receive-only) and incumbent services operating in a small set of certain frequency bands, as well as in the adjacent frequency bands. The results of these studies will be used to develop regulatory provisions to allow coexistence and to provide some level of protection for space weather systems, in particular those that are receive-only. Resolution 657 (Rev. WRC-19) was used as the basis in the drafting of this new Resolution.

Seven Administrations support the inclusion of a WRC-27 Agenda Item to consider regulatory provisions for appropriate recognition of space weather sensors and their protection in the Radio Regulations, taking into account the results of ITU-R studies in accordance with RESOLUTION [SPACE WEATHER] (WRC-23).



Interamerican Proposal (IAP)

C Band ISS: To enable the establishment of an ISS spectrum allocation and associated regulatory provisions in the frequency bands 3 700 - 4 200 MHz (space-to-Earth) and 5 925-6 425 MHz (Earth-to-space), to support intersatellite links; in accordance with Resolution [CBAND_ISS] (WRC 23).

Satellite data relay services continue to be a growing market for satellite operators and C-band can offer near real time, urgent request tasking as part of the larger system of satellite data relays in higher frequency bands.

Six Administrations support the inclusion of a WRC-27 Agenda Item to consider, based on the results of ITU R studies, a spectrum allocation and associated regulatory provisions for an inter-satellite service (ISS) allocation in the frequency bands 3 700 - 4 200 MHz (space-to-Earth) and 5 925-6 425 MHz (Earth-to-space) for non-GSO space stations operating at lower orbital altitudes, in communication with GSO satellites in the fixed-satellite service.



Interamerican Proposal (IAP)

HF WIDEBAND APP 26: To review and update the relevant sections of ITU RR Appendix 26 in support of Wideband HF for aviation applications while ensuring compatibility with legacy HF uses.

The aeronautical use of the various HF frequency bands in the range 3025 and 18030 kHz is essential to long distance aeronautical communications in remote and oceanic areas. Since the last substantive review of RR Appendix 26 of the ITU Radio Regulations, use of HF by aviation has continued to change and grow. Aviation is evaluating future developments within the HF band, using new technology to significantly improve capacity, connectivity, and quality of service for aviation data and voice, including increased channel bandwidths for greater data throughput. Such developments within existing aviation HF allocations would provide aviation with additional capabilities, improving safety and global coverage. RR Appendix 26 needs to be reviewed to ensure it meets the current and future aeronautical requirements by allowing for bonding contiguous HF channels and allow digital modulations that support higher data rates while ensuring that interference outside of the assigned multi-channel bands is no greater than the interference of individually utilized channels.

Sixteen Administrations support the inclusion of a WRC-27 Agenda Item to support updates to ITU Radio Regulations in support of Wideband HF.

Thank you
for your
attention!

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